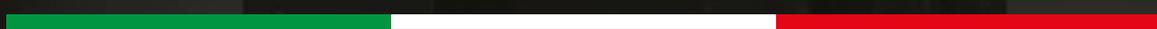




# General Catalogue



**Gearboxes Made in Italy**



# HYDRO·MEC



# IN THIS CATALOGUE



## Rightangle-Gear

**Worm gearboxes**  
Riduttori a vite senza fine

Paragraph **1**



## Square-Gear

**Square worm gearboxes**  
Riduttori a vite senza fine quadri

Paragraph **2**



## One step-Gear

**One step gearboxes**  
Riduttori a uno stadio

Paragraph **3**



## Coaxial-Gear

**Aluminum gearboxes**  
Riduttori coassiali in alluminio

Paragraph **4**



## Coaxial-Gear

**Cast iron gearboxes**  
Riduttori coassiali in ghisa

Paragraph **5**



## Compact-Gear

**Shaft mounted gearboxes**  
Riduttori ad assi paralleli

Paragraph **6**



## Cube-Gear

**Parallel shaft gearboxes**  
Riduttori ad assi paralleli

Paragraph **7**



## Angletech-Gear

**Helical bevel gearboxes**  
Riduttori a coppia conica

Paragraph **8**



## Electric motors

**Aluminum electric motors**  
Motori elettrici in alluminio

Paragraph **M**

# Worm gearboxes

## A modular and compact product

### Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

### Single piece alloy steel input shaft and worm shaft.

High helix angle worm is case-hardened (Rc 58-60), ground, teeth are profiled and radiused, for noise reduction and enhanced efficiency.

### Oversized bearings

Support positively-retained, high speed shaft for higher shock load capacity - ideal for frequent starting and reversing application. Premium, Nitrile® high temperature seals each end.

### Bronze alloy worm gears.

Is centrifugally cast onto an iron hub for maximum strength and superior life.

### Over-size bearing

For radial load capability and maximum hollow output shaft diameter.

### Impregnated and machined bearing caps

With exterior machined surfaces enable a variety of mounting accessories. Extra-deep thread engagement provided for greater support strength. Zinc plated hardware.

### Flange

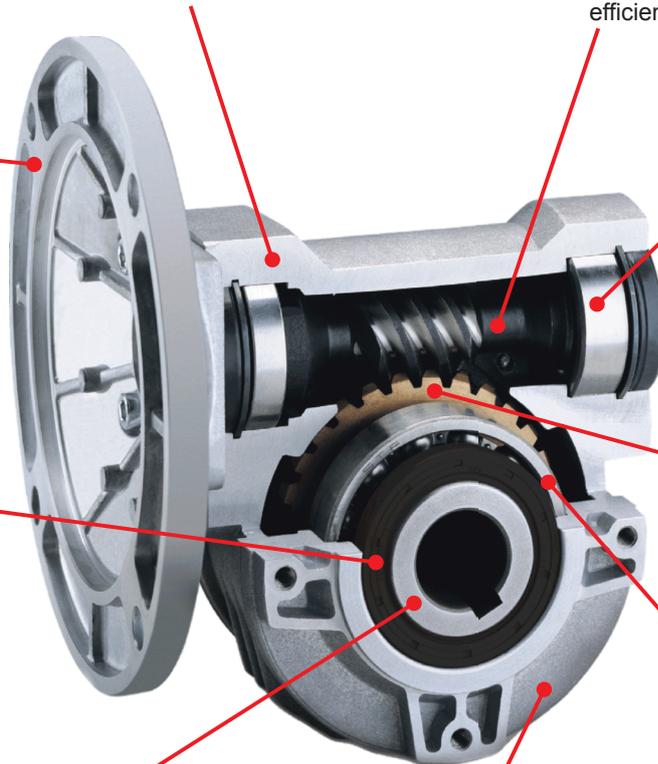
Fully modular to IEC and compact integrated motor. NEMA C flange.

### Premium, high temperature

Nitrile® output seals

### Standard hollow output shaft mounting

Reduces total drive envelope size, weight and cost. Single and double solid output shaft is available.



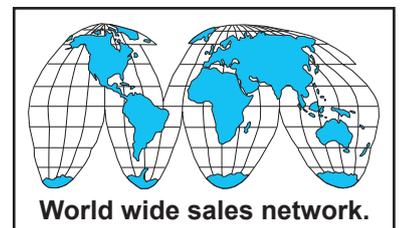
### Vent Free Design.

No breather or vents to leak! Factory lubricated for life with synthetic, semi-fluid gear lubricant with an operating range of -15°C to 130°C.

oil free



vent free



# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /  
Tipen / Types /  
Tipos →

1-5	1-7	1-9	1-11	1-13	1-15	1-17
<b>030</b> 21Nm	<b>045</b> 41Nm	<b>050</b> 72Nm	<b>063</b> 147Nm	<b>63A</b> 191Nm	<b>085</b> 347Nm	<b>110</b> 651Nm

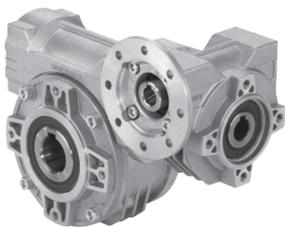
On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /  
Tipen / Types /  
Tipos →

1-19	1-21	1-23	1-25	1-27	1-29
<b>P45</b> 55Nm	<b>P50</b> 88Nm	<b>P63</b> 187Nm	<b>P6A</b> 218Nm	<b>P85</b> 440Nm	<b>P10</b> 803Nm

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /  
Tipen / Types /  
Tipos →

1-31	1-33	1-35	1-37	1-39	1-41	1-43	1-45	1-47
<b>303</b> 35Nm	<b>453</b> 69Nm	<b>503</b> 109Nm	<b>633</b> 230Nm	<b>634</b> 265Nm	<b>6A3</b> 290Nm	<b>6A4</b> 304Nm	<b>854</b> 518Nm	<b>115</b> 978Nm

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza  
Größe - Taille  
Tamaño

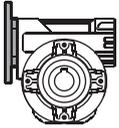
Mounting - Montaggio - Montage Fixation  
Fixation - Tipo de montaje

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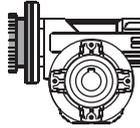
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**PA**

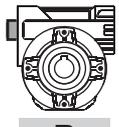
**Worm gearboxes**  
Riduttori a vite senza fine  
Schneckengetriebe  
Reducteurs a vis sans fin  
Reductores de corona sin fin



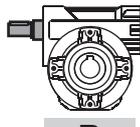
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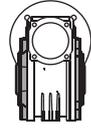


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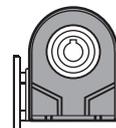


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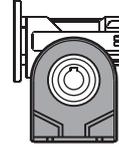
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**050**  
**063**  
**63A**  
**085**  
**110**



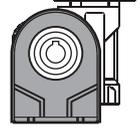
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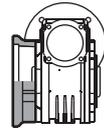
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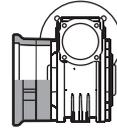
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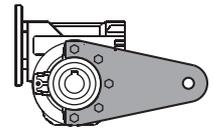


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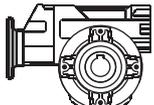
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**F1**  
**F2**  
**F3**  
**F4**

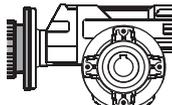


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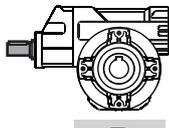
**Worm gearboxes with primary reduction**  
Riduttori a vite senza fine con precoppia  
Schneckengetriebe mit stirnradstufe am Eintrieb  
Reducteurs a vis sans fin avec pré-réduction  
Reductores corona sin fin con prerreductora de engranajes



**P**

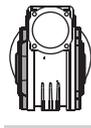


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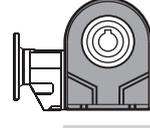


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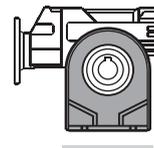
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**P50**  
**P63**  
**P6A**  
**P85**  
**P10**



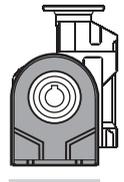
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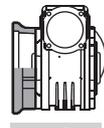
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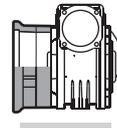
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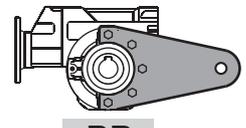


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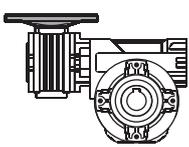
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**F1**  
**F2**  
**F3**  
**F4**

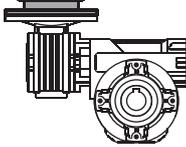


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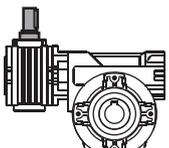
**Combined worm gearboxes**  
Riduttori a vite senza fine combinati  
Schneckengetriebekombinationen  
Reducteurs a double train de vis sans fin  
Reductores combinados corona sin fin



**P**

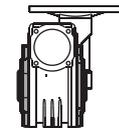


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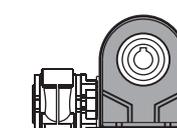


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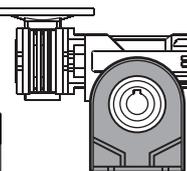
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**633**  
**634**  
**6A3**  
**6A4**  
**854**  
**115**



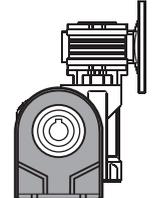
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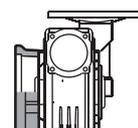
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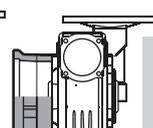
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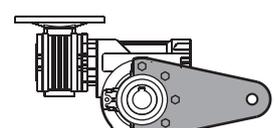


**FC**



**FL**

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**F2**  
**F3**  
**F4**

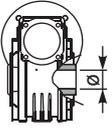
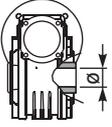
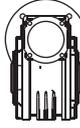
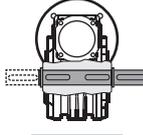
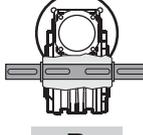
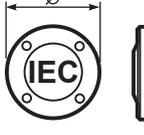
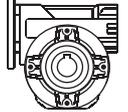
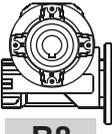
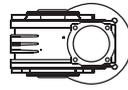
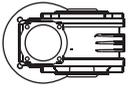
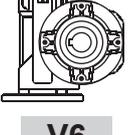
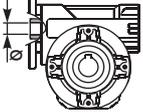
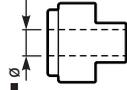
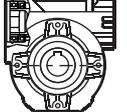


**BR**



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Ratio Rapporto Untersetzung Reduction Relaciòn	Hub Mozzo corona Hohlwelle Arbre creux Nucleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje solida	Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte a bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Reduced Input bore Foro entrata ridotto Reduzierte Eingangshohlwelle Trou d'entree de diametre reduit Eje hueco de entrada reducido	Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje
<b>10</b>	<b>C</b>	<b>∅</b>	<b>-Q</b>	<b>B</b>	<b>B3</b>	<b>-</b>	<b>---</b>
See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos	 <b>STANDARD</b> <b>C</b> 030 ⇨ ∅14 045 ⇨ ∅18 050 ⇨ ∅25 063 ⇨ ∅25 63A ⇨ ∅28 085 ⇨ ∅35 110 ⇨ ∅42  <b>I</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox  SPECIAL SERIES SERIE SPECIALE  <b>S</b> 045 ⇨ ∅19 050 ⇨ ∅24  <b>X</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox   <b>INCH</b> <b>U</b> 045 ⇨ ∅0.750" 050 ⇨ ∅1.000" 063 ⇨ ∅1.125" 085 ⇨ ∅1.500"  <b>Z</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox	 <b>∅</b>   <b>S</b>   <b>D</b>	 <b>-M</b> without flange Senza flangia  <b>B5</b> <b>-A=56</b> (∅120) <b>-B=63</b> (∅140) <b>-C=71</b> (∅160) <b>-D=80</b> (∅200) <b>-E=90</b> (∅200) <b>-F=100+112</b> (∅250) <b>-G=132</b> (∅300)  <b>B14</b> <b>-O=56</b> (∅80) <b>-P=63</b> (∅90) <b>-Q=71</b> (∅105) <b>-R=80</b> (∅120) <b>-T=90</b> (∅140) <b>-U=100+112</b> (∅160) <b>-V=132</b> (∅200)  <b>-0=Type R</b> <b>-S=Type R</b> S series	 <b>A</b>   <b>B</b> <b>STANDARD</b>   <b>C</b>   <b>D</b>	 <b>B3</b>   <b>B8</b>   <b>B6</b>   <b>B7</b>   <b>V5</b>   <b>V6</b>	 <b>-</b> Nothing indication: <b>standard bore</b>  Nessuna indicazione: <b>foro standard</b>  <b>P</b> Input bore reduced one size  Foro entrata ridotto di una misura Ex. Input Flange 71 B14 Standard ∅14 Reduced ∅11  <b>Q</b> Input bore reduced two sizes  Due grandezze ridotte foro entrata Ex. Input Flange 71 B14 Standard ∅14 Reduced ∅9  <b>COUPLING</b>  <b>A = 9mm</b> <b>B = 11mm</b> <b>C = 14mm</b> <b>D = 19mm</b> <b>E = 24mm</b> <b>F = 28mm</b>  <b>0</b> Without coupling Senza giunto 	<b>Only for combined units</b> See technical data table  Solo per i riduttori combinati Vedi tabella dati tecnici.  Ausführungen für Getriebekombinationen it  Uniquement pour combinés. Voir tableau données techniques  Sólo para combinados ver tabla datos técnicos

**POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA**

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotacion

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

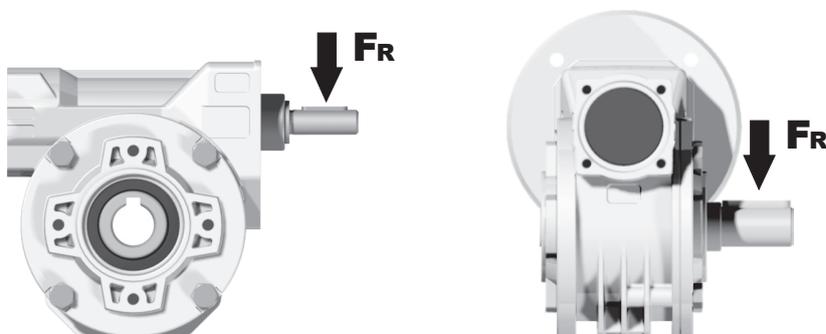
**TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR**

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

**RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL**

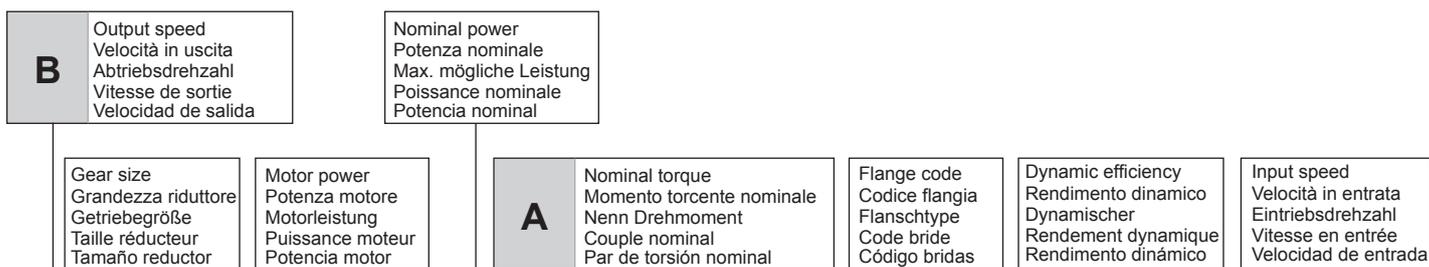
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$		$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$	
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion		
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo		
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana		

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor



**045** Rightangle - Gear  
**41Nm**

Rating - Aluminum WORM GEARBOXES



**QUICK SELECTION / Selezione veloce** input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio i	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
200	7	0.37	14	2.2	0.80	30	B		B-C	B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30	B		B-C	B-C		77	2.4	03



**fs**

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		<2 h	2 - 8 h	8 - 16 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.9	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1.25	1.5	1.75
	Moderate / Moderato	1.5	1.75	2
	Heavy / Forte	1.75	2	2.25

**D** Motor flange available  
Flange disponibili  
Erhältliche Motorflansche  
Brides disponibles  
Bridas disponibles

**B)** Mounting with reduction ring  
Montaggio con boccia di riduzione  
Reduzierhülsen  
Montage avec douille de réduction  
Montaje con casquillo de reducción

**C)** Motor flangeholes position/terminal box position  
Posizione fori flangia/basetta motore  
Bohrungsposition am Motorflansch/-socket  
Position trous bride/barrette à bornes moteur  
Posición agujeros brida / base motor

**B)** Available without reduction bushes  
Disponibile anche senza boccia  
Auch ohne Reduzierbuchse verfügbar  
Disponible aussi sans douille de réduction  
Disponible tambien sin casquillo

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
280	<b>5</b>	0.18	5	3.3	<b>0.60</b>	17	B		B-C		82	1.26	09
200	<b>7</b>	0.18	7	2.4	<b>0.44</b>	17	B		B-C		80	1.44	01
140	<b>10</b>	0.18	10	1.8	<b>0.32</b>	17	B		B-C		78	1.44	02
93	<b>15</b>	0.18	13	1.4	<b>0.25</b>	19	B		B-C		73	1.44	03
70	<b>20</b>	0.18	17	1.1	<b>0.20</b>	19	B		B-C		70	1.09	04
47	<b>30</b>	0.12	15	1.4	<b>0.17</b>	21	B		B-C		62	1.44	05
35	<b>40</b>	0.12	19	1.1	<b>0.13</b>	20	B		B-C		57	1.09	06
23	<b>61</b>	0.09	19	1.1	<b>0.10</b>	20	B		B-C		50	0.72	07
17.5	<b>80</b>	0.09	16	1.0	<b>0.06</b>	16	B		B-C		48	0.56	08

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **030** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **030** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **030** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **030** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **030** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 030 Oil Quantity 0.03 Lt.

**AGIP** Telium VSF 320

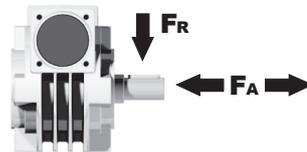
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

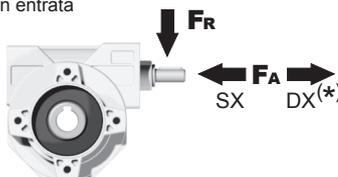
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	120	600
150	140	700
100	160	800
75	180	900
50	200	1000
25	250	1250
15	280	1400

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	20	100

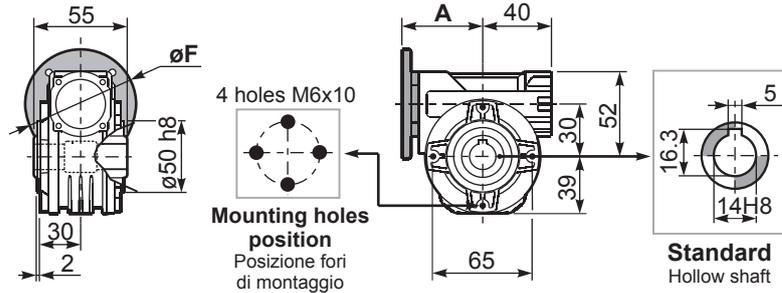
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**P030FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **1.05 kg**

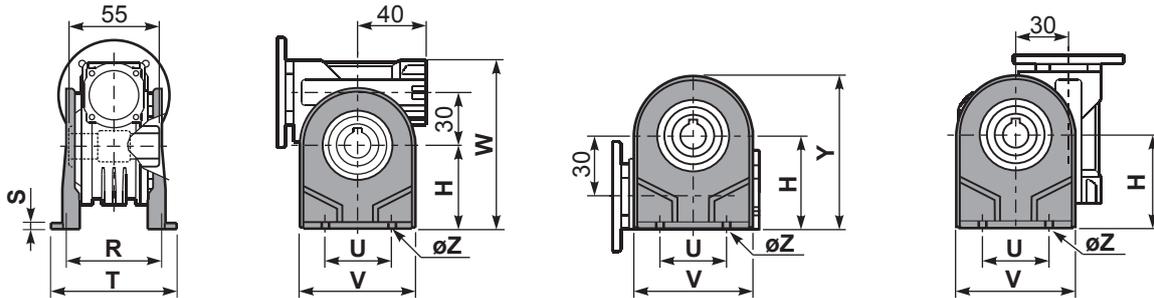
M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



**P030PA...** Feet  
Piedini

**P030PB...** Feet  
Piedini

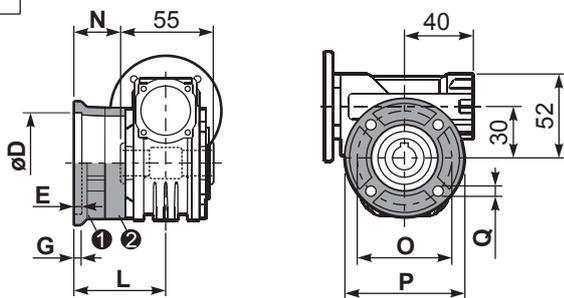
**P030PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	55	66	3	87	50	78	94	107	ø6.5	K030.9.022
type S	52	66	3	87	52	90	91	104	ø6.5	KS030.9.023

**P030FC...** Output flange  
Flangia uscita

**P030BR...** Reaction arm  
Braccio di reazione



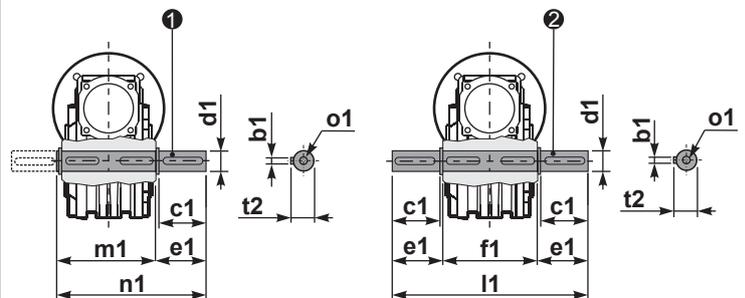
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	50 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	50.5	23	68	80	7	① K030.9.010 ② -
<b>FL</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	55.5	28	87	110	8.5	① K045.9.010 ② -

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	40 <sup>+0.15</sup> / <sub>+0.10</sub>	3.5	5.5	49	21.5	56	80	6.5	① KS030.9.012 ② -

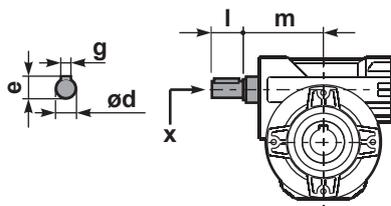
**P030.....S...** Single Shaft  
Albero lento semplice

**P030.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K030.5.028 type B      ② kit cod. K030.5.029 type B

**R030FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	K030.5.006 PAM63
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 <sup>-0.005</sup> / <sub>-0.020</sub>	35.5	55	126	59	94.5	16	M5x14
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
200	<b>7</b>	0.37	14	2.2	<b>0.80</b>	<b>30</b>	<b>B</b>		B-C	B-C		80	2.2	01
140	<b>10</b>	0.37	20	1.5	<b>0.57</b>	<b>30</b>	<b>B</b>		B-C	B-C		79	2.2	02
100	<b>14</b>	0.37	27	1.1	<b>0.41</b>	<b>30</b>	<b>B</b>		B-C	B-C		77	2.4	03
67	<b>21</b>	0.37	36	1.2	<b>0.43</b>	<b>41</b>	<b>B</b>		B-C	B-C		67	1.6	04
50	<b>28</b>	0.25	31	1.3	<b>0.33</b>	<b>41</b>	<b>B</b>		B-C	B-C		65	2.5	05
38	<b>37</b>	0.25	40	1.0	<b>0.26</b>	<b>41</b>	<b>B</b>		B-C	B-C		63	1.8	06
30	<b>46</b>	0.25	46	0.9	<b>0.22</b>	<b>41</b>	<b>B</b>		B-C	B-C		59	1.5	07
23	<b>60</b>	0.18	41	1.0	<b>0.18</b>	<b>41</b>	<b>B</b>		B-C	B-C		56	1.2	08
20	<b>70</b>	0.12	31	1.0	<b>0.12</b>	<b>30</b>	<b>B</b>		B-C	B-C		54	1.0	09
13.7	<b>102</b>	0.09	31	1.0	<b>0.09</b>	<b>29</b>	<b>B</b>		B-C	B-C		49	0.72	10

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **045** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **045** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico.  
Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **045** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **045** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **045** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 045 Oil Quantity 0.09 Lt.

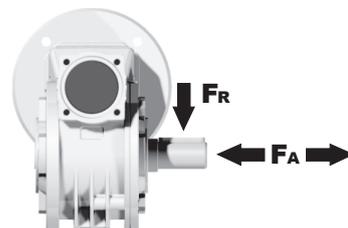
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

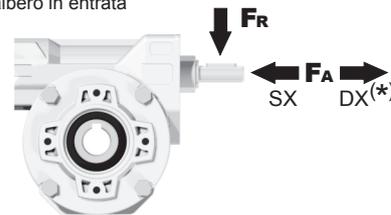
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>200</b>	180	900
<b>150</b>	200	1000
<b>100</b>	220	1100
<b>75</b>	240	1200
<b>50</b>	260	1400
<b>25</b>	300	1800
<b>15</b>	400	2000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	42	210

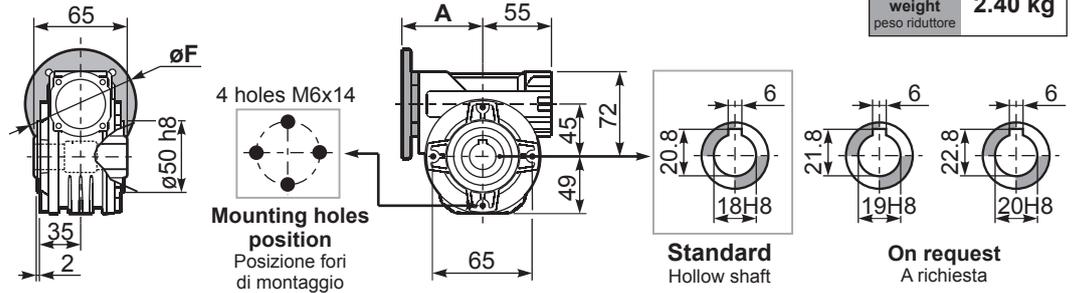
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**P045FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **2.40 kg**

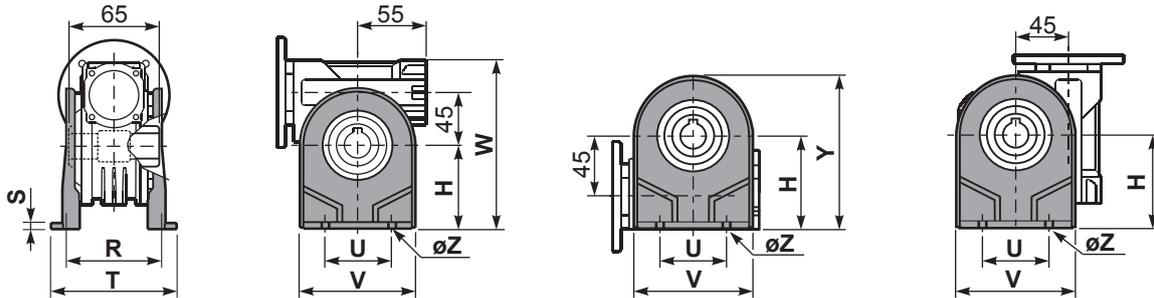
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	74
<b>71B5</b>	K050.4.042	160	71.5
<b>56B14</b>	KC40.4.049	80	71.5
<b>63B14</b>	K050.4.047	90	74
<b>71B14</b>	K050.4.045	105	71.5



**P045PA...** Feet  
Piedini

**P045PB...** Feet  
Piedini

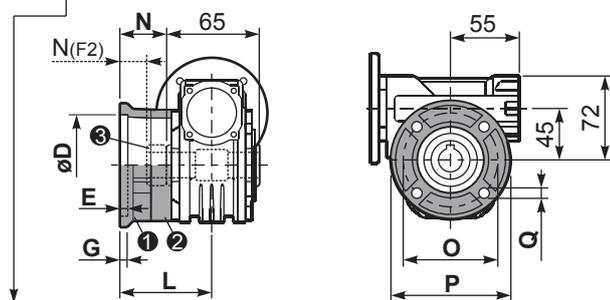
**P045PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

**P045FC...** Output flange  
Flangia uscita

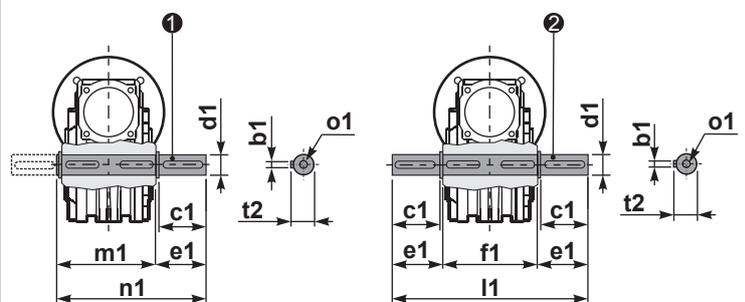
**P045BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	28	87	110	8.5	1 K045.9.010 2 -
<b>FL</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	90.5	58	87	110	8.5	1 K045.9.010 2 K045.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	95 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	73.5	41	115	140	9	1 KS045.9.013 2 -
<b>F2</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	19	87	110	8.5	1 KS045.9.010 2 S045.0.204
<b>F3</b>	80 <sup>+0.15</sup> / <sub>+0.10</sub>	3	8	51.5	19	100	120	9	1 KS045.9.014 2 -

**P045.....S...** Single Shaft  
Albero lento semplice

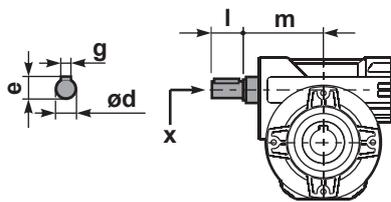
**P045.....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

2 kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

**R045FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	1 K045.5.006 PAM71 2 -
type S	-	-	-	-	-	-	1 - 2 -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> / <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> / <sub>-0.020</sub>	58.8	65	182	70	128.5	21.5	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-D	-O	-P	-Q	-R			
							63	71	80	56	63	71	80			
200	<b>7</b>	0.75	29	1.9	<b>1.5</b>	<b>57</b>	B	B			B-C	<b>B</b>		82	2.5	01
140	<b>10</b>	0.75	41	1.5	<b>1.1</b>	<b>62</b>	B	B			B-C	<b>B</b>		80	2.4	02
100	<b>14</b>	0.75	57	1.2	<b>0.90</b>	<b>68</b>	B	B			B-C	<b>B</b>		79	2.6	03
78	<b>18</b>	0.55	51	1.2	<b>0.67</b>	<b>62</b>	B	B			B-C	<b>B</b>		75	2.0	04
54	<b>26</b>	0.55	67	1.0	<b>0.54</b>	<b>66</b>	B	B			B-C	<b>B</b>		69	2.7	05
47	<b>30</b>	0.55	79	0.9	<b>0.50</b>	<b>72</b>	B	B			B-C	<b>B</b>		70	2.5	12
39	<b>36</b>	0.37	63	1.2	<b>0.43</b>	<b>72</b>	B			B-C	B-C			69	2.1	06
33	<b>43</b>	0.37	72	1.0	<b>0.35</b>	<b>68</b>	B			B-C	B-C			66	1.8	07
23	<b>60</b>	0.25	59	1.0	<b>0.26</b>	<b>62</b>	B			B-C	B-C			58	1.3	08
21	<b>68</b>	0.25	66	0.9	<b>0.22</b>	<b>58</b>	B			B-C	B-C			57	1.2	09
17.5	<b>80</b>	0.18	53	1.1	<b>0.19</b>	<b>57</b>	B			B-C	B-C			54	1.0	10
14	<b>100</b>	0.12	41	1.3	<b>0.15</b>	<b>51</b>	B			B-C	B-C			50	0.8	11

**Motor Flanges Available** Flange Motore Disponibili  
**Supplied with Reduction Bushing** Fornito con Bussola di Riduzione  
**Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione  
**Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit 050 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 050 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 050 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 050 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 050 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

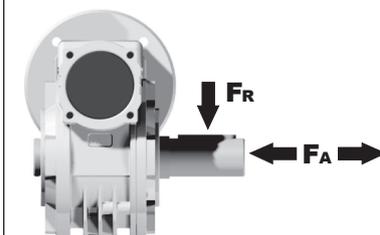
#### LUBRICATION 050 Oil Quantity 0.14 Lt.

**AGIP** Telium VSF 320      **SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

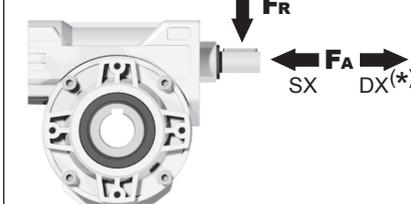
#### RADIAL AND AXIAL LOADS

##### Output shaft Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	240	1200
150	280	1400
100	300	1500
75	340	1700
50	380	1900
25	480	2500
15	560	2800

##### Input shaft albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	76	380

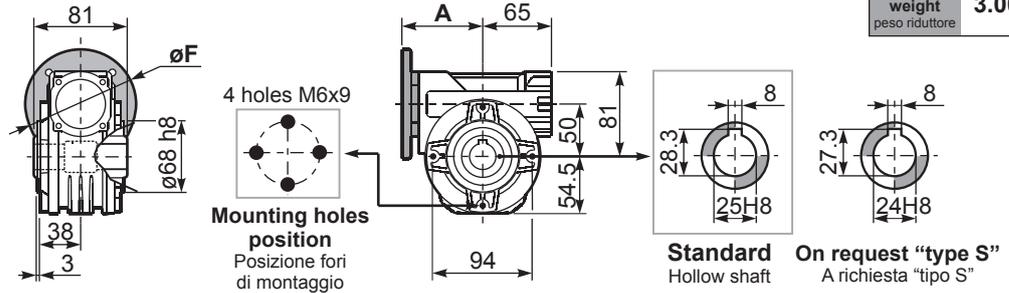
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P050FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **3.00 kg**

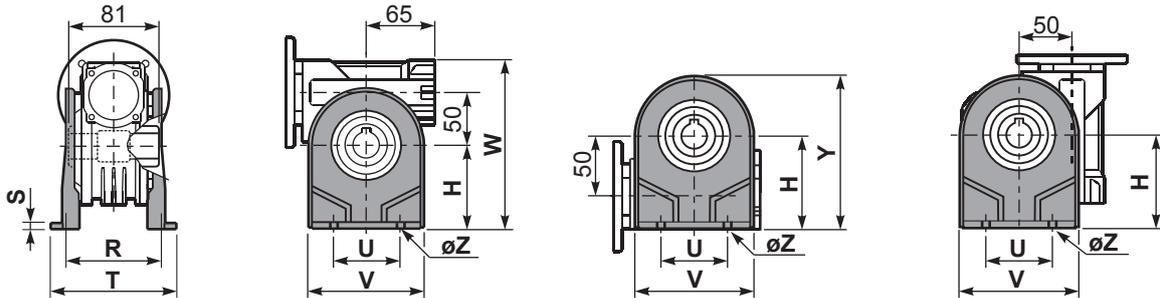
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	78.5
<b>71B5</b>	K050.4.042	160	76
<b>80B5</b>	K050.4.043	200	76.5
<b>56B14</b>	KC40.4.049	80	76
<b>63B14</b>	K050.4.047	90	78.5
<b>71B14</b>	K050.4.045	105	76
<b>80B14</b>	K050.4.046	120	76.5



**P050PA...** Feet  
Piedini

**P050PB...** Feet  
Piedini

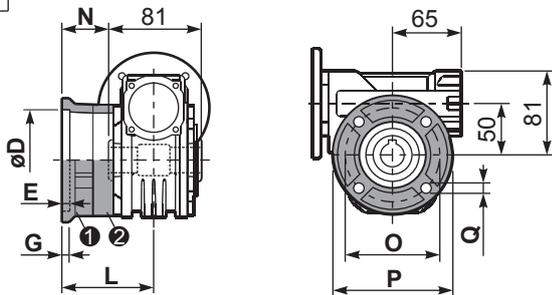
**P050PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	82	98.5	3.5	123	63	113	138.5	163	ø10.5	K050.9.022
type S	85	96	10	114	85	110	139.5	166	ø10	KS050.9.023

**P050FC...** Output flange  
Flangia uscita

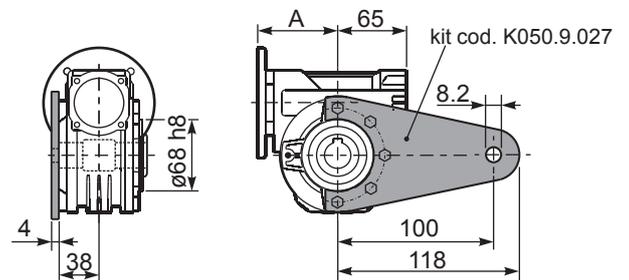
**P050BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	85	44.5	90	123	10.5	① K050.9.010 ② -
<b>FL</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	114.5	74	90	123	10.5	① K050.9.010 ② K050.0.200

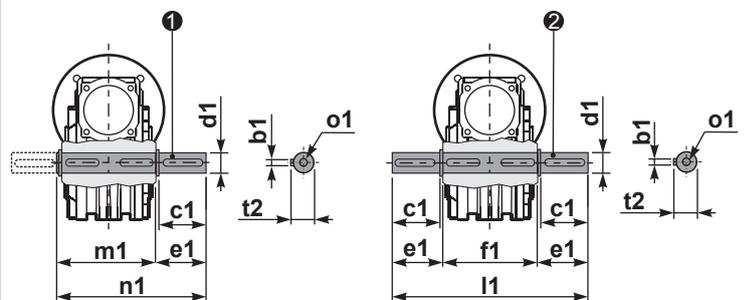
  

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	110 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	83.5	43	130	160	10	① KS050.9.012 ② -
<b>F2</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	76.5	36	90	123	10.5	① KS050.9.014 ② -
<b>F3</b>	95 <sup>+0.035</sup> / <sub>0</sub>	4	10	66.5	26	115	140	10	① KS050.9.013 ② -



**P050.....S...** Single Shaft  
Albero lento semplice

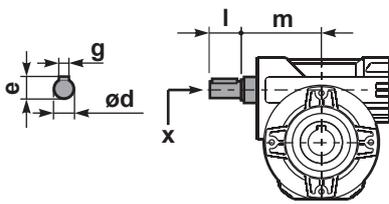
**P050.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

② kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

**R050FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	74.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	74.5	M5x10	① KS050.5.008 PAM71 ② KS050.5.009 PAM80

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 <sup>-0.005</sup> / <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> / <sub>-0.020</sub>	68.8	81	218	86.5	155	27	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code 	
							-B	-C	-D	-E	-Q	-R	-T				
							63	71	80	90	71	80	90				
200	7	1.8	71	1.8	3.2	125		B	B			B-C	B-C		83	3.1	01
140	10	1.8	99	1.4	2.4	134		B	B			B-C	B-C		81	3.1	02
93	15	1.5	121	1.1	1.7	138		B	B			B-C	B-C		79	3.1	03
74	19	1.1	111	1.2	1.4	138		B	B			B-C	B-C		78	2.6	04
58	24	1.1	135	1.0	1.2	142		B	B			B-C	B-C		75	2.0	05
47	30	1.1	167	0.9	0.96	146		B	B			B-C	B-C		74	3.2	06
39	36	0.75	125	1.2	0.88	147		B	B			B-C	B-C		68	2.7	07
35	40	0.75	135	1.0	0.78	140		B	B			B-C	B-C		66	2.5	13
31	45	0.55	111	1.2	0.67	135	B	B				B-C	C		66	2.1	08
23	60	0.55	140	0.9	0.51	130	B	B				B-C	C		62	1.6	12
21	67	0.55	151	0.8	0.45	124	B	B				B-C	C		60	1.5	09
17.5	80	0.37	115	1.0	0.38	119	B	B				B-C	C		57	1.3	10
14.9	94	0.37	123	1.0	0.36	119	B	B				B-C	C		52	1.1	11

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **063** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **063** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **063** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **063** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **063** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 063 Oil Quantity 0.40 Lt.

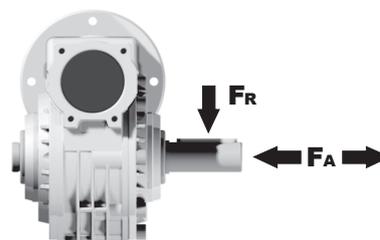
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

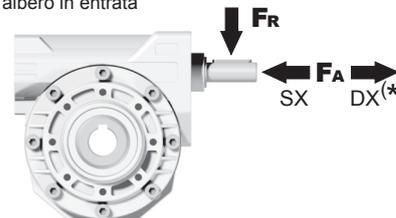
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	90	450

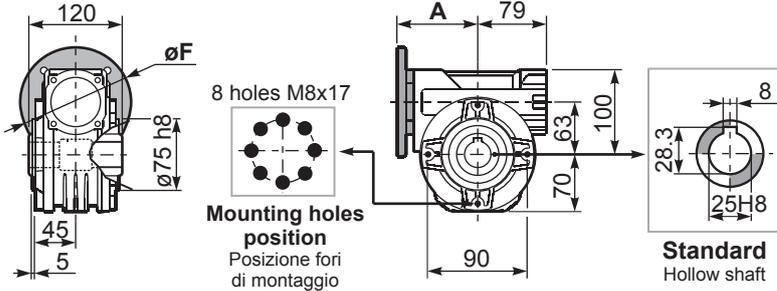
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P063FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **6.00 kg**

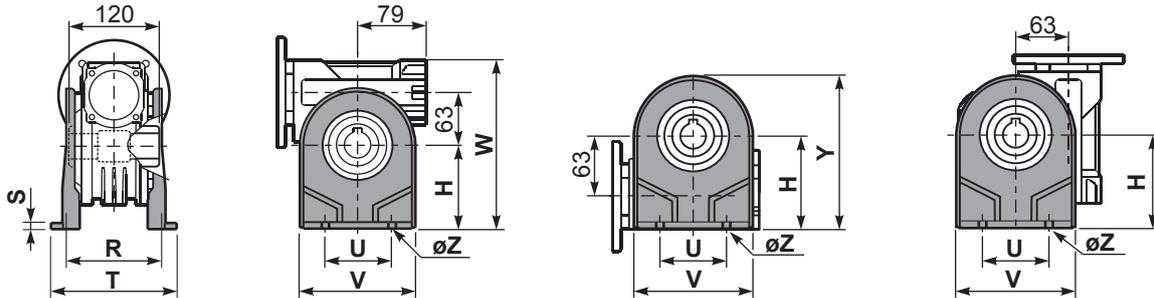
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	99.5
<b>71B5</b>	K063.4.042	160	97.5
<b>80/90B5</b>	K063.4.043	200	99.5
<b>71B14</b>	K063.4.047	105	97.5
<b>80B14</b>	K063.4.046	120	99.5
<b>90B14</b>	K063.4.041	140	99.5



**P063PA...** Feet  
Piedini

**P063PB...** Feet  
Piedini

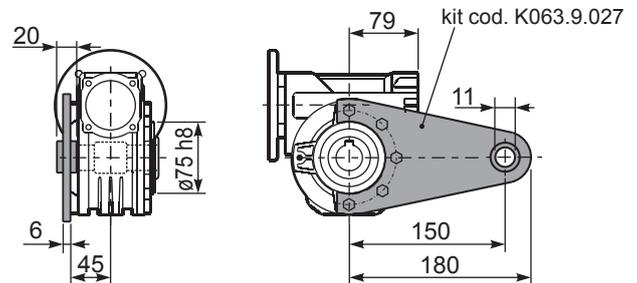
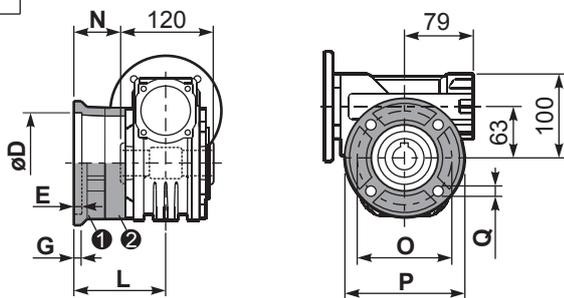
**P063PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P063FC...** Output flange  
Flangia uscita

**P063BR...** Reaction arm  
Braccio di reazione



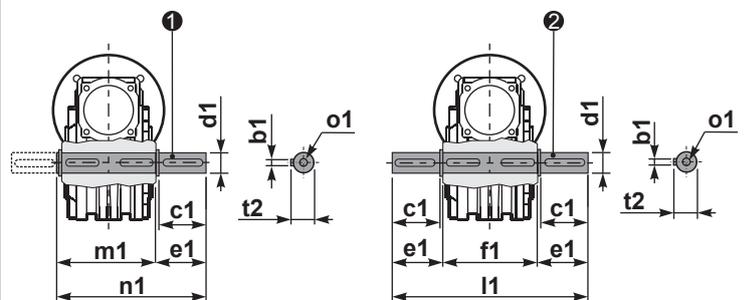
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	86	26	150	175	11	① K063.9.010 ② -
<b>FL</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	102	42	165	200	13	① KS070.9.013 ② -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	82	22	130	160	10	① KS063.9.011 ② -

**P063.....S...** Single Shaft  
Albero lento semplice

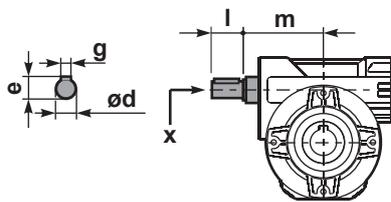
**P063.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B

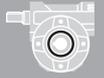
② kit cod. K063.5.029 type B

**R063FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	18 h6	20.5	6	45	93	M6x16	① K063.5.006 PAM80 ② K063.5.007 PAM90
type S	19 h6	21.5	6	40	93	M8x20	① KS063.5.008 PAM80 ② KS063.5.009 PAM90

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 	
							-B	-C	-D	-E	-Q	-R	-T				
							63	71	80	90	71	80	90				
200	7	1.8	71	2.3	4.1	162		B	B			B-C	B-C		83	3.1	01
140	10	1.8	99	1.7	3.1	173		B	B			B-C	B-C		81	3.1	02
93	15	1.5	121	1.5	2.2	178		B	B			B-C	B-C		79	3.1	03
74	19	1.5	152	1.2	1.8	178		B	B			B-C	B-C		78	2.6	04
58	24	1.5	184	1.0	1.5	185		B	B			B-C	B-C		75	2.0	05
47	30	1.5	227	0.8	1.3	189		B	B			B-C	B-C		74	3.2	06
39	36	1.1	184	1.0	1.1	191		B	B			B-C	B-C		68	2.7	07
35	40	1.1	198	0.9	1.0	181		B	B			B-C	B-C		66	2.5	13
31	45	0.75	152	1.2	0.86	175	B	B				B-C	C		66	2.1	08
23	60	0.55	140	1.2	0.66	168	B	B				B-C	C		62	1.6	12
21	67	0.55	151	1.1	0.58	159	B	B				B-C	C		60	1.5	09
17.5	80	0.37	115	1.3	0.49	153	B	B				B-C	C		57	1.3	10
14.9	94	0.37	123	1.1	0.39	130	B	B				B-C	C		52	1.1	11

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **63A** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **63A** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **63A** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **63A** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **63A** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 63A Oil Quantity 0.40 Lt.

**AGIP** Telium VSF 320

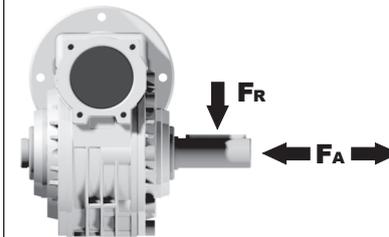
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

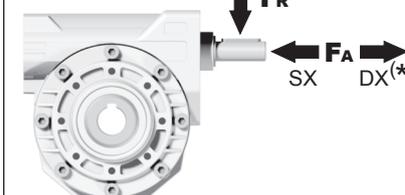
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	90	450

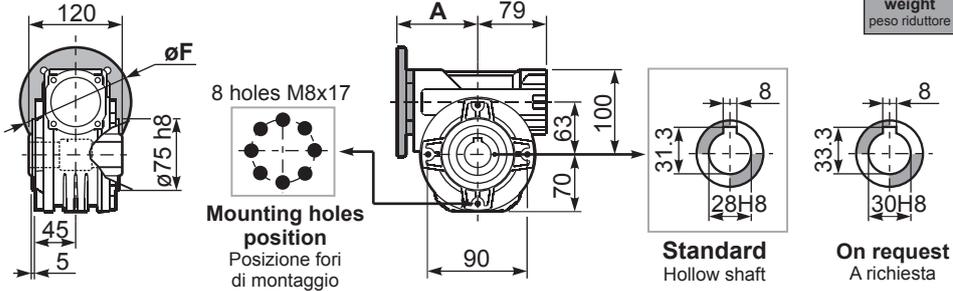
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P63AFB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **6.00 kg**

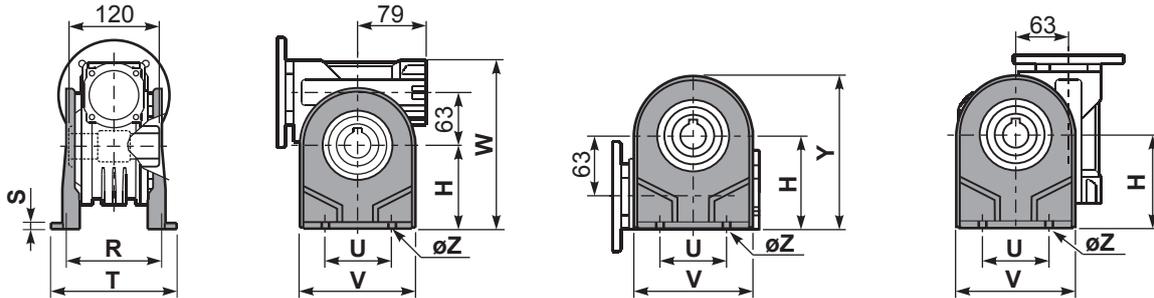
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	99.5
<b>71B5</b>	K063.4.042	160	97.5
<b>80/90B5</b>	K063.4.043	200	99.5
<b>71B14</b>	K063.4.047	105	97.5
<b>80B14</b>	K063.4.046	120	99.5
<b>90B14</b>	K063.4.041	140	99.5



**P63APA...** Feet  
Piedini

**P63APB...** Feet  
Piedini

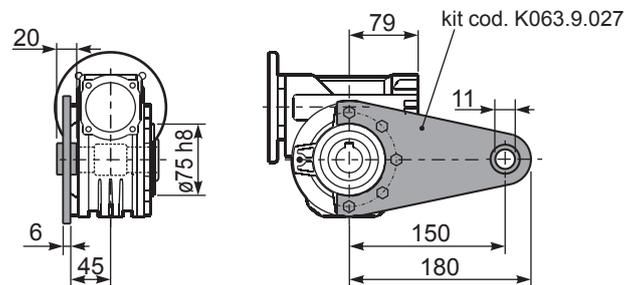
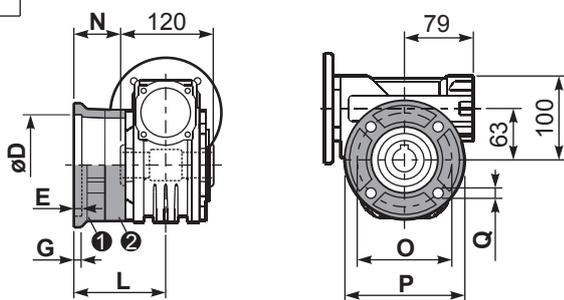
**P63APV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P63AFC...** Output flange  
Flangia uscita

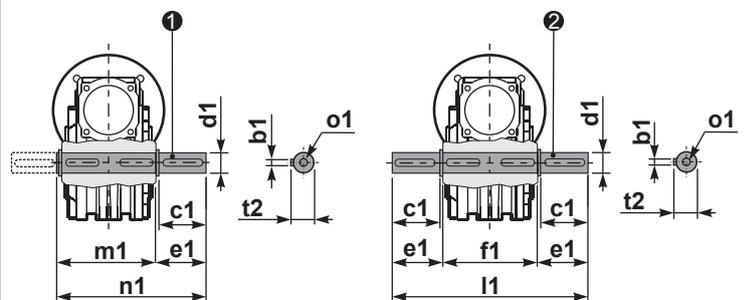
**P63ABR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	1 K070.9.010 2 -
<b>FL</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 K070.9.010 2 K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 KS070.9.014 2 -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	1 KS063.9.013 2 -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	1 KS070.9.011 2 -

**P63A...S...** Single Shaft  
Albero lento semplice

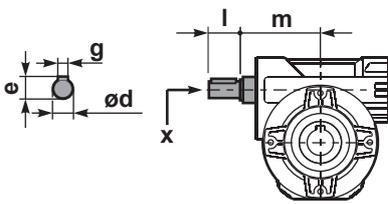
**P63A...D...** Double Shaft  
Albero lento bisp.



1 kit cod. K070.5.028 type B

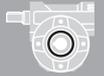
2 kit cod. K070.5.029 type B

**R63AFB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	18 h6	20.5	6	45	93	M6x16	1 K063.5.006 PAM80 2 K063.5.007 PAM90
type S	19 h6	21.5	6	40	93	M8x20	1 KS063.5.008 PAM80 2 KS063.5.009 PAM90

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code	
							-C	-D	-E	-F	-R	-T	-U				
							71	80	90	100 112	80	90	100 112				
200	7	4.0	168	1.5	6.1	257		B	B			B	B		88	4.23	01
140	10	4.0	218	1.3	5.2	284		B	B			B	B		80	4.2	02
100	14	3.0	223	1.4	4.1	305		B	B			B	B		78	4.5	03
70	20	2.2	237	1.2	2.7	294		B	B			B	B		79	3.4	04
64	22	2.2	258	1.1	2.5	294		B	B			B	B		78	3.1	05
50	28	2.2	315	1.1	2.4	347		B	B	B		B	B		75	4.7	06
37	38	1.5	276	1.2	1.8	336	B	B				B			71	3.5	07
30	46	1.5	320	1.0	1.5	326	B	B				B			68	3.1	08
27	52	1.1	258	1.1	1.2	289	B	B				B			66	2.7	09
21	67	1.1	327	0.9	0.97	289	B	B				B			65	2.1	10
18.9	74	0.75	220	1.2	0.91	268	B	B				B			58	1.9	11
14.6	96	0.55	191	1.3	0.70	242	B	B				B			53	1.5	12

Motor Flanges Available Flange Motore Disponibili    
 B Supplied with Reduction Bushing Fornito con Bussola di Riduzione    
 B Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione    
 C Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit 085 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 085 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 085 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 085 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 085 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

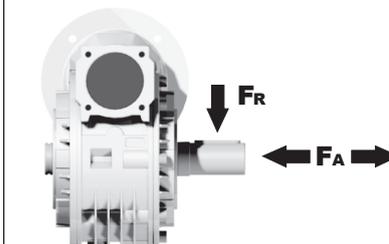
#### LUBRICATION 085 Oil Quantity 1.20 Lt.

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

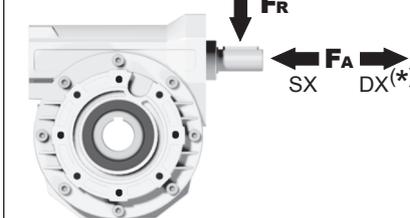
#### RADIAL AND AXIAL LOADS

##### Output shaft Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	500	2500
150	580	2900
100	600	3000
75	700	3500
50	800	4000
25	1000	5000
15	1160	5800

##### Input shaft albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	160	809

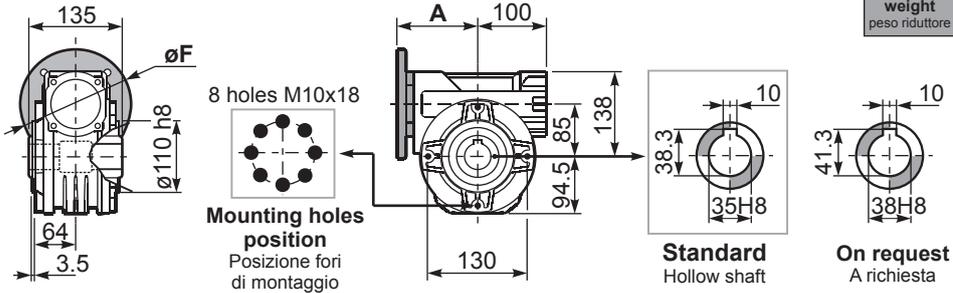
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P085FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **11.00 kg**

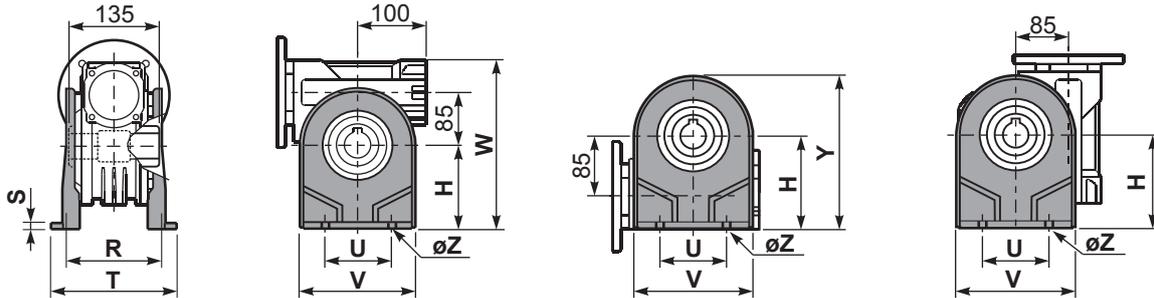
M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	116.5
<b>80/90B5</b>	K023.4.042	200	118.5
<b>100/112B5</b>	K023.4.043	250	127.5
<b>80B14</b>	K085.4.046	120	118.5
<b>90B14</b>	K085.4.045	140	118.5
<b>100/112B14</b>	K085.4.047	160	127.5



**P085PA...** Feet  
Piedini

**P085PB...** Feet  
Piedini

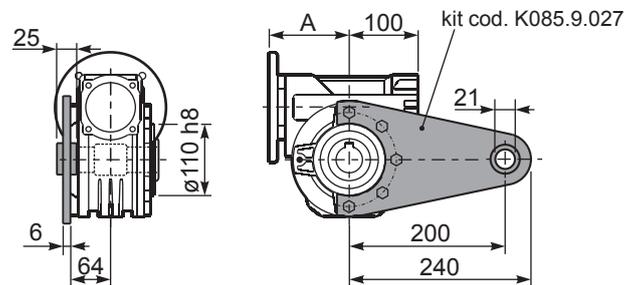
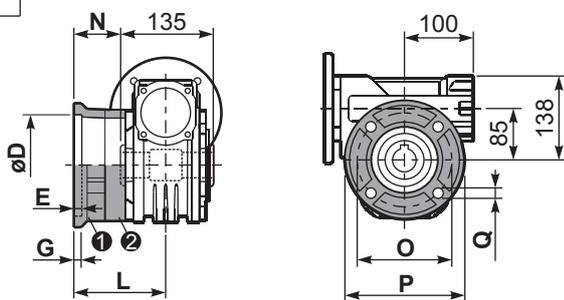
**P085PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	142	145	5	182	140	180	236.5	280	ø10.5	K085.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P085FC...** Output flange  
Flangia uscita

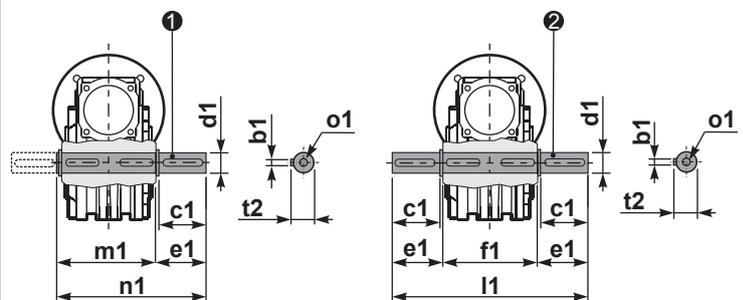
**P085BR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	① K085.9.010 ② -
<b>FL</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 H7	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
<b>F2</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
<b>F4</b>	130 H7	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

**P085.....S...** Single Shaft  
Albero lento semplice

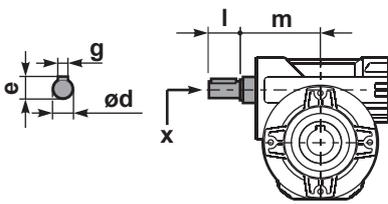
**P085.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K085.5.028 type B

② kit cod. K085.5.029 type B

**R085FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	25 h6	28	8	50	112	M8x20	① K085.5.007 PAM90 ② K085.5.008 PAM100
type S	24 h6	27	8	50	112	M8x20	① KS085.5.009 PAM90 ② KS085.5.011 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Dynamic efficiency RD	Tooth Module [mm]	Ratios code	
							-C	-D	-E	-F	-G	-R	-T	-U	-V				
							71	80	90	100 112	132	80	90	100 112	132				
200	7	7.5	315	1.5	11.5	483		B	B				B	B			88	5.5	01
140	10	7.5	440	1.2	9.0	525		B	B				B	B			86	5.4	02
88	16	5.5	492	1.1	6.0	536		B	B				B	B			82	5.3	03
70	20	4.0	447	1.2	4.9	546		B	B				B	B			82	4.5	04
61	23	3.0	377	1.4	4.1	515		B	B				B	B			80	3.9	05
47	30	3.0	467	1.4	4.2	651		B	B				B	B			76	5.6	06
37	38	3.0	583	1.1	3.3	641		B	B				B	B			75	4.7	07
31	45	2.2	493	1.2	2.7	599		B	B				B	B			73	4.0	08
26	53	2.2	557	1.1	2.5	620		B	B				B	B			70	3.5	09
22	64	1.5	452	1.2	1.8	536	B	B					B	B			69	2.9	10
16.7	84	1.1	410	1.2	1.3	494	B	B					B	B			65	2.2	11
14.1	99	1.1	446	1.1	1.2	483	B	B					B	B			60	1.9	12

  Motor Flanges Available Flange Motore Disponibili  
B Supplied with Reduction Bushing Fornito con Bussola di Riduzione  
B Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione  
C Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit 110 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 110 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 110 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 110 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 110 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6
2.00 LT	1.35 LT	1.35 LT	2.00LT	2.00 LT	2.00LT

**AGIP** Blasias 460

For all details on lubrication and plugs check our website [www.agip.com](#) Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web **tab. 1**

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	600	2900
150	700	3300
100	750	3600
75	800	4000
50	920	4600
25	1200	6000
15	1400	7000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	228	1140

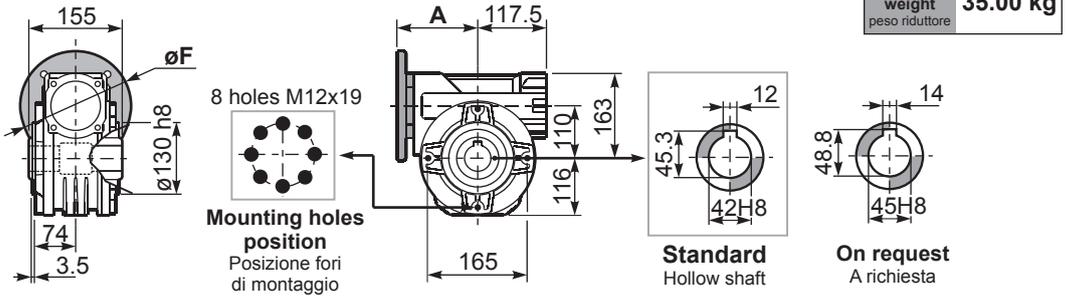
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**P110FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **35.00 kg**

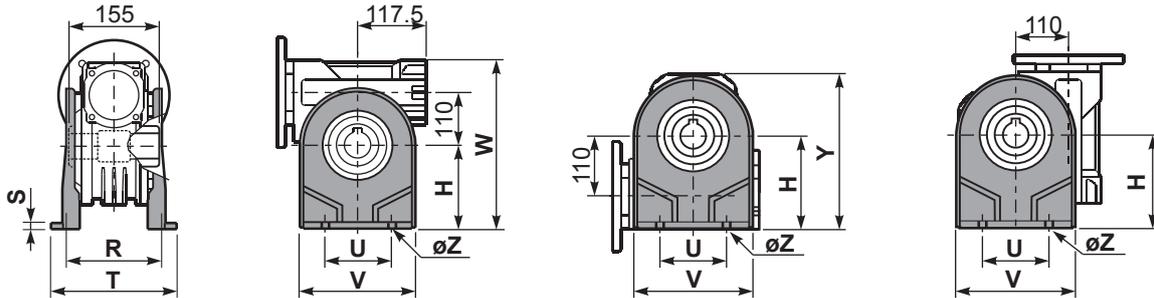
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	136
80/90B5	K023.4.042	200	138
100/112B5	K023.4.043	250	147
132B5	-	300	187
80B14	K085.4.046	120	138
90B14	K085.4.045	140	138
100/112B14	K023.4.041	160	136
132B14	-	200	187



**P110PA...** Feet  
Piedini

**P110PB...** Feet  
Piedini

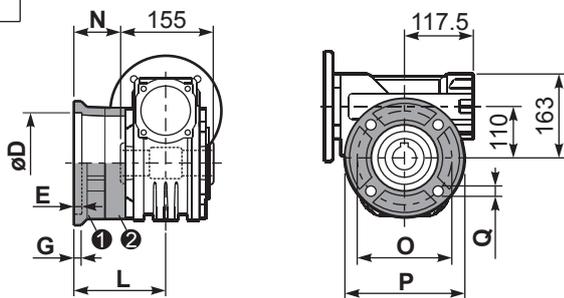
**P110PV...** Feet  
Piedini



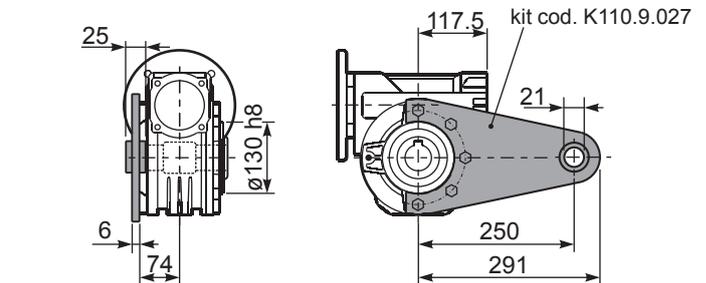
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	22	224	200	240	286	333	ø13	K110.9.022
type S	172	160	8	204	200	240	288	335	ø14	KS110.9.023

**P110FC...** Output flange  
Flangia uscita

**P110BR...** Reaction arm  
Braccio di reazione

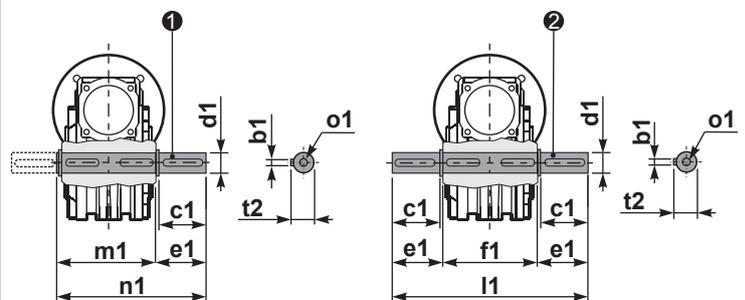


type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	131.5	54	230	270	13	1 K110.9.010 2 -
FL	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	179.5	102	230	270	13	1 K110.9.011 2 -
type S	øD	E	G	L	N	O	P	Q	kit code
F1	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	150	72.5	215	250	15	1 KS110.9.014 2 -
F2	170 <sup>+0.083</sup> / <sub>+0.043</sub>	9.5	15	178	100.5	230	270	13	1 KS110.9.012 2 -
F3	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	130	52.5	215	250	15	1 KS110.9.013 2 -



**P110.....S...** Single Shaft  
Albero lento semplice

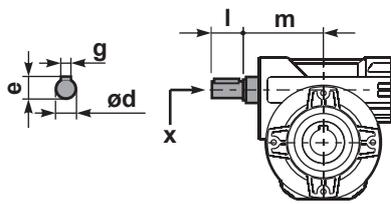
**P110.....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K110.5.028 type B

2 kit cod. K110.5.029 type B

**R110FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	25 h6	28	8	50	131.5	M8x20	1 K085.5.007 PAM90 2 K085.5.008 PAM100
type S	24 h6	27	8	50	131.5	M8x20	1 KS085.5.009 PAM90 2 KS085.5.011 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> / <sub>-0.020</sub>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code 
							-A	-B	-C	-P	-Q			
							56	63	71	63	71			
47	<b>30.1</b>	0.25	38	1.4	<b>0.36</b>	<b>55</b>				<b>C</b>		74	2.2	01
33	<b>43.0</b>	0.25	53	1.0	<b>0.26</b>	<b>55</b>				<b>C</b>		72	2.2	02
23	<b>60.2</b>	0.25	62	0.9	<b>0.22</b>	<b>55</b>				<b>C</b>		60	2.4	03
15.5	<b>90.3</b>	0.12	42	1.3	<b>0.16</b>	<b>55</b>				<b>C</b>		57	1.6	04
11.6	<b>120</b>	0.12	52	1.1	<b>0.13</b>	<b>55</b>				<b>C</b>		53	2.5	05
8.8	<b>159</b>	0.12	64	0.9	<b>0.10</b>	<b>55</b>				<b>C</b>		49	1.8	06
7.1	<b>198</b>	0.12*	55	<0.8	<b>0.09</b>	<b>55</b>				<b>C</b>		47	1.5	07
5.4	<b>258</b>	0.12*	55	<0.8	<b>0.07</b>	<b>55</b>				<b>C</b>		45	1.2	08
4.7	<b>301</b>	0.12*	39	<0.8	<b>0.05</b>	<b>39</b>				<b>C</b>		40	1.0	09
3.2	<b>439</b>	0.12*	39	<0.8	<b>0.04</b>	<b>39</b>				<b>C</b>		36	0.72	10

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P45** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P45** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P45** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P45** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P45** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P45 Oil

Common lubrication 0.17 l (A + B).



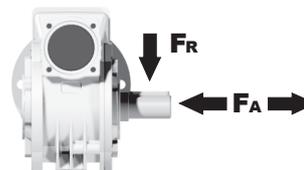
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

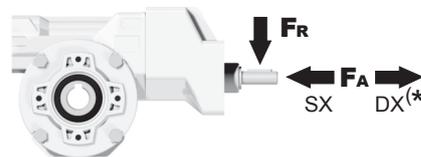
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	240	1200
50	260	1400
25	300	1800
15-6	400	2000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	44	220

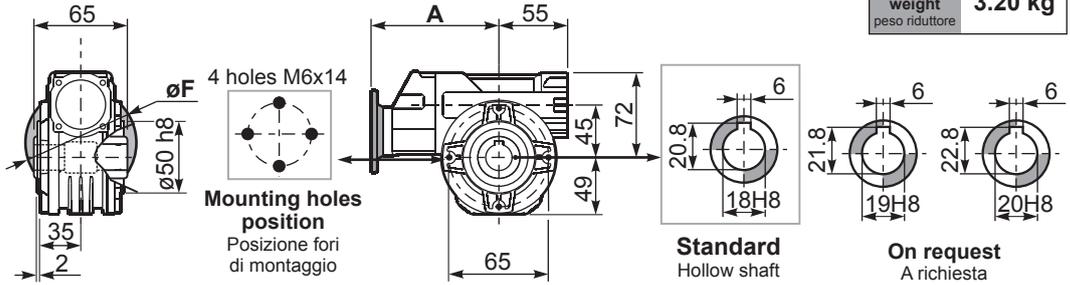
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP45**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **3.20 kg**

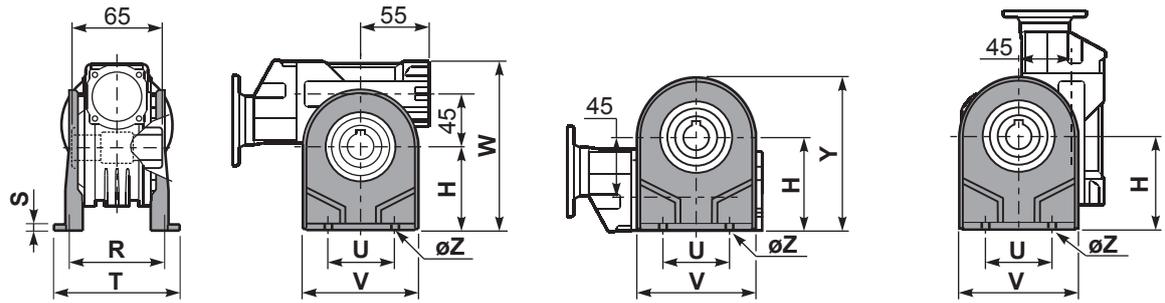
M. flanges	Kit code	øF	A
56B5	K050.4.046	120	137.5
63B5	K050.4.041	138	139.5
71B5	K050.4.042	160	137
63B14	K050.4.047	90	139.5
71B14	K050.4.045	105	137



PP45**PA**... Feet  
Piedini

PP45**PB**... Feet  
Piedini

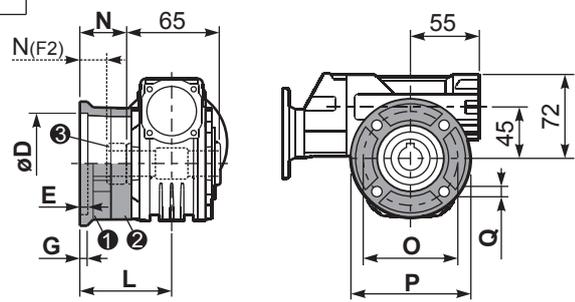
PP45**PV**... Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

PP45**FC**... Output flange  
Flangia uscita

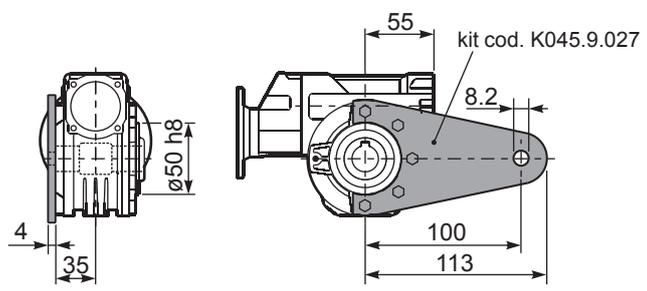
PP45**BR**... Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	28	87	110	8.5	① K045.9.010 ② -
FL	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	90.5	58	87	110	8.5	① K045.9.010 ② K045.0.200

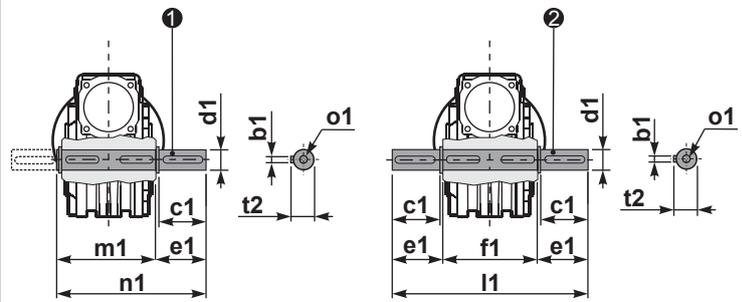
  

type S	øD	E	G	L	N	O	P	Q	kit code
F1	95 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	73.5	41	115	140	9	① KS045.9.013 ② -
F2	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	19	87	110	8.5	① KS045.9.010 ② S045.0.204
F3	80 <sup>+0.03</sup> / <sub>+0.00</sub>	3	8	51.5	19	100	120	9	① KS045.9.014 ② -



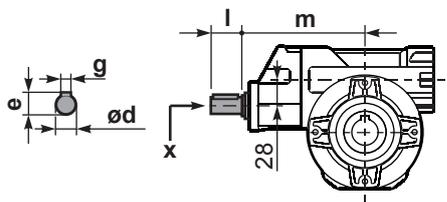
PP45.....**S**... Single Shaft  
Albero lento semplice

PP45.....**D**... Double Shaft  
Albero lento bisp.



- ① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S
- ② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

RP45**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	14 h6	16	5	25	131	M5x13
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> / <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> / <sub>-0.020</sub>	58.8	65	182	70	128.5	21.5	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-A	-B	-C	-P	-Q			
							56	63	71	63	71			
47	<b>30.1</b>	0.37	58	1.3	<b>0.49</b>	77				C		76	2.5	01
33	<b>43.0</b>	0.25	55	1.4	<b>0.35</b>	77				C		75	2.4	02
23	<b>60.2</b>	0.25	71	1.1	<b>0.27</b>	77				C		69	2.6	03
18.1	<b>77.4</b>	0.25	81	1.1	<b>0.27</b>	88				C		61	2.0	04
12.5	<b>112</b>	0.18	84	1.1	<b>0.19</b>	88				C		61	2.7	05
9.0	<b>155</b>	0.12	71	1.2	<b>0.15</b>	88				C		56	2.1	06
7.6	<b>185</b>	0.12	74	1.0	<b>0.12</b>	77				C		49	1.8	07
5.4	<b>258</b>	0.12*	77	<0.8	<b>0.09</b>	77				C		47	1.3	08
4.8	<b>292</b>	0.12*	66	<0.8	<b>0.08</b>	66				C		44	1.2	09
4.1	<b>344</b>	0.12*	44	<0.8	<b>0.05</b>	44				C		40	1.0	10
3.3	<b>430</b>	0.12*	44	<0.8	<b>0.04</b>	44				C		36	0.8	11

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P50** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P50** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P50** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P50** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P50** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION P50 Oil**  
Common lubrication 0.26 l ( A + B ).

**A**

**B**

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website tab. 1  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	340	1700
50	380	1900
25	480	2500
15-6	560	2800

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	44	220

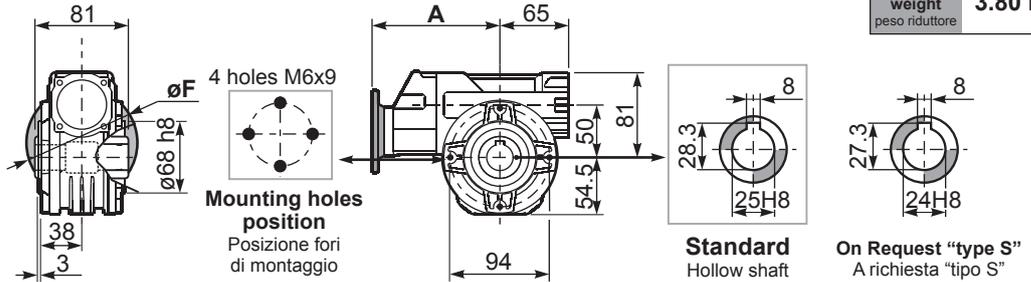
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP50**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **3.80 kg**

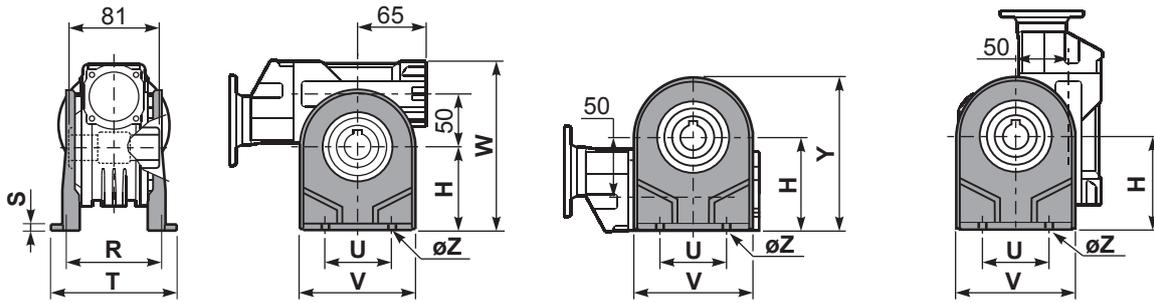
M. flanges	Kit code	øF	A
56B5	K050.4.046	120	142
63B5	K050.4.041	138	144
71B5	K050.4.042	160	141.5
63B14	K050.4.047	90	144
71B14	K050.4.045	105	141.5



PP50**PA**... Feet  
Piedini

PP50**PB**... Feet  
Piedini

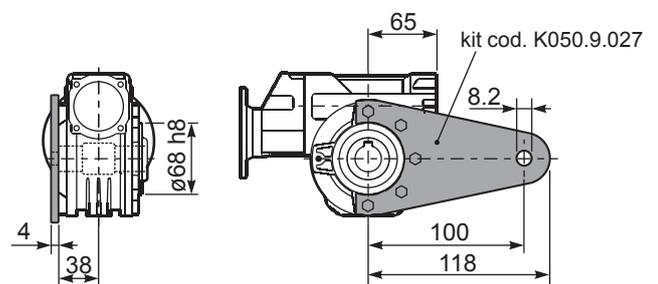
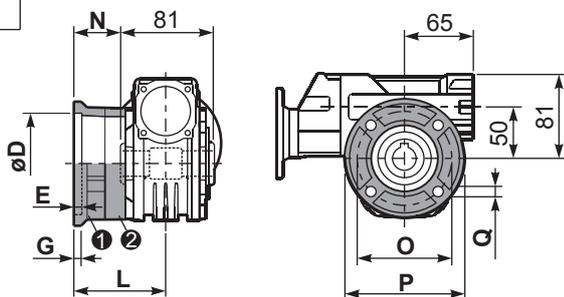
PP50**PV**... Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	82	98.5	3.5	123	63	113	138.5	163	ø10.5	K050.9.022
type S	85	96	10	114	85	110	139.5	166	ø10	KS050.9.023

PP50**FC**... Output flange  
Flangia uscita

PP50**BR**... Reaction arm  
Braccio di reazione

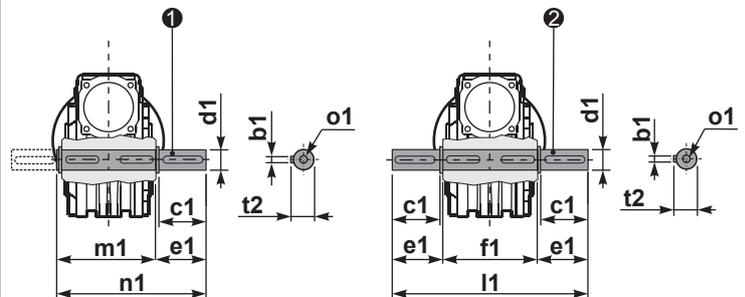


type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	85	44.5	90	123	10.5	① K050.9.010 ② -
FL	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	114.5	74	90	123	10.5	① K050.9.010 ② K050.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	83.5	43	130	160	10	① KS050.9.012 ② -
F2	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	76.5	36	90	123	10.5	① KS050.9.014 ② -
F3	95 <sup>+0.035</sup> / <sub>0</sub>	4	10	66.5	26	115	140	10	① KS050.9.013 ② -

PP50.....**S**... Single Shaft  
Albero lento semplice

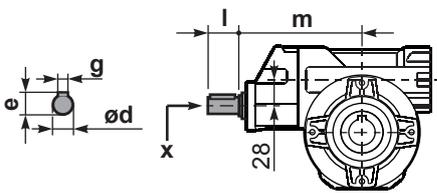
PP50.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

② kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

RP50**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	14 h6	16	5	25	135.5	M5x13
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 <sup>-0.005</sup> / <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> / <sub>-0.020</sub>	68.8	81	218	86.5	155	27	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

	Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
								-B	-C	-D	-E	-P	-Q	-R	-T			
								63	71	80	90	63	71	80	90			
IEC 90 - 80 - 71	47	<b>29.9</b>	0.75	113	1.5	<b>1.1</b>	<b>165</b>						C	C		74	2.6	01
	37	<b>37.7</b>	0.75	141	1.2	<b>0.88</b>	<b>165</b>						C	C		73	2.0	02
	30	<b>47.1</b>	0.75	169	1.1	<b>0.83</b>	<b>187</b>						C	C		70	3.2	03
	25	<b>56.6</b>	0.55	136	1.4	<b>0.76</b>	<b>187</b>						C	C		64	2.7	04
	19.8	<b>70.7</b>	0.55	164	1.1	<b>0.63</b>	<b>187</b>						C	C		62	2.1	05
	15.9	<b>87.8</b>	0.37	162	1.2	<b>0.43</b>	<b>187</b>						C	C		73	2.6	06
	12.6	<b>111.0</b>	0.37	199	0.9	<b>0.35</b>	<b>187</b>						C	C		71	2.0	07
IEC 71 - 63	10.1	<b>139</b>	0.37	234	0.8	<b>0.30</b>	<b>187</b>						C			67	3.2	08
	8.4	<b>166</b>	0.25	173	1.1	<b>0.27</b>	<b>187</b>						C			61	2.7	09
	6.7	<b>208</b>	0.18	151	1.1	<b>0.20</b>	<b>165</b>						C			59	2.1	10
	4.5	<b>310</b>	0.12	129	1.3	<b>0.15</b>	<b>165</b>						C			51	1.5	11
	3.8	<b>370</b>	0.12	145	1.1	<b>0.14</b>	<b>165</b>						C			48	1.3	12
		<b>434</b>	0.12	149	0.9	<b>0.11</b>	<b>138</b>						C			42	1.1	13

Motor Flanges Available Flange Motore Disponibili    
 B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione    
 B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione    
 C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **P63** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P63** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P63** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P63** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P63** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION P63 Oil**

For B3-V5-V6 separate lubrication for A ( 0.40 l ) B ( 0.08 l ) , for B6-B7-B8 common lubrication 0.38 l ( A + B ).

AGIP Telium VSF 320    
 SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
 Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	500	2500
50	600	3000
25	700	3800
15-6	800	4000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	61	305

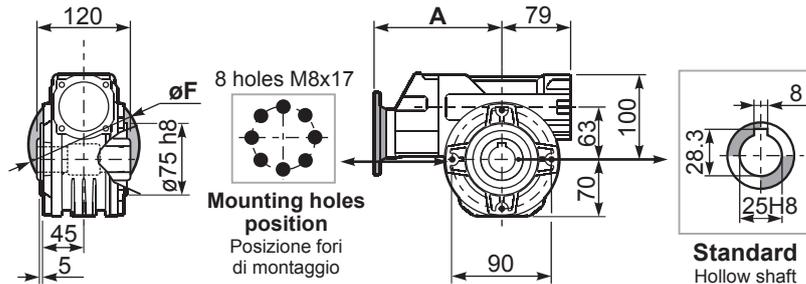
**\*Strong axial loads in the DX direction are not allowed.**  
 Non sono consentiti forti carichi assiali con direzione DX

tab. 2

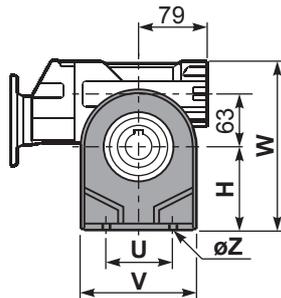
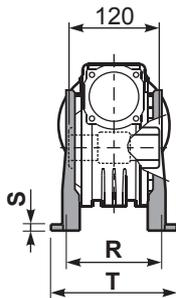
PP63**FB**... Basic wormbox  
Riduttore base

Gearbox weight	29.9+111	139+434
peso riduttore	7.30 Kg	7.80 Kg

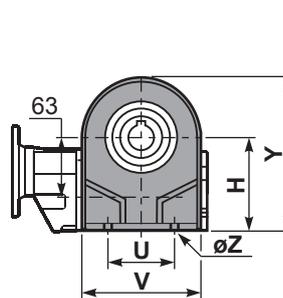
M.flange	Kit code	øF	A
71B5	K063.4.042	160	176.5
80/90B5	K063.4.043	200	178.5
71B14	K063.4.047	105	176.5
80B14	K063.4.046	120	178.5
90B14	K063.4.041	140	178.5
<b>139+434</b>			
63B5	K050.4.041	138	162.5
71B5	K050.4.042	160	160
63B14	K050.4.047	90	162.5
71B14	K050.4.045	105	160



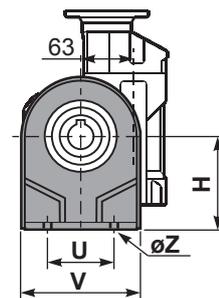
PP63**PA**... Feet  
Piedini



PP63**PB**... Feet  
Piedini

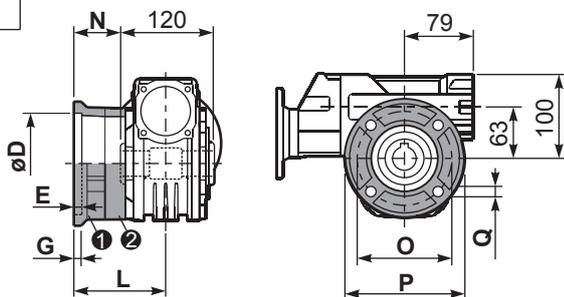


PP63**PV**... Feet  
Piedini



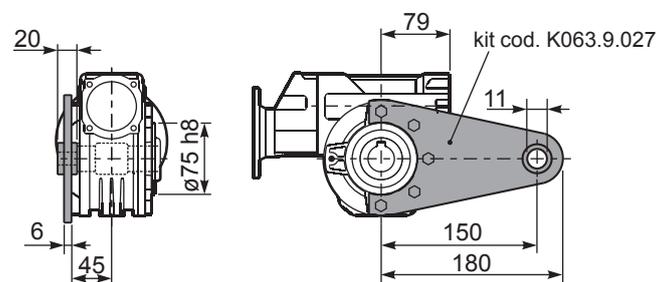
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

PP63**FC**... Output flange  
Flangia uscita



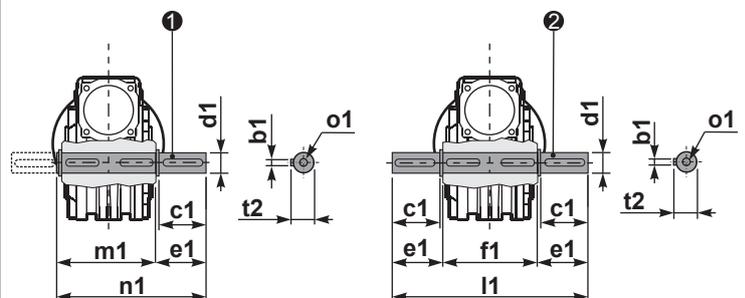
type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	86	26	150	175	11	① K063.9.010 ② -
FL	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	102	42	165	200	13	① KS070.9.013 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	82	22	130	160	10	① KS063.9.011 ② -

PP63**BR**... Reaction arm  
Braccio di reazione



PP63.....**S**... Single Shaft  
Albero lento semplice

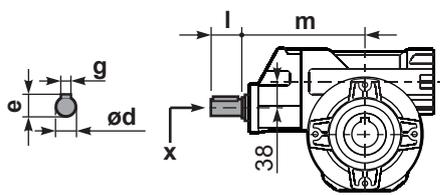
PP63.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

RP63**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x	
29.9+111	19 h6	21.5	6	35	169.4	M6x16	C40.5.062
139+434	14 h6	16	5	25	154.2	M5x13	C35.5.061

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

	Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges				Dynamic efficiency RD	Tooth Module [mm]	Ratios code
								-B	-C	-D	-E	-P	-Q	-R	-T			
								63	71	80	90	63	71	80	90			
IEC 90 - 80 - 71	47	29.9	0.75	113	1.6	1.20	182					C	C		74	2.6	01	
	37	37.7	0.75	141	1.3	0.97	182					C	C		73	2.0	02	
	30	47.1	0.75	169	1.2	0.91	206					C	C		70	3.2	03	
	25	56.6	0.75	185	1.1	0.83	206					C	C		64	2.7	04	
	19.8	70.7	0.55	162	1.3	0.70	206					C	C		61	2.1	05	
	15.9	87.8	0.37	160	1.4	0.51	218					C	C		72	2.6	06	
	12.6	111.0	0.37	196	1.1	0.41	218					C	C		70	2.0	07	
IEC 71 - 63	10.1	139	0.37	231	0.9	0.35	218					C			66	3.2	08	
	8.4	166	0.25	170	1.3	0.32	218					C			60	2.7	09	
	6.7	208	0.25	195	1.0	0.25	194					C			55	2.1	10	
	4.5	310	0.18	194	1.0	0.18	194					C			51	1.5	11	
	3.8	370	0.18	213	0.9	0.16	194					C			47	1.3	12	
	3.2	434	0.18*	143	<0.8	0.11	143					C			42	1.1	13	

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M<sub>2R</sub>  
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M<sub>2R</sub>

**EN** Unit P6A is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo P6A viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe P6A mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type P6A est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño P6A se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P6A Oil

For B3-V5-V6 separate lubrication for A ( 0.40 l ) B ( 0.08 l ) , for B6-B7-B8 common lubrication 0.38 l ( A + B ).



AGIP Telium VSF 320

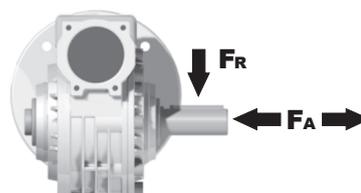
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

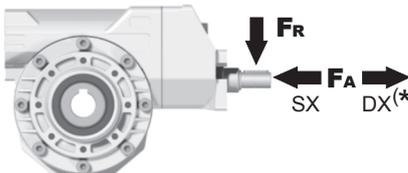
Albero di uscita



n <sub>2</sub> [min <sup>-1</sup> ]	FA [N]	FR [N]
75	500	2500
50	600	3000
25	700	3800
15-6	800	4000

##### Input shaft

albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	61	305

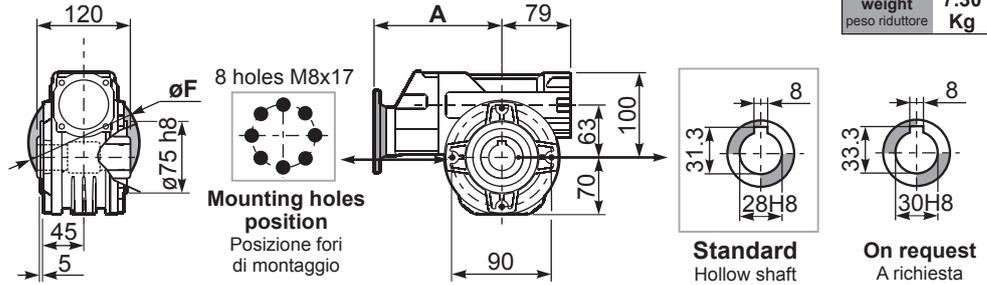
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**PP6AFB...** Basic wormbox  
Riduttore base

Gearbox weight peso riduttore	29.9+111	139+434
	<b>7.30</b>	<b>7.80</b>
	<b>Kg</b>	<b>Kg</b>

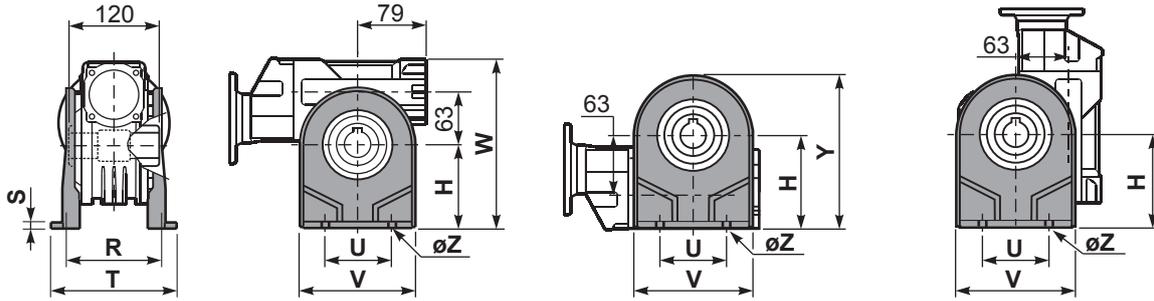
M.flange	Kit code	øF	A
71B5	K063.4.042	160	176.5
80/90B5	K063.4.043	200	178.5
71B14	K063.4.047	105	176.5
80B14	K063.4.046	120	178.5
90B14	K063.4.041	140	178.5
<hr/>			
139+434			
63B5	K050.4.041	138	162.5
71B5	K050.4.042	160	160
63B14	K050.4.047	90	162.5
71B14	K050.4.045	105	160



**PP6APA...** Feet  
Piedini

**PP6APB...** Feet  
Piedini

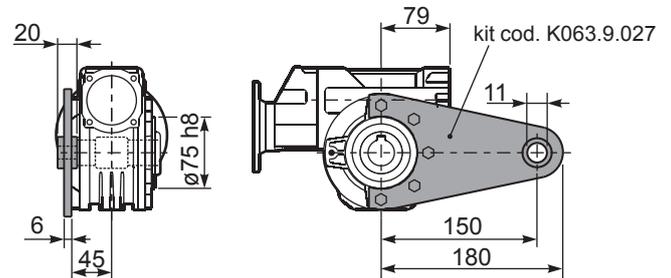
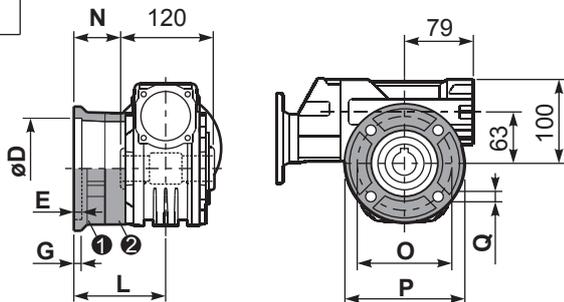
**PP6APV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**PP6AFC...** Output flange  
Flangia uscita

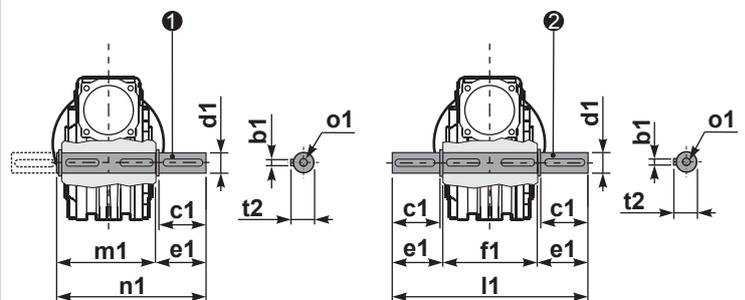
**PP6ABR...** Reaction arm  
Braccio di reazione



type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	① K070.9.010 ② -
FL	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① K070.9.010 ② K070.0.200
<hr/>									
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① KS070.9.014 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	① KS070.9.011 ② -

**PP6A....S...** Single Shaft  
Albero lento semplice

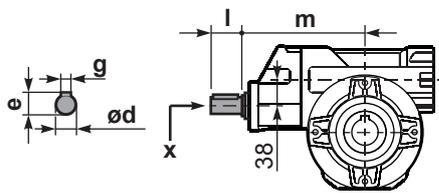
**PP6A....D...** Double Shaft  
Albero lento bisp.



① kit cod. K070.5.028 type B

② kit cod. K070.5.029 type B

**RP6AFB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	
29.9+111	19 h6	21.5	6	35	169.4	M6x16	C40.5.062
139+434	14 h6	16	5	25	154.2	M5x13	C35.5.061

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
23.5	<b>59.7</b>	1.1	300	1.4	<b>1.5</b>	<b>418</b>					<b>C</b>	<b>C</b>		67	3.5	01
19.4	<b>72.3</b>	1.1	347	1.2	<b>1.3</b>	<b>407</b>					<b>C</b>	<b>C</b>		64	3.1	02
17.1	<b>81.7</b>	1.1	374	1.1	<b>1.2</b>	<b>418</b>					<b>C</b>	<b>C</b>		61	2.7	03
13.3	<b>105</b>	0.75	323	1.2	<b>0.89</b>	<b>385</b>					<b>C</b>	<b>C</b>		60	2.1	04
8.0	<b>176</b>	0.55	415	1.1	<b>0.58</b>	<b>440</b>	<b>B</b>				<b>C</b>	<b>C</b>		63	3.5	05
6.6	<b>213</b>	0.37	322	1.3	<b>0.47</b>	<b>407</b>	<b>B</b>				<b>C</b>	<b>C</b>		60	3.1	06
5.8	<b>240</b>	0.37	321	1.3	<b>0.48</b>	<b>418</b>	<b>B</b>				<b>C</b>	<b>C</b>		53	2.7	07
4.3	<b>328</b>	0.37	438	1.0	<b>0.35</b>	<b>418</b>	<b>B</b>				<b>C</b>	<b>C</b>		53	2.7	08
3.3	<b>422</b>	0.25	374	1.0	<b>0.26</b>	<b>385</b>	<b>B</b>				<b>C</b>	<b>C</b>		52	2.1	09
3.0	<b>466</b>	0.25	358	0.9	<b>0.23</b>	<b>330</b>	<b>B</b>				<b>C</b>	<b>C</b>		45	1.9	10
2.3	<b>605</b>	0.18	297	1.1	<b>0.20</b>	<b>330</b>	<b>B</b>				<b>C</b>	<b>C</b>		40	1.5	11

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **P85** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P85** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P85** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P85** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P85** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P85 Oil

For B3-V5-V6 separate lubrication for A ( 1.20 l ) B ( 0.14 l ) , for B6-B7-B8 common lubrication 0.90 l ( A + B ).



**AGIP** Telium VSF 320

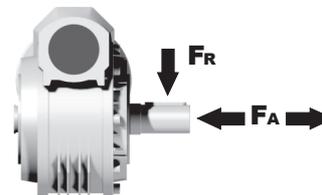
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

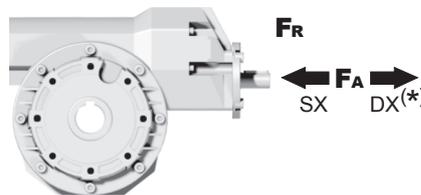
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>75</b>	700	3500
<b>50</b>	800	4000
<b>25</b>	1000	5000
<b>15-6</b>	1160	5800

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	108	540

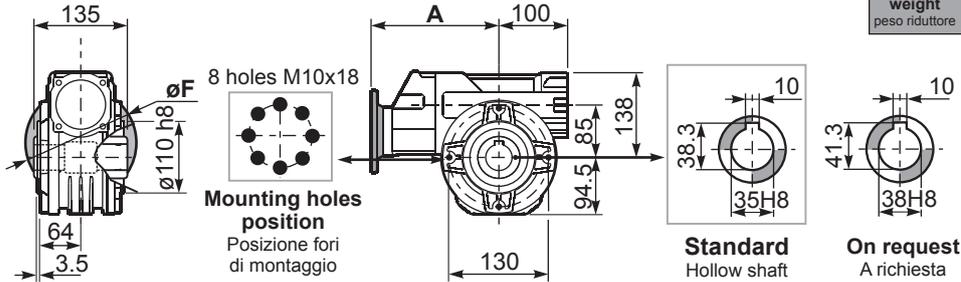
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

PP85**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **19.30 kg**

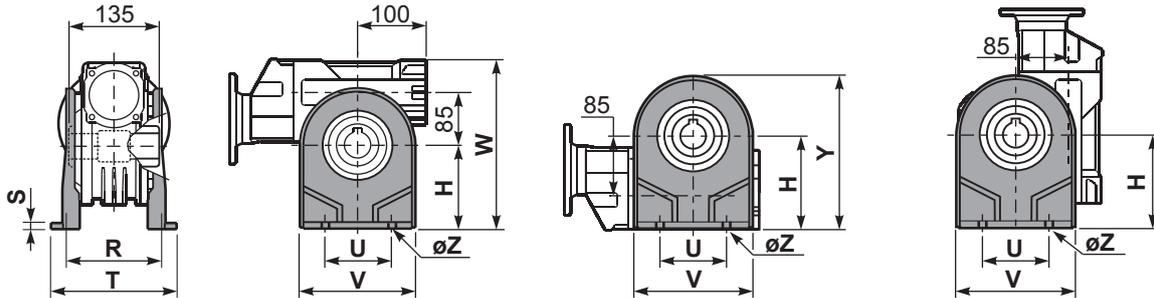
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	195.2
71B5	K063.4.042	160	193.2
80/90B5	K063.4.043	200	195.2
71B14	K063.4.047	105	193.2
80B14	K063.4.046	120	195.2
90B14	K063.4.041	140	195.2



PP85**PA**... Feet  
Piedini

PP85**PB**... Feet  
Piedini

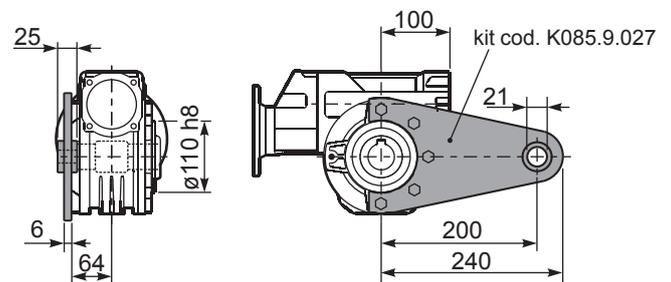
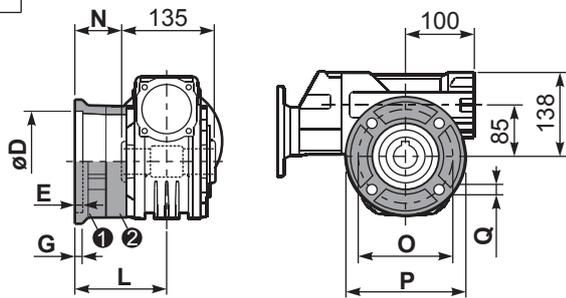
PP85**PV**... Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	142	145	5	182	140	180	236.5	280	ø10.5	K085.9.022
type S	-	-	-	-	-	-	-	-	-	-

PP85**FC**... Output flange  
Flangia uscita

PP85**BR**... Reaction arm  
Braccio di reazione



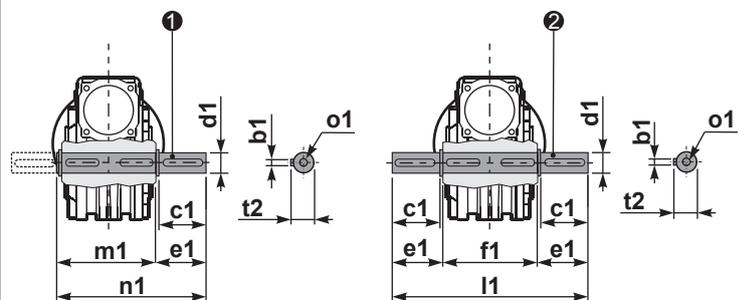
type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	① K085.9.010 ② -
FL	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.04</sup> / <sub>+0.00</sub>	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
F2	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
F4	130 <sup>+0.04</sup> / <sub>+0.00</sub>	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

PP85.....**S**... Single Shaft  
Albero lento semplice

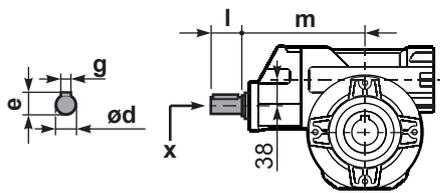
PP85.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K085.5.028 type B

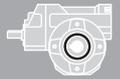
② kit cod. K085.5.029 type B

RP85**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	19 h6	21.5	6	35	187.5	M6x16
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
16.8	<b>83.2</b>	1.5	587	1.1	<b>1.7</b>	<b>660</b>					C			69	3.5	01
13.9	<b>100.5</b>	1.5	699	0.8	<b>1.3</b>	<b>594</b>					C			68	2.9	02
10.6	<b>132</b>	1.1	634	0.9	<b>0.95</b>	<b>550</b>					C			64	2.2	03
8.0	<b>176</b>	0.75	666	1.2	<b>0.90</b>	<b>803</b>	B				C			74	4.7	04
6.7	<b>208</b>	0.75	766	0.9	<b>0.65</b>	<b>660</b>	B				C			72	4.0	05
5.7	<b>245</b>	0.55	634	1.0	<b>0.57</b>	<b>660</b>	B				C			69	3.5	06
4.7	<b>296</b>	0.55	755	0.8	<b>0.43</b>	<b>594</b>	B				C			68	2.9	07
4.2	<b>334</b>	0.55	865	0.8	<b>0.42</b>	<b>660</b>	B				C			69	3.5	08
3.5	<b>403</b>	0.37	692	0.9	<b>0.32</b>	<b>594</b>	B				C			68	2.9	09
2.6	<b>529</b>	0.25	577	1.0	<b>0.24</b>	<b>550</b>	B				C			64	2.2	10
2.2	<b>624</b>	0.25	628	0.8	<b>0.21</b>	<b>528</b>	B				C			59	1.9	11

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **P10** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. Primary reduction unit is supplied with closed plugs and lubricated for life with synthetic oil. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P10** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. La precoppia è fornita con tappi chiusi e lubrificata a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **P10** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Die Stirnradvorstufe ist Lebensdauer geschmiert und wird mit synthetischem Öl geliefert. Die Stirnradvorstufe ist komplett geschlossen ohne Füllschrauben. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P10** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le précouple est fourni lubrifié à vie avec de l'huile synthétique et avec des bouchons fermés. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **P10** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>
2.0/0.14LT	1.35/0.14 LT	1.35/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT

AGIP Blasia 460

For all details on lubrication and plugs check our website

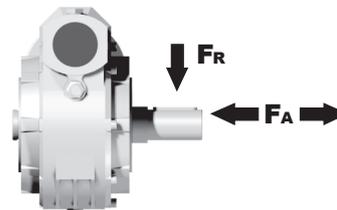
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

#### RADIAL AND AXIAL LOADS

##### Output shaft

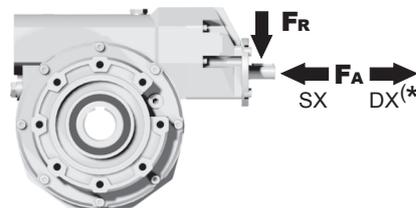
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	800	4000
50	920	4600
25	1200	6000
15-6	1400	7000

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	150	760

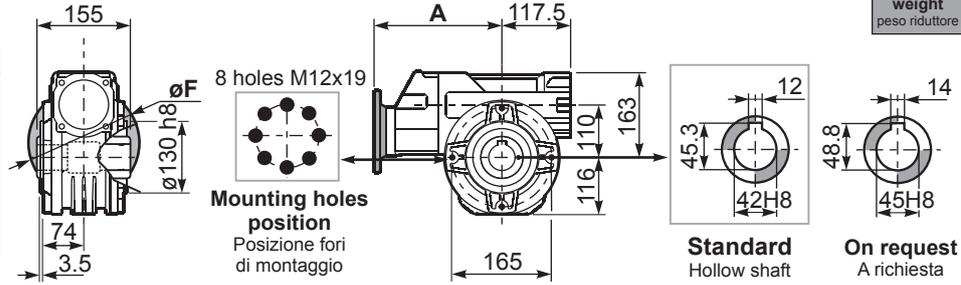
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

PP10**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **41.00 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	214.7
71B5	K063.4.042	160	212.7
80/90B5	K063.4.043	200	214.7
71B14	K063.4.047	105	212.7
80B14	K063.4.046	120	214.7
90B14	K063.4.041	140	214.7



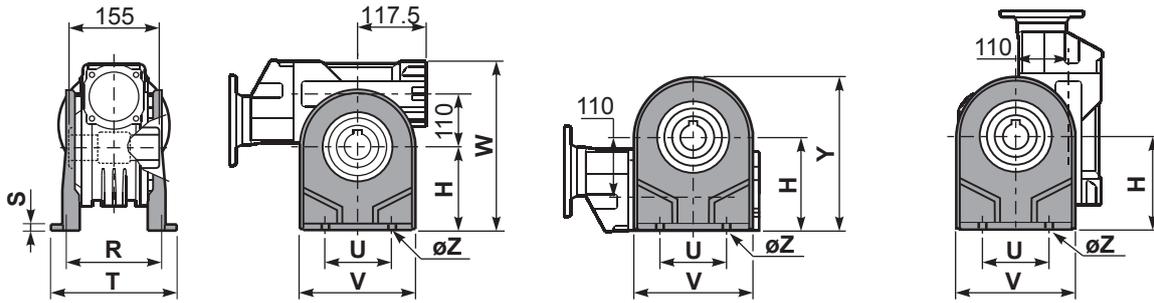
Standard  
Hollow shaft

On request  
A richiesta

PP10**PA**... Feet  
Piedini

PP10**PB**... Feet  
Piedini

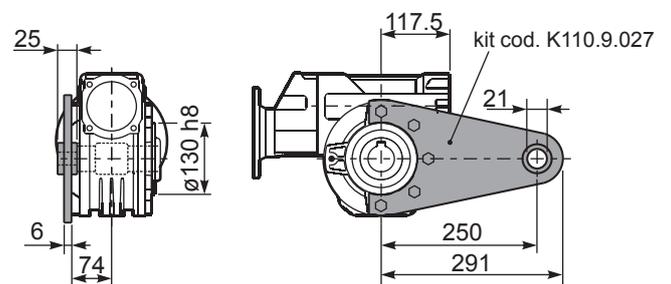
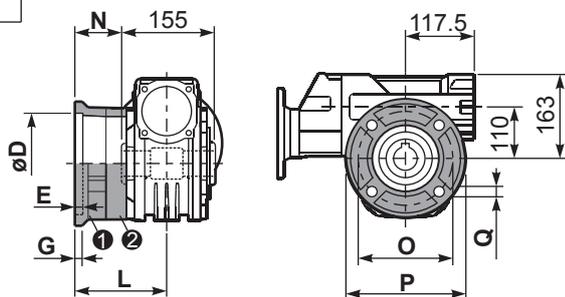
PP10**PV**... Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	22	224	200	240	286	333	ø13	K110.9.022
type S	172	160	8	204	200	240	288	335	ø14	KS110.9.023

PP10**FC**... Output flange  
Flangia uscita

PP10**BR**... Reaction arm  
Braccio di reazione



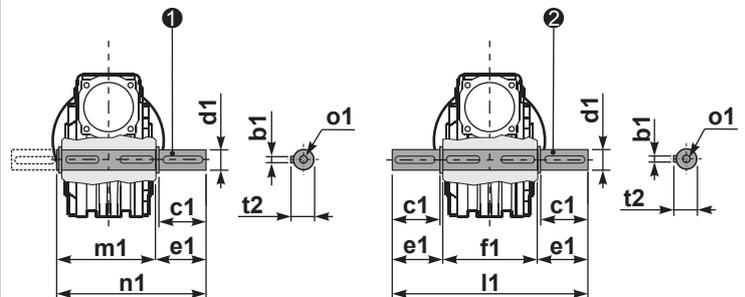
type B	øD	E	G	L	N	O	P	Q	kit code
FC	170 <sup>+0.083</sup> <sub>0</sub> <sup>+0.043</sup>	11	16.5	131.5	54	230	270	13	① K110.9.010 ② -
FL	170 <sup>+0.083</sup> <sub>0</sub> <sup>+0.043</sup>	11	16.5	179.5	102	230	270	13	① K110.9.011 ② -

type S	øD	E	G	L	N	O	P	Q	kit code
F1	180 <sup>+0.040</sup> <sub>0</sub>	5	18	150	72.5	215	250	15	① KS110.9.014 ② -
F2	170 <sup>+0.083</sup> <sub>0</sub> <sup>+0.043</sup>	9.5	15	178	100.5	230	270	13	① KS110.9.012 ② -
F3	180 <sup>+0.040</sup> <sub>0</sub>	5	18	130	52.5	215	250	15	① KS110.9.013 ② -

PP10.....**S**... Single Shaft  
Albero lento semplice

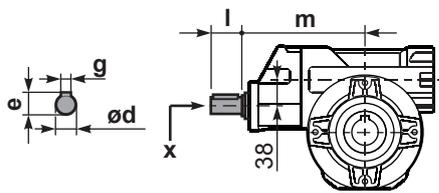
PP10.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K110.5.028 type B

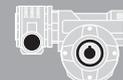
② kit cod. K110.5.029 type B

RP10**FB**... Input shaft  
Albero in entrata



	ød	e	g	l	m	x
type B	19 h6	21.5	6	35	205	M6x16
type S	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> <sub>0</sub> <sup>-0.020</sup>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
9.3	<b>150</b>	0.06	29	1.2	<b>0.07</b>	<b>35</b>	B		B-C		48	1.44	01
6.7	<b>210</b>	0.06	39	0.9	<b>0.05</b>	<b>35</b>	B		B-C		45	1.44	02
4.7	<b>300</b>	0.06*	35	<0.8	<b>0.05</b>	<b>35</b>	B		B-C		36	1.44	03
3.1	<b>450</b>	0.06*	35	<0.8	<b>0.03</b>	<b>35</b>	B		B-C		33	1.44	04
2.3	<b>600</b>	0.06*	35	<0.8	<b>0.03</b>	<b>35</b>	B		B-C		30	1.44	05
1.6	<b>900</b>	0.06*	35	<0.8	<b>0.02</b>	<b>35</b>	B		B-C		27	1.44	06
1.2	<b>1200</b>	0.06*	35	<0.8	<b>0.02</b>	<b>35</b>	B		B-C		26	1.44	07
0.8	<b>1830</b>	0.06*	35	<0.8	<b>0.01</b>	<b>35</b>	B		B-C		24	1.44	08
0.6	<b>2400</b>	0.06*	35	<0.8	<b>0.01</b>	<b>35</b>	B		B-C		22	1.44	09

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 303 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 303 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 303 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 303 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 303 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 303 Oil** 0.03 Lt. 0.03 Lt.

**Quantity 0.03/0.03 Lt.**

**AGIP** Telium VSF 320

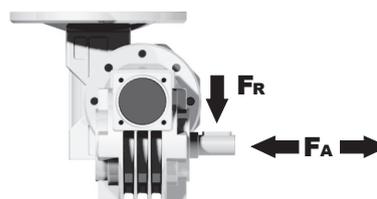
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

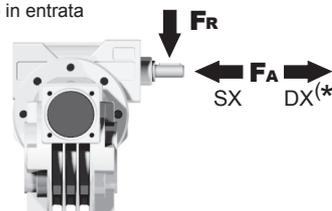
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	300	1800
15	400	2000

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	20	100

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

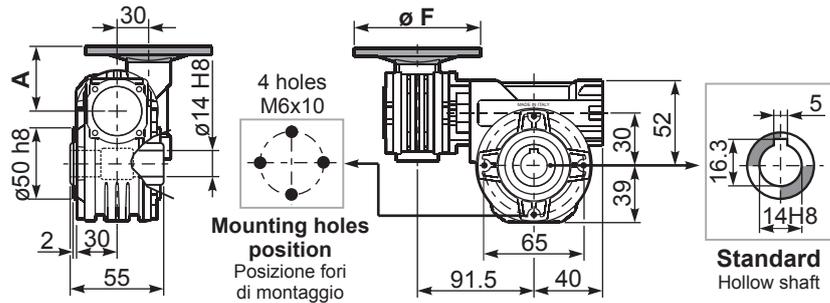
tab. 2

3D dimensions on request

**P303FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **2.15 kg**

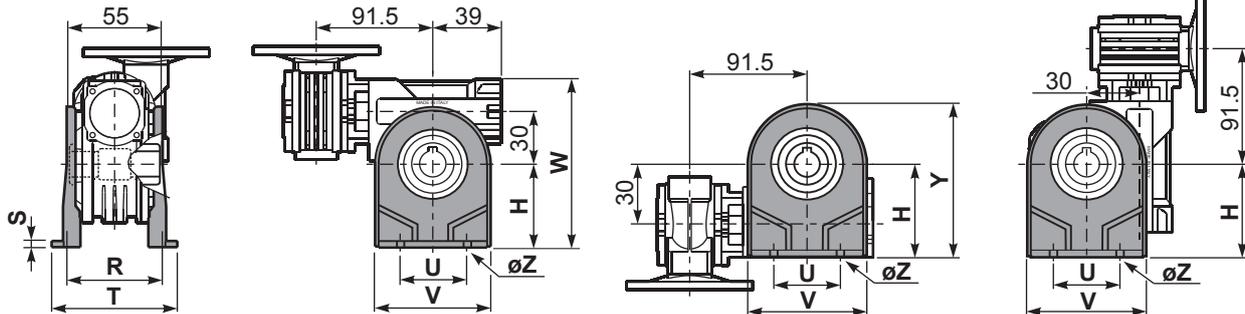
M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



**P303PA...** Feet  
Piedini

**P303PB...** Feet  
Piedini

**P303PV...** Feet  
Piedini

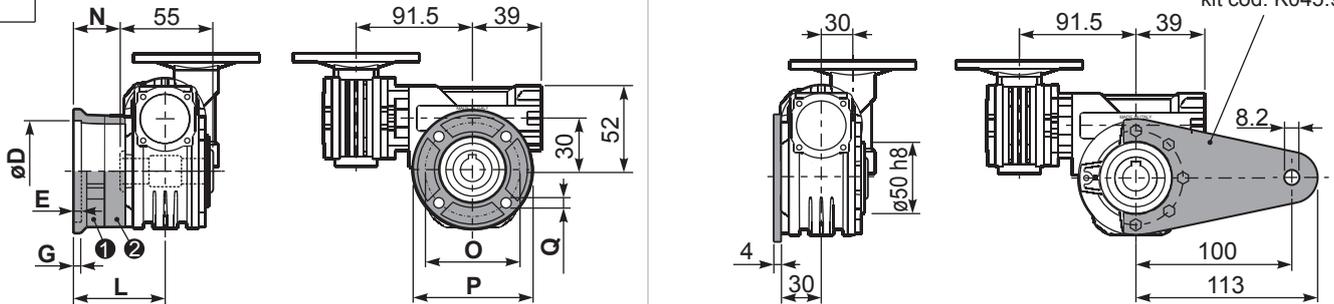


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	55	66	3	87	50	78	94	107	ø6.5	K030.9.022
type S	52	66	3	87	52	90	91	104	ø6.5	KS030.9.023

**P303FC...** Output flange  
Flangia uscita

**P303BR...** Reaction arm  
Braccio di reazione

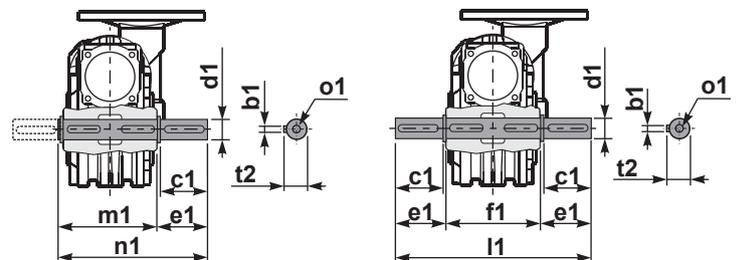
kit cod. K045.9.027



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	50 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	50.5	23	68	80	7	① K030.9.010 ② -
<b>FL</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	6	6	55.5	28	87	110	8.5	① K045.9.010 ② -
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	40 <sup>+0.15</sup> / <sub>+0.10</sub>	3.5	5.5	49	21.5	56	80	6.5	① KS030.9.012 ② -

**P303....S...** Single Shaft  
Albero lento semplice

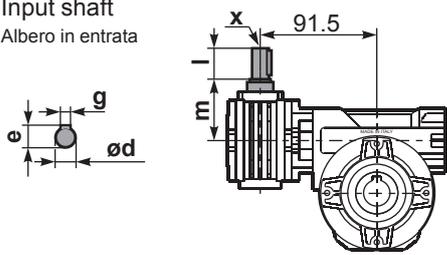
**P303....D...** Double Shaft  
Albero lento bisp.



① kit cod. K030.5.028 type B

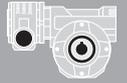
② kit cod. K030.5.029 type B

**R303FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	K030.5.006 PAM63
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 <sup>-0.005</sup> / <sub>-0.020</sub>	35.5	55	126	59	94.5	15.8	M5x14
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
10.0	<b>140</b>	0.12	57	1.2	<b>0.14</b>	<b>69</b>	B		B-C		50	2.2	01
7.0	<b>200</b>	0.12	79	0.9	<b>0.11</b>	<b>69</b>	B		B-C		48	2.2	02
5.0	<b>280</b>	0.12*	69	<0.8	<b>0.08</b>	<b>69</b>	B		B-C		45	2.4	03
3.3	<b>420</b>	0.12*	69	<0.8	<b>0.07</b>	<b>69</b>	B		B-C		36	1.6	04
2.5	<b>560</b>	0.12*	69	<0.8	<b>0.05</b>	<b>69</b>	B		B-C		33	2.5	05
1.9	<b>740</b>	0.12*	69	<0.8	<b>0.05</b>	<b>69</b>	B		B-C		30	1.8	06
1.5	<b>920</b>	0.12*	69	<0.8	<b>0.04</b>	<b>69</b>	B		B-C		27	1.5	07
1.3	<b>1120</b>	0.12*	69	<0.8	<b>0.03</b>	<b>69</b>	B		B-C		26	2.5	08
0.9	<b>1480</b>	0.12*	69	<0.8	<b>0.03</b>	<b>69</b>	B		B-C		24	1.8	09
0.8	<b>1840</b>	0.12*	69	<0.8	<b>0.02</b>	<b>69</b>	B		B-C		22	1.5	10
0.6	<b>2400</b>	0.12*	69	<0.8	<b>0.02</b>	<b>69</b>	B		B-C		21	1.2	11

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 453 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 453 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 453 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 453 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 453 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 453 Oil** 0.09 Lt. 0.03 Lt.

**Quantity 0.09/0.03 Lt.**

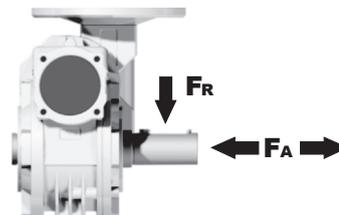
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

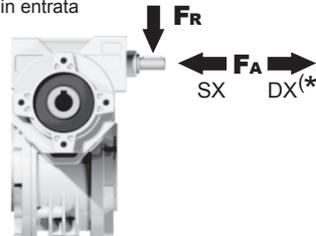
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	300	1800
15	400	2000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	20	100

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

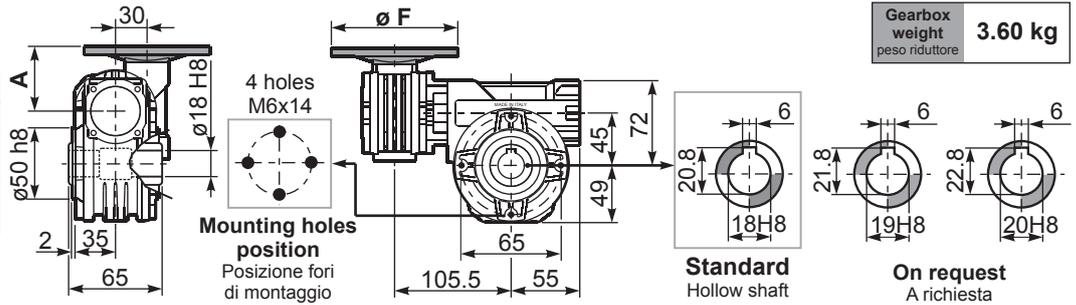
**tab. 2**

3D dimensions on request

**P453FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **3.60 kg**

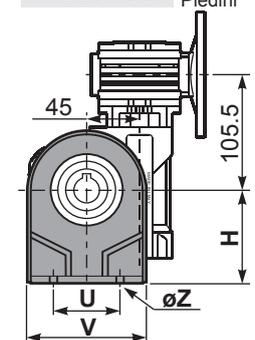
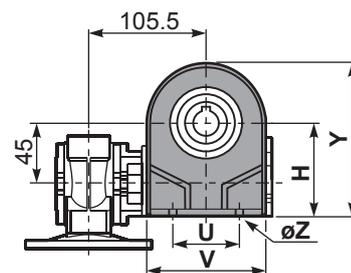
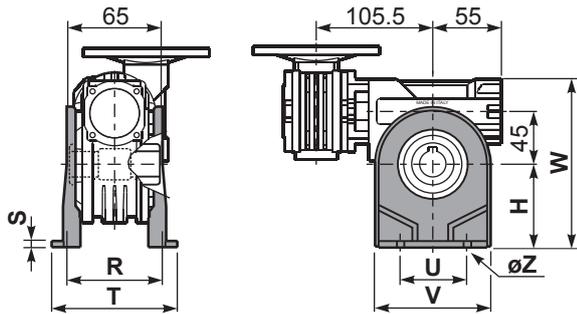
M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



**P453PA...** Feet  
Piedini

**P453PB...** Feet  
Piedini

**P453PV...** Feet  
Piedini

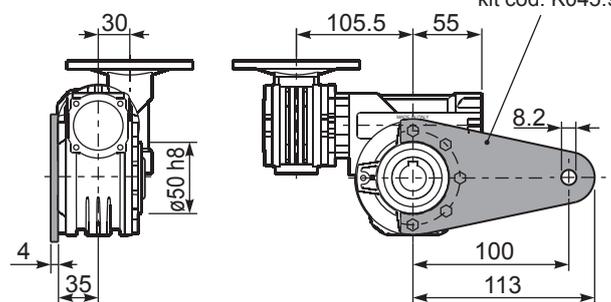
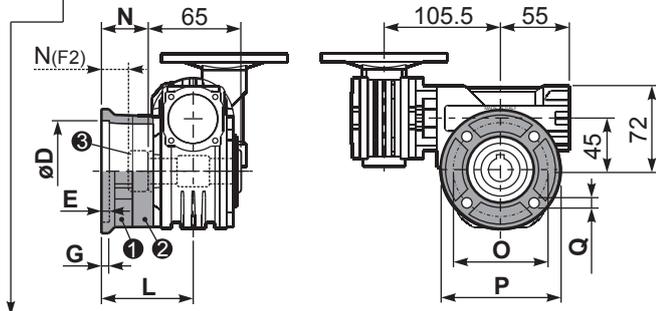


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	72	81	3	100	52	98	121	144	ø10.5	K045.9.022
type S	71	84	8	100	70	90	120	143	ø8	KS045.9.023

**P453FC...** Output flange  
Flangia uscita

**P453BR...** Reaction arm  
Braccio di reazione

kit cod. K045.9.027



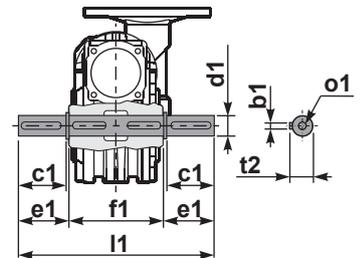
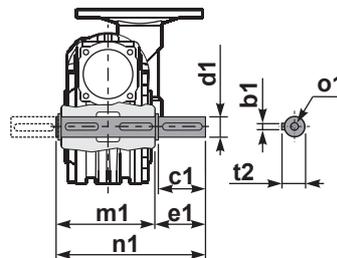
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	28	87	110	8.5	① K045.9.010 ② -
<b>FL</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	90.5	58	87	110	8.5	① K045.9.010 ② K045.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	95 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	73.5	41	115	140	9	① KS045.9.013 ② -
<b>F2</b>	60 <sup>+0.15</sup> / <sub>+0.05</sub>	9	9	60.5	19	87	110	8.5	① KS045.9.010 ② S045.0.204
<b>F3</b>	80 <sup>+0.030</sup> / <sub>0</sub>	3	8	51.5	19	100	120	9	① KS045.9.014 ② -

**P453.....S...** Single Shaft  
Albero lento semplice

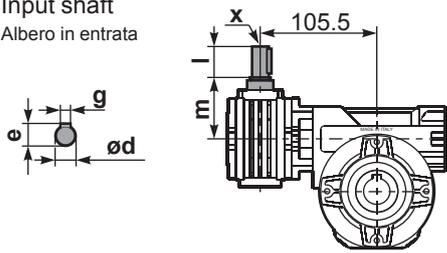
**P453.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

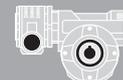
② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

**R453FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	① K030.5.006 PAM63 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> / <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> / <sub>-0.020</sub>	58.5	65	182	70	128.5	21.5	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.12	97	1.1	<b>0.14</b>	<b>109</b>	B		B-C		47	2.1	01
3.9	<b>360</b>	0.12	124	0.9	<b>0.11</b>	<b>109</b>	B		B-C		42	2.1	02
2.6	<b>540</b>	0.12*	109	<0.8	<b>0.08</b>	<b>109</b>	B		B-C		39	2.1	03
1.9	<b>720</b>	0.12*	109	<0.8	<b>0.06</b>	<b>109</b>	B		B-C		36	2.1	04
1.6	<b>860</b>	0.12*	109	<0.8	<b>0.06</b>	<b>109</b>	B		B-C		32	1.8	05
1.2	<b>1200</b>	0.12*	109	<0.8	<b>0.05</b>	<b>109</b>	B		B-C		27	1.3	06
1.0	<b>1440</b>	0.12*	109	<0.8	<b>0.04</b>	<b>109</b>	B		B-C		26	2.1	07
0.8	<b>1720</b>	0.12*	109	<0.8	<b>0.04</b>	<b>109</b>	B		B-C		25	1.8	08
0.6	<b>2400</b>	0.12*	104	<0.8	<b>0.03</b>	<b>104</b>	B		B-C		21	1.3	09

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione



**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 503 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 503 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 503 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 503 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 503 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 503 Oil** 0.14 Lt.

**Quantity 0.14/0.03 Lt.** 0.03 Lt.

AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	480	2500
15	560	2800

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	20	100

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

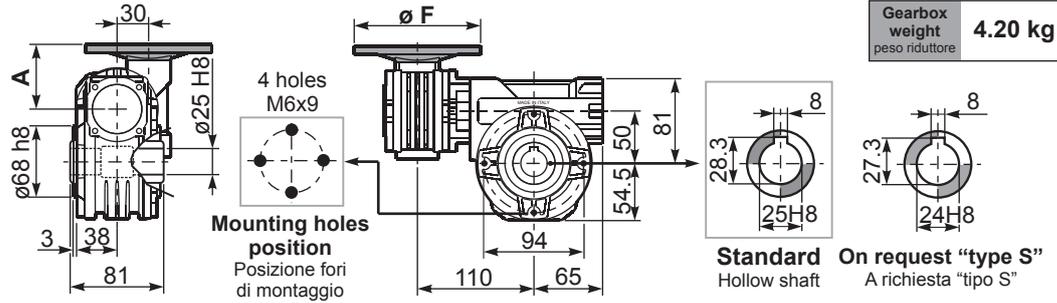
tab. 2

3D dimensions on request

**P503FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **4.20 kg**

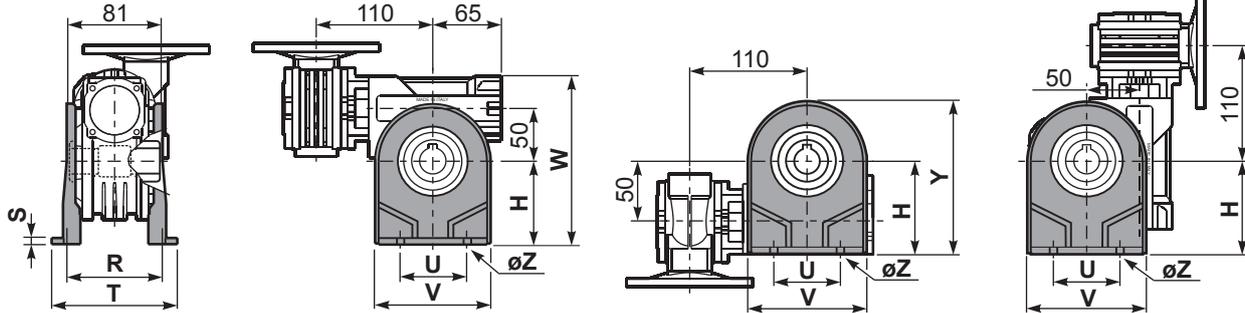
M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



**P503PA...** Feet  
Piedini

**P503PB...** Feet  
Piedini

**P503PV...** Feet  
Piedini

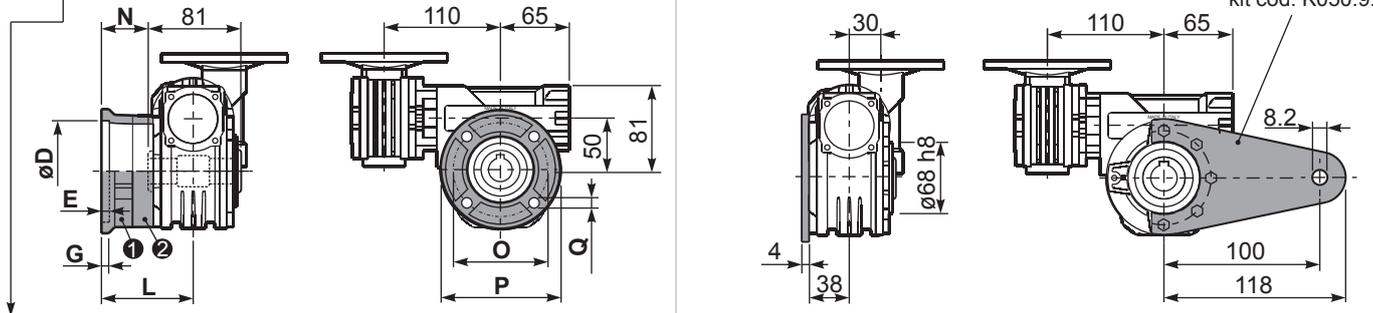


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	82	98.5	3.5	123	63	113	138.5	163	ø10.5	K050.9.022
type S	85	96	10	114	85	110	139.5	166	ø10	KS050.9.023

**P503FC...** Output flange  
Flangia uscita

**P503BR...** Reaction arm  
Braccio di reazione

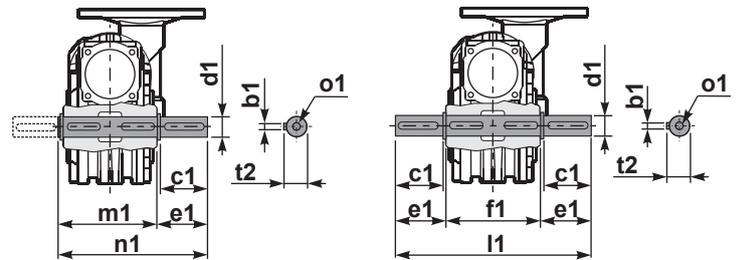
kit cod. K050.9.027



type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	85	44.5	90	123	10.5	① K050.9.010 ② -
<b>FL</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	114.5	74	90	123	10.5	① K050.9.010 ② K050.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	110 <sup>+0.20</sup> / <sub>+0.15</sub>	4	11	83.5	43	130	160	10	① KS050.9.012 ② -
<b>F2</b>	70 <sup>+0.20</sup> / <sub>+0.15</sub>	9	12	76.5	36	90	123	10.5	① KS050.9.014 ② -
<b>F3</b>	95 <sup>+0.035</sup> / <sub>0</sub>	4	10	66.5	26	115	140	10	① KS050.9.013 ② -

**P503....S...** Single Shaft  
Albero lento semplice

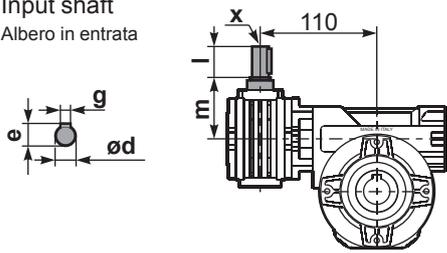
**P503....D...** Double Shaft  
Albero lento bisp.



① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

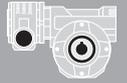
② kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

**R503FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	① K030.5.006 PAM63 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 <sup>-0.005</sup> / <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> / <sub>-0.020</sub>	68.5	81	218	86.5	155	27	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.18	142	1.6	<b>0.29</b>	<b>230</b>	B		B-C		46	2.7	01
3.9	<b>360</b>	0.18	181	1.3	<b>0.23</b>	<b>230</b>	B		B-C		41	2.7	02
2.6	<b>540</b>	0.12	164	1.4	<b>0.17</b>	<b>230</b>	B		B-C		37	2.7	03
1.9	<b>720</b>	0.12	200	1.1	<b>0.14</b>	<b>230</b>	B		B-C		34	2.7	04
1.3	<b>1080</b>	0.12	265	0.9	<b>0.10</b>	<b>230</b>	B		B-C		30	2.7	05
1.0	<b>1440</b>	0.12*	230	<0.8	<b>0.09</b>	<b>230</b>	B		B-C		27	2.7	06
0.5	<b>2745</b>	0.12*	230	<0.8	<b>0.05</b>	<b>230</b>	B		B-C		23	2.1	07

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **633** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **633** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **633** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **633** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **633** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 633 Oil** 0.40 Lt. Quantity 0.40/0.03 Lt.

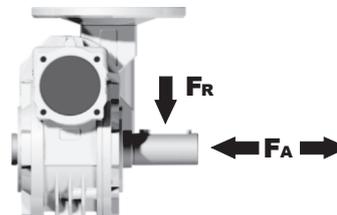
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

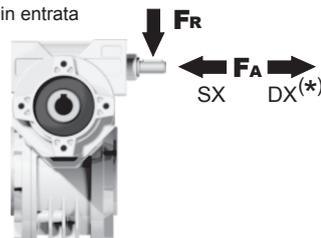
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	700	3800
<b>15</b>	800	4000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	20	100

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

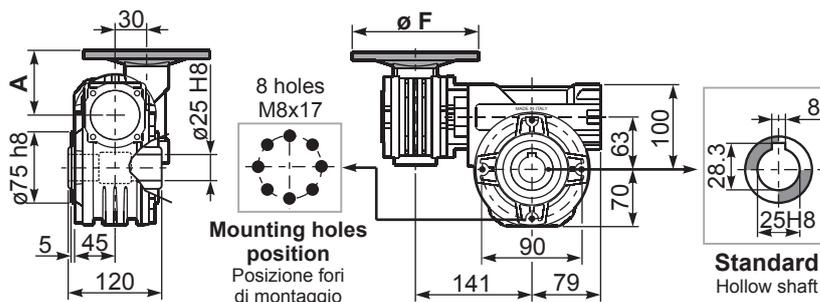
3D dimensions on request

P633FB...

Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **7.50 kg**

M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



8 holes  
M8x17  
Mounting holes position  
Posizione fori di montaggio

Standard  
Hollow shaft

P633PA...

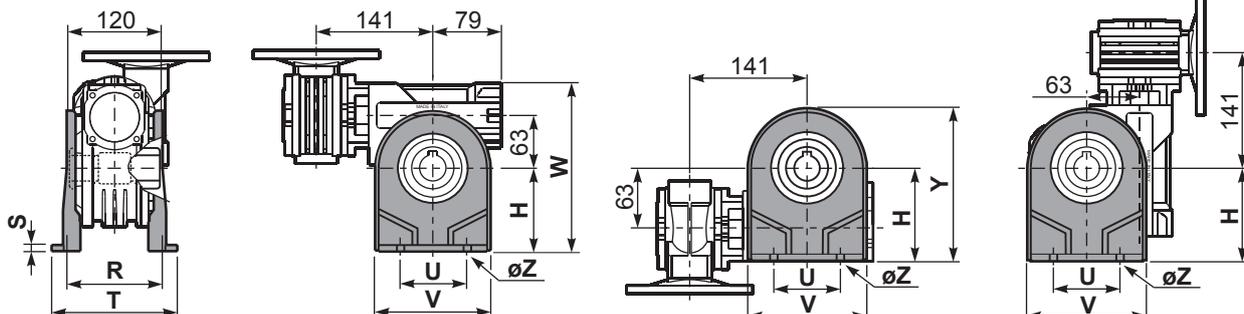
Feet  
Piedini

P633PB...

Feet  
Piedini

P633PV...

Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

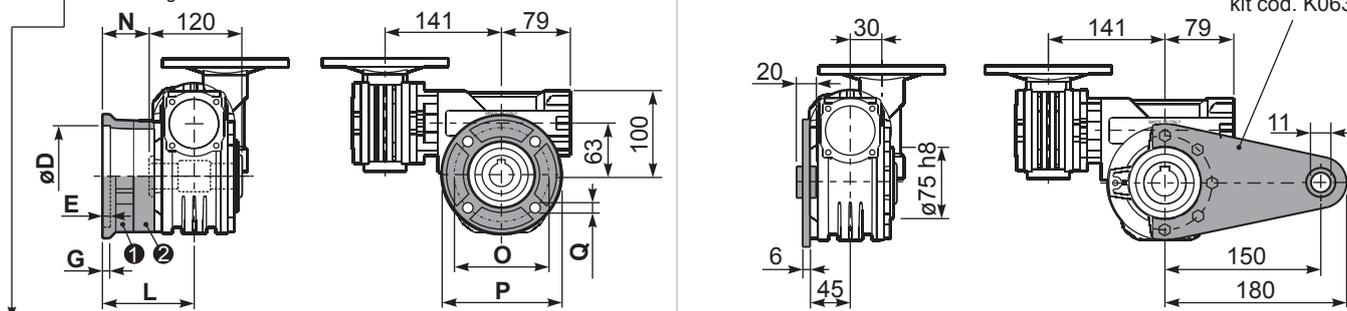
P633FC...

Output flange  
Flangia uscita

P633BR...

Reaction arm  
Braccio di reazione

kit cod. K063.9.027



type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	86	26	150	175	11	① K063.9.010 ② -
FL	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200

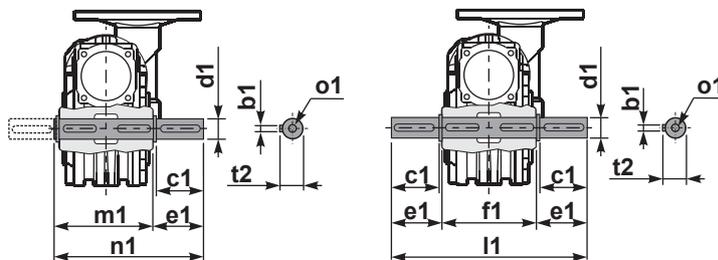
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	102	42	165	200	13	① KS070.9.013 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	82	22	130	160	10	① KS063.9.011 ② -

P633.....S...

Single Shaft  
Albero lento semplice

P633.....D...

Double Shaft  
Albero lento bisp.

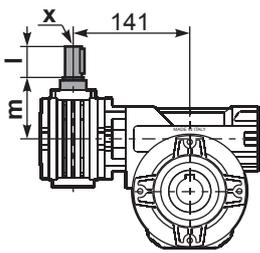
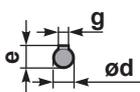


① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

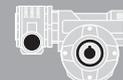
R633FB...

Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	① K030.5.006 PAM63 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5.6	<b>252</b>	0.25	198	1.3	<b>0.33</b>	<b>265</b>	<b>B</b>		B-C	B-C		46	2.7	01
3.9	<b>360</b>	0.18	186	1.4	<b>0.26</b>	<b>265</b>	<b>B</b>		B-C	B-C		42	2.7	02
2.8	<b>504</b>	0.18	241	1.1	<b>0.20</b>	<b>265</b>	<b>B</b>		B-C	B-C		39	2.7	03
1.9	<b>756</b>	0.12	204	1.3	<b>0.16</b>	<b>265</b>	<b>B</b>		B-C	B-C		33	2.7	04
1.4	<b>1008</b>	0.12	256	1.0	<b>0.12</b>	<b>265</b>	<b>B</b>		B-C	B-C		31	2.7	05
1.1	<b>1332</b>	0.12*	265	<0.8	<b>0.10</b>	<b>265</b>	<b>B</b>		B-C	B-C		30	2.7	06
0.8	<b>1656</b>	0.12*	265	<0.8	<b>0.08</b>	<b>265</b>	<b>B</b>		B-C	B-C		28	2.7	07
0.6	<b>2160</b>	0.12*	265	<0.8	<b>0.07</b>	<b>265</b>	<b>B</b>		B-C	B-C		26	2.7	08
0.6	<b>2520</b>	0.12*	265	<0.8	<b>0.06</b>	<b>265</b>	<b>B</b>		B-C	B-C		25	2.7	09

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit 634 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 634 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe 634 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 634 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 634 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 634 Oil** 0.40 Lt. 0.09 Lt.

**Quantity 0.40/0.09 Lt.**

**AGIP** Telium VSF 320      **SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	700	3800
15	800	4000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	42	210

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

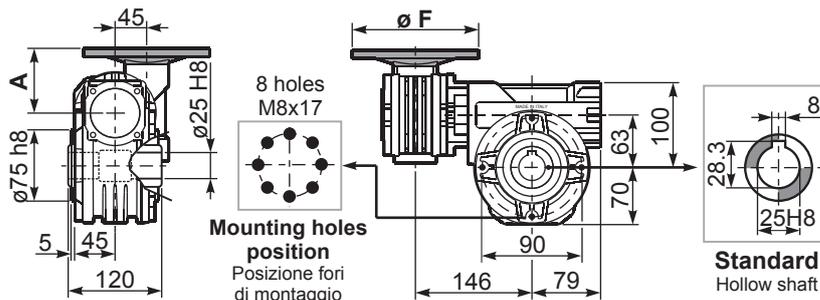
3D dimensions on request

P634**FB**...

Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **8.90 kg**

M. flanges	Kit code	øF	A
63B5	K050.4.041	138	74
71B5	K050.4.042	160	71.5
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5



8 holes  
M8x17  
Mounting holes  
position  
Posizione fori  
di montaggio

Standard  
Hollow shaft

P634**PA**...

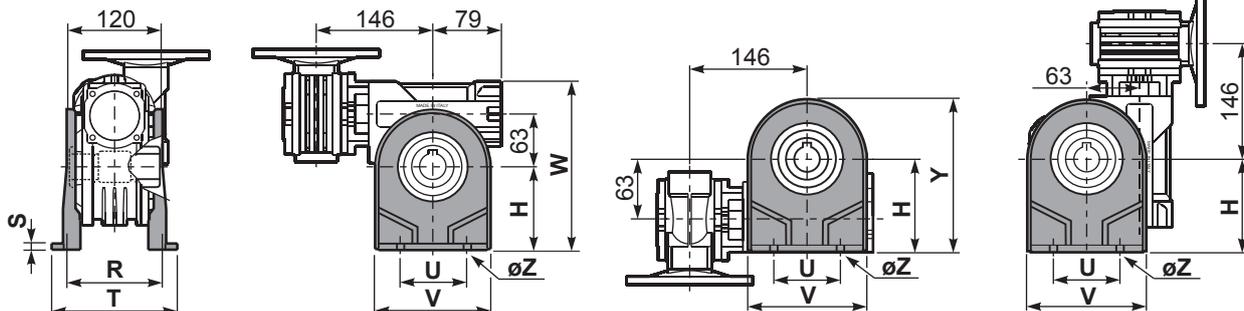
Feet  
Piedini

P634**PB**...

Feet  
Piedini

P634**PV**...

Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	100	111	4	144	95	133	170	200	ø10.5	K063.9.022
type S	-	-	-	-	-	-	-	-	-	-

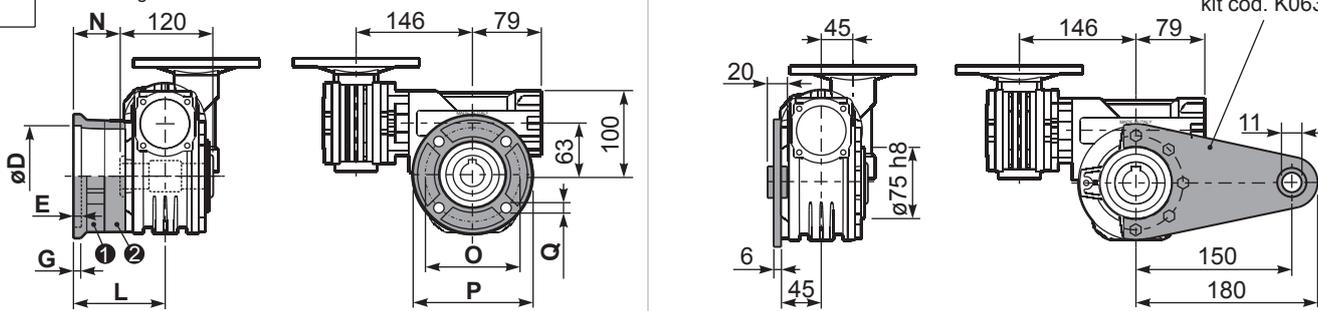
P634**FC**...

Output flange  
Flangia uscita

P634**BR**...

Reaction arm  
Braccio di reazione

kit cod. K063.9.027



type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	86	26	150	175	11	① K063.9.010 ② -
FL	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① K063.9.010 ② K063.0.200

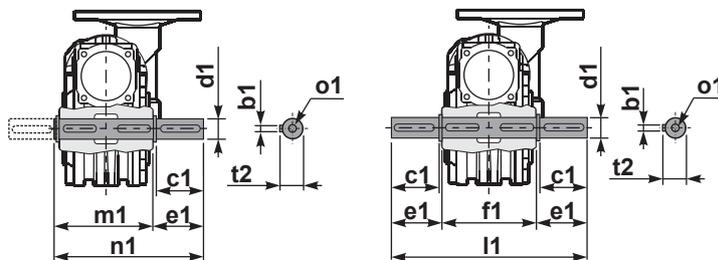
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	102	42	165	200	13	① KS070.9.013 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	82	22	130	160	10	① KS063.9.011 ② -

P634.....**S**...

Single Shaft  
Albero lento semplice

P634.....**D**...

Double Shaft  
Albero lento bisp.

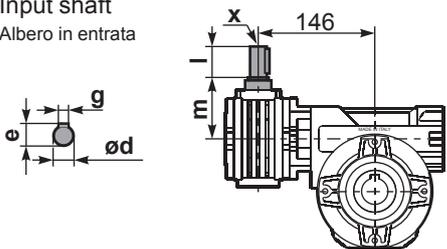


① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

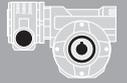
R634**FB**...

Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① ② K045.5.006 PAM71
type S	-	-	-	-	-	-	① ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.18	142	2.0	<b>0.37</b>	<b>290</b>	B		B-C		46	2.7	01
3.9	<b>360</b>	0.18	181	1.6	<b>0.29</b>	<b>290</b>	B		B-C		41	2.7	02
2.6	<b>540</b>	0.18	245	1.2	<b>0.21</b>	<b>290</b>	B		B-C		37	2.7	03
1.9	<b>720</b>	0.12	200	1.4	<b>0.17</b>	<b>290</b>	B		B-C		34	2.7	04
1.3	<b>1080</b>	0.12	265	1.1	<b>0.13</b>	<b>290</b>	B		B-C		30	2.7	05
1.0	<b>1440</b>	0.12	318	0.9	<b>0.11</b>	<b>290</b>	B		B-C		27	2.7	06
0.5	<b>2745</b>	0.12*	242	<0.8	<b>0.06</b>	<b>242</b>	B		B-C		23	2.1	07

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **6A3** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **6A3** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **6A3** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **6A3** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **6A3** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 6A3 Oil** 0.40 Lt. 0.03 Lt.

**Quantity 0.40/0.03 Lt.**

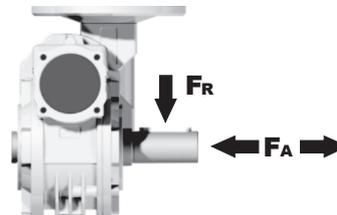
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

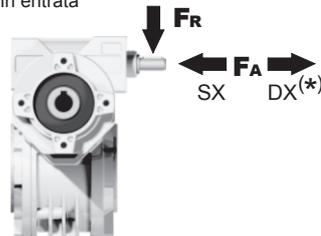
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	700	3800
<b>15</b>	800	4000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	20	100

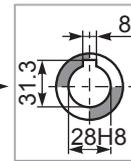
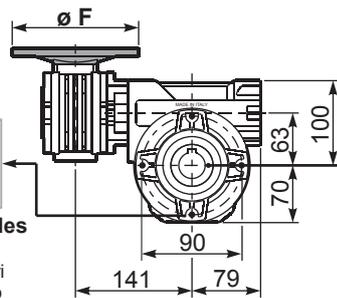
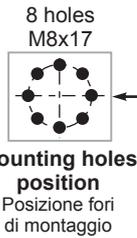
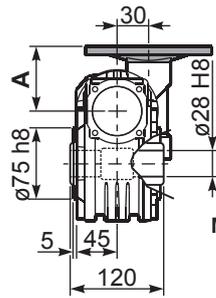
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

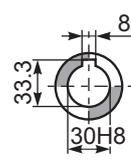
3D dimensions on request

**P6A3FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5



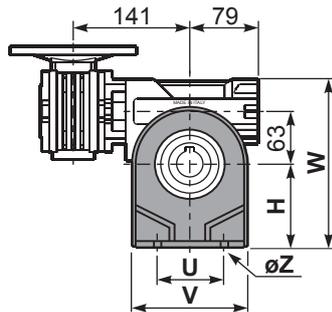
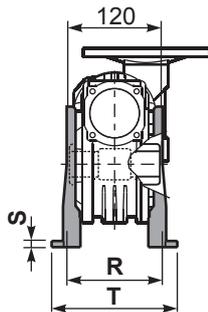
**Standard**  
Hollow shaft



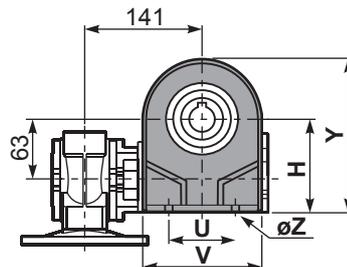
**On request**  
A richiesta

Gearbox weight  
peso riduttore **8.90 kg**

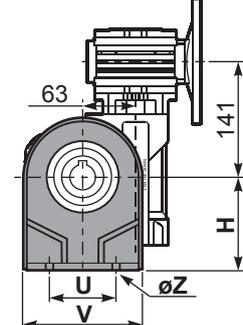
**P6A3PA...** Feet  
Piedini



**P6A3PB...** Feet  
Piedini

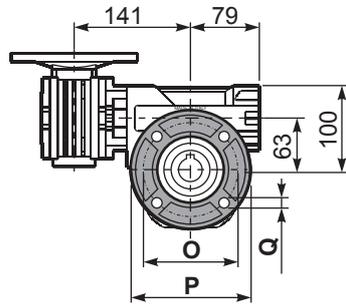
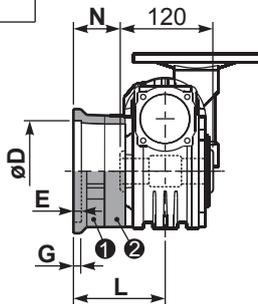


**P6A3PV...** Feet  
Piedini



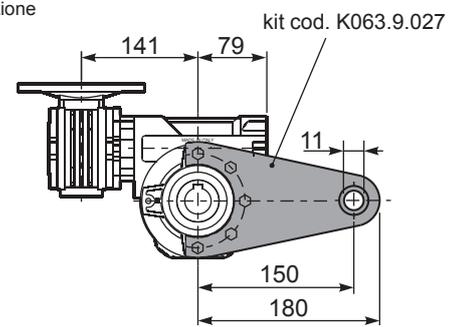
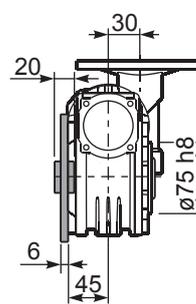
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P6A3FC...** Output flange  
Flangia uscita



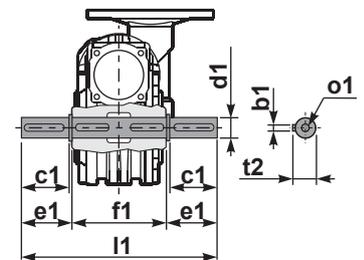
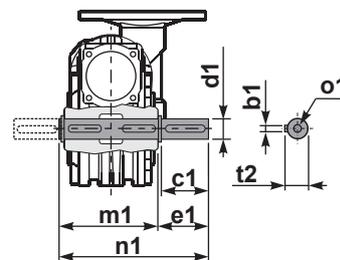
type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	① K070.9.010 ② -
FL	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① K070.9.010 ② K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	① KS070.9.014 ② -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	① KS063.9.013 ② -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	① KS070.9.011 ② -

**P6A3BR...** Reaction arm  
Braccio di reazione



**P6A3....S...** Single Shaft  
Albero lento semplice

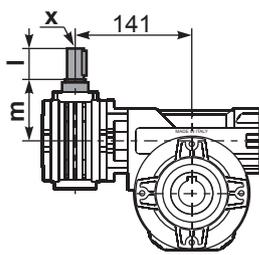
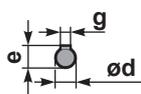
**P6A3....D...** Double Shaft  
Albero lento bisp.



① kit cod. K070.5.028 type B

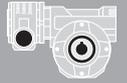
② kit cod. K070.5.029 type B

**R6A3FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	① K030.5.006 PAM63 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5.6	<b>252</b>	0.25	198	1.5	<b>0.38</b>	<b>304</b>	<b>B</b>		B-C	B-C		46	2.7	01
3.9	<b>360</b>	0.25	258	1.2	<b>0.29</b>	<b>304</b>	<b>B</b>		B-C	B-C		42	2.7	02
2.8	<b>504</b>	0.18	241	1.3	<b>0.23</b>	<b>304</b>	<b>B</b>		B-C	B-C		39	2.7	03
1.9	<b>756</b>	0.12	204	1.5	<b>0.18</b>	<b>304</b>	<b>B</b>		B-C	B-C		33	2.7	04
1.4	<b>1008</b>	0.12	256	1.2	<b>0.14</b>	<b>304</b>	<b>B</b>		B-C	B-C		31	2.7	05
1.1	<b>1332</b>	0.12	327	0.9	<b>0.11</b>	<b>304</b>	<b>B</b>		B-C	B-C		30	2.7	06
0.8	<b>1656</b>	0.12*	304	<0.8	<b>0.10</b>	<b>304</b>	<b>B</b>		B-C	B-C		28	2.7	07
0.6	<b>2160</b>	0.12*	304	<0.8	<b>0.08</b>	<b>304</b>	<b>B</b>		B-C	B-C		26	2.7	08
0.6	<b>2520</b>	0.12*	304	<0.8	<b>0.07</b>	<b>304</b>	<b>B</b>		B-C	B-C		25	2.7	09

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **6A4** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **6A4** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **6A4** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **6A4** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **6A4** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**■ LUBRICATION 6A4 Oil** 0.40 Lt.

**Quantity 0.40/0.09 Lt.**  0.09 Lt.

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website tab. 1  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### ■ RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	700	3800
<b>15</b>	800	4000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	42	210

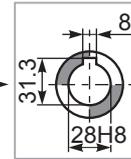
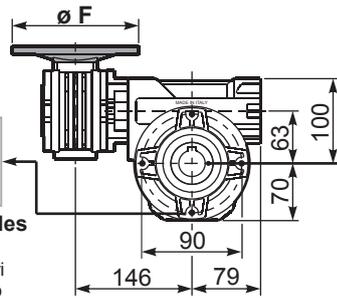
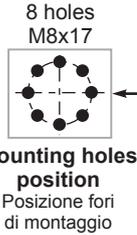
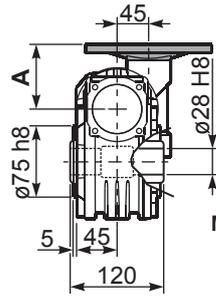
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

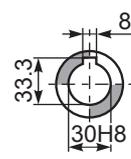
3D dimensions on request

**P6A4FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
63B5	K050.4.041	138	74
71B5	K050.4.042	160	71.5
56B14	KC40.4.049	80	71.5
63B14	K050.4.047	90	74
71B14	K050.4.045	105	71.5



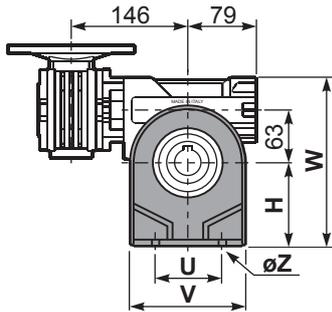
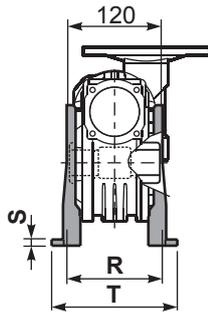
Standard  
Hollow shaft



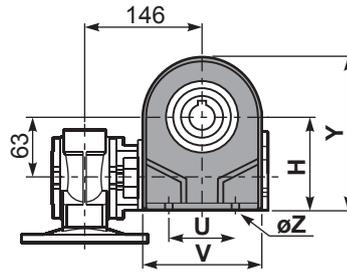
On request  
A richiesta

Gearbox weight  
peso riduttore **8.90 kg**

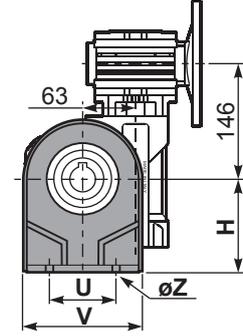
**P6A4PA...** Feet  
Piedini



**P6A4PB...** Feet  
Piedini

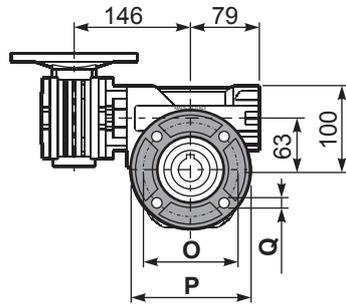
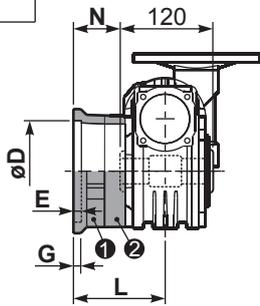


**P6A4PV...** Feet  
Piedini



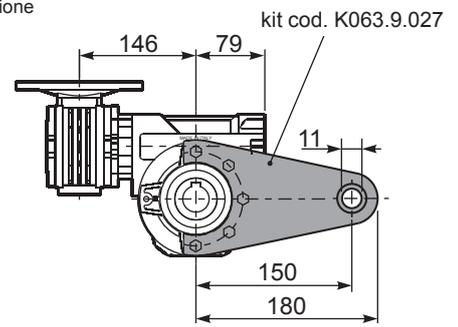
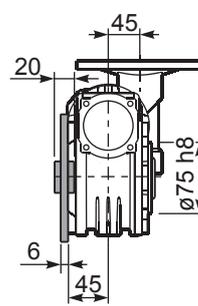
	H	R	S	T	U	V	Y	W	øZ	kit code
type B	115	115	12	142	120	156	185	215	ø11	K070.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P6A4FC...** Output flange  
Flangia uscita

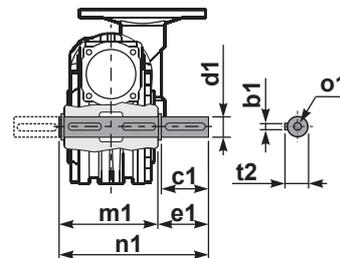


type B	øD	E	G	L	N	O	P	Q	kit code
FC	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	85	25	165	200	13	1 K070.9.010 2 -
FL	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 K070.9.010 2 K070.0.200
type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	111	51	165	200	13	1 KS070.9.014 2 -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	116	56	150	175	11	1 KS063.9.013 2 -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	13.5	84.5	24.5	130	160	11	1 KS070.9.011 2 -

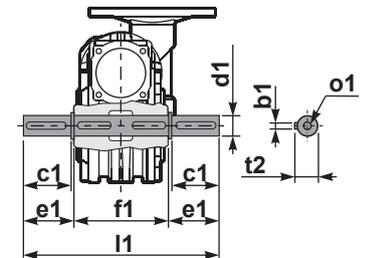
**P6A4BR...** Reaction arm  
Braccio di reazione



**P6A4....S...** Single Shaft  
Albero lento semplice



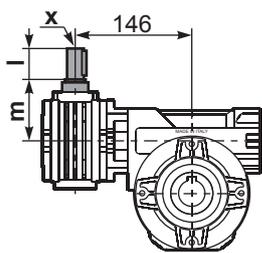
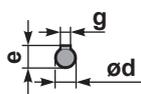
**P6A4....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K070.5.028 type B

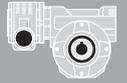
2 kit cod. K070.5.029 type B

**R6A4FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	1 2 K045.5.006 PAM71
type S	-	-	-	-	-	-	1 2 -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	28 <sup>-0.005</sup> / <sub>-0.020</sub>	63.5	120	247	127.5	191	31	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
10	<b>140</b>	0.37	205	1.8	<b>0.66</b>	<b>368</b>	<b>B</b>		B-C	B-C		58	4.5	01
7.1	<b>196</b>	0.37	257	1.4	<b>0.53</b>	<b>368</b>	<b>B</b>		B-C	B-C		52	4.7	02
5.0	<b>280</b>	0.37	332	1.6	<b>0.58</b>	<b>518</b>	<b>B</b>		B-C	B-C		47	4.7	03
3.6	<b>392</b>	0.37	435	1.2	<b>0.44</b>	<b>518</b>	<b>B</b>		B-C	B-C		44	4.7	04
2.4	<b>588</b>	0.25	371	1.4	<b>0.35</b>	<b>518</b>	<b>B</b>		B-C	B-C		37	4.7	05
1.8	<b>784</b>	0.25	455	1.1	<b>0.28</b>	<b>518</b>	<b>B</b>		B-C	B-C		34	4.7	06
1.4	<b>1036</b>	0.18	420	1.2	<b>0.22</b>	<b>518</b>	<b>B</b>		B-C	B-C		33	4.7	07
1.1	<b>1288</b>	0.18	474	1.1	<b>0.20</b>	<b>518</b>	<b>B</b>		B-C	B-C		30	4.7	08
0.7	<b>1960</b>	0.12	449	1.2	<b>0.14</b>	<b>518</b>	<b>B</b>		B-C	B-C		28	4.7	09
0.5	<b>2856</b>	0.12	584	0.9	<b>0.11</b>	<b>518</b>	<b>B</b>		B-C	B-C		25	4.7	10

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **854** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **854** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **854** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **854** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **854** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 854 Oil** 1.2 Lt. 0.09 Lt.

**Quantity 1.2/0.09 Lt.**

AGIP Telium VSF 320	SHELL Omala S4 WE 320
---------------------	-----------------------

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	1000	5000
15	1160	5800

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	42	210

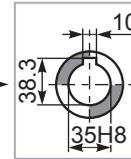
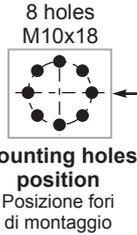
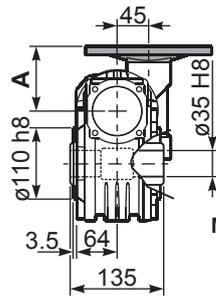
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

3D dimensions on request

**P854FB...** Basic wormbox  
Riduttore base

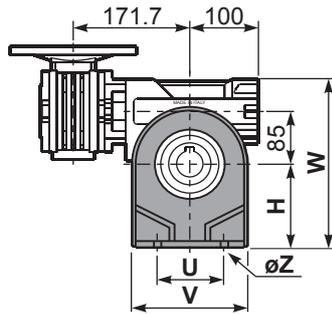
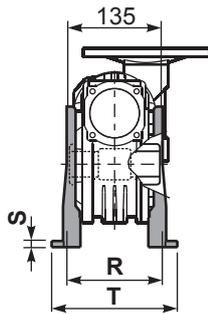
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	74
<b>71B5</b>	K050.4.042	160	71.5
<b>56B14</b>	KC40.4.049	80	71.5
<b>63B14</b>	K050.4.047	90	74
<b>71B14</b>	K050.4.045	105	71.5



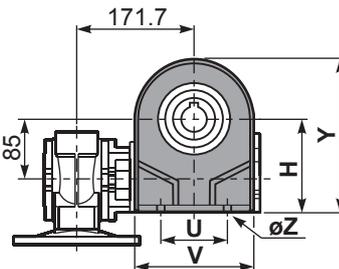
**Standard**  
Hollow shaft

Gearbox weight  
peso riduttore **19.50 kg**

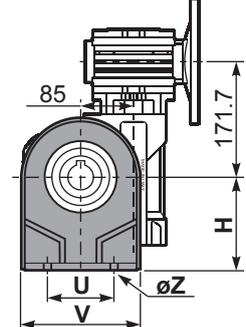
**P854PA...** Feet  
Piedini



**P854PB...** Feet  
Piedini

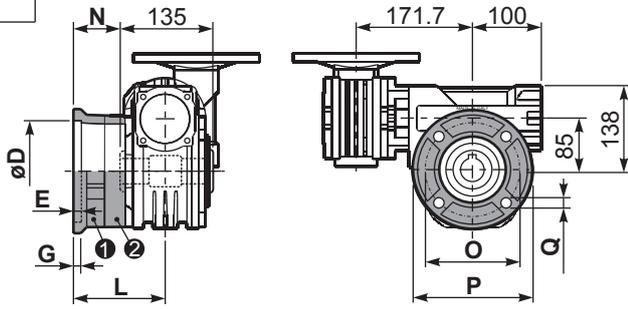


**P854PV...** Feet  
Piedini



	H	R	S	T	U	V	Y	W	øZ	kit code
type B	142	145	5	182	140	180	236.5	280	ø10.5	K085.9.022
type S	-	-	-	-	-	-	-	-	-	-

**P854FC...** Output flange  
Flangia uscita

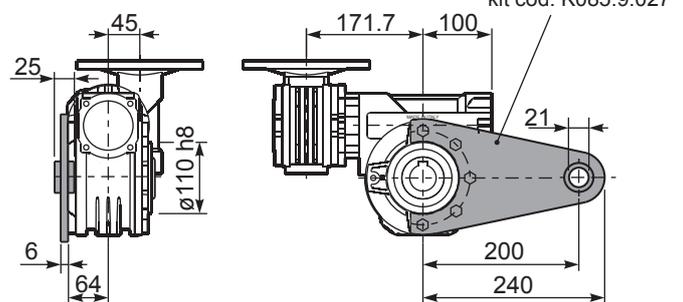


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	① K085.9.010 ② -
<b>FL</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201

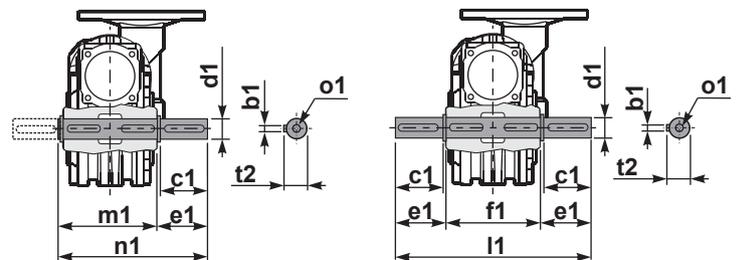
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.040</sup> / <sub>0</sub>	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
<b>F2</b>	152 <sup>+0.06</sup> / <sub>0</sub>	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
<b>F4</b>	130 <sup>+0.040</sup> / <sub>0</sub>	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

**P854BR...** Reaction arm  
Braccio di reazione



**P854.....S...** Single Shaft  
Albero lento semplice

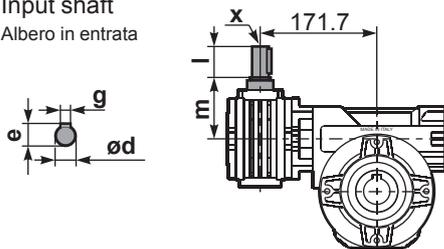
**P854.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K085.5.028 type B

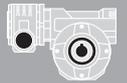
② kit cod. K085.5.029 type B

**R854FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① ② K045.5.006 PAM71
type S	-	-	-	-	-	-	① ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-B	-C	-D	-O	-P	-Q	-R			
							63	71	80	56	63	71	80			
6.7	<b>210</b>	0.75	591	1.5	<b>1.1</b>	<b>863</b>	B	B			B-C	B		55	5.6	01
4.7	<b>300</b>	0.75	752	1.3	<b>0.97</b>	<b>978</b>	B	B			B-C	B		49	5.6	02
3.3	<b>420</b>	0.55	741	1.3	<b>0.73</b>	<b>978</b>	B	B			B-C	B		47	5.6	03
2.6	<b>540</b>	0.55	851	1.1	<b>0.63</b>	<b>978</b>	B	B			B-C	B		42	5.6	04
1.8	<b>780</b>	0.37	748	1.3	<b>0.48</b>	<b>978</b>	B	B			B-C	B		38	5.6	05
1.3	<b>1080</b>	0.37	1009	1.0	<b>0.36</b>	<b>978</b>	B			B-C	B-C			37	5.6	06
1.1	<b>1290</b>	0.25	770	1.3	<b>0.32</b>	<b>978</b>	B			B-C	B-C			35	5.6	07
0.8	<b>1800</b>	0.25	921	1.1	<b>0.27</b>	<b>978</b>	B			B-C	B-C			30	5.6	08
0.7	<b>2040</b>	0.18	751	1.3	<b>0.23</b>	<b>978</b>	B			B-C	B-C			30	5.6	09
0.6	<b>2400</b>	0.18	825	1.2	<b>0.21</b>	<b>978</b>	B			B-C	B-C			28	5.6	10
0.5	<b>3000</b>	0.18	958	1.0	<b>0.18</b>	<b>978</b>	B			B-C	B-C			26	5.6	11

**Motor Flanges Available**  
Flange Motore Disponibili

**Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit 115 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a type that are closed. Gearbox 050 is supplied lubricated for life. See tab.1 for oils and recommended quantity. In tab.2 there are radial loads and axial loads applicable to the gearbox.

**I** Il riduttore tipo 115 è fornito di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Il riduttore 050 è fornito lubrificato a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 115 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Das Getriebe der Baugröße 050 ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 115 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le réducteur de type 050 est fourni lubrifié à vie avec de l'huile synthétique. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 115 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. El reductor 050 se suministra lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6
2.0/0.14 LT	1.35/0.14 LT	1.35/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT

AGIP Blasia 460

For all details on lubrication and plugs check our website

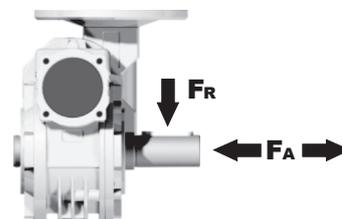
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

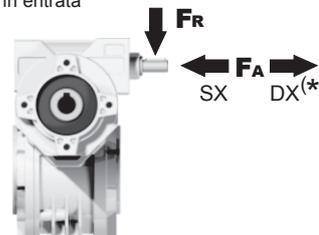
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	1200	6000
15	1400	7000

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	76	380

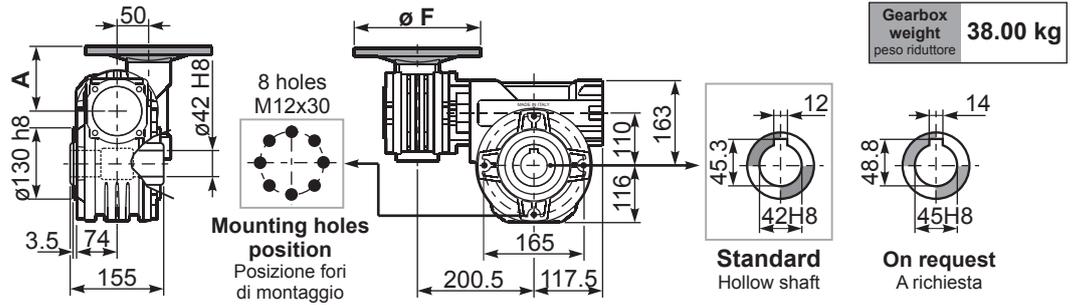
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

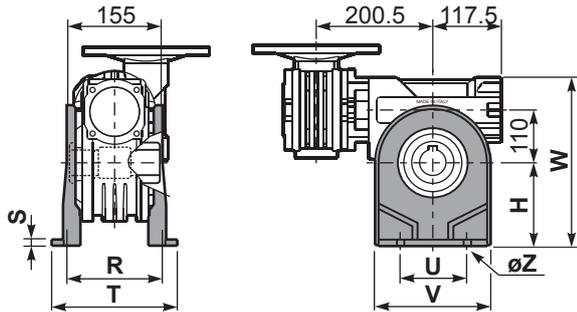
3D dimensions on request

**P115FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	78.5
<b>71B5</b>	K050.4.042	160	76
<b>80B5</b>	K050.4.043	200	76.5
<b>56B14</b>	KC40.4.049	80	76
<b>63B14</b>	K050.4.047	90	78.5
<b>71B14</b>	K050.4.045	105	76
<b>80B14</b>	K050.4.046	120	76.5

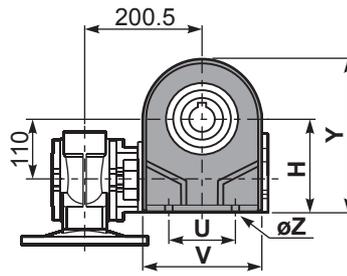


**P115PA...** Feet  
Piedini

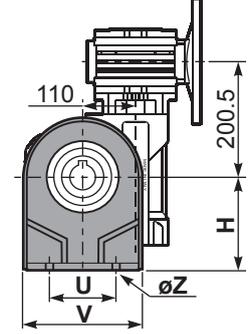


	H	R	S	T	U	V	Y	W	øZ	kit code
type B	170	180	22	224	200	240	286	333	ø13	K110.9.022
type S	172	160	8	204	200	240	288	335	ø14	KS110.9.023

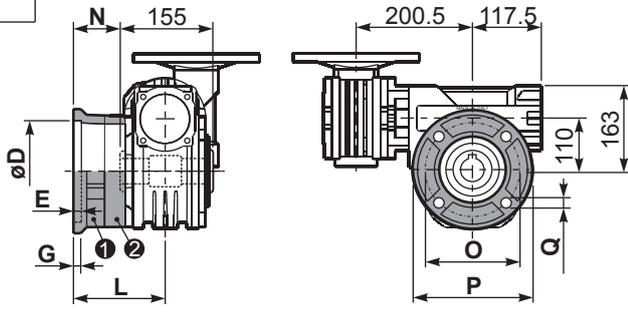
**P115PB...** Feet  
Piedini



**P115PV...** Feet  
Piedini

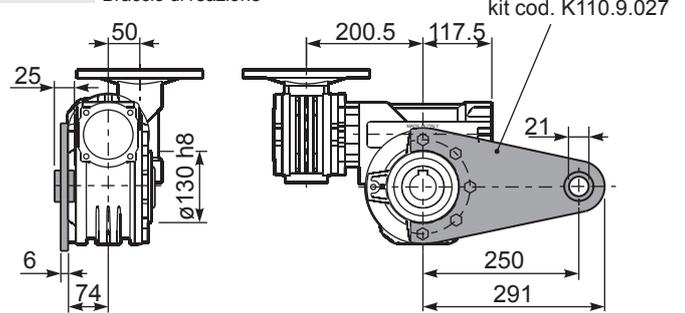


**P115FC...** Output flange  
Flangia uscita

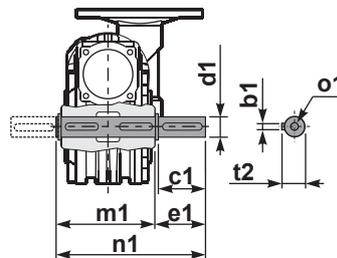


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	131.5	54	230	270	13	1. K110.9.010 2. -
<b>FL</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	179.5	102	230	270	13	1. K110.9.011 2. -
type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	150	72.5	215	250	15	1. KS110.9.014 2. -
<b>F2</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	9.5	15	178	100.5	230	270	13	1. KS110.9.012 2. -
<b>F3</b>	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	130	52.5	215	250	15	1. KS110.9.013 2. -

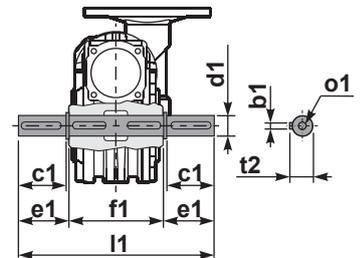
**P115BR...** Reaction arm  
Braccio di reazione



**P115....S...** Single Shaft  
Albero lento semplice



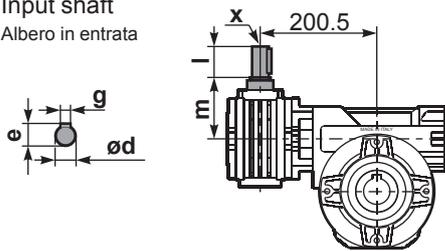
**P115....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K110.5.028 type B

2 kit cod. K110.5.029 type B

**R115FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	74.5	M6x16	1. K050.5.006 PAM71 2. K050.5.007 PAM80
type S	14 h6	16	5	30	74.5	M5x10	1. KS050.5.008 PAM71 2. KS050.5.009 PAM80

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> / <sub>-0.020</sub>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-

# Square worm gearboxes

## A modular and compact product

### Single-piece aluminum alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing.

No secondary finish required but readily accepts paint. Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing.

### Single piece alloy steel input shaft and worm shaft.

High helix angle worm is case-hardened (Rc 58-60), ground, teeth are profiled and radiused, for noise reduction and enhanced efficiency.

### Oversized bearings

Support positively-retained, high speed shaft for higher shock load capacity - ideal for frequent starting and reversing application. Premium, Nitrile® high temperature seals each end.

### Flange

Fully modular to IEC and compact integrated motor. NEMA C flange.

### Premium, high temperature

Nitrile® output seals

### Bronze alloy worm gears.

Is centrifugally cast onto an iron hub for maximum strength and superior life.

### Oversize bearing

For radial load capability and maximum hollow output shaft diameter.

### Standard hollow output shaft mounting

Reduces total drive envelope size, weight and cost. Single and double solid output shaft is available.

### Impregnated and machined bearing caps

With exterior machined surfaces enable a variety of mounting accessories. Extra-deep thread engagement provided for greater support strength. Zinc plated hardware.

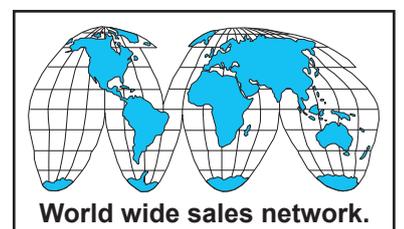
### Vent Free Design.

No breather or vents to leak! Factory lubricated for life with synthetic, semi-fluid gear lubricant with an operating range of -15°C to 130°C.

oil free



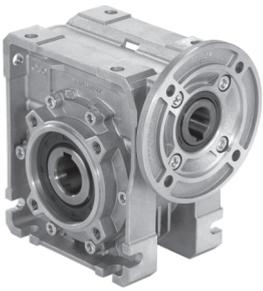
vent free



World wide sales network.

# Specific type datasheet on page...

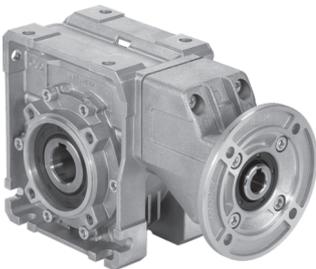
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Types / Tipi /  
Tipen / Types /  
Tipos →

2-5	2-7	2-9	2-11	2-13	2-15	2-17	2-19	2-21
Q30 21Nm	Q45 41Nm	Q50 72Nm	Q63 147Nm	Q75 270Nm	Q85 347Nm	Q11 651Nm	Q13 1050Nm	Q15 1550Nm

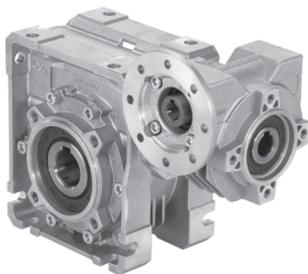
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Types / Tipi /  
Tipen / Types /  
Tipos →

2-23	2-25	2-27	2-29	2-31	2-33
P4Q 55Nm	P5Q 88Nm	P6Q 187Nm	P7Q 310Nm	P8Q 440Nm	P1Q 803Nm

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi /  
Tipen / Types /  
Tipos →

2-35	2-37	2-39	2-41	2-43	2-45	2-47
43Q 69Nm	53Q 109Nm	63Q 230Nm	64Q 265Nm	74Q 359Nm	84Q 518Nm	15Q 978Nm

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi  
Tipen / Types  
Tipos →

M-1										
56A 56B	63A 63B	71A 71B	80A 80B	90S 90L	100LA 100LB	112M	132S 132M	160M 160L	180M 180L	

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza  
Größe - Taille  
Tamaño

Mounting - Montaggio - Montage Fixation  
Fixation - Tipo de montaje

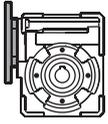
**P**

**Q45**

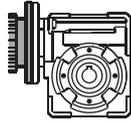
**FC**

**Worm gearboxes**

Riduttori a vite senza fine  
Schneckengetriebe  
Reducteurs a vis sans fin  
Reductores de corona sin fin



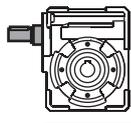
**P**



**M**



**B**

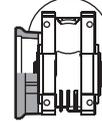


**R**

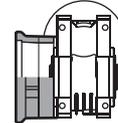
Q30  
Q45  
Q50  
Q63  
Q75  
Q85  
Q11  
Q13  
Q15



**FB**

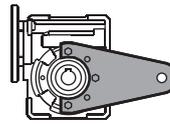


**FC**



**FL**

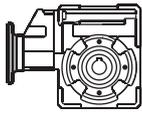
F1  
F2  
F3  
F4



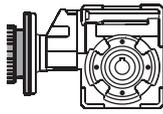
**BR**

**Worm gearboxes with primary reduction**

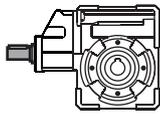
Riduttori a vite senza fine con precoppia  
Schneckengetriebe mit Stirradstufe am Eintrieb  
Reducteurs a vis sans fin avec pré-réduction  
Reductores corona sin fin con prerreductora de engrajes



**P**

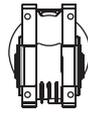


**M**

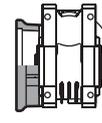


**R**

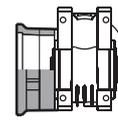
P4Q  
P5Q  
P6Q  
P7Q  
P8Q  
P1Q



**FB**

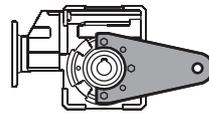


**FC**



**FL**

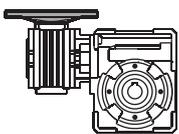
F1  
F2  
F3  
F4



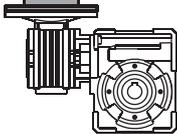
**BR**

**Combined worm gearboxes**

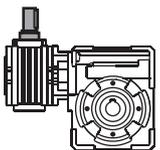
Riduttori a vite senza fine combinati  
Schneckengetriebekombinationen  
Reducteurs a double train de vis sans fin  
Reductores combinados corona sin fin



**P**

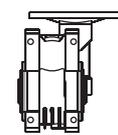


**M**

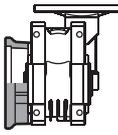


**R**

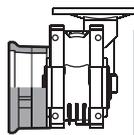
43Q  
53Q  
63Q  
64Q  
74Q  
84Q  
15Q



**FB**

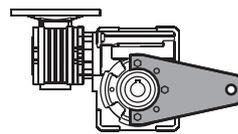


**FC**

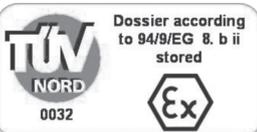


**FL**

F1  
F2  
F3  
F4

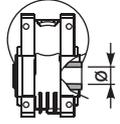
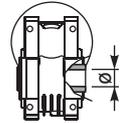
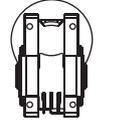
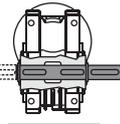
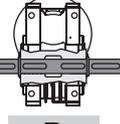
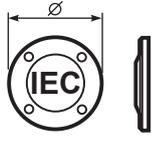
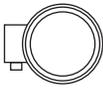
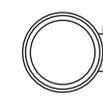
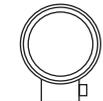
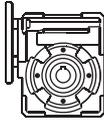
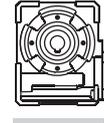
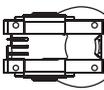
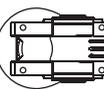
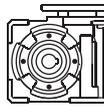
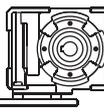
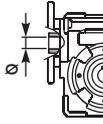
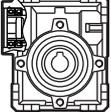


**BR**



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

CODIFICA / HOW TO ORDER / TYPENBEZEICHNUNGEN / CODIFICATION / CODIFICACIÓN

Ratio Rapporto Untersetzung Reduction Relaciòn	Hub Mozzo corona Hohlwelle Arbre creux Nucleo corona	Output shaft Albero lento Abtriebswelle Arbre de sortie Eje solida	Motor size Grandezza motore Motor Grösse Grandeur moteur Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte a bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Reduced Input bore Foro entrata ridotto Reduzierte Eingangshohlwelle Trou d'entree de diametre reduit Eje hueco de entrada reducido	Mountin position Esecuzione montaggio Einbaulage Exécution de montage Posición de montaje
<b>10</b>	<b>C</b>	<b>Ø</b>	<b>-Q</b>	<b>B</b>	<b>B3</b>	<b>-</b>	<b>---</b>
See technical data table Vedi tabelle dati tecnici. Technisches Datenblatt beachten Voir tableau données techniques Ver tabla datos técnicos	 <b>STANDARD</b> <b>C</b> Q30 ⇨ Ø14 Q45 ⇨ Ø18 Q50 ⇨ Ø25 Q63 ⇨ Ø25 Q75 ⇨ Ø30 Q85 ⇨ Ø35 Q11 ⇨ Ø42 Q13 ⇨ Ø45 Q15 ⇨ Ø50 <b>I</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox <hr/> <b>SPECIAL SERIES:                      SERIE SPECIALE:</b> <b>S</b> Q45 ⇨ Ø19 Q50 ⇨ Ø24 <b>X</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox <hr/>  <b>INCH</b> <b>U</b> Q45 ⇨ Ø0.750" Q50 ⇨ Ø1.000" Q63 ⇨ Ø1.125" Q85 ⇨ Ø1.500" <b>Z</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox	 <b>Ø</b>  <b>S</b>  <b>D</b>	 <b>-M</b> without flange Senza flangia <b>B5</b> <b>-A</b> =56 (Ø120) <b>-B</b> =63 (Ø140) <b>-C</b> =71 (Ø160) <b>-D</b> =80 (Ø200) <b>-E</b> =90 (Ø200) <b>-F</b> =100+112 (Ø250) <b>-G</b> =132 (Ø300) <b>-H</b> =160 (Ø350) <b>B14</b> <b>-O</b> =56 (Ø80) <b>-P</b> =63 (Ø90) <b>-Q</b> =71 (Ø105) <b>-R</b> =80 (Ø120) <b>-T</b> =90 (Ø140) <b>-U</b> =100+112 (Ø160) <b>-V</b> =132 (Ø200) <b>-0</b> =Type R <b>-S</b> =Type R S series	 <b>A</b>  <b>B</b> <b>STANDARD</b>  <b>C</b>  <b>D</b>	 <b>B3</b>  <b>B8</b>  <b>B6</b>  <b>B7</b>  <b>V5</b>  <b>V6</b>	 <b>-</b> Nothing indication standard bore Nessuna indicazione foro standard <b>P</b> Input bore reduced one size Foro entrata ridotto di una misura Ex. Input Flange 71 B14 Standard Ø14 Reduced Ø11 <b>Q</b> Input bore reduced two sizes Due grandezze ridotte foro entrata Ex. Input Flange 71 B14 Standard Ø14 Reduced Ø9 <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <b>COUPLING</b>    <b>A</b> = 9mm  <b>B</b> = 11mm  <b>C</b> = 14mm  <b>D</b> = 19mm  <b>E</b> = 24mm  <b>F</b> = 28mm  <b>0</b>                      Without coupling                      Senza giunto   </div>	<b>Only for combined units                      See technical data table</b> Solo per i riduttori combinati Vedi tabelle dati tecnici. Ausführungen für Getriebekombinationen it Uniquement pour combinés. Voir tableau données techniques Sólo para combinados ver tabla datos técnicos

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotacion

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

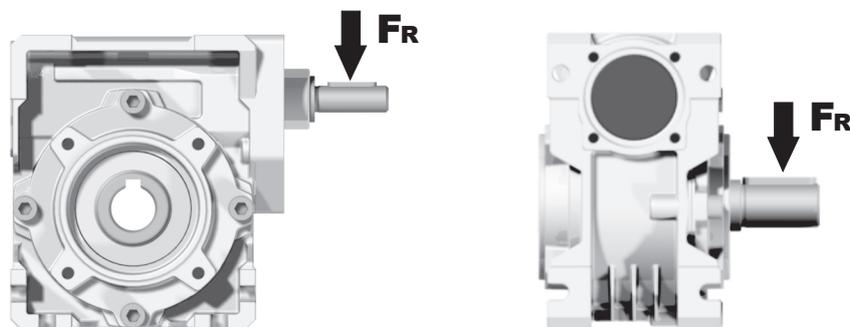
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



	$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$	$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B** Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Poissance nominale  
Potencia nominal

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

**A** Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Dynamic efficiency  
Rendimento dinamico  
Dynamischer Rendement  
Rendimento dynamique

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

**Q45 Square - Gear 41Nm**

Rating - Aluminum WORM GEARBOXES



**QUICK SELECTION / Selezione veloce** input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-B	C	-O	-P	-Q			
200	7	0.37	14	2.2	0.80	30	B		B-C	B-C		80	2.2	01
140	10	0.37	20	1.5	0.57	30	B		B-C	B-C		79	2.2	02
100	14	0.37	27	1.1	0.41	30	B		B-C	B-C		77	2.4	03

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Nominal module  
Modulo nominale  
Nenn modul  
Module nominale  
Módulo nominal

Notes  
Note  
Anmerkungen  
Note  
Notas

**fs**

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		<2 h	2 - 8 h	8 - 16 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.9	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1.25	1.5	1.75
	Moderate / Moderato	1.5	1.75	2
	Heavy / Forte	1.75	2	2.25

**D** Motor flange available  
Flange disponibili  
Erhältliche Motorflansche  
Brides disponibles  
Bridas disponibles

**B)** Mounting with reduction ring  
Montaggio con boccolla di riduzione  
Reduzierhülsen  
Montage avec douille de réduction  
Montaje con casquillo de reducción

**C)** Motor flangeholes position/terminal box position  
Posizione fori flangia/basetta motore  
Bohrungsposition am Motorflansch/-socket  
Position trous bride/barrette à bornes moteur  
Posición agujeros brida / base motor

**B)** Available without reduction bushes  
Disponibile anche senza boccolla  
Auch ohne Reduzierbuchse verfügbar  
Disponible aussi sans douille de réduction  
Disponible tambien sin casquillo

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
280	<b>5</b>	0.18	5	3.3	<b>0.60</b>	17	B		B-C		82	1.26	01
200	<b>7</b>	0.18	7	2.4	<b>0.44</b>	17	B		B-C		80	1.44	02
140	<b>10</b>	0.18	10	1.8	<b>0.32</b>	17	B		B-C		78	1.44	03
93	<b>15</b>	0.18	13	1.4	<b>0.25</b>	19	B		B-C		73	1.44	04
70	<b>20</b>	0.18	17	1.1	<b>0.20</b>	19	B		B-C		70	1.09	05
47	<b>30</b>	0.12	15	1.4	<b>0.17</b>	21	B		B-C		62	1.44	06
35	<b>40</b>	0.12	19	1.1	<b>0.13</b>	20	B		B-C		57	1.09	07
23	<b>61</b>	0.09	19	1.1	<b>0.10</b>	20	B		B-C		50	0.72	08
17.5	<b>80</b>	0.09	16	1.0	<b>0.06</b>	16	B		B-C		48	0.56	09

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **Q30** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **Q30** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **Q30** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **Q30** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **Q30** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION Q30 Oil Quantity 0.03Lt.

**AGIP** Telium VSF 320

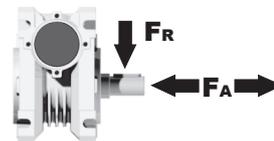
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

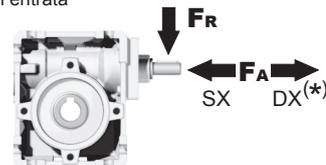
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	120	600
150	140	700
100	160	800
75	180	900
50	200	1000
25	250	1250
15	280	1400

#### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	20	100

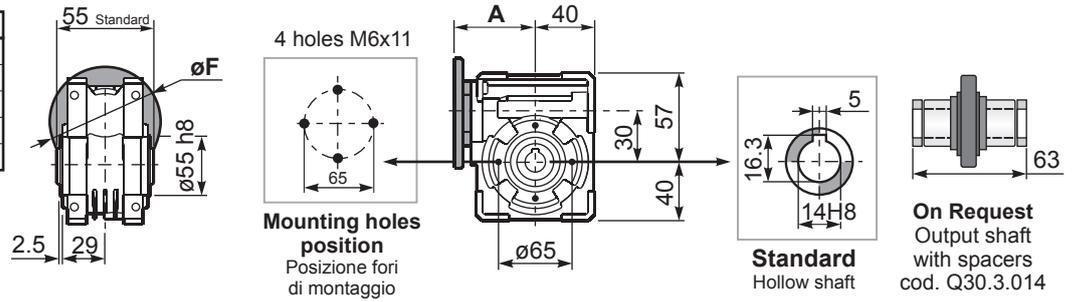
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

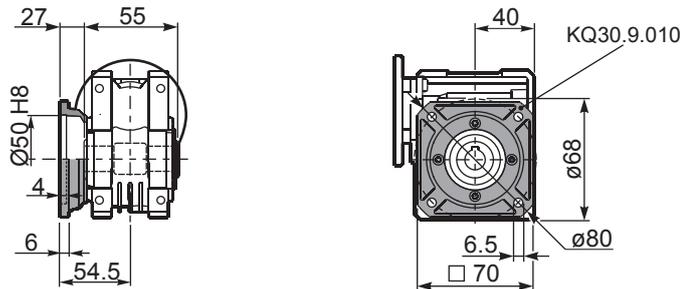
PQ30**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **1.15 kg**

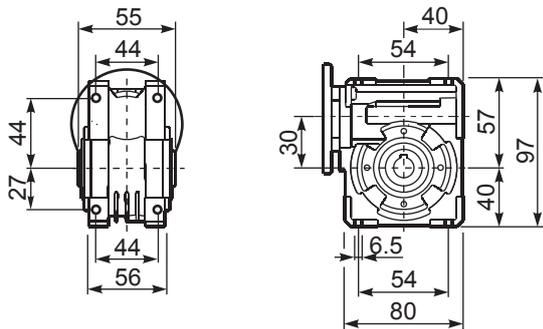
M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



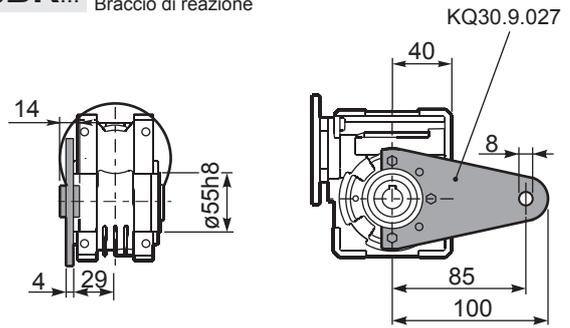
PQ30**FC**... Square flange  
Flangia quadrata



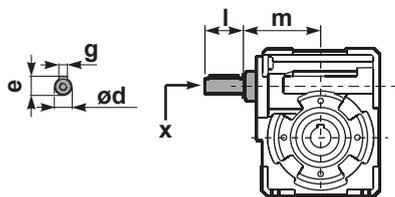
PQ30**FB**... Feet  
Piedini



PQ30**BR**... Reaction arm  
Braccio di reazione

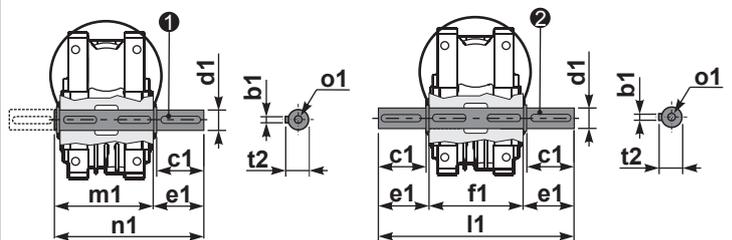


RQ30**FB**... Input shaft  
Albero in entrata



PQ30.....**S**... Single Shaft  
Albero lento semplice

PQ30.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. K030.5.028 type B

② kit cod. K030.5.029 type B

	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	K030.5.006 PAM63
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	5	25	14 <sup>-0.005</sup> <sub>-0.020</sub>	35.5	55	126	59	94.5	16	M5x14
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
200	<b>7</b>	0.37	14	2.2	<b>0.80</b>	<b>30</b>	<b>B</b>		B-C	B-C		80	2.2	01
140	<b>10</b>	0.37	20	1.5	<b>0.57</b>	<b>30</b>	<b>B</b>		B-C	B-C		79	2.2	02
100	<b>14</b>	0.37	27	1.1	<b>0.41</b>	<b>30</b>	<b>B</b>		B-C	B-C		77	2.4	03
67	<b>21</b>	0.37	36	1.2	<b>0.43</b>	<b>41</b>	<b>B</b>		B-C	B-C		67	1.6	04
50	<b>28</b>	0.25	31	1.3	<b>0.33</b>	<b>41</b>	<b>B</b>		B-C	B-C		65	2.5	05
38	<b>37</b>	0.25	40	1.0	<b>0.26</b>	<b>41</b>	<b>B</b>		B-C	B-C		63	1.8	06
30	<b>46</b>	0.25	46	0.9	<b>0.22</b>	<b>41</b>	<b>B</b>		B-C	B-C		59	1.5	07
23	<b>60</b>	0.18	41	1.0	<b>0.18</b>	<b>41</b>	<b>B</b>		B-C	B-C		56	1.2	08
20	<b>70</b>	0.12	31	1.0	<b>0.12</b>	<b>30</b>	<b>B</b>		B-C	B-C		54	1.0	09
13.7	<b>102</b>	0.09	31	1.0	<b>0.09</b>	<b>29</b>	<b>B</b>		B-C	B-C		49	0.72	10

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit Q45 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q45 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q45 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q45 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q45 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION Q45 Oil Quantity 0.09 Lt.

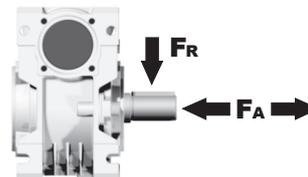
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

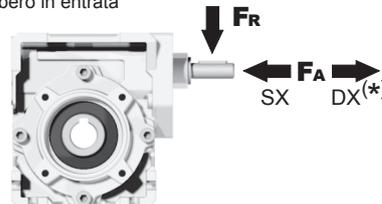
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>200</b>	180	900
<b>150</b>	200	1000
<b>100</b>	220	1100
<b>75</b>	240	1200
<b>50</b>	260	1400
<b>25</b>	300	1800
<b>15</b>	400	2000

**Input shaft**  
albero in entrata



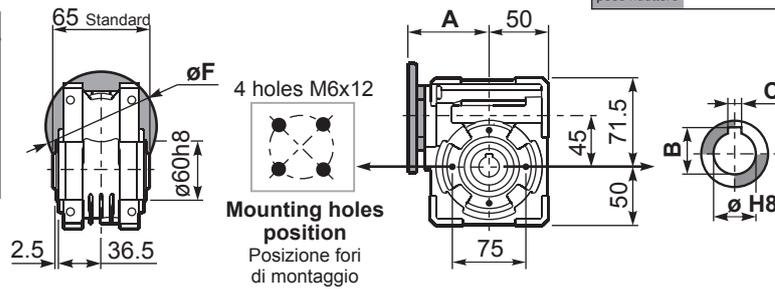
$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	42	210

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**PQ45FB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	80
<b>71B5</b>	K050.4.042	160	77.5
<b>56B14</b>	KC40.4.049	80	77.5
<b>63B14</b>	K050.4.047	90	80
<b>71B14</b>	K050.4.045	105	77.5

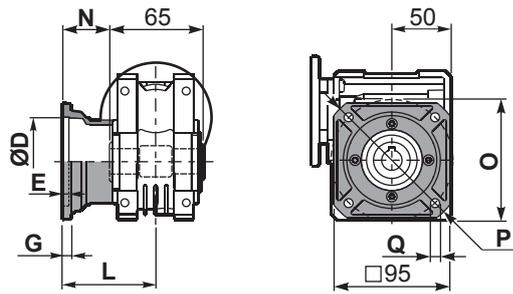


Gearbox weight  
peso riduttore **2.30 kg**

ø H8	B	C	*Spacer code
<b>18</b> Standard	20.8	6	Q45.3.018
<b>19</b> on request	21.8	6	Q45.3.019
<b>20</b> on request	22.8	6	Q45.3.020

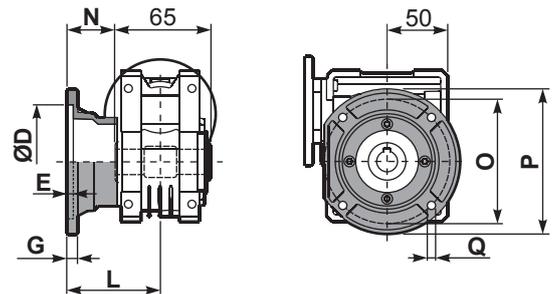
\*On Request  
output shaft with spacers

**PQ45FC...** Square flange  
Flangia quadrata



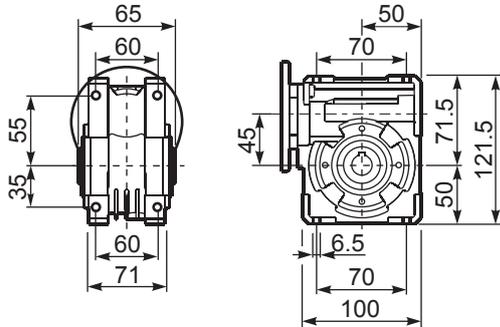
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	60 H8	4	7	67	34.5	75	110	9	KQ45.9.010
<b>FL</b>	60 H8	4	7	97	64.5	75	110	9	KQ45.9.011

**PQ45F1...** Round flange  
Flangia rotonda

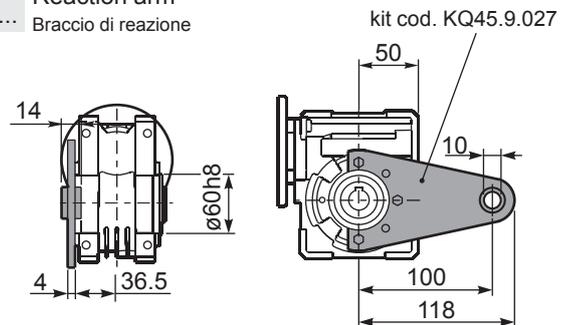


type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	95H8	5	9	80	47.5	115	140	9.5	KSQ45.9.012
<b>F2</b>	80H8	5	12	58	25.5	100	120	9	KSQ45.9.013

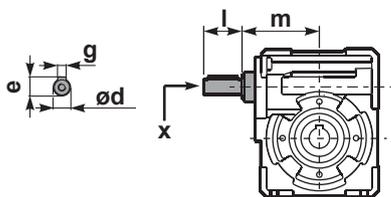
**PQ45FB...** Feet  
Piedini



**PQ45BR...** Reaction arm  
Braccio di reazione



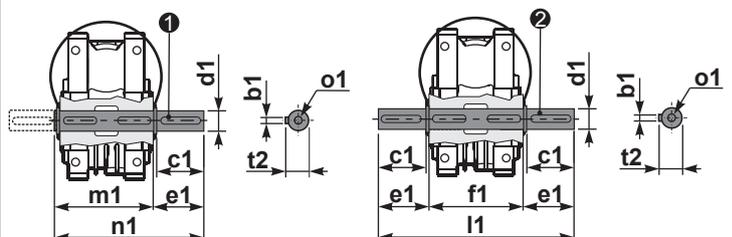
**RQ45FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	74	-	① K045.5.006 PAM71 ② - ③ -
type S	-	-	-	-	-	-	① - ② - ③ -

**PQ45.....S...** Single Shaft  
Albero lento semplice

**PQ45.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S  
② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> <sub>-0.020</sub>	58.5	65	182	70	128.5	21.5	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-B	-C	-D	-O	-P	-Q	-R			
							63	71	80	56	63	71	80			
200	7	0.75	29	1.9	1.5	57	B	B			B-C	B		82	2.5	01
140	10	0.75	41	1.5	1.1	62	B	B			B-C	B		80	2.4	02
100	14	0.75	57	1.2	0.90	68	B	B			B-C	B		79	2.6	03
78	18	0.55	51	1.2	0.67	62	B	B			B-C	B		75	2.0	04
54	26	0.55	67	1.0	0.54	66	B	B			B-C	B		69	2.7	05
47	30	0.55	79	0.9	0.50	72	B	B			B-C	B		70	2.5	12
39	36	0.37	63	1.2	0.43	72	B			B-C	B-C		69	2.1	06	
33	43	0.37	72	1.0	0.35	68	B			B-C	B-C		66	1.8	07	
23	60	0.25	59	1.0	0.26	62	B			B-C	B-C		58	1.3	08	
21	68	0.25	66	0.9	0.22	58	B			B-C	B-C		57	1.2	09	
17.5	80	0.18	53	1.1	0.19	57	B			B-C	B-C		54	1.0	10	
14	100	0.12	41	1.3	0.15	51	B			B-C	B-C		50	0.8	11	

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit Q50 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q50 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q50 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q50 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q50 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION Q50 Oil Quantity 0.14 Lt.

**AGIP** Telium VSF 320

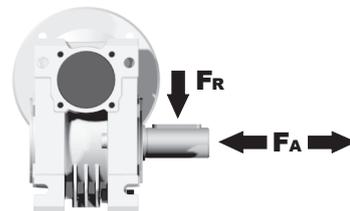
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

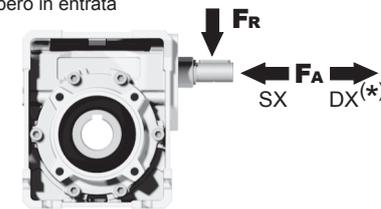
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	240	1200
150	280	1400
100	300	1500
75	340	1700
50	380	1900
25	480	2500
15	560	2800

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	76	380

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

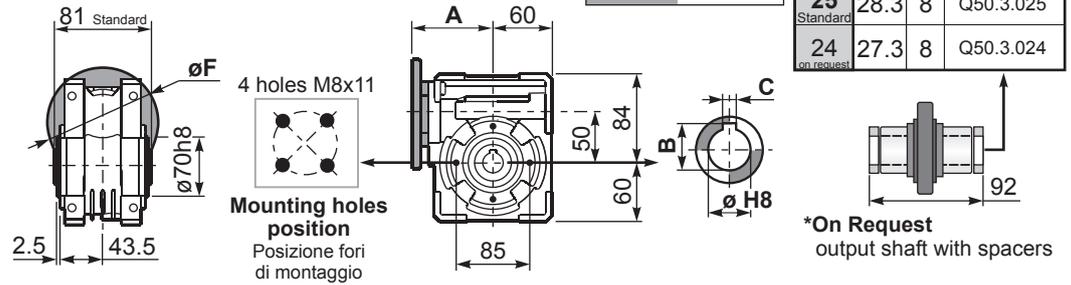
tab. 2

**PQ50FB...** Basic wormbox  
Riduttore base

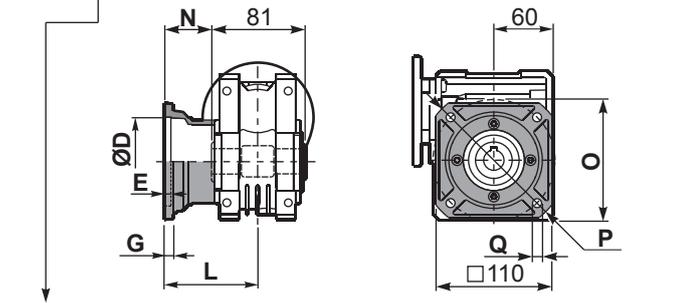
Gearbox weight  
peso riduttore **3.25 kg**

ø H8	B	C	*Spacer code
25 Standard	28.3	8	Q50.3.025
24 on request	27.3	8	Q50.3.024

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	83.5
<b>71B5</b>	K050.4.042	160	81
<b>80B5</b>	K050.4.043	200	81.5
<b>56B14</b>	KC40.4.049	80	81
<b>63B14</b>	K050.4.047	90	83.5
<b>71B14</b>	K050.4.045	105	81
<b>80B14</b>	K050.4.046	120	81.5

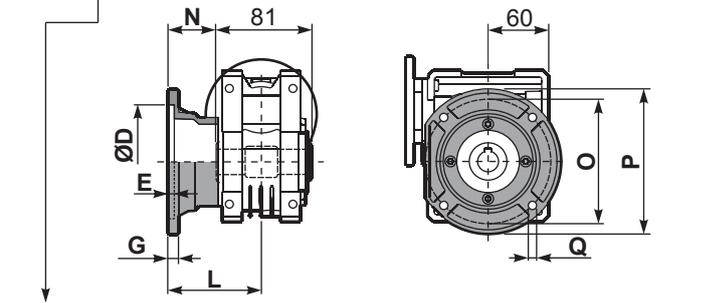


**PQ50FC...** Square flange  
Flangia quadrata



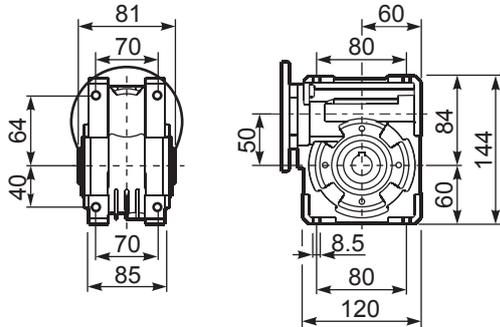
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	70 H8	5	9	90	49.5	85	125	11	KQ50.9.010
<b>FL</b>	70 H8	5	9	120	79.5	85	125	11	KQ50.9.011

**PQ50F1...** Round flange  
Flangia rotonda

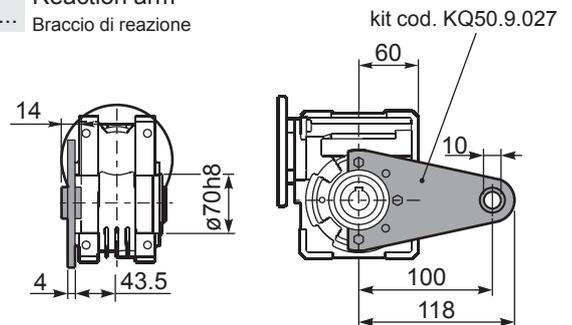


type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	110 H8	5	10	89	48.5	130	160	9.5	KSQ50.9.012
<b>F2</b>	95 H8	5	14.5	72	31.5	115	140	11	KSQ50.9.013

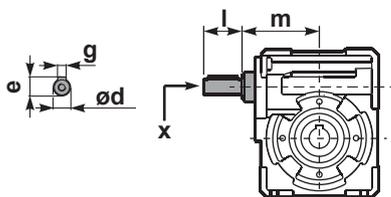
**PQ50FB...** Feet  
Piedini



**PQ50BR...** Reaction arm  
Braccio di reazione



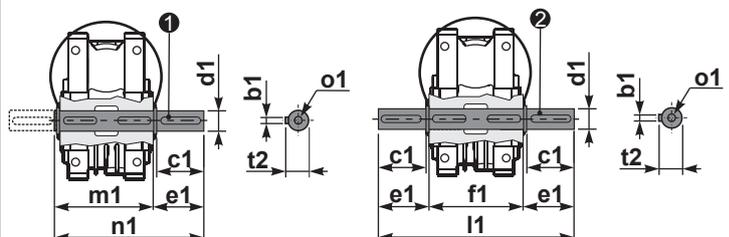
**RQ50FB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	79.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	79.5	M5x10	① KS050.5.008 PAM71 ② KS050.5.009 PAM80

**PQ50.....S...** Single Shaft  
Albero lento semplice

**PQ50.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

② kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 <sup>-0.005</sup> <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> <sub>-0.020</sub>	68.8	81	218	86.5	155	27	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 	
							-B	-C	-D	-E	-Q	-R	-T				
							63	71	80	90	71	80	90				
200	7	1.8	71	1.8	3.2	125		B	B			B-C	B-C		83	3.1	01
140	10	1.8	99	1.4	2.4	134		B	B			B-C	B-C		81	3.1	02
93	15	1.5	121	1.1	1.7	138		B	B			B-C	B-C		79	3.1	03
74	19	1.1	111	1.2	1.4	138		B	B			B-C	B-C		78	2.6	04
58	24	1.1	135	1.0	1.2	142		B	B			B-C	B-C		75	2.0	05
47	30	1.1	167	0.9	0.96	146		B	B			B-C	B-C		74	3.2	06
39	36	0.75	125	1.2	0.88	147		B	B			B-C	B-C		68	2.7	07
35	40	0.75	135	1.0	0.78	140		B	B			B-C	B-C		66	2.5	13
31	45	0.55	111	1.2	0.67	135	B	B				B-C	C		66	2.1	08
23	60	0.55	140	0.9	0.51	130	B	B				B-C	C		62	1.6	12
21	67	0.55	151	0.8	0.45	124	B	B				B-C	C		60	1.5	09
17.5	80	0.37	115	1.0	0.38	119	B	B				B-C	C		57	1.3	10
14.9	94	0.37	123	1.0	0.36	119	B	B				B-C	C		52	1.1	11

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **Q63** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **Q63** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **Q63** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **Q63** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **Q63** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION Q63 Oil Quantity 0.30 Lt.

**AGIP** Telium VSF 320

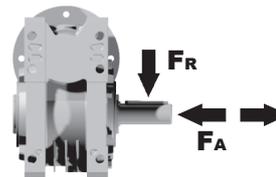
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

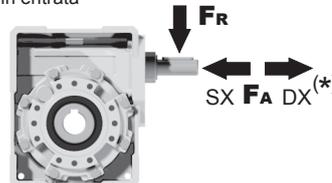
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	360	1800
150	400	2000
100	460	2300
75	500	2500
50	600	3000
25	700	3800
15	800	4000

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	90	450

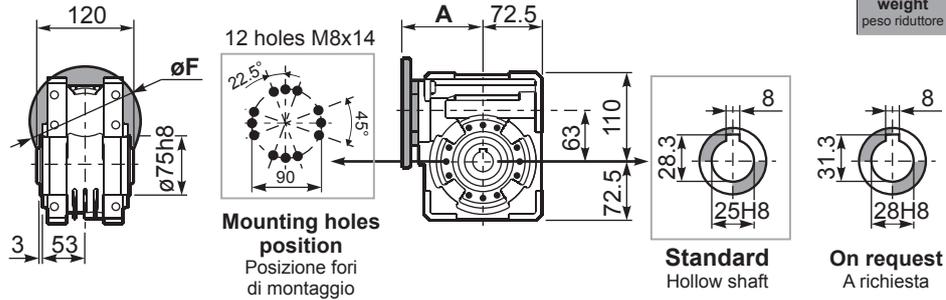
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PQ63FB...** Basic wormbox  
Riduttore base

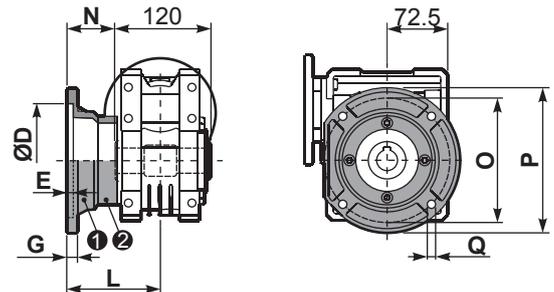
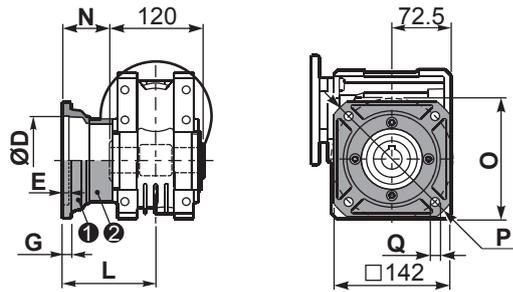
Gearbox weight  
peso riduttore **6.00 kg**

M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	99.5
<b>71B5</b>	K063.4.042	160	97.5
<b>80/90B5</b>	K063.4.043	200	99.5
<b>71B14</b>	K063.4.047	105	97.5
<b>80B14</b>	K063.4.046	120	99.5
<b>90B14</b>	K063.4.041	140	99.5



**PQ63FC...** Square flange  
Flangia quadrata

**PQ63F1...** Round flange  
Flangia rotonda

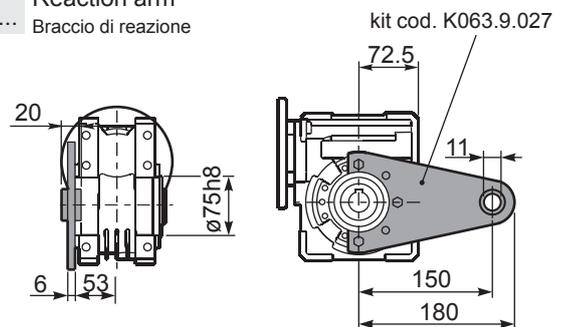
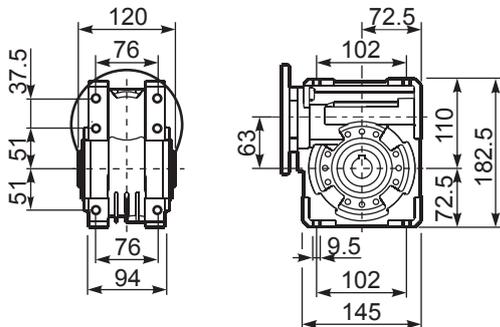


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	86	26	150	180	11	① KQ63.9.010 ② -
<b>FL</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	116	56	150	180	11	① KQ63.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	110	50	165	200	13	① KS070.9.013 ② -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	124	64	150	175	11	① KS063.9.013 ② -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	90	30	130	160	10	① KS063.9.011 ② -

**PQ63FB...** Feet  
Piedini

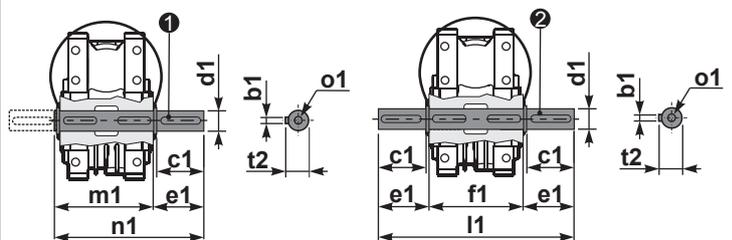
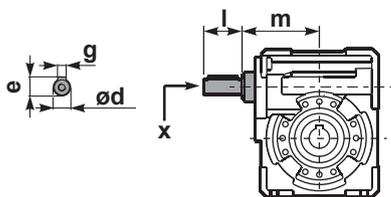
**PQ63BR...** Reaction arm  
Braccio di reazione



**RQ63FB...** Input shaft  
Albero in entrata

**PQ63.....S...** Single Shaft  
Albero lento semplice

**PQ63.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B    ② kit cod. K063.5.029 type B

	ød	e	g	l	m	x	kit code
type B	18 h6	20.5	6	45	93	M6x16	① K063.5.006 PAM80 ② K063.5.007 PAM90
type S	19 h6	21.5	6	40	93	M8x20	① KS063.5.008 PAM80 ② KS063.5.009 PAM90

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code	
							-C	-D	-E	-F	-R	-T	-U				
							71	80	90	100 112	80	90	100 112				
200	7	4	172	1.1	4.4	190		B	B			B	B		90	3.75	01
140	10	4	240	1.0	3.8	230		B	B			B	B		88	3.75	02
93	15	3	261	1.0	2.9	250		B	B			B	B		85	3.75	03
70	20	2.2	249	1.0	2.2	250		B	B			B	B		83	3.00	04
56	25	1.5	205	1.2	1.8	250	B	B				B			80	2.41	05
45	31	1.5	244	1.1	1.7	270	B	B				B			77	3.75	06
35	40	1.5	295	0.9	1.3	255	B	B				B			72	3.10	07
28	50	0.75	174	1.3	0.95	220	B								68	2.41	08
23	60	0.75	200	1.0	0.75	200	B								65	2.10	09
17.5	80	0.55	177	1.0	0.56	180	B								59	1.53	10
14.0	100	0.55*	206	0.7	0.40	150	B								55	1.23	11

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit Q75 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q75 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q75 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q75 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q75 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION Q75 Oil Quantity 0.40 Lt.

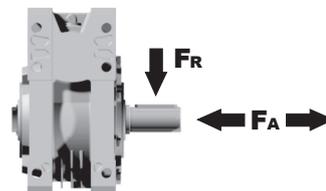
AGIP Telium VSF 320

SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

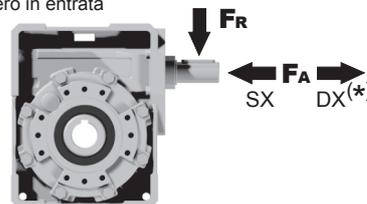
### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	460	2300
150	520	2600
100	560	2800
75	620	3100
50	720	3600
25	880	4400
15	1000	5000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	125	630

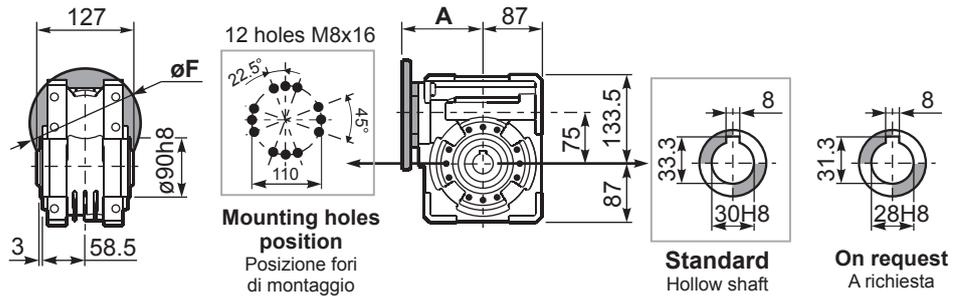
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

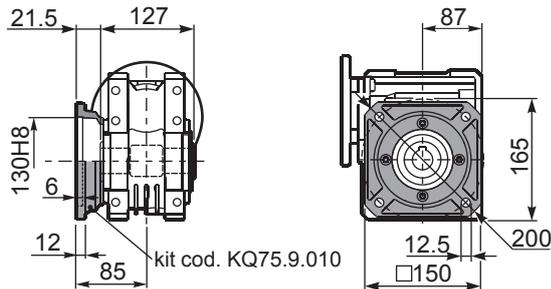
**PQ75FB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **8.70 kg**

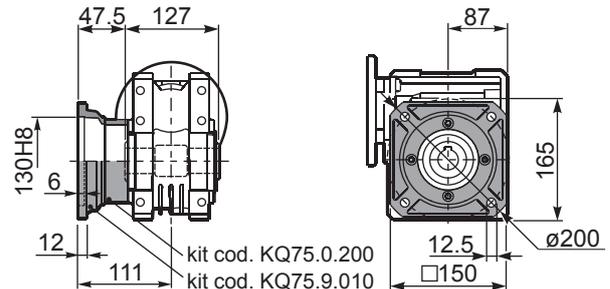
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	114
80/90B5	K023.4.042	200	116
100/112B5	K023.4.043	250	125
80B14	K085.4.046	120	116
90B14	K085.4.045	140	116
100/112B14	K085.4.047	160	125



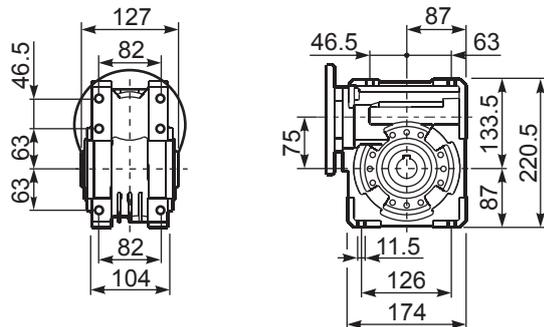
**PQ75FC...** Square flange  
Flangia quadrata



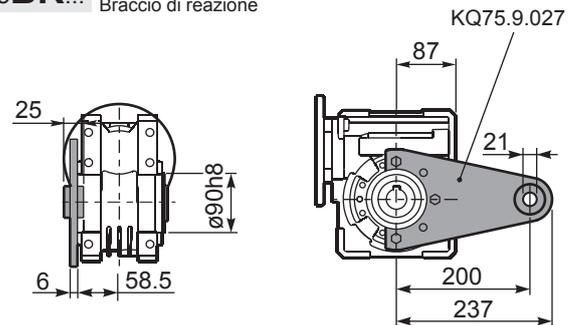
**PQ75FL...** Square flange  
Flangia quadrata



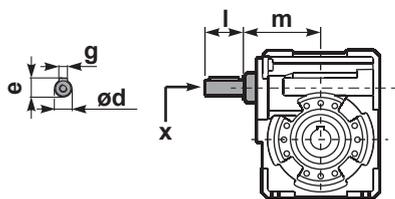
**PQ75FB...** Feet  
Piedini



**PQ75BR...** Reaction arm  
Braccio di reazione

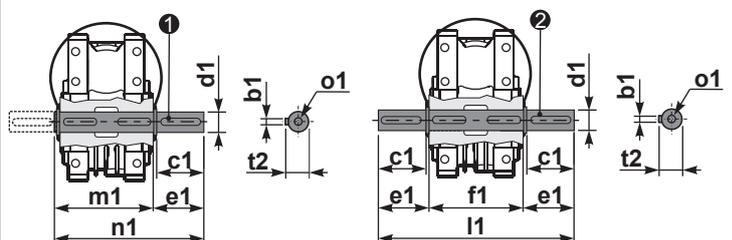


**RQ75FB...** Input shaft  
Albero in entrata



**PQ75.....S...** Single Shaft  
Albero lento semplice

**PQ75.....D...** Double Shaft  
Albero lento bisp.



① kit cod. KQ75.5.028 Standard  
kit cod. KQ75.5.026 On request

② kit cod. KQ75.5.029 Standard  
kit cod. KQ75.5.027 On request

	ød	e	g	l	m	x	kit code
type B	25 h6	27.8	8	50	109.5	M8x20	KQ75.5.006 PAM80 K085.5.007 PAM90 K085.5.008 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
Standard	8	60	30 <sup>-0.005</sup> <sub>-0.020</sub>	65	127	255	134	199	33	M8x20
On request	8	60	28 <sup>-0.005</sup> <sub>-0.020</sub>	65	127	255	134	199	31	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code	
							-C	-D	-E	-F	-R	-T	-U				
							71	80	90	100 112	80	90	100 112				
200	7	4.0	168	1.5	6.1	257		B	B			B	B		88	4.23	01
140	10	4.0	218	1.3	5.2	284		B	B			B	B		80	4.2	02
100	14	3.0	223	1.4	4.1	305		B	B			B	B		78	4.5	03
70	20	2.2	237	1.2	2.7	294		B	B			B	B		79	3.4	04
64	22	2.2	258	1.1	2.5	294		B	B			B	B		78	3.1	05
50	28	2.2	315	1.1	2.4	347		B	B	B		B	B		75	4.7	06
37	38	1.5	276	1.2	1.8	336	B	B				B			71	3.5	07
30	46	1.5	320	1.0	1.5	326	B	B				B			68	3.1	08
27	52	1.1	258	1.1	1.2	289	B	B				B			66	2.7	09
21	67	1.1	327	0.9	0.97	289	B	B				B			65	2.1	10
18.9	74	0.75	220	1.2	0.91	268	B	B				B			58	1.9	11
14.6	96	0.55	191	1.3	0.70	242	B	B				B			53	1.5	12

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit Q85 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q85 viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe Q85 mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q85 est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño Q85 se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION Q85 Oil Quantity 1.20 Lt.

**AGIP** Telium VSF 320

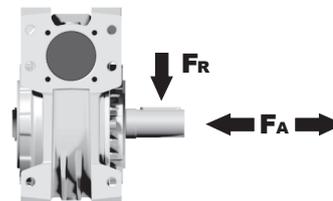
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

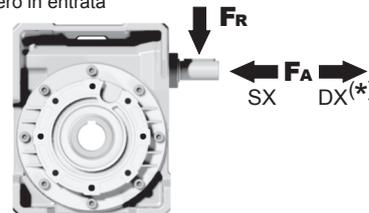
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	500	2500
150	580	2900
100	600	3000
75	700	3500
50	800	4000
25	1000	5000
15	1160	5800

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	160	809

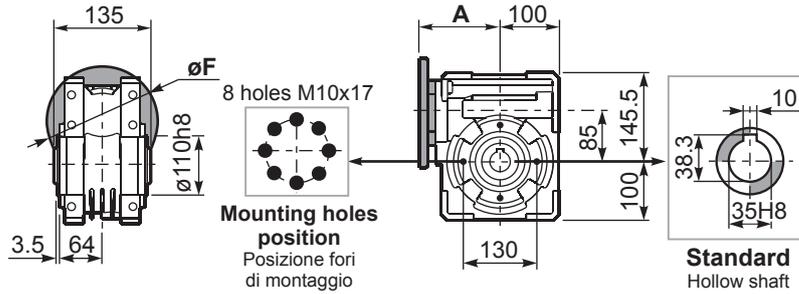
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PQ85FB...** Basic wormbox  
Riduttore base

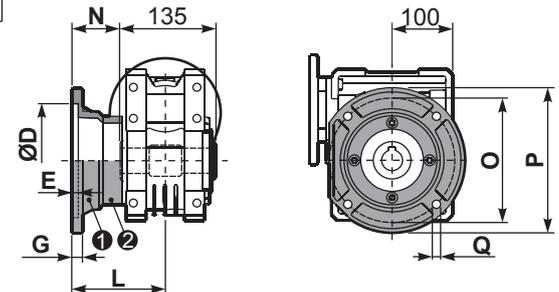
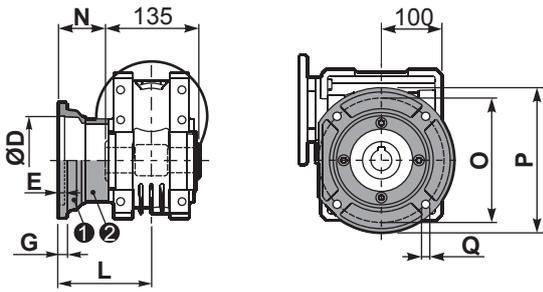
Gearbox weight  
peso riduttore **12.1 kg**

M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	116.5
<b>80/90B5</b>	K023.4.042	200	118.5
<b>100/112B5</b>	K023.4.043	250	127.5
<b>80B14</b>	K085.4.046	120	118.5
<b>90B14</b>	K085.4.045	140	118.5
<b>100/112B14</b>	K085.4.047	160	127.5



**PQ85FC...** Output flange  
Flangia uscita

**PQ85F1...** Output flange  
Flangia uscita

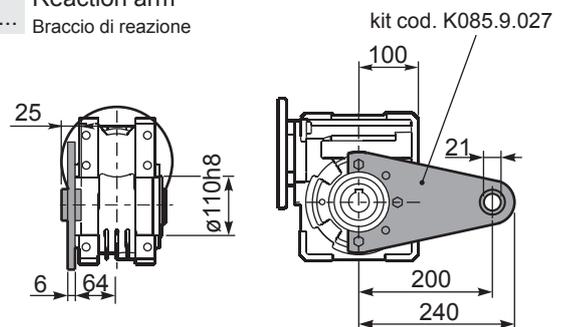
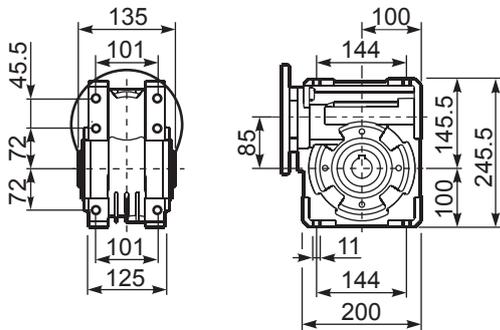


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	① K085.9.010 ② -
<b>FL</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 H7	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
<b>F2</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
<b>F4</b>	130 H7	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

**PQ85FB...** Feet  
Piedini

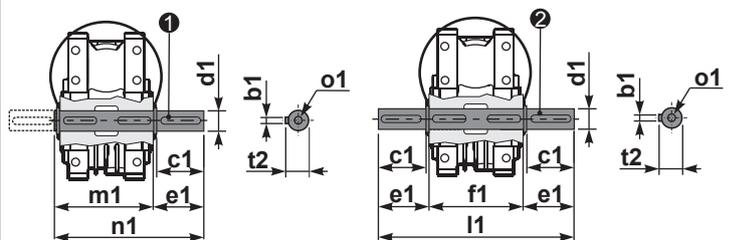
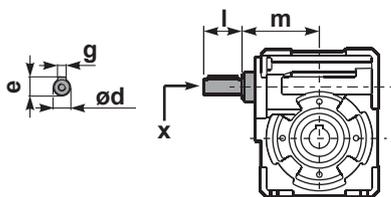
**PQ85BR...** Reaction arm  
Braccio di reazione



**RQ85FB...** Input shaft  
Albero in entrata

**PQ85.....S...** Single Shaft  
Albero lento semplice

**PQ85.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K085.5.028 type B    ② kit cod. K085.5.029 type B

	ød	e	g	l	m	x	kit code
type B	25 h6	28	8	50	112	M8x20	① K085.5.007 PAM90 ② K085.5.008 PAM100
type S	24 h6	27	8	50	112	M8x20	① KS085.5.009 PAM90 ② KS085.5.011 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Dynamic efficiency RD	Tooth Module [mm]	Ratios code	
							-C	-D	-E	-F	-G	-R	-T	-U	-V				
							71	80	90	100	112	132	80	90	100				112
200	7	7.5	315	1.5	11.5	483		B	B				B	B			88	5.5	01
140	10	7.5	440	1.2	9.0	525		B	B				B	B			86	5.4	02
88	16	5.5	492	1.1	6.0	536		B	B				B	B			82	5.3	03
70	20	4.0	447	1.2	4.9	546		B	B				B	B			82	4.5	04
61	23	3.0	377	1.4	4.1	515		B	B				B	B			80	3.9	05
47	30	3.0	467	1.4	4.2	651		B	B				B	B			76	5.6	06
37	38	3.0	583	1.1	3.3	641		B	B				B	B			75	4.7	07
31	45	2.2	493	1.2	2.7	599		B	B				B	B			73	4.0	08
26	53	2.2	557	1.1	2.5	620		B	B				B	B			70	3.5	09
22	64	1.5	452	1.2	1.8	536	B	B					B				69	2.9	10
16.7	84	1.1	410	1.2	1.3	494	B	B					B				65	2.2	11
14.1	99	1.1	446	1.1	1.2	483	B	B					B				60	1.9	12

**A** Motor Flanges Available Flange Motore Disponibili **B** Supplied with Reduction Bushing Fornito con Bussola di Riduzione **B** Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione **C** Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit Q11 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q11 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße Q11 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q11 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño Q11 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6
2.00 LT	1.35 LT	1.35 LT	2.00LT	2.00 LT	2.00LT

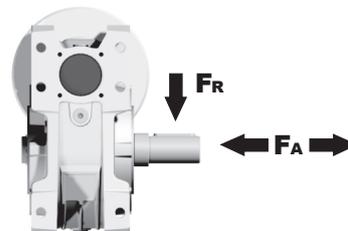
**AGIP Blasias 460**

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

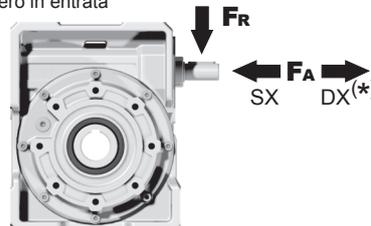
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	600	2900
150	700	3300
100	750	3600
75	800	4000
50	920	4600
25	1200	6000
15	1400	7000

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	228	1140

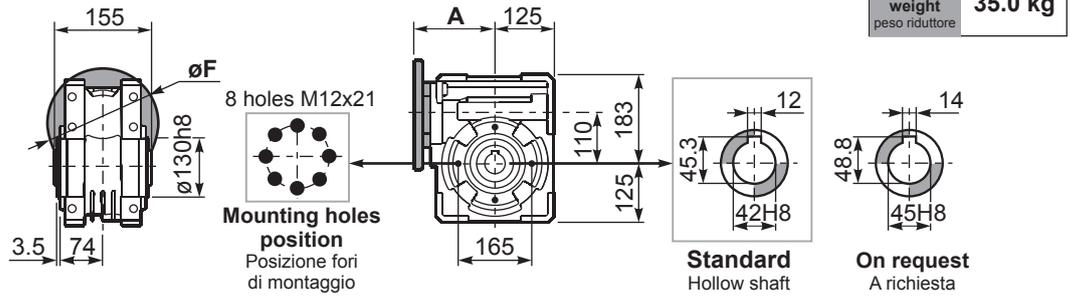
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PQ11FB...** Basic wormbox  
Riduttore base

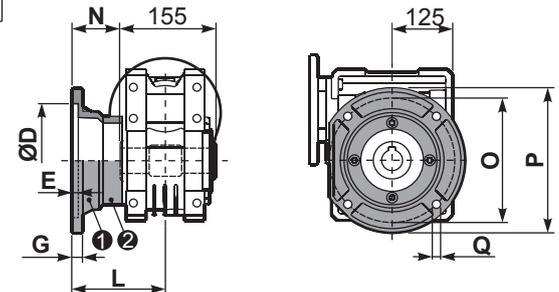
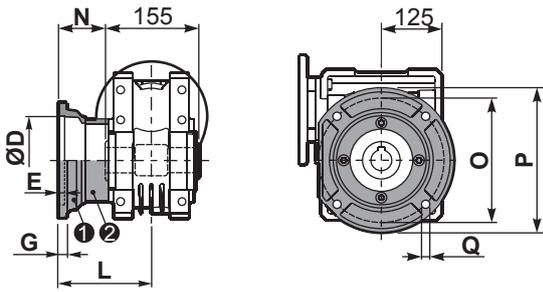
Gearbox weight  
peso riduttore **35.0 kg**

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	136
80/90B5	K023.4.042	200	138
100/112B5	K023.4.043	250	147
132B5	-	300	187
80B14	K085.4.046	120	138
90B14	K085.4.045	140	138
100/112B14	K023.4.041	160	136
132B14	-	200	187



**PQ11FC...** Output flange  
Flangia uscita

**PQ11F1...** Output flange  
Flangia uscita

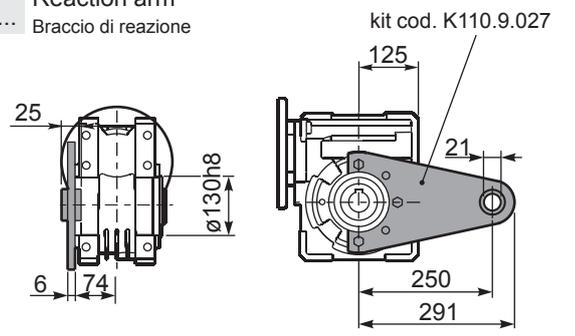
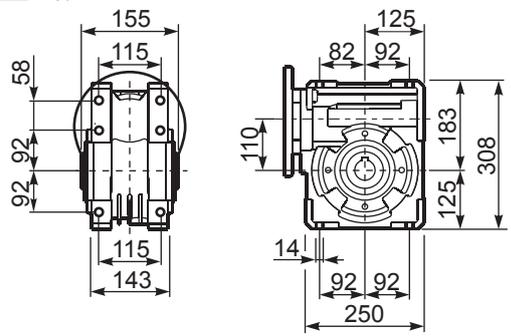


type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	131.5	54	230	270	13	① K110.9.010 ② -
<b>FL</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	11	16.5	179.5	102	230	270	13	① K110.9.011 ② -

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	150	72.5	215	250	15	① KS110.9.014 ② -
<b>F2</b>	170 <sup>+0.083</sup> / <sub>+0.043</sub>	9.5	15	178	100.5	230	270	13	① KS110.9.012 ② -
<b>F3</b>	180 <sup>+0.040</sup> / <sub>0</sub>	5	18	130	52.5	215	250	15	① KS110.9.013 ② -

**PQ11FB...** Feet  
Piedini

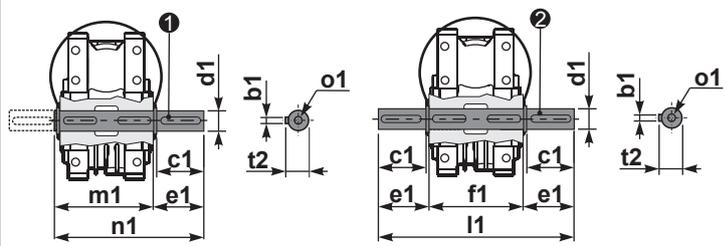
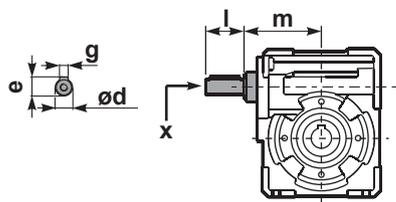
**PQ11BR...** Reaction arm  
Braccio di reazione



**RQ11FB...** Input shaft  
Albero in entrata

**PQ11.....S...** Single Shaft  
Albero lento semplice

**PQ11.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K110.5.028 type B    ② kit cod. K110.5.029 type B

	ød	e	g	l	m	x	kit code
type B	25 h6	28	8	50	131.5	M8x20	① K085.5.007 PAM90 ② K085.5.008 PAM100
type S	24 h6	27	8	50	131.5	M8x20	① KS085.5.009 PAM90 ② KS085.5.011 PAM100

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> / <sub>-0.020</sub>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			B14 motor flanges not available				Dynamic efficiency  RD	Tooth Module  [mm]	Ratios code 
							-E	-F	-G	-	-	-	-			
							90	100 112	132	-	-	-	-			
187	7.5	7.5	345	2.1	16.1	741		B					90	6.11	01	
140	10	7.5	455	1.8	13.5	820		B					89	6.45	02	
93	15	7.5	668	1.4	10.3	917		B					87	6.72	03	
70	20	7.5	870	1.0	7.8	905		B					85	5.24	04	
56	25	5.5	788	1.2	6.5	931		B					84	4.28	05	
46.7	30	5.5	900	1.2	6.4	1047		B					80	6.91	06	
35	40	4.0	851	1.2	4.9	1043		B					78	5.36	07	
28	50	4.0	1023	0.9	3.8	972	B						75	4.35	08	
23.3	60	3.0	896	1.0	3.1	928	B						73	3.65	09	
17.5	80	2.2	816	1.0	2.3	853	B						68	2.76	10	
14	100	1.5	655	1.1	1.7	742	B						64	2.23	11	

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit Q13 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q13 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße Q13 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q13 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño Q13 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

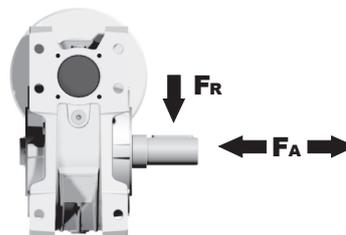
B3	B6	B7	B8	V5	V6
4.50 LT	3.50 LT	3.50 LT	3.30LT	4.50 LT	3.30LT

**AGIP Blasias 460**

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

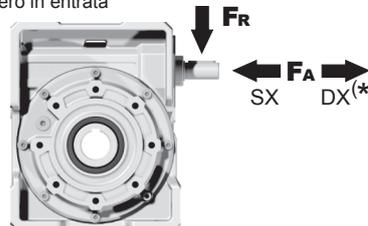
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	960	4800
150	1100	5500
100	1240	6200
75	1380	6900
50	1560	7800
25	2000	10000
15	2400	12000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	300	1500

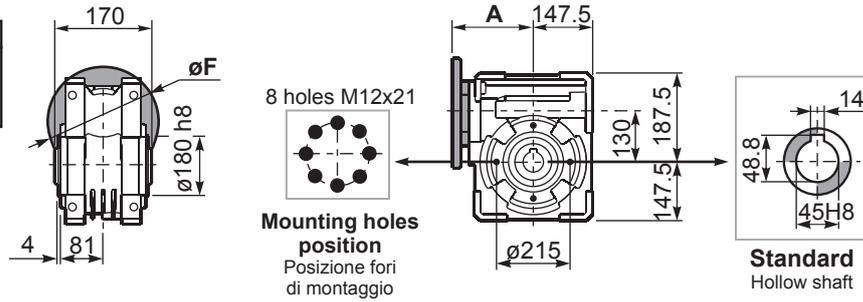
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

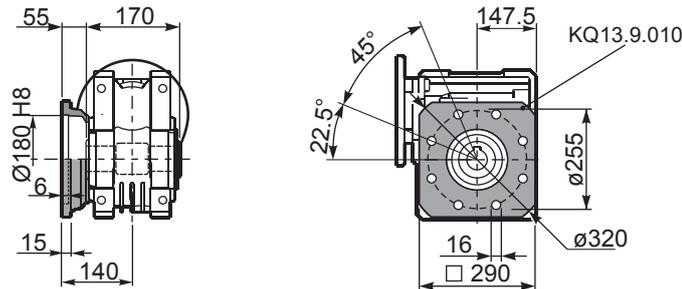
PQ13**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **48.0 kg**

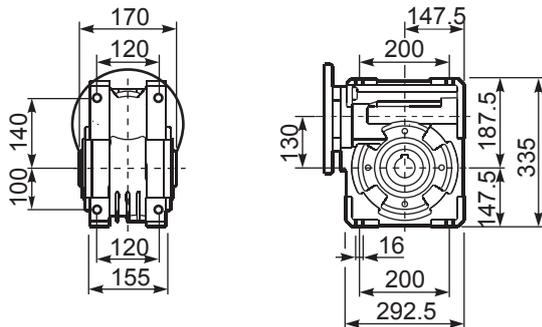
M. flanges	Kit code	øF	A
90B5	KQ13.4.041	200	180
100/112B5	KQ13.4.042	250	180
132B5	KQ13.4.043	300	180



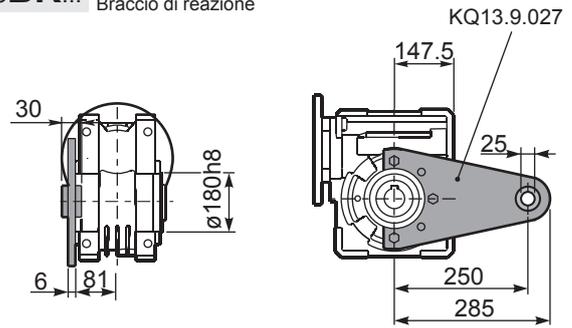
PQ13**FC**... Square flange  
Flangia quadrata



PQ13**FB**... Feet  
Piedini

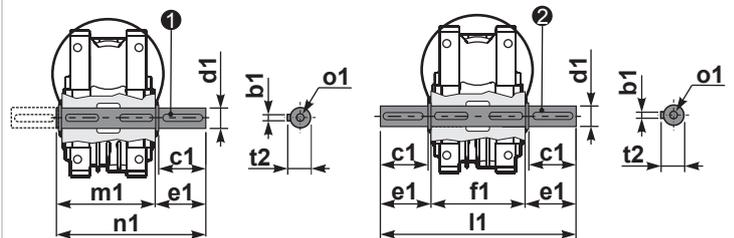


PQ13**BR**... Reaction arm  
Braccio di reazione



PQ13.....**S**... Single Shaft  
Albero lento semplice

PQ13.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. KQ13.5.028 type B

② kit cod. KQ13.5.029 type B

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type	14	80	45 <sup>-0.005</sup> <sub>-0.020</sub>	85	170	340	180	265	48.5	M16
type	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			B14 motor flanges not available				Dynamic efficiency  RD	Tooth Module  [mm]	Ratios code 
							-F	-G	-H	-	-	-	-			
							100	132	160	-	-	-	-			
187	7.5	15	698	1.7	25.8	1200		B						91	5.5	01
140	10	15	921	1.3	20.2	1240		B						90	6.155	02
93	15	11	990	1.3	13.9	1250		B						88	5.5	03
70	20	11	1291	1.0	11.1	1300		B						86	6.155	04
56	25	9	1289	0.9	8.4	1200		B						84	5	05
46.7	30	7.5	1274	0.9	7.1	1200	B							83	4.193	06
35	40	7.5	1596	1.0	7.3	1550	B							78	6.155	07
28	50	5.5	1426	1.0	5.4	1400	B							76	5	08
23.3	60	4	1195	1.1	4.2	1260	B							73	4.193	09
17.5	80	3	1113	1.0	3.1	1150								68	3.17	10
14	100	2.2	960	1.0	2.3	1000								64	2.55	11

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit Q15 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo Q15 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße Q15 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type Q15 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño Q15 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

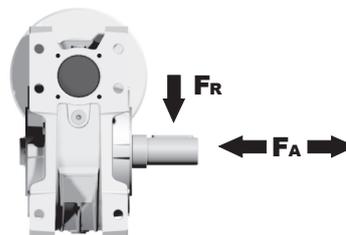
B3	B6	B7	B8	V5	V6
7.00 LT	5.40 LT	5.40 LT	5.10 LT	7.00 LT	5.10 LT

AGIP Blasias 460

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

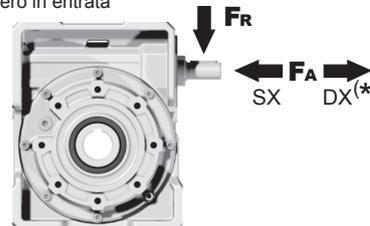
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
200	1300	6500
150	1440	7200
100	1640	8200
75	1800	9000
50	2120	10600
25	2700	13500
15	3300	16500

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	400	2000

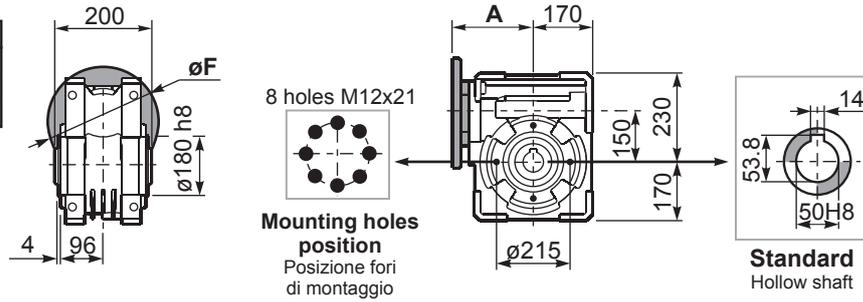
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

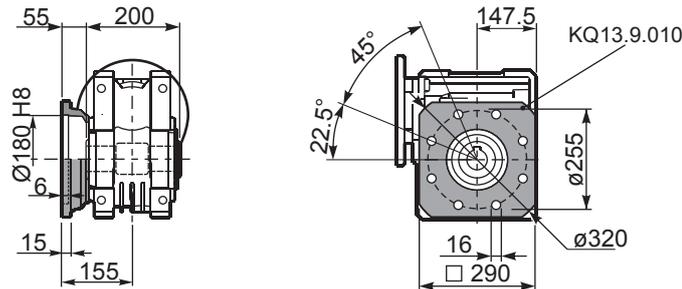
PQ15**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **84.0 kg**

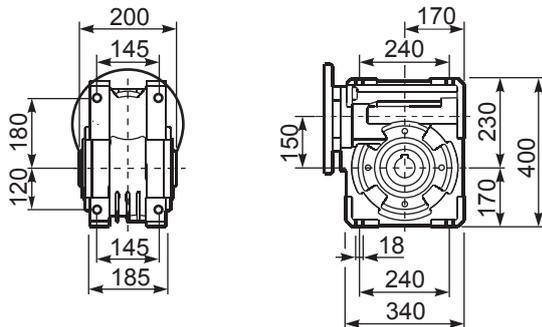
M. flanges	Kit code	øF	A
100/112B5	KQ15.4.042	250	210
132B5	KQ15.4.043	300	210
160B5	KQ15.4.044	350	210



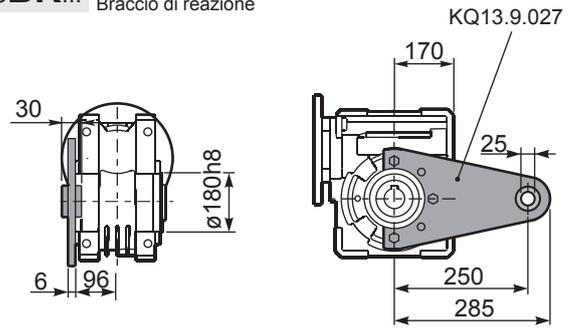
PQ15**FC**... Square flange  
Flangia quadrata



PQ15**FB**... Feet  
Piedini

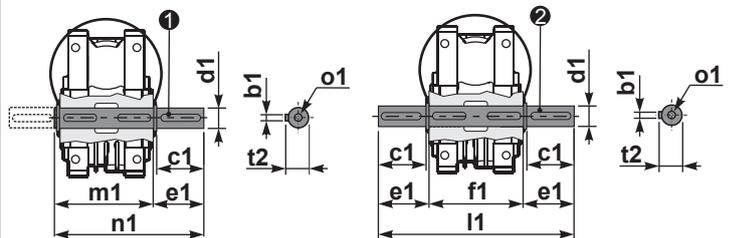


PQ15**BR**... Reaction arm  
Braccio di reazione



PQ15.....**S**... Single Shaft  
Albero lento semplice

PQ15.....**D**... Double Shaft  
Albero lento bisp.



① kit cod. KQ15.5.028 type B

② kit cod. KQ15.5.029 type B

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type	14	82	50 <sup>-0.005</sup> <sub>-0.020</sub>	87	200	374	210	297	53.5	M16
type	-	-	-	-	-	-	-	-	-	-



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-C	-P	-Q			
							56	63	71	63	71			
47	<b>30.1</b>	0.25	38	1.4	<b>0.36</b>	<b>55</b>				<b>C</b>		74	2.2	01
33	<b>43.0</b>	0.25	53	1.0	<b>0.26</b>	<b>55</b>				<b>C</b>		72	2.2	02
23	<b>60.2</b>	0.25	62	0.9	<b>0.22</b>	<b>55</b>				<b>C</b>		60	2.4	03
15.5	<b>90.3</b>	0.12	42	1.3	<b>0.16</b>	<b>55</b>				<b>C</b>		57	1.6	04
11.6	<b>120</b>	0.12	52	1.1	<b>0.13</b>	<b>55</b>				<b>C</b>		53	2.5	05
8.8	<b>159</b>	0.12	64	0.9	<b>0.10</b>	<b>55</b>				<b>C</b>		49	1.8	06
7.1	<b>198</b>	0.12*	55	<0.8	<b>0.09</b>	<b>55</b>				<b>C</b>		47	1.5	07
5.4	<b>258</b>	0.12*	55	<0.8	<b>0.07</b>	<b>55</b>				<b>C</b>		45	1.2	08
4.7	<b>301</b>	0.12*	39	<0.8	<b>0.05</b>	<b>39</b>				<b>C</b>		40	1.0	09
3.2	<b>439</b>	0.12*	39	<0.8	<b>0.04</b>	<b>39</b>				<b>C</b>		36	0.72	10

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P4Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

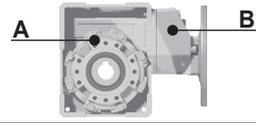
**I** Il riduttore tipo **P4Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P4Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P4Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P4Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION P4Q Oil**  
Common lubrication 0.17 l (A + B).

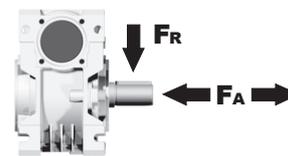


<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

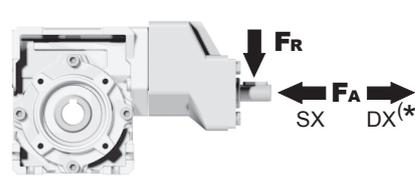
### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	240	1200
50	260	1400
25	300	1800
15-6	400	2000

**Input shaft**  
albero in entrata



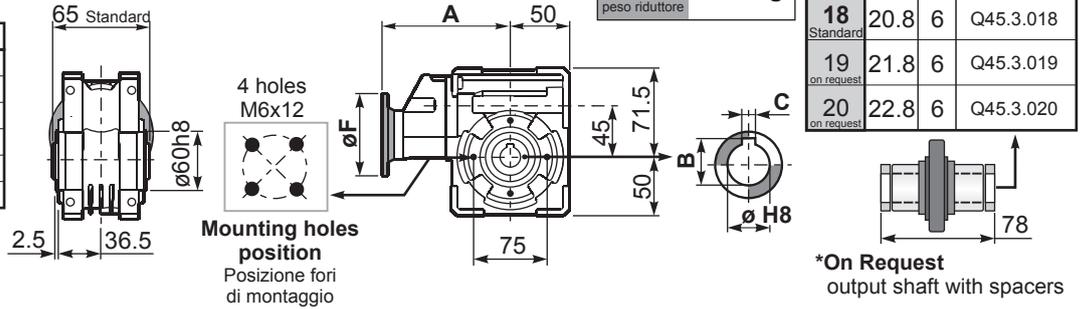
$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	44	220

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

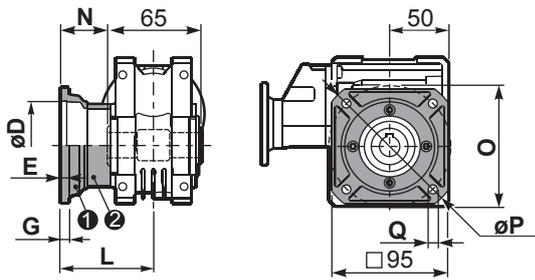
**tab. 2**

**PP4QFB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
56B5	K050.4.046	120	143.5
63B5	K050.4.041	138	145.5
71B5	K050.4.042	160	143
63B14	K050.4.047	90	145.5
71B14	K050.4.045	105	143

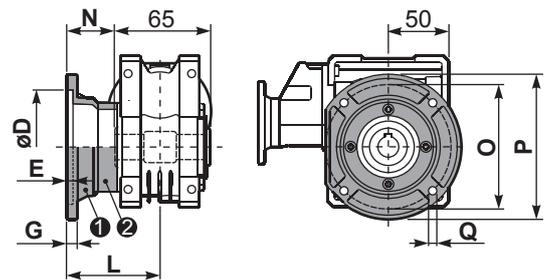


**PP4QFC...** Square flange  
Flangia quadrata



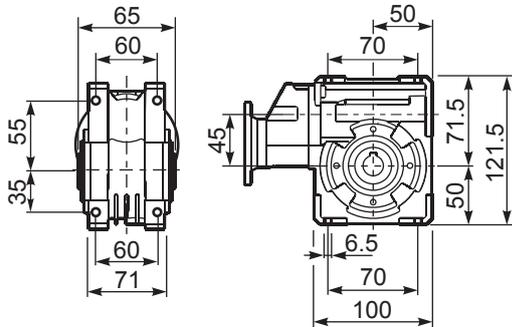
type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 H8	4	7	67	34.5	75	110	9	KQ45.9.010
FL	60 H8	4	7	97	64.5	75	110	9	KQ45.9.011

**PP4QF1...** Round flange  
Flangia rotonda

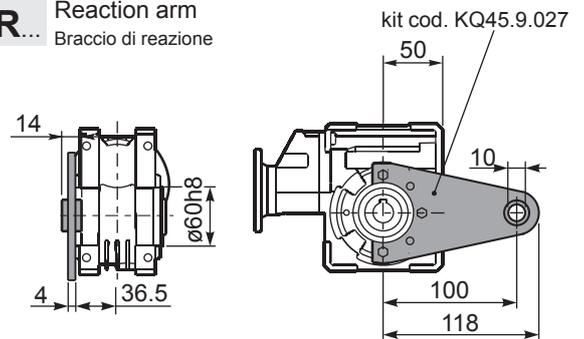


type S	øD	E	G	L	N	O	P	Q	kit code
F1	95H8	5	9	80	47.5	115	140	9.5	KSQ45.9.012
F2	80H8	5	12	58	25.5	100	120	9	KSQ45.9.013

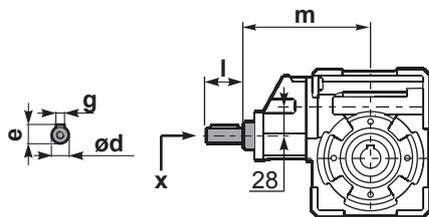
**PP4QFB...** Feet  
Piedini



**PP4QBR...** Reaction arm  
Braccio di reazione

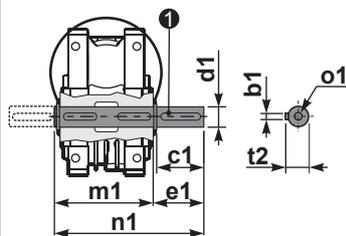


**RP4QFB...** Input shaft  
Albero in entrata



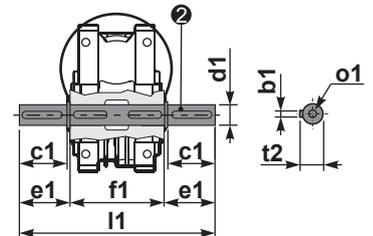
	ød	e	g	l	m	x	
type B	14 h6	16	5	25	141	M5x13	C35.5.061
type S	-	-	-	-	-	-	

**PP4Q.....S...** Single Shaft  
Albero lento semplice



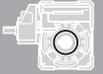
① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

**PP4Q.....D...** Double Shaft  
Albero lento bisp.



② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> -0.020	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> -0.020	58.5	65	182	70	128.5	21.5	M8x20



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-C	-P	-Q			
							56	63	71	63	71			
47	<b>30.1</b>	0.37	58	1.3	<b>0.49</b>	77				C		76	2.5	01
33	<b>43.0</b>	0.25	55	1.4	<b>0.35</b>	77				C		75	2.4	02
23	<b>60.2</b>	0.25	71	1.1	<b>0.27</b>	77				C		69	2.6	03
18.1	<b>77.4</b>	0.25	81	1.1	<b>0.27</b>	88				C		61	2.0	04
12.5	<b>112</b>	0.18	84	1.1	<b>0.19</b>	88				C		61	2.7	05
9.0	<b>155</b>	0.12	71	1.2	<b>0.15</b>	88				C		56	2.1	06
7.6	<b>185</b>	0.12	74	1.0	<b>0.12</b>	77				C		49	1.8	07
5.4	<b>258</b>	0.12*	77	<0.8	<b>0.09</b>	77				C		47	1.3	08
4.8	<b>292</b>	0.12*	66	<0.8	<b>0.08</b>	66				C		44	1.2	09
4.1	<b>344</b>	0.12*	44	<0.8	<b>0.05</b>	44				C		40	1.0	10
3.3	<b>430</b>	0.12*	44	<0.8	<b>0.04</b>	44				C		36	0.8	11

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **P5Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P5Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P5Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P5Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P5Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION P5Q Oil**  
Common lubrication 0.26 l (A + B).

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	$F_A$ [N]	$F_R$ [N]
75	340	1700
50	380	1900
25	480	2500
15-6	560	2800

**Input shaft**  
albero in entrata

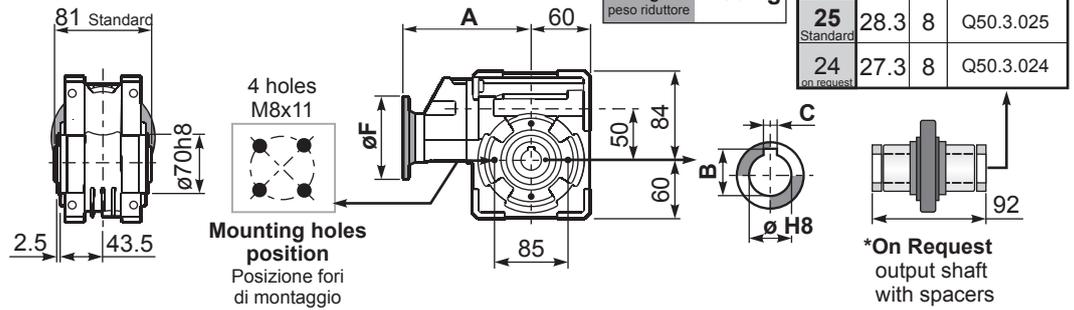
$n_1$ [min <sup>-1</sup> ]	$F_A$ [N]	$F_R$ [N]
1400	44	220

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

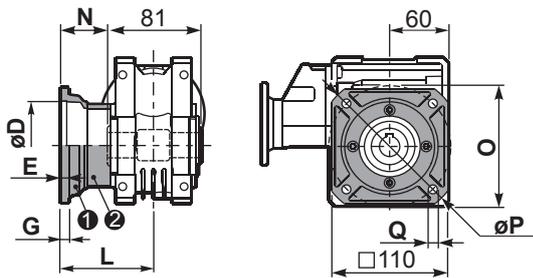
**tab. 2**

**PP5QFB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
56B5	K050.4.046	120	147
63B5	K050.4.041	138	149
71B5	K050.4.042	160	146.5
63B14	K050.4.047	90	149
71B14	K050.4.045	105	146.5

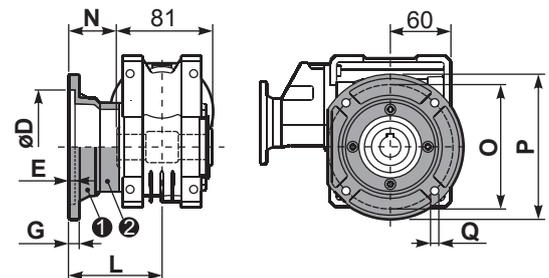


**PP5QFC...** Square flange  
Flangia quadrata



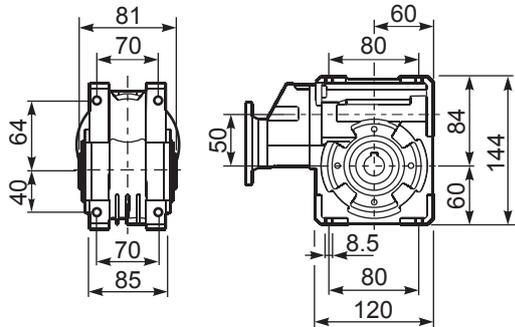
type B	øD	E	G	L	N	O	P	Q	kit code
FC	70 H8	5	9	90	49.5	85	125	11	KQ50.9.010
FL	70 H8	5	9	120	79.5	85	125	11	KQ50.9.011

**PP5QF1...** Round flange  
Flangia rotonda

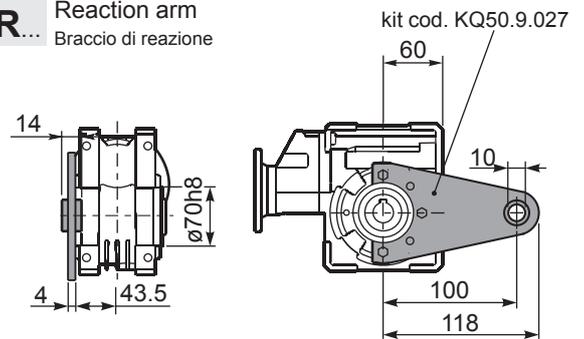


type S	øD	E	G	L	N	O	P	Q	kit code
F1	110 H8	5	10	89	69.5	130	160	9.5	KSQ50.9.012
F2	95 H8	5	14.5	72	31.5	115	140	11	KSQ50.9.013

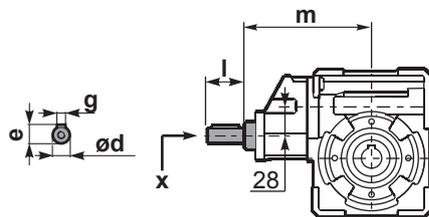
**PP5QFB...** Feet  
Piedini



**PP5QBR...** Reaction arm  
Braccio di reazione

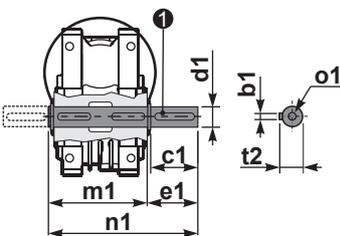


**RP5QFB...** Input shaft  
Albero in entrata



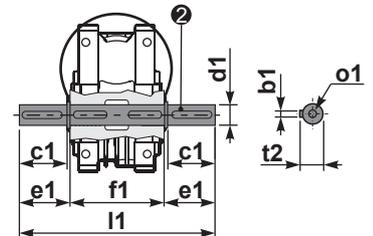
	ød	e	g	l	m	x	
type B	14 h6	16	5	25	140.5	M5x13	C35.5.061
type S	-	-	-	-	-	-	

**PP5Q.....S...** Single Shaft  
Albero lento semplice



① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

**PP5Q.....D...** Double Shaft  
Albero lento bisp.



② kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	52	25 <sup>-0.005</sup> <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> <sub>-0.020</sub>	68.8	81	218	86.5	155	27	M8x20



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

	Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges				Dynamic efficiency RD	Tooth Module [mm]	Ratios code
								-B	-C	-D	-E	-P	-Q	-R	-T			
								63	71	80	90	63	71	80	90			
IEC 90 - 80 - 71	47	29.9	0.75	113	1.5	1.1	165						C	C		74	2.6	01
	37	37.7	0.75	141	1.2	0.88	165						C	C		73	2.0	02
	30	47.1	0.75	169	1.1	0.83	187						C	C		70	3.2	03
	25	56.6	0.55	136	1.4	0.76	187						C	C		64	2.7	04
	19.8	70.7	0.55	164	1.1	0.63	187						C	C		62	2.1	05
	15.9	87.8	0.37	162	1.2	0.43	187						C	C		73	2.6	06
	12.6	111.0	0.37	199	0.9	0.35	187						C	C		71	2.0	07
IEC 71 - 63	10.1	139	0.37	234	0.8	0.30	187						C			67	3.2	08
	8.4	166	0.25	173	1.1	0.27	187						C			61	2.7	09
	6.7	208	0.18	151	1.1	0.20	165						C			59	2.1	10
	4.5	310	0.12	129	1.3	0.15	165						C			51	1.5	11
	3.8	370	0.12	145	1.1	0.14	165						C			48	1.3	12
	3.2	434	0.12	149	0.9	0.11	138						C			42	1.1	13

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit P6Q is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo P6Q viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

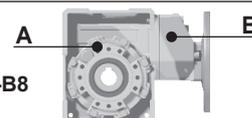
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe P6Q mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type P6Q est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño P6Q se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION P6Q Oil

For B3-V5-V6 separate lubrication for A (0.30 l) B (0.08 l), for B6-B7-B8 common lubrication 0.35 l (A + B).



AGIP Telium VSF 320

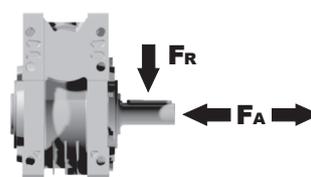
SHELL Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

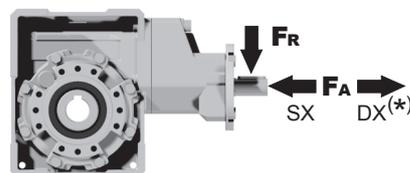
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	500	2500
50	600	3000
25	700	3800
15-6	800	4000

#### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	61	305

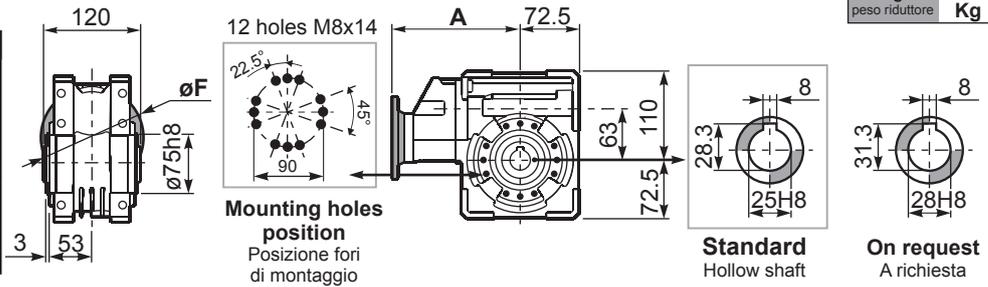
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**PP6QFB...** Basic wormbox  
Riduttore base

Gearbox weight	29.9+111	139+434
peso riduttore	<b>7.05</b>	<b>6.60</b>
	<b>Kg</b>	<b>Kg</b>

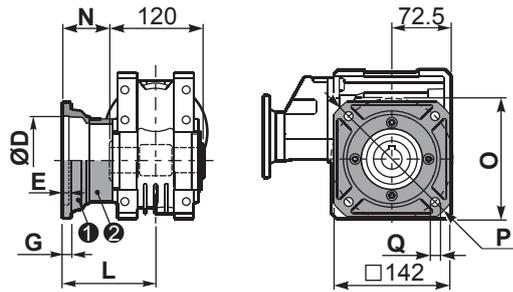
M.flange	Kit code	øF	A
71B5	K063.4.042	160	176.5
80/90B5	K063.4.043	200	178.5
71B14	K063.4.047	105	176.5
80B14	K063.4.046	120	178.5
90B14	K063.4.041	140	178.5
<hr/>			
63B5	K050.4.041	138	162.5
71B5	K050.4.042	160	160
63B14	K050.4.047	90	162.5
71B14	K050.4.045	105	160



**Standard**  
Hollow shaft

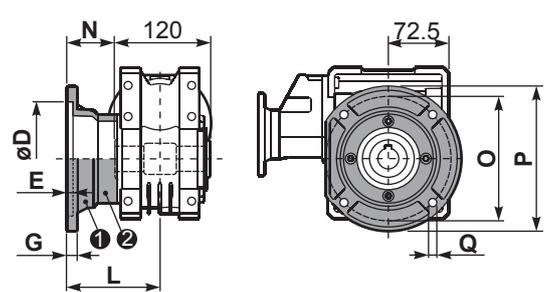
**On request**  
A richiesta

**PP6QFC...** Output flange  
Flangia uscita



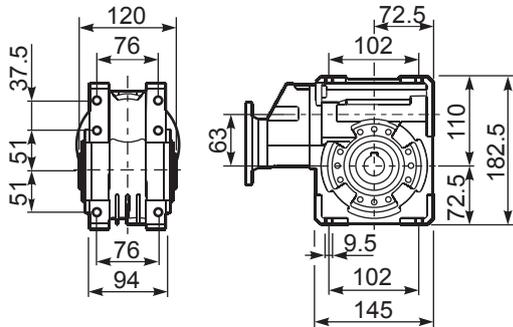
type B	øD	E	G	L	N	O	P	Q	kit code
FC	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	86	26	150	180	11	1 KQ63.9.010 2 -
FL	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	116	56	150	180	11	1 KQ63.9.010 2 K063.0.200

**PP6QF1...** Output flange  
Flangia uscita

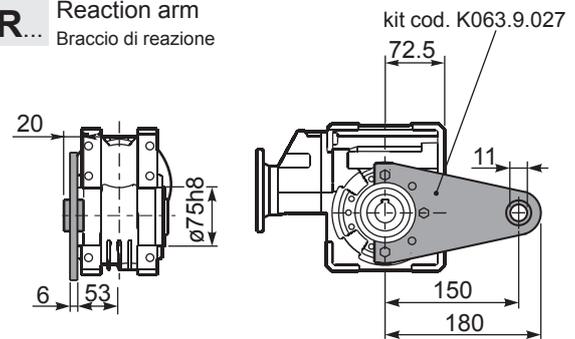


type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	110	50	165	200	13	1 KS070.9.013 2 -
F2	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	124	64	150	175	11	1 KS063.9.013 2 -
F3	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	90	30	130	160	10	1 KS063.9.011 2 -

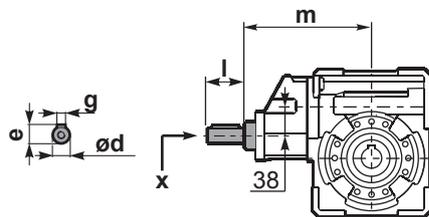
**PP6QFB...** Feet  
Piedini



**PP6QBR...** Reaction arm  
Braccio di reazione



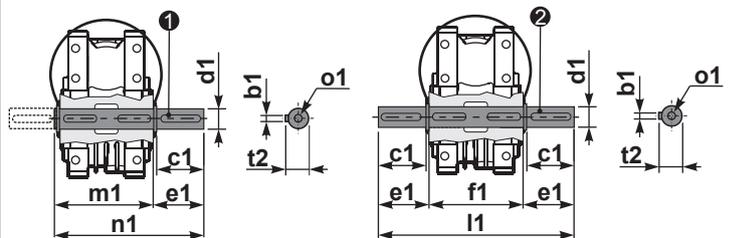
**RP6QFB...** Input shaft  
Albero in entrata



	ød	e	g	l	m	x	
29.9+111	19 h6	21.5	6	35	169.4	M6x16	C40.5.062
139+434	14 h6	16	5	25	154.2	M5x13	C35.5.061

**PP6Q.....S...** Single Shaft  
Albero lento semplice

**PP6Q.....D...** Double Shaft  
Albero lento bisp.



1 kit cod. K063.5.028 type B      2 kit cod. K063.5.029 type B

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency RD	Tooth Module [mm]	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
22	<b>62.9</b>	0.75	248	1.2	<b>0.87</b>	<b>286</b>					C	C		77	3.10	01
18	<b>78.5</b>	0.75	293	1.0	<b>0.73</b>	<b>286</b>					C	C		73	2.41	02
15	<b>94.2</b>	0.75	333	0.9	<b>0.70</b>	<b>310</b>					C	C		69	2.10	03
11	<b>126</b>	0.55	297	1.0	<b>0.55</b>	<b>296</b>	B				C	C		63	1.53	04
9	<b>157</b>	0.37	230	1.1	<b>0.41</b>	<b>252</b>	B				C	C		58	1.23	05
8	<b>185</b>	0.37	257	1.2	<b>0.43</b>	<b>296</b>	B				C	C		55	3.10	06
6	<b>231</b>	0.25	193	1.5	<b>0.38</b>	<b>296</b>	B				C	C		49	2.41	07
5	<b>277</b>	0.25	222	1.3	<b>0.33</b>	<b>296</b>	B				C	C		47	2.10	08
4	<b>378</b>	0.18	200	1.5	<b>0.27</b>	<b>296</b>	B				C	C		43	2.10	09

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M<sub>2R</sub>  
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M<sub>2R</sub>

**EN** Unit P7Q is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo P7Q viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe P7Q mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type P7Q est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño P7Q se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION P7Q Oil

For B3-V5-V6 separate lubrication for A (0.40 l) B (0.14 l), for B6-B7-B8 common lubrication 0.65 l (A + B).



**AGIP** Telium VSF 320

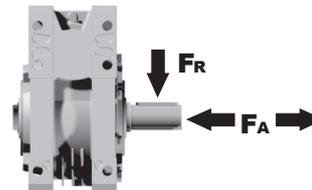
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

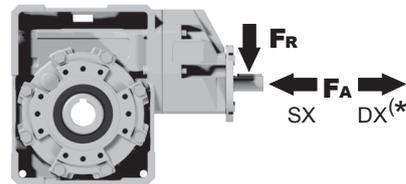
Albero di uscita



n <sub>2</sub> [min <sup>-1</sup> ]	FA [N]	FR [N]
75	620	3100
50	720	3600
25	880	4400
15-6	1000	5000

#### Input shaft

albero in entrata



n [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	108	540

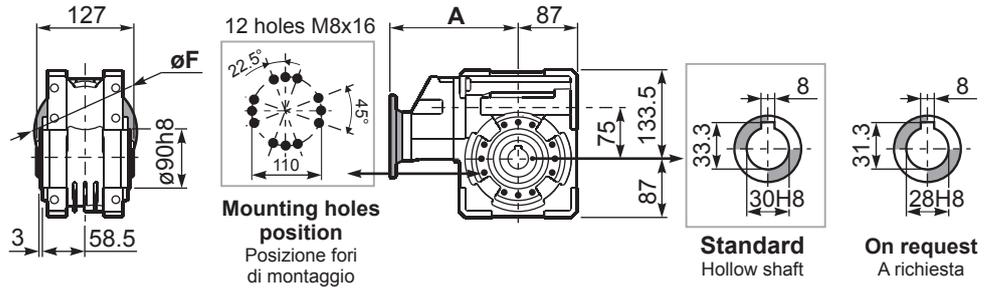
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

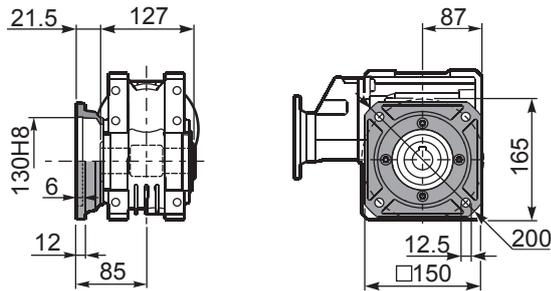
PP7Q**FB**... Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **9.90 kg**

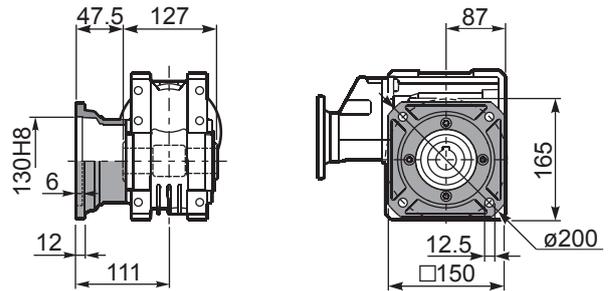
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	192.7
71B5	K063.4.042	160	190.7
80/90B5	K063.4.043	200	192.7
71B14	K063.4.047	105	190.7
80B14	K063.4.046	120	192.7
90B14	K063.4.041	140	192.7



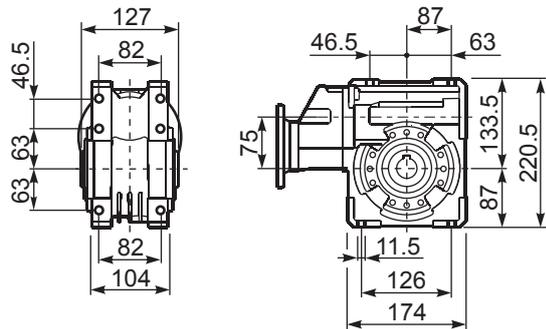
PP7Q**FC**... Square flange  
Flangia quadrata



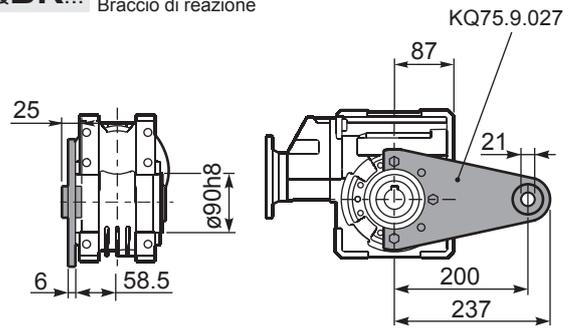
PP7Q**FL**... Square flange  
Flangia quadrata



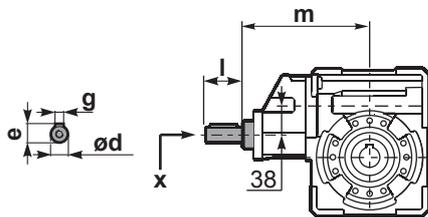
PP7Q**FB**... Feet  
Piedini



PP7Q**BR**... Reaction arm  
Braccio di reazione

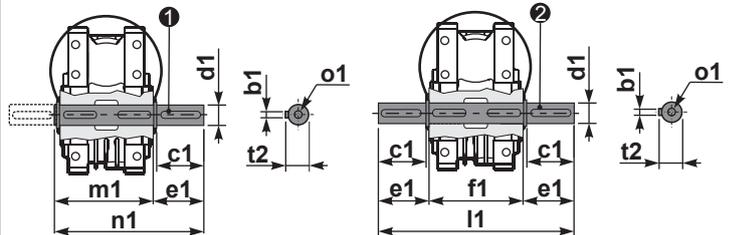


RP7Q**FB**... Input shaft  
Albero in entrata



PP7Q.....**S**... Single Shaft  
Albero lento semplice

PP7Q.....**D**... Double Shaft  
Albero lento bisp.

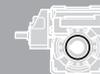


① kit cod. KQ75.5.028 Standard  
kit cod. KQ75.5.026 On request

② kit cod. KQ75.5.029 Standard  
kit cod. KQ75.5.027 On request

	ød	e	g	l	m	x	
type B	19 h6	21.5	6	35	185.5	M6x16	C40.5.062
type S	-	-	-	-	-	-	

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
Standard	8	60	30 <sup>-0.005</sup> <sub>-0.020</sub>	65	127	255	134	199	33	M8x20
On request	8	50	28 <sup>-0.005</sup> <sub>-0.020</sub>	65	127	255	134	199	31	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module [mm]	Ratios code
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
23.5	<b>59.7</b>	1.1	300	1.4	<b>1.5</b>	<b>418</b>					C	C		67	3.5	01
19.4	<b>72.3</b>	1.1	347	1.2	<b>1.3</b>	<b>407</b>					C	C		64	3.1	02
17.1	<b>81.7</b>	1.1	374	1.1	<b>1.2</b>	<b>418</b>					C	C		61	2.7	03
13.3	<b>105</b>	0.75	323	1.2	<b>0.89</b>	<b>385</b>					C	C		60	2.1	04
8.0	<b>176</b>	0.55	415	1.1	<b>0.58</b>	<b>440</b>	B				C	C		63	3.5	05
6.6	<b>213</b>	0.37	322	1.3	<b>0.47</b>	<b>407</b>	B				C	C		60	3.1	06
5.8	<b>240</b>	0.37	321	1.3	<b>0.48</b>	<b>418</b>	B				C	C		53	2.7	07
4.3	<b>328</b>	0.37	438	1.0	<b>0.35</b>	<b>418</b>	B				C	C		53	2.7	08
3.3	<b>422</b>	0.25	374	1.0	<b>0.26</b>	<b>385</b>	B				C	C		52	2.1	09
3.0	<b>466</b>	0.25	358	0.9	<b>0.23</b>	<b>330</b>	B				C	C		45	1.9	10
2.3	<b>605</b>	0.18	297	1.1	<b>0.20</b>	<b>330</b>	B				C	C		40	1.5	11

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione



**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **P8Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P8Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

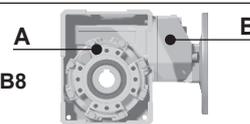
**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **P8Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P8Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **P8Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION P8Q Oil

For B3-V5-V6 separate lubrication for A ( 1.20 l ) B ( 0.14 l ) , for B6-B7-B8 common lubrication 1.00 l ( A + B ).



**AGIP** Telium VSF 320

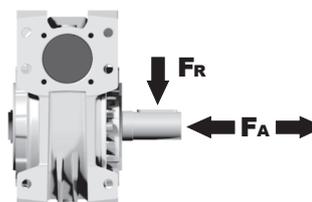
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

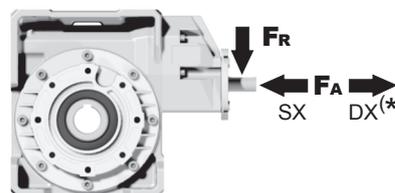
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
75	700	3500
50	800	4000
25	1000	5000
15-6	1160	5800

##### Input shaft

albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	108	540

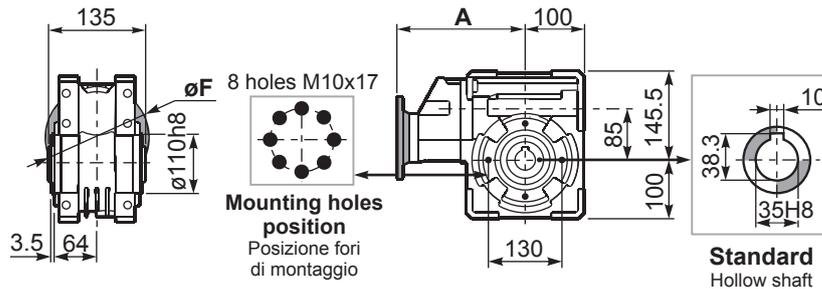
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PP8QFB...** Basic wormbox  
Riduttore base

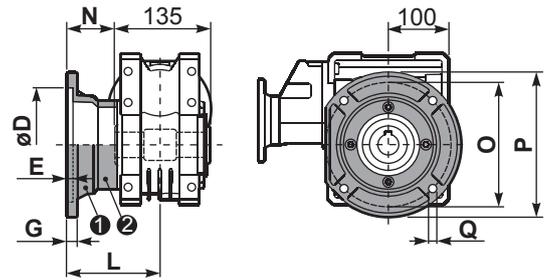
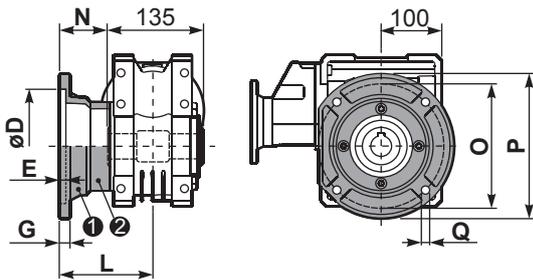
Gearbox weight  
peso riduttore **12.3 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	195.2
71B5	K063.4.042	160	193.2
80/90B5	K063.4.043	200	195.2
71B14	K063.4.047	105	193.2
80B14	K063.4.046	120	195.2
90B14	K063.4.041	140	195.2



**PP8QFC...** Output flange  
Flangia uscita

**PP8QF1...** Output flange  
Flangia uscita

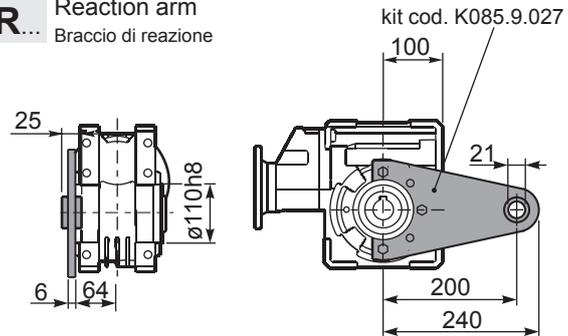
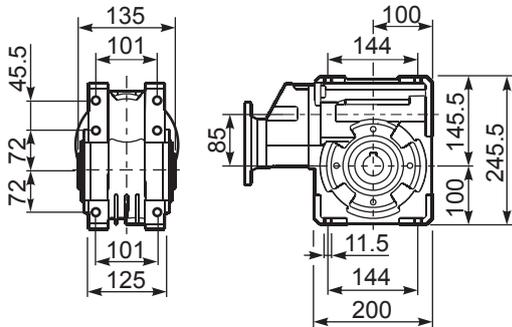


type B	øD	E	G	L	N	O	P	Q	kit code
FC	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	1 K085.9.010 2 -
FL	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	1 K085.9.010 2 K085.0.201

type S	øD	E	G	L	N	O	P	Q	kit code
F1	130 <sup>+0.04</sup> / <sub>+0.00</sub>	5	13	117.5	50	165	200	11.5	1 KS085.9.012 2 -
F2	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	15	147.5	80	180	205	12.5	1 KS085.9.013 2 -
F4	130 <sup>+0.04</sup> / <sub>+0.00</sub>	5	13	106.5	39	165	200	13	1 KS085.9.015 2 -

**PP8QFB...** Feet  
Piedini

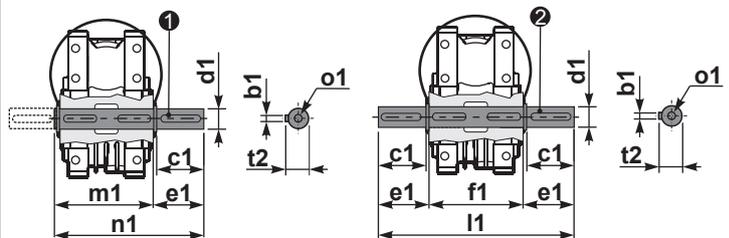
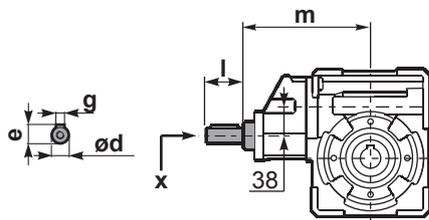
**PP8QBR...** Reaction arm  
Braccio di reazione



**RP8QFB...** Input shaft  
Albero in entrata

**PP8Q...S...** Single Shaft  
Albero lento semplice

**PP8Q...D...** Double Shaft  
Albero lento bisp.



1 kit cod. K085.5.028 type B    2 kit cod. K085.5.029 type B

	ød	e	g	l	m	x	
type B	19 h6	21.5	6	35	187.5	M6x16	C40.5.062
type S	-	-	-	-	-	-	-

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
16.8	<b>83.2</b>	1.5	587	1.1	<b>1.7</b>	<b>660</b>					C			69	3.5	01
13.9	<b>100.5</b>	1.5	699	0.8	<b>1.3</b>	<b>594</b>					C			68	2.9	02
10.6	<b>132</b>	1.1	634	0.9	<b>0.95</b>	<b>550</b>					C			64	2.2	03
8.0	<b>176</b>	0.75	666	1.2	<b>0.90</b>	<b>803</b>	B				C			74	4.7	04
6.7	<b>208</b>	0.75	766	0.9	<b>0.65</b>	<b>660</b>	B				C			72	4.0	05
5.7	<b>245</b>	0.55	634	1.0	<b>0.57</b>	<b>660</b>	B				C			69	3.5	06
4.7	<b>296</b>	0.55	755	0.8	<b>0.43</b>	<b>594</b>	B				C			68	2.9	07
4.2	<b>334</b>	0.55	865	0.8	<b>0.42</b>	<b>660</b>	B				C			69	3.5	08
3.5	<b>403</b>	0.37	692	0.9	<b>0.32</b>	<b>594</b>	B				C			68	2.9	09
2.6	<b>529</b>	0.25	577	1.0	<b>0.24</b>	<b>550</b>	B				C			64	2.2	10
2.2	<b>624</b>	0.25	628	0.8	<b>0.21</b>	<b>528</b>	B				C			59	1.9	11

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **P1Q** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. Primary reduction unit is supplied with closed plugs and lubricated for life with synthetic oil. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **P1Q** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. La precoppia è fornita con tappi chiusi e lubrificata a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **P1Q** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Die Stirnradvorstufe ist Lebensdauergeschmiert und wird mit synthetischem Öl geliefert. Die Stirnradvorstufe ist komplett geschlossen ohne Füllschrauben. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **P1Q** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le pré couple est fourni lubrifié à vie avec de l'huile synthétique et avec des bouchons fermés. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **P1Q** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>
2.0/0.14LT	1.35/0.14 LT	1.35/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT

AGIP Blasias 460

For all details on lubrication and plugs check our website

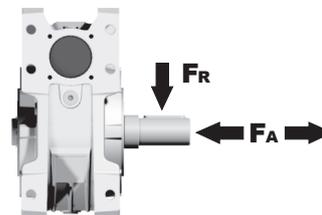
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

### RADIAL AND AXIAL LOADS

#### Output shaft

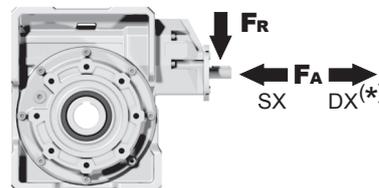
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>75</b>	800	4000
<b>50</b>	920	4600
<b>25</b>	1200	6000
<b>15-6</b>	1400	7000

#### Input shaft

albero in entrata

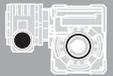


$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	150	760

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	 Ratios code
							-A	-B	-O	-P			
							56	63	56	63			
10.0	<b>140</b>	0.12	57	1.2	<b>0.14</b>	<b>69</b>	B		B-C		50	2.2	01
7.0	<b>200</b>	0.12	79	0.9	<b>0.11</b>	<b>69</b>	B		B-C		48	2.2	02
5.0	<b>280</b>	0.12*	69	<0.8	<b>0.08</b>	<b>69</b>	B		B-C		45	2.4	03
3.3	<b>420</b>	0.12*	69	<0.8	<b>0.07</b>	<b>69</b>	B		B-C		36	1.6	04
2.5	<b>560</b>	0.12*	69	<0.8	<b>0.05</b>	<b>69</b>	B		B-C		33	2.5	05
1.9	<b>740</b>	0.12*	69	<0.8	<b>0.05</b>	<b>69</b>	B		B-C		30	1.8	06
1.5	<b>920</b>	0.12*	69	<0.8	<b>0.04</b>	<b>69</b>	B		B-C		27	1.5	07
1.3	<b>1120</b>	0.12*	69	<0.8	<b>0.03</b>	<b>69</b>	B		B-C		26	2.5	08
0.9	<b>1480</b>	0.12*	69	<0.8	<b>0.03</b>	<b>69</b>	B		B-C		24	1.8	09
0.8	<b>1840</b>	0.12*	69	<0.8	<b>0.02</b>	<b>69</b>	B		B-C		22	1.5	10
0.6	<b>2400</b>	0.12*	69	<0.8	<b>0.02</b>	<b>69</b>	B		B-C		21	1.2	11

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **43Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **43Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **43Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **43Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **43Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**0.09 Lt.**

**■ LUBRICATION 43Q Oil**  
**Quantity 0.09/0.03 Lt.**

**0.03 Lt.**

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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**For all details on lubrication and plugs check our website** **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### ■ RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	300	1800
<b>15</b>	400	2000

**Input shaft**  
albero in entrata

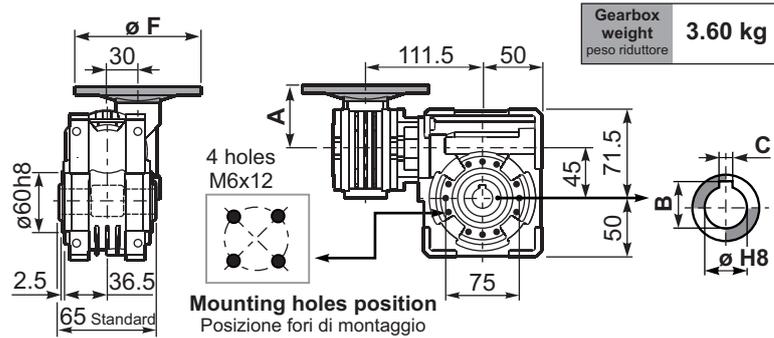
$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	20	100

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**P43QFB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
56B5	K030.4.041	120	61.5
63B5	K030.4.042	140	62.5
56B14	K030.4.046	80	61.5
63B14	K030.4.045	90	62.5

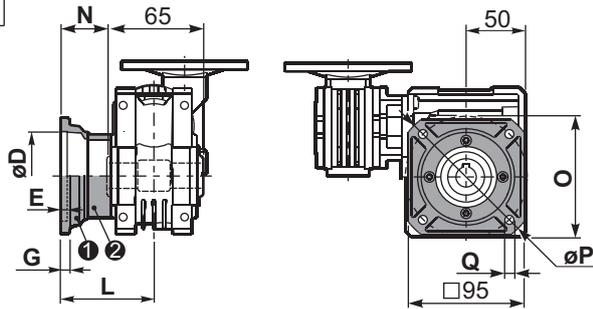


Gearbox weight  
peso riduttore **3.60 kg**

ø H8	B	C	*Spacer code
18 Standard	20.8	6	Q45.3.018
19 on request	21.8	6	Q45.3.019
20 on request	22.8	6	Q45.3.020

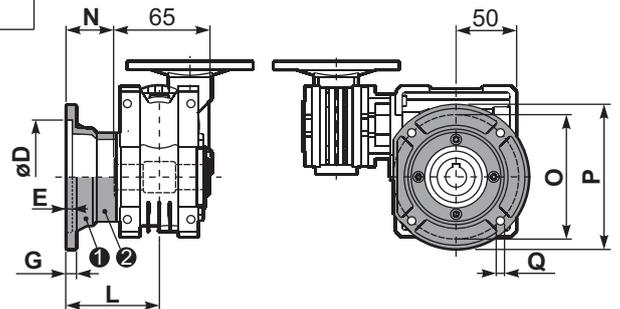
\*On Request  
output shaft with spacers

**P43QFC...** Square flange  
Flangia quadrata



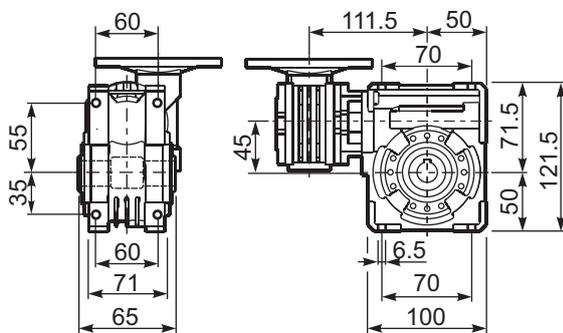
type B	øD	E	G	L	N	O	P	Q	kit code
FC	60 H8	4	7	67	34.5	75	110	9	KQ45.9.010
FL	60 H8	4	7	97	64.5	75	110	9	KQ45.9.011

**P43QF1...** Round flange  
Flangia rotonda

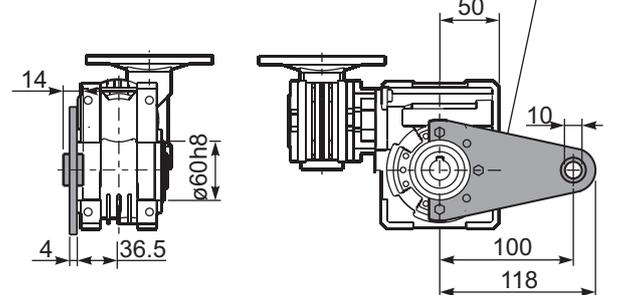


type S	øD	E	G	L	N	O	P	Q	kit code
F1	95H8	5	9	80	47.5	115	140	9.5	KSQ45.9.012
F2	80H8	5	12	58	25.5	100	120	9	KSQ45.9.013

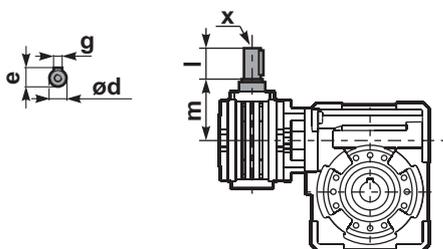
**P43QFB...** Feet  
Piedini



**P43QBR...** Reaction arm  
Braccio di reazione

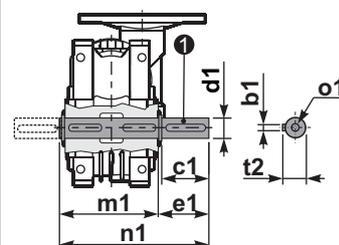


**R43QFB...** Input shaft  
Albero in entrata



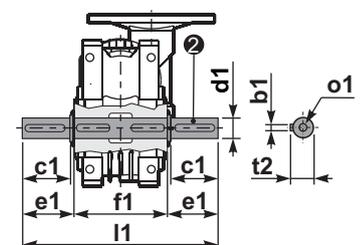
	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	K030.5.006 PAM63
type S	-	-	-	-	-	-	-

**P43Q.....S...** Single Shaft  
Albero lento semplice



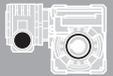
① kit cod. K045.5.028 type B  
kit cod. KS045.5.030 type S

**P43Q.....D...** Double Shaft  
Albero lento bisp.



② kit cod. K045.5.029 type B  
kit cod. KS045.5.031 type S

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	6	32	18 <sup>-0.005</sup> <sub>-0.020</sub>	43	65	151	70	113	20.5	M6x18
type S	6	40	19 <sup>-0.005</sup> <sub>-0.020</sub>	58.5	65	182	70	128.5	21.5	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.12	97	1.1	<b>0.14</b>	<b>109</b>	B		B-C		47	2.1	01
3.9	<b>360</b>	0.12	124	0.9	<b>0.11</b>	<b>109</b>	B		B-C		42	2.1	02
2.6	<b>540</b>	0.12*	109	<0.8	<b>0.08</b>	<b>109</b>	B		B-C		39	2.1	03
1.9	<b>720</b>	0.12*	109	<0.8	<b>0.06</b>	<b>109</b>	B		B-C		36	2.1	04
1.6	<b>860</b>	0.12*	109	<0.8	<b>0.06</b>	<b>109</b>	B		B-C		32	1.8	05
1.2	<b>1200</b>	0.12*	109	<0.8	<b>0.05</b>	<b>109</b>	B		B-C		27	1.3	06
1.0	<b>1440</b>	0.12*	109	<0.8	<b>0.04</b>	<b>109</b>	B		B-C		26	2.1	07
0.8	<b>1720</b>	0.12*	109	<0.8	<b>0.04</b>	<b>109</b>	B		B-C		25	1.8	08
0.6	<b>2400</b>	0.12*	104	<0.8	<b>0.03</b>	<b>104</b>	B		B-C		21	1.3	09

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **53Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **53Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **53Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **53Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **53Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**0.14 Lt.** **0.03 Lt.**

**■ LUBRICATION 53Q Oil Quantity 0.14/0.03 Lt.**

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**■ RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	480	2500
<b>15</b>	560	2800

**Input shaft**  
albero in entrata

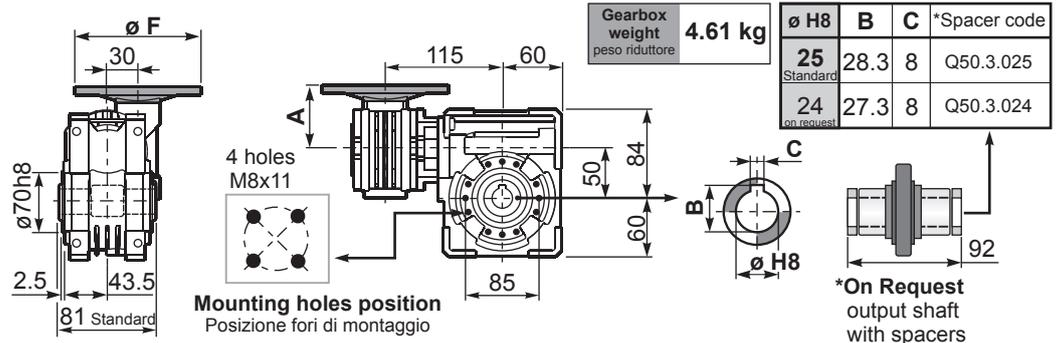
$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	20	100

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

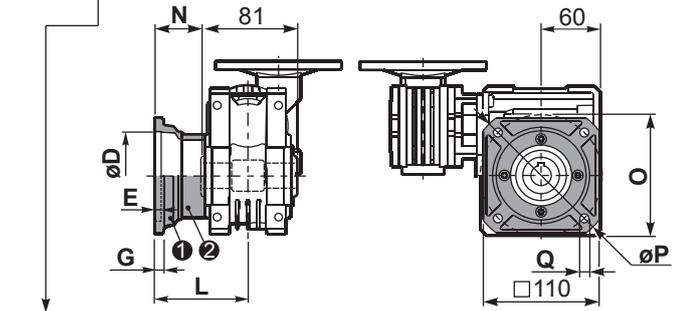
tab. 2

**P53QFB...** Basic wormbox  
Riduttore base

M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5

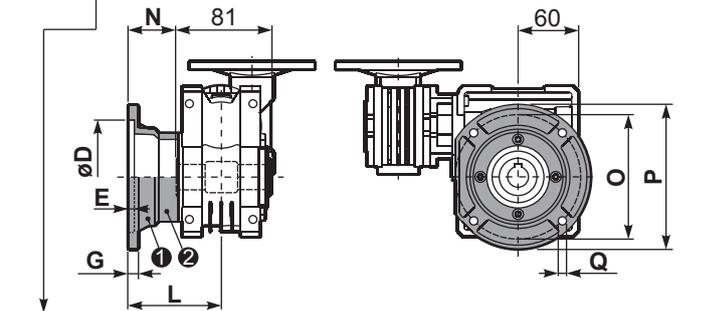


**P53QFC...** Square flange  
Flangia quadrata



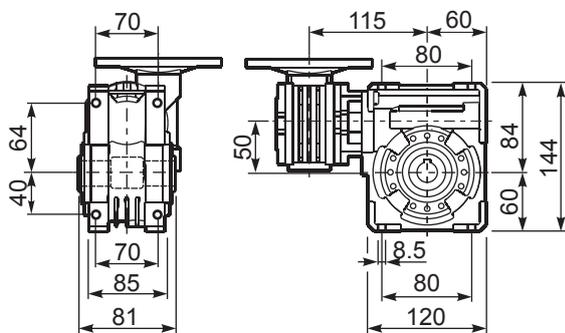
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	70 H8	5	9	90	49.5	85	125	11	KQ50.9.010
<b>FL</b>	70 H8	5	9	120	79.5	85	125	11	KQ50.9.011

**P53QF1...** Round flange  
Flangia rotonda

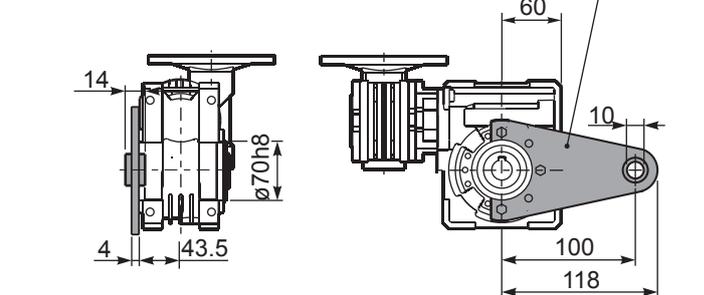


type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	110 H8	5	10	89	48.5	130	160	9.5	KSQ50.9.012
<b>F2</b>	95 H8	5	14.5	72	31.5	115	140	11	KSQ50.9.013

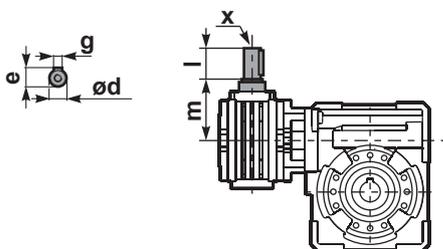
**P53QFB...** Feet  
Piedini



**P53QBR...** Reaction arm  
Braccio di reazione

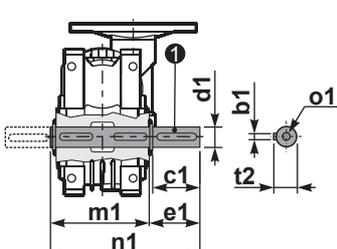


**R53QFB...** Input shaft  
Albero in entrata



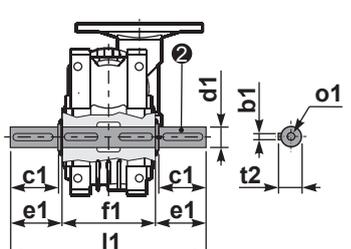
	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	K030.5.006 PAM63
type S	-	-	-	-	-	-	-

**P53Q.....S...** Single Shaft  
Albero lento semplice



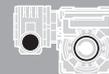
① kit cod. K050.5.028 type B  
kit cod. KS050.5.030 type S

**P53Q.....D...** Double Shaft  
Albero lento bisp.



② kit cod. K050.5.029 type B  
kit cod. KS050.5.031 type S

	b1	c1	d1	e1	f1	l1	m1	n1	t2	ø1
type B	8	52	25 <sup>-0.005</sup> <sub>-0.020</sub>	59.5	81	200	86.5	146	28	M8x20
type S	8	50	24 <sup>-0.005</sup> <sub>-0.020</sub>	68.8	81	218	86.5	155	27	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-A	-B	-O	-P			
							56	63	56	63			
5.6	<b>252</b>	0.18	142	1.6	<b>0.29</b>	<b>230</b>	B		B-C		46	2.7	01
3.9	<b>360</b>	0.18	181	1.3	<b>0.23</b>	<b>230</b>	B		B-C		41	2.7	02
2.6	<b>540</b>	0.12	164	1.4	<b>0.17</b>	<b>230</b>	B		B-C		37	2.7	03
1.9	<b>720</b>	0.12	200	1.1	<b>0.14</b>	<b>230</b>	B		B-C		34	2.7	04
1.3	<b>1080</b>	0.12	265	0.9	<b>0.10</b>	<b>230</b>	B		B-C		30	2.7	05
1.0	<b>1440</b>	0.12*	230	<0.8	<b>0.09</b>	<b>230</b>	B		B-C		27	2.7	06
0.5	<b>2745</b>	0.12*	230	<0.8	<b>0.05</b>	<b>230</b>	B		B-C		23	2.1	07

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **63Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **63Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **63Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **63Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **63Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 63Q Oil**  
Quantity 0.30/0.03 Lt.

0.30 Lt.

0.03 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	700	3800
15	800	4000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	20	100

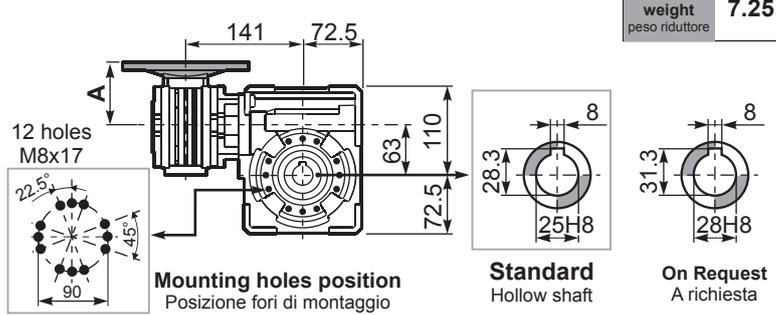
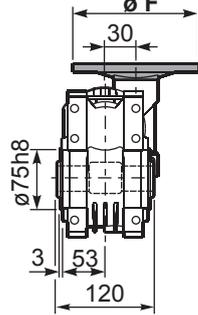
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**P63QFB...** Basic wormbox  
Riduttore base

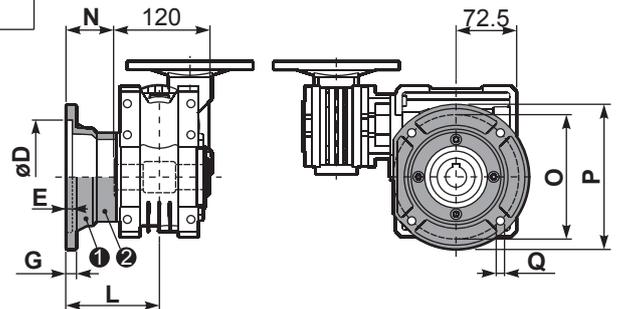
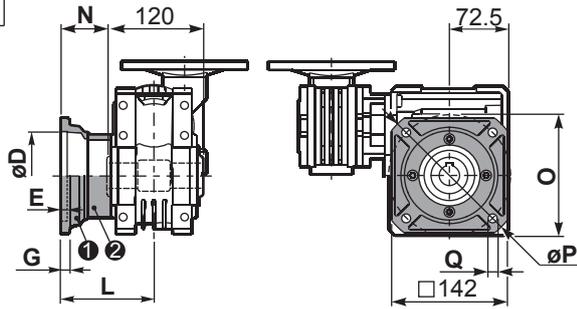
Gearbox weight  
peso riduttore **7.25 kg**

M. flanges	Kit code	øF	A
<b>56B5</b>	K030.4.041	120	61.5
<b>63B5</b>	K030.4.042	140	62.5
<b>56B14</b>	K030.4.046	80	61.5
<b>63B14</b>	K030.4.045	90	62.5



**P63QFC...** Square flange  
Flangia quadrata

**P63QF1...** Round flange  
Flangia rotonda



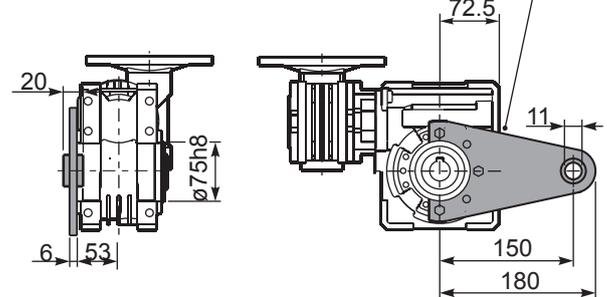
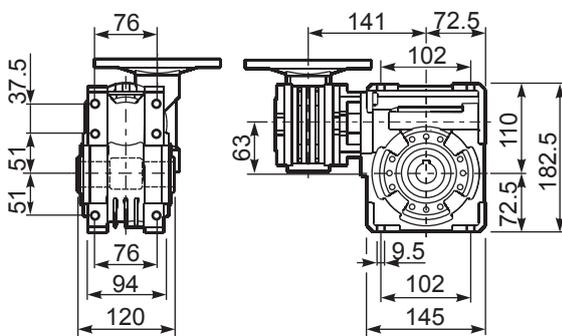
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	86	26	150	180	11	① KQ63.9.010 ② -
<b>FL</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	116	56	150	180	11	① KQ63.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	110	50	165	200	13	① KS070.9.013 ② -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	124	64	150	175	11	① KS063.9.013 ② -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	90	30	130	160	10	① KS063.9.011 ② -

**P63QFB...** Feet  
Piedini

**P63QBR...** Reaction arm  
Braccio di reazione

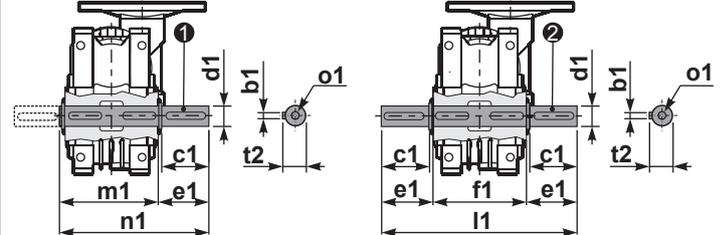
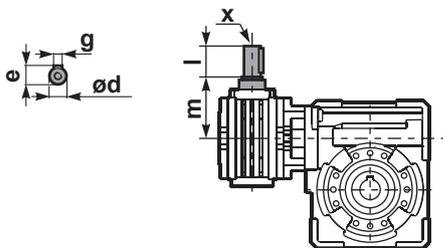
kit cod. K063.9.027



**R63QFB...** Input shaft  
Albero in entrata

**P63Q.....S...** Single Shaft  
Albero lento semplice

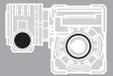
**P63Q.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K063.5.028 type B    ② kit cod. K063.5.029 type B

	ød	e	g	l	m	x	kit code
type B	9 h6	10.2	3	20	58	-	① K030.5.006 PAM63 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5.6	<b>252</b>	0.25	198	1.3	<b>0.33</b>	<b>265</b>	<b>B</b>		B-C	B-C		46	2.7	01
3.9	<b>360</b>	0.18	186	1.4	<b>0.26</b>	<b>265</b>	<b>B</b>		B-C	B-C		42	2.7	02
2.8	<b>504</b>	0.18	241	1.1	<b>0.20</b>	<b>265</b>	<b>B</b>		B-C	B-C		39	2.7	03
1.9	<b>756</b>	0.12	204	1.3	<b>0.16</b>	<b>265</b>	<b>B</b>		B-C	B-C		33	2.7	04
1.4	<b>1008</b>	0.12	256	1.0	<b>0.12</b>	<b>265</b>	<b>B</b>		B-C	B-C		31	2.7	05
1.1	<b>1332</b>	0.12*	265	<0.8	<b>0.10</b>	<b>265</b>	<b>B</b>		B-C	B-C		30	2.7	06
0.8	<b>1656</b>	0.12*	265	<0.8	<b>0.08</b>	<b>265</b>	<b>B</b>		B-C	B-C		28	2.7	07
0.6	<b>2160</b>	0.12*	265	<0.8	<b>0.07</b>	<b>265</b>	<b>B</b>		B-C	B-C		26	2.7	08
0.6	<b>2520</b>	0.12*	265	<0.8	<b>0.06</b>	<b>265</b>	<b>B</b>		B-C	B-C		25	2.7	09

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**EN** Unit **64Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **64Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **64Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **64Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **64Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

0.30 Lt.

**■ LUBRICATION 64Q Oil**  
Quantity 0.30/0.09 Lt.

<b>AGIP</b> Telium VSF 320	<b>SHELL</b> Omala S4 WE 320
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**For all details on lubrication and plugs check our website** **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### ■ RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	700	3800
15	800	4000

**Input shaft**  
albero in entrata

$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	42	210

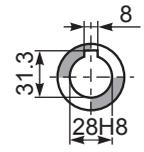
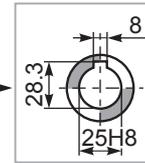
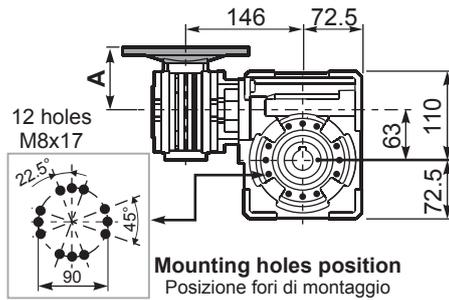
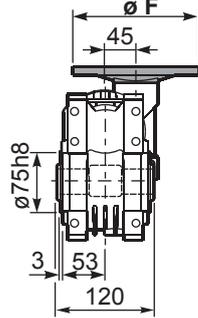
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P64QFB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **7.25 kg**

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	74
<b>71B5</b>	K050.4.042	160	71.5
<b>56B14</b>	KC40.4.049	80	71.5
<b>63B14</b>	K050.4.047	90	74
<b>71B14</b>	K050.4.045	105	71.5



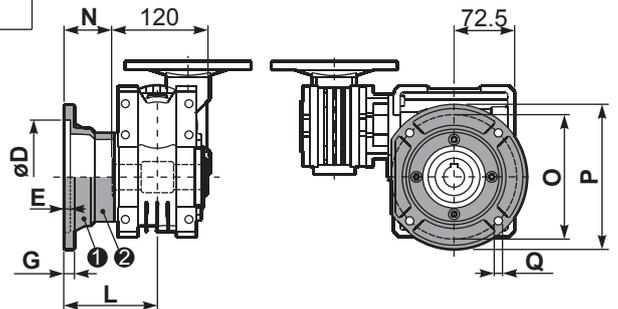
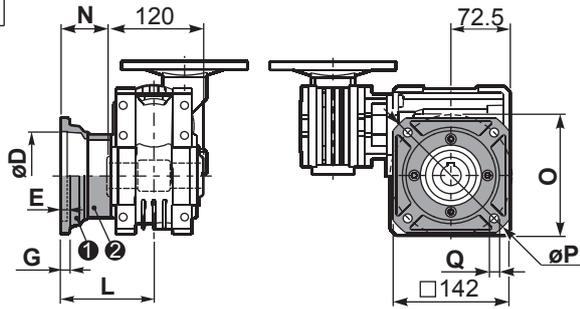
**Mounting holes position**  
Posizione fori di montaggio

**Standard**  
Hollow shaft

**On Request**  
A richiesta

**P64QFC...** Square flange  
Flangia quadrata

**P64QF1...** Round flange  
Flangia rotonda



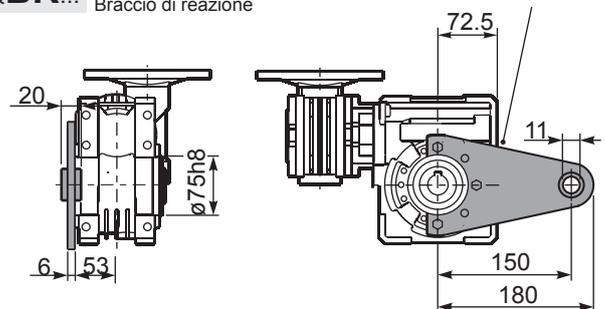
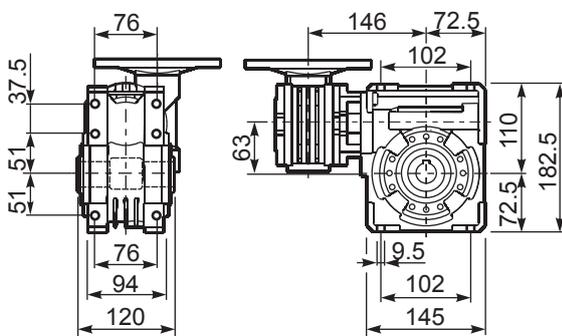
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	86	26	150	180	11	① KQ63.9.010 ② -
<b>FL</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	6	12	116	56	150	180	11	① KQ63.9.010 ② K063.0.200

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	110	50	165	200	13	① KS070.9.013 ② -
<b>F2</b>	115 <sup>+0.20</sup> / <sub>+0.15</sub>	7	13	124	64	150	175	11	① KS063.9.013 ② -
<b>F3</b>	110 <sup>+0.035</sup> / <sub>0</sub>	5	11	90	30	130	160	10	① KS063.9.011 ② -

**P64QFB...** Feet  
Piedi

**P64QBR...** Reaction arm  
Braccio di reazione

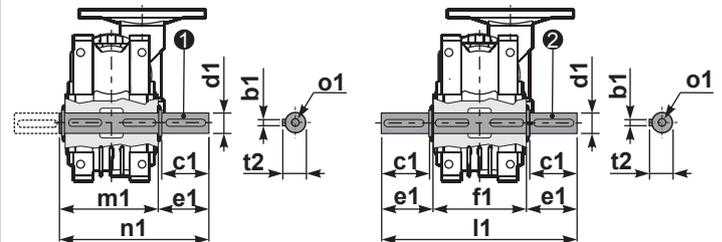
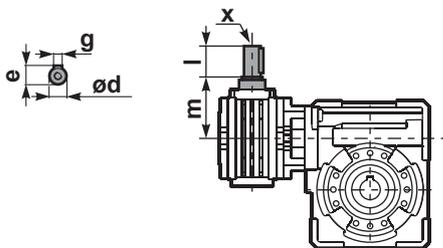
kit cod. K063.9.027



**R64QFB...** Input shaft  
Albero in entrata

**P64Q.....S...** Single Shaft  
Albero lento semplice

**P64Q.....D...** Double Shaft  
Albero lento bisp.

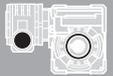


① kit cod. K063.5.028 type B

② kit cod. K063.5.029 type B

	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	8	60	25 <sup>-0.005</sup> / <sub>-0.020</sub>	63.2	120	246.4	126.8	190	28	M8x20
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
5	<b>280</b>	0.37	403	0.9	<b>0.33</b>	<b>359</b>	B		B-C	B-C		57	3.10	01
3.5	<b>400</b>	0.25	314	1.1	<b>0.29</b>	<b>359</b>	B		B-C	B-C		46	3.10	02
2.5	<b>560</b>	0.25	420	0.9	<b>0.21</b>	<b>359</b>	B		B-C	B-C		44	3.10	03
1.7	<b>840</b>	0.18	423	0.8	<b>0.15</b>	<b>359</b>	B		B-C	B-C		41	3.10	04
1.3	<b>1120</b>	0.12	339	1.1	<b>0.13</b>	<b>359</b>	B		B-C	B-C		37	3.10	05
0.9	<b>1480</b>	0.09	336	1.1	<b>0.10</b>	<b>359</b>	B		B-C	B-C		37	3.10	06
0.8	<b>1840</b>	0.09	373	1.0	<b>0.09</b>	<b>359</b>	B		B-C	B-C		33	3.10	07
0.6	<b>2400</b>	0.06	275	1.3	<b>0.08</b>	<b>359</b>	B		B-C	B-C		28	3.10	08
0.5	<b>2800</b>	0.06	298	1.2	<b>0.07</b>	<b>359</b>	B		B-C	B-C		26	3.10	09
0.3	<b>4080</b>	0.06	250	1.4	<b>0.09</b>	<b>359</b>	B		B-C	B-C		15	3.10	10

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **74Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **74Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **74Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **74Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **74Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 74Q Oil**  
Quantity 0.40/0.09 Lt.

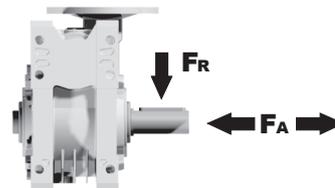
**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

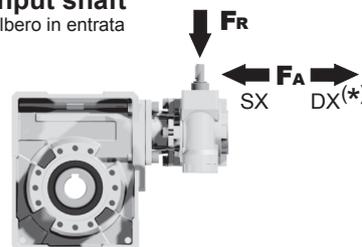
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	880	4400
15	1000	5000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	42	210

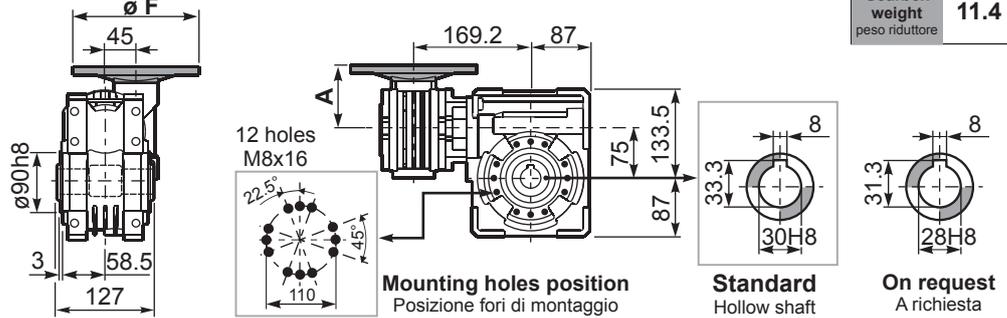
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**P74QFB...** Basic wormbox  
Riduttore base

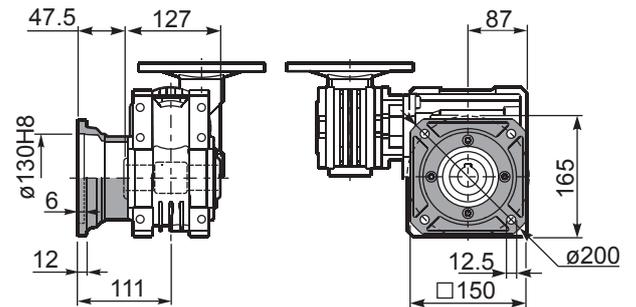
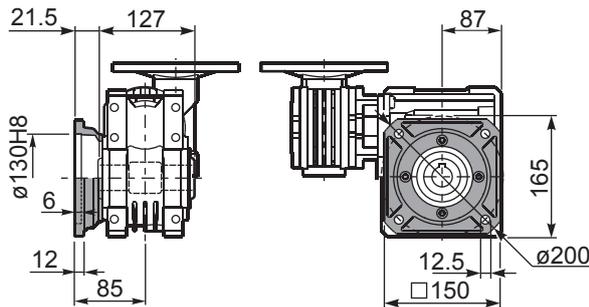
Gearbox weight  
peso riduttore **11.4 kg**

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	74
<b>71B5</b>	K050.4.042	160	71.5
<b>56B14</b>	KC40.4.049	80	71.5
<b>63B14</b>	K050.4.047	90	74
<b>71B14</b>	K050.4.045	105	71.5



**P74QFC...** Square flange  
Flangia quadrata

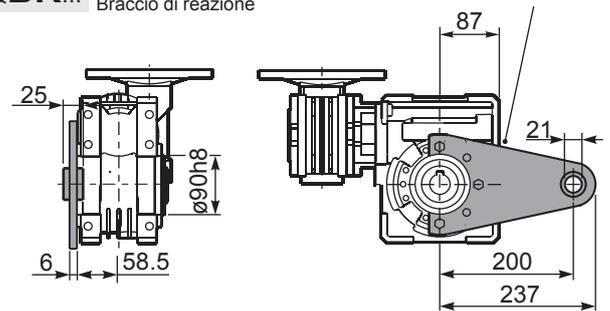
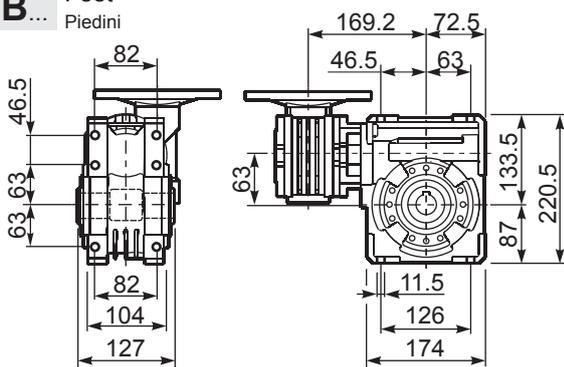
**P74QFL...** Square flange  
Flangia quadrata



**P74QFB...** Feet  
Piedini

**P74QBR...** Reaction arm  
Braccio di reazione

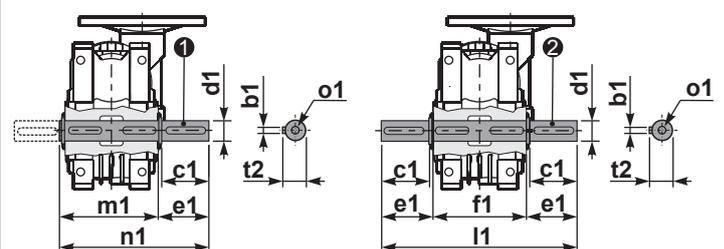
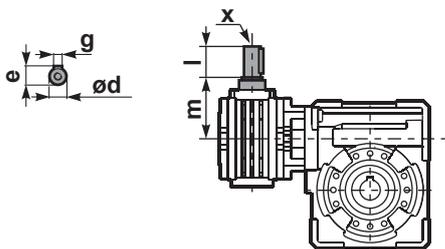
kit cod. KQ75.9.027



**R74QFB...** Input shaft  
Albero in entrata

**P74Q.....S...** Single Shaft  
Albero lento semplice

**P74Q.....D...** Double Shaft  
Albero lento bisp.

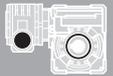


① kit cod. KQ75.5.028 Standard  
kit cod. KQ75.5.026 On request

② kit cod. KQ75.5.029 Standard  
kit cod. KQ75.5.027 On request

	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
Standard	8	60	30 <sup>-0.005</sup> <sub>-0.020</sub>	65	127	255	134	199	33	M8x20
On request	8	60	28 <sup>-0.005</sup> <sub>-0.020</sub>	65	127	255	134	199	31	M8x20



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-O	-P	-Q			
							63	71	56	63	71			
10	<b>140</b>	0.37	205	1.8	<b>0.66</b>	<b>368</b>	<b>B</b>		B-C	B-C		58	4.5	01
7.1	<b>196</b>	0.37	257	1.4	<b>0.53</b>	<b>368</b>	<b>B</b>		B-C	B-C		52	4.7	02
5.0	<b>280</b>	0.37	332	1.6	<b>0.58</b>	<b>518</b>	<b>B</b>		B-C	B-C		47	4.7	03
3.6	<b>392</b>	0.37	435	1.2	<b>0.44</b>	<b>518</b>	<b>B</b>		B-C	B-C		44	4.7	04
2.4	<b>588</b>	0.25	371	1.4	<b>0.35</b>	<b>518</b>	<b>B</b>		B-C	B-C		37	4.7	05
1.8	<b>784</b>	0.25	455	1.1	<b>0.28</b>	<b>518</b>	<b>B</b>		B-C	B-C		34	4.7	06
1.4	<b>1036</b>	0.18	420	1.2	<b>0.22</b>	<b>518</b>	<b>B</b>		B-C	B-C		33	4.7	07
1.1	<b>1288</b>	0.18	474	1.1	<b>0.20</b>	<b>518</b>	<b>B</b>		B-C	B-C		30	4.7	08
0.7	<b>1960</b>	0.12	449	1.2	<b>0.14</b>	<b>518</b>	<b>B</b>		B-C	B-C		28	4.7	09
0.5	<b>2856</b>	0.12	584	0.9	<b>0.11</b>	<b>518</b>	<b>B</b>		B-C	B-C		25	4.7	10

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **84Q** is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **84Q** viene fornito lubrificato a vita con olio sintetico. Per posizioni V5-V6 contattare il ns. servizio tecnico. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Für die Lebensdauerschmierung ist das Getriebe der Größe **84Q** mit synthetischem Öl befüllt. Bei Einbaulage V5 oder V6 bitten wir um Rücksprache. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **84Q** est fourni lubrifié à vie avec de l'huile synthétique. Concernant les positions V5.V6, contactez notre service d'assistance technique. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **84Q** se suministra, lubricado de por vida con aceite sintético. Para las posiciones V5 y V6 contactar con nuestro servicio técnico. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 84Q Oil**  
Quantity 1.20/0.09 Lt.

1.20 Lt.

0.09 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$n$ [min <sup>-1</sup> ]	FA [N]	FR [N]
25	1000	5000
15	1160	5800

**Input shaft**  
albero in entrata

$n$ [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	42	210

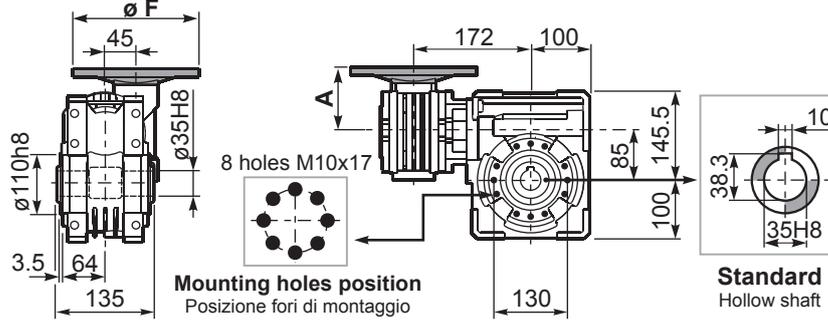
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**P84QFB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **16.2 kg**

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	74
<b>71B5</b>	K050.4.042	160	71.5
<b>56B14</b>	KC40.4.049	80	71.5
<b>63B14</b>	K050.4.047	90	74
<b>71B14</b>	K050.4.045	105	71.5

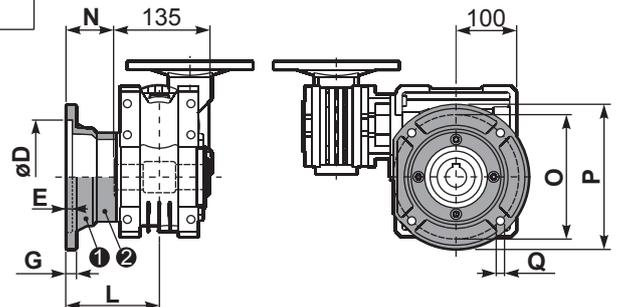
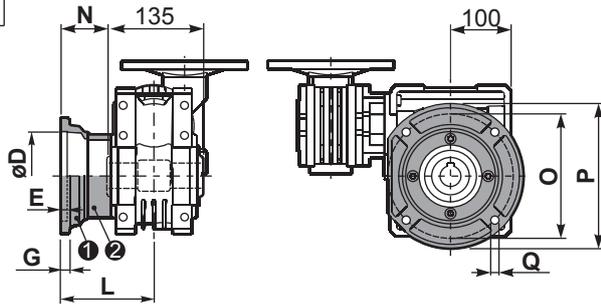


Mounting holes position  
Posizione fori di montaggio

Standard  
Hollow shaft

**P84QFC...** Output flange  
Flangia uscita

**P84QF1...** Output flange  
Flangia uscita



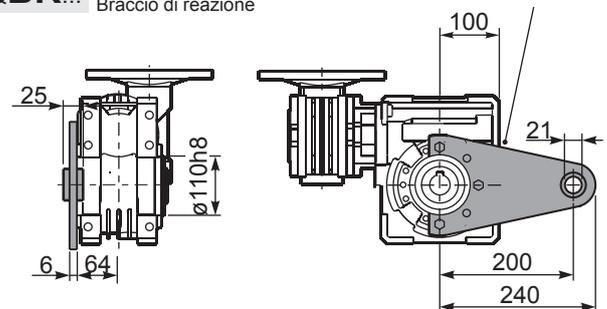
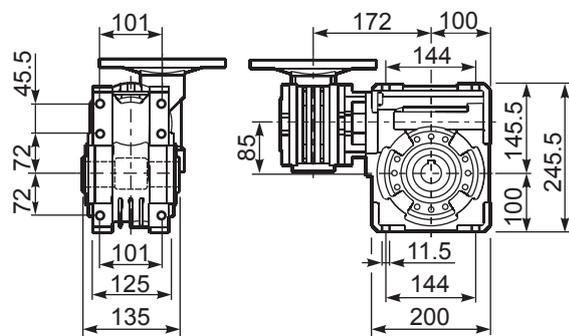
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	108	40.5	176	205	13	① K085.9.010 ② -
<b>FL</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	16	148.5	81	176	205	13	① K085.9.010 ② K085.0.201

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	130 H7	5	13	117.5	50	165	200	11.5	① KS085.9.012 ② -
<b>F2</b>	152 <sup>+0.06</sup> / <sub>+0.00</sub>	5	15	147.5	80	180	205	12.5	① KS085.9.013 ② -
<b>F4</b>	130 H7	5	13	106.5	39	165	200	13	① KS085.9.015 ② -

**P84QFB...** Feet  
Piedi

**P84QBR...** Reaction arm  
Braccio di reazione

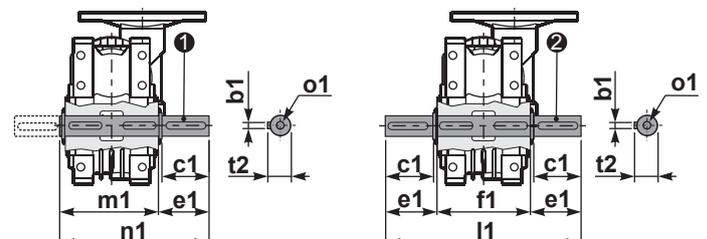
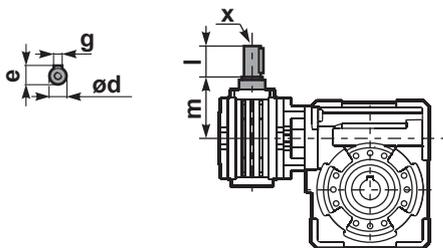
kit cod. K085.9.027



**R84QFB...** Input shaft  
Albero in entrata

**P84Q.....S...** Single Shaft  
Albero lento semplice

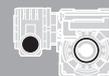
**P84Q.....D...** Double Shaft  
Albero lento bisp.



① kit cod. K085.5.028 type B    ② kit cod. K085.5.029 type B

	ød	e	g	l	m	x	kit code
type B	11 h6	12.5	4	30	68	-	① K045.5.006 PAM71 ② -
type S	-	-	-	-	-	-	① - ② -

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	10	60	35 <sup>-0.005</sup> / <sub>-0.020</sub>	73.5	135	282	141	214.5	38	M10x23
type S	-	-	-	-	-	-	-	-	-	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges				Dynamic efficiency <b>RD</b>	Tooth Module  [mm]	Ratios code 
							-B	-C	-D	-O	-P	-Q	-R			
							63	71	80	56	63	71	80			
6.7	<b>210</b>	0.75	591	1.5	<b>1.1</b>	<b>863</b>	B	B			B-C	B		55	5.6	01
4.7	<b>300</b>	0.75	752	1.3	<b>0.97</b>	<b>978</b>	B	B			B-C	B		49	5.6	02
3.3	<b>420</b>	0.55	741	1.3	<b>0.73</b>	<b>978</b>	B	B			B-C	B		47	5.6	03
2.6	<b>540</b>	0.55	851	1.1	<b>0.63</b>	<b>978</b>	B	B			B-C	B		42	5.6	04
1.8	<b>780</b>	0.37	748	1.3	<b>0.48</b>	<b>978</b>	B	B			B-C	B		38	5.6	05
1.3	<b>1080</b>	0.37	1009	1.0	<b>0.36</b>	<b>978</b>	B			B-C	B-C			37	5.6	06
1.1	<b>1290</b>	0.25	770	1.3	<b>0.32</b>	<b>978</b>	B			B-C	B-C			35	5.6	07
0.8	<b>1800</b>	0.25	921	1.1	<b>0.27</b>	<b>978</b>	B			B-C	B-C			30	5.6	08
0.7	<b>2040</b>	0.18	751	1.3	<b>0.23</b>	<b>978</b>	B			B-C	B-C			30	5.6	09
0.6	<b>2400</b>	0.18	825	1.2	<b>0.21</b>	<b>978</b>	B			B-C	B-C			28	5.6	10
0.5	<b>3000</b>	0.18	958	1.0	<b>0.18</b>	<b>978</b>	B			B-C	B-C			26	5.6	11

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione



**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **15Q** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a type that are closed. Gearbox **050** is supplied lubricated for life. See tab.1 for oils and recommended quantity. In tab.2 there are radial loads and axial loads applicable to the gearbox.

**I** Il riduttore tipo **15Q** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Il riduttore **050** è fornito lubrificato a vita con olio sintetico. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **15Q** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. Das Getriebe der Baugröße **050** ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **15Q** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Le réducteur de type **050** est fourni lubrifié à vie avec de l'huile synthétique. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **15Q** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. El reductor **050** se suministra lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

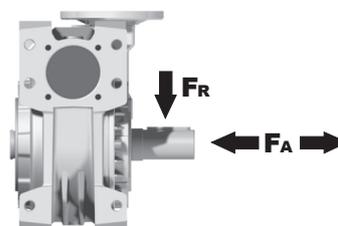
<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>
2.0/0.14LT	1.35/0.14 LT	1.35/0.14 LT	2.0/0.14 LT	2.0/0.14 LT	2.0/0.14 LT
<b>AGIP</b> Blasia 460					

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

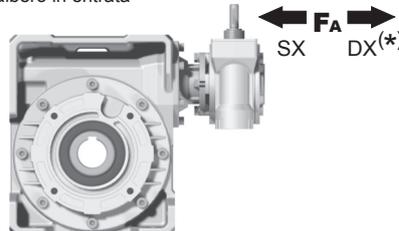
#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$n_2$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>25</b>	1200	6000
<b>15</b>	1400	7000

**Input shaft**  
albero in entrata



$n_1$ [min <sup>-1</sup> ]	FA [N]	FR [N]
<b>1400</b>	76	380

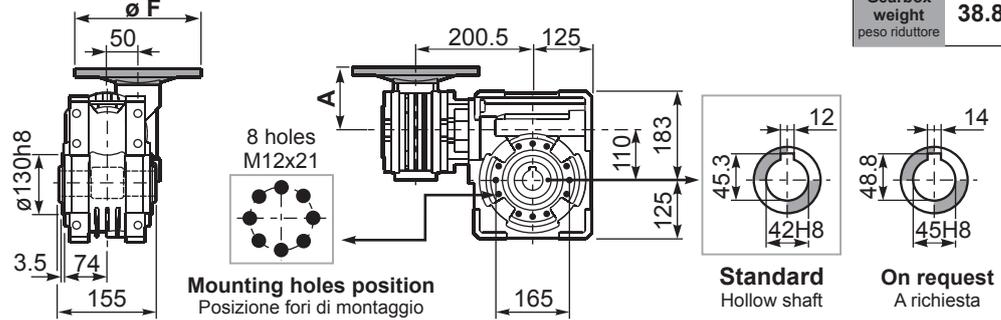
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P15QFB...** Basic wormbox  
Riduttore base

Gearbox weight  
peso riduttore **38.8 kg**

M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	78.5
<b>71B5</b>	K050.4.042	160	76
<b>80B5</b>	K050.4.043	200	76.5
<b>56B14</b>	KC40.4.049	80	76
<b>63B14</b>	K050.4.047	90	78.5
<b>71B14</b>	K050.4.045	105	76
<b>80B14</b>	K050.4.046	120	76.5

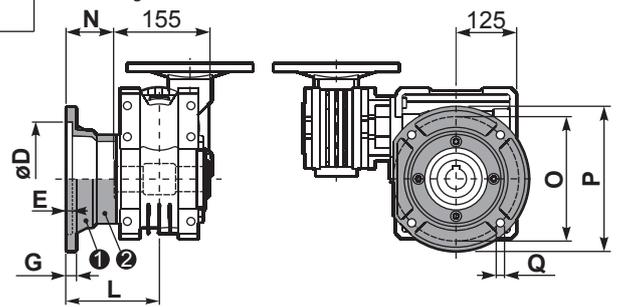
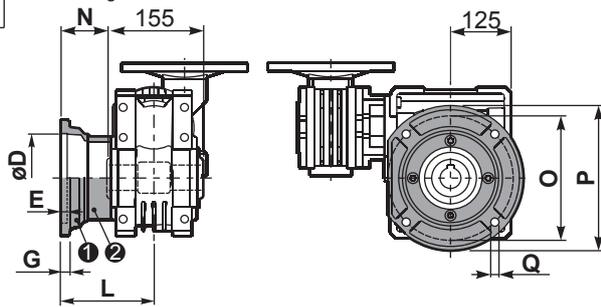


**Standard**  
Hollow shaft

**On request**  
A richiesta

**P15QFC...** Output flange  
Flangia uscita

**P15QF1...** Output flange  
Flangia uscita



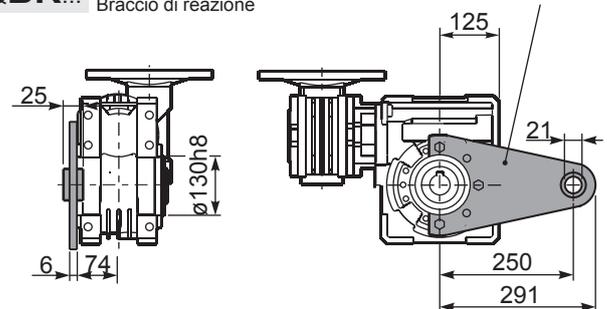
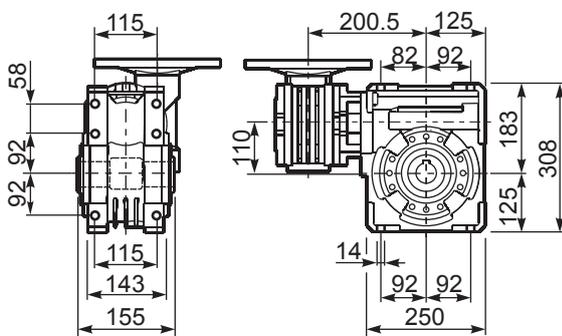
type B	øD	E	G	L	N	O	P	Q	kit code
<b>FC</b>	170 <sup>+0.083</sup> <sub>+0.043</sub>	11	16.5	131.5	54	230	270	13	① K110.9.010 ② -
<b>FL</b>	170 <sup>+0.083</sup> <sub>+0.043</sub>	11	16.5	179.5	102	230	270	13	① K110.9.011 ② -

type S	øD	E	G	L	N	O	P	Q	kit code
<b>F1</b>	180 <sup>+0.040</sup> <sub>0</sub>	5	18	150	72.5	215	250	15	① KS110.9.014 ② -
<b>F2</b>	170 <sup>+0.083</sup> <sub>+0.043</sub>	9.5	15	178	100.5	230	270	13	① KS110.9.012 ② -
<b>F3</b>	180 <sup>+0.040</sup> <sub>0</sub>	5	18	130	52.5	215	250	15	① KS110.9.013 ② -

**P15QFB...** Feet  
Piedini

**P15QBR...** Reaction arm  
Braccio di reazione

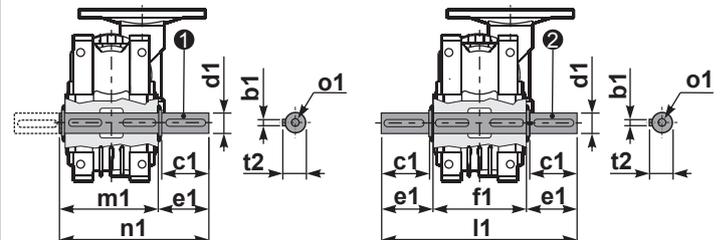
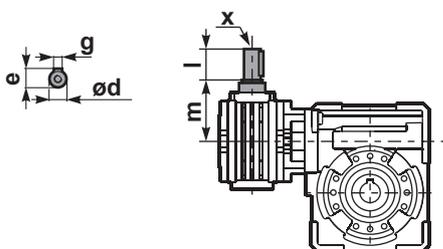
kit cod. K110.9.027



**R15QFB...** Input shaft  
Albero in entrata

**P15Q....S...** Single Shaft  
Albero lento semplice

**P15Q....D...** Double Shaft  
Albero lento bisp.



① kit cod. K110.5.028 type B

② kit cod. K110.5.029 type B

	ød	e	g	l	m	x	kit code
type B	16 h6	18	5	30	79.5	M6x16	① K050.5.006 PAM71 ② K050.5.007 PAM80
type S	14 h6	16	5	30	79.5	M5x10	① KS050.5.008 PAM71 ② KS050.5.009 PAM80

	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
type B	12	75	42 <sup>-0.005</sup> <sub>-0.020</sub>	96.5	155	348	163.5	260	45	M12x32
type S	-	-	-	-	-	-	-	-	-	-

# Aluminum one step gearboxes

A modular and compact product

3

## Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint

## Flange

Fully modular to IEC and Compact integrated motor. NEMA C flange

## Gears

Hardened and ground gears.

## Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

## Output shaft

With well proportioned bearings

## Feet

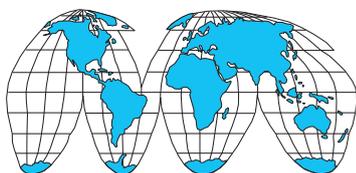
Removable feet.

## Single-piece aluminum alloy housing

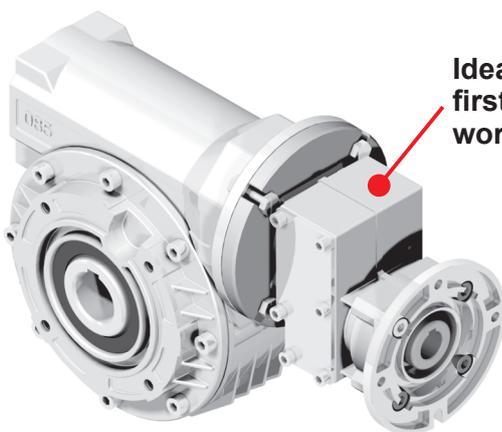
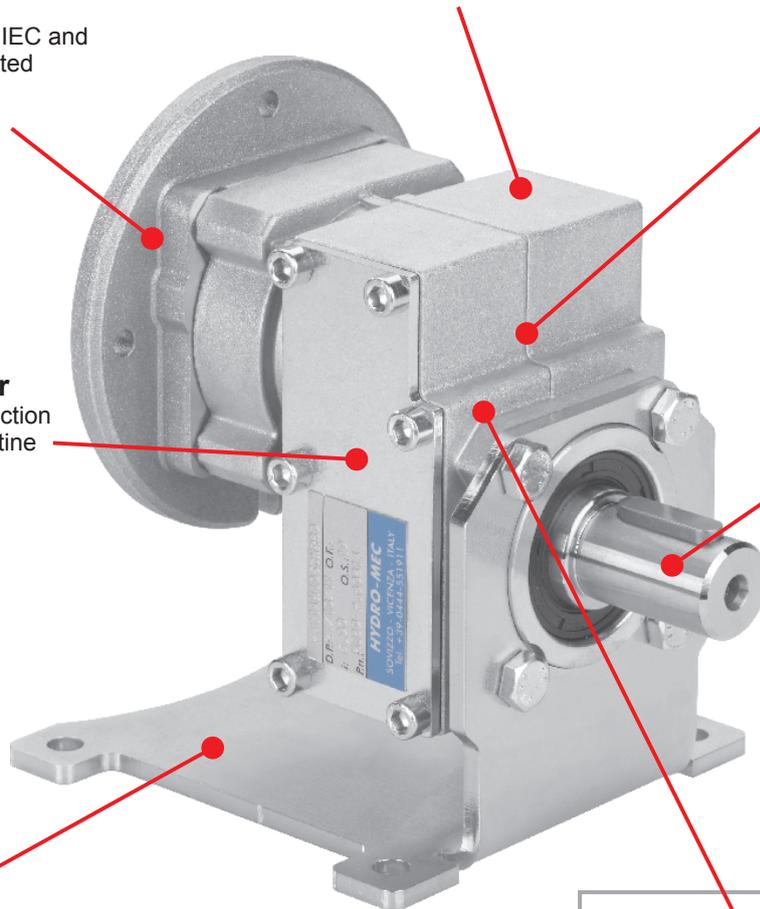
Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

Ideal for use as first step with wormgearboxes.

Lubricated for life with synthetic oil with operative range from -15° to +130°C



World wide sales network.



# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi  
Tipen / Types  
Tipos



3-5	3-7	3-9	3-11
211A 20Nm	311A 30Nm	411A 38Nm	511A 110Nm

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi  
Tipen / Types  
Tipos



M-1									
56A 56B	63A 63B	71A 71B	80A 80B	90S 90L	100LA 100LB	112M	132S 132M	160M 160L	180M 180L

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza - Grösse  
Taille - Tomaño

Mounting - Montaggio  
Montage - Fixation  
Tipo de montaje

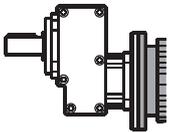
**P**

**311A**

**-F**

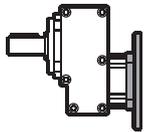
Aluminum one step gear  
Riduttori in alluminio a uno stadio

**1** Stages  
Riduzioni  
Stufen  
Trains  
Etapas



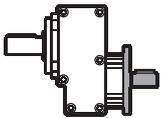
With IEC motor

**M**



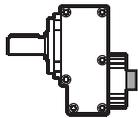
With motor flange

**P**



With male input shaft

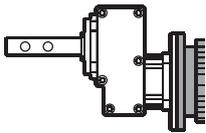
**R**



Modular Base

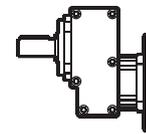
**B**

**Special output shaft**  
Albero uscita speciale



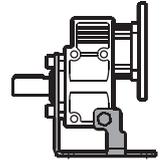
**Only on request for Q.ty**  
A richiesta per quantità

**211A**  
**311A**  
**411A**  
**511A**



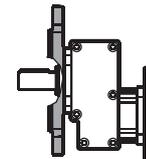
Without flange / feet

**-N**



Mounted feet

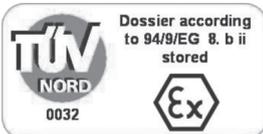
**H1**



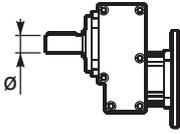
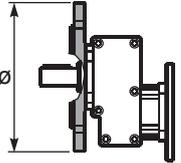
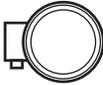
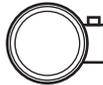
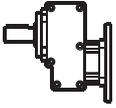
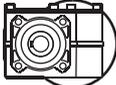
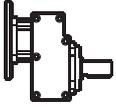
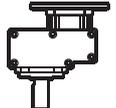
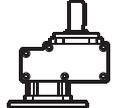
Output flange mounted

**-F**

3



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Ratio - Rapporto Untersetzung Reduction Relación	Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Terminal box position Posizione morsetteria Klemmkastenlage Position boîte à bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	
<b>2.84</b>	<b>S</b>	<b>2</b>	<b>-C</b>	<b>B</b>	<b>B3</b>	
See technical data table Vedi tabella dati tecnici. Technisches Datenblatt beachten Voir Tableau données techniques Ver tabla datos técnicos	 → <b>STANDARD</b> 211A <b>S</b> → <b>∅14</b> 311A <b>S</b> → <b>∅14</b> <b>C</b> ⇒ <b>∅19</b> <b>E</b> ⇒ <b>∅24</b> 411A <b>S</b> ⇒ <b>∅14</b> <b>C</b> → <b>∅19</b> <b>E</b> ⇒ <b>∅24</b> 511A <b>C</b> ⇒ <b>∅19</b> <b>E</b> ⇒ <b>∅24</b> <b>G</b> → <b>∅28</b>	 <b>N</b> Senza flangia Without flange 211A <b>I</b> ⇒ <b>∅105</b> Flangia integrata Integrated flange 311A <b>1</b> ⇒ <b>∅120</b> <b>2</b> ⇒ <b>∅140</b> <b>3</b> → <b>∅160</b> <b>4</b> ⇒ <b>∅200</b> 411A <b>1</b> ⇒ <b>∅120</b> <b>2</b> ⇒ <b>∅140</b> <b>3</b> ⇒ <b>∅160</b> <b>4</b> → <b>∅200</b> 511A <b>1</b> ⇒ <b>∅120</b> <b>2</b> ⇒ <b>∅140</b> <b>3</b> ⇒ <b>∅160</b> <b>4</b> ⇒ <b>∅200</b> <b>5</b> → <b>∅250</b>	 <b>Flange Flangia</b> B5 <b>-A</b> =56 (∅120) <b>-B</b> =63 (∅140) <b>-C</b> =71 (∅160) <b>-D</b> =80 (∅200) <b>-E</b> =90 (∅200) <b>-F</b> =100÷112 (∅250) <b>-G</b> =132 (∅300) B14 <b>-O</b> =56 (∅80) <b>-P</b> =63 (∅90) <b>-Q</b> =71 (∅105) <b>-R</b> =80 (∅120) <b>-T</b> =90 (∅140) <b>-U</b> =100÷112 (∅160) <b>-V</b> =132 (∅200)	 <b>Type R Tipo R</b> 211A 311A <b>-1</b> ⇒ <b>∅14</b> 411A <b>-2</b> ⇒ <b>∅19</b> 511A <b>-3</b> ⇒ <b>∅24</b>  <b>Without flange Senza flangia</b> 211A 311A <b>-Z</b> ⇒ <b>∅9</b> (56B5) <b>-0</b> ⇒ <b>∅11</b> (63B5) <b>-1</b> ⇒ <b>∅14</b> (71B5) 411A <b>-1</b> ⇒ <b>∅14</b> (71B5) <b>-2</b> ⇒ <b>∅19</b> (80B5) <b>-3</b> ⇒ <b>∅24</b> (90B5) 511A <b>-2</b> ⇒ <b>∅19</b> (80B5) <b>-3</b> ⇒ <b>∅24</b> (90B5) <b>-4</b> ⇒ <b>∅28</b> (100B5)	 <b>A</b>  <b>B</b> <b>STANDARD</b>  <b>C</b>  <b>D</b>	 <b>B3</b> <b>STANDARD</b>  <b>B6</b>  <b>B7</b>  <b>B8</b>  <b>V5</b>  <b>V6</b>

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotation

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

3

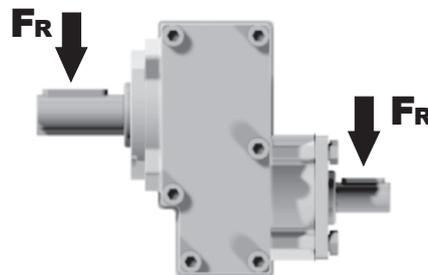
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

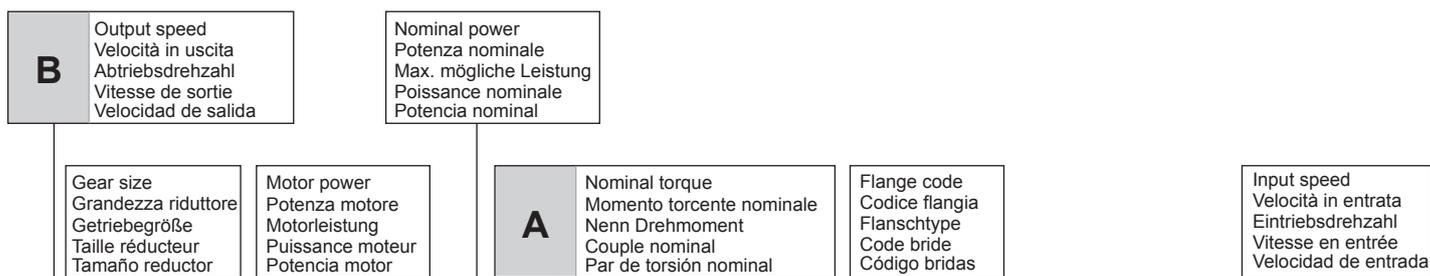
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



	$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$	$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor



# 311A One step 30Nm

## Rating - Aluminum ONE STEP GEARBOXES



3

**QUICK SELECTION / Selezione veloce** input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft Ø	Ratios code
							-B	-C	-O	-P	-Q		
892	1.57	0.37	3.9	3.3	1.24	13	63	71	C	C		2844	01
493	2.84	0.37	7.0	3.3	1.21	23			C	C		1954	02
426	3.29	0.37	8.1	3.2	1.18	26			C	C		1756	03
362	3.87	0.37	9.6	2.9	1.08	28			C	C		1558	04



**fs**

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

**D** Motor flange available  
Flange disponibili  
Erhältliche Motorflansche  
Brides disponibles  
Bridas disponibles

**B)** Mounting with reduction ring  
Montaggio con boccia di riduzione  
Reduzierhülsen  
Montage avec douille de réduction  
Montaje con casquillo de reducción

**C)** Motor flangeholes position/terminal box position  
Posizione fori flangia/basetta motore  
Bohrungsposition am Motorflansch/-socket  
Position trous bride/barrette à bornes moteur  
Posición agujeros brida / base motor

**B)** Available without reduction bushes  
Disponibile anche senza boccia  
Auch ohne Reduzierbuchse verfügbar  
Disponible aussi sans douille de réduction  
Disponible tambien sin casquillo

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft  standard ø14	Ratios code 
							-B	-C	-D	-E	-O	-P	-Q	-R		
							63	71	80	90	56	63	71	80		
682	<b>2.05</b>	0.37	5	2.0	<b>0.73</b>	<b>10</b>					<b>C</b>	<b>C</b>			1939	01
595	<b>2.35</b>	0.37	6	2.1	<b>0.76</b>	<b>12</b>					<b>C</b>	<b>C</b>			1740	02
500	<b>2.80</b>	0.37	7	2.0	<b>0.75</b>	<b>14</b>					<b>C</b>	<b>C</b>			1542	03
414	<b>3.38</b>	0.37	8	2.0	<b>0.75</b>	<b>17</b>					<b>C</b>	<b>C</b>			1344	04
298	<b>4.70</b>	0.37	12	1.7	<b>0.64</b>	<b>20</b>					<b>C</b>	<b>C</b>			1047	05
225	<b>6.22</b>	0.37	15	1.5	<b>0.55</b>	<b>23</b>					<b>C</b>	<b>C</b>			956	06
169	<b>8.29</b>	0.37	20	1.0	<b>0.36</b>	<b>20</b>					<b>C</b>	<b>C</b>			758	07
142	<b>9.83</b>	0.25	16	1.0	<b>0.24</b>	<b>16</b>					<b>C</b>	<b>C</b>			659	08

The dynamic efficiency is **0.98** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **211A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **211A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **211A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **211A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **211A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

#### LUBRICATION 211A Oil Quantity 0.05 Lt.

**AGIP** Telium VSF 320

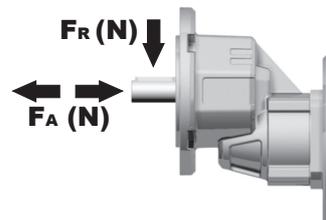
**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

##### Output shaft

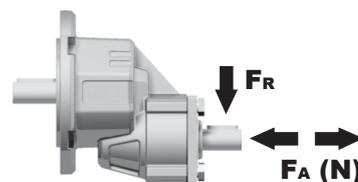
Albero di uscita



$n_2$	FA	FR
700	101	504
600	120	600
400	138	696
300	151	756
200	175	876
140	192	960

##### Input shaft

albero in entrata



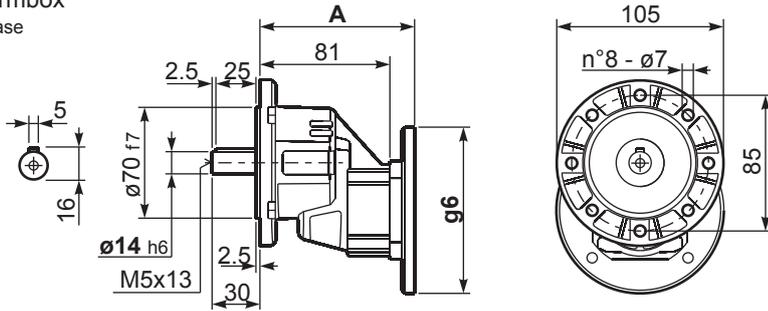
$n_1$	FA	FR
1400	168	840
900	192	960

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**P211A-F...** Basic wormbox  
Riduttore base

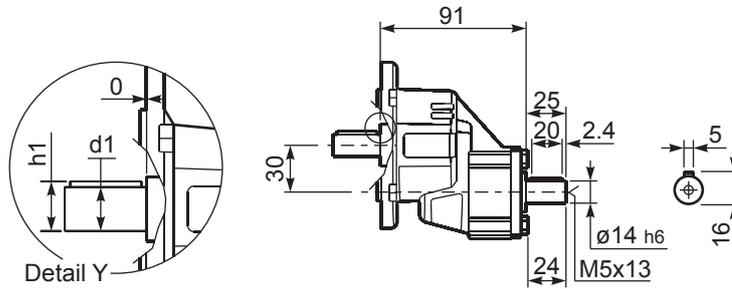
Gearbox weight  
peso riduttore **1.40 kg**



B5 Motor Flanges	A	g6	kit code
63 B5	99.5	138	K050.4.041
71 B5	97	160	K050.4.042

B14 Motor Flanges	A	g6	kit code
56 B14	97	80	KC40.4.049
63 B14	99.5	90	K050.4.047
71 B14	97	105	K050.4.045

**R211A-F...** Basic wormbox  
Riduttore base



\*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	$\phi 14 \times 30$	5	16	M5x13



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code		
							-B	-C	-O	-P	-Q				
891	<b>1.57</b>	0.37	4	3.3	1.2	13			C	C		2844	standard ø14	01	
493	<b>2.84</b>	0.37	7	3.3	1.2	23			C	C		1954		02	
425	<b>3.29</b>	0.37	8	3.2	1.2	26			C	C		1756		03	
362	<b>3.87</b>	0.37	10	2.9	1.1	28			C	C		1558		04	
303	<b>4.62</b>	0.37	11	2.6	0.97	30			C	C		1360		On request	05
222	<b>6.30</b>	0.37	16	2.2	0.83	35			C	C		1063		ø19	06
170	<b>8.22</b>	0.37	20	1.9	0.69	38			C	C		974		ø24	07
129	<b>10.86</b>	0.37	27	1.0	0.39	28			C	C		776			08

The dynamic efficiency is **0.98** for all ratios

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **311A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **311A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **311A** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **311A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **311A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION 311A Oil Quantity 0.10 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

tab. 1

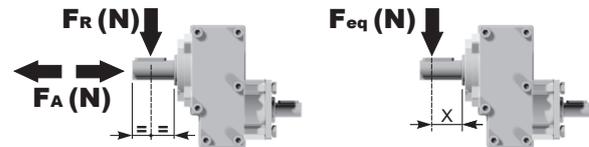
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita

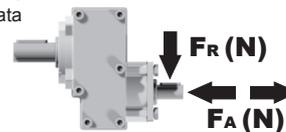
$$F_{eq} = F_R \cdot \frac{38.5}{X+18.5}$$



$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
700	120	640	400	160	800	200	200	1020
600	140	700	300	175	880	140	225	1120

#### Input shaft

Albero in entrata

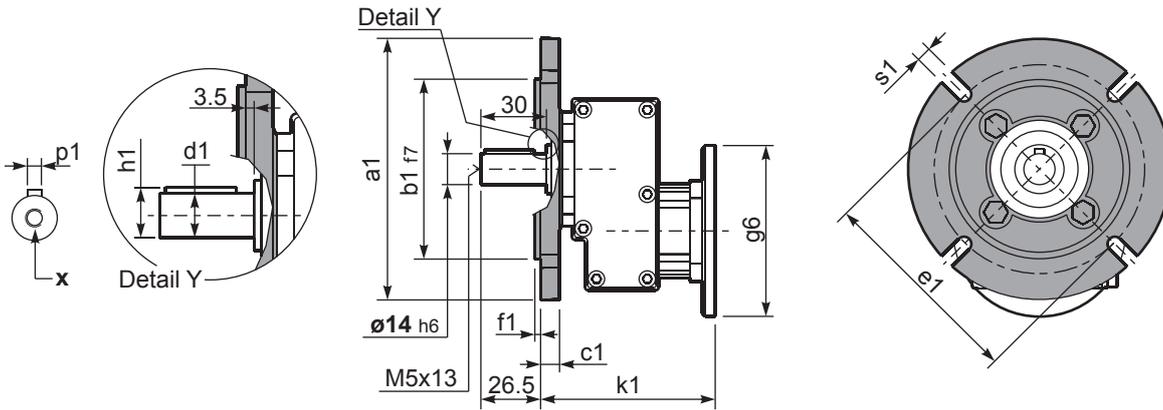


$n_1$	FA	FR
1400	180	860
900	200	980

tab. 2

**P311-F...** Output flange  
flange di uscita

Gearbox weight  
peso riduttore **2.50 kg**



**\*Available output shaft / Alberi di uscita**

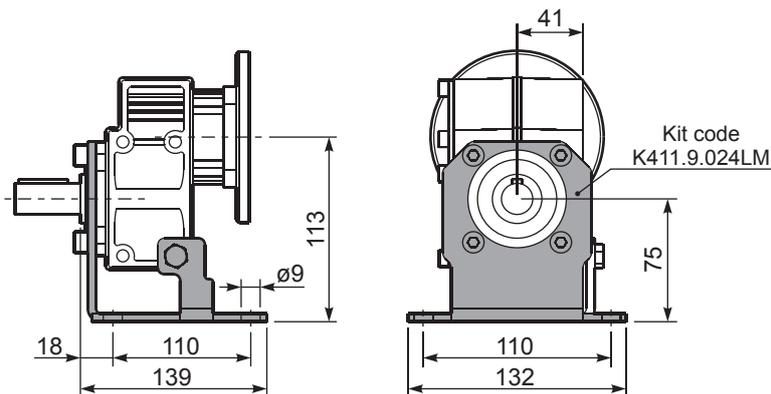
	Shaft - d1	p1	h1	x
Standard	∅ 14x30	5	16	M5x13
On request A richiesta	∅ 19x40	6	21.5	M6x16
	∅ 24x40	8	27	M6x16

**Available output flanges / flange di uscita**

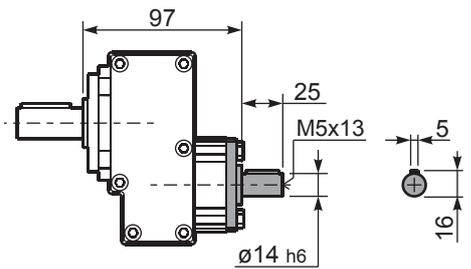
a1 ∅	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013

\*Holes position  
posizione fori

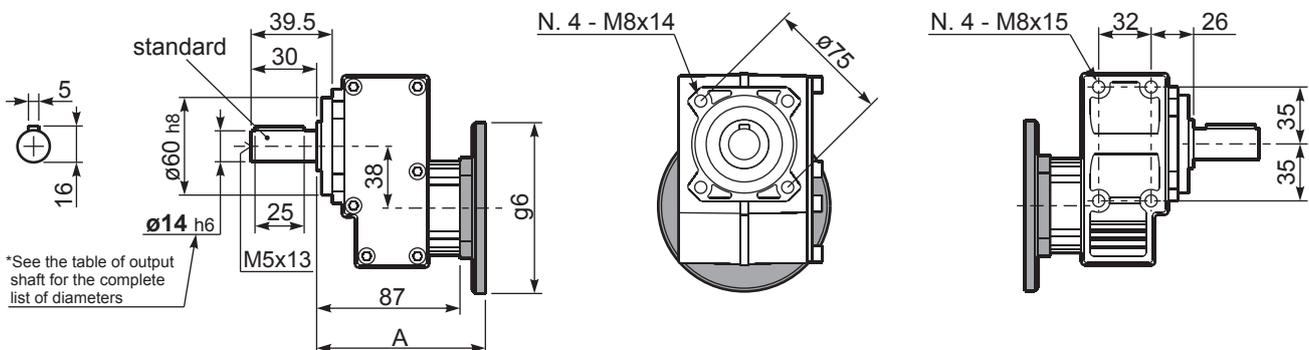
**P311-H1...** With feet  
Con piedini



**R311-N...** Input Shaft  
Albero in entrata



**P311-N...** Basic gearbox  
Riduttore base



B14 Motor Flanges	A	g6	k1	kit code
56 B14	103	80	106.5	KC40.4.049
63 B14	105.5	90	109	K050.4.047
71 B14	103	105	106.5	K050.4.045

B5 Motor Flanges	A	g6	k1	kit code
63 B5	105.5	138	109	K050.4.041
71 B5	103	160	106.5	K050.4.042



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code	
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
891	<b>1.57</b>	1.5	16	1.3	<b>1.9</b>	<b>20</b>	B				C	C		2844	standard ø19  On request ø14 ø24	01
493	<b>2.84</b>	1.5	28	1.2	<b>1.8</b>	<b>35</b>	B				C	C		1954		02
425	<b>3.29</b>	1.5	33	1.2	<b>1.7</b>	<b>38</b>	B				C	C		1756		03
362	<b>3.87</b>	1.5	39	1.0	<b>1.5</b>	<b>40</b>	B				C	C		1558		04
303	<b>4.62</b>	1.5	46	1.0	<b>1.5</b>	<b>47</b>	B				C	C		1360		05
222	<b>6.30</b>	1.1	46	1.0	<b>1.1</b>	<b>46</b>	B				C	C		1063		06
170	<b>8.22</b>	0.55	30	1.3	<b>0.69</b>	<b>38</b>	B				C	C		974		07
129	<b>10.86</b>	0.37	27	1.0	<b>0.39</b>	<b>28</b>	B				C	C		776		08

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **411A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **411A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **411A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **411A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **411A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

**LUBRICATION 411A Oil Quantity 0.10 Lt.**

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

tab. 1

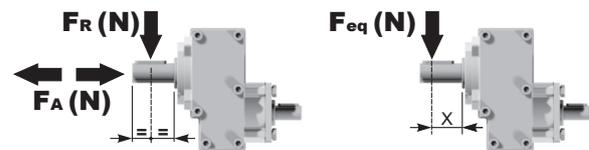
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**RADIAL AND AXIAL LOADS**

**Output shaft**

Albero di uscita

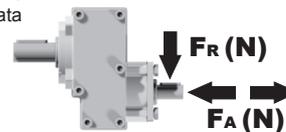
$$F_{eq} = F_R \cdot \frac{40}{X+20}$$



$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>700</b>	182	910	<b>400</b>	230	1150	<b>200</b>	290	1450
<b>600</b>	200	1000	<b>300</b>	250	1250	<b>140</b>	320	1600

**Input shaft**

Albero in entrata

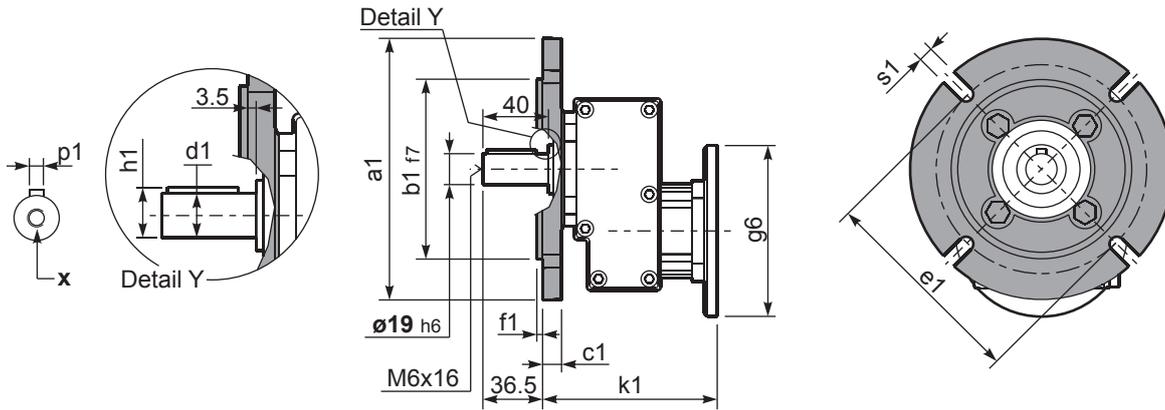


$n_1$	FA	FR
<b>1400</b>	240	1200
<b>900</b>	280	1400

tab. 2

**P411-F...** Output flange  
flange di uscita

Gearbox weight  
peso riduttore **3.20 kg**



**\*Available output shaft / Albero di uscita**

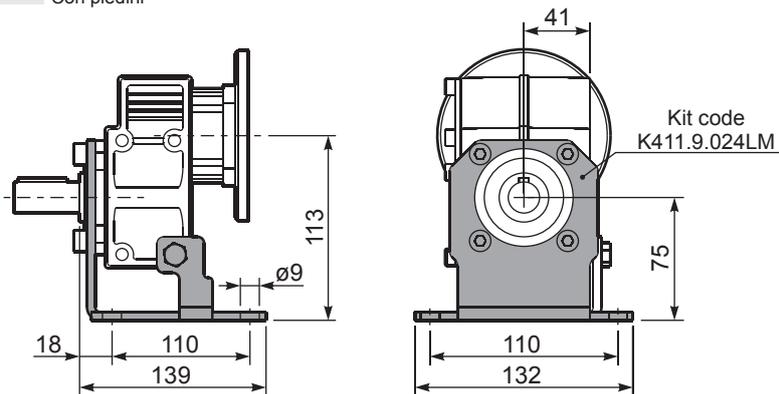
	Shaft - d1	p1	h1	x
Standard	∅ 19x40	6	21.5	M6x16
On request A richiesta	∅ 14x30 ∅ 24x40	5 8	16 27	M5x13 M6x16

**Available output flanges / flange di uscita**

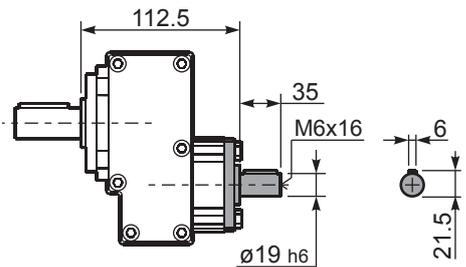
a1 ∅	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013

\*Holes position  
posizione fori

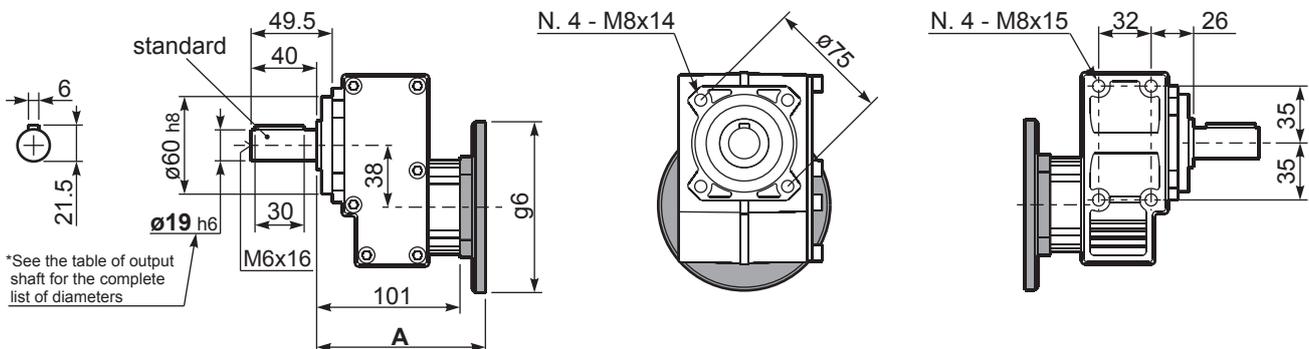
**P411-H1...** With feet  
Con piedini



**R411-N...** Input Shaft  
Albero in entrata



**P411-N...** Basic gearbox  
Riduttore base



B5 Motor Flanges	A	g6	k1	kit code
63 B5	121.5	140	125	K063.4.041
71 B5	119.5	160	123	K063.4.042
80/90 B5	121.5	200	125	K063.4.043

B14 Motor Flanges	A	g6	k1	kit code
71 B14	119.5	105	123	K063.4.047
80 B14	121.5	120	125	K063.4.046
90 B14	121.5	140	125	K063.4.041



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code			
							-C	-D	-E	-F	-G	-R	-T	-U	-V					
							71	80	90	100 112	132	80	90	100 112	132					
1077	<b>1.30</b>	4	34	1.2	4.6	40	B										3039	standard ø28	01	
571	<b>2.45</b>	4	64	1.1	4.3	70	B										2049		02	
423	<b>3.31</b>	4	87	1.0	4.1	90	B										1653		03	
325	<b>4.31</b>	4	113	1.0	3.8	110	B										1356		04	
266	<b>5.27</b>	3	104	1.1	3.1	110	B										1158		On request	05
184	<b>7.63</b>	2.2	111	1.0	2.2	110	B										861		ø19	06
133	<b>10.50</b>	1.1	77	1.0	1.1	80	B										663		ø24	07

The dynamic efficiency is **0.98** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **511A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **511A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **511A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **511A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **511A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION 511A Oil Quantity 0.29 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website

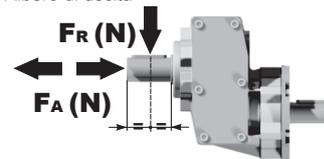
tab. 1

Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

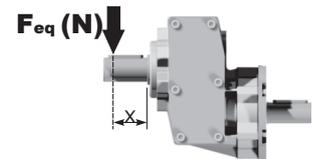
### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita



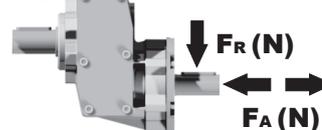
$$F_{eq} = F_R \cdot \frac{52.5}{X+22.5}$$



$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
700	294	1470	400	370	1850	200	460	2300
600	320	1600	300	400	2000	140	510	2550

#### Input shaft

Albero in entrata

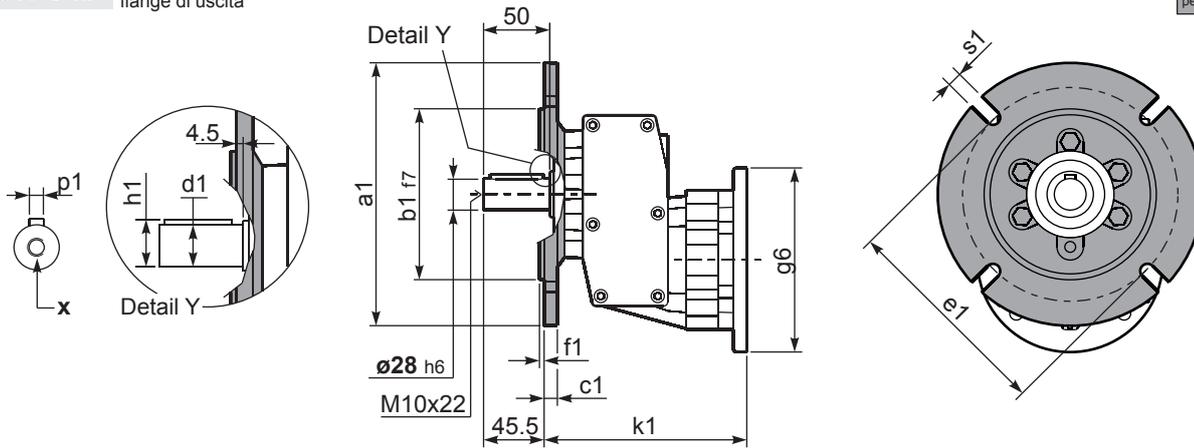


$n_1$	FA	FR
1400	400	2000
900	440	2200

tab. 2

**P511-F...** Output flanges  
flange di uscita

Gearbox weight  
peso riduttore **5.00 kg**



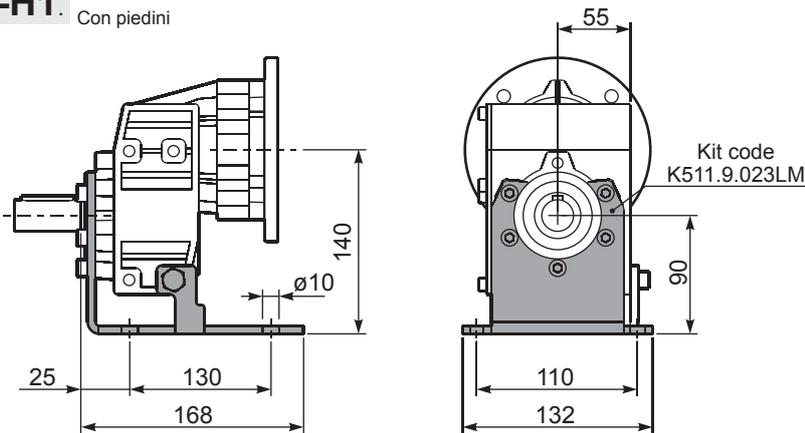
**\*Available output shaft / Albero di uscita**

	Shaft - d1	p1	h1	x
Standard	ø 28x50	8	31	M10x22
On request A richiesta	ø 24x50 ø 19x40	8 6	27 21.5	M8x19 M6x16

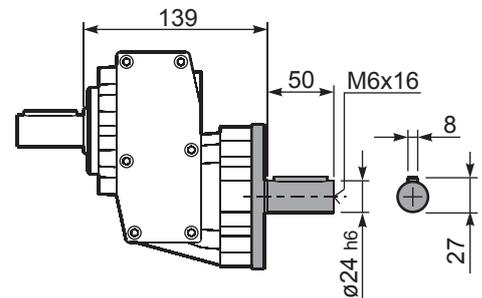
**Available output flanges / flange di uscita**

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	7	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3.5	9	KC40.9.012
200	130	11	165	3.5	11	KC40.9.013
250	180	11.5	215	3.5	14	KC40.9.014

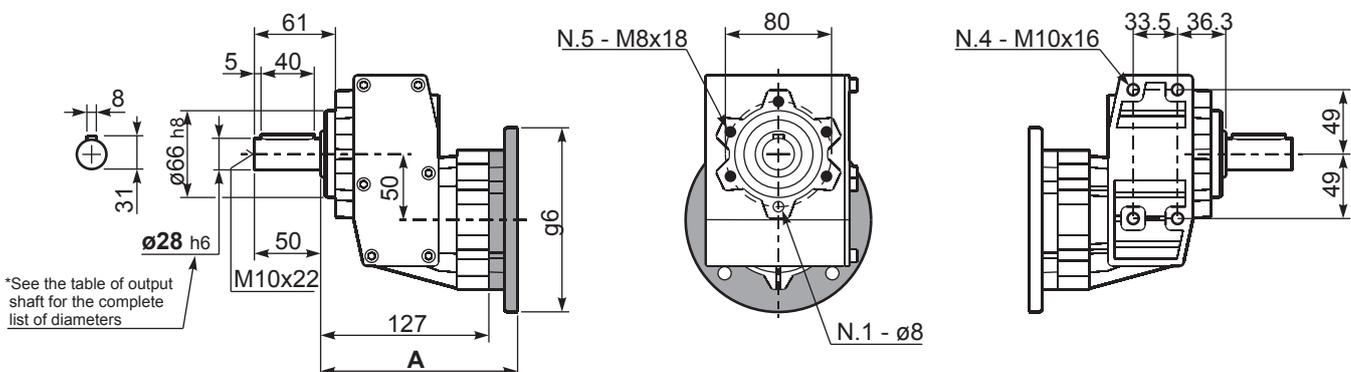
**P511A-H1.** With feet  
Con piedini



**R511A-N...** Input Shaft  
Albero in entrata



**P511-N...** Basic gearbox  
Riduttore base



B5 Motor Flanges	A	g6	k1	kit code
71 B5	145.5	160	150	K023.4.041
80/90 B5	147.5	200	152	K023.4.042
100/112 B5	156.5	250	161	K023.4.043
132 B5	174.5	300	179	KC50.4.043

B14 Motor Flanges	A	g6	k1	kit code
80 B14	147.5	120	152	K085.4.046
90 B14	147.5	140	152	K085.4.045
100/112 B14	156.5	160	161	K085.4.047
132 B14	174.5	200	179	KC50.4.041

# Aluminum in line gearboxes

## A modular and compact product

### Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint

### Flange

Fully modular to IEC and Compact integrated motor. NEMA C flange

### Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

### Oil seals

Two oil seals on request

### Output shaft

With well proportioned bearings

Lubricated for life with synthetic oil with operative range from -15° to +130°C



### Foot prints

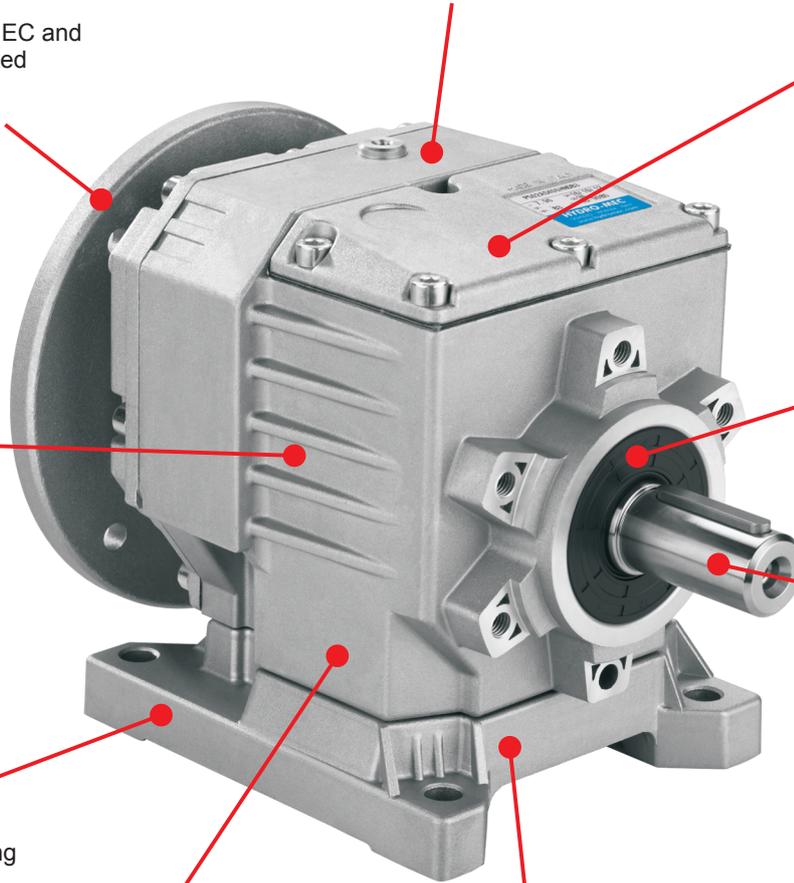
Compatible to the main standard of the market.

### Feet

Removable feet. With patented locking system.

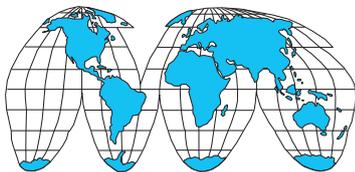
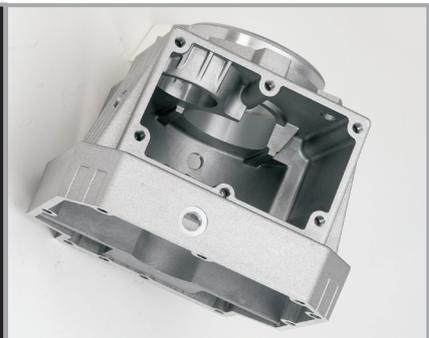
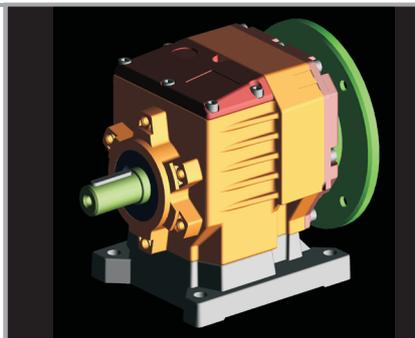
### Gears

Hardened and ground gears.

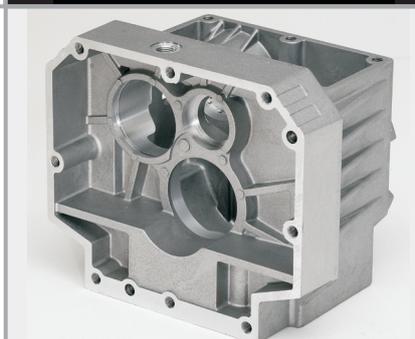


### Single-piece aluminum alloy housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

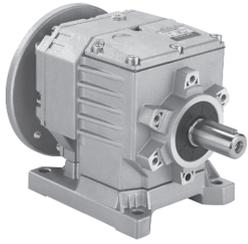


World wide sales network.



# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi  
Tipen / Types  
Tipos

4-5	4-7	4-9	4-11	4-13	4-15	4-17	4-19	4-21
202A 70Nm	302A 120Nm	402A 160Nm	403A 160Nm	452A 300Nm	502A 350Nm	503A 350Nm	602A 520Nm	603A 520Nm

On page / A pagina / Auf Seite / À la page / En la página



Types / Tipi  
Tipen / Types  
Tipos

M-1									
56A 56B	63A 63B	71A 71B	80A 80B	90S 90L	100LA 100LB	112M	132S 132M	160M 160L	180M 180L

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza - Grösse  
Taille - Tomafío

Mounting - Montaggio  
Montage - Fixation  
Tipo de montaje

**P**

**402A**

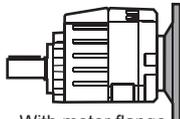
**-F**

Aluminum coaxial gear boxes  
Riduttori coassiali in alluminio



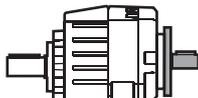
With IEC motor

**M**



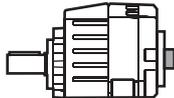
With motor flange

**P**



With male input shaft

**R**



Modular base

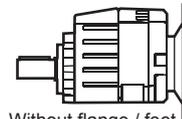
**B**

2 Stages  
Riduzioni  
Stufen  
Trains  
Etapas

3 Stages  
Riduzioni  
Stufen  
Trains  
Etapas

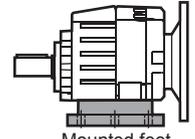
**202A**  
**302A**  
**402A**  
**452A**  
**502A**  
**602A**

**403A**  
**503A**  
**603A**



Without flange / feet

**-N**

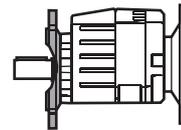


Mounted feet

**B..**

Feet / piedini		G	H	R	L	L1	S
Feet Code	Market reference						
B1	112	18	85	110	87	50	
B2	212/3	18	100	130	107.5		
S4	17	18	75	110	90+20		
S2	27	25	90	110	130		
M1	42/3	25	80	110+120	85		
L4	04	13	80	105			
L5	05	16	100	125			

You see feet code in the chart of the dimensions  
Vedi codice piede nella tabella delle dimensioni

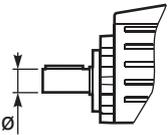
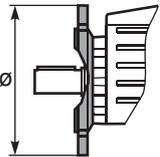
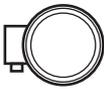
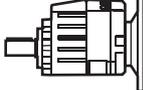
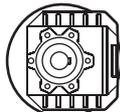
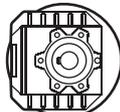
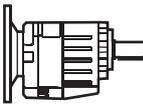
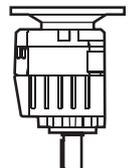
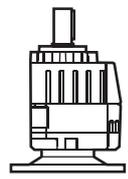
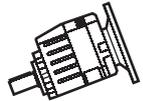
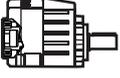
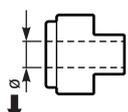


Output flange mounted

**-F**



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Ratio - Rapporto Untersetzung Reduction Relación	Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Größe Motor Grösse Grandeur moteur - Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte à bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Position de montaje	Coupling Giunto Kupplung Joint Juntura	
<b>7.33</b>	<b>V</b>	<b>2</b>	<b>-C</b>	<b>B</b>	<b>B3</b>	<b>-</b>	
See technical data table Vedi tabella dati tecnici Technisches Datenblatt beachten Voir Tableau données techniques Ver tabla datos técnicos	 → <b>STANDARD</b> 202A <b>S</b> ⇒ Ø14 <b>B</b> ⇒ <b>Ø16</b> <b>D</b> ⇒ Ø20 <b>V</b> ⇒ Ø25 302A <b>S</b> ⇒ Ø14 <b>B</b> ⇒ Ø16 <b>C</b> ⇒ Ø19 <b>D</b> ⇒ <b>Ø20</b> <b>E</b> ⇒ Ø24 <b>V</b> ⇒ Ø25 <b>G</b> ⇒ Ø28 402A 403A <b>B</b> ⇒ Ø16 <b>C</b> ⇒ Ø19 <b>D</b> ⇒ Ø20 <b>E</b> ⇒ Ø24 <b>V</b> ⇒ <b>Ø25</b> <b>G</b> ⇒ Ø28 <b>H</b> ⇒ <b>Ø30</b> <b>I</b> ⇒ Ø35 452A 502A 503A <b>E</b> ⇒ Ø24 <b>V</b> ⇒ Ø25 <b>G</b> ⇒ Ø28 <b>H</b> ⇒ <b>Ø30</b> <b>I</b> ⇒ Ø35 <b>L</b> ⇒ Ø38 <b>M</b> ⇒ Ø40 602A 603A <b>G</b> ⇒ Ø28 <b>H</b> ⇒ Ø30 <b>I</b> ⇒ <b>Ø35</b> <b>L</b> ⇒ Ø38 <b>M</b> ⇒ Ø40	 <b>N</b> Senza flangia Without flange 202A 302A <b>1</b> ⇒ Ø120 <b>2</b> ⇒ <b>Ø140</b> <b>3</b> ⇒ Ø160 <b>4</b> ⇒ Ø200 402A 403A <b>1</b> ⇒ Ø120 <b>2</b> ⇒ <b>Ø140</b> <b>3</b> ⇒ Ø160 <b>4</b> ⇒ Ø200 <b>5</b> ⇒ Ø250 452A 502A 503A <b>3</b> ⇒ Ø160 <b>4</b> ⇒ <b>Ø200</b> <b>5</b> ⇒ Ø250 602A 603A <b>3</b> ⇒ Ø160 <b>4</b> ⇒ Ø200 <b>5</b> ⇒ <b>Ø250</b>	 <b>Flange Flangia</b> B5 <b>-A</b> =56 (Ø120) <b>-B</b> =63 (Ø140) <b>-C</b> =71 (Ø160) <b>-D</b> =80 (Ø200) <b>-E</b> =90 (Ø200) <b>-F</b> =100+112 (Ø250) <b>-G</b> =132 (Ø300) B14 <b>-O</b> =56 (Ø80) <b>-P</b> =63 (Ø90) <b>-Q</b> =71 (Ø105) <b>-R</b> =80 (Ø120) <b>-T</b> =90 (Ø140) <b>-U</b> =100+112 (Ø160) <b>-V</b> =132 (Ø200)	 Type R Tipo R 202A 403A <b>-1</b> ⇒ Ø14 302A 402A 503A 603A <b>-2</b> ⇒ Ø19 452A 502A 602A <b>-3</b> ⇒ Ø24 Without flange Senza flangia With coupling 202A 403A <b>-Z</b> ⇒ Ø9 (56B5) <b>-0</b> ⇒ Ø11 (63B5) <b>-1</b> ⇒ Ø14 (71B5) 302A 402A 503A 603A <b>-1</b> ⇒ Ø14 (71B5) <b>-2</b> ⇒ Ø19 (80B5) <b>-3</b> ⇒ Ø24 (90B5) 452A 502A 602A <b>-2</b> ⇒ Ø19 (80B5) <b>-3</b> ⇒ Ø24 (90B5) <b>-4</b> ⇒ Ø28 (100B5)	 <b>A</b>  <b>B</b> <b>STANDARD</b>  <b>C</b>  <b>D</b>	 <b>B3</b> <b>STANDARD</b>  <b>B6</b>  <b>B7</b>  <b>B8</b>  <b>V5</b>  <b>V6</b>  <b>V8</b>	<b>0</b> Without coupling Senza giunto  <b>-</b> Nothing indication: standard bore Nessuna indicazione: foro standard <b>COUPLING</b>  <b>A</b> = 9mm <b>B</b> = 11mm <b>C</b> = 14mm <b>D</b> = 19mm <b>E</b> = 24mm <b>F</b> = 28mm

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P \text{ [KW]} = \frac{M \text{ [Kg]} \cdot g \text{ [9.81]} \cdot v \text{ [m / s]}}{1000}$$

Rotation / rotazione / drehung / rotation / rotacion

$$P \text{ [KW]} = \frac{M \text{ [Nm]} \cdot n \text{ [rpm]}}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P \text{ [KW]} = \frac{F \text{ [N]} \cdot v \text{ [m / s]}}{1000}$$

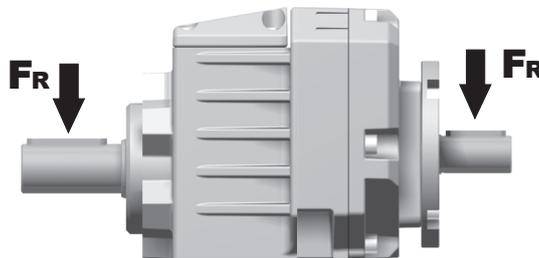
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M \text{ [Nm]} = \frac{9550 \cdot P \text{ [KW]}}{n \text{ [rpm]}}$$

$$M \text{ [lb in]} = \frac{63030 \cdot P \text{ [HP]}}{n \text{ [rpm]}}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

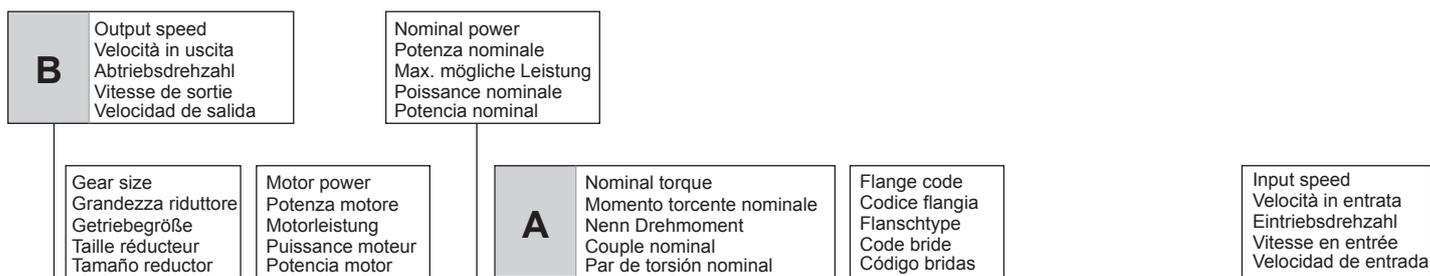
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



	$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$	$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

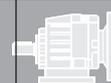
How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor



**402A**

Coaxial - Gear  
**160Nm**

Rating - Aluminum COAXIAL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges				Output Shaft		
							-B	-C	-D	-E	-Q	-R	-T	-U			Ratio code
398	3.52	3	69	1.2	3.5	80	B				C	C			2821		01
320	4.37	3	86	1.0	3.1	90	B				C	C			2818		02
252	5.55	3	109	0.9	2.8	100	B				C	C			2813		03
220	6.36	2.2	92	1.0	2.3	95	B				C	C			1921		04
191	7.33	2.2	106	1.1	2.5	120	B				C	C			2812		05

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

<b>D</b>	Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles	
<b>B)</b>	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción	
<b>C)</b>	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-socket Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor	
<b>B)</b>	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo	

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code 
							-B	-C	-O	-P	-Q		
							63	71*	56	63	71		
407	<b>3.44</b>	0.55**	12	2.0	1.1	25			C	C		2821	01
327	<b>4.28</b>	0.55**	15	1.9	1.1	30			C	C		2818	02
257	<b>5.45</b>	0.55**	20	2.0	1.1	40			C	C		2815	03
225	<b>6.23</b>	0.55**	23	2.0	1.1	45			C	C		1921	04
194	<b>7.20</b>	0.55**	26	1.9	1.1	50			C	C		2812	05
181	<b>7.74</b>	0.55**	28	1.8	<b>0.99</b>	50			C	C		1918	06
142	<b>9.85</b>	0.55**	36	1.7	<b>0.93</b>	60			C	C		1915	07
123	<b>11.42</b>	0.55**	41	1.5	<b>0.80</b>	60			C	C		1715	08
107	<b>13.03</b>	0.55**	47	1.3	<b>0.70</b>	60			C	C		1912	09
93	<b>15.10</b>	0.37	37	1.6	<b>0.61</b>	60			C	C		1712	10
86	<b>16.20</b>	0.37	39	1.5	<b>0.57</b>	60			C	C		1910	11
75	<b>18.78</b>	0.37	45	1.3	<b>0.49</b>	60			C	C		1710	12
66	<b>21.15</b>	0.37	51	1.2	<b>0.43</b>	60			C	C		1312	13
64	<b>21.84</b>	0.37	53	1.1	<b>0.42</b>	60			C	C		1015	14
53	<b>26.31</b>	0.37	64	0.9	<b>0.35</b>	60			C	C		1310	15
48.5	<b>28.88</b>	0.37	70	1.0	<b>0.37</b>	70			C	C		1012	16
39	<b>35.91</b>	0.37	87	0.8	<b>0.30</b>	70			C	C		1010	17
37.1	<b>37.69</b>	0.25	62	1.1	<b>0.28</b>	70			C	C		912	18
29.9	<b>46.87</b>	0.25	77	0.9	<b>0.23</b>	70			C	C		910	19
28.1	<b>49.76</b>	0.25	81	0.9	<b>0.21</b>	70			C	C		712	20
22.6	<b>61.89</b>	0.18	77	0.9	<b>0.17</b>	70			C	C		710	21

\*\* Concerning a reduced dimensions electric motor. \* Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14 Riferito a motore con grandezza ridotta \* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**A) Motor Flanges Available** Flange Motore Disponibili **B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione **C) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione **D) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **202A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **202A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **202A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **202A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **202A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION 202A Oil Quantity 0.15 Lt.

**AGIP** Telium VSF 320 **SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita

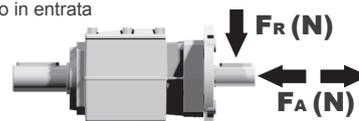
$$F_{eq} = FR \cdot \frac{35.7}{X+20.7}$$



n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	140	700	140	246	1320	70	340	1700
250	151	756	120	270	1350	40	380	1900
200	185	924	85	300	1500	15	-	-

#### Input shaft

Albero in entrata



n <sub>1</sub>	FA	FR
1400	140	700
900	160	800
500	190	950

**tab. 2**





QUICK SELECTION / Selezione veloce							input speed (n <sub>1</sub> ) = 1400 min <sup>-1</sup>								
Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71*	80*	90*	71	80	90		
407	<b>3.44</b>	1.5	34	1.0	1.6	35	B				C	C		2821	01
327	<b>4.28</b>	1.5	42	1.0	1.4	40	B				C	C		2818	02
257	<b>5.45</b>	1.5	53	1.0	1.5	52	B				C	C		2815	03
225	<b>6.23</b>	1.5	61	1.1	1.7	70	B				C	C		1921	04
194	<b>7.20</b>	1.5	71	1.0	1.5	70	B				C	C		2812	05
181	<b>7.74</b>	1.5	76	1.1	1.6	80	B				C	C		1918	06
142	<b>9.85</b>	1.5	97	1.0	1.5	95	B				C	C		1915	07
123	<b>11.42</b>	1.5	112	1.0	1.5	115	B				C	C		1715	08
107	<b>13.03</b>	1.1	93	1.2	1.3	114	B				C	C		1912	09
93	<b>15.10</b>	1.1	108	1.1	1.2	114	B				C	C		1712	10
86	<b>16.20</b>	0.75	80	1.3	1.0	107	B				C	C		1910	11
75	<b>18.78</b>	0.75	92	1.2	0.87	107	B				C	C		1710	12
66	<b>21.15</b>	0.75	104	1.1	0.82	114	B				C	C		1312	13
64	<b>21.84</b>	0.75	107	1.1	0.83	119	B				C	C		1015	14
53	<b>26.31</b>	0.55	95	1.1	0.62	107	B				C	C		1310	15
48.5	<b>28.88</b>	0.55	105	1.1	0.60	114	B				C	C		1012	16
39	<b>35.91</b>	0.37	87	1.2	0.46	107	B				C	C		1010	17
37.1	<b>37.69</b>	0.37	91	1.1	0.41	102	B				C	C		912	18
29.9	<b>46.87</b>	0.37	113	0.9	0.35	107	B				C	C		910	19
28.1	<b>49.76</b>	0.25	81	1.2	0.31	101	B				C	C		712	20
22.6	<b>61.89</b>	0.25	101	1.1	0.26	107	B				C	C		710	21

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**C) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**D) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **302A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **302A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **302A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **302A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **302A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION 302A Oil Quantity 0.15 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

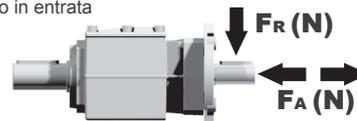
**Output shaft**  
Albero di uscita

$$F_{eq} = FR \cdot \frac{35.7}{X+20.7}$$



n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	140	700	140	246	1320	70	340	1700
250	151	756	120	270	1350	40	380	1900
200	185	924	85	300	1500	15	-	-

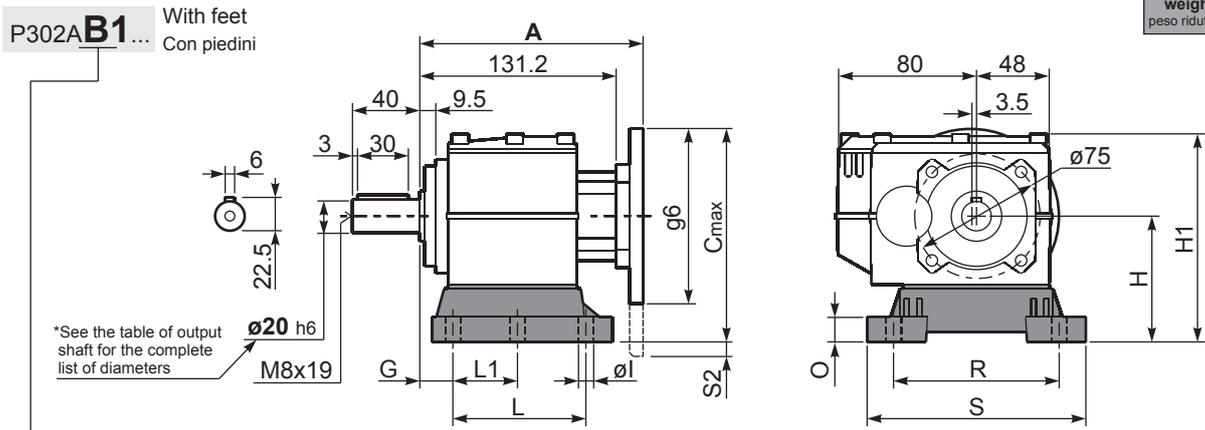
**Input shaft**  
Albero in entrata



n <sub>1</sub>	FA	FR
1400	226	1130
900	264	1320
500	322	1610

tab. 2

Gearbox weight **3.5 kg**  
 With flange  
 peso riduttore **4.0 Kg**  
 With feet



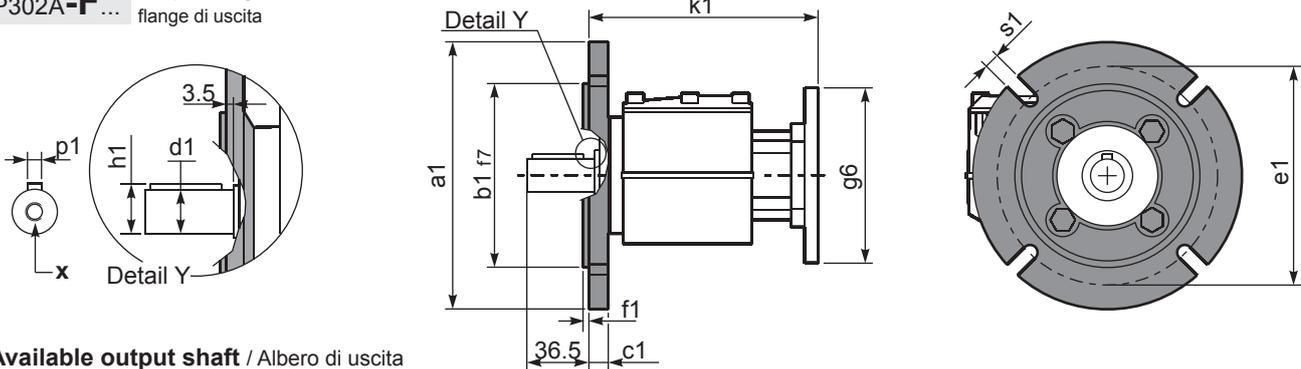
Feet Code	Market reference	G	H	R	L	L1	S	H1	O	phi	S2 only with motor flange	B5 max. Flange	kit code
<b>B1</b>	112	18	85	110	87	50	130	133	15	9	15 80/90B5	-	KC30.9.022
<b>B2</b>	212/3	18	100	130	107.5	60	155	145	5	11	3.5 80/90B5	-	KC30.9.023LM
<b>S1</b>	17-32	18	75	110	110	50	130	123	15	9	5 71B5	71B5	KC30.9.024
<b>S2</b>	27	25	90	110	130	-	130	135	5	9	-	71B5	KC30.9.025LM
<b>L4</b>	04	13	80	105	76	-	132	165	5	9	16.5 80/90B5	-	KC30.9.027LM

Other feet are available, see our web site  
 Sono disponibili altri piedini, consulta il nostro sito web

**A see on page bottom**

Most popular types  
 Tipi più diffusi

**P302A-F...** Output flanges  
 flange di uscita



\*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 20x40	6	22.5	M8x19
On request A richiesta	ø 14x30	5	16	M6x16
	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x50	8	31	M8x19

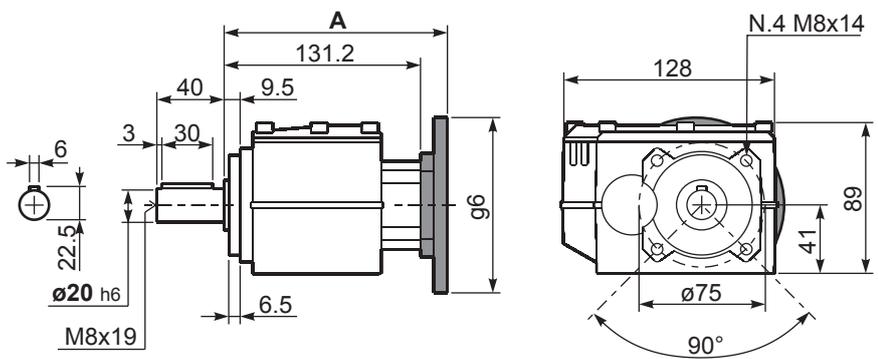
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	11.5	100	3	9*	KC30.9.010
140	95	11.5	115	3	9	KC30.9.011
160	110	11.5	130	3.5	9	KC30.9.012
200	130	11.5	165	3.5	11	KC30.9.013

\* Holes position  
 Posizione fori

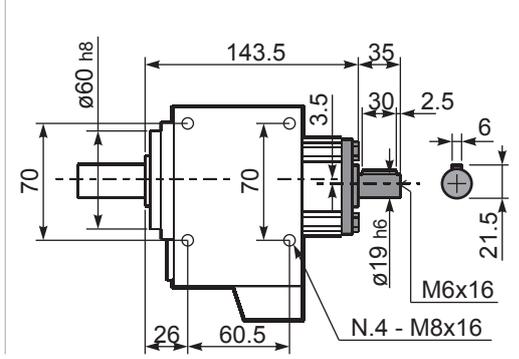
With flange and feet only on request. Ask for compatibility

**P302A-N...** Basic gearbox  
 Riduttore base



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
63 B5	151.7	170	140	155.2	K063.4.041
71 B5	149.7	180	160	153.2	K063.4.042
80/90 B5	151.7	200	200	155.2	K063.4.043

**R302A-N...** Input Shaft  
 Albero in entrata



B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
71 B14	149.7	152.5	105	153.2	K063.4.047
80 B14	151.7	160	120	155.2	K063.4.046
90 B14	151.7	170	140	155.2	K063.4.041



#### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft		
							-B	-C	-D	-E	-F	-Q	-R	-T	-U			Ratios code
							63	71	80*	90*	100*	71	80	90	100	112	100	
398	3.52	3	68	1.2	3.5	80	B					C	C			2821		01
321	4.37	3	84	1.1	3.1	90	B					C	C			2818		02
252	5.56	3	107	0.9	2.7	100	B					C	C			2813		03
220	6.36	2.2	90	1.1	2.3	95	B					C	C			1921		04
191	7.33	2.2	104	1.2	2.5	120	B					C	C			2812		05
177	7.89	2.2	112	1.1	2.3	120	B					C	C			1918		06
139	10.06	2.2	143	1.0	2.3	150	B					C	C			1913		08
120	11.66	1.5	114	1.5	2.3	174	B					C	C			1713	standard	09
106	13.26	1.5	130	1.2	1.8	160	B					C	C			1912	ø25	10
102	13.68	1.5	134	1.1	1.6	144	B					C	C			1513		25
91	15.37	1.5	151	1.1	1.6	160	B					C	C			1712	ø16	11
86	16.20	1.5	159	0.9	1.3	138	B					C	C			1910	ø19	12
78	18.04	1.5	177	0.9	1.4	160	B					C	C			1512	ø20	23
75	18.78	1.1	134	1.0	1.1	138	B					C	C			1710	ø24	24
65	21.54	1.1	154	1.0	1.1	160	B					C	C			1312	On request	14
63	22.29	1.1	160	1.0	1.1	167	B					C	C			1013		15
53	26.31	0.75	129	1.1	0.80	138	B					C	C			1310		16
47.6	29.40	0.75	144	1.1	0.83	160	B					C	C			1012		17
39	35.91	0.55	130	1.1	0.59	138	B					C	C			1010		18
36.5	38.37	0.55	139	1.2	0.64	160	B					C	C			912		19
29.9	46.87	0.55	170	0.8	0.45	138	B					C	C			910		20
27.6	50.67	0.37	123	1.1	0.40	132	B					C	C			712		21
22.6	61.89	0.37	150	0.9	0.34	138	B					C	C			710		22

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**C** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**D** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **402A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **402A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **402A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **402A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **402A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
B3	B6	B7	B8	V5	V6	V8	V8
0.25 LT	0.30 LT	0.40 LT	0.40 LT	0.40 LT	0.50 LT	Ask	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{46}{X+21}$

n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	310	1550	140	406	2030	70	540	2700
250	330	1650	120	448	2240	40	600	3000
200	360	1800	85	480	2400	15	600	3000

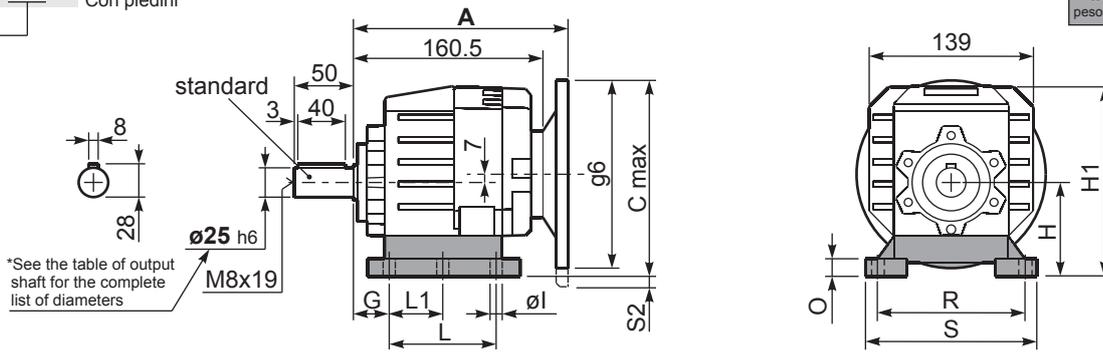
**Input shaft**  
Albero in entrata

n <sub>1</sub>	FA	FR
1400	240	1200
900	280	1400
500	340	1700

**tab. 2**

P402A**B1** ... With feet  
Con piedini

Gearbox weight **5.7 kg**  
peso riduttore With flange  
With feet **5.9 Kg**



**Feet / piedini**

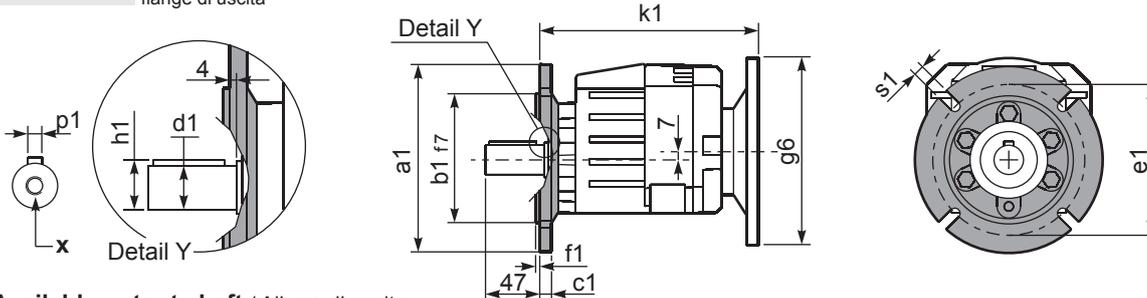
Feet Code	Market reference	G	H	R	L	L1	S	H1	O	øI	S2 only with motor flange	B5 max. Flange	kit code
<b>B1</b>	112	18	85	110	87	50	130	167	15	-	8/33 80/90B5 100/112B5	-	KC35.9.021
<b>B2</b>	212/3	18	100	130	107.5	60	155	182	17	11	18 100/112B5	-	KC40.9.025
<b>S1</b>	17	18	75	110	90÷110	50	145	155	15	9	18/43 80/90B5 100/112B5	-	KC40.9.022
<b>S2</b>	27	25	90	110	130	-	145	172	20	9	3/28 80/90B5 100/112B5	-	KC40.9.024
<b>H2</b>	022-223	25	100	110	115	-	145	182	20	9	18 100/112B5	-	KC40.9.026
<b>M1</b>	42/3	25	80	110÷120	85	-	145	162	15	9	13/38 80/90B5 100/112B5	-	KC40.9.023
<b>H1</b>	020-221	18	80	110	90	-	135	162	14	9	13 80/90B5	-	KC35.9.022

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

**A see on page bottom**

Most popular types  
Tipi più diffusi

P402A-**F** ... Output flanges  
flange di uscita



**\*Available output shaft / Albero di uscita**

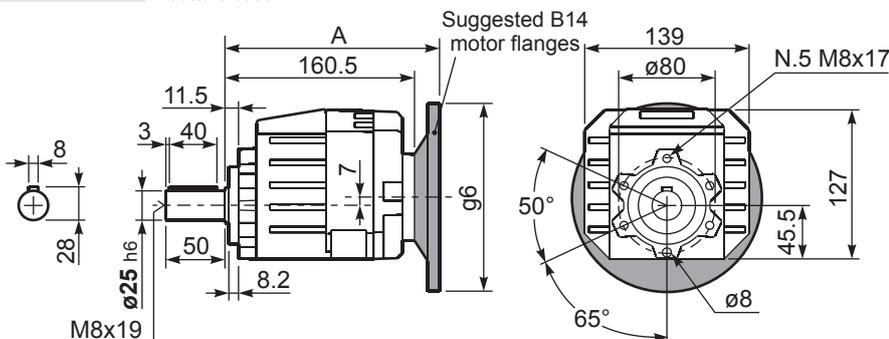
	Shaft - d1	p1	h1	x
Standard	ø 25x50	8	28	M8x19
On request A richiesta	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 20x40	6	22.5	M8x19
	ø 24x50	8	27	M8x19

**Available output flanges / flange di uscita**

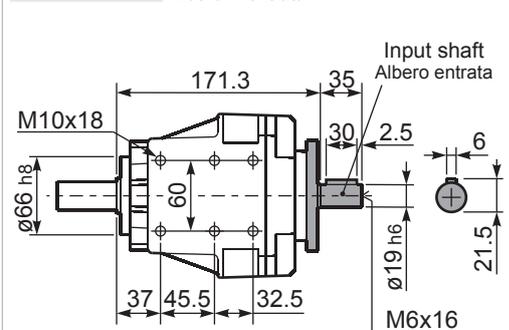
a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	7	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3.5	9	KC40.9.012
200	130	11	165	3.5	11	KC40.9.013
250	180	11.5	215	3.5	14	KC40.9.014

With flange and feet only on request. Ask for compatibility

P402A-**N** ... Basic gearbox  
Riduttore base



**R402A-N** ... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
63 B5	181	177	140	185	K063.4.041
71 B5	179	187	160	183	K063.4.042
80/90 B5	181	207	200	185	K063.4.043
100/112 B5	195.8	232	250	199.8	KC40.4.043

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
71 B14	179	159.5	105	183	K063.4.047
80 B14	181	167	120	185	K063.4.046
90 B14	181	177	140	185	K063.4.041
100/112 B14	195.8	187	160	199.8	KC40.4.041



#### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
36.5	<b>38.40</b>	0.37	91	1.9	<b>0.71</b>	<b>175</b>			C	C		171713	02
32.0	<b>43.69</b>	0.37	104	1.4	<b>0.53</b>	<b>149</b>			C	C		191712	03
27.6	<b>50.64</b>	0.37	120	1.3	<b>0.49</b>	<b>160</b>			C	C		171712	04
26.2	<b>53.36</b>	0.37	127	1.1	<b>0.40</b>	<b>138</b>			C	C		191710	05
22.9	<b>61.21</b>	0.37	145	1.1	<b>0.41</b>	<b>160</b>			C	C		191312	06
22.6	<b>61.85</b>	0.37	147	0.9	<b>0.35</b>	<b>138</b>			C	C		171710	07
19.7	<b>70.95</b>	0.37	168	1.0	<b>0.35</b>	<b>160</b>			C	C		131712	08
19.1	<b>73.43</b>	0.37	174	1.0	<b>0.37</b>	<b>175</b>			C	C		101713	09
18.7	<b>74.77</b>	0.25	120	1.2	<b>0.29</b>	<b>138</b>			C	C		191310	10
16.2	<b>86.66</b>	0.25	139	1.0	<b>0.25</b>	<b>138</b>			C	C		131710	11
14.5	<b>96.85</b>	0.25	155	1.0	<b>0.26</b>	<b>160</b>			C	C		101712	12
13.6	<b>102.89</b>	0.25	165	1.1	<b>0.27</b>	<b>180</b>			C	C		101313	13
11.1	<b>126.40</b>	0.18	155	1.0	<b>0.20</b>	<b>160</b>			C	C		91712	17
10.3	<b>135.69</b>	0.18	166	1.0	<b>0.18</b>	<b>160</b>			C	C		101312	15
8.4	<b>165.74</b>	0.12	131	1.1	<b>0.13</b>	<b>138</b>			C	C		101310	16
7.9	<b>177.09</b>	0.12	140	1.1	<b>0.14</b>	<b>160</b>			C	C		91312	18
6.5	<b>216.31</b>	0.09	136	1.0	<b>0.10</b>	<b>138</b>			C	C		91310	19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **403A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **403A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **403A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **403A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **403A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
0.30 LT	0.35 LT	0.45 LT	0.45 LT	0.45 LT	0.55 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} = F_R \cdot \frac{46}{X+21}$

$F_{eq} (N)$

n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	310	1550	140	406	2030	70	540	2700
250	330	1650	120	448	2240	40	600	3000
200	360	1800	85	480	2400	15	600	3000

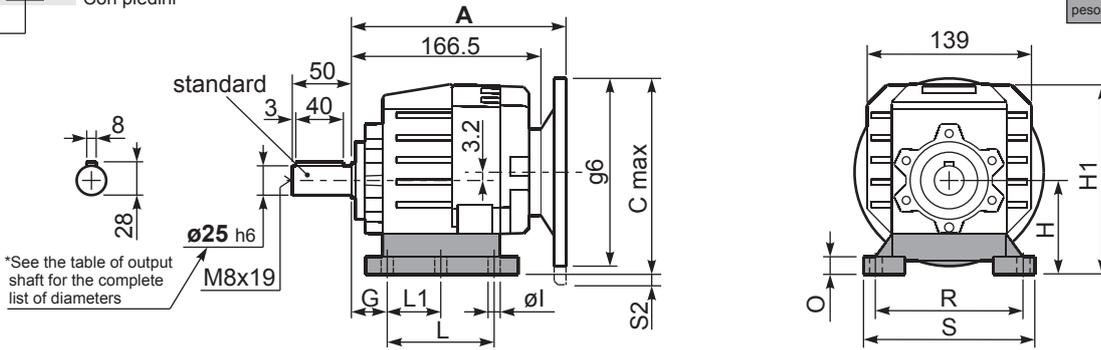
**Input shaft**  
Albero di entrata

n <sub>1</sub>	FA	FR
1400	140	700
900	160	800
500	190	950

**tab. 2**

P403A**B1** ... With feet  
Con piedini

Gearbox weight **6.1 kg**  
peso riduttore With flange  
With feet **6.3 kg**



**Feet / piedini**

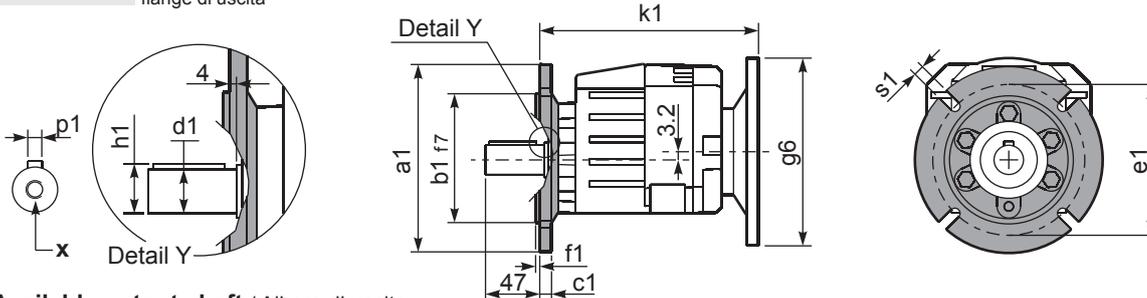
Feet Code	Market reference	G	H	R	L	L1	S	H1	O	øI	S2 only with motor flange	B5 max. Flange	kit code
B1	112	18	85	110	87	50	130	167	15	-	-	-	KC35.9.021
B2	212/3	18	100	130	107.5	60	155	182	17	11	-	-	KC40.9.025
S1	17	18	75	110	90÷110	50	145	155	15	9	2 80/90B5	-	KC40.9.022
S2	27	25	90	110	130	-	145	172	20	9	-	-	KC40.9.024
H2	022-223	25	100	110	115	-	145	182	20	9	-	-	KC40.9.026
M1	42/3	25	80	110÷120	85	-	145	162	15	9	-	-	KC40.9.023
H1	020-221	18	80	110	90	-	135	162	14	9	13 80/90B5	-	KC35.9.022

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

**A see on page bottom**

Most popular types  
Tipi più diffusi

P403A-**F** ... Output flanges  
flange di uscita



**\*Available output shaft / Albero di uscita**

	Shaft - d1	p1	h1	x
Standard	ø 25x50	8	28	M8x19
On request A richiesta	ø 16x40	5	18	M6x16
	ø 19x40	6	21.5	M6x16
	ø 20x40	6	22.5	M8x19
	ø 24x50	8	27	M8x19

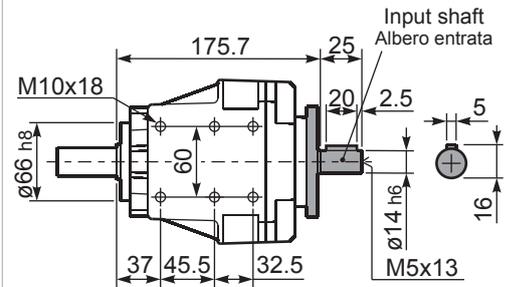
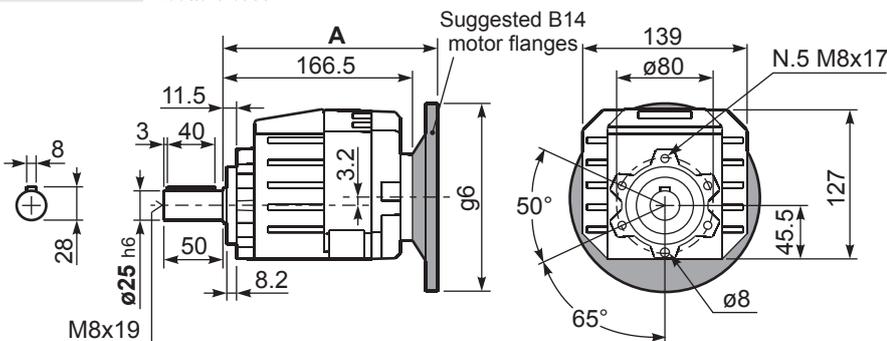
**Available output flanges / flange di uscita**

a1 ø	b1	c1	e1	f1	s1	kit code
120	80	10	100	3	7	KC40.9.010
140	95	10	115	3	9	KC40.9.011
160	110	10	130	3.5	9	KC40.9.012
200	130	11	165	3.5	11	KC40.9.013
250	180	11.5	215	3.5	14	KC40.9.014

With flange and feet only on request. Ask for compatibility

P403A-**N** ... Basic gearbox  
Riduttore base

**R403A-N** ... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
63 B5	185	173.2	140	189	K050.4.041
71 B5	182.5	183.2	160	186.5	K050.4.042

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
56 B14	182.5	143.2	80	186.5	KC40.4.049
63 B14	185	148.2	90	189	K050.4.047
71 B14	182.5	155.7	105	186.5	K050.4.045



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100* 112	132*	80	90	100 112	132		
388	<b>3.61</b>	4	93	1.6	<b>6.3</b>	<b>150</b>	B									3018	01
331	<b>4.23</b>	4	108	1.6	<b>6.1</b>	<b>170</b>	B									3016	02
279	<b>5.01</b>	4	129	1.6	<b>6.1</b>	<b>200</b>	B									3014	03
231	<b>6.07</b>	4	156	1.6	<b>6.3</b>	<b>250</b>	B									3012	04
206	<b>6.81</b>	4	175	1.6	<b>6.2</b>	<b>277</b>	B									2018	05
176	<b>7.96</b>	4	204	1.5	<b>5.8</b>	<b>300</b>	B									2016	06
148	<b>9.45</b>	4	242	1.3	<b>4.9</b>	<b>304</b>	B									2014	07
122	<b>11.43</b>	4	293	1.0	<b>4.0</b>	<b>300</b>	B									2012	08
99	<b>14.21</b>	3	274	1.0	<b>2.8</b>	<b>265</b>	B									2010	09
84	<b>16.62</b>	3	321	0.9	<b>2.8</b>	<b>304</b>	B									1314	10
70	<b>20.10</b>	2.2	286	1.0	<b>2.3</b>	<b>300</b>	B									1312	11
56	<b>24.98</b>	1.85	302	0.9	<b>1.6</b>	<b>265</b>	B									1310	12
47.6	<b>29.41</b>	1.5	288	1.1	<b>1.6</b>	<b>304</b>	B									814	13
39.3	<b>35.58</b>	1.5	349	0.9	<b>1.3</b>	<b>300</b>	B									812	14
34.6	<b>40.50</b>	1.1	290	1.0	<b>1.1</b>	<b>290</b>	B									614	15
31.7	<b>44.23</b>	1.1	316	0.8	<b>0.92</b>	<b>265</b>	B									810	16
28.6	<b>49.00</b>	0.75	240	1.2	<b>0.93</b>	<b>300</b>	B									612	17
23.0	<b>60.90</b>	0.75	299	0.9	<b>0.66</b>	<b>265</b>	B									610	18

The dynamic efficiency is **0.96** for all ratios \*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

- Motor Flanges Available Flange Motore Disponibili
- B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **452A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **452A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **452A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **452A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **452A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
0.31 LT	0.31 LT	0.31 LT	0.31 LT	0.31 LT	0.31 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

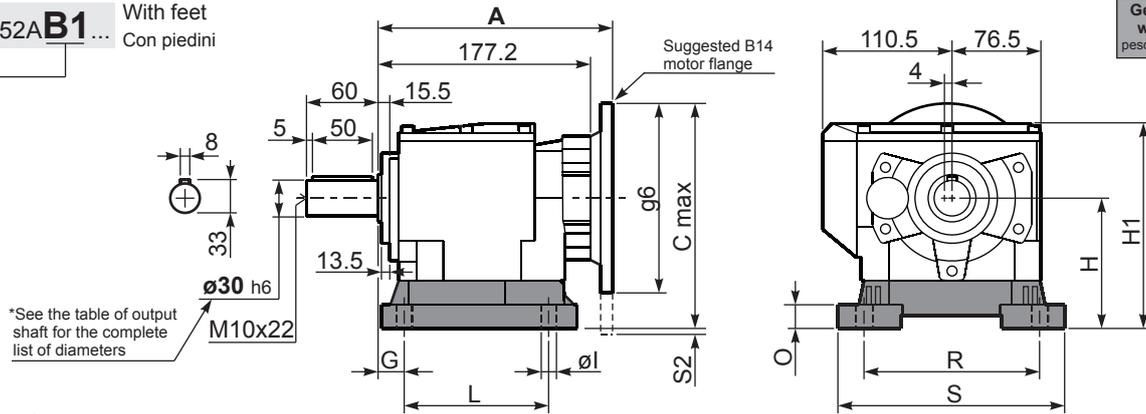
RADIAL AND AXIAL LOADS								
Output shaft / Albero di uscita			Input shaft / Albero in entrata			Equation		
	$F_R (N)$	$F_A (N)$		$F_R (N)$	$F_A (N)$	$F_{eq} = F_R \cdot \frac{51}{X+21}$		
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	415	2070	140	540	2700	70	700	3510
250	430	2160	120	560	2790	40	810	4050
200	470	2340	85	630	3150	15	900	4500
Input shaft / Albero in entrata				$F_R (N)$	$F_A (N)$	$n_1$	FA	FR
						1400	400	2000
						900	440	2200
						500	440	2200

**tab. 2**

**P452A-B1...**

With feet  
Con piedini

Gearbox weight  
peso riduttore With flange **8.7 kg**  
With feet **8.9 Kg**



\*See the table of output shaft for the complete list of diameters

**Feet / piedini**

Feet Code	Market reference	G	H	R	L	S	H1	O	Øl	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	173	20	11	15 100/112B5 40 132B5	-	KC50.9.024
B4	30/35	20	130	180	149.5	216	193	18	14	20 132B5	-	KC60.9.024
S4	47-57	30	115	135	165	170	178	24	13.5	-	80/90B5	KC50.9.022
H3	023-233	30	130	135	135	185	193	25	14	20 132B5	-	KC50.9.025
M2	52/3	30	110	135-150	100	190	173	18	11	15 100/112B5 40 132B5	-	KC50.9.023
L6	06	19	125	160	106	205	188	8	14	25 132B5	-	KC50.9.026LM
E2	2202/3	13	100	135	192	164	163	6	14	-	71B5	KC50.9.027LM

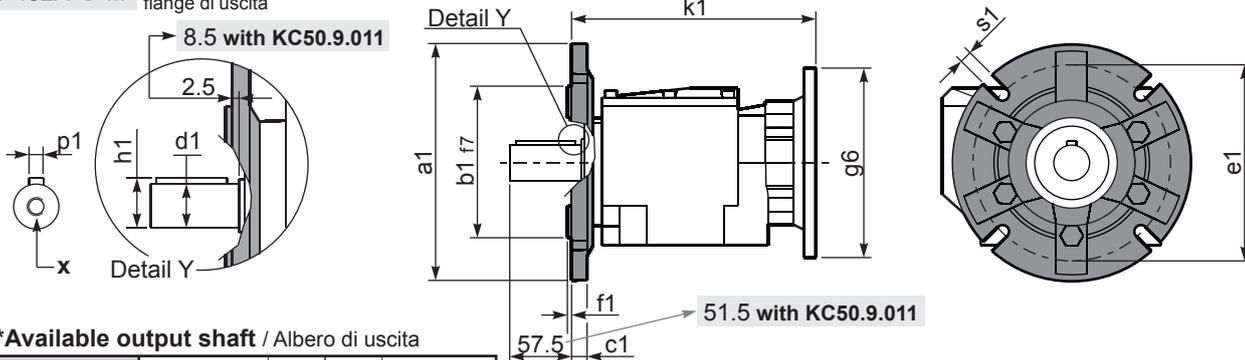
Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

**A see on page bottom**

Most popular types  
Tipi più diffusi

**P452A-F...**

Output flanges  
flange di uscita



\*Available output shaft / Alberi di uscita

	Shaft - d1	p1	h1	x
Standard	Ø 30x60	8	33	M10x22
On request A richiesta	Ø 24x50	8	27	M8x19
	Ø 25x50	8	28	M8x19
	Ø 28x60	8	31	M8x19
	Ø 35x60	10	38	M10x22

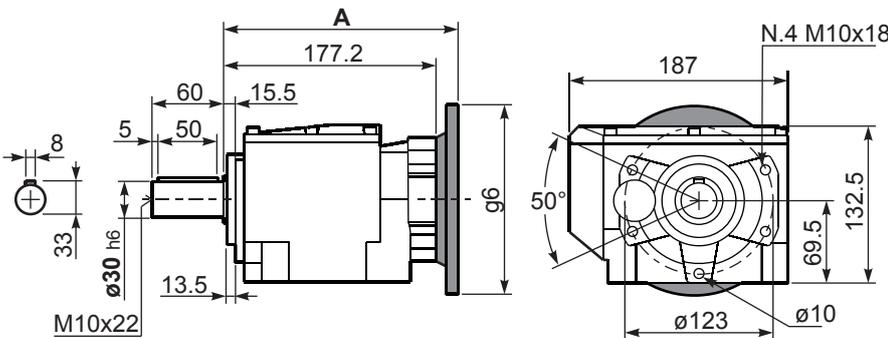
Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request.  
Ask for compatibility

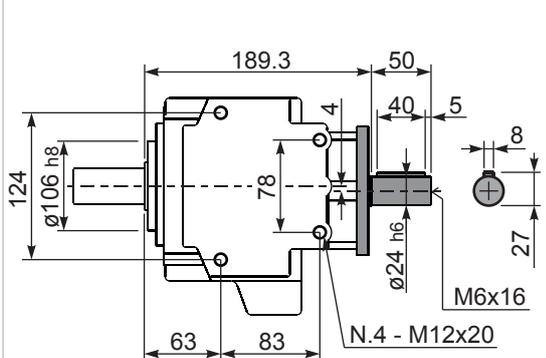
**P452A-N...**

Basic gearbox  
Riduttore base



**R452A-N...**

Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011	B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
71 B5	195.7	222	160	198.2	K023.4.041	204.2	80 B14	197.7	202	120	200.2	K085.4.046	206.2
80/90 B5	197.7	242	200	200.2	K023.4.042	206.2	90 B14	197.7	212	140	200.2	K085.4.045	206.2
100/112 B5	206.7	267	250	209.2	K023.4.043	215.2	100/112 B14	206.7	222	160	209.2	K085.4.047	215.2
132 B5	224.7	292	300	227.2	KC50.4.043	233.2	132 B14	224.7	242	200	227.2	KC50.4.041	233.2



#### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  Ø	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100* 112	132*	80	90	100 112	132		
388	<b>3.61</b>	5.5	127	1.2	<b>6.3</b>	<b>150</b>	B									3018	01
331	<b>4.23</b>	5.5	148	1.1	<b>6.1</b>	<b>170</b>	B									3016	02
279	<b>5.01</b>	5.5	176	1.1	<b>6.1</b>	<b>200</b>	B									3014	03
231	<b>6.07</b>	5.5	213	1.2	<b>6.3</b>	<b>250</b>	B									3012	04
206	<b>6.81</b>	5.5	239	1.3	<b>6.7</b>	<b>300</b>	B									2018	05
176	<b>7.96</b>	5.5	279	1.2	<b>6.3</b>	<b>330</b>	B									2016	07
148	<b>9.45</b>	5.5	331	1.1	<b>5.7</b>	<b>354</b>	B									2014	08
122	<b>11.43</b>	4	293	1.1	<b>4.4</b>	<b>326</b>	B									2012	09
99	<b>14.21</b>	3	274	0.9	<b>2.7</b>	<b>250</b>	B									2010	10
84	<b>16.62</b>	3	321	1.1	<b>3.3</b>	<b>354</b>	B									1314	11
70	<b>20.10</b>	2.2	286	1.1	<b>2.5</b>	<b>326</b>	B									1312	12
57	<b>24.61</b>	2.2	350	0.9	<b>2.0</b>	<b>326</b>	B									1112	20
56	<b>24.98</b>	1.5	245	1.0	<b>1.5</b>	<b>250</b>	B									1310	13
47.6	<b>29.41</b>	1.5	288	1.2	<b>1.8</b>	<b>354</b>	B									814	14
39.3	<b>35.58</b>	1.5	349	0.9	<b>1.4</b>	<b>326</b>	B									812	15
34.6	<b>40.50</b>	1.1	290	1.0	<b>1.1</b>	<b>295</b>	B									614	16
31.7	<b>44.23</b>	1.1	316	0.8	<b>0.86</b>	<b>250</b>	B									810	17
28.6	<b>49.00</b>	1.1	351	0.9	<b>1.0</b>	<b>326</b>	B									612	18
23.0	<b>60.90</b>	0.75	299	0.8	<b>0.63</b>	<b>250</b>	B									610	19

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **502A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **502A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **502A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **502A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **502A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.45 LT	0.55 LT	1.00 LT	1.10 LT	1.10 LT	1.15 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R(N)$   
 $F_A(N)$

$F_{eq} = F_R \cdot \frac{54}{X+24}$

$F_{eq}(N)$   
X

n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	460	2300	140	600	3000	70	780	3900
250	480	2400	120	620	3100	40	900	4500
200	520	2600	85	700	3500	15	1000	5000

**Input shaft**  
Albero in entrata

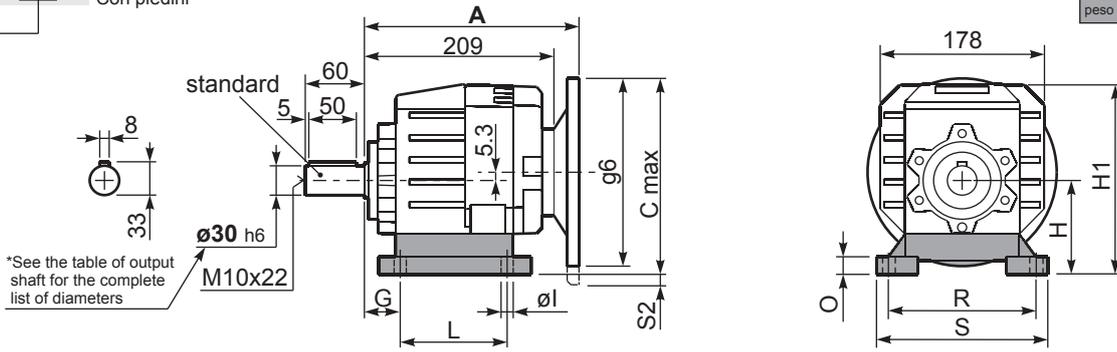
$F_R(N)$   
 $F_A(N)$

n <sub>1</sub>	FA	FR
1400	450	2250
900	500	2500
500	600	3000

**tab. 2**

P502A**B1** ... With feet  
Con piedini

Gearbox weight **11.7 kg**  
peso riduttore With feet **11.9 Kg**



Feet / piedini

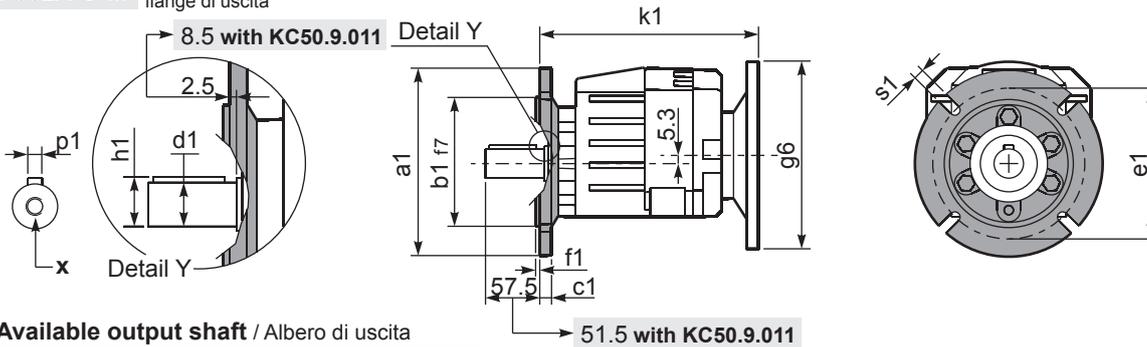
Feet Code	Market reference	G	H	R	L	S	H1	O	øl	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	211.5	20	11	10 100/112B5 35 132B5	-	KC50.9.024
B4	30/35	20	130	180	149.5	216	231.5	18	14	15 132B5	-	KC60.9.024
S4	47-57	30	115	135	165	170	216.5	24	13.5	5 100/112B5 30 132B5	-	KC50.9.022
H3	023-233	30	130	135	135	185	231.5	25	14	15 132B5	-	KC50.9.025
M2	52/3	30	110	135-150	100	190	211.5	18	11	10 100/112B5 35 132B5	-	KC50.9.023
L6	06	19	125	160	106	205	226.5	8	14	20 132B5	-	KC50.9.026LM
E2	2202/3	13	100	135	192	164	201.5	6	14	20 100/112B5 45 132B5	-	KC50.9.027LM

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

**A see on page bottom**

Most popular types  
Tipi più diffusi

P502A-**F** ... Output flanges  
flange di uscita



\*Available output shaft / Alberi di uscita

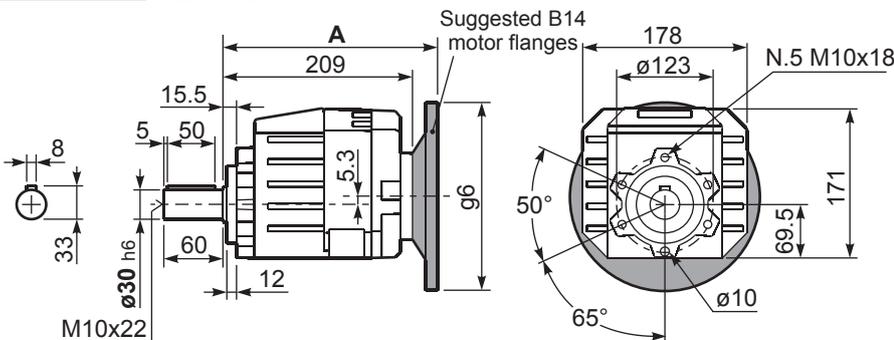
	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x60	8	31	M8x19
	ø 35x60	10	38	M10x22

Available output flanges / flange di uscita

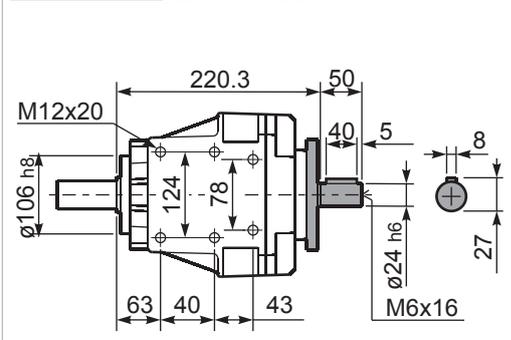
a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request. Ask for compatibility

P502A-**N** ... Basic gearbox  
Riduttore base



R502A-**N** ... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011	B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
71 B5	227.5	227.3	160	230	K023.4.041	236	80 B14	229.5	207.3	120	232	K085.4.046	238
80/90 B5	229.5	247.3	200	232	K023.4.042	238	90 B14	229.5	217.3	140	232	K085.4.045	238
100/112 B5	238.5	272.3	250	241	K023.4.043	247	100/112 B14	238.5	227.3	160	241	K085.4.047	247
132 B5	256.5	297.3	300	259	KC50.4.043	265	132 B14	256.5	247	200	259	KC50.4.041	265



QUICK SELECTION / Selezione veloce							input speed (n <sub>1</sub> ) = 1400 min <sup>-1</sup>									
Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft	Ratios code	
							-B	-C	-D	-E	-Q	-R	-T			
							63	71	80	90	71	80	90			
35.2	<b>39.79</b>	1.5	382	1.0	1.5	373	B				C	C		191316	01	
29.6	<b>47.22</b>	1.1	331	1.1	1.2	354	B				C	C		191314	02	
25.6	<b>54.73</b>	1.1	384	0.9	1.0	354	B				C	C		171314	03	
21.1	<b>66.22</b>	0.75	318	1.0	0.77	326	B				C	C		171312	04	
18.3	<b>76.69</b>	0.75	369	1.0	0.72	354	B				C	C		131314	05	
16.7	<b>83.59</b>	0.55	297	1.2	0.66	354	B				C	C		190814	06	
15.1	<b>92.78</b>	0.55	329	1.0	0.55	326	B				C	C		131312	07	
13.4	<b>104.68</b>	0.55	371	1.0	0.53	354	B				C	C		101314	08	
11.9	<b>117.22</b>	0.37	278	1.2	0.43	326	B				C	C		170812	09	
11.1	<b>126.65</b>	0.37	300	1.1	0.40	326	B				C	C		101312	10	
10.2	<b>136.62</b>	0.37	324	1.1	0.40	354	B				C	C		91314	11	
8.5	<b>165.29</b>	0.25	264	1.2	0.31	326	B				C	C		91312	12	
7.8	<b>180.40</b>	0.25	289	1.2	0.31	354	B				C	C		71314	13	
6.4	<b>218.26</b>	0.25	349	0.9	0.23	326	B				C	C		71312	14	
5.8	<b>241.82</b>	0.25	387	0.9	0.23	354	B				C	C		90814	15	
4.8	<b>292.57</b>	0.18	358	0.9	0.17	326	B				C	C		90812	16	
4.4	<b>319.32</b>	0.18	391	0.9	0.17	354	B				C	C		70814	17	
3.6	<b>386.33</b>	0.12	305	1.1	0.13	326	B				C	C		70812	18	
2.9	<b>480.16</b>	0.12	380	0.7	0.08	250	B				C	C		70810	19	

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili  
 B Supplied with Reduction Bushing Fornito con Bussola di Riduzione  
 B Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione  
 C Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **503A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **503A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **503A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **503A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **503A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil					
	Per queste posizioni specificare in fase d'ordine o aggiungere olio					
0.75 LT	0.75 LT	1.05 LT	1.15 LT	1.20 LT	1.20 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

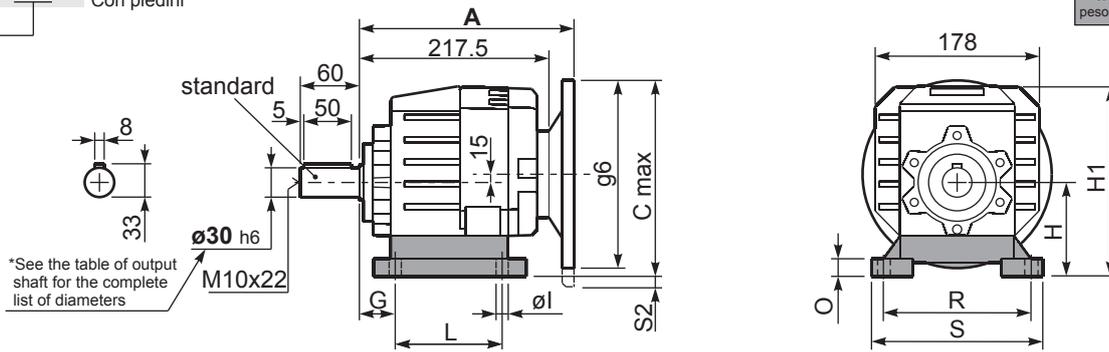
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS								
<b>Output shaft</b> Albero di uscita			$F_{eq} = F_R \cdot \frac{54}{X+24}$					
n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	460	2300	140	600	3000	70	780	3900
250	480	2400	120	620	3100	40	900	4500
200	520	2600	85	700	3500	15	1000	5000
<b>Input shaft</b> Albero di entrata								
n <sub>1</sub>	FA	FR						
1400	400	2000						
900	440	2200						
500	440	2200						

**tab. 2**

P503A **B1** ... With feet  
Con piedini

Gearbox weight **11.9 kg**  
peso riduttore With feet **12.1 Kg**



**Feet / piedini**

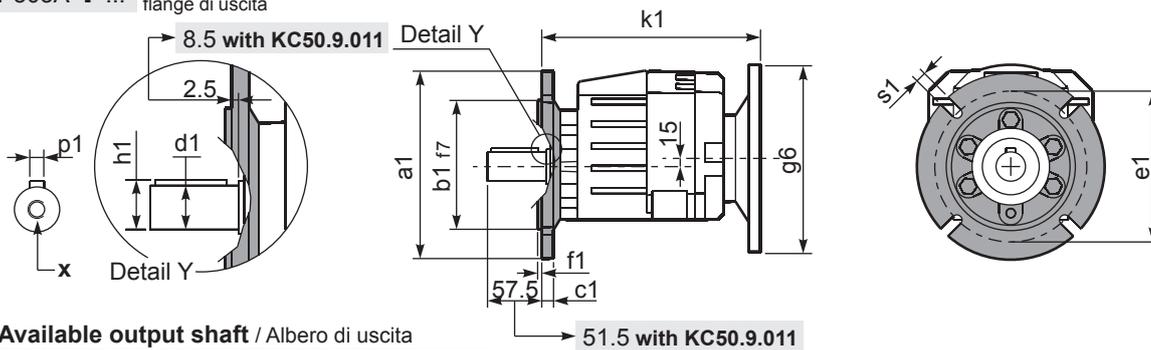
Feet Code	Market reference	G	H	R	L	S	H1	O	øl	S2 only with motor flange	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	211.5	20	11	-	-	KC50.9.024
B4	30/35	20	130	180	149.5	216	231.5	18	14	-	-	KC60.9.024
S4	47-57	30	115	135	165	170	216.5	24	13.5	-	-	KC50.9.022
H3	023-233	30	130	135	135	185	231.5	25	14	-	-	KC50.9.025
M2	52/3	30	110	135-150	100	190	211.5	18	11	-	-	KC50.9.023
L6	06	19	125	160	106	205	226.5	8	14	-	-	KC50.9.026LM
E2	2202/3	13	100	135	192	164	201.5	6	14	-	-	KC50.9.027LM

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

**A see on page bottom**

Most popular types  
Tipi più diffusi

P503A **F** ... Output flanges  
flange di uscita



\*Available output shaft / Alberi di uscita

	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 24x50	8	27	M8x19
	ø 25x50	8	28	M8x19
	ø 28x60	8	31	M8x19
	ø 35x60	10	38	M10x22

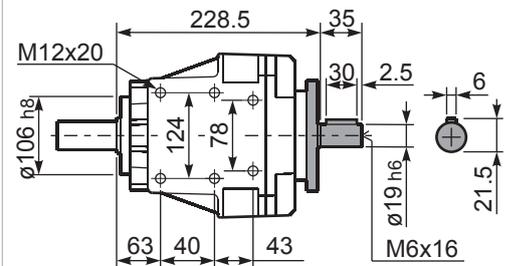
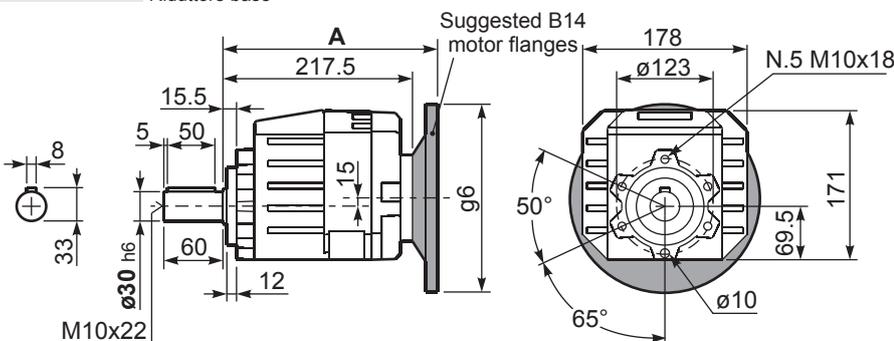
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request. Ask for compatibility

P503A **N** ... Basic gearbox  
Riduttore base

R503A **N** ... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
63 B5	238	227	140	240.5	K063.4.041	246.5
71 B5	236	237	160	238.5	K063.4.042	244.5
80/90 B5	238	257	200	240.5	K063.4.043	246.5

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
71 B14	236	209.5	105	238.5	K063.4.047	244.5
80 B14	238	217	120	240.5	K063.4.046	246.5
90 B14	238	227	140	240.5	K063.4.041	246.5



#### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft			
							-C	-D	-E	-F	-G	-R	-T	-U	-V			Ratios code	
							71	80	90	100 112	132*	80	90	100 112	132				
388	<b>3.61</b>	7.5	171	1.1	7.6	180	B										3018		01
331	<b>4.23</b>	7.5	200	1.1	8.0	220	B										3016		02
279	<b>5.01</b>	7.5	238	1.1	7.9	260	B										3014		03
231	<b>6.07</b>	7.5	288	1.0	7.6	300	B										3012		04
206	<b>6.81</b>	7.5	323	1.1	7.9	350	B										2018		05
176	<b>7.96</b>	7.5	378	1.0	7.1	370	B										2016		07
148	<b>9.45</b>	5.5	331	1.2	6.5	400	B										2014	<b>standard</b>	08
122	<b>11.43</b>	5.5	401	1.0	5.5	415	B										2012	<b>ø35</b>	09
100	<b>14.00</b>	4	359	1.2	4.7	435	B										1316		10
84	<b>16.62</b>	4	426	1.2	4.7	515	B										1314	ø28	11
70	<b>20.10</b>	4	515	1.0	4.0	520	B										1312	ø30	12
57	<b>24.61</b>	3	475	1.1	3.2	520	B										1112	ø38	20
47.6	<b>29.41</b>	2.2	418	1.1	2.3	450	B										814	ø40	14
39.3	<b>35.58</b>	1.85	431	1.2	2.2	520	B										812	On request	15
34.6	<b>40.50</b>	1.1	290	1.1	1.2	320	B										614		16
31.7	<b>44.23</b>	1.5	433	0.9	1.4	400	B										810		17
28.6	<b>49.00</b>	1.1	351	1.1	1.2	400	B										612		18
23.0	<b>60.90</b>	1.1	436	0.9	1.0	400	B										610		19

The dynamic efficiency is **0.96** for all ratios

\*Nel montaggio P la flangia può superare l'ingombro massimo dei piedi. Eventualmente utilizzare la flangia B14  
\* In the P mounting the B5 motor flange can exceed the foot maximum dimensions. Possibly use the flange B14

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **602A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **602A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **602A** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **602A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **602A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
0.55 LT	0.85 LT	1.10 LT	1.20 LT	1.20 LT	1.25 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS								
<b>Output shaft</b> Albero di uscita			$F_{eq} = F_r \cdot \frac{60.5}{X+25.5}$					
n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	560	2800	140	740	3700	70	890	4200
250	600	3000	120	760	3800	40	1160	5800
200	640	3200	85	840	4000	15	1300	6500
<b>Input shaft</b> Albero in entrata								
n <sub>1</sub>	FA	FR						
1400	450	2250						
900	500	2500						
500	600	3000						

**tab. 2**





#### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
35.2	<b>39.79</b>	1.5	382	1.1	1.7	434	B				C	C		191316	05
29.6	<b>47.22</b>	1.5	453	1.1	1.7	515	B				C	C		191314	06
25.6	<b>54.73</b>	1.5	525	1.0	1.5	515	B				C	C		171314	07
24.5	<b>57.13</b>	1.5	548	0.9	1.4	520	B				C	C		191312	08
21.1	<b>66.22</b>	1.1	464	1.1	1.2	520	B				C	C		171312	09
19.7	<b>71.01</b>	1.1	498	0.9	0.96	435	B				C	C		191310	10
18.3	<b>76.69</b>	1.1	538	1.0	1.0	515	B				C	C		131314	11
17.0	<b>82.30</b>	0.75	396	1.1	0.82	435	B				C	C		171310	12
16.7	<b>83.59</b>	0.75	402	1.1	0.82	440	B				C	C		190814	13
15.1	<b>92.78</b>	0.75	446	1.2	0.87	520	B				C	C		131312	14
13.4	<b>104.68</b>	0.75	503	1.0	0.77	515	B				C	C		101314	15
11.9	<b>117.22</b>	0.75	564	0.9	0.69	520	B				C	C		170812	16
11.1	<b>126.65</b>	0.55	449	1.2	0.64	520	B				C	C		101312	17
10.3	<b>135.74</b>	0.55	482	0.9	0.51	440	B				C	C		130814	18
9.6	<b>145.68</b>	0.37	346	1.3	0.47	435	B				C	C		170810	19
8.9	<b>157.40</b>	0.37	373	1.2	0.43	435	B				C	C		101310	20
8.5	<b>165.29</b>	0.37	392	1.3	0.49	520	B				C	C		91312	21
7.6	<b>185.29</b>	0.37	439	1.0	0.37	440	B				C	C		100814	22
6.8	<b>205.43</b>	0.37	487	0.9	0.33	435	B				C	C		91310	23
6.2	<b>224.18</b>	0.37	532	1.0	0.36	520	B				C	C		100812	24
5.8	<b>241.82</b>	0.25	387	1.1	0.28	440	B				C	C		90814	25
5.0	<b>278.62</b>	0.25	446	1.0	0.24	435	B				C	C		100810	26
4.8	<b>292.57</b>	0.25	468	1.1	0.28	520	B				C	C		90812	27
3.9	<b>363.63</b>	0.18	445	1.0	0.19	435	B				C	C		90810	28

The dynamic efficiency is **0.94** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **603A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **603A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **603A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **603A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **603A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.75 LT	0.90 LT	1.15 LT	1.25 LT	1.30 LT	1.35 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

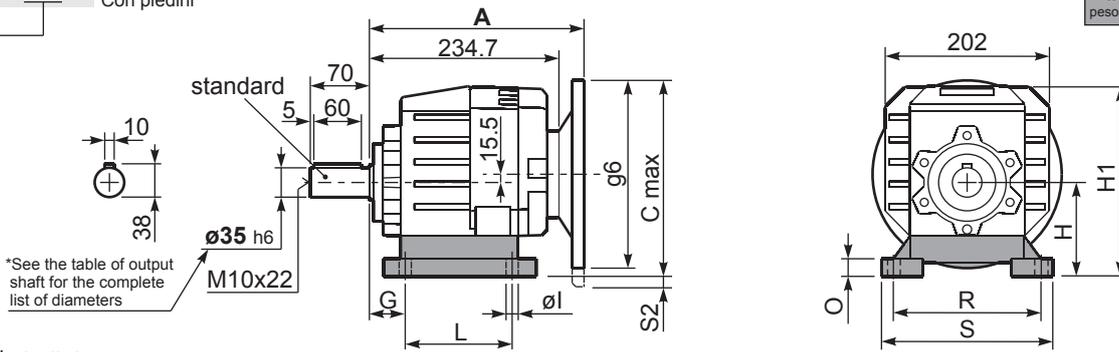
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS								
<b>Output shaft</b> Albero di uscita			$F_{eq} = F_R \cdot \frac{60.5}{X+25.5}$					
n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	560	2800	140	740	3700	70	890	4200
250	600	3000	120	760	3800	40	1160	5800
200	640	3200	85	840	4000	15	1300	6500
<b>Input shaft</b> Albero in entrata								
n <sub>1</sub>	FA	FR						
1400	400	2000						
900	440	2200						
500	440	2200						

**tab. 2**

P603A-B1... With feet  
Con piedini

Gearbox weight **14.3 kg**  
peso riduttore With feet **14.7 Kg**



Feet / piedini

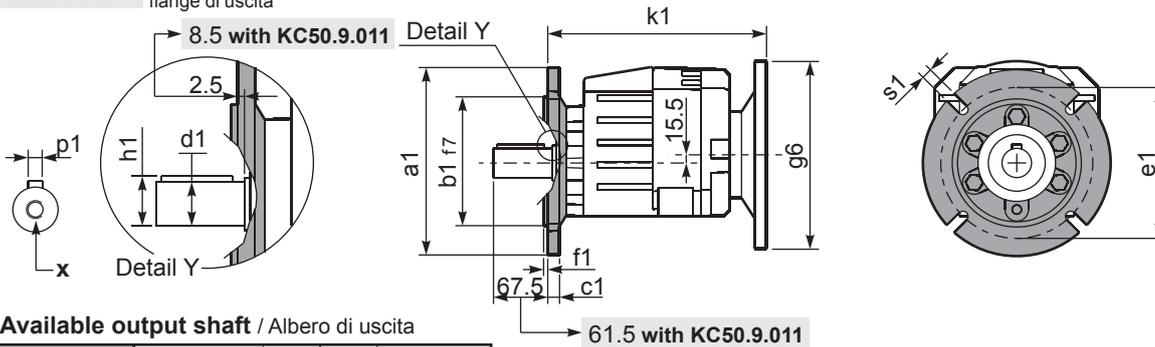
Feet Code	Market reference	G	H	R	L	S	H1	O	øl	S2 only with motor flange	B5 max. Flange	kit code
B4	412/3	20	130	180	149.5	216	233	18	14	-	-	KC60.9.024
S4	47-57	30	115	135	165	170	218	24	13.5	-	-	KC50.9.022
M3	62/3	35	120	170-185	110	230	223	20	14	-	-	KC60.9.023
S7	77	35	140	170	205	204	243	8	14	-	-	KC60.9.029LM
H4	024-243	35	155	170	150	225	258	30	14	-	-	KC60.9.025
L6	06	19	125	160	106	205	228	8	14	-	-	KC50.9.026LM
B5	352/3	23.5	115	170	130	205	218	8	14	-	-	KC60.9.021LM

Other feet are available, see our web site  
Sono disponibili altri piedini, consulta il nostro sito web

A see on page bottom

Most popular types  
Tipi più diffusi

P603A-F... Output flanges  
flange di uscita



\*Available output shaft / Alberi di uscita

	Shaft - d1	p1	h1	x
Standard	ø 35x70	10	38	M10x22
On request A richiesta	ø 28x60	8	31	M8x20
	ø 30x60	8	33	M10x22
	ø 38x70	10	41	M10x25
	ø 40x80	12	43	M12x28

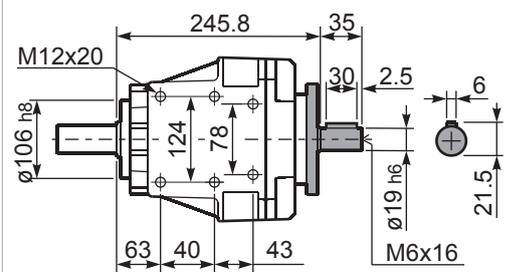
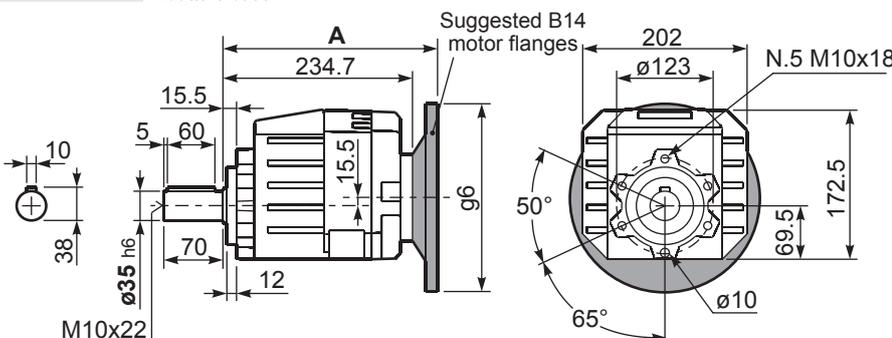
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request.  
Ask for compatibility

P603A-N... Basic gearbox  
Riduttore base

R603A-N... Input Shaft  
Albero in entrata



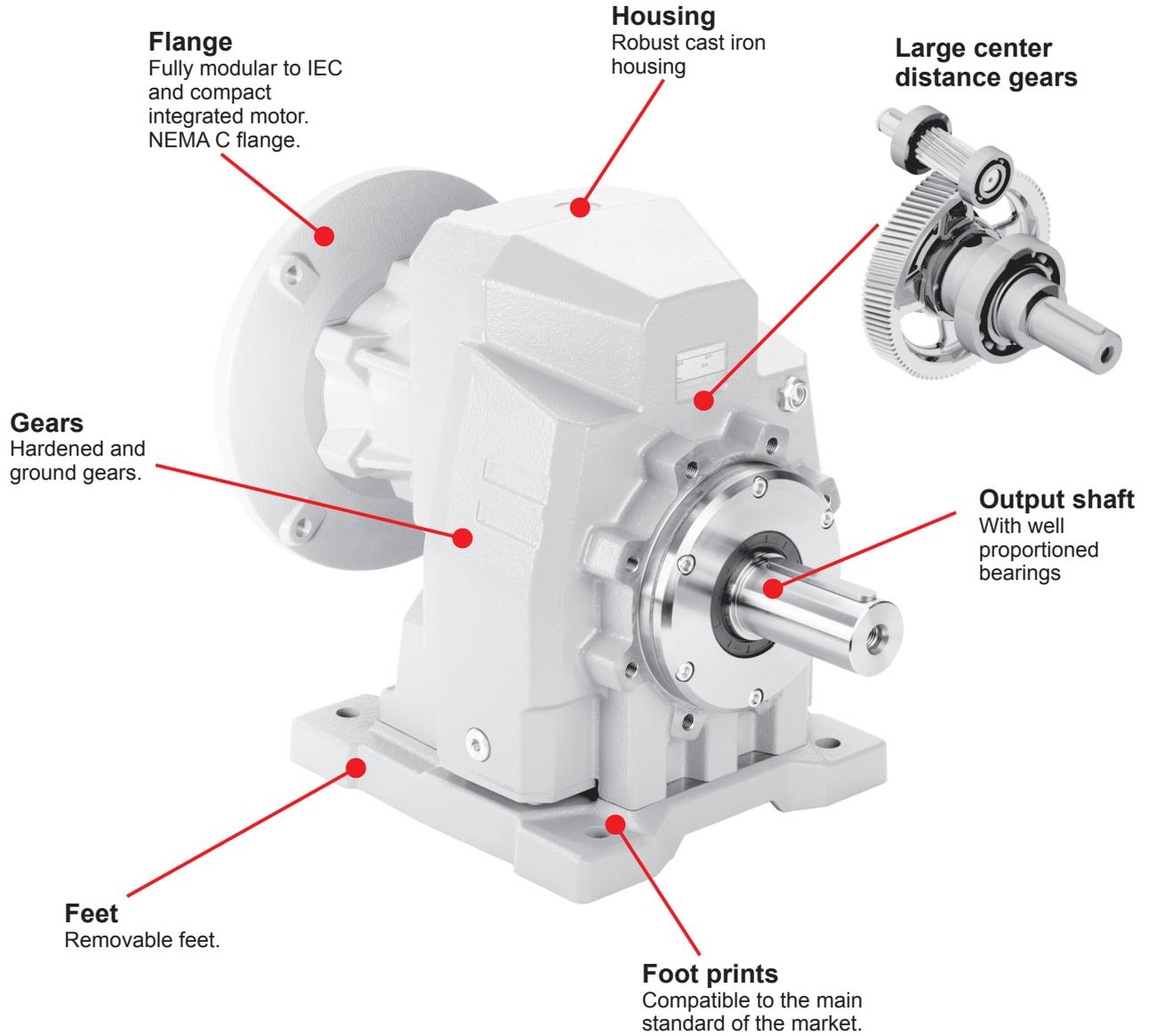
B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
63 B5	255.2	247.5	140	257.7	K063.4.041	263.7
71 B5	253.2	257.5	160	255.7	K063.4.042	261.7
80/90 B5	255.2	277.5	200	257.7	K063.4.043	263.7

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
71 B14	253.2	230	105	255.7	K063.4.047	261.7
80 B14	255.2	237.5	120	257.7	K063.4.046	263.7
90 B14	255.2	247.5	140	257.7	K063.4.041	263.7

# Cast iron in line gearboxes

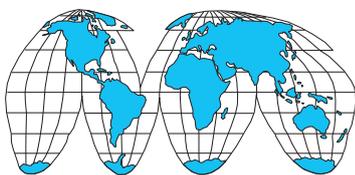
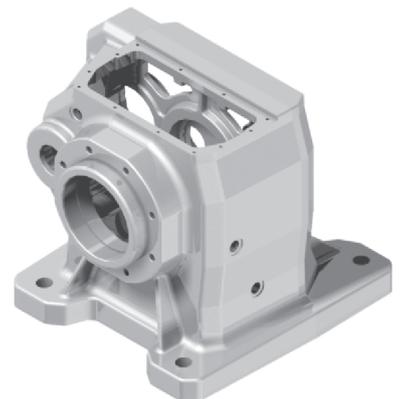
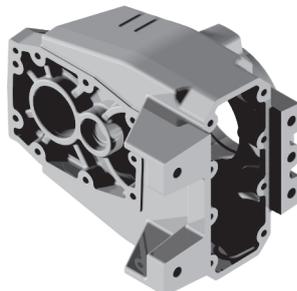
A modular and compact product

5



## Single-piece Cast Iron housing

with high tensile strength. Precision machined for alignment of bearings and gearing



World wide sales network.

# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página

1 Stage



5-5	5-11	5-17	5-23	5-29
<b>501C</b> 225Nm	<b>701C</b> 380Nm	<b>801C</b> 670Nm	<b>851C</b> 700Nm	<b>901C</b> 1175Nm

Types / Tipi  
Tipen / Tipos  
Tipos

On page / A pagina / Auf Seite / À la page / En la página

2 and 3 Stages

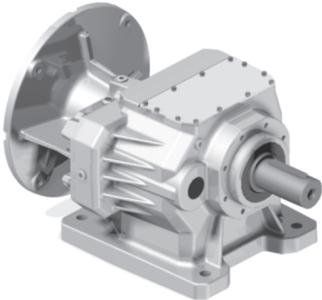


5-7	5-9	5-13	5-15	5-19	5-21	5-25	5-27	5-31	5-33
<b>502C</b> 320Nm	<b>503C</b> 320Nm	<b>702C</b> 675Nm	<b>703C</b> 675Nm	<b>802C</b> 900Nm	<b>803C</b> 900Nm	<b>852C</b> 1600Nm	<b>853C</b> 1800Nm	<b>902C</b> 2100Nm	<b>903C</b> 2100Nm

Types / Tipi  
Tipen / Tipos  
Tipos

On page / A pagina / Auf Seite / À la page / En la página

2 and 3 Stages



5-35	5-37	5-39	5-41
<b>1002</b> 2900Nm	<b>1003</b> 3000Nm	<b>1102</b> 4500Nm	<b>1103</b> 4600Nm

Types / Tipi  
Tipen / Tipos  
Tipos

On page / A pagina / Auf Seite / À la page / En la página



M-1										
<b>56A</b> <b>56B</b>	<b>63A</b> <b>63B</b>	<b>71A</b> <b>71B</b>	<b>80A</b> <b>80B</b>	<b>90S</b> <b>90L</b>	<b>100LA</b> <b>100LB</b>	<b>112M</b>	<b>132S</b> <b>132M</b>	<b>160M</b> <b>160L</b>	<b>180M</b> <b>180L</b>	

Types / Tipi  
Tipen / Tipos  
Tipos

Type - Tipo - Typ  
Type - Tipo

Size - Grandezza - Grösse  
Taille - Tomafio

Mounting - Montaggio  
Montage - Fixation  
Tipo de montaje

Ratio - Rapporto  
Untersetzung  
Reduction  
Relación

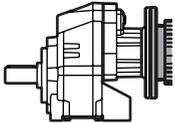
**P**

**702C**

**-F**

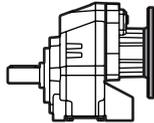
**6.57**

Cast iron coaxial gear boxes  
Riduttori coassiali in Ghisa



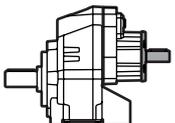
With IEC motor

**M**



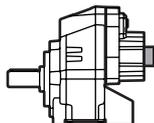
With motor flange

**P**



With male input shaft

**R**



Modular base

**B**

Not available for:  
701C, 801C,  
851C, 901C,  
852C, 902C,  
1002, 1102,  
1003, 1103.

**1** Stage  
Riduzione  
Stufe  
Trains  
Etapas

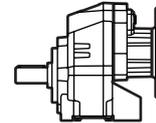
**501C**  
**701C**  
**801C**  
**851C**  
**901C**

**2** Stages  
Riduzioni  
Stufen  
Trains  
Etapas

**502C**  
**702C**  
**802C**  
**852C**  
**902C**  
**1002**  
**1102**

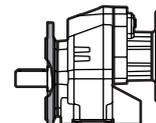
**3** Stages  
Riduzioni  
Stufen  
Trains  
Etapas

**503C**  
**703C**  
**803C**  
**853C**  
**903C**  
**1003**  
**1103**



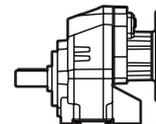
Without flange / feet

**-N**



Output flange mounted

**-F**



Mounted feet

**B..**

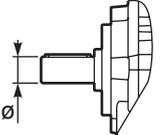
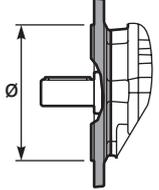
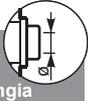
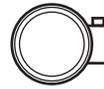
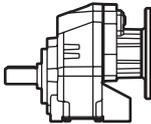
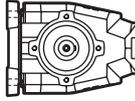
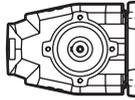
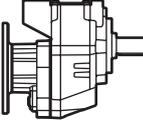
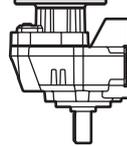
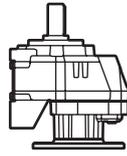
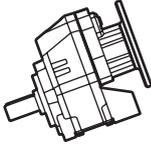
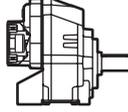
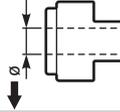
Feet / piedini

Feet Code	Market reference	G	H	R	L
B1	112	18	85	110	
B2	212/3	18	100	130	
S4	17	18	75	110	
S2	27	25	90		
M1	42/3	25	80		
L4	04	13	80		
L5	05	16	100		

You see feet code in the chart of the dimensions  
Vedi codice piede nella tabella delle dimensioni



On request we can deliver our products according to the ATEX  
A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
Sur demande nos produits peuvent se conformer à la réglementation ATEX  
A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Terminal box position Posizione morsetteria Klemmkastenlage Position boîte à bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Coupling Giunto Kupplung Joint Juntura
<p><b>H</b></p>  <p>→ STANDARD</p> <p>501C 502C 503C</p> <p><b>H</b> → <b>∅30</b> <b>I</b> → <b>∅35</b></p> <p>701C 702C 703C</p> <p><b>I</b> → <b>∅35</b> <b>L</b> → <b>∅38</b> <b>M</b> → <b>∅40</b></p> <p>801C 802C 803C</p> <p><b>M</b> → <b>∅40</b> <b>P</b> → <b>∅50</b></p> <p>851C 852C 853C</p> <p><b>P</b> → <b>∅50</b> <b>J</b> → <b>∅60</b></p> <p>901C 902C 903C</p> <p><b>P</b> → <b>∅50</b> <b>J</b> → <b>∅60</b></p> <p>1002 1003</p> <p><b>J</b> → <b>∅60</b></p> <p>1102 1103</p> <p><b>A</b> → <b>∅70</b></p>	<p><b>4</b></p>  <p>→ STANDARD</p> <p><b>N</b> Senza flangia Without flange</p> <p>501C 502C 503C</p> <p><b>3</b> → <b>∅160</b> <b>4</b> → <b>∅200</b> <b>5</b> → <b>∅250</b></p> <p>701C 702C 703C</p> <p><b>4</b> → <b>∅200</b> <b>5</b> → <b>∅250</b></p> <p>801C 802C 803C</p> <p><b>5</b> → <b>∅250</b> <b>6</b> → <b>∅300</b></p> <p>851C 852C 853C</p> <p><b>6</b> → <b>∅300</b> <b>7</b> → <b>∅350</b></p> <p>901C 902C 903C 1002 1003</p> <p><b>6</b> → <b>∅300</b> <b>7</b> → <b>∅350</b> <b>8</b> → <b>∅450</b></p> <p>1102 1103</p> <p><b>7</b> → <b>∅350</b> <b>8</b> → <b>∅450</b></p>	<p><b>-F</b></p> <p>Flange Flangia</p>  <p><b>B5</b></p> <p><b>-A</b>=56 (∅120) <b>-B</b>=63 (∅140) <b>-C</b>=71 (∅160) <b>-D</b>=80 (∅200) <b>-E</b>=90 (∅200) <b>-F</b>=100÷112 (∅250) <b>-G</b>=132 (∅300) <b>-H</b>=160 (∅350) <b>-I</b>=180 (∅350) <b>-L</b>=200 (∅400) <b>CA</b>=225 (∅450)</p> <p><b>B14</b></p> <p><b>-O</b>=56 (∅80) <b>-P</b>=63 (∅90) <b>-Q</b>=71 (∅105) <b>-R</b>=80 (∅120) <b>-T</b>=90 (∅140) <b>-U</b>=100÷112 (∅160) <b>-V</b>=132 (∅200)</p> <p>Type R Tipo R</p>  <p>503C</p> <p><b>-1</b> → <b>∅14</b></p> <p>502C 703C 803C</p> <p><b>-2</b> → <b>∅19</b></p> <p>702C 802C 853C 903C</p> <p><b>-3</b> → <b>∅24</b></p> <p>852C 902C 1003 1103</p> <p><b>-4</b> → <b>∅28</b></p> <p>1002 1102</p> <p><b>-6</b> → <b>∅42</b></p> <p>Without flange Senza flangia</p>  <p><b>-M</b> → With coupling 503C</p> <p><b>-Z</b> → <b>∅9</b> (56B5) <b>-0</b> → <b>∅11</b> (63B5) <b>-1</b> → <b>∅14</b> (71B5)</p> <p>502C 703C 803C</p> <p><b>-1</b> → <b>∅14</b> (71B5) <b>-2</b> → <b>∅19</b> (80B5) <b>-3</b> → <b>∅24</b> (90B5)</p> <p>702C 802C 853C 903C</p> <p><b>-2</b> → <b>∅19</b> (80B5) <b>-3</b> → <b>∅24</b> (90B5) <b>-4</b> → <b>∅28</b> (100B5)</p> <p>501C</p> <p><b>-4</b> → <b>∅28</b> (100B5)</p>	<p><b>B</b></p>  <p><b>A</b></p>  <p><b>B</b></p> <p>STANDARD</p>  <p><b>C</b></p>  <p><b>D</b></p>	<p><b>B3</b></p>  <p><b>B3</b></p> <p>STANDARD</p>  <p><b>B6</b></p>  <p><b>B7</b></p>  <p><b>B8</b></p>  <p><b>V5</b></p>  <p><b>V6</b></p>  <p><b>V8</b></p>	<p><b>-</b></p> <p><b>0</b></p> <p>Without coupling Senza giunto</p>  <p><b>-</b></p> <p>Nothing indication: standard bore</p> <p>Nessuna indicazione: foro standard</p> <p>COUPLING</p>  <p><b>A</b> = 9mm <b>B</b> = 11mm <b>C</b> = 14mm <b>D</b> = 19mm <b>E</b> = 24mm <b>F</b> = 28mm</p>

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P \text{ [KW]} = \frac{M \text{ [Kg]} \cdot g \text{ [9.81]} \cdot v \text{ [m / s]}}{1000}$$

Rotation / rotazione / drehung / rotation / rotação

$$P \text{ [KW]} = \frac{M \text{ [Nm]} \cdot n \text{ [rpm]}}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translación

$$P \text{ [KW]} = \frac{F \text{ [N]} \cdot v \text{ [m / s]}}{1000}$$

TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

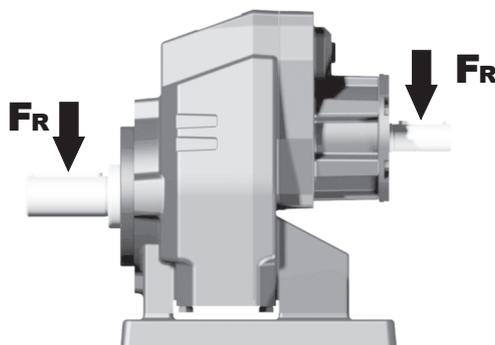
$$M \text{ [Nm]} = \frac{9550 \cdot P \text{ [KW]}}{n \text{ [rpm]}}$$

$$M \text{ [lb in]} = \frac{63030 \cdot P \text{ [HP]}}{n \text{ [rpm]}}$$

5

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

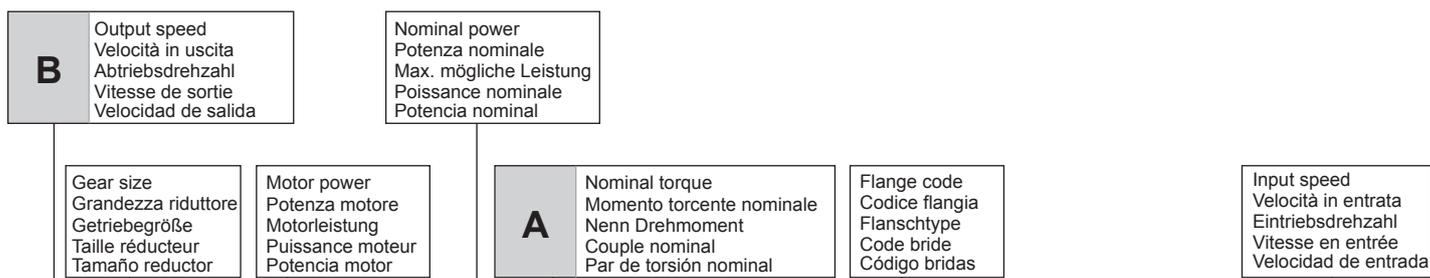
- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



	$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$	$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor



**702C**

Coaxial - Gear  
**675Nm**

Rating - Cast Iron COAXIAL GEARBOXES



QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code	
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
213	<b>6.57</b>	7.5	312	1.2	8.8	380	B										3018	01
185	<b>7.56</b>	7.5	359	1.1	7.9	390	B										3016	02
159	<b>8.82</b>	7.5	419	1.0	7.1	410	B										3014	03
113	<b>12.39</b>	7.5	588	1.0	7.2	580	B										2018	04
98	<b>14.24</b>	5.5	499	1.2	6.4	600	B										2016	05

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

<b>D</b>	Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles	
<b>B)</b>	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción	
<b>C)</b>	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-socket Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor	
<b>B)</b>	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo	

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges			Output Shaft  $\emptyset$	Ratios code 	
							-D	-E	-F	-R	-T	-U			
							80	90	100 112	80	90	100 112			
481	<b>2.91</b>	4	76	1.8	<b>7.2</b>	<b>140</b>	B	B		B	B		3499	<b>standard</b>	01
373	<b>3.75</b>	4	98	1.6	<b>6.4</b>	<b>160</b>	B	B		B	B		28105	<b>ø30</b>	02
263	<b>5.33</b>	4	140	1.2	<b>4.8</b>	<b>170</b>	B	B		B	B		21112		03
219	<b>6.39</b>	4	167	1.0	<b>4.0</b>	<b>170</b>	B	B		B	B		18115	<b>ø35</b>	04
178	<b>7.85</b>	4	205	1.1	<b>4.3</b>	<b>225</b>	B	B		B	B		13102	On request	05

The dynamic efficiency is **0.98** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **501C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **501C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **501C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **501C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **501C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
1.25 LT	0.80 LT	0.80 LT	0.70 LT	1.40 LT	0.80 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} (N)$

$F_{eq} = F_R \cdot \frac{56.5}{X+26.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>300</b>	500	2500	<b>140</b>	640	3200	<b>70</b>	820	4100
<b>250</b>	540	2700	<b>120</b>	680	3400	<b>40</b>	1020	5100
<b>200</b>	580	2900	<b>85</b>	760	3800	<b>15</b>	1100	5500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**tab. 2**





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\emptyset$	Ratios code 
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100	112	71	80	90		
167	<b>8.38</b>	4	215	1.0	4.1	225	B					C	C			2821	01
139	<b>10.04</b>	3	194	1.2	3.7	240	B					C	C			2818	02
114	<b>12.33</b>	3	238	1.1	3.2	260	B					C	C			2813	03
92	<b>15.16</b>	2.2	215	1.2	2.6	260	B					C	C			1921	04
80	<b>17.57</b>	2.2	250	1.1	2.3	270	B					C	C			1721	05
77	<b>18.16</b>	2.2	258	1.1	2.4	290	B					C	C			1918	06
67	<b>21.05</b>	2.2	299	1.1	2.3	320	B					C	C			1718	07
63	<b>22.30</b>	2.2	317	1.0	2.2	320	B					C	C			1913	08
57	<b>24.70</b>	1.5	242	1.3	2.0	320	B					C	C			1518	09
54	<b>25.85</b>	1.5	253	1.3	1.9	320	B					C	C			1713	10
47.5	<b>29.49</b>	1.5	289	1.1	1.7	320	B					C	C			1318	11
46.1	<b>30.34</b>	1.5	297	1.1	1.6	320	B					C	C			1513	12
41.7	<b>33.60</b>	1.1	240	1.0	1.1	250	B					C	C			1021	13
38.7	<b>36.21</b>	1.1	259	1.2	1.3	320	B					C	C			1313	14
34.8	<b>40.25</b>	1.1	288	1.0	1.1	300	B					C	C			1018	15
28.3	<b>49.43</b>	1.1	354	0.9	0.99	320	B					C	C			1013	16
26.7	<b>52.53</b>	0.75	258	1.0	0.76	260	B					C	C			918	17
21.7	<b>64.51</b>	0.75	317	1.0	0.75	315	B					C	C			913	18
20.2	<b>69.37</b>	0.37	168	1.1	0.42	190	B					C	C			718	19
16.4	<b>85.19</b>	0.37	206	1.1	0.41	230	B					C	C			713	20

The dynamic efficiency is **0.96** for all ratios

- Motor Flanges Available  
Flange Motore Disponibili
- B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **502C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **502C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione.  
Vedi tab.1 per oli e quantità consigliati.  
In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **502C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **502C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **502C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
1.25 LT	0.80 LT	0.80 LT	0.70 LT	1.40 LT	0.80 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} = F_R \cdot \frac{56.5}{X+26.5}$

$F_{eq} (N)$

$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$
300	500	2500	140	640	3200	70	820	4100
250	540	2700	120	680	3400	40	1020	5100
200	580	2900	85	760	3800	15	1100	5500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

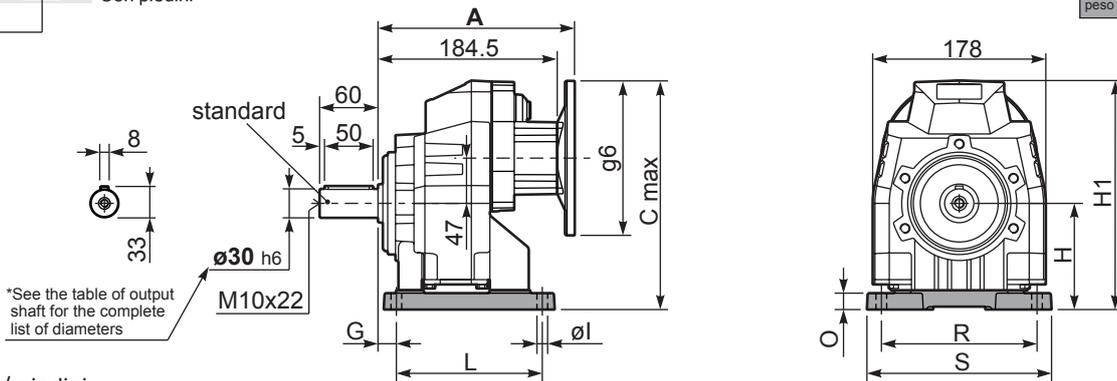
$F_R (N)$   
 $F_A (N)$

$n_1$	$F_A$	$F_R$
1400	240	1200
900	280	1400
500	340	1700

tab. 2

P502C**S4**... With feet  
Con piedini

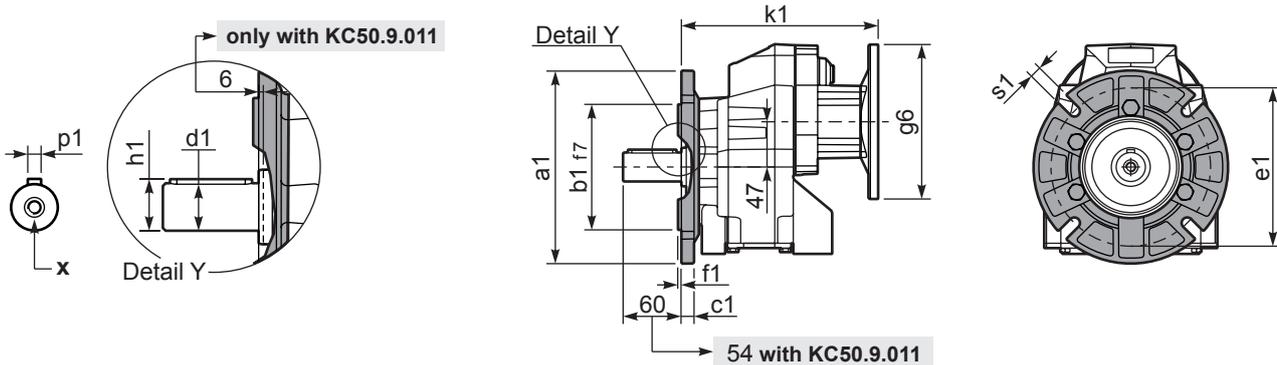
Gearbox weight **15.0 kg**  
peso riduttore With flange  
With feet **17.0 kg**



Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øl	B5 max. Flange	kit code
B3	312/3	18	110	160	130	190	237	17	11	-	C50C.9.022
S4	47	30	115	135	165	170	242	22	13.5	-	C50C.9.024
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

P502C-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 30x60	8	33	M10x22
On request A richiesta	ø 35x70	10	38	M10x22
	-	-	-	-

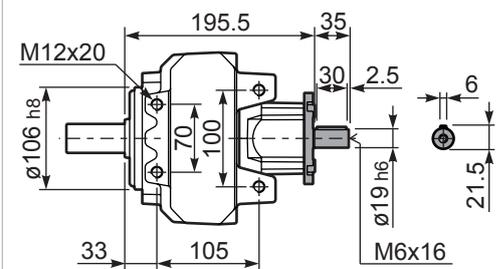
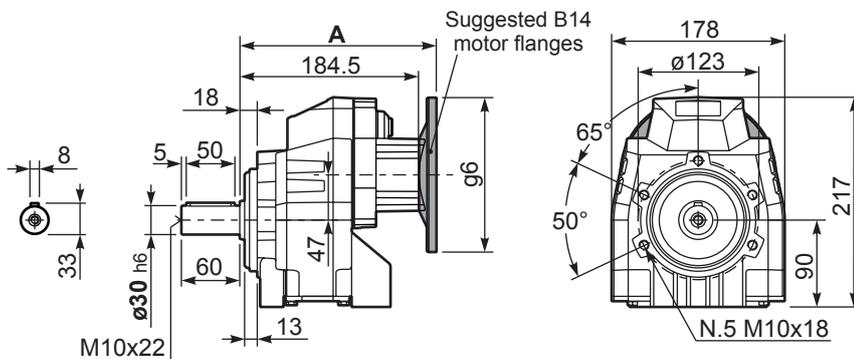
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
160	110	14	130	3.5	11	KC50.9.011
200	130	13	165	3.5	11	KC50.9.012
250	180	15.5	215	4	14	KC50.9.013

With flange and feet only on request. Ask for compatibility

P502C-**N**... Basic gearbox  
Riduttore base

R502C-**N**... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
63 B5	205	232	140	205	K063.4.041	211
71 B5	203	242	160	203	K063.4.042	209
80/90 B5	205	262	200	205	K063.4.043	211
100/112 B5	220.3	287	250	220.3	KC40.4.043	226.3

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code	k1 with KC50.9.011
71 B14	203	214.5	105	203	K063.4.047	209
80 B14	205	222	120	205	K063.4.046	211
90 B14	205	232	140	205	K063.4.041	211
100/112 B14	220.3	242	160	220.3	KC40.4.041	226.3



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
18.8	<b>74.33</b>	0.37	176	1.8	<b>0.67</b>	<b>320</b>			C	C		191313	01
17.0	<b>82.56</b>	0.37	196	1.6	<b>0.60</b>	<b>320</b>			C	C		151318	02
16.0	<b>87.48</b>	0.37	207	1.5	<b>0.57</b>	<b>320</b>			C	C		131713	03
13.8	<b>101.40</b>	0.37	240	1.3	<b>0.49</b>	<b>320</b>			C	C		151313	04
11.4	<b>122.57</b>	0.37	291	1.1	<b>0.41</b>	<b>320</b>			C	C		131313	05
10.1	<b>138.59</b>	0.37	329	1.0	<b>0.36</b>	<b>320</b>			C	C		101318	06
8.7	<b>160.82</b>	0.25	257	1.2	<b>0.31</b>	<b>320</b>			C	C		91713	07
8.2	<b>170.20</b>	0.25	272	1.2	<b>0.29</b>	<b>320</b>			C	C		101313	08
7.6	<b>183.48</b>	0.25	294	1.1	<b>0.27</b>	<b>320</b>			C	C		91318	09
6.5	<b>214.15</b>	0.18	262	1.2	<b>0.23</b>	<b>320</b>			C	C		71713	10
6.2	<b>225.33</b>	0.18	276	1.2	<b>0.22</b>	<b>320</b>			C	C		91313	11
5.7	<b>244.32</b>	0.18	299	1.1	<b>0.20</b>	<b>320</b>			C	C		71318	12
5.5	<b>254.15</b>	0.18	311	1.0	<b>0.20</b>	<b>320</b>			C	C		61713	13
4.8	<b>289.96</b>	0.18	355	0.9	<b>0.17</b>	<b>320</b>			C	C		61318	14
4.7	<b>300.05</b>	0.18	367	0.9	<b>0.17</b>	<b>320</b>			C	C		71313	15
3.9	<b>356.09</b>	0.12	282	1.1	<b>0.14</b>	<b>320</b>			C	C		61313	16

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **503C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **503C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **503C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **503C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **503C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
1.35 LT	0.80 LT	0.80 LT	0.70 LT	1.50 LT	0.85 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website [tab. 1](#)  
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### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R$  (N)  
 $F_A$  (N)

$F_{eq} = F_R \cdot \frac{56.5}{X+26.5}$   
 $F_{eq}$  (N)

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	500	2500	140	640	3200	70	820	4100
250	540	2700	120	680	3400	40	1020	5100
200	580	2900	85	760	3800	15	1100	5500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	140	700
900	160	800
500	190	950

tab. 2





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges				Output Shaft		
							-G	132	-	-	-	-	-	-	-
507	<b>2.76</b>	9	166	1.6	<b>14.4</b>	<b>265</b>			<b>not available</b>				2980	<b>standard</b>	01
395	<b>3.54</b>	9	213	1.3	<b>11.6</b>	<b>275</b>							2485	<b>ø35</b>	02
277	<b>5.06</b>	9	304	1.0	<b>8.6</b>	<b>290</b>							1891		03
241	<b>5.81</b>	7.5	281	1.2	<b>8.5</b>	<b>330</b>							1693	ø38	04
206	<b>6.79</b>	7.5	329	1.2	<b>8.4</b>	<b>380</b>							1495	ø40	05
The dynamic efficiency is <b>0.98</b> for all ratios													On request		

Motor Flanges Available Flange Motore Disponibili    
 B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione    
 B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione    
 C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **701C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **701C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **701C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **701C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **701C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
1.85 LT	1.40 LT	1.40 LT	1.30 LT	2.25 LT	1.60 LT	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320		

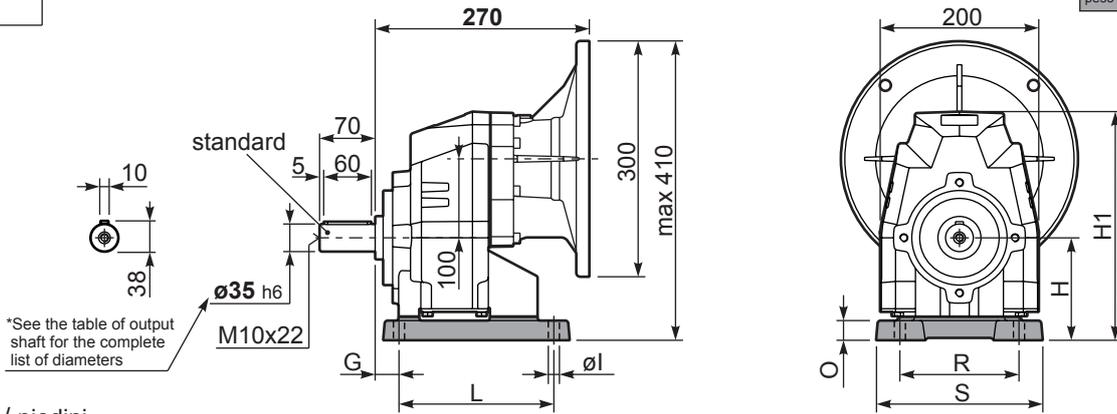
For all details on lubrication and plugs check our website tab. 1  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita						$F_{eq} = FR \cdot \frac{70}{X+35}$		
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	680	3400	140	960	4800	70	1300	6500
250	760	3800	120	1040	5200	40	1460	7300
200	900	4500	85	1120	5600	15	1800	9000
<b>On request reinforced bearings to increase loads.</b> A richiesta cuscinetti rinforzati per aumentare i carichi.								

tab. 2

P701C**S6**... With feet  
Con piedini

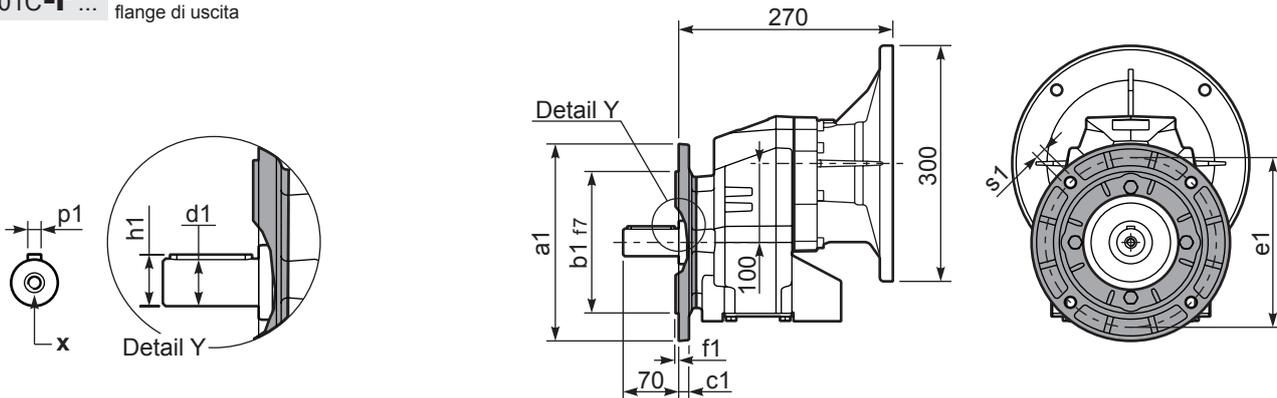
Gearbox weight **36.0 kg**  
peso riduttore With flange  
With feet **39.5 kg**



Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øI	B5 max. Flange	kit code
B4	412/3	19.5	130	180	149.5	216	290	25	14	-	KC70.9.022
S6	67	30	130	150	195	210	290	25	14	-	KC70.9.024
H5	025/253	35	160	170	175	220	320	30	16	-	KC70.9.023
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

P701C-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

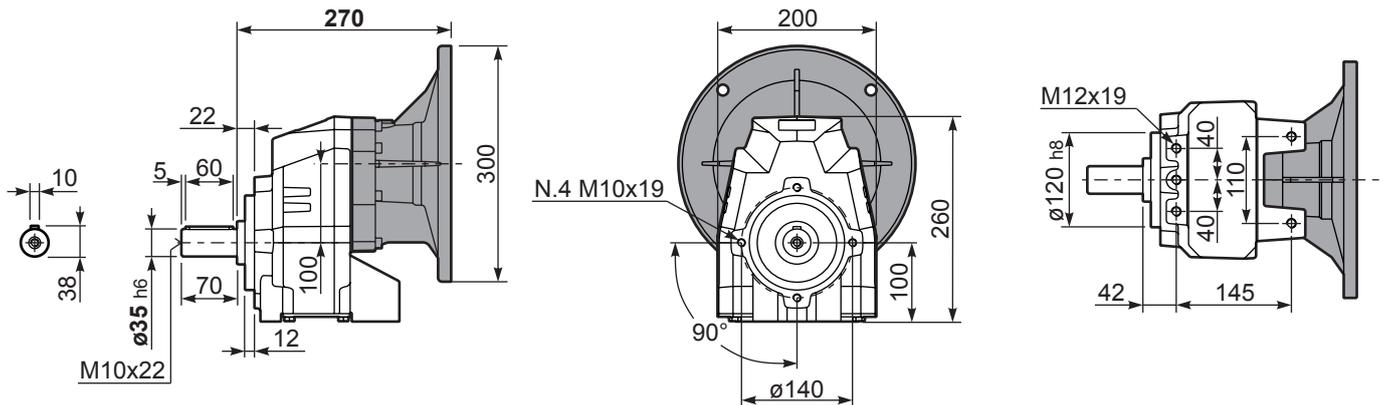
	Shaft - d1	p1	h1	x
Standard	ø 35x70	10	38	M10x22
On request A richiesta	ø 38x70	10	41	M10x25
	ø 40x80	12	43	M12x28

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
200	130	11	165	3.5	11	KC70.9.012
250	180	13	215	4	14	KC70.9.013
-	-	-	-	-	-	-

With flange and feet only on request. Ask for compatibility

P701C-**N**... Basic gearbox  
Riduttore base





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
213	<b>6.57</b>	7.5	312	1.2	8.8	380	B									3018	01
185	<b>7.56</b>	7.5	358	1.1	7.9	390	B									3016	02
159	<b>8.82</b>	7.5	419	1.0	7.1	410	B									3014	03
113	<b>12.39</b>	7.5	588	1.0	7.2	580	B									2018	04
98	<b>14.24</b>	5.5	499	1.2	6.4	600	B									2016	05
84	<b>16.75</b>	5.5	587	1.1	6.1	665	B									1618	06
73	<b>19.25</b>	5.5	675	1.0	5.4	675	B									1616	07
64	<b>21.78</b>	4	558	1.2	4.7	675	B									1318	08
56	<b>25.04</b>	4	642	1.1	4.1	675	B									1316	09
47.9	<b>29.23</b>	4	750	0.9	3.5	675	B									1314	10
45.7	<b>30.65</b>	3	592	1.1	3.4	675	B									1116	11
39.1	<b>35.78</b>	3	691	1.0	2.9	675	B									1114	12
36.3	<b>38.55</b>	2.2	548	1.1	2.3	580	B									818	13
31.6	<b>44.32</b>	2.2	630	1.1	2.3	665	B									816	14
27.1	<b>51.74</b>	2.2	735	0.9	2.0	675	B									814	15
22.9	<b>61.03</b>	1.1	437	1.1	1.2	480	B									616	16
19.6	<b>71.25</b>	1.1	510	1.1	1.2	560	B									614	17

The dynamic efficiency is **0.96** for all ratios

- Motor Flanges Available**  
Flange Motore Disponibili
- B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **702C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **702C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **702C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **702C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **702C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
2.10 LT	1.40 LT	1.40 LT	1.30 LT	2.25 LT	1.60 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} = F_R \cdot \frac{70}{X+35}$   
 $F_{eq} (N)$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	680	3400	140	960	4800	70	1300	6500
250	760	3800	120	1040	5200	40	1460	7300
200	900	4500	85	1120	5600	15	1800	9000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero di entrata

$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
22.6	<b>61.89</b>	1.5	594	1.1	1.7	675	B				C	C		191318	01
19.7	<b>71.16</b>	1.5	683	1.0	1.5	675	B				C	C		191316	02
17.0	<b>82.48</b>	1.5	792	0.9	1.3	675	B				C	C		171316	03
14.5	<b>96.29</b>	1.1	675	1.0	1.1	675	B				C	C		171314	04
13.9	<b>100.51</b>	1.1	705	1.0	1.0	675	B				C	C		131318	05
12.1	<b>115.56</b>	0.75	556	1.2	0.91	675	B				C	C		131316	06
11.1	<b>125.96</b>	0.75	606	1.1	0.82	665	B				C	C		190816	07
10.4	<b>134.91</b>	0.75	649	1.0	0.78	675	B				C	C		131314	08
9.5	<b>147.05</b>	0.75	707	1.0	0.72	675	B				C	C		190814	09
8.2	<b>170.44</b>	0.55	605	1.1	0.62	675	B				C	C		170814	10
7.6	<b>184.15</b>	0.55	653	1.0	0.57	675	B				C	C		101314	11
6.8	<b>205.87</b>	0.55	730	0.9	0.51	675	B				C	C		91316	12
5.8	<b>240.34</b>	0.37	570	1.2	0.44	675	B				C	C		91314	13
5.0	<b>279.22</b>	0.37	662	1.0	0.37	665	B				C	C		100816	14
4.3	<b>325.97</b>	0.37	773	0.9	0.32	675	B				C	C		100814	15
3.8	<b>364.41</b>	0.25	583	1.1	0.28	665	B				C	C		90816	16
3.3	<b>425.43</b>	0.25	681	1.0	0.25	675	B				C	C		90814	17
2.9	<b>481.19</b>	0.18	589	1.1	0.22	665	B				C	C		70816	18
2.5	<b>561.76</b>	0.18	687	1.0	0.19	675	B				C	C		70814	19

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **703C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **703C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **703C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **703C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **703C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil					
2.20 LT	1.40 LT	1.40 LT	1.30 LT	2.40 LT	1.70 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{70}{X+35}$

$F_{eq} (N)$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	680	3400	140	960	4800	70	1300	6500
250	760	3800	120	1040	5200	40	1460	7300
200	900	4500	85	1120	5600	15	1800	9000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	240	1200
900	280	1400
500	310	1700

**tab. 2**





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				B14 motor flanges				Output Shaft		
							-G				-	-	-	-	-	-	-
227	<b>6.17</b>	9	371	1.2	<b>10.9</b>	<b>450</b>					<b>not available</b>				18111	<b>standard</b>	01
198	<b>7.06</b>	9	425	1.4	<b>12.7</b>	<b>600</b>									16113	<b>ø40</b>	02
170	<b>8.21</b>	9	494	1.4	<b>12.2</b>	<b>670</b>									14115	<b>ø50</b>	03
The dynamic efficiency is <b>0.98</b> for all ratios											On request						

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **801C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **801C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **801C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **801C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **801C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	1.90 LT	1.90 LT	1.55 LT	3.20 LT	2.20 LT	Ask
AGIP Blasias 460						

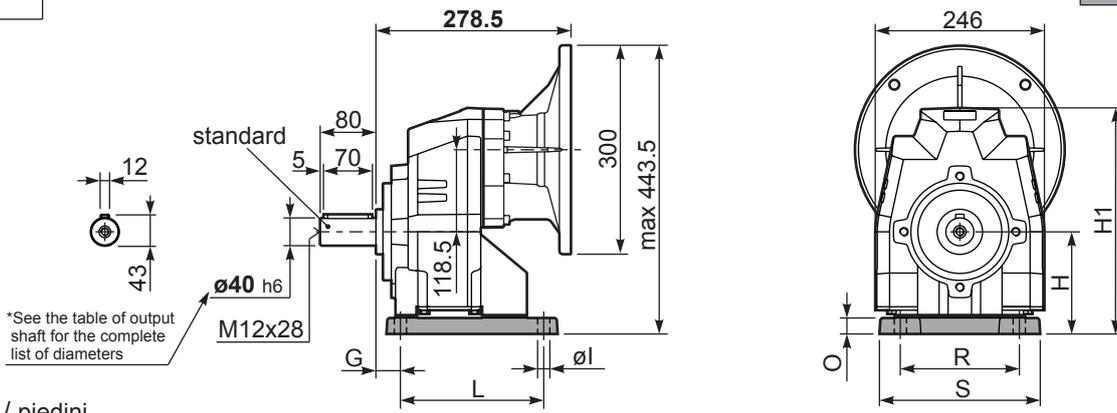
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{80.5}{X+40.5}$					
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1200	6000	140	1600	8000	70	2200	11000
250	1400	7000	120	1800	9000	40	2600	13000
200	1500	7500	85	2000	10000	15	3000	15000
<b>On request reinforced bearings to increase loads.</b> A richiesta cuscinetti rinforzati per aumentare i carichi.								

**tab. 2**

P801C**S7**... With feet  
Con piedini

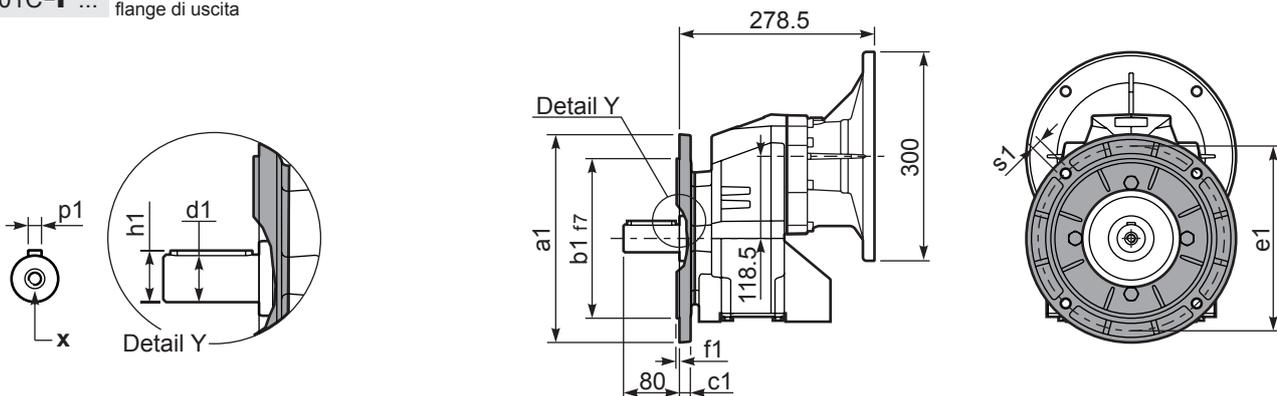
Gearbox weight  
peso riduttore With flange **45.5 kg**  
With feet **49.5 kg**



Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	Øl	B5 max. Flange	kit code
B5	512/3	25	155	225	156	270	333.5	30	18	-	KC80.9.022
S7	77	35	140	170	205	230	318.5	18	17.5	-	KC80.9.024
H6	026/263	40	175	215	215	265	353.5	30	16	-	KC80.9.023
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

P801C**F**... Output flanges  
flange di uscita



\*Available output shaft / Alberi di uscita

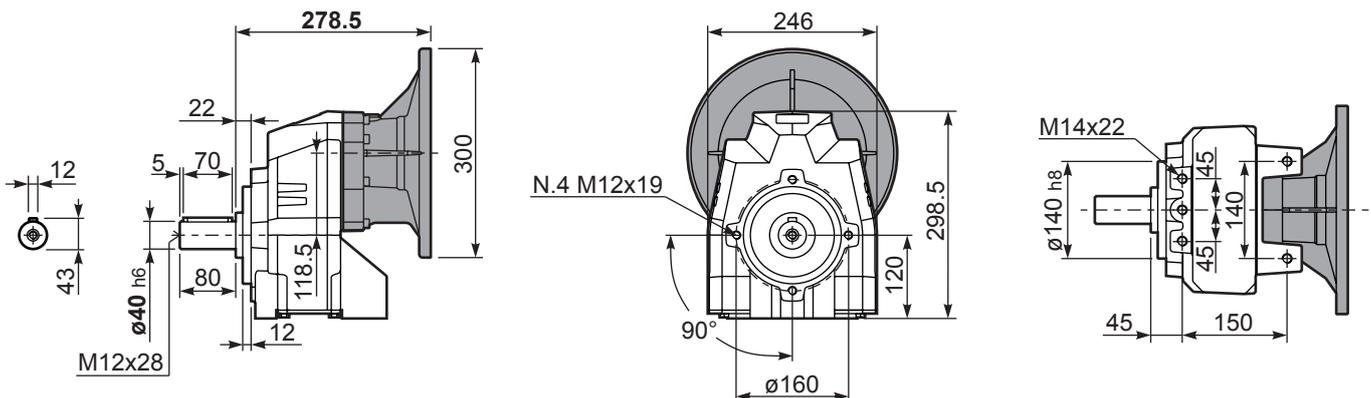
	Shaft - d1	p1	h1	x
Standard	Ø 40x80	12	43	M12x28
On request A richiesta	Ø 50x100	14	53.5	M16x36
-	-	-	-	-

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
250	180	13	215	4	14	KC80.9.013
300	230	16	265	4	14	KC80.9.014
-	-	-	-	-	-	-

With flange and feet only on request. Ask for compatibility

P801C**N**... Basic gearbox  
Riduttore base





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
175	<b>8.02</b>	9	473	1.1	<b>9.9</b>	<b>520</b>	B									3018	01
152	<b>9.18</b>	9	541	1.1	<b>9.8</b>	<b>590</b>	B									3016	02
131	<b>10.68</b>	9	630	1.1	<b>9.7</b>	<b>680</b>	B									3014	03
93	<b>15.11</b>	7.5	717	1.1	<b>7.8</b>	<b>775</b>	B									2018	04
81	<b>17.30</b>	7.5	821	1.1	<b>7.8</b>	<b>885</b>	B									2016	05
70	<b>20.13</b>	7.5	955	0.9	<b>6.8</b>	<b>900</b>	B									2014	06
60	<b>23.39</b>	5.5	820	1.1	<b>5.9</b>	<b>900</b>	B									1616	07
51	<b>27.21</b>	5.5	954	0.9	<b>5.1</b>	<b>900</b>	B									1614	08
46.0	<b>30.42</b>	4	780	1.2	<b>4.5</b>	<b>900</b>	B									1316	09
39.6	<b>35.38</b>	4	907	1.0	<b>3.9</b>	<b>900</b>	B									1314	10
37.6	<b>37.24</b>	3	719	1.2	<b>3.7</b>	<b>895</b>	B									1116	11
32.3	<b>43.31</b>	3	836	1.1	<b>3.2</b>	<b>900</b>	B									1114	12
29.8	<b>47.02</b>	2.2	668	1.1	<b>2.3</b>	<b>705</b>	B									818	13
26.0	<b>53.85</b>	2.2	765	1.1	<b>2.3</b>	<b>810</b>	B									816	14
22.4	<b>62.63</b>	2.2	890	1.0	<b>2.2</b>	<b>900</b>	B									814	15
18.9	<b>74.16</b>	1.1	531	1.1	<b>1.2</b>	<b>585</b>	B									616	16
16.2	<b>86.25</b>	1.1	617	1.1	<b>1.2</b>	<b>680</b>	B									614	17

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **802C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **802C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **802C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **802C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **802C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	1.90 LT	1.90 LT	1.55 LT	3.20 LT	2.20 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} = F_R \cdot \frac{80.5}{X+40.5}$

$F_{eq} (N)$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1200	6000	140	1600	8000	70	2200	11000
250	1400	7000	120	1800	9000	40	2600	13000
200	1500	7500	85	2000	10000	15	3000	15000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

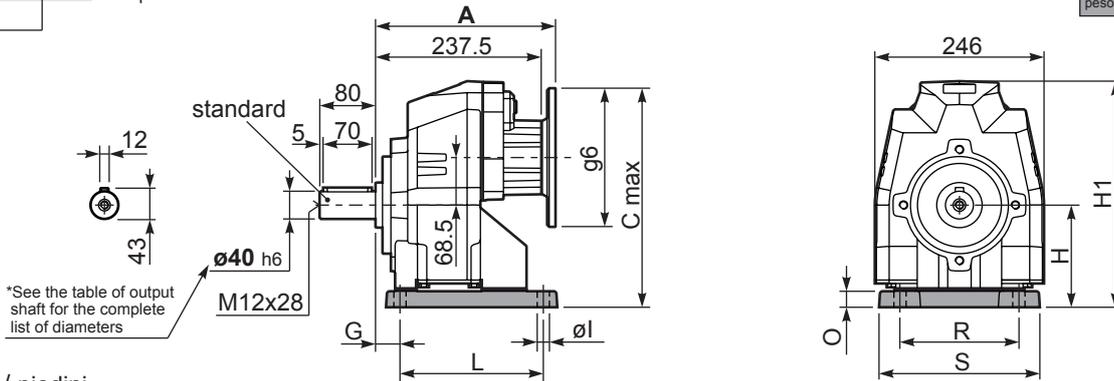
$F_R (N)$   
 $F_A (N)$

$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

**tab. 2**

P802C**S7** ... With feet  
Con piedini

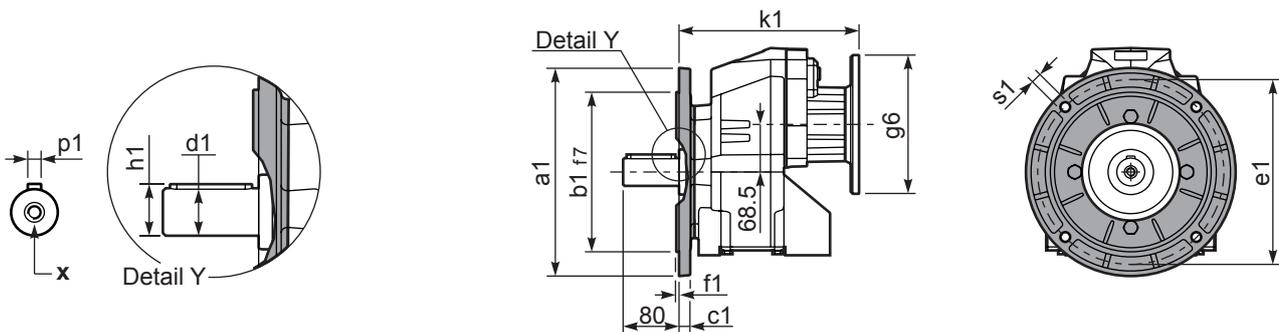
Gearbox weight **39.5 kg**  
peso riduttore With flange  
With feet **43.5 kg**



Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øl	B5 max. Flange	kit code
B5	512/3	25	155	225	156	270	333.5	30	18	-	KC80.9.022
S7	77	35	140	170	205	230	318.5	18	17.5	-	KC80.9.024
H6	026/263	40	175	215	215	265	353.5	30	16	-	KC80.9.023
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-

P802C-**F** ... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 40x80	12	43	M12x28
On request A richiesta	ø 50x100	14	53.5	M16x36
-	-	-	-	-

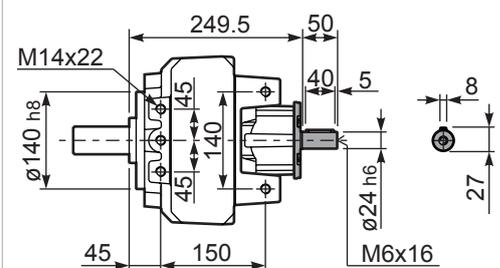
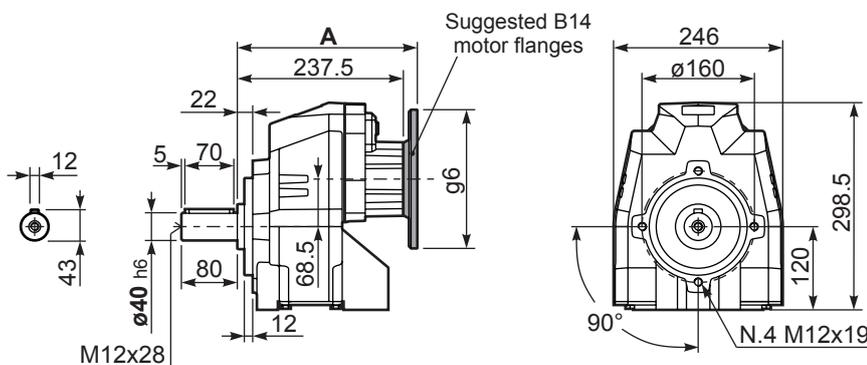
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
250	180	13	215	4	14	KC80.9.013
300	230	16	265	4	14	KC80.9.014
-	-	-	-	-	-	-

With flange and feet only on request. Ask for compatibility

P802C-**N**... Basic gearbox  
Riduttore base

R802C-**N**... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
71 B5	256	323.5	160	256	K023.4.041
80/90 B5	258	343.5	200	258	K023.4.042
100/112 B5	267	368.5	250	267	K023.4.043
132 B5	285	393.5	300	285	KC50.4.043

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
80 B14	258	303.5	120	258	K085.4.046
90 B14	258	313.5	140	258	K085.4.045
100/112 B14	267	323.5	160	267	K085.4.047
132 B14	285	343.5	200	285	KC50.4.041



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.5	<b>75.50</b>	1.5	725	1.1	1.7	825	B				C	C		191318	01
16.2	<b>86.47</b>	1.5	830	1.1	1.6	900	B				C	C		191316	02
14.0	<b>100.22</b>	1.5	962	0.9	1.4	900	B				C	C		171316	03
12.0	<b>116.56</b>	1.1	817	1.1	1.2	900	B				C	C		171314	04
10.2	<b>136.82</b>	1.1	959	0.9	1.0	900	B				C	C		151314	05
9.1	<b>153.05</b>	0.75	736	1.1	0.83	810	B				C	C		190816	06
8.6	<b>163.31</b>	0.75	785	1.1	0.86	900	B				C	C		131314	07
7.9	<b>178.01</b>	0.75	856	1.1	0.79	900	B				C	C		190814	08
7.3	<b>191.67</b>	0.75	922	1.0	0.73	900	B				C	C		101316	09
6.8	<b>206.32</b>	0.75	992	0.9	0.68	900	B				C	C		170814	10
6.3	<b>222.92</b>	0.55	791	1.1	0.63	900	B				C	C		101314	11
5.8	<b>242.18</b>	0.55	859	1.0	0.58	900	B				C	C		150814	12
5.6	<b>250.15</b>	0.55	888	1.0	0.56	900	B				C	C		91316	13
4.8	<b>289.08</b>	0.55	1026	0.9	0.49	900	B				C	C		130814	14
4.2	<b>330.31</b>	0.37	783	1.1	0.42	890	B				C	C		71316	15
3.5	<b>394.59</b>	0.37	936	1.0	0.36	900	B				C	C		100814	16
2.7	<b>514.99</b>	0.25	824	1.1	0.27	900	B				C	C		90814	17
2.1	<b>680.03</b>	0.18	832	1.1	0.21	900	B				C	C		70814	18

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **803C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **803C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **803C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **803C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **803C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.30 LT	1.90 LT	1.90 LT	1.55 LT	3.40 LT	2.30 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R$  (N)  
 $F_A$  (N)

$F_{eq} = F_R \cdot \frac{80.5}{X+40.5}$

$F_{eq}$  (N)

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1200	6000	140	1600	8000	70	2200	11000
250	1400	7000	120	1800	9000	40	2600	13000
200	1500	7500	85	2000	10000	15	3000	15000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$F_R$  (N)  
 $F_A$  (N)

$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges				Output Shaft 	Ratios code 	
							-H	-I	-	-	-	-			
							160	180	-	-	-	-			
412	<b>3.40</b>	22	480	1.3	<b>26.4</b>	<b>600</b>			<b>not available</b>				1551	<b>standard</b>	01
343	<b>4.08</b>	22	575	1.2	<b>25.7</b>	<b>700</b>			<b>not available</b>				1353	<b>ø50</b>	02
285	<b>4.91</b>	22	693	1.0	<b>21.3</b>	<b>700</b>			<b>not available</b>				1154	<b>ø60</b>	03

On request

The dynamic efficiency is **0.98** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **851C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **851C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **851C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **851C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **851C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.30 LT	3.60 LT	3.60 LT	2.80 LT	5.80 LT	4.10 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{88.5}{X+38.5}$

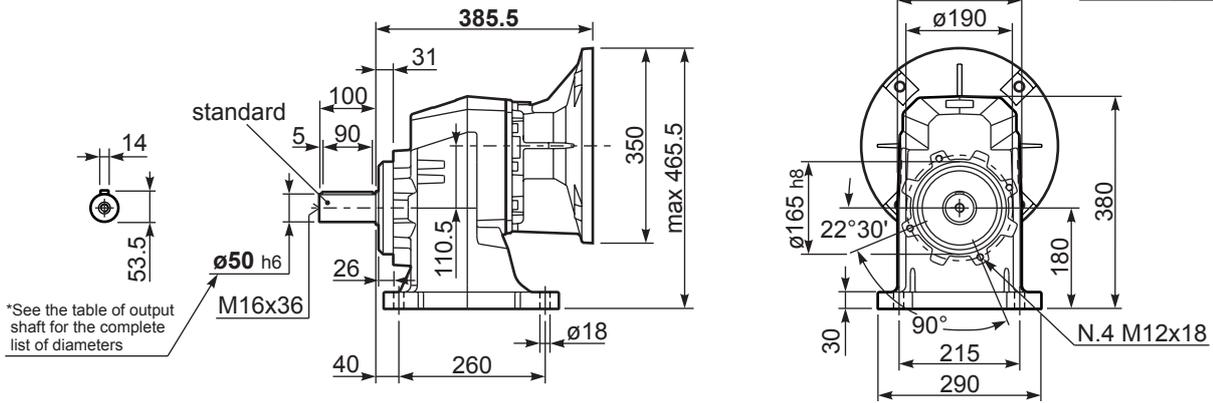
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1800	9000	140	2400	12000	70	3000	15000
250	2000	10000	120	2600	13000	40	3200	16000
200	2200	11000	85	2800	14000	15	4000	20000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

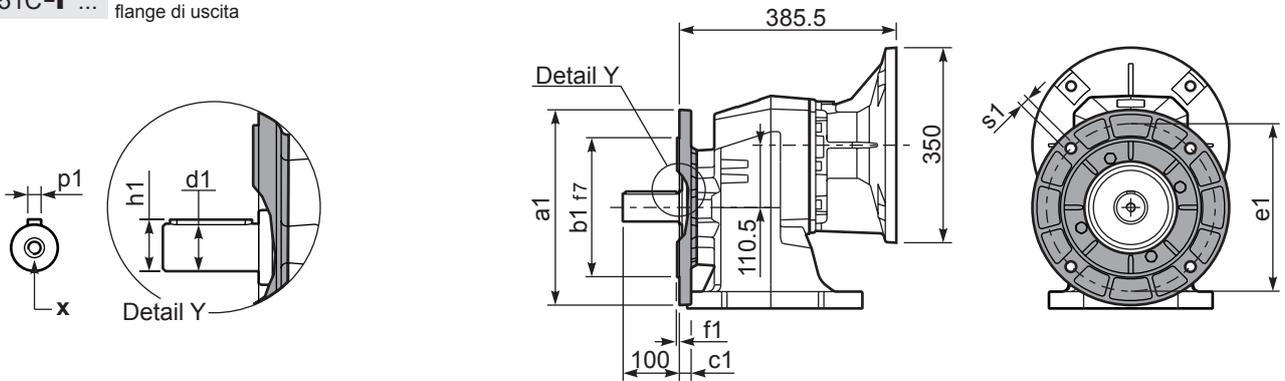
**tab. 2**

P851C**S8**... With foot  
Con piedine

Gearbox weight With flange **90.0 kg**  
peso riduttore With feet **80.5 kg**



P851C-**F**... Output flanges  
flange di uscita

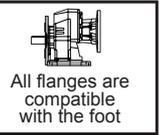


\*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	Ø 50x100	14	53.5	M16x36
On request A richiesta	Ø 60x120	18	64	M20x42
	-	-	-	-

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
-	-	-	-	-	-	-





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code 
							-F	-G	-H	-I	-	-	-	-		
							100 112	132	160	180	-	-	-	-		
317	<b>4.42</b>	22	611	1.1	<b>24.2</b>	<b>700</b>	B							3015	standard $\varnothing 50$  $\varnothing 60$ On request	01
264	<b>5.30</b>	22	733	1.0	<b>20.2</b>	<b>700</b>	B							3013		02
219	<b>6.38</b>	18.5	742	1.1	<b>19.1</b>	<b>800</b>	B							3011		03
168	<b>8.33</b>	15	784	1.0	<b>14.7</b>	<b>800</b>	B							2015		04
140	<b>9.99</b>	15	940	1.0	<b>13.8</b>	<b>900</b>	B							2013		05
124	<b>11.26</b>	15	1060	1.0	<b>14.9</b>	<b>1100</b>	B							1615		06
116	<b>12.03</b>	15	1132	1.1	<b>15.2</b>	<b>1200</b>	B							2011		07
104	<b>13.50</b>	15	1271	1.1	<b>15.8</b>	<b>1400</b>	B							1613		08
96	<b>14.65</b>	15	1378	1.1	<b>15.6</b>	<b>1500</b>	B							1315		09
86	<b>16.26</b>	15	1531	1.0	<b>14.1</b>	<b>1500</b>	B							1611		10
80	<b>17.56</b>	11	1214	1.2	<b>13.0</b>	<b>1500</b>	B							1313		11
65	<b>21.50</b>	11	1486	1.1	<b>11.4</b>	<b>1600</b>	B							1113		12
54	<b>25.88</b>	9	1526	1.0	<b>9.4</b>	<b>1600</b>	B							1111		13
45.0	<b>31.09</b>	7.5	1475	1.0	<b>7.2</b>	<b>1460</b>	B							813		14
37.4	<b>37.43</b>	5.5	1312	1.2	<b>6.5</b>	<b>1600</b>	B							811		15

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

5

**EN** Unit **852C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **852C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **852C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **852C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **852C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

5.40 LT	3.60 LT	3.60 LT	2.80 LT	5.90 LT	4.20 LT	Ask
AGIP Blasias 460						

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$

$F_{eq} (N)$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>300</b>	1800	9000	<b>140</b>	2400	12000	<b>70</b>	3000	15000
<b>250</b>	2000	10000	<b>120</b>	2600	13000	<b>40</b>	3200	16000
<b>200</b>	2200	11000	<b>85</b>	2800	14000	<b>15</b>	4000	20000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

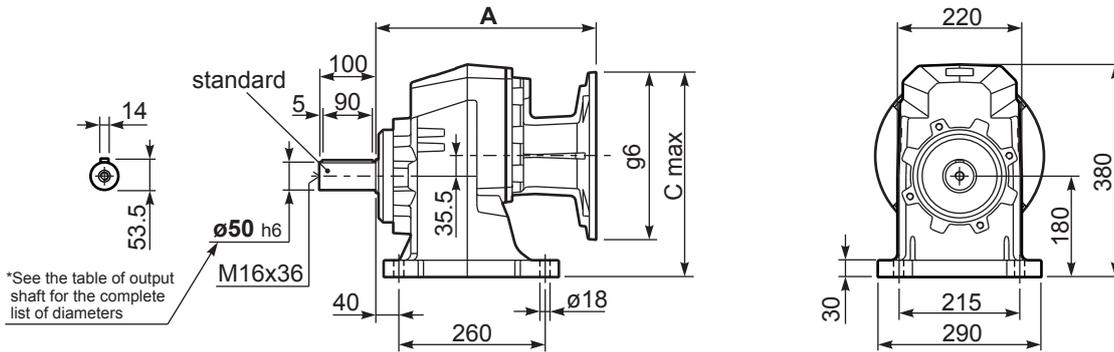
$F_R (N)$   
 $F_A (N)$

$n_1$	FA	FR
<b>1400</b>	700	3500
<b>900</b>	840	4200
<b>500</b>	900	4500

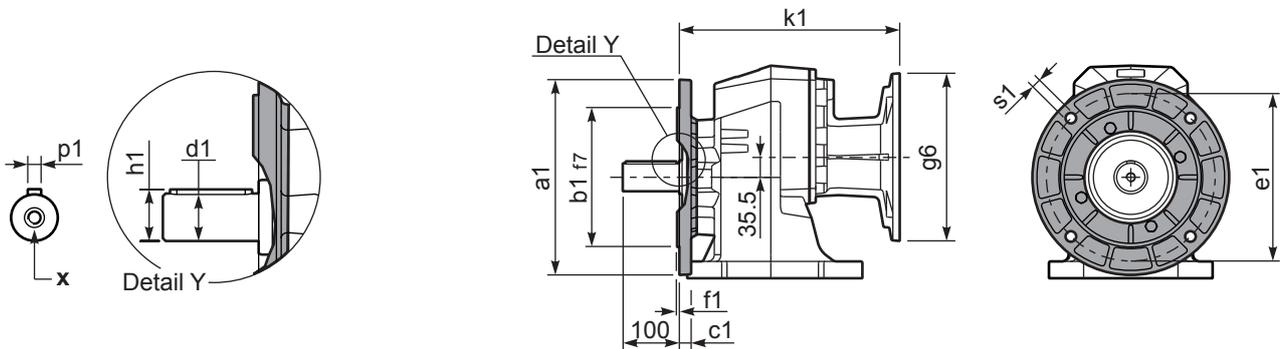
**tab. 2**

P852C**S8**... With foot  
Con piedino

Gearbox weight With flange **86.0 kg**  
peso riduttore With feet **76.5 kg**



P852C-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

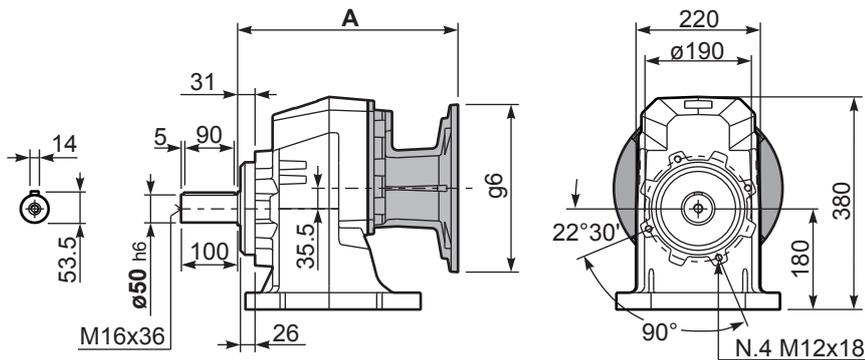
	Shaft - d1	p1	h1	x
Standard	∅ 50x100	14	53.5	M16x36
On request A richiesta	∅ 60x120	18	64	M20x42
	-	-	-	-

Available output flanges / flange di uscita

a1 ∅	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
-	-	-	-	-	-	-

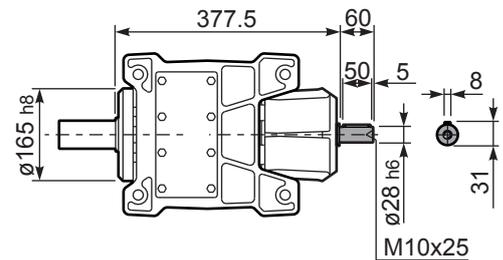
All flanges are compatible with the foot

P852C**S8**... Basic gearbox  
Riduttore base



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
100/112 B5	387	340.5	250	387	-
132 B5	391	365.5	300	391	-
160/180 B5	402	390.5	350	402	-

R852C**S8**... Input Shaft  
Albero in entrata





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\varnothing$	Ratios code		
							-C	-D	-E	-F	-G	-R	-T	-U	-V				
							71	80	90	100 112	132	80	90	100 112	132				
32.5	<b>43.03</b>	5.5	1478	1.1	5.8	1600	B									201313	standard $\varnothing 50$	01	
28.9	<b>48.52</b>	5.5	1667	0.9	5.0	1550	B									161315		02	
27.0	<b>51.81</b>	4	1302	1.2	4.8	1600	B									201311		03	
24.1	<b>58.17</b>	4	1462	1.1	4.3	1600	B									161313		04	
22.2	<b>63.09</b>	4	1585	1.0	3.8	1550	B									131315		05	
20.0	<b>70.05</b>	4	1760	1.0	4.0	1800	B									161311		06	
18.5	<b>75.65</b>	4	1901	0.9	3.7	1800	B									131313		$\varnothing 60$	07
15.4	<b>91.09</b>	3	1723	1.0	3.1	1800	B									131311		On request	08
12.6	<b>111.50</b>	2.2	1553	1.2	2.5	1800	B									111311		09	
10.5	<b>133.91</b>	2.2	1865	1.0	2.1	1800	B									81313		10	
8.7	<b>161.24</b>	1.5	1548	1.2	1.7	1800	B									81311		11	
7.6	<b>184.40</b>	1.1	1293	1.1	1.2	1450	B									61313		12	
6.3	<b>222.04</b>	1.1	1557	1.1	1.2	1750	B									61311		13	

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

5

**EN** Unit **853C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **853C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **853C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **853C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **853C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>	<b>V8</b>
5.50 LT	3.80 LT	3.80 LT	3.20 LT	7.00 LT	4.60 LT	Ask
<b>AGIP Blasias 460</b>						

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{88.5}{X+38.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1800	9000	140	2400	12000	70	3000	15000
250	2000	10000	120	2600	13000	40	3200	16000
200	2200	11000	85	2800	14000	15	4000	20000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

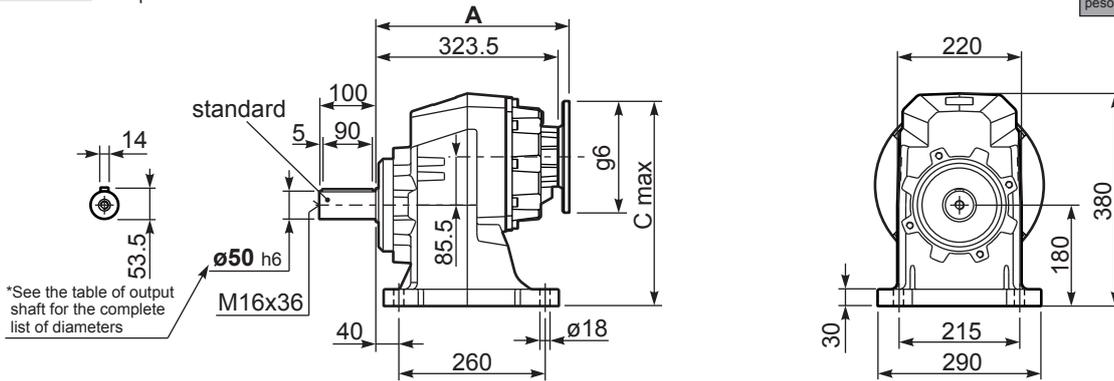
**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

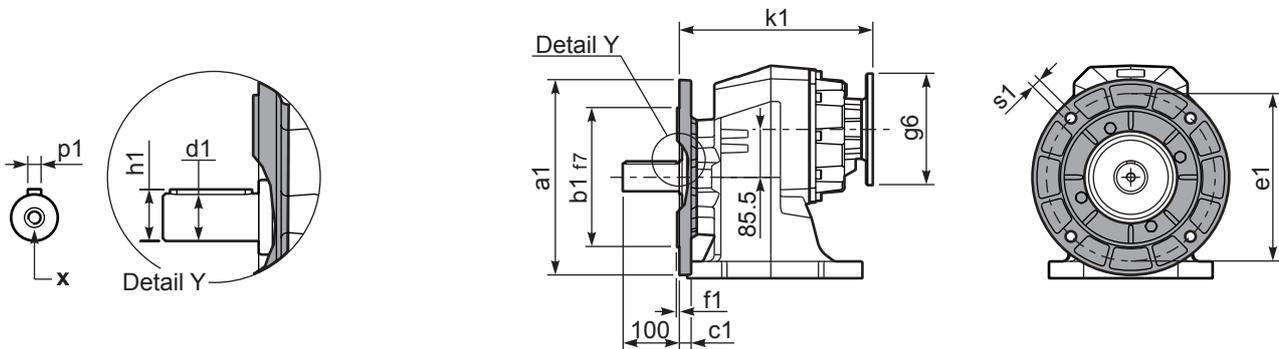
tab. 2

P853C**S8**... With foot  
Con piedino

Gearbox weight **80.5 kg**  
peso riduttore With flange  
With feet **71.0 kg**



P853C-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

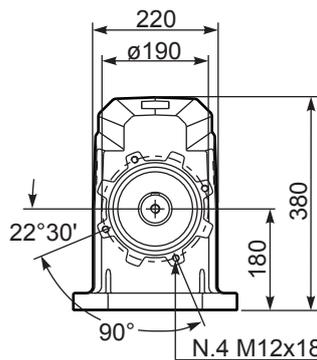
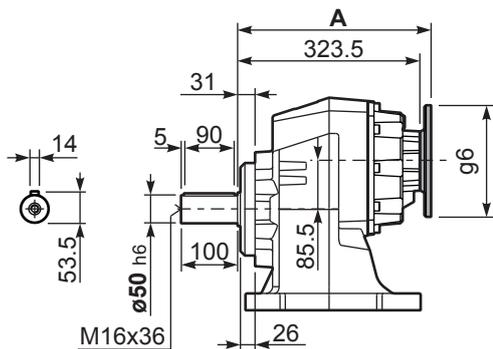
	Shaft - d1	p1	h1	x
Standard	ø 50x100	14	53.5	M16x36
On request A richiesta	ø 60x120	18	64	M20x42
	-	-	-	-

Available output flanges / flange di uscita

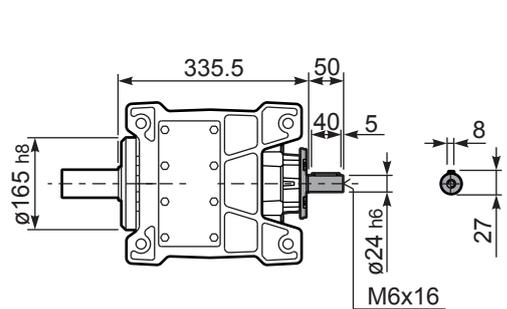
a1 ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
-	-	-	-	-	-	-

All flanges are compatible with the foot

P853C**S8**... Basic gearbox  
Riduttore base



R853C**S8**... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
71 B5	342	345.5	160	342	K023.4.041
80/90 B5	344	365.5	200	344	K023.4.042
100/112 B5	353	390.5	250	353	K023.4.043
132 B5	371	415.5	300	371	KC50.4.043

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
80 B14	344	325.5	120	344	K085.4.046
90 B14	344	335.5	140	344	K085.4.045
100/112 B14	353	345.5	160	353	K085.4.047
132 B14	371	365.5	200	371	KC50.4.041



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges				Output Shaft		
							-H	-I	-	-	-	-			Ratios code
							160	180	-	-	-	-			
528	<b>2.65</b>	22	374	1.7	<b>36.7</b>	<b>650</b>			<b>not available</b>				2361	<b>standard</b>	01
409	<b>3.42</b>	22	483	1.6	<b>32.8</b>	<b>750</b>							1965	<b>ø60</b>	02
304	<b>4.60</b>	22	649	1.5	<b>30.9</b>	<b>950</b>							1569		03
256	<b>5.46</b>	22	771	1.3	<b>27.4</b>	<b>1000</b>							1371	ø50	04
211	<b>6.64</b>	22	937	1.3	<b>26.5</b>	<b>1175</b>							1173	On request	05

The dynamic efficiency is **0.98** for all ratios

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **901C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **901C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **901C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **901C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **901C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.90 LT	3.80 LT	3.80 LT	3.50 LT	6.80 LT	4.50 LT	Ask

AGIP Blasias 460

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$   
 $F_{eq} (N)$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2070	10350	140	2760	13800	70	3450	17250
250	2300	11500	120	2990	14950	40	3680	18400
200	2530	12650	85	3220	16100	15	4600	23000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**tab. 2**





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code
							-F	-G	-H	-I	-	-	-	-		
							100 112	132	160	180	-	-	-	-		
234	<b>5.98</b>	22	827	1.2	<b>25.5</b>	<b>1000</b>	B							3015	01	
197	<b>7.10</b>	22	982	1.2	<b>25.3</b>	<b>1175</b>	B							3013	02	
162	<b>8.63</b>	22	1193	1.1	<b>23.9</b>	<b>1350</b>	B							3011	03	
124	<b>11.27</b>	18.5	1310	1.1	<b>20.3</b>	<b>1500</b>	B							2015	04	
105	<b>13.38</b>	18.5	1555	1.1	<b>19.4</b>	<b>1700</b>	B							2013	05	
92	<b>15.24</b>	18.5	1771	1.1	<b>19.0</b>	<b>1900</b>	B							1615	06	
86	<b>16.26</b>	18.5	1889	1.1	<b>19.7</b>	<b>2100</b>	B							2011	07	
77	<b>18.09</b>	18.5	2102	1.0	<b>17.7</b>	<b>2100</b>	B							1613	08	
71	<b>19.82</b>	15	1865	1.1	<b>15.9</b>	<b>2060</b>	B							1315	09	
64	<b>21.98</b>	15	2069	1.0	<b>14.6</b>	<b>2100</b>	B							1611	10	
60	<b>23.53</b>	15	2214	0.9	<b>13.6</b>	<b>2100</b>	B							1313	11	
58	<b>24.25</b>	11	1677	1.2	<b>12.2</b>	<b>1940</b>	B							1115	12	
48.6	<b>28.80</b>	11	1991	1.1	<b>11.1</b>	<b>2100</b>	B							1113	13	
40.0	<b>34.99</b>	9	2063	1.0	<b>9.2</b>	<b>2100</b>	B							1111	14	
33.6	<b>41.64</b>	7.5	1976	1.0	<b>7.2</b>	<b>1960</b>	B							813	15	
27.7	<b>50.60</b>	5.5	1774	1.2	<b>6.3</b>	<b>2100</b>	B							811	16	

The dynamic efficiency is **0.96** for all ratios

- Motor Flanges Available  
Flange Motore Disponibili
- B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **902C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **902C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **902C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **902C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **902C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.90 LT	3.80 LT	3.80 LT	3.40 LT	6.70 LT	4.40 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{88.5}{X+38.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>300</b>	2070	10350	<b>140</b>	2760	13800	<b>70</b>	3450	17250
<b>250</b>	2300	11500	<b>120</b>	2990	14950	<b>40</b>	3680	18400
<b>200</b>	2530	12650	<b>85</b>	3220	16100	<b>15</b>	4600	23000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

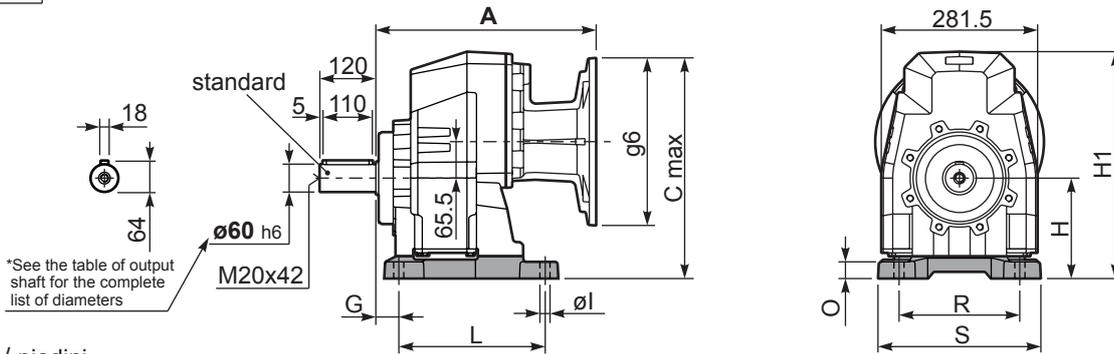
**Input shaft**  
Albero in entrata

$n_1$	FA	FR
<b>1400</b>	700	3500
<b>900</b>	840	4200
<b>500</b>	900	4500

**tab. 2**

P902C**S8**... With feet  
Con piedini

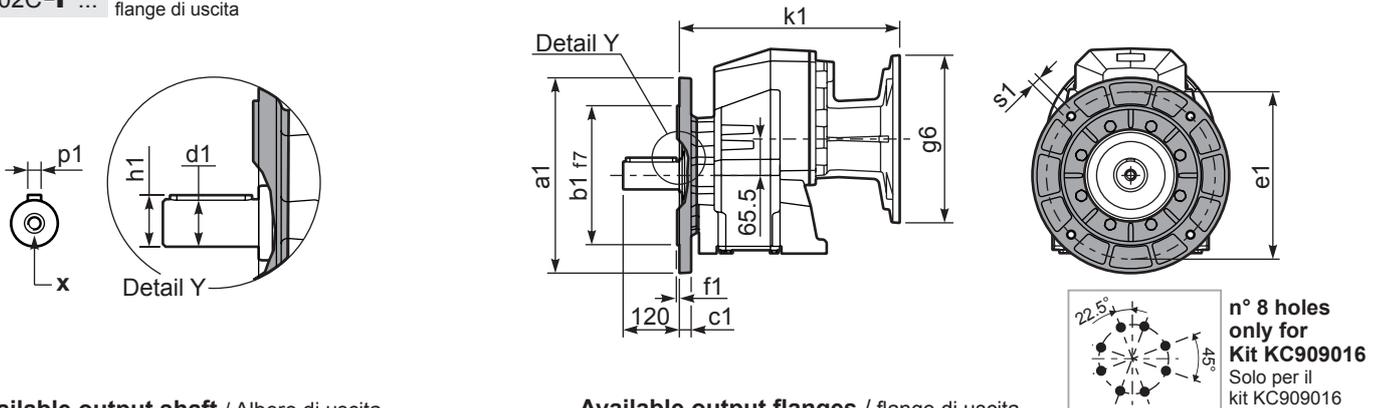
Gearbox weight **98.5 kg**  
peso riduttore With flange  
With feet **107.0 kg**



Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øl	B5 max. Flange	kit code
B6	612/3	25	195	250	180	300	422	25	18	-	KC90.9.022
B7	702/3	25	210	300	165	350	437	30	22	-	KC90.9.027
S8	87	40	180	215	260	290	407	30	18	-	KC90.9.024
S9	97	40	225	250	310	340	452	45	22	-	KC90.9.026
H7	027/273	40	225	250	245	300	452	55	22	-	KC90.9.023
HS	-	40	175	215	260	290	402	25	18	-	KC90.9.025

P902C-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 60x120	18	64	M20x42
On request A richiesta	ø 50x100	14	53.5	M16x36
	-	-	-	-

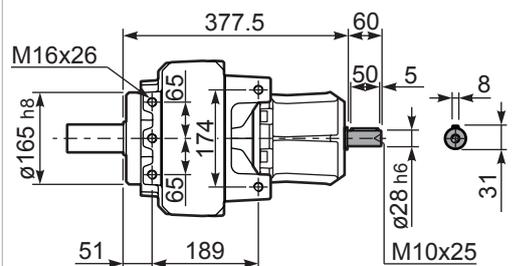
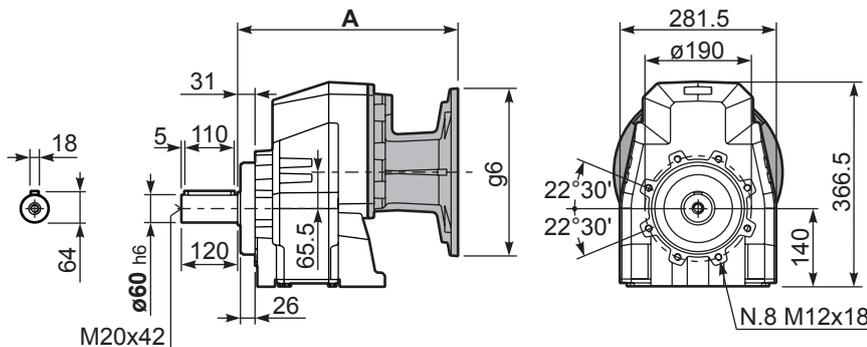
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
450	350	22	400	5	18	KC90.9.016

With flange and feet only on request. Ask for compatibility

P902C-**N**... Basic gearbox  
Riduttore base

R902C-**N**... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
100/112 B5	387	415.5	250	387	-
132 B5	391	440.5	300	391	-
160/180 B5	402	465.5	350	402	-



#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\varnothing$	Ratios code 	
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
28.8	<b>48.55</b>	7.5	2257	0.9	6.7	2100	B									201315	standard $\varnothing 60$  $\varnothing 50$ On request	01
24.3	<b>57.64</b>	5.5	1980	1.1	5.7	2100	B									201313		02
21.3	<b>65.64</b>	5.5	2255	0.9	5.0	2100	B									161315		03
20.0	<b>70.04</b>	4	1760	1.2	4.7	2100	B									201311		04
18.0	<b>77.93</b>	4	1958	1.1	4.2	2100	B									161313		05
16.4	<b>85.36</b>	4	2145	1.0	3.8	2100	B									131315		06
14.8	<b>94.70</b>	4	2380	0.9	3.5	2100	B									161311		07
13.8	<b>101.35</b>	3	1917	1.1	3.2	2100	B									131313		08
11.4	<b>123.15</b>	3	2330	0.9	2.7	2100	B									131311		09
9.3	<b>150.73</b>	2.2	2100	1.0	2.2	2100	B									111311		10
7.8	<b>179.39</b>	1.5	1722	1.2	1.8	2100	B									81313		11
6.4	<b>217.98</b>	1.5	2093	1.0	1.5	2100	B									81311		12
5.7	<b>247.03</b>	1.1	1732	1.1	1.2	1950	B									61313		13
4.7	<b>300.17</b>	1.1	2105	1.0	1.1	2100	B									61311		14

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

5

**EN** Unit **903C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **903C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **903C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **903C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **903C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
6.00 LT	4.10 LT	4.10 LT	3.70 LT	7.30 LT	4.90 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{88.5}{X+38.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2070	10350	140	2760	13800	70	3450	17250
250	2300	11500	120	2990	14950	40	3680	18400
200	2530	12650	85	3220	16100	15	4600	23000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

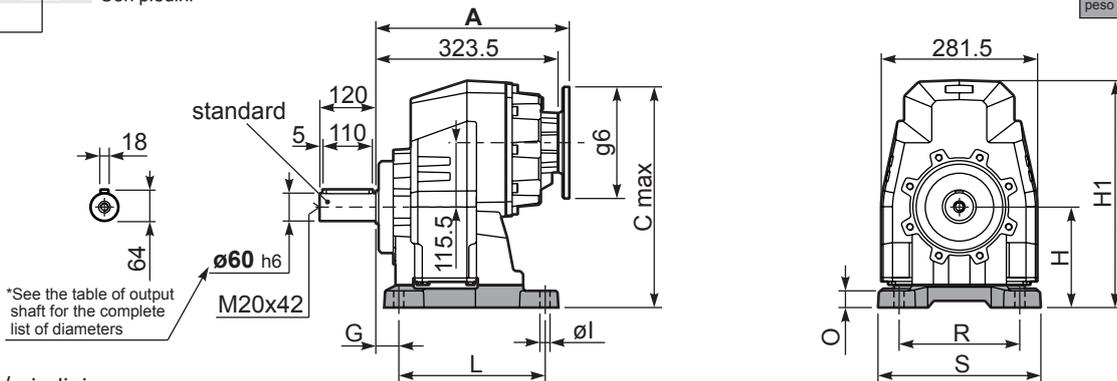
**Input shaft**  
Albero di entrata

$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

P903C**S8**... With feet  
Con piedini

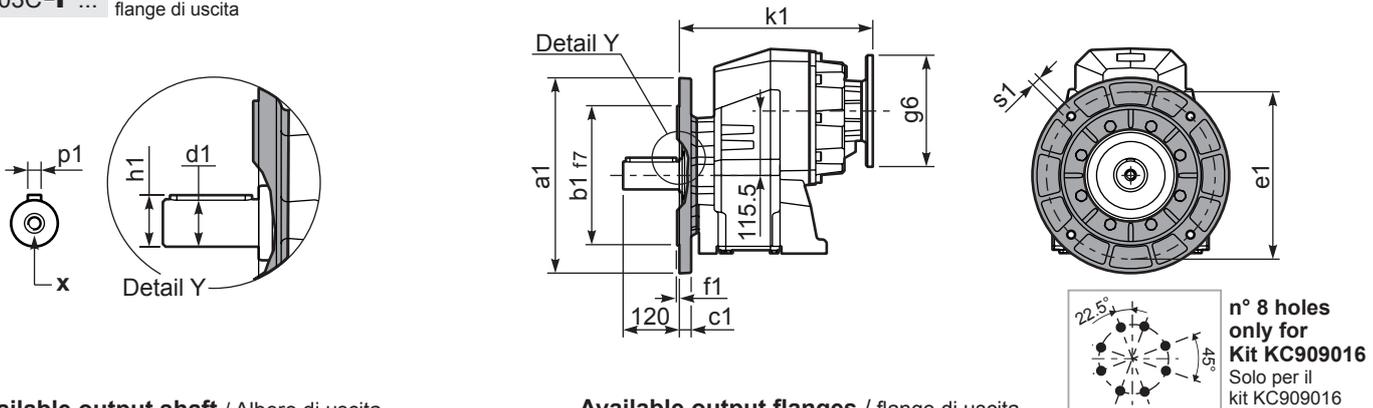
Gearbox weight **86.0 kg**  
peso riduttore With feet **94.5 Kg**



Feet / piedini

Feet Code	Market reference	G	H	R	L	S	H1	O	øl	B5 max. Flange	kit code
B6	612/3	25	195	250	180	300	422	25	18	-	KC90.9.022
B7	702/3	25	210	300	165	350	437	30	22	-	KC90.9.027
S8	87	40	180	215	260	290	407	30	18	-	KC90.9.024
S9	97	40	225	250	310	340	452	45	22	-	KC90.9.026
H7	027/273	40	225	250	245	300	452	55	22	-	KC90.9.023
HS	-	40	175	215	260	290	402	25	18	-	KC90.9.025

P903C-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

	Shaft - d1	p1	h1	x
Standard	ø 60x120	18	64	M20x42
On request A richiesta	ø 50x100	14	53.5	M16x36

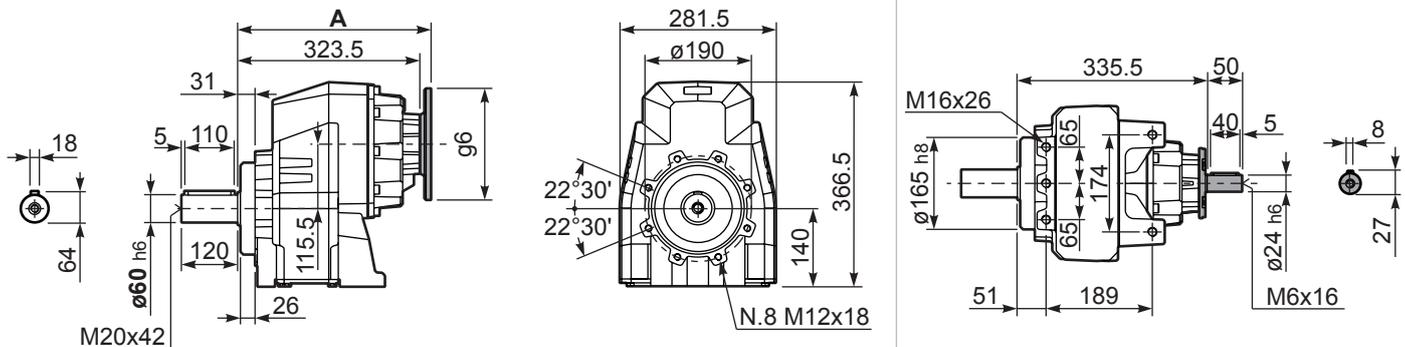
Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
450	350	22	400	5	18	KC90.9.016

With flange and feet only on request. Ask for compatibility

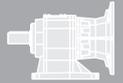
P903C-**N**... Basic gearbox  
Riduttore base

R903C-**N**... Input Shaft  
Albero in entrata



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
71 B5	342	420.5	160	342	K023.4.041
80/90 B5	344	440.5	200	344	K023.4.042
100/112 B5	353	465.5	250	353	K023.4.043
132 B5	371	490.5	300	371	KC50.4.043

B14 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
80 B14	344	400.5	120	344	K085.4.046
90 B14	344	410.5	140	344	K085.4.045
100/112 B14	353	420.5	160	353	K085.4.047
132 B14	371	440.5	200	371	KC50.4.041



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code 
							-G	-H	-I	-L	-	-	-	-		
							132	160	180	200	-	-	-	-		
294	<b>4.75</b>	30	895	1.8	<b>53.0</b>	<b>1650</b>								3914	01	
269	<b>5.21</b>	30	980	1.8	<b>51.3</b>	<b>1750</b>								3913	02	
220	<b>6.36</b>	30	1197	1.6	<b>45.6</b>	<b>1900</b>								3911	03	
188	<b>7.45</b>	30	1401	1.5	<b>43.1</b>	<b>2100</b>								3014	04	
172	<b>8.15</b>	30	1535	1.4	<b>39.3</b>	<b>2100</b>								3013	05	
141	<b>9.96</b>	30	1874	1.2	<b>33.7</b>	<b>2200</b>								3011	06	
120	<b>11.69</b>	30	2200	1.0	<b>30.1</b>	<b>2300</b>								2214	07	
109	<b>12.80</b>	30	2409	1.0	<b>27.4</b>	<b>2300</b>								2213	08	
90	<b>15.63</b>	22	2161	1.1	<b>23.5</b>	<b>2400</b>								2211	09	
79	<b>17.65</b>	22	2441	1.1	<b>22.5</b>	<b>2600</b>								1614	10	
72	<b>19.33</b>	22	2673	1.1	<b>22.9</b>	<b>2900</b>								1613	11	
67	<b>20.77</b>	22	2872	1.0	<b>21.3</b>	<b>2900</b>								1414	12	
62	<b>22.75</b>	18.5	2643	1.1	<b>19.5</b>	<b>2900</b>								1413	13	
59	<b>23.60</b>	18.5	2743	1.1	<b>18.8</b>	<b>2900</b>								1611	14	
50	<b>27.78</b>	15	2615	1.1	<b>15.9</b>	<b>2900</b>								1411	15	
45.5	<b>30.76</b>	15	2896	1.0	<b>14.4</b>	<b>2900</b>								1014	16	
41.6	<b>33.69</b>	11	2330	1.2	<b>13.1</b>	<b>2900</b>								1013	17	
34.0	<b>41.15</b>	11	2845	1.0	<b>10.8</b>	<b>2900</b>								1011	18	

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **1002** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **1002** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **1002** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **1002** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **1002** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
4.50 LT	8.00 LT	5.50 LT	6.00 LT	10.00 LT	7.50 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{117}{X+57}$

**F<sub>eq</sub> (N)**

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>300</b>	2300	11500	<b>140</b>	2980	14900	<b>70</b>	3660	18300
<b>250</b>	2480	12400	<b>120</b>	3180	15900	<b>40</b>	4220	21100
<b>200</b>	2680	13400	<b>85</b>	3440	17200	<b>15</b>	4820	24100

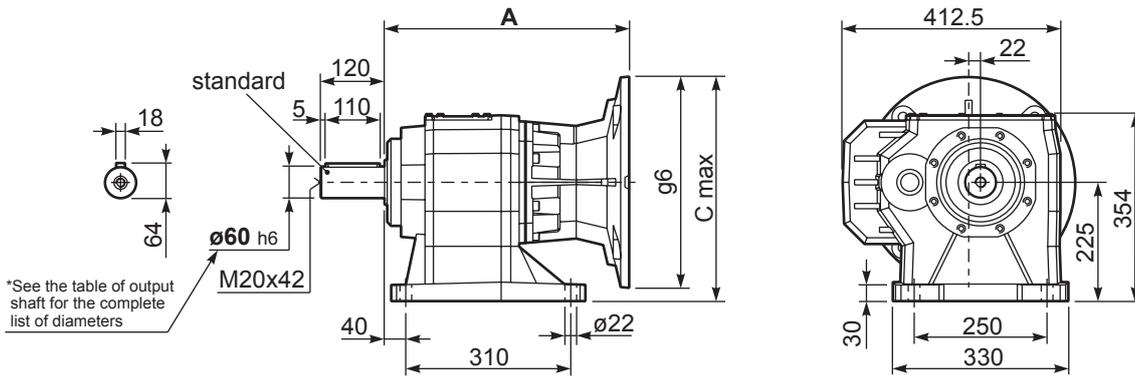
**Input shaft**  
Albero in entrata

$n_1$	FA	FR
<b>1400</b>	1120	5600
<b>900</b>	1220	6100
<b>500</b>	1300	6500

**tab. 2**

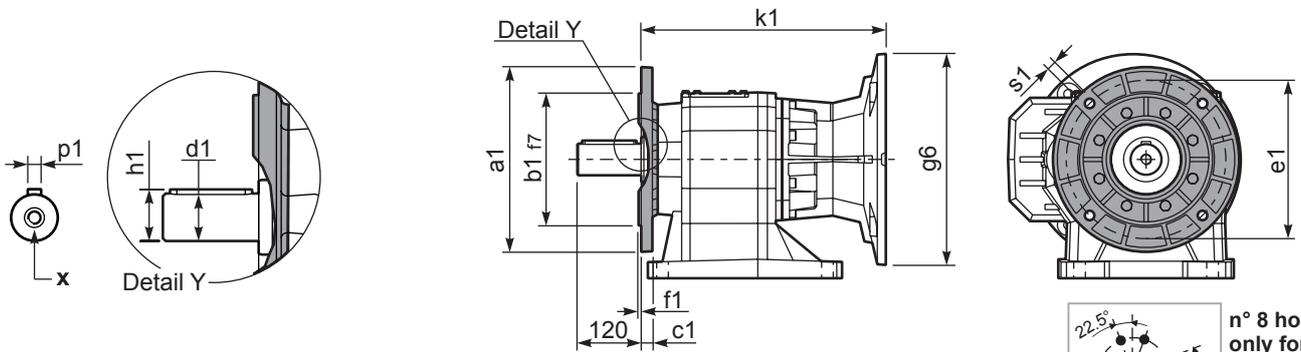
P1002**S9**... With foot  
Con piedino

Gearbox weight **120.0 kg**  
peso riduttore



\*See the table of output shaft for the complete list of diameters

P1002-**F**... Output flanges  
flange di uscita



n° 8 holes  
only for  
Kit KC909016  
Solo per il  
kit KC909016

\*Available output shaft / Albero di uscita

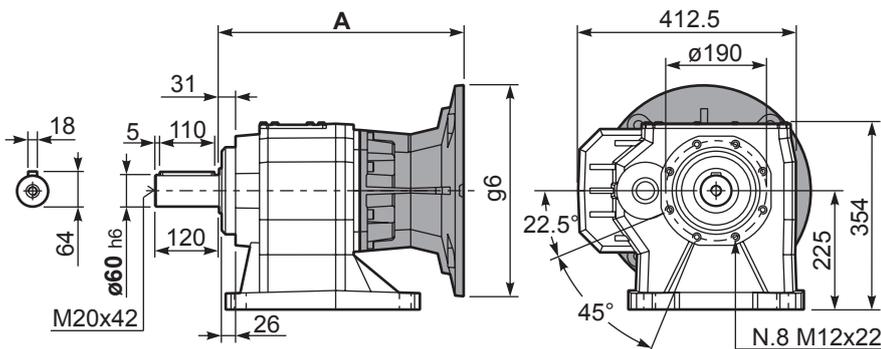
	Shaft - d1	p1	h1	x
Standard	Ø 60x120	18	64	M20x42
On request A richiesta	-	-	-	-

Available output flanges / flange di uscita

a1 Ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
450	350	22	400	5	18	KC90.9.016

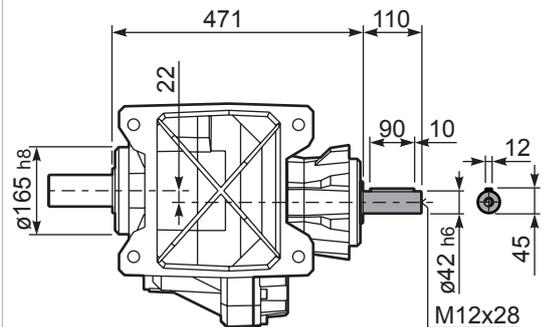
All flanges are compatible with the foot

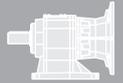
P1002**S9**... Basic gearbox  
Riduttore base



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
132 B5	435	375	300	435	KC1109052
160 B5	460	400	350	460	KC1109053
180 B5	460	400	350	460	KC1109053_B
200 B5	460	425	400	460	KC1109054

R1002**S9**... Input Shaft  
Albero in entrata





#### QUICK SELECTION / Selezione veloce

input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	B5 motor flanges			B14 motor flanges			Output Shaft 	Ratios code
							-F	-G	-H	-	-	-		
							100 112	132	160	-	-	-		
38.8	<b>36.11</b>	11	2447	1.2	12.5	2900	B					301411	01	
27.5	<b>50.89</b>	9	2941	1.0	9.2	3000	B					201414	02	
25.1	<b>55.73</b>	7.5	2591	1.2	8.4	3000	B					201413	03	
20.3	<b>68.80</b>	7.5	3199	0.9	6.8	3000	B					161414	04	
18.6	<b>75.35</b>	5.5	2589	1.2	6.2	3000	B					161413	05	
15.6	<b>89.47</b>	5.5	3074	1.0	5.2	3000	B					131414	06	
15.2	<b>92.02</b>	5.5	3161	0.9	5.1	3000	B					161411	07	
14.3	<b>97.99</b>	4	2462	1.2	4.8	3000	B					131413	08	
12.8	<b>109.52</b>	4	2752	1.1	4.3	3000	B					111414	09	
11.7	<b>119.94</b>	4	3014	1.0	3.9	3000	B					111413	10	
9.6	<b>146.47</b>	3	2771	1.1	3.2	3000	B					111411	11	
8.8	<b>158.37</b>	3	2996	1.0	3.0	3000	B					81414	12	
8.1	<b>173.45</b>	2.2	2416	1.2	2.7	3000	B					81413	13	
6.6	<b>211.82</b>	2.2	2951	1.0	2.2	3000	B					81411	14	

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **1003** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **1003** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **1003** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **1003** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **1003** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>	<b>V8</b>
5.00 LT	9.00 LT	6.50 LT	6.50 LT	11.00 LT	9.00 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{117}{X+57}$

$F_R$  (N)  
 $F_A$  (N)

$F_{eq}$  (N)  
X

n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR	n <sub>2</sub>	FA	FR
300	2300	11500	140	2980	14900	70	3660	18300
250	2480	12400	120	3180	15900	40	4220	21100
200	2680	13400	85	3440	17200	15	4820	24100

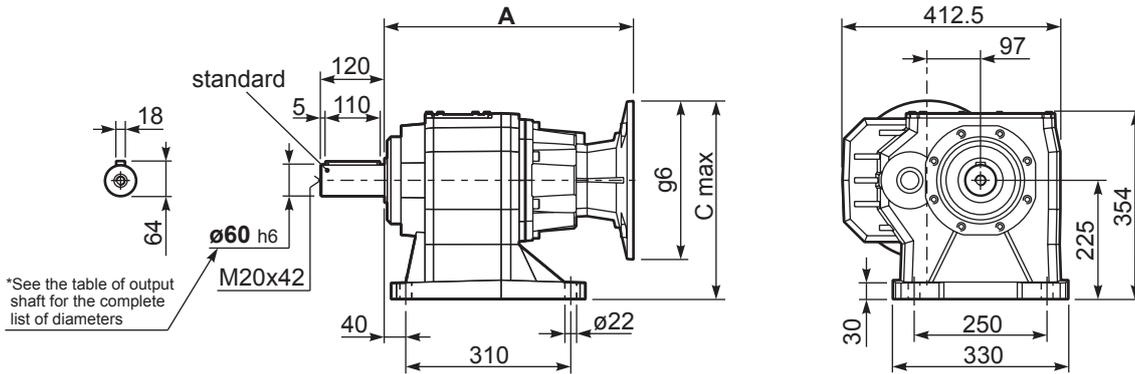
**Input shaft**  
Albero in entrata

n <sub>1</sub>	FA	FR
1400	700	3500
900	840	4200
500	900	4500

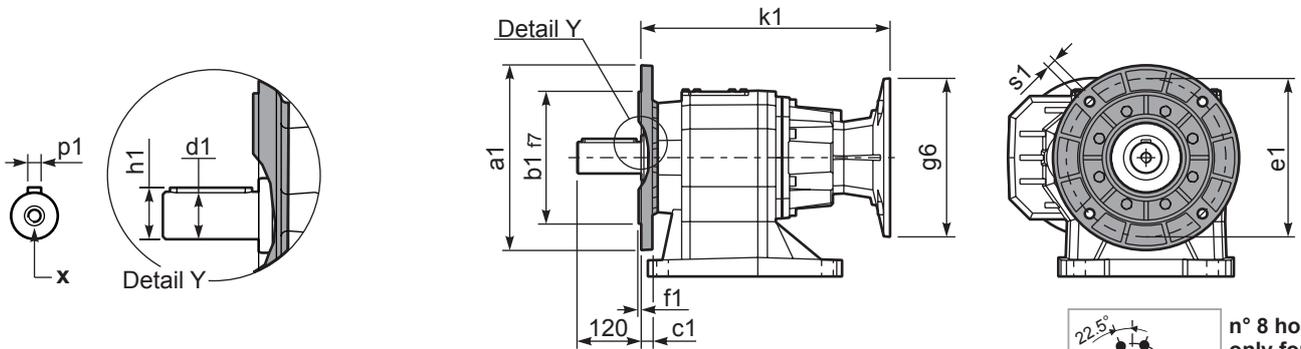
tab. 2

P1003**S9**... With foot  
Con piedino

Gearbox weight **116 kg**  
peso riduttore



P1003-**F**... Output flanges  
flange di uscita



n° 8 holes  
only for  
Kit **KC909016**  
Solo per il  
kit KC909016

\*Available output shaft / Albero di uscita

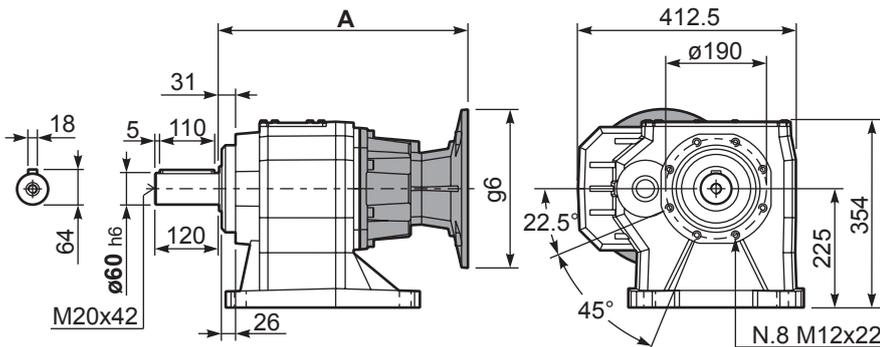
	Shaft - d1	p1	h1	x
Standard	ø 60x120	18	64	M20x42
On request A richiesta	-	-	-	-

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
300	230	21	265	4	14	KC90.9.014
350	250	21	300	5	18	KC90.9.015
450	350	22	400	5	18	KC90.9.016

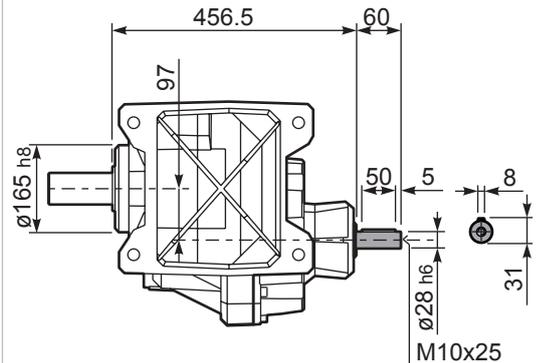
All flanges are compatible with the foot

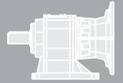
P1003**S9**... Basic gearbox  
Riduttore base



B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
100/112 B5	468	350	250	468	KC1109056
132 B5	468	375	300	468	KC1109057
160 B5	483	400	350	483	KC1109058

R1003**S9**... Input Shaft  
Albero in entrata





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges					B14 motor flanges			Output Shaft 	Ratios code 
							-G	-H	-I	-L	CA	-	-	-		
							132	160	180	200	225	-	-	-		
294	<b>4.75</b>	45	1333	2.0	<b>86.7</b>	<b>2700</b>								3914	01	
269	<b>5.21</b>	45	1460	1.9	<b>82.1</b>	<b>2800</b>								3913	02	
220	<b>6.36</b>	45	1783	1.7	<b>72.0</b>	<b>3000</b>								3911	03	
188	<b>7.45</b>	45	2088	1.6	<b>67.7</b>	<b>3300</b>								3014	04	
172	<b>8.15</b>	45	2287	1.5	<b>63.7</b>	<b>3400</b>								3013	05	
141	<b>9.96</b>	45	2792	1.3	<b>55.2</b>	<b>3600</b>								3011	06	
120	<b>11.69</b>	45	3277	1.2	<b>49.7</b>	<b>3800</b>								2214	07	
109	<b>12.80</b>	45	3589	1.1	<b>47.7</b>	<b>4000</b>								2213	08	
90	<b>15.63</b>	45	4383	1.0	<b>42.0</b>	<b>4300</b>								2211	09	
79	<b>17.65</b>	37	4068	1.1	<b>38.9</b>	<b>4500</b>								1614	10	
72	<b>19.33</b>	37	4455	1.0	<b>35.6</b>	<b>4500</b>								1613	11	
67	<b>20.77</b>	30	3910	1.2	<b>33.1</b>	<b>4500</b>								1414	12	
62	<b>22.75</b>	30	4282	1.1	<b>30.2</b>	<b>4500</b>								1413	13	
59	<b>23.60</b>	30	4443	1.0	<b>29.1</b>	<b>4500</b>								1611	14	
50	<b>27.78</b>	22	3842	1.2	<b>24.7</b>	<b>4500</b>								1411	15	
45.5	<b>30.76</b>	22	4255	1.1	<b>22.3</b>	<b>4500</b>								1014	16	
41.6	<b>33.69</b>	22	4660	1.0	<b>20.4</b>	<b>4500</b>								1013	17	
34.0	<b>41.15</b>	18.5	4781	0.9	<b>16.7</b>	<b>4500</b>								1011	18	

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit 1102 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 1102 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 1102 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 1102 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 1102 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

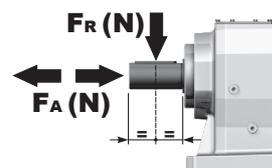
B3	B6	B7	B8	V5	V6	V8
6.50 LT	12.50 LT	7.50 LT	8.50 LT	14.50 LT	11.50 LT	Ask

AGIP Blasias 460

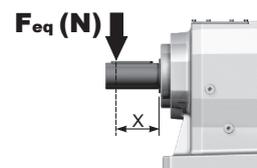
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

#### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

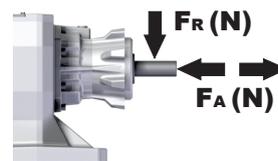


$$F_{eq} = FR \cdot \frac{138}{X+68}$$



$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2600	13000	140	3300	16500	70	4300	21500
250	2700	13500	120	3500	17500	40	5000	25000
200	3000	15000	85	3900	19500	15	5900	29500

**Input shaft**  
Albero in entrata

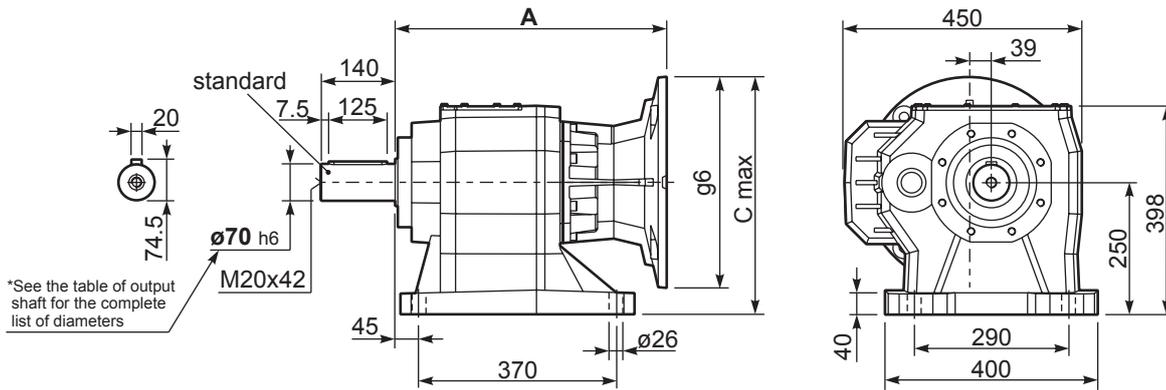


$n_1$	FA	FR
1400	1120	5600
900	1220	6100
500	1300	6500

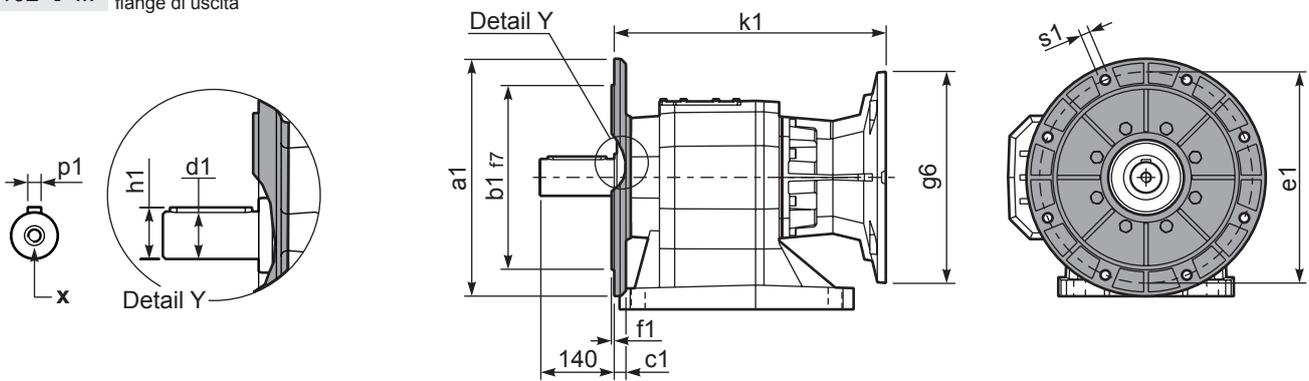
**tab. 2**

P1102**S0**... With foot  
Con piedino

Gearbox weight  
peso riduttore **165 kg**



P1102-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

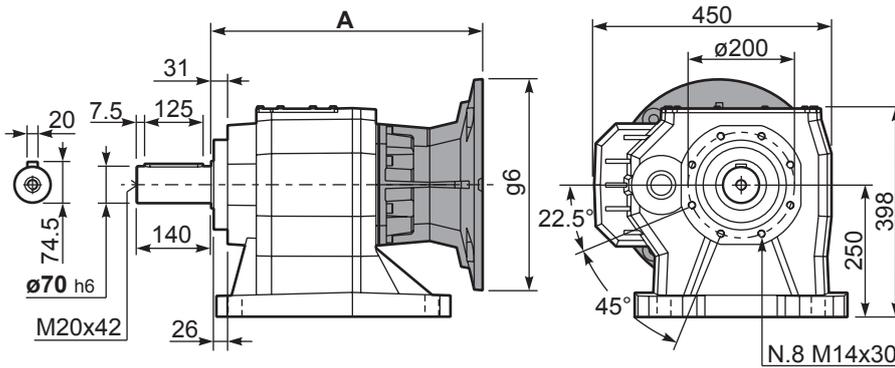
	Shaft - d1	p1	h1	x
Standard	ø 70x140	20	74.5	M20x42
On request A richiesta	-	-	-	-

Available output flanges / flange di uscita

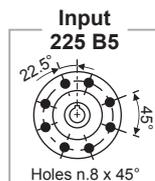
a1 ø	b1	c1	e1	f1	s1	kit code
350	250	21	300	5	18	KC110.9.015
450	350	22	400	5	18	KC110.9.016
-	-	-	-	-	-	-

All flanges are compatible with the foot

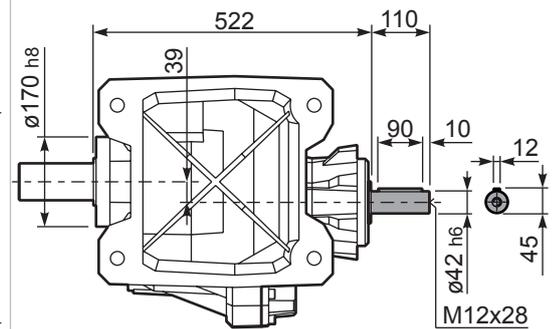
P1102**S0**... Basic gearbox  
Riduttore base

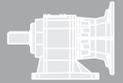


B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
132 B5	485.5	400	300	485.5	KC1109052
160 B5	510.5	425	350	510.5	KC1109053
180 B5	510.5	425	350	510.5	KC1109053_B
200 B5	510.5	450	400	510.5	KC1109054
225 B5	537.5	475	450	537.5	KC1109055



R1102**S0**... Input Shaft  
Albero in entrata





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				B14 motor flanges			Output Shaft 	Output Shaft $\varnothing$ 	Ratios code 
							-F	-G	-H	-I	-	-	-			
							100 112	132	160	180	-	-	-			
38.8	<b>36.11</b>	18.5	4113	1.1	19.4	4500	B						301411	standard $\varnothing 70$	01	
27.5	<b>50.89</b>	15	4694	1.0	14.1	4600	B						201414		02	
25.1	<b>55.73</b>	11	3777	1.2	12.9	4600	B						201413		03	
20.3	<b>68.80</b>	11	4662	1.0	10.4	4600	B						161414		04	
18.6	<b>75.35</b>	9	4354	1.1	9.5	4600	B						161413		05	
15.6	<b>89.47</b>	7.5	4160	1.1	8.0	4600	B						131414		06	
15.2	<b>92.02</b>	7.5	4278	1.1	7.6	4500	B						161411		07	
14.3	<b>97.99</b>	7.5	4556	1.0	7.3	4600	B						131413		08	
12.8	<b>109.52</b>	5.5	3762	1.2	6.6	4600	B						111414		09	
11.7	<b>119.94</b>	5.5	4120	1.1	6.0	4600	B						111413		10	
9.6	<b>146.47</b>	4	3681	1.2	4.8	4500	B						111411		11	
8.8	<b>158.37</b>	4	3980	1.2	4.5	4600	B						81414		12	
8.1	<b>173.45</b>	4	4359	1.1	4.1	4600	B						81413		13	
6.6	<b>211.82</b>	3	4007	1.1	3.3	4500	B						81411		14	

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit 1103 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 1103 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 1103 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 1103 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño 1103 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
7.00 LT	13.00 LT	8.00 LT	9.00 LT	16.00 LT	13.50 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R (N)$   
 $F_A (N)$

$F_{eq} = F_R \cdot \frac{138}{X+68}$

$F_{eq} (N)$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2600	13000	140	3300	16500	70	4300	21500
250	2700	13500	120	3500	17500	40	5000	25000
200	3000	15000	85	3900	19500	15	5900	29500

**Input shaft**  
Albero in entrata

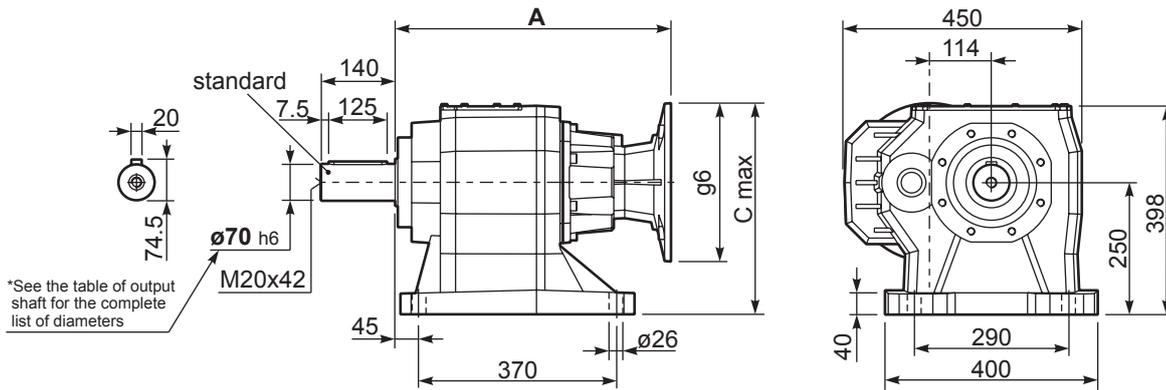
$F_R (N)$   
 $F_A (N)$

$n_1$	FA	FR
1400	700	3500
900	840	4200
500	900	4500

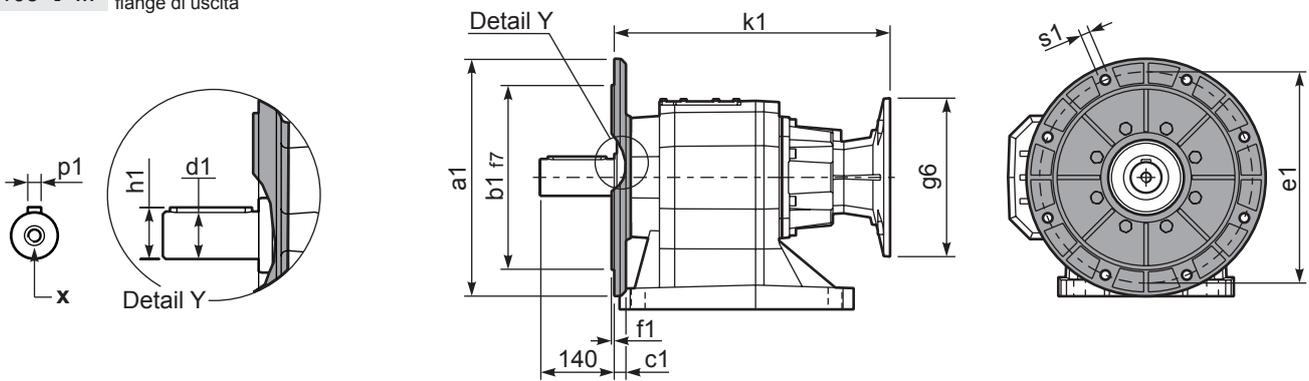
**tab. 2**

P1103**S0**... With foot  
Con piedino

Gearbox weight  
peso riduttore **156 kg**



P1103-**F**... Output flanges  
flange di uscita



\*Available output shaft / Albero di uscita

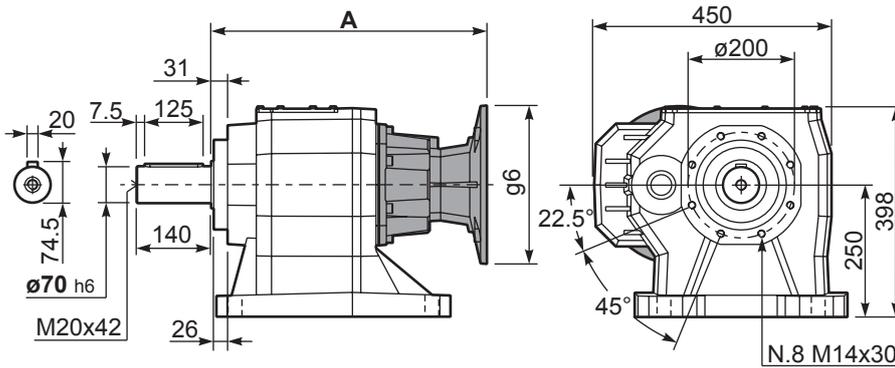
	Shaft - d1	p1	h1	x
Standard	ø 70x140	20	74.5	M20x42
On request A richiesta	-	-	-	-

Available output flanges / flange di uscita

a1 ø	b1	c1	e1	f1	s1	kit code
350	250	21	300	5	18	KC110.9.015
450	350	22	400	5	18	KC110.9.016
-	-	-	-	-	-	-

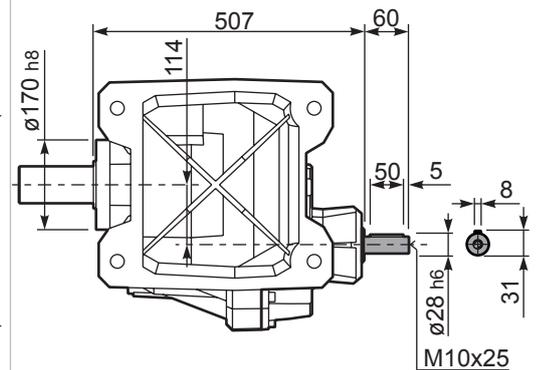
All flanges are compatible with the foot

P1103**S0**... Basic gearbox  
Riduttore base



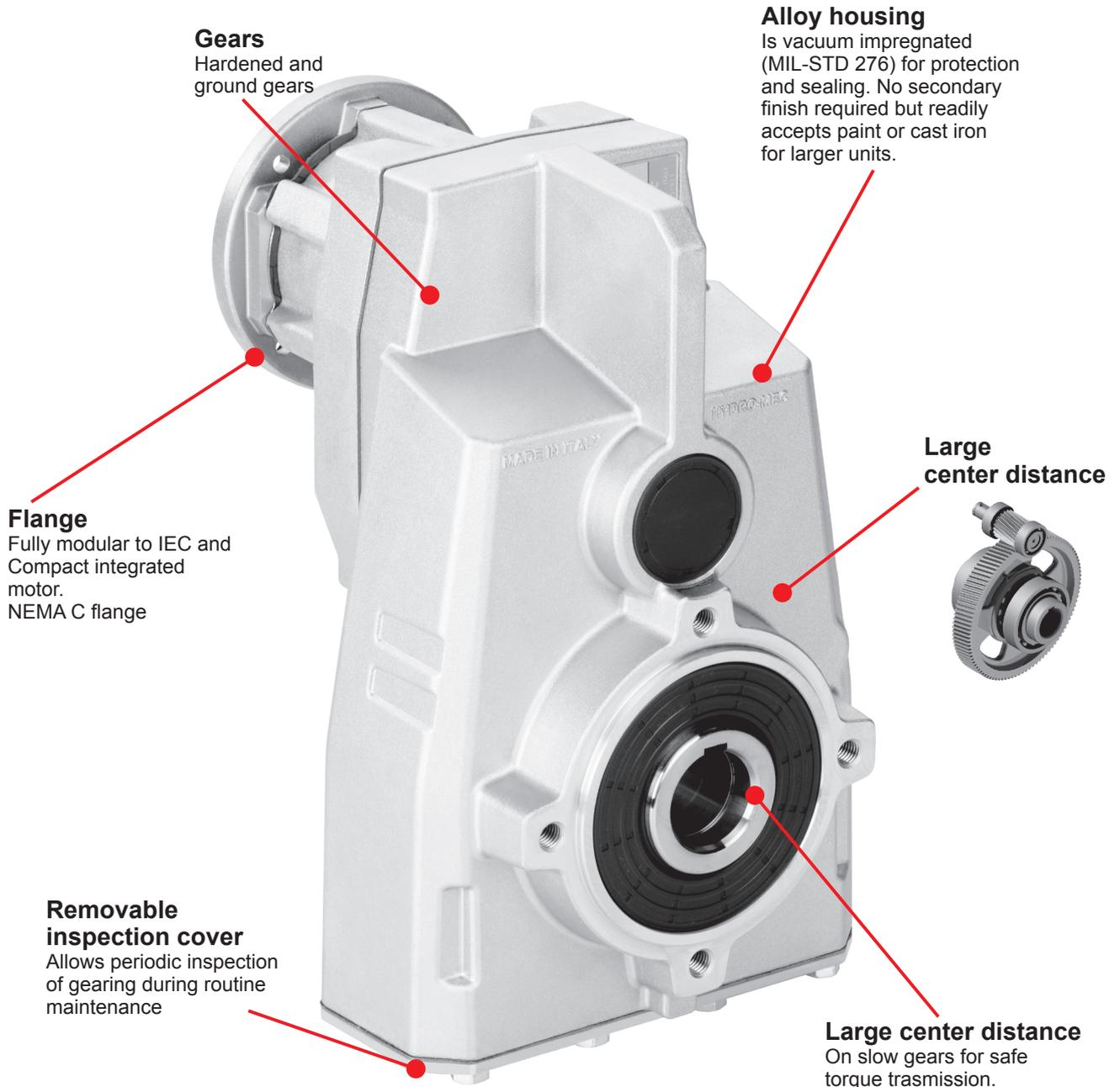
B5 Motor Flanges	A	C <sub>max</sub>	g6	k1	kit code
100/112 B5	518.5	375	250	518.5	KC1109056
132 B5	518.5	400	300	518.5	KC1109057
160 B5	533.5	425	350	533.5	KC1109058
180 B5	533.5	425	350	533.5	KC1109058_B

R1103**S0**... Input Shaft  
Albero in entrata



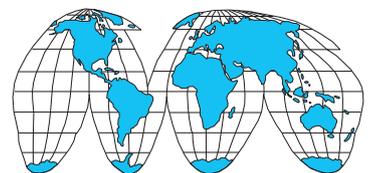
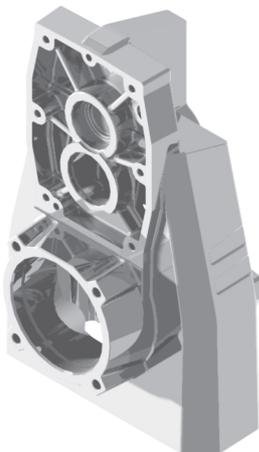
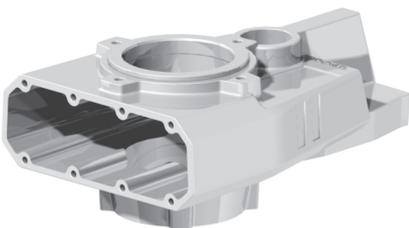
# Aluminum & cast iron shaft mounted gearboxes

## A modular and compact product



### Single-piece aluminum / Cast Iron housing

Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

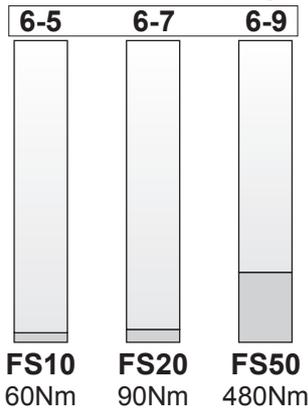


World wide sales network.

# Specific type datasheet on page...

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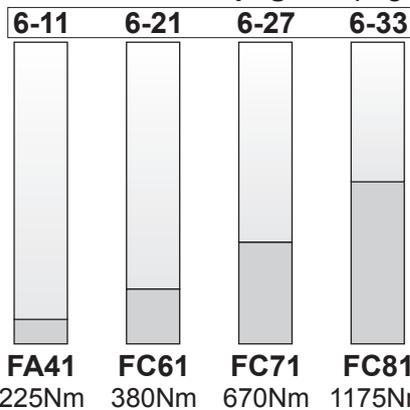
3 Stage



Types / Tipi /  
Tipen / Types /  
Tipos

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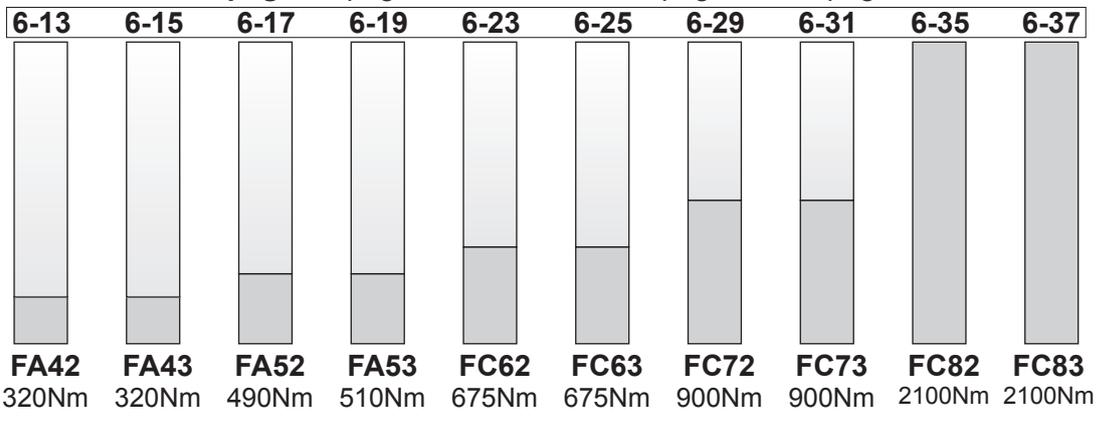
1 Stage



Types / Tipi /  
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Tipos

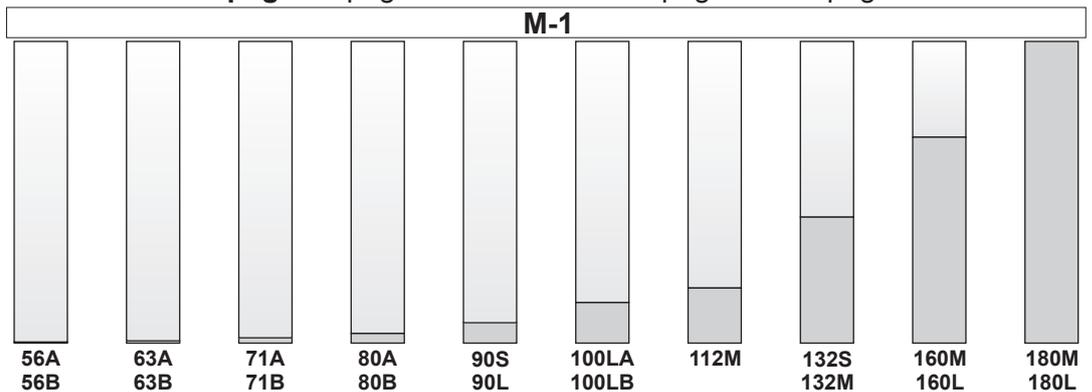
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2 and 3 Stage

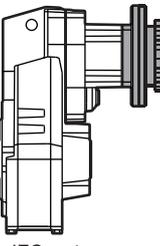
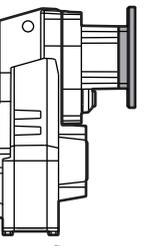
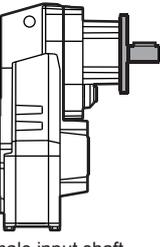
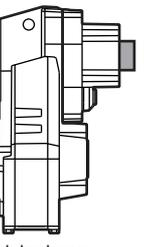
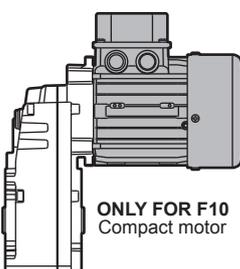
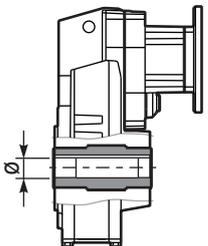
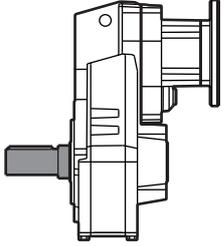
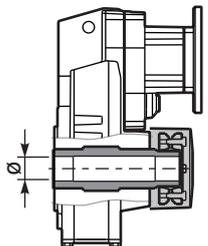
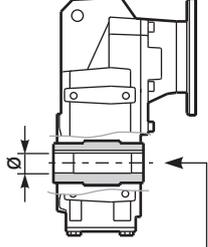
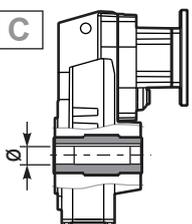
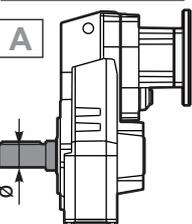
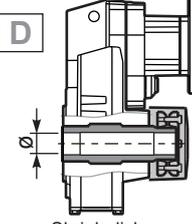


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Tipos

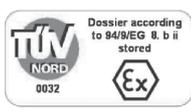
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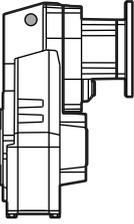
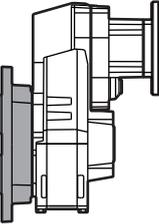
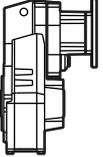
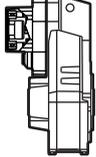
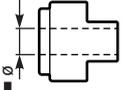
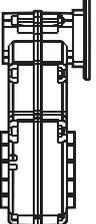
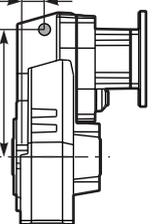
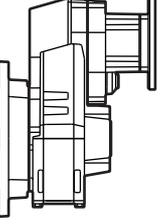
Types / Tipi /  
Tipen / Types /  
Tipos

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Grösse Taille - Tomafío	Mounting - Montaggio Montage - Fixation Tipo de montaje	Rapporto - Ratio Untersetzung Reduction - Relacion	Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida
<p><b>M</b></p> <p>Shaft mounted helical Riduttori ad assi paralleli</p>  <p>With IEC motor <b>M</b></p>  <p>With motor flange <b>P</b></p>  <p>With male input shaft <b>R</b></p>  <p>Modular base <b>B</b></p> <p>Not available for: FC61, FC71, FC81, FC82.</p>  <p>ONLY FOR F10 Compact motor</p> <p><b>C</b></p>	<p><b>FA42</b></p> <p>1 Stage Riduzione Stufe Trains Etapas</p> <p>2 Stages Riduzioni Stufen Trains Etapas</p> <p>3 Stages Riduzioni Stufen Trains Etapas</p> <p><b>Aluminum/Alluminio/Aluminium/Aluminio</b></p> <p><b>FA41</b></p> <p><b>FA42</b> <b>FA52</b></p> <p><b>FA43</b> <b>FA53</b></p> <p><b>FS10</b> <b>FS20</b></p> <p><b>FS50</b></p> <p><b>Cast Iron/Ghisa/Grauguss/Fonte/Fundicion</b></p> <p><b>FC61</b> <b>FC71</b> <b>FC81</b></p> <p><b>FC62</b> <b>FC72</b> <b>FC82</b></p> <p><b>FC63</b> <b>FC73</b> <b>FC83</b></p>	<p><b>C</b></p>  <p>Hollow output shaft <b>C</b></p>  <p>Single output shaft <b>A</b></p>  <p>Shrink Disk <b>D</b></p> <p>Only on request for Q.ty A richiesta per quantità</p>  <p>Stainless steel hub <b>I</b></p> <p><b>On request for q.ty</b> Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox</p>	<p><b>10.04</b></p> <p>See technical data table</p> <p>Vedi tabelle dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p>	<p><b>-D</b></p>  <p><b>STANDARD</b> Only on request for Q.ty A richiesta per quantità</p> <p><b>FS10</b></p> <p><b>-J</b> → <math>\varnothing 17</math></p> <p><b>FS20</b></p> <p><b>-B</b> → <math>\varnothing 20</math></p> <p><b>FA41 FA42 FA43</b></p> <p><b>-C</b> → <math>\varnothing 25</math></p> <p><b>FA41 FA42 FA43 FS50</b></p> <p><b>-D</b> → <math>\varnothing 30</math></p> <p><b>-E</b> → <math>\varnothing 35</math></p> <p><b>FA52 FA53 FC61 FC62 FC63</b></p> <p><b>-E</b> → <math>\varnothing 35</math></p> <p><b>-F</b> → <math>\varnothing 40</math></p> <p><b>FC71 FC72 FC73</b></p> <p><b>-F</b> → <math>\varnothing 40</math></p> <p><b>-G</b> → <math>\varnothing 45</math></p> <p><b>FC81 FC82 FC83</b></p> <p><b>-H</b> → <math>\varnothing 50</math></p> <p><b>-I</b> → <math>\varnothing 55</math></p>  <p>Single output shaft</p> <p><b>-M</b> FA41/2/3 → <math>\varnothing 30</math></p> <p><b>-N</b> FA52/3 FC61/2/3 → <math>\varnothing 35</math></p> <p><b>-O</b> FC71/2/3 → <math>\varnothing 40</math></p> <p><b>-K</b> FC81/2/3 → <math>\varnothing 50</math></p>  <p>Shrink disk</p> <p><b>-Q</b> FA42/3 → <math>\varnothing 30</math></p> <p><b>-T</b> FA52/3 FC62/3 → <math>\varnothing 35</math></p> <p><b>-U</b> FC72/3 → <math>\varnothing 40</math></p> <p><b>-V</b> FC82/3 → <math>\varnothing 50</math></p>

6



On request we can deliver our products according to the ATEX  
 A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
 Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
 Sur demande nos produits peuvent se conformer à la réglementation ATEX  
 A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Type - Tipo - Typ Types - Tipo	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Grandeur moteur - Tamaño motor	Terminal box position Posizione morsettiere Klemmkastenlage Position boîte à bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Coupling Giunto Kupplung Joint Juntura	
<b>ST</b>	<b>N</b>	<b>-C</b>	<b>B</b>	<b>H1</b>	<b>C</b>	
						
<b>ST</b> Foro standard Standard bore	<b>N</b> Senza flangia Without flange FS20 <b>1</b> → <b>∅140</b> FA41 FA42 FA43 <b>2</b> → <b>∅160</b> <b>3</b> → <b>∅200</b> <b>4</b> → <b>∅250</b> FA52 FA53 FC61 FC62 FC63 <b>4</b> → <b>∅250</b> <b>5</b> → <b>∅300</b> FC71 FC72 FC73 <b>4</b> → <b>∅250</b> <b>5</b> → <b>∅300</b> <b>6</b> → <b>∅350</b> FC81 FC82 FC83 <b>5</b> → <b>∅300</b> <b>6</b> → <b>∅350</b> <b>7</b> → <b>∅400</b>	<b>B5</b> <b>-A</b> =56 (∅120) <b>-B</b> =63 (∅140) <b>-C</b> =71 (∅160) <b>-D</b> =80 (∅200) <b>-E</b> =90 (∅200) <b>-F</b> =100+112 (∅250) <b>-G</b> =132 (∅300) <b>-H</b> =160 (∅350) <b>-I</b> =180 (∅350) <b>B14</b> <b>-O</b> =56 (∅80) <b>-P</b> =63 (∅90) <b>-Q</b> =71 (∅105) <b>-R</b> =80 (∅120) <b>-T</b> =90 (∅140) <b>-U</b> =100+112 (∅160) <b>-V</b> =132 (∅200) <b>COMPACT</b> <b>CZ</b> = 56 <b>C0</b> = 63	<b>Type R</b> Tipo R FA43 FS10 FS20 FS50 <b>-1</b> → <b>∅14</b> FA42 FA53 FC63 FC73 <b>-2</b> → <b>∅19</b> FA52 FC62 FC72 FC83 <b>-3</b> → <b>∅24</b> FC82 <b>-4</b> → <b>∅28</b> <b>Without flange</b> Senza flangia <b>-M</b> → With coupling FA43 FS10 FS20 FS50 <b>-Z</b> → <b>∅9</b> (56B5) <b>-0</b> → <b>∅11</b> (63B5) <b>-1</b> → <b>∅14</b> (71B5) FA42 FA53 FC63 FC73 <b>-1</b> → <b>∅14</b> (71B5) <b>-2</b> → <b>∅19</b> (80B5) <b>-3</b> → <b>∅24</b> (90B5) <b>-4</b> → <b>∅28</b> (100B5) FA52 FC62 FC72 FC83 <b>-2</b> → <b>∅19</b> (80B5) <b>-3</b> → <b>∅24</b> (90B5) <b>-4</b> → <b>∅28</b> (100B5) FA41 <b>-4</b> → <b>∅28</b> (100B5)	<b>A</b> <b>B</b> STANDARD <b>C</b> <b>D</b>	<b>H1</b> STANDARD <b>H4</b> <b>H3</b> <b>H2</b> <b>H5</b> <b>H6</b>	<b>0</b> Without coupling Senza giunto <b>-</b> Nothing indication: standard bore Nessuna indicazione: foro standard COUPLING  <b>A</b> = 9mm <b>B</b> = 11mm <b>C</b> = 14mm <b>D</b> = 19mm <b>E</b> = 24mm <b>F</b> = 28mm
						
<b>ST</b> only for FS10 / FS20 Senza braccio di reazione Without reaction arm						
						
Available torque arms, see our web site. Bracci di reazione disponibili, vedi il nostro sito web.						
<b>S..</b>						
						
<b>-F</b> Whit output flange con flangia uscita						

**POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA**

Lifting / sollevamento / hubantriebe / levage / elevación

$$P \text{ [KW]} = \frac{M \text{ [Kg]} \cdot g \text{ [9.81]} \cdot v \text{ [m / s]}}{1000}$$

Rotation / rotazione / drehung / rotation / rotacion

$$P \text{ [KW]} = \frac{M \text{ [Nm]} \cdot n \text{ [rpm]}}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P \text{ [KW]} = \frac{F \text{ [N]} \cdot v \text{ [m / s]}}{1000}$$

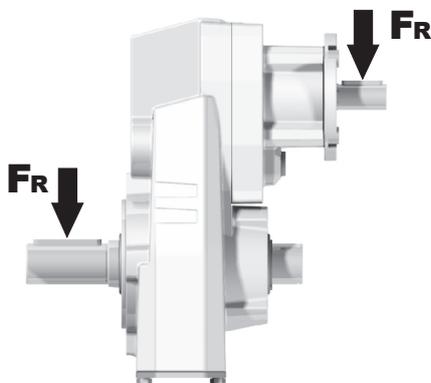
**TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR**

$$M \text{ [Nm]} = \frac{9550 \cdot P \text{ [KW]}}{n \text{ [rpm]}}$$

$$M \text{ [lb in]} = \frac{63030 \cdot P \text{ [HP]}}{n \text{ [rpm]}}$$

**RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL**

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



	$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$	$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B**

Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Poissance nominale  
Potencia nominal

**A**

Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puissance moteur  
Potencia motor

# FA42

**Compact-Gear**  
**320Nm**

Rating - Aluminum  
**SHAFT MOUNTED HELICAL**

QUICK SELECTION / Selezione veloce							input speed (n <sub>1</sub> ) = 1400 min <sup>-1</sup>											
Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft		
							-B	-C	-D	-E	-F	-Q	-R	-T	-U			Ratio code
167	<b>8.38</b>	4	215	1.0	4.1	225	B					C	C			2821		01
139	<b>10.04</b>	3	194	1.2	3.7	240	B					C	C			2818		02
114	<b>12.33</b>	3	238	1.1	3.2	260	B					C	C			2813		03
92	<b>15.16</b>	2.2	216	1.2	2.6	260	B					C	C			1921		04

**C**

Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

<b>D</b>	Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles	
<b>B)</b>	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción	
<b>C)</b>	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-socket Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor	
<b>B)</b>	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo	

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Hollow Shaft 	Ratios code 
							-B 63	-C 71	-O 56	-P 63	-Q 71		
72	<b>19.42</b>	0.37	46	1.3	<b>0.48</b>	<b>60</b>			C	C		281713	01
51	<b>27.21</b>	0.37	65	0.9	<b>0.34</b>	<b>60</b>			C	C		281313	02
36.4	<b>38.49</b>	0.25	62	1.0	<b>0.24</b>	<b>60</b>			C	C		191713	03
31.7	<b>44.12</b>	0.18	54	1.1	<b>0.21</b>	<b>60</b>			C	C		171713	04
26.7	<b>52.50</b>	0.18	64	0.9	<b>0.18</b>	<b>60</b>			C	C		151713	05
22.6	<b>61.82</b>	0.12	49	1.2	<b>0.15</b>	<b>60</b>			C	C		171313	06
19.0	<b>73.56</b>	0.12	58	1.0	<b>0.13</b>	<b>60</b>			C	C		151313	07
15.9	<b>88.13</b>	0.09	56	1.1	<b>0.11</b>	<b>60</b>			C	C		101713	08
12.0	<b>116.67</b>	0.06	48	1.2	<b>0.08</b>	<b>60</b>			C	C		91713	09
11.3	<b>123.48</b>	0.06	51	1.2	<b>0.08</b>	<b>60</b>			C	C		101313	10
9.0	<b>155.37</b>	0.06	64	0.9	<b>0.06</b>	<b>60</b>			C	C		71713	11
8.6	<b>163.47</b>	0.06	68	0.9	<b>0.06</b>	<b>60</b>			C	C		91313	12
7.6	<b>184.39</b>	0.06	76	0.8	<b>0.05</b>	<b>60</b>			C	C		61713	13
6.4	<b>217.68</b>	0.06*	90	0.7	<b>0.04</b>	<b>60</b>			C	C		71313	14
5.4	<b>258.34</b>	0.06*	107	0.6	<b>0.04</b>	<b>60</b>			C	C		61313	15

standard  
ø17

The dynamic efficiency is **0.94** for all ratios \* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FS10** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FS10** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FS10** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FS10** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FS10** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### LUBRICATION FS10 Oil Quantity 0.35 Lt.

**AGIP** Telium VSF 320

**SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL LOADS

Input shaft  
Albero in entrata



$n_1$	FA	FR
1400	140	700
900	160	800

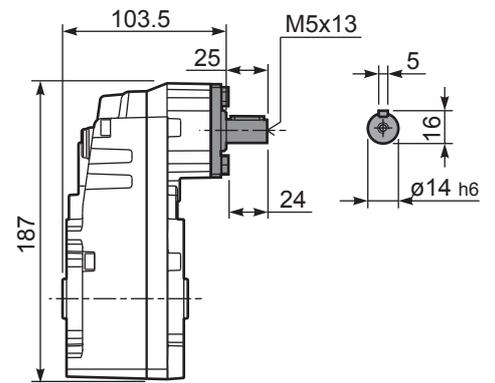
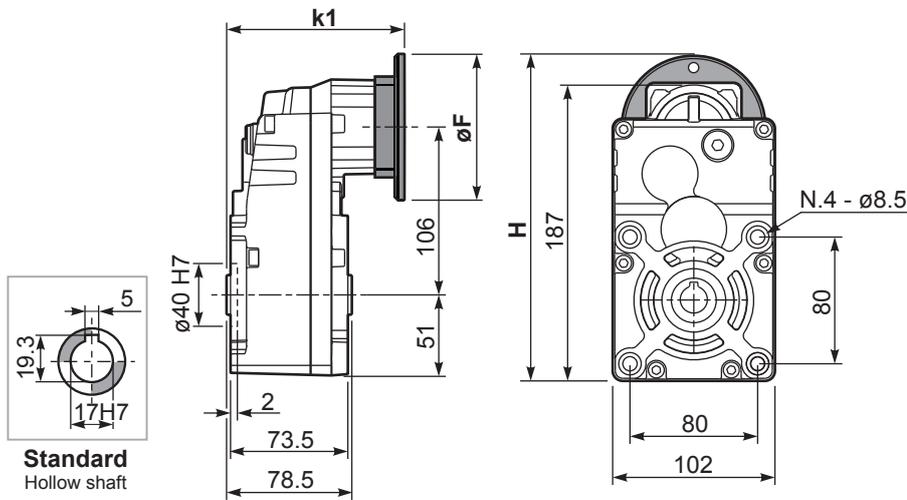
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PFS10...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **3.1 kg**

**RFS10...** Input Shaft  
Albero in entrata



B14 Motor Flanges	H	øF	k1	kit code
56 B14	197	80	109.3	KC40.4.049
63 B14	202	90	111.8	K050.4.047
71 B14	209.5	105	109.3	K050.4.045

B5 Motor Flanges	H	øF	k1	kit code
63 B5	226	138	111.8	K050.4.041
71 B5	237	160	109.3	K050.4.042

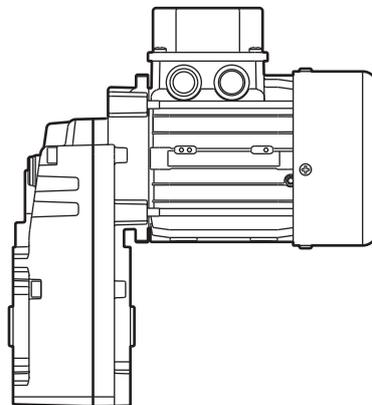
### Available with integrated motor

Disponibile con motore integrato

Motor sizes available :  
Grandezza motore disponibile:

- 56 IEC
- 63 IEC

For more information, contact us.  
Per maggiori informazioni, contattaci.





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Hollow Shaft  Ø	Ratios code 
							-B	-C	-O	-P	-Q		
24.2	<b>57.95</b>	0.25	93	1.0	<b>0.24</b>	<b>90</b>			C	C		2844	01
13.4	<b>104.80</b>	0.12	83	1.1	<b>0.13</b>	<b>90</b>			C	C		1954	02
11.5	<b>121.47</b>	0.12	96	0.9	<b>0.12</b>	<b>90</b>			C	C		1756	03
9.8	<b>142.59</b>	0.09	90	1.0	<b>0.10</b>	<b>90</b>			C	C		1558	04
8.2	<b>170.20</b>	0.06	70	1.3	<b>0.08</b>	<b>90</b>			C	C		1360	05
6.0	<b>232.32</b>	0.06	96	0.9	<b>0.06</b>	<b>90</b>			C	C		1063	06
4.6	<b>303.20</b>	0.06*	126	0.7	<b>0.05</b>	<b>90</b>			C	C		974	07
3.5	<b>400.37</b>	0.06*	166	0.5	<b>0.04</b>	<b>90</b>			C	C		776	08

The dynamic efficiency is **0.94** for all ratios \* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque  $M_{2R}$   
Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente  $M_{2R}$

- Motor Flanges Available  
Flange Motore Disponibili
- B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FS20** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FS20** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FS20** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FS20** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FS20** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

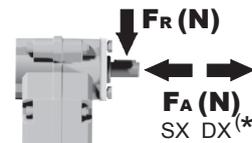
### LUBRICATION FS20 Oil Quantity 0.50 Lt.

**AGIP** Telium VSF 320      **SHELL** Omala S4 WE 320

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL LOADS

Input shaft  
Albero in entrata



$n_1$	FA	FR
1400	140	700
900	160	800

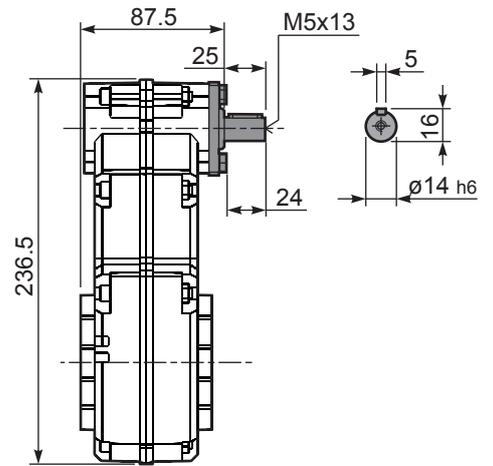
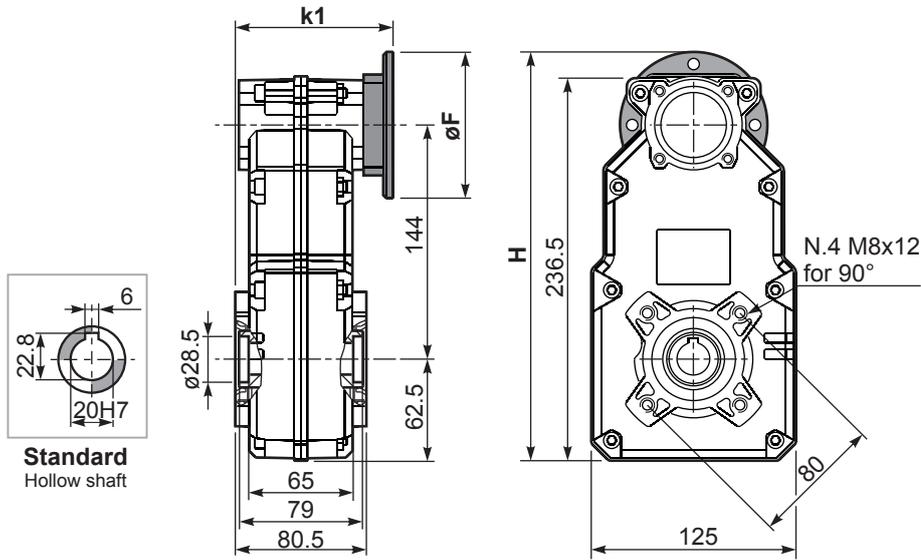
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

**PFS20...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **4.3 kg**

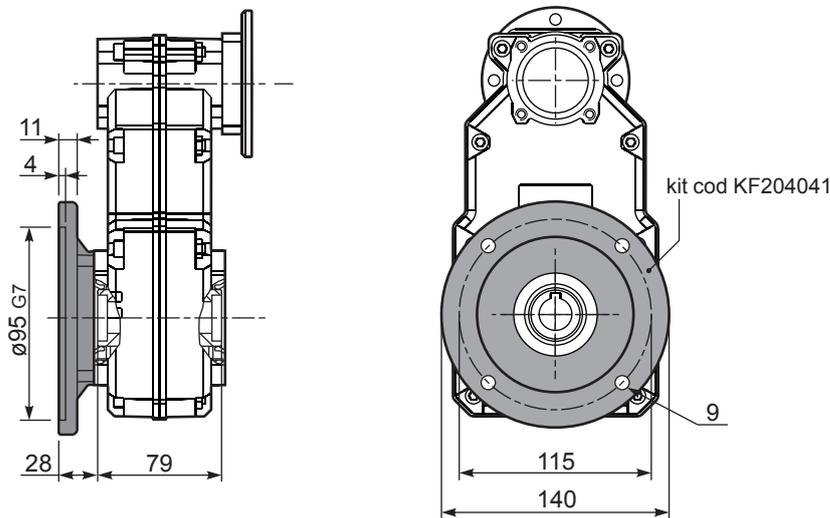
**RFS20...** Input Shaft  
Albero in entrata



B14 Motor Flanges	H	øF	k1	kit code
56 B14	246.5	80	94.3	KC40.4.049
63 B14	251.5	90	96.8	K050.4.047
71 B14	259	105	94.3	K050.4.045

B5 Motor Flanges	H	øF	k1	kit code
63 B5	275.5	138	96.8	K050.4.041
71 B5	286.5	160	94.3	K050.4.042

**PFS20-F** Output flange  
flangia di uscita





QUICK SELECTION / Selezione veloce							input speed (n <sub>1</sub> ) = 1400 min <sup>-1</sup>						
Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
29.3	<b>47.70</b>	0.37	113	4.2	<b>1.6</b>	<b>480</b>			C	C		281316	01
16.2	<b>86.27</b>	0.37	205	2.3	<b>0.87</b>	<b>480</b>			C	C		191316	02
14.0	<b>100.00</b>	0.37	237	2.0	<b>0.75</b>	<b>480</b>			C	C		171316	03
11.9	<b>117.38</b>	0.37	278	1.7	<b>0.64</b>	<b>480</b>			C	C		151316	04
10.0	<b>140.10</b>	0.37	332	1.4	<b>0.53</b>	<b>480</b>			C	C		131316	05
7.3	<b>191.24</b>	0.37	454	1.1	<b>0.39</b>	<b>480</b>			C	C		101316	06
5.6	<b>249.59</b>	0.25	399	1.2	<b>0.30</b>	<b>480</b>			C	C		91316	07
4.2	<b>329.58</b>	0.25	527	0.9	<b>0.23</b>	<b>480</b>			C	C		71316	08

The dynamic efficiency is **0.94** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FS50** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FS50** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FS50** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FS50** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FS50** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	H4	H3	H2	H5	H6
0.95 LT	0.50 LT	0.50 LT	0.70 LT	0.95 LT	0.95 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS				
Input shaft Albero in entrata		n <sub>1</sub>	FA	FR
		1400	140	700
		900	160	800

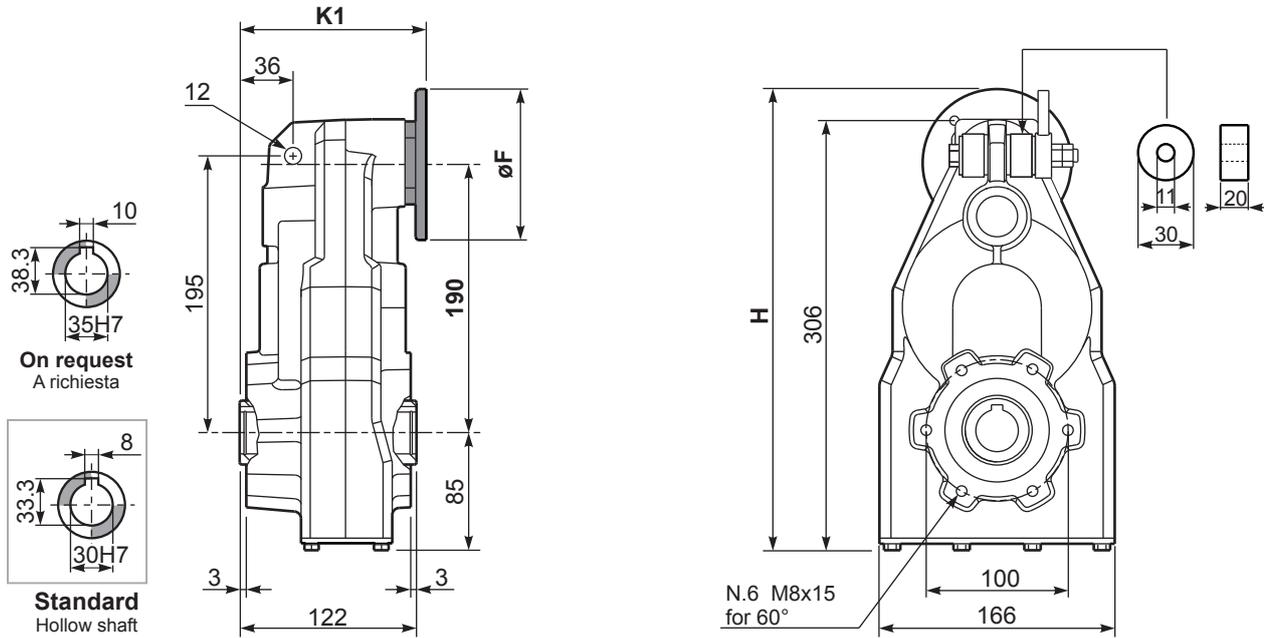
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

# Compact gear 480Nm FS50

**P**FS50C... Basic gearbox  
Riduttore base

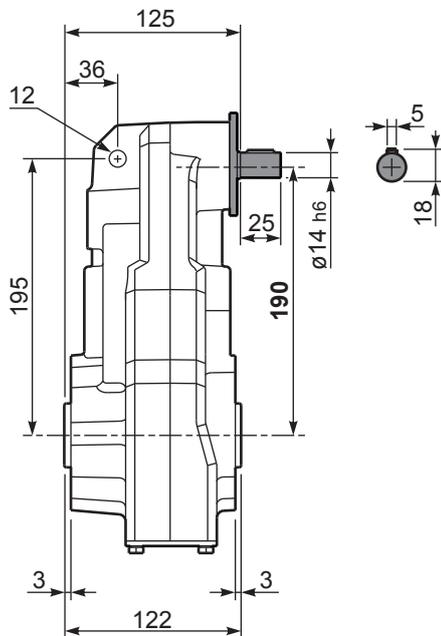
Gearbox weight  
peso riduttore **11.5 kg**



B14 Motor Flanges	H	øF	k1	kit code
56 B14	314	80	130.5	KC40.4.049
63 B14	320	90	133	K050.4.047
71 B14	328	105	130.5	K050.4.045

B5 Motor Flanges	H	øF	k1	kit code
63 B5	345	140	133	K050.4.041
71 B5	355	160	130.5	K050.4.042

**R**FS50C... Input shaft  
Albero in entrata





**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges			Available B14 motor flanges			Output Shaft 	Ratios code	
							-D	-E	-F	-R	-T	-U			
							80	90	100 112	80	90	100 112			
481	<b>2.91</b>	4	76	1.8	<b>7.2</b>	<b>140</b>	B	B		B	B		3499	<b>standard</b>	01
373	<b>3.75</b>	4	98	1.6	<b>6.4</b>	<b>160</b>	B	B		B	B		28105	<b>ø30</b>	02
263	<b>5.33</b>	4	140	1.2	<b>4.8</b>	<b>170</b>	B	B		B	B		21112		03
219	<b>6.39</b>	4	167	1.0	<b>4.0</b>	<b>170</b>	B	B		B	B		18115	ø35	04
178	<b>7.85</b>	4	205	1.1	<b>4.3</b>	<b>225</b>	B	B		B	B		13102	On request	05

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FA41** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA41** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA41** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA41** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA41** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
1.10 LT	0.65 LT	0.65 LT	0.65 LT	1.15 LT	0.80 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita

$n_2$ [min <sup>-1</sup> ]	FA	FR	$n_2$ [min <sup>-1</sup> ]	FA	FR	$n_2$ [min <sup>-1</sup> ]	FA	FR
<b>300</b>	300	1500	<b>140</b>	390	1950	<b>70</b>	490	2450
<b>250</b>	320	1600	<b>120</b>	410	2050	<b>40</b>	590	2950
<b>200</b>	350	1750	<b>85</b>	460	2300	<b>15</b>	800	4000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**tab. 2**

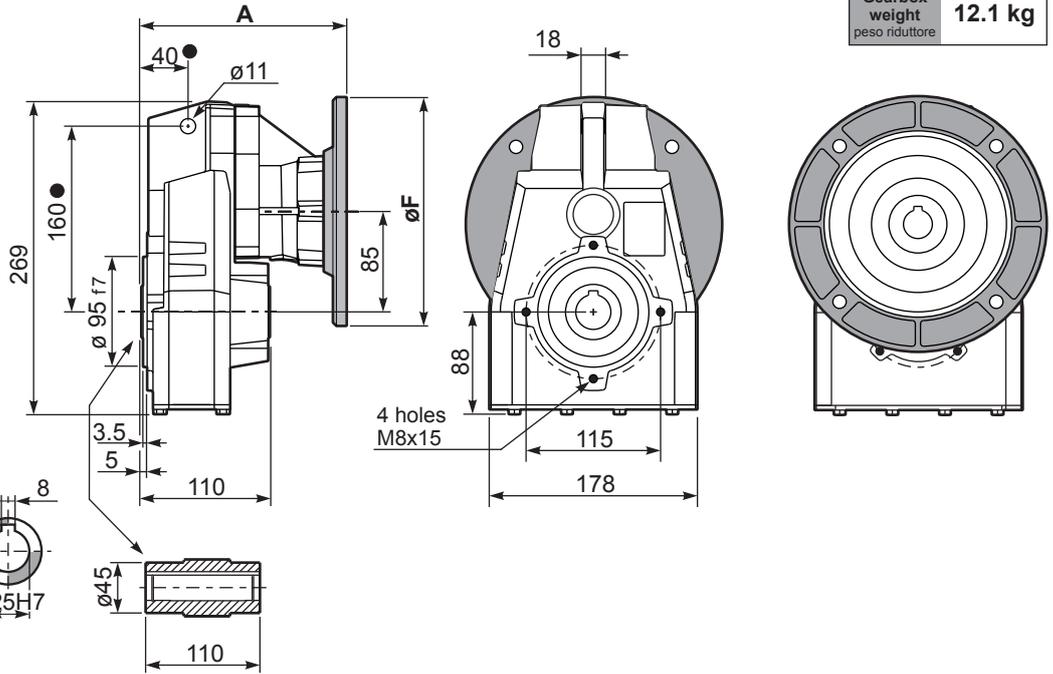
**PFA41C...**

Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **12.1 kg**

M. flanges	Kit code	øF	A
<b>80/90B5</b>	K023.4.042	200	179.5
<b>100/112B5</b>	K023.4.043	250	188.5
<b>80B14</b>	K085.4.046	120	179.5
<b>90B14</b>	K085.4.045	140	179.5
<b>100/112B14</b>	K085.4.047	160	188.5

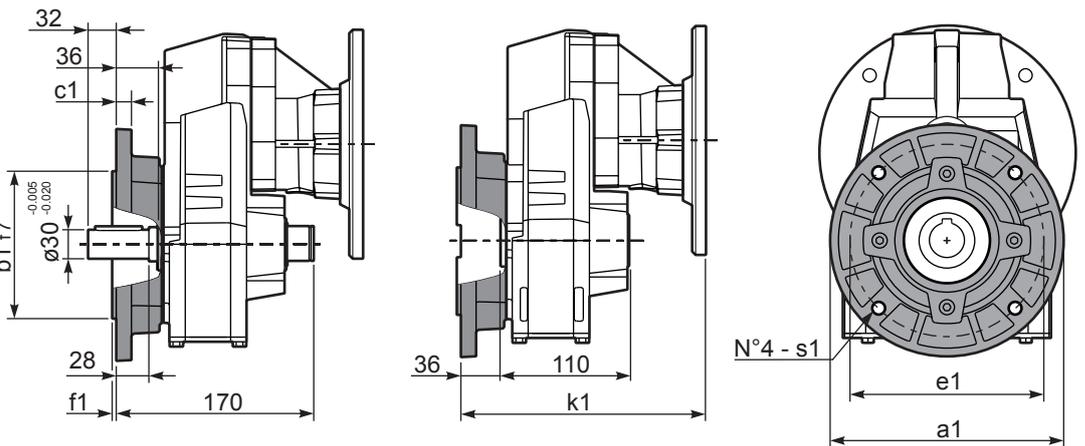
● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web



**PFA41...-F...**

Output flange  
Flangia uscita

M. flanges	k1
<b>80/90B5</b>	215.5
<b>100/112B5</b>	221.5
<b>80B14</b>	213.5
<b>90B14</b>	213.5
<b>100/112B14</b>	224.5

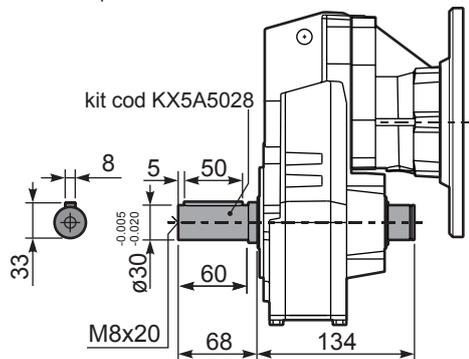


Available output flanges  
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012

**PFA41 A...**

Single output shaft  
Albero uscita semplice





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code 
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100	112	71	80	90		
167	8.38	4	215	1.0	4.1	225	B					C	C			2821	01
139	10.04	3	194	1.2	3.7	240	B					C	C			2818	02
114	12.33	3	238	1.1	3.2	260	B					C	C			2813	03
92	15.16	2.2	215	1.2	2.6	260	B					C	C			1921	04
80	17.57	2.2	250	1.1	2.3	270	B					C	C			1721	05
77	18.16	2.2	258	1.1	2.4	290	B					C	C			1918	06
67	21.05	2.2	299	1.1	2.3	320	B					C	C			1718	07
63	22.30	2.2	317	1.0	2.2	320	B					C	C			1913	08
57	24.70	1.5	242	1.3	2.0	320	B					C	C			1518	09
54	25.85	1.5	253	1.3	1.9	320	B					C	C			1713	10
47.5	29.49	1.5	289	1.1	1.7	320	B					C	C			1318	11
46.1	30.34	1.5	297	1.1	1.6	320	B					C	C			1513	12
41.7	33.60	1.1	240	1.0	1.1	250	B					C	C			1021	13
38.7	36.21	1.1	259	1.2	1.3	320	B					C	C			1313	14
34.8	40.25	1.1	288	1.0	1.1	300	B					C	C			1018	15
28.3	49.43	1.1	354	0.9	0.99	320	B					C	C			1013	16
26.7	52.53	0.75	258	1.0	0.76	260	B					C	C			918	17
21.7	64.51	0.75	317	1.0	0.75	315	B					C	C			913	18
20.2	69.37	0.37	168	1.1	0.42	190	B					C	C			718	19
16.4	85.19	0.37	206	1.1	0.41	230	B					C	C			713	20

The dynamic efficiency is **0.96** for all ratios

- Motor Flanges Available** Flange Motore Disponibili
- B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **FA42** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA42** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA42** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA42** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA42** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
1.15 LT	0.70 LT	0.70 LT	0.70 LT	1.20 LT	0.80 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS



$n_2$ [min <sup>-1</sup> ]	FA	FR	$n_2$ [min <sup>-1</sup> ]	FA	FR	$n_2$ [min <sup>-1</sup> ]	FA	FR
300	300	1500	140	390	1950	70	490	2450
250	320	1600	120	410	2050	40	590	2950
200	350	1750	85	460	2300	15	800	4000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

Input shaft Albero in entrata	$n_1$	FA	FR
	1400	240	1200
	900	280	1400
	500	340	1700

tab. 2

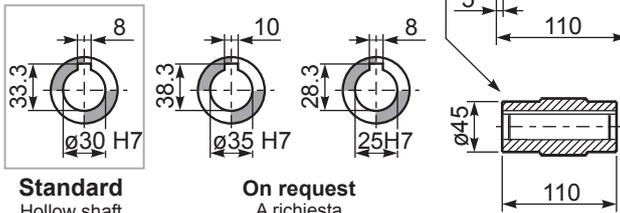
## PFA42C...

Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **9.0 kg**

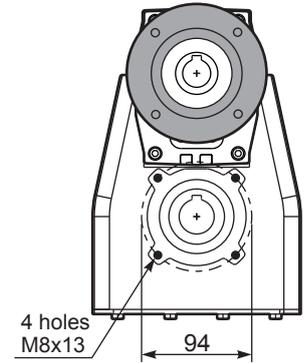
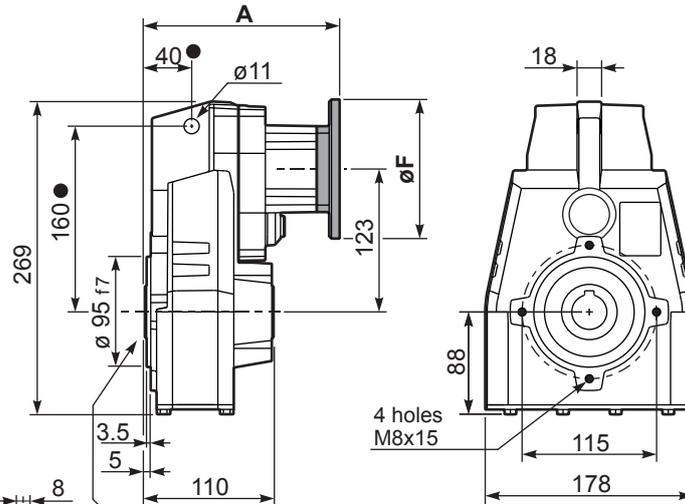
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	169.5
71B5	K063.4.042	160	167.5
80/90B5	K063.4.043	200	169.5
100/112B5	KC40.4.043	250	184.5
71B14	K063.4.047	105	167.5
80B14	K063.4.046	120	169.5
90B14	K063.4.041	140	169.5
100/112B14	KC40.4.041	160	184.5

● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft

**On request**  
A richiesta



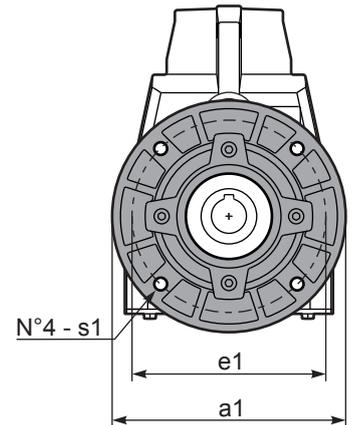
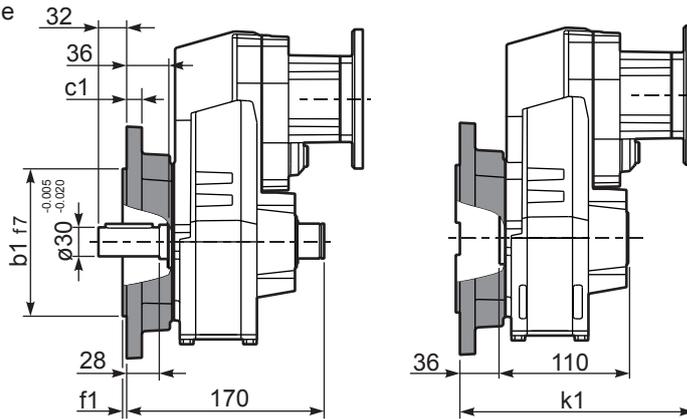
## PFA42...-F...

Output flange  
Flangia uscita

Motor Flange	k1
63B5	205.5
71B5	203.5
80/90B5	205.5
100/112B5	221
71B14	203.5
80B14	204.5
90B14	205.5
100/112B14	221

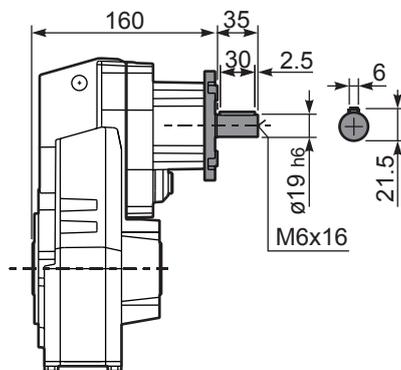
Available output flanges  
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012



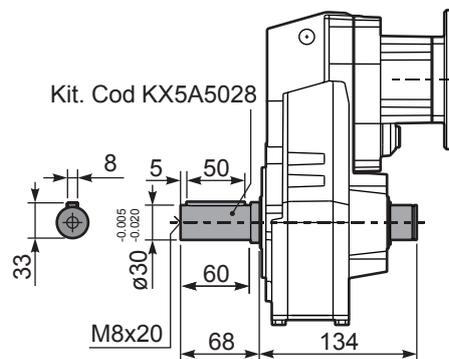
## RFA42C...

Input Shaft  
Albero in entrata



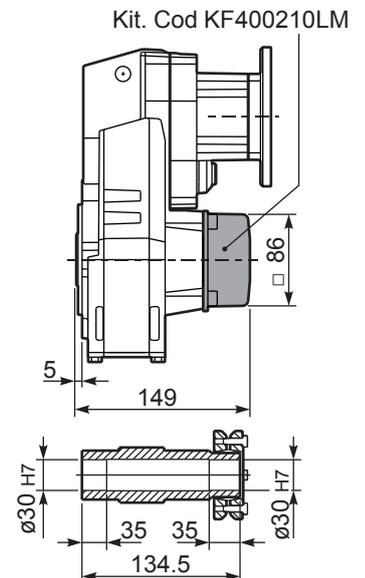
## PFA42 A...

Single output shaft  
Albero uscita semplice



## PFA42D...

Shrink disk  
Calettatore





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
18.8	<b>74.33</b>	0.37	176	1.8	<b>0.67</b>	<b>320</b>			C	C		191313	01
17.0	<b>82.56</b>	0.37	196	1.6	<b>0.60</b>	<b>320</b>			C	C		151318	02
16.0	<b>87.48</b>	0.37	207	1.5	<b>0.57</b>	<b>320</b>			C	C		131713	03
13.8	<b>101.40</b>	0.37	240	1.3	<b>0.49</b>	<b>320</b>			C	C		151313	04
11.4	<b>122.57</b>	0.37	291	1.1	<b>0.41</b>	<b>320</b>			C	C		131313	05
10.1	<b>138.59</b>	0.37	329	1.0	<b>0.36</b>	<b>320</b>			C	C		101318	06
8.7	<b>160.82</b>	0.25	257	1.2	<b>0.31</b>	<b>320</b>			C	C		91713	07
8.2	<b>170.20</b>	0.25	272	1.2	<b>0.29</b>	<b>320</b>			C	C		101313	08
7.6	<b>183.48</b>	0.25	294	1.1	<b>0.27</b>	<b>320</b>			C	C		91318	09
6.5	<b>214.15</b>	0.18	262	1.2	<b>0.23</b>	<b>320</b>			C	C		71713	10
6.2	<b>225.33</b>	0.18	276	1.2	<b>0.22</b>	<b>320</b>			C	C		91313	11
5.7	<b>244.32</b>	0.18	299	1.1	<b>0.20</b>	<b>320</b>			C	C		71318	12
5.5	<b>254.15</b>	0.18	311	1.0	<b>0.20</b>	<b>320</b>			C	C		61713	13
4.8	<b>289.96</b>	0.18	355	0.9	<b>0.17</b>	<b>320</b>			C	C		61318	14
4.7	<b>300.05</b>	0.18	367	0.9	<b>0.17</b>	<b>320</b>			C	C		71313	15
3.9	<b>356.09</b>	0.12	282	1.1	<b>0.14</b>	<b>320</b>			C	C		61313	16

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FA43** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA43** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA43** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA43** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA43** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
H1	H4	H3	H2	H5	H6
1.30 LT	0.70 LT	0.70 LT	0.70 LT	1.35 LT	0.90 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS



$n_2$ [min <sup>-1</sup> ]	FA	FR	$n_2$ [min <sup>-1</sup> ]	FA	FR	$n_2$ [min <sup>-1</sup> ]	FA	FR
<b>300</b>	300	1500	<b>140</b>	390	1950	<b>70</b>	490	2450
<b>250</b>	320	1600	<b>120</b>	410	2050	<b>40</b>	590	2950
<b>200</b>	350	1750	<b>85</b>	460	2300	<b>15</b>	800	4000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

$n_1$	FA	FR
<b>1400</b>	140	700
<b>900</b>	160	800
<b>500</b>	190	950

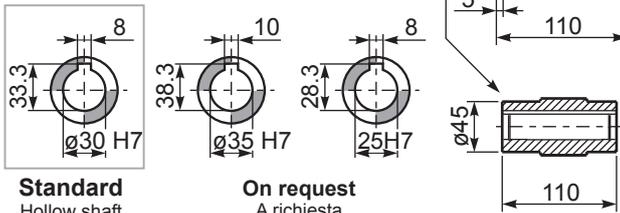
tab. 2

**PFA43C...** Basic gearbox  
Riduttore base

Gearbox weight **8.9 kg**  
peso riduttore

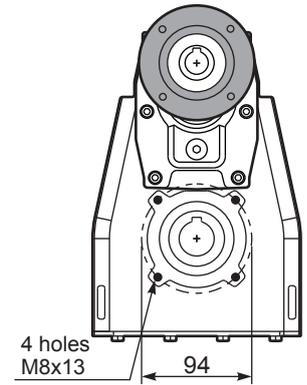
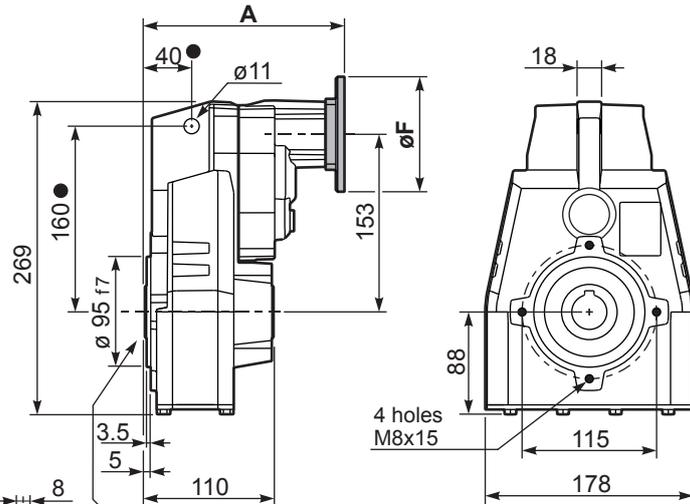
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	175
71B5	K050.4.042	160	172.5
56B14	KC40.4.049	80	172.5
63B14	K050.4.047	90	175
71B14	K050.4.045	105	172.5

● Available torque arms, see our web site  
Bracci di reazione disponibili, consulta il nostro sito web



**Standard**  
Hollow shaft

**On request**  
A richiesta

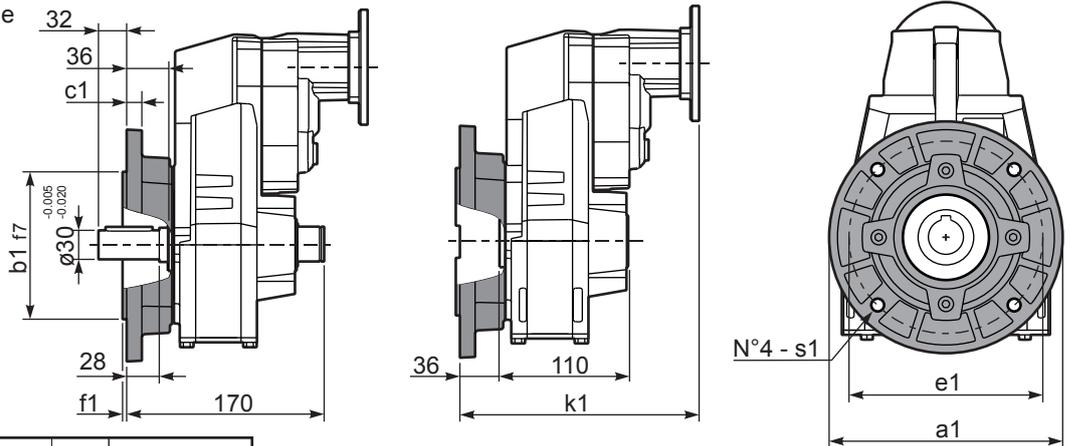


**PFA43...-F...** Output flange  
Flangia uscita

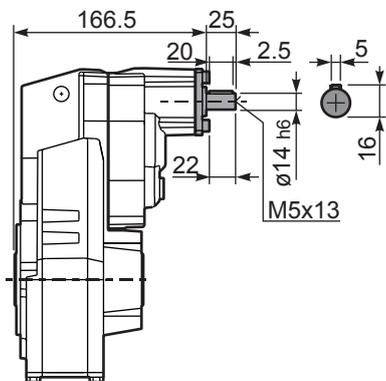
Motor Flange	k1
63B5	209
71B5	207
56B14	208.5
63B14	211
71B14	208.5

Available output flanges  
Flange di uscita

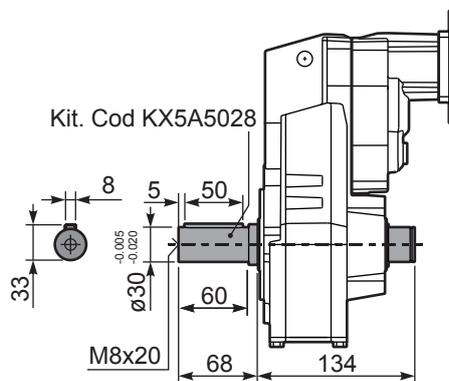
a1 ø	b1	c1	e1	f1	s1	Kit code
160	110	10	130	3	9	KX5A.9.010
200	130	13	165	3.5	11	KX5A.9.011
250	180	14	215	4	14	KX5A.9.012



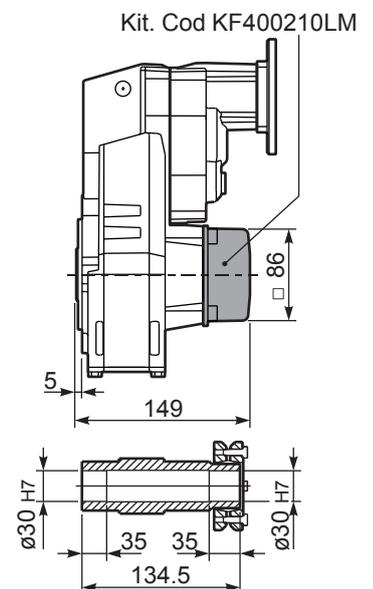
**RFA43C...** Input Shaft  
Albero in entrata



**PFA43 A...** Single output shaft  
Albero uscita semplice



**PFA43D...** Shrink disk  
Calettatore





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Output Shaft 	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
213	<b>6.57</b>	5.5	230	1.2	<b>6.5</b>	<b>280</b>	B									3018	01	
185	<b>7.56</b>	5.5	265	1.1	<b>5.9</b>	<b>290</b>	B									3016	02	
159	<b>8.82</b>	5.5	309	1.0	<b>5.5</b>	<b>320</b>	B									3014	03	
113	<b>12.39</b>	5.5	434	1.0	<b>5.5</b>	<b>450</b>	B									2018	04	
98	<b>14.24</b>	5.5	499	0.9	<b>4.8</b>	<b>450</b>	B									2016	05	
84	<b>16.75</b>	4	429	1.1	<b>4.3</b>	<b>470</b>	B									1618	06	
73	<b>19.25</b>	4	494	1.0	<b>3.9</b>	<b>490</b>	B									1616	07	
64	<b>21.78</b>	4	558	0.9	<b>3.4</b>	<b>490</b>	B									1318	08	
56	<b>25.04</b>	3	483	1.0	<b>3.0</b>	<b>490</b>	B									1316	09	
47.9	<b>29.23</b>	3	564	0.9	<b>2.6</b>	<b>490</b>	B									1314	10	
45.7	<b>30.65</b>	2.2	436	1.1	<b>2.4</b>	<b>490</b>	B									1116	11	
39.1	<b>35.78</b>	2.2	509	1.0	<b>2.1</b>	<b>490</b>	B									1114	12	
36.3	<b>38.55</b>	2.2	548	0.9	<b>1.9</b>	<b>490</b>	B									818	13	
31.6	<b>44.32</b>	1.5	434	1.1	<b>1.7</b>	<b>490</b>	B									816	14	
27.1	<b>51.74</b>	1.5	507	1.0	<b>1.4</b>	<b>490</b>	B									814	15	
22.9	<b>61.03</b>	1.1	437	1.1	<b>1.2</b>	<b>480</b>	B									616	16	
19.6	<b>71.25</b>	1.1	510	1.0	<b>1.1</b>	<b>490</b>	B									614	17	

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FA52** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA52** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA52** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA52** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA52** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
1.85 LT	1.15 LT	1.15 LT	1.30 LT	2.10 LT	1.30 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{149.5}{X+119.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	400	2000	140	460	2300	70	580	2900
250	420	2100	120	500	2500	40	780	3900
200	440	2200	85	550	2750	15	1140	5700

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

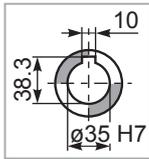
PFA52C...

Basic gearbox  
Riduttore base

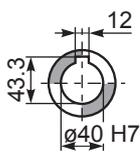
Gearbox weight  
peso riduttore 15.5 kg

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	227
80/90B5	K023.4.042	200	229
100/112B5	K023.4.043	250	238
132B5	KC50.4.043	300	256
80B14	K085.4.046	120	229
90B14	K085.4.045	140	229
100/112B14	K085.4.047	160	238
132B14	KC50.4.041	200	256

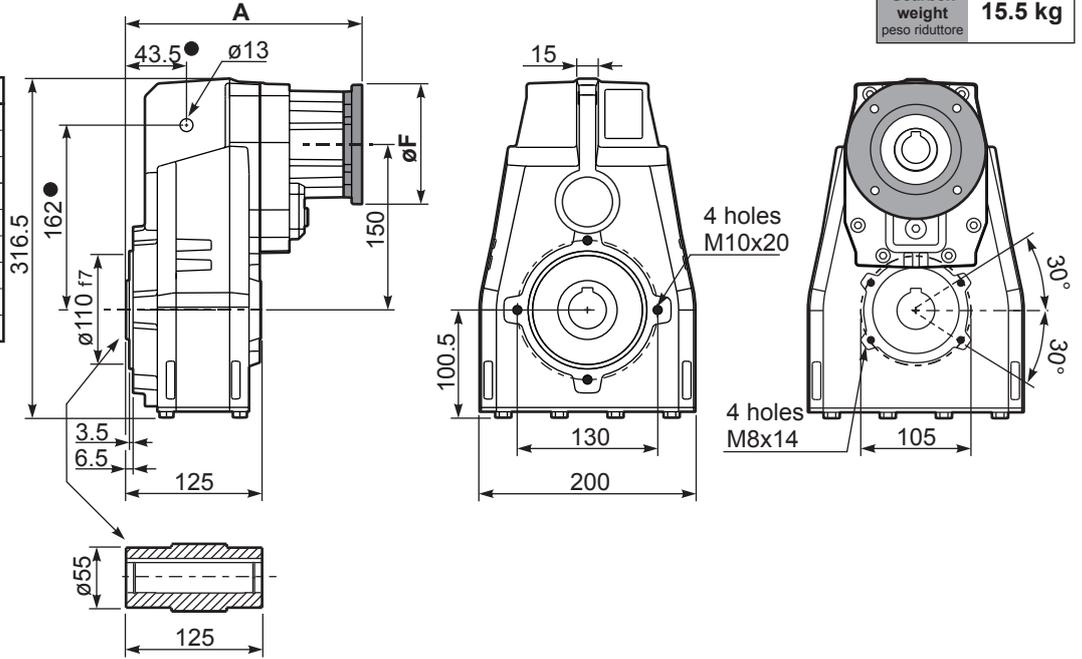
● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web



Standard  
Hollow shaft



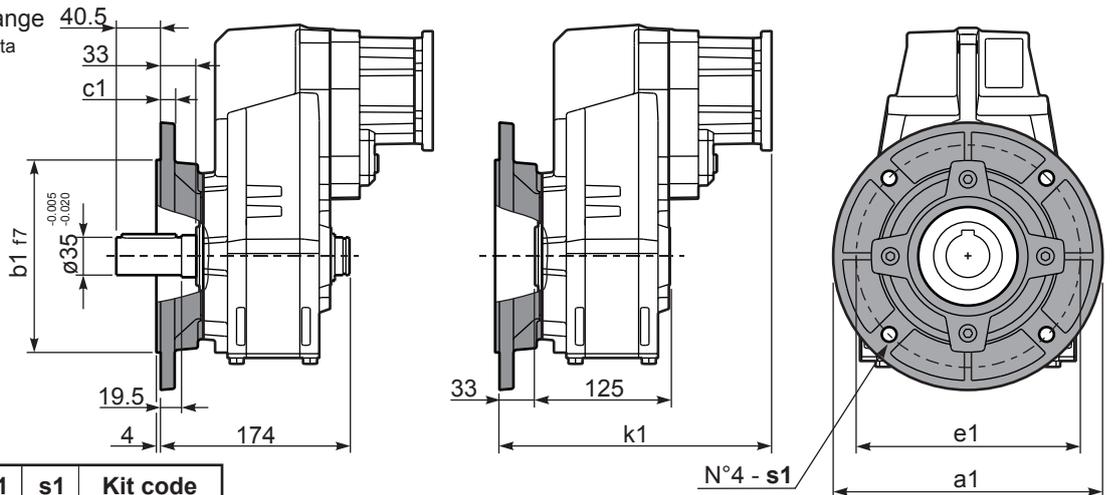
On request  
A richiesta



PFA52...-F...

Output flange  
Flangia uscita

M. flanges	k1
71B5	260
80/90B5	262
100/112B5	268
132B5	289.5
80B14	260
90B14	260
100/112B14	271
132B14	289.5

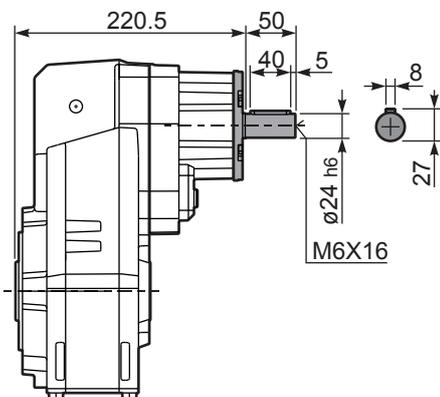


Available output flanges  
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
300	230	16	265	14	KF60.9.012

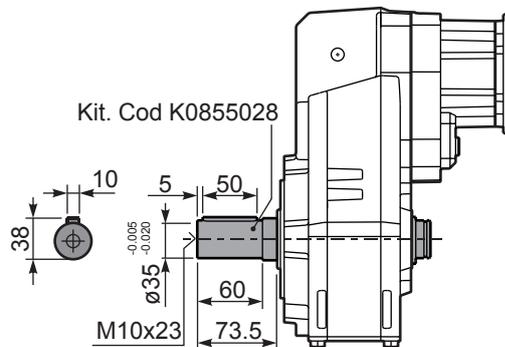
RFA52C...

Input Shaft  
Albero in entrata



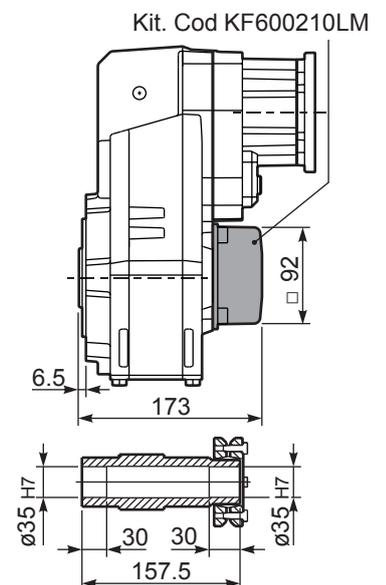
PFA52 A...

Single output shaft  
Albero uscita semplice



PFA52D...

Shrink disk  
Calettatore





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
22.6	<b>61.89</b>	1.1	434	1.2	1.3	510	B				C	C		191318	01
19.7	<b>71.16</b>	1.1	499	1.0	1.1	510	B				C	C		191316	02
17.0	<b>82.48</b>	1.1	578	0.9	0.96	510	B				C	C		171316	03
14.5	<b>96.29</b>	0.75	463	1.1	0.83	510	B				C	C		171314	04
13.9	<b>100.51</b>	0.75	483	1.1	0.79	510	B				C	C		131318	05
12.1	<b>115.56</b>	0.55	410	1.2	0.69	510	B				C	C		131316	06
11.1	<b>125.96</b>	0.55	447	1.1	0.63	510	B				C	C		190816	07
10.4	<b>134.91</b>	0.55	479	1.1	0.59	510	B				C	C		131314	08
9.5	<b>147.05</b>	0.55	522	1.0	0.54	510	B				C	C		190814	09
8.2	<b>170.44</b>	0.37	404	1.3	0.47	510	B				C	C		170814	10
7.6	<b>184.15</b>	0.37	437	1.2	0.43	510	B				C	C		101314	11
6.8	<b>205.87</b>	0.37	488	1.0	0.39	510	B				C	C		91316	12
5.8	<b>240.34</b>	0.37	570	0.9	0.33	510	B				C	C		91314	13
5.0	<b>279.22</b>	0.25	447	1.1	0.28	510	B				C	C		100816	14
4.3	<b>325.97</b>	0.25	522	1.0	0.24	510	B				C	C		100814	15
3.8	<b>364.41</b>	0.18	446	1.1	0.22	510	B				C	C		90816	16
3.3	<b>425.43</b>	0.18	521	1.0	0.19	510	B				C	C		90814	17
2.9	<b>481.19</b>	0.18	589	0.9	0.17	510	B				C	C		70816	18
2.5	<b>561.76</b>	0.12	444	1.1	0.14	510	B				C	C		70814	19

The dynamic efficiency is **0.94** for all ratios

- Motor Flanges Available** Flange Motore Disponibili
- B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **FA53** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FA53** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FA53** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FA53** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FA53** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
2.15 LT	1.25 LT	1.25 LT	1.45 LT	2.35 LT	1.45 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_R$  (N)  
 $F_A$  (N)

$F_{eq} = FR \cdot \frac{149.5}{X+119.5}$   
 $F_{eq}$  (N)

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	400	2000	140	460	2300	70	580	2900
250	420	2100	120	500	2500	40	780	3900
200	440	2200	85	550	2750	15	1140	5700

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$F_R$  (N)  
 $F_A$  (N)

$n_1$	FA	FR
1400	240	1200
900	280	1400
500	340	1700

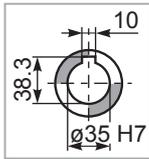
tab. 2

**PFA53C...** Basic gearbox  
Riduttore base

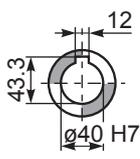
Gearbox weight **15.5 kg**  
peso riduttore

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239

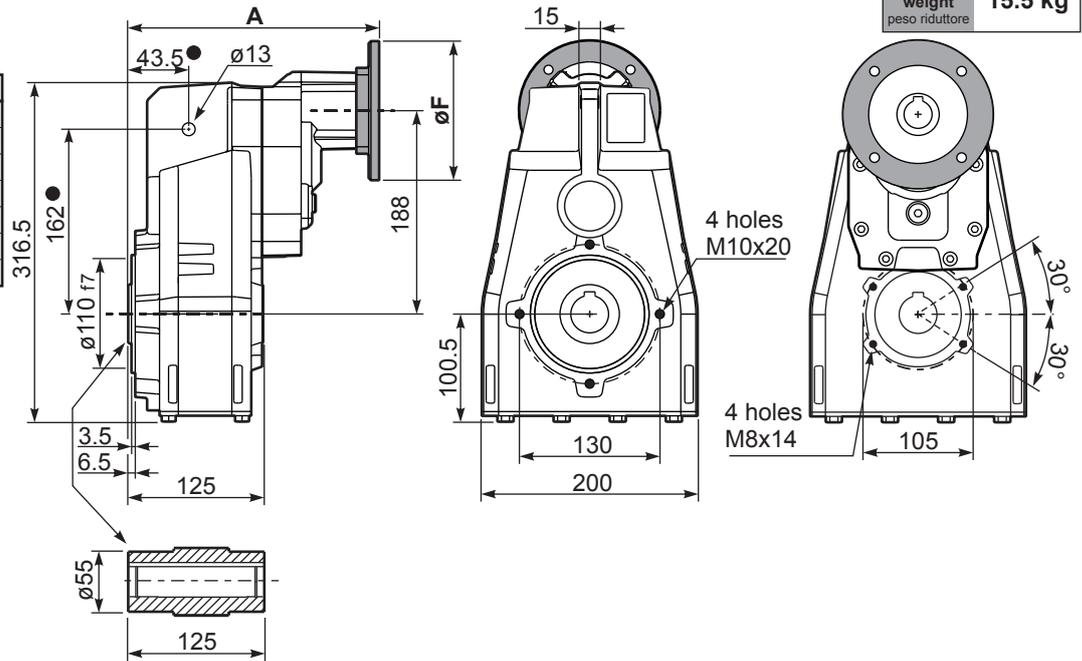
● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft

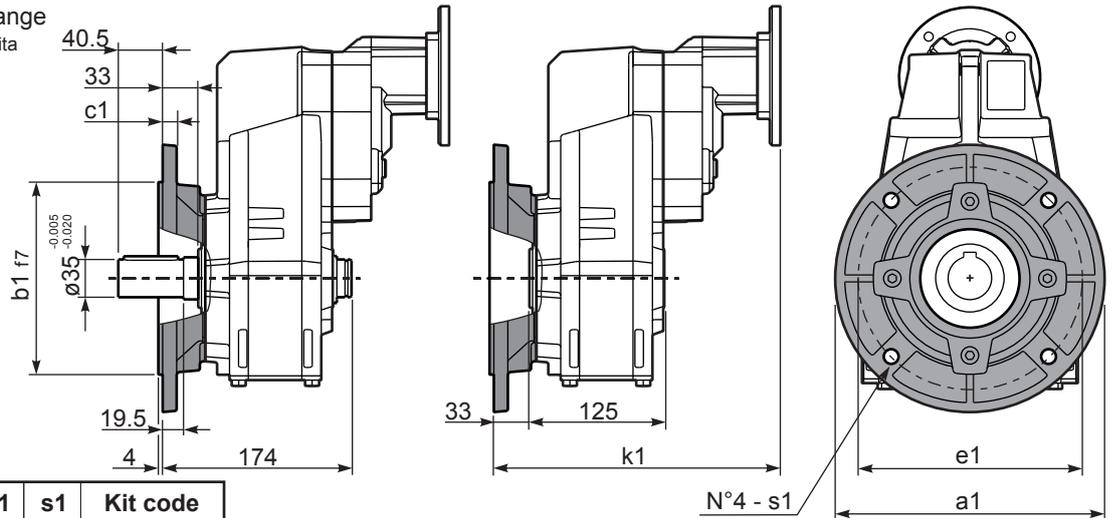


**On request**  
A richiesta



**PFA53...-F...** Output flange  
Flangia uscita

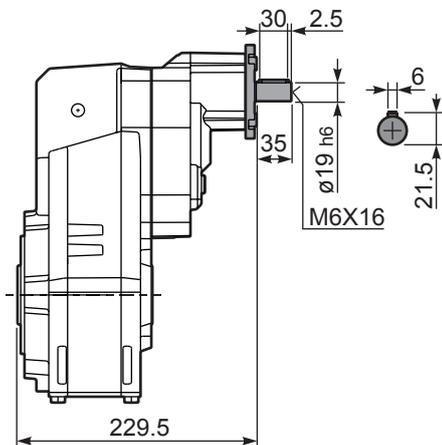
Motor Flange	k1
63B5	272
71B5	270
80/90B5	272
71B14	270
80B14	271
90B14	272



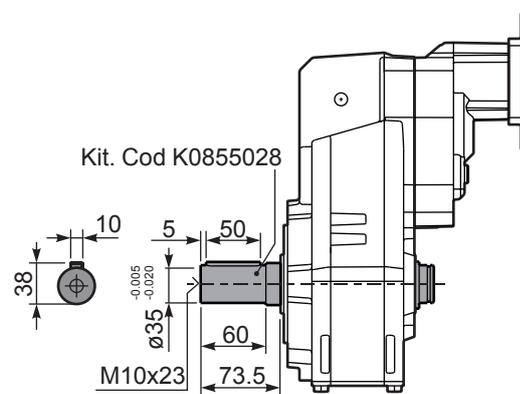
**Available output flanges**  
Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
300	230	16	265	14	KF60.9.012

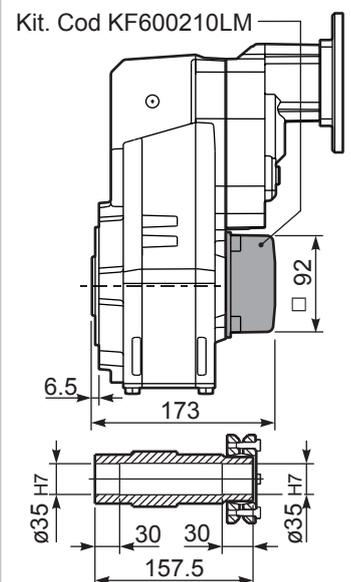
**RFA53C...** Input Shaft  
Albero in entrata



**PFA53 A...** Single output shaft  
Albero uscita semplice



**PFA53 D...** Shrink disk  
Calettatore





QUICK SELECTION / Selezione veloce							input speed ( $n_1$ ) = 1400 min <sup>-1</sup>								
Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges				Output Shaft		
							-G	132	-	-	-	-	-	-	
507	<b>2.76</b>	9	166	1.6	<b>14.4</b>	<b>265</b>	not available		not available				2980	<b>standard</b>	01
395	<b>3.54</b>	9	213	1.3	<b>11.6</b>	<b>275</b>							2485	<b>ø35</b>	02
277	<b>5.06</b>	9	304	1.0	<b>8.6</b>	<b>290</b>							1891		03
241	<b>5.81</b>	7.5	281	1.2	<b>8.5</b>	<b>330</b>							1693	ø40	04
206	<b>6.79</b>	7.5	329	1.2	<b>8.4</b>	<b>380</b>							1495	On request	05

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available** Flange Motore Disponibili  
**B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione  
**B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione  
**C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **FC61** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FC61** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FC61** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FC61** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FC61** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
2.05 LT	1.25 LT	1.25 LT	1.40 LT	2.05 LT	1.40 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

RADIAL AND AXIAL LOADS								
Output shaft Albero di uscita			$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$					
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

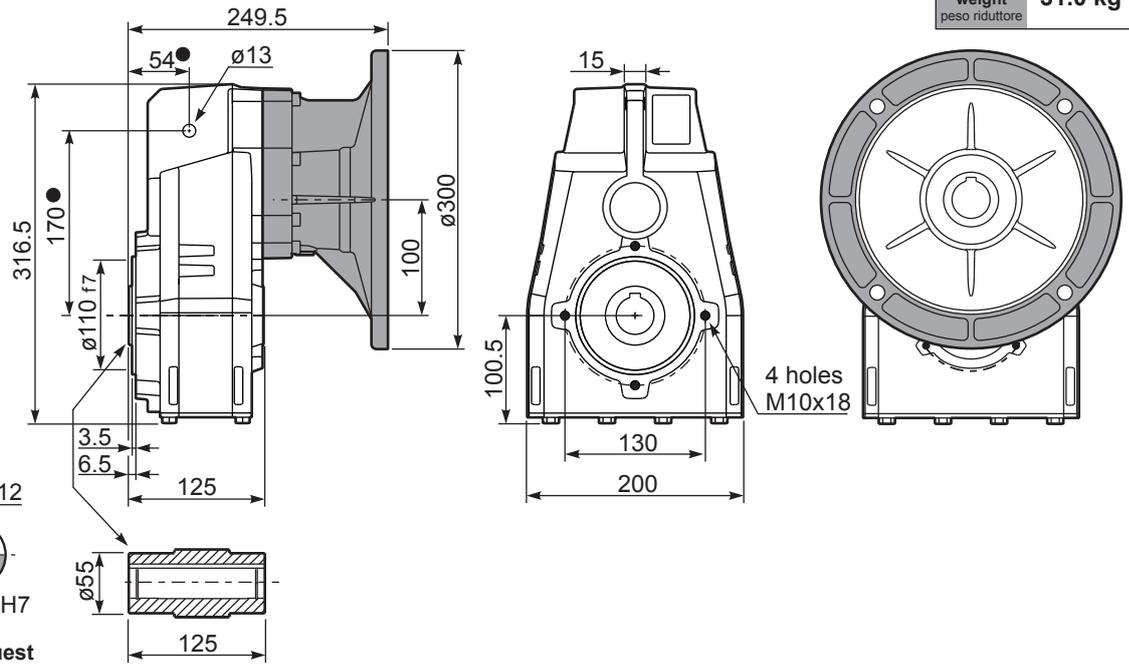
**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

tab. 2

**PFC61C...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **31.0 kg**

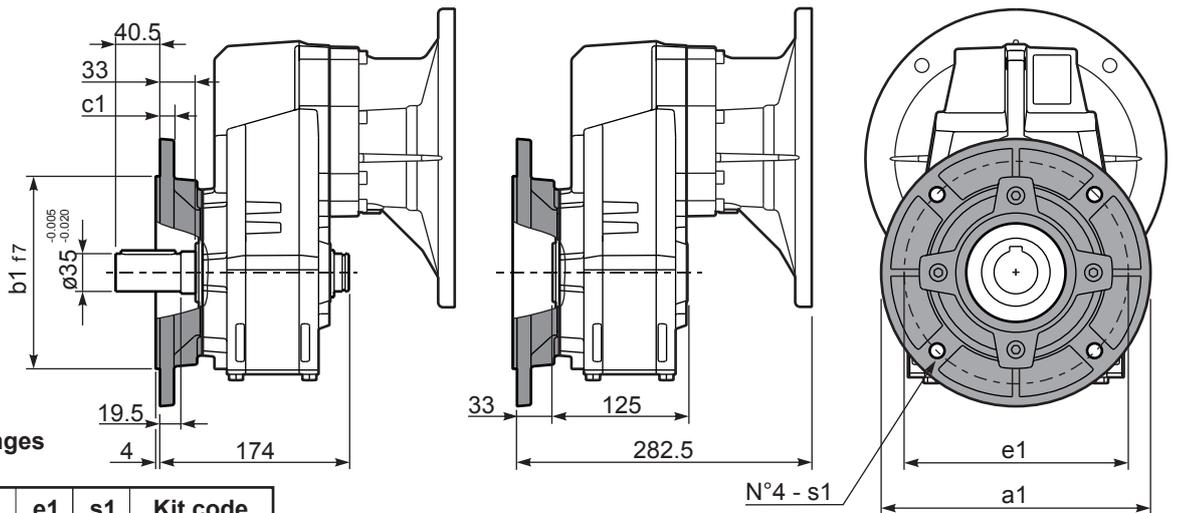
- Available torque arms, see our web site  
Bracci di reazione disponibili, consulta il nostro sito web



**Standard**  
Hollow shaft

**On request**  
A richiesta

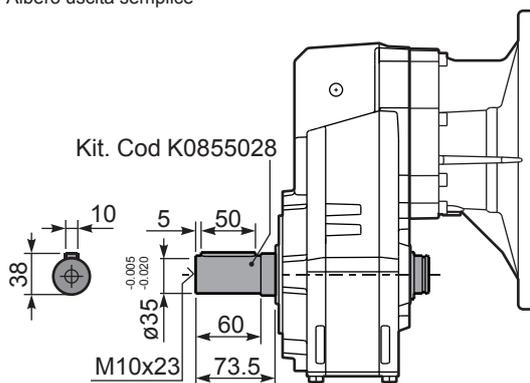
**PFC61...-F...** Output flange  
Flangia uscita



**Available output flanges**  
Flange di uscita

a1 $\phi$	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
300	230	16	265	14	KF60.9.012

**PFC61 A...** Single output shaft  
Albero uscita semplice





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
213	<b>6.57</b>	7.5	312	1.2	8.8	380	B									3018	01
185	<b>7.56</b>	7.5	358	1.1	7.9	390	B									3016	02
159	<b>8.82</b>	7.5	419	1.0	7.1	410	B									3014	03
113	<b>12.39</b>	7.5	588	1.0	7.2	580	B									2018	04
98	<b>14.24</b>	5.5	499	1.2	6.4	600	B									2016	05
84	<b>16.75</b>	5.5	587	1.1	6.1	665	B									1618	06
73	<b>19.25</b>	5.5	675	1.0	5.4	675	B									1616	07
64	<b>21.78</b>	4	558	1.2	4.7	675	B									1318	08
56	<b>25.04</b>	4	642	1.1	4.1	675	B									1316	09
47.9	<b>29.23</b>	4	750	0.9	3.5	675	B									1314	10
45.7	<b>30.65</b>	3	592	1.1	3.4	675	B									1116	11
39.1	<b>35.78</b>	3	691	1.0	2.9	675	B									1114	12
36.3	<b>38.55</b>	2.2	548	1.1	2.3	580	B									818	13
31.6	<b>44.32</b>	2.2	630	1.1	2.3	665	B									816	14
27.1	<b>51.74</b>	2.2	735	0.9	2.0	675	B									814	15
22.9	<b>61.03</b>	1.1	437	1.1	1.2	480	B									616	16
19.6	<b>71.25</b>	1.1	510	1.1	1.2	560	B									614	17

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC62** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FC62** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FC62** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FC62** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FC62** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
2.05 LT	1.25 LT	1.25 LT	1.40 LT	2.20 LT	1.40 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{149.5}{X+119.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

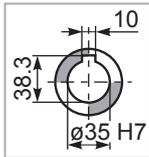
tab. 2

**PFC62C...** Basic gearbox  
Riduttore base

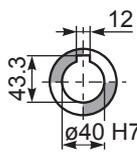
Gearbox weight **20.8 kg**  
peso riduttore

M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	227
<b>80/90B5</b>	K023.4.042	200	229
<b>100/112B5</b>	K023.4.043	250	238
<b>132B5</b>	KC50.4.043	300	256
<b>80B14</b>	K085.4.046	120	229
<b>90B14</b>	K085.4.045	140	229
<b>100/112B14</b>	K085.4.047	160	238
<b>132B14</b>	KC50.4.041	200	256

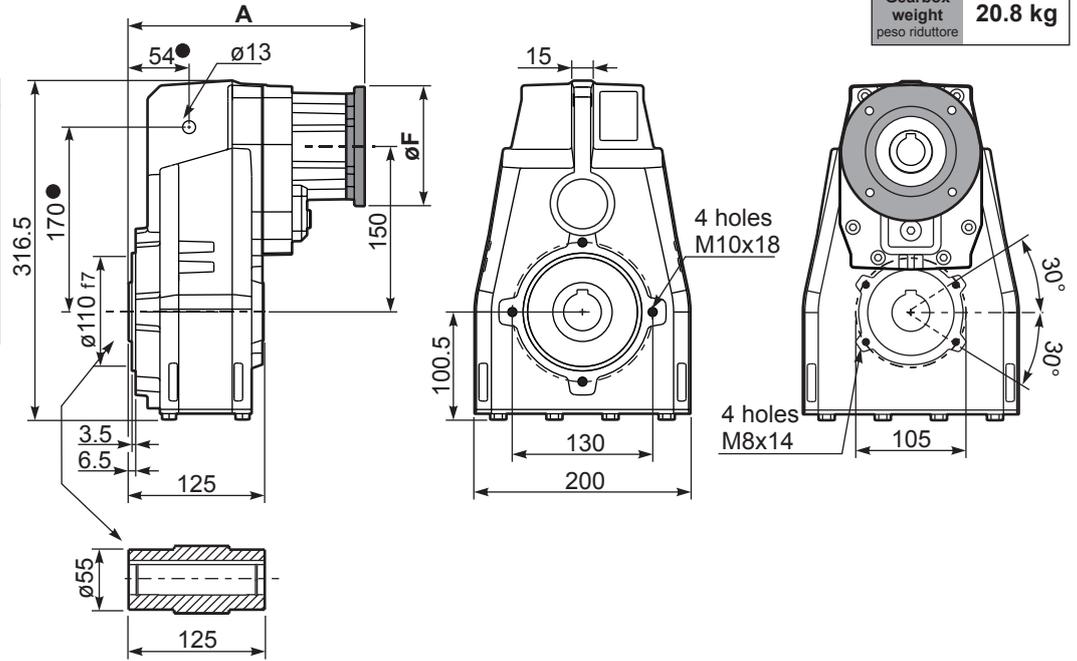
● Available torque arms, see our web site  
Bracci di reazione disponibili, consulta il nostro sito web



**Standard**  
Hollow shaft



**On request**  
A richiesta

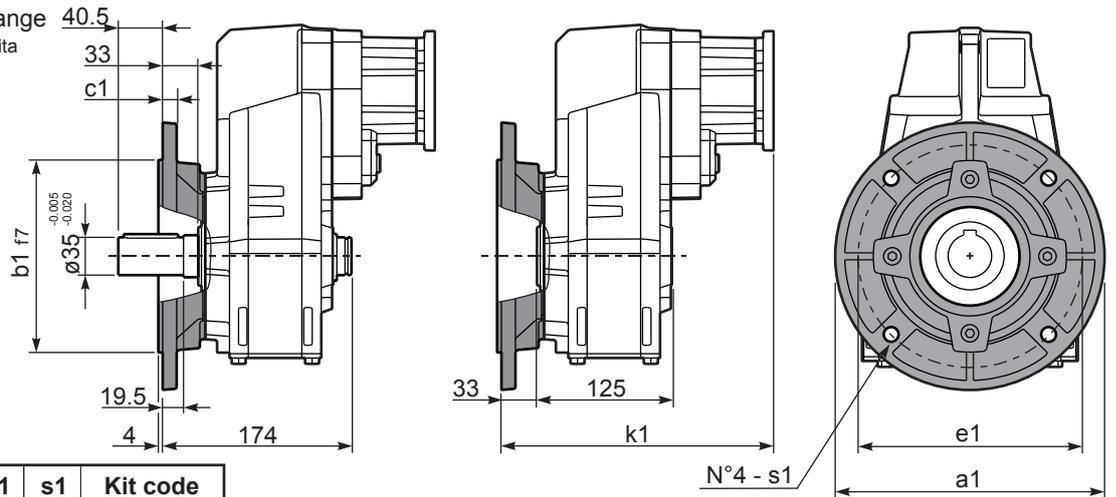


**PFC62...-F...** Output flange  
Flangia uscita

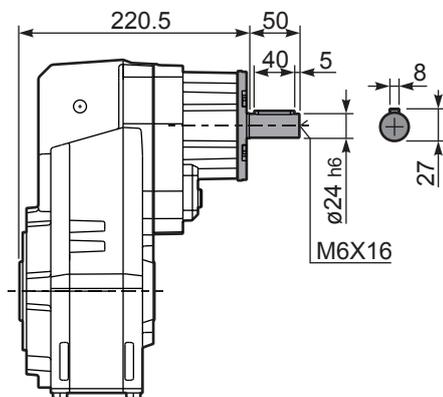
M. flanges	k1
<b>71B5</b>	260
<b>80/90B5</b>	262
<b>100/112B5</b>	268
<b>132B5</b>	289.5
<b>80B14</b>	260
<b>90B14</b>	260
<b>100/112B14</b>	271
<b>132B14</b>	289.5

Available output flanges  
Flange di uscita

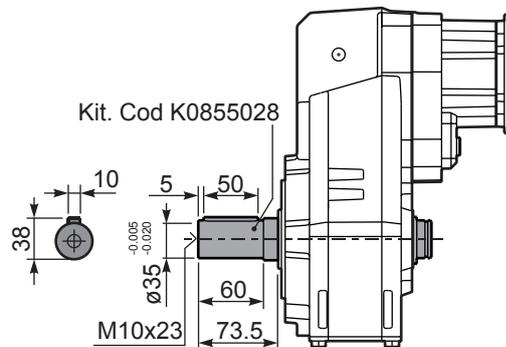
a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
300	230	16	265	14	KF60.9.012



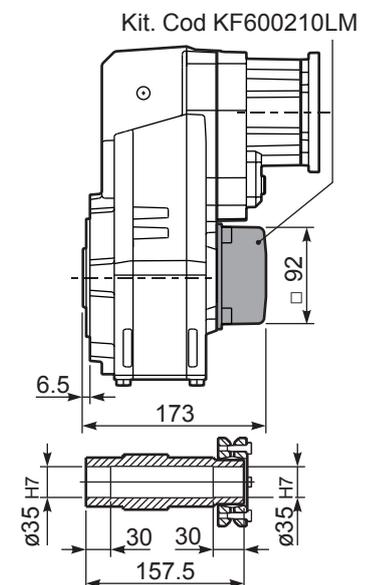
**RFC62C...** Input Shaft  
Albero in entrata



**PFC62 A...** Single output shaft  
Albero uscita semplice



**PFC62D...** Shrink disk  
Calettatore





#### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
22.6	<b>61.89</b>	1.5	594	1.1	1.7	675	B				C	C		191318	01
19.7	<b>71.16</b>	1.5	683	1.0	1.5	675	B				C	C		191316	02
17.0	<b>82.48</b>	1.5	792	0.9	1.3	675	B				C	C		171316	03
14.5	<b>96.29</b>	1.1	675	1.0	1.1	675	B				C	C		171314	04
13.9	<b>100.51</b>	1.1	705	1.0	1.0	675	B				C	C		131318	05
12.1	<b>115.56</b>	0.75	556	1.2	0.91	675	B				C	C		131316	06
11.1	<b>125.96</b>	0.75	606	1.1	0.82	665	B				C	C		190816	07
10.4	<b>134.91</b>	0.75	649	1.0	0.78	675	B				C	C		131314	08
9.5	<b>147.05</b>	0.75	707	1.0	0.72	675	B				C	C		190814	09
8.2	<b>170.44</b>	0.55	605	1.1	0.62	675	B				C	C		170814	10
7.6	<b>184.15</b>	0.55	653	1.0	0.57	675	B				C	C		101314	11
6.8	<b>205.87</b>	0.55	730	0.9	0.51	675	B				C	C		91316	12
5.8	<b>240.34</b>	0.37	570	1.2	0.44	675	B				C	C		91314	13
5.0	<b>279.22</b>	0.37	662	1.0	0.37	665	B				C	C		100816	14
4.3	<b>325.97</b>	0.37	773	0.9	0.32	675	B				C	C		100814	15
3.8	<b>364.41</b>	0.25	583	1.1	0.28	665	B				C	C		90816	16
3.3	<b>425.43</b>	0.25	681	1.0	0.25	675	B				C	C		90814	17
2.9	<b>481.19</b>	0.18	589	1.1	0.22	665	B				C	C		70816	18
2.5	<b>561.76</b>	0.18	687	1.0	0.19	675	B				C	C		70814	19

The dynamic efficiency is **0.94** for all ratios

- M** Motor Flanges Available Flange Motore Disponibili
- B** Supplied with Reduction Bushing Fornito con Bussola di Riduzione
- B** Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione
- C** Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **FC63** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **FC63** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **FC63** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **FC63** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **FC63** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio				
2.30 LT	1.35 LT	1.35 LT	1.55 LT	2.45 LT	1.55 LT
AGIP Telium VSF 320			SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{149.5}{X+119.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

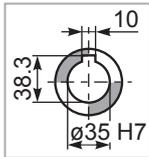
**PFC63C...**

Basic gearbox  
Riduttore base

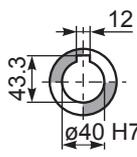
Gearbox weight  
peso riduttore **20.8 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	239
71B5	K063.4.042	160	237
80/90B5	K063.4.043	200	239
71B14	K063.4.047	105	237
80B14	K063.4.046	120	239
90B14	K063.4.041	140	239

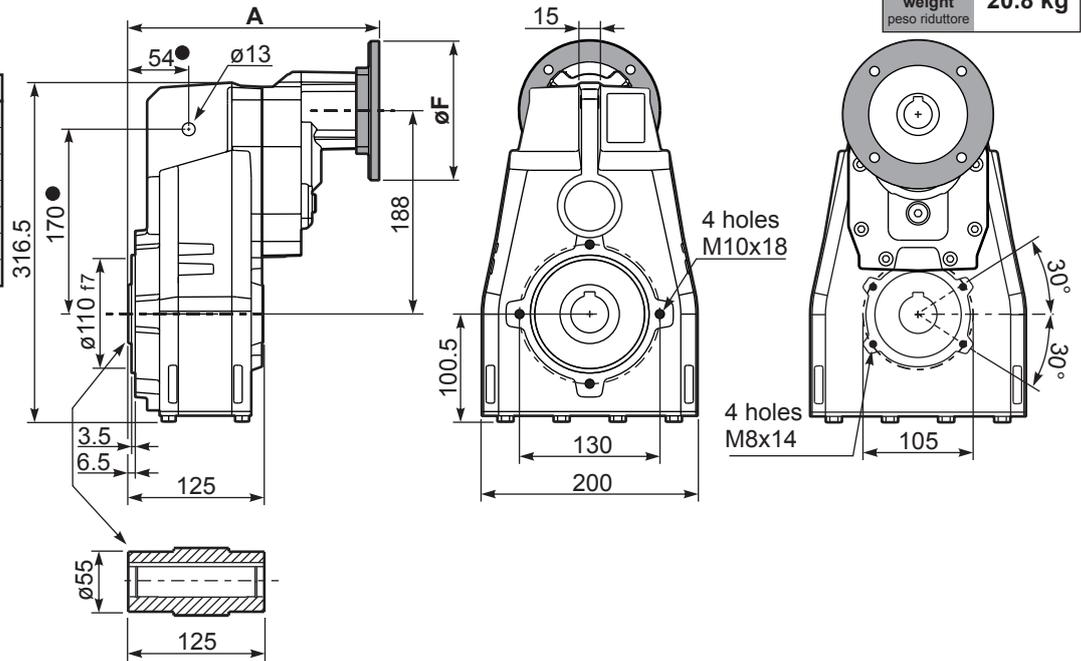
● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft



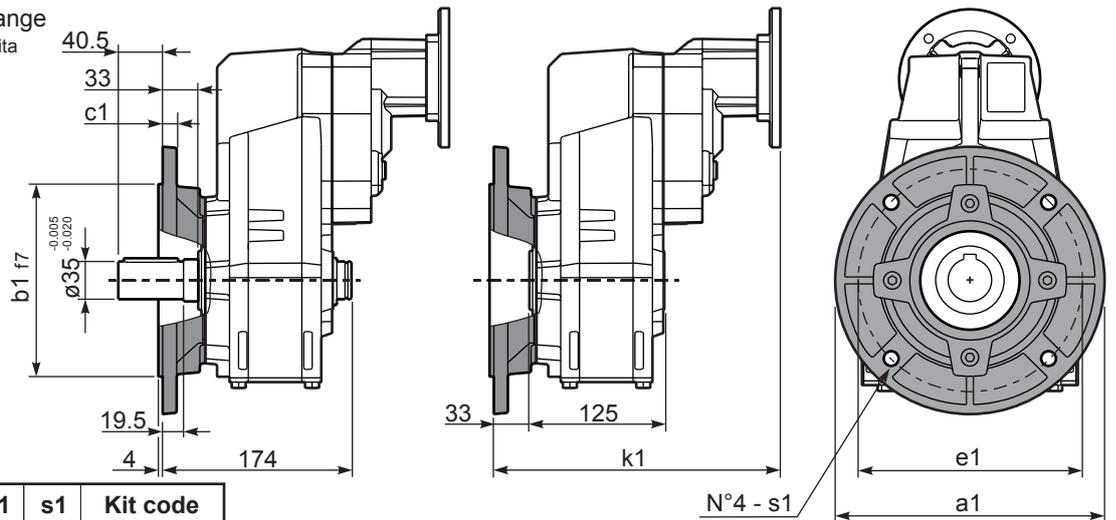
**On request**  
A richiesta



**PFC63...-F...**

Output flange  
Flangia uscita

Motor Flange	k1
63B5	272
71B5	270
80/90B5	272
71B14	270
80B14	271
90B14	272



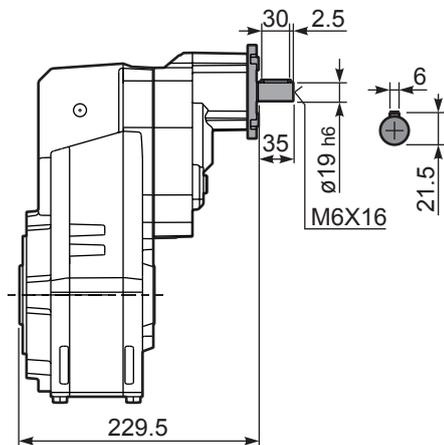
**Available output flanges**

Flange di uscita

a1 ø	b1	c1	e1	s1	Kit code
250	180	13	215	14	KF60.9.011
300	230	16	265	14	KF60.9.012

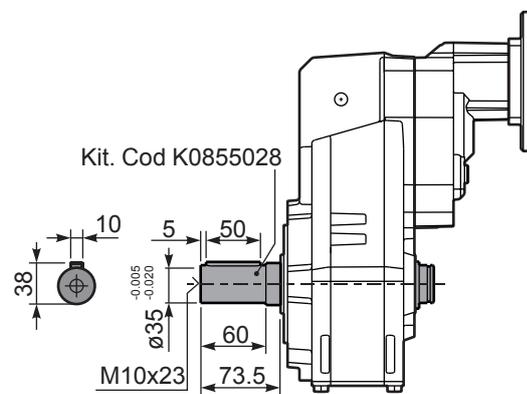
**RFC63C...**

Input Shaft  
Albero in entrata



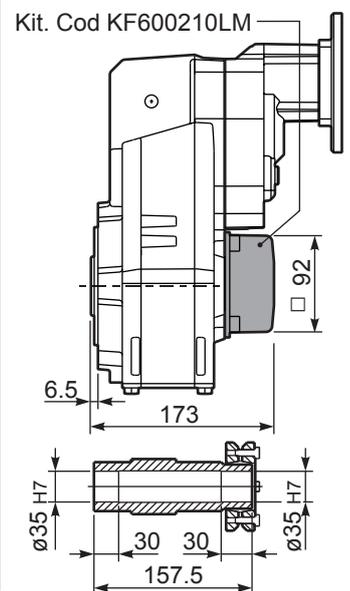
**PFC63 A...**

Single output shaft  
Albero uscita semplice



**PFC63 D...**

Shrink disk  
Calettatore





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				B14 motor flanges				Output Shaft						
							-G								Ratios code						
227	<b>6.17</b>	9	371	1.2	<b>10.9</b>	<b>450</b>					<b>not available</b>				18111	<b>standard</b>	01				
198	<b>7.06</b>	9	425	1.4	<b>12.7</b>	<b>600</b>									-	-	-	-	16113	<b>ø40</b>	02
170	<b>8.21</b>	9	494	1.4	<b>12.2</b>	<b>670</b>									-	-	-	-	14115	<b>ø45</b>	03
The dynamic efficiency is <b>0.98</b> for all ratios													On request								

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC71** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC71** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC71** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC71** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC71** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

H1	H4	H3	H2	H5	H6
3.30 LT	1.90 LT	1.90 LT	1.80 LT	3.30 LT	1.90 LT
AGIP Blasias 460					

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$

$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$
<b>300</b>	740	3700	<b>140</b>	860	4300	<b>70</b>	1020	5100
<b>250</b>	800	4000	<b>120</b>	900	4500	<b>40</b>	1300	6500
<b>200</b>	830	4150	<b>85</b>	970	4850	<b>15</b>	1700	8500

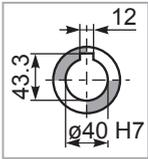
**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**tab. 2**

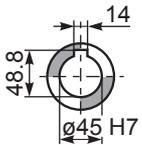
**PFC71C...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **35.0 kg**

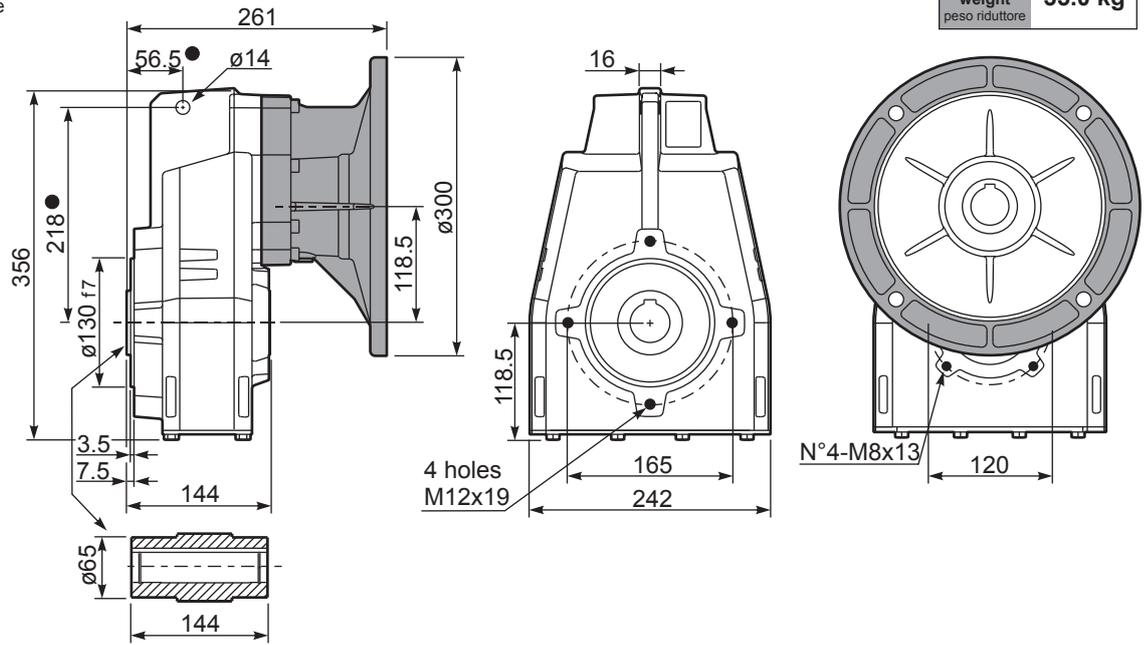
- Available torque arms, see our web site  
Bracci di reazione disponibili, consulta il nostro sito web



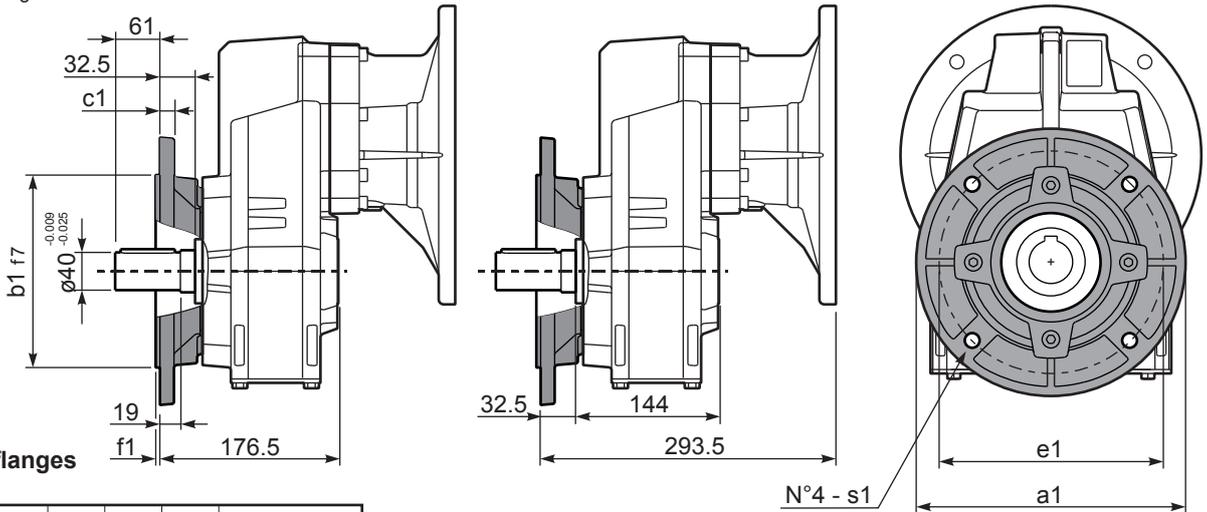
**Standard**  
Hollow shaft



**On request**  
A richiesta



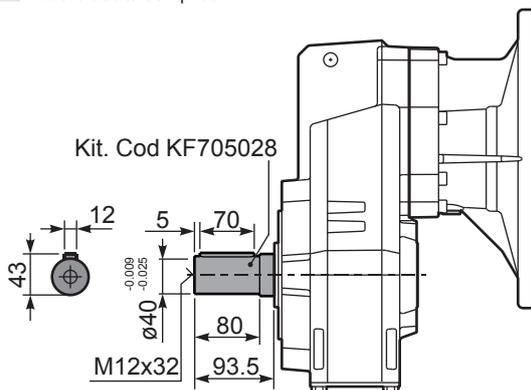
**PFC71...-F...** Output flange  
Flangia uscita



**Available output flanges**  
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012
350	250	18	300	4	18	KF70.9.013

**PFC71 A...** Single output shaft  
Albero uscita semplice



Kit. Cod KF705028



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code 	
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
175	<b>8.02</b>	9	473	1.1	<b>9.9</b>	<b>520</b>	B										3018	01
152	<b>9.18</b>	9	541	1.1	<b>9.8</b>	<b>590</b>	B										3016	02
131	<b>10.68</b>	9	630	1.1	<b>9.7</b>	<b>680</b>	B										3014	03
93	<b>15.11</b>	7.5	717	1.1	<b>7.8</b>	<b>775</b>	B										2018	04
81	<b>17.30</b>	7.5	821	1.1	<b>7.8</b>	<b>885</b>	B										2016	05
70	<b>20.13</b>	7.5	955	0.9	<b>6.8</b>	<b>900</b>	B										2014	06
60	<b>23.39</b>	5.5	820	1.1	<b>5.9</b>	<b>900</b>	B										1616	07
51	<b>27.21</b>	5.5	954	0.9	<b>5.1</b>	<b>900</b>	B										1614	08
46.0	<b>30.42</b>	4	780	1.2	<b>4.5</b>	<b>900</b>	B										1316	09
39.6	<b>35.38</b>	4	907	1.0	<b>3.9</b>	<b>900</b>	B										1314	10
37.6	<b>37.24</b>	3	719	1.2	<b>3.7</b>	<b>895</b>	B										1116	11
32.3	<b>43.31</b>	3	836	1.1	<b>3.2</b>	<b>900</b>	B										1114	12
29.8	<b>47.02</b>	2.2	668	1.1	<b>2.3</b>	<b>705</b>	B										818	13
26.0	<b>53.85</b>	2.2	765	1.1	<b>2.3</b>	<b>810</b>	B										816	14
22.4	<b>62.63</b>	2.2	890	1.0	<b>2.2</b>	<b>900</b>	B										814	15
18.9	<b>74.16</b>	1.1	531	1.1	<b>1.2</b>	<b>585</b>	B										616	16
16.2	<b>86.25</b>	1.1	617	1.1	<b>1.2</b>	<b>680</b>	B										614	17

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC72** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC72** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC72** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC72** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **FC72** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

H1	H4	H3	H2	H5	H6
3.50 LT	1.90 LT	1.90 LT	1.80 LT	3.60 LT	1.90 LT

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	740	3700	140	860	4300	70	1020	5100
250	800	4000	120	900	4500	40	1300	6500
200	830	4150	85	970	4850	15	1700	8500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

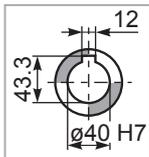
**tab. 2**

**PFC72C...**

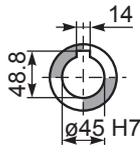
Basic gearbox  
Riduttore base

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	238.5
80/90B5	K023.4.042	200	240.5
100/112B5	K023.4.043	250	249.5
132B5	KC50.4.043	300	267.5
80B14	K085.4.046	120	240.5
90B14	K085.4.045	140	240.5
100/112B14	K085.4.047	160	249.5
132B14	KC50.4.041	200	267.5

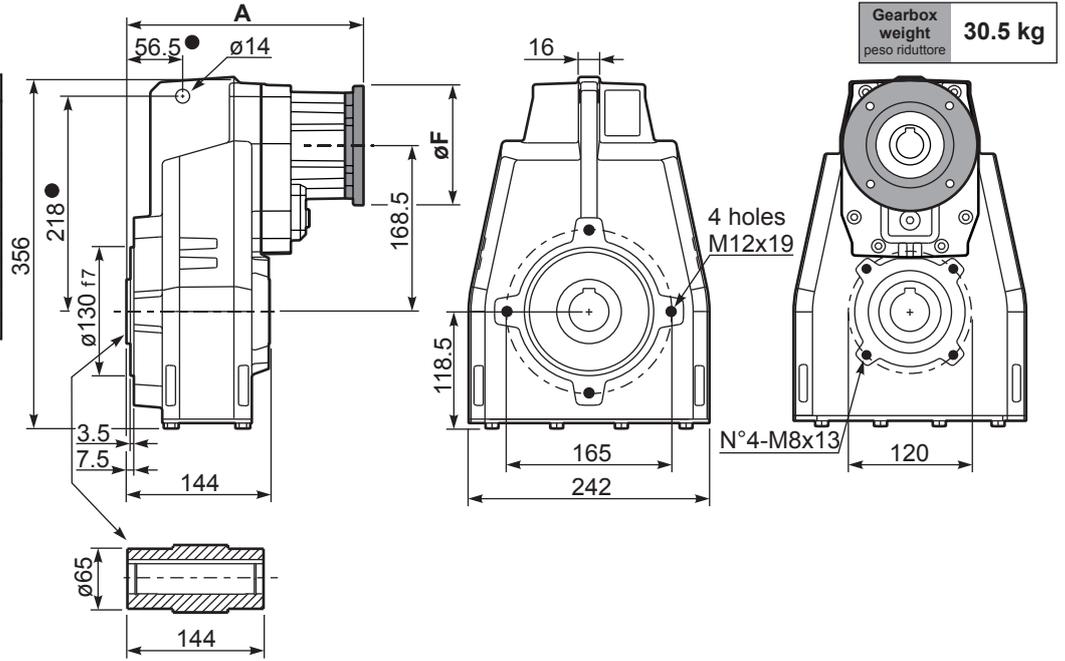
● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft



**On request**  
A richiesta



Gearbox weight  
peso riduttore **30.5 kg**

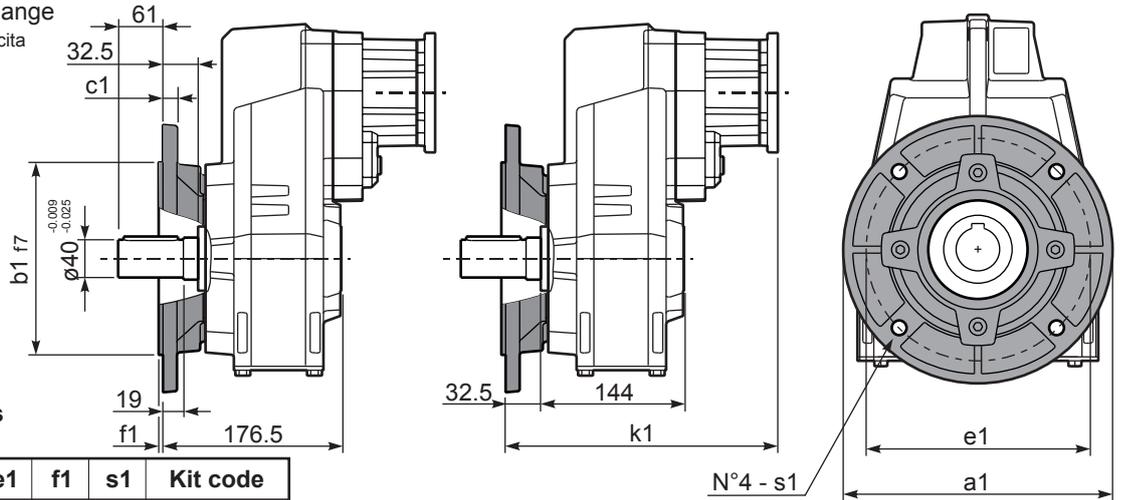
**PFC72...-F...**

Output flange  
Flangia uscita

M. flanges	k1
71B5	271
80/90B5	273
100/112B5	279
132B5	300.5
80B14	271
90B14	271
100/112B14	282
132B14	300.5

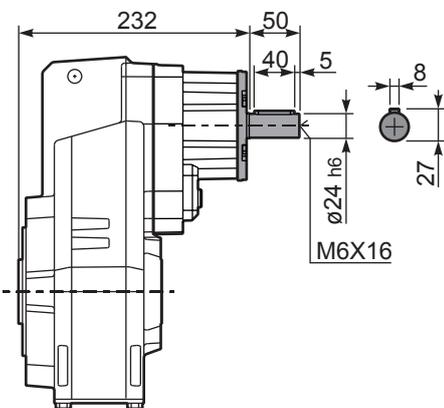
Available output flanges  
Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012
350	250	18	300	4	18	KF70.9.013



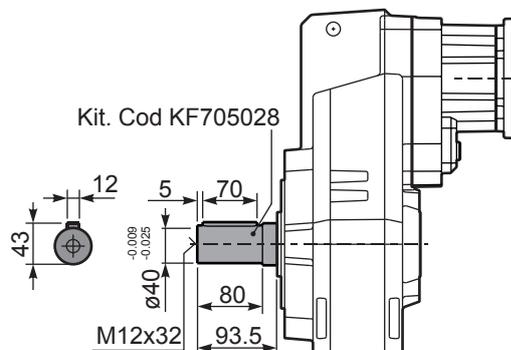
**RFC72C...**

Input Shaft  
Albero in entrata



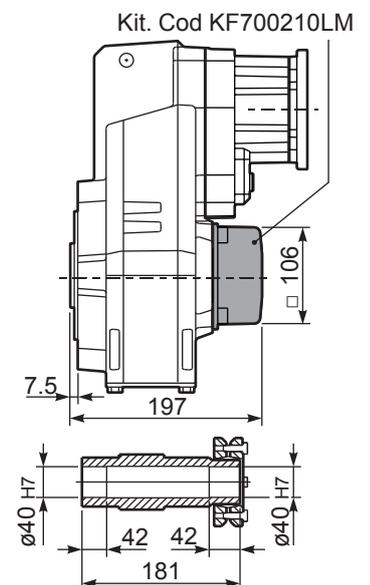
**PFC72 A...**

Single output shaft  
Albero uscita semplice



**PFC72D...**

Shrink disk  
Calettatore





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.5	<b>75.50</b>	1.5	725	1.1	1.7	825	B				C	C		191318	01
16.2	<b>86.47</b>	1.5	830	1.1	1.6	900	B				C	C		191316	02
14.0	<b>100.22</b>	1.5	962	0.9	1.4	900	B				C	C		171316	03
12.0	<b>116.56</b>	1.1	817	1.1	1.2	900	B				C	C		171314	04
10.2	<b>136.82</b>	1.1	959	0.9	1.0	900	B				C	C		151314	05
9.1	<b>153.05</b>	0.75	736	1.1	0.83	810	B				C	C		190816	06
8.6	<b>163.31</b>	0.75	785	1.1	0.86	900	B				C	C		131314	07
7.9	<b>178.01</b>	0.75	856	1.1	0.79	900	B				C	C		190814	08
7.3	<b>191.67</b>	0.75	922	1.0	0.73	900	B				C	C		101316	09
6.8	<b>206.32</b>	0.75	992	0.9	0.68	900	B				C	C		170814	10
6.3	<b>222.92</b>	0.55	791	1.1	0.63	900	B				C	C		101314	11
5.8	<b>242.18</b>	0.55	859	1.0	0.58	900	B				C	C		150814	12
5.6	<b>250.15</b>	0.55	888	1.0	0.56	900	B				C	C		91316	13
4.8	<b>289.08</b>	0.55	1026	0.9	0.49	900	B				C	C		130814	14
4.2	<b>330.31</b>	0.37	783	1.1	0.42	890	B				C	C		71316	15
3.5	<b>394.59</b>	0.37	936	1.0	0.36	900	B				C	C		100814	16
2.7	<b>514.99</b>	0.25	824	1.1	0.27	900	B				C	C		90814	17
2.1	<b>680.03</b>	0.18	832	1.1	0.21	900	B				C	C		70814	18

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC73** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC73** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC73** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC73** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **FC73** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

H1	H4	H3	H2	H5	H6
3.55 LT	1.95 LT	1.95 LT	1.95 LT	3.75 LT	2.00 LT

**AGIP** Blasias 460

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot 174.5 \cdot X + 134.5$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	740	3700	140	860	4300	70	1020	5100
250	800	4000	120	900	4500	40	1300	6500
200	830	4150	85	970	4850	15	1700	8500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

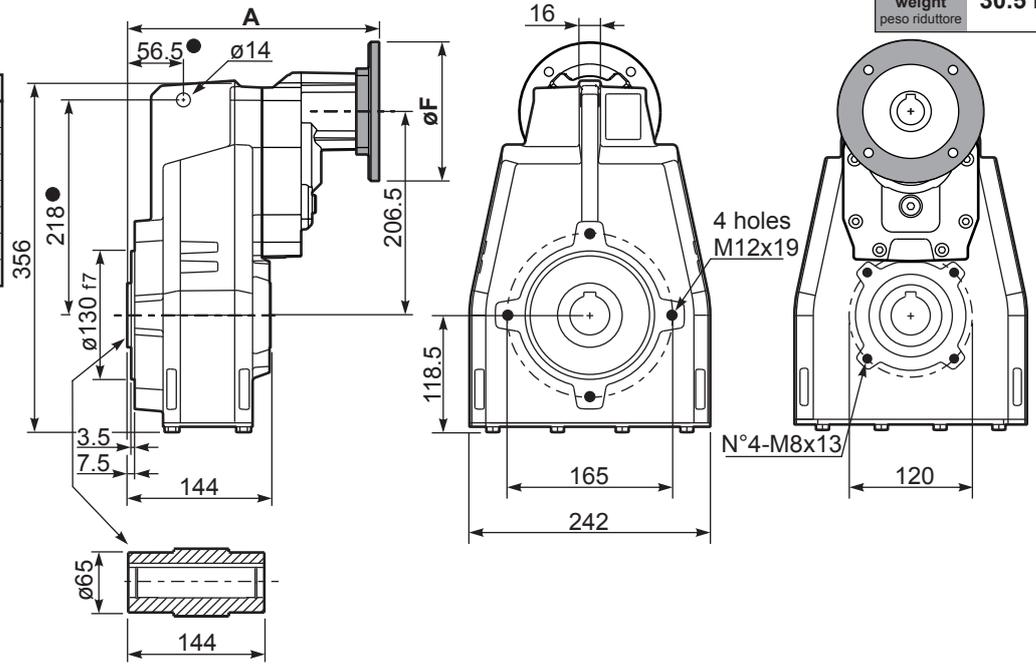
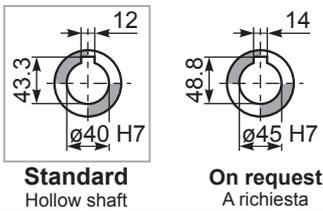
**tab. 2**

**PFC73C...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **30.5 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	250.5
71B5	K063.4.042	160	248.5
80/90B5	K063.4.043	200	250.5
71B14	K063.4.047	105	248.5
80B14	K063.4.046	120	250.5
90B14	K063.4.041	140	250.5

● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web

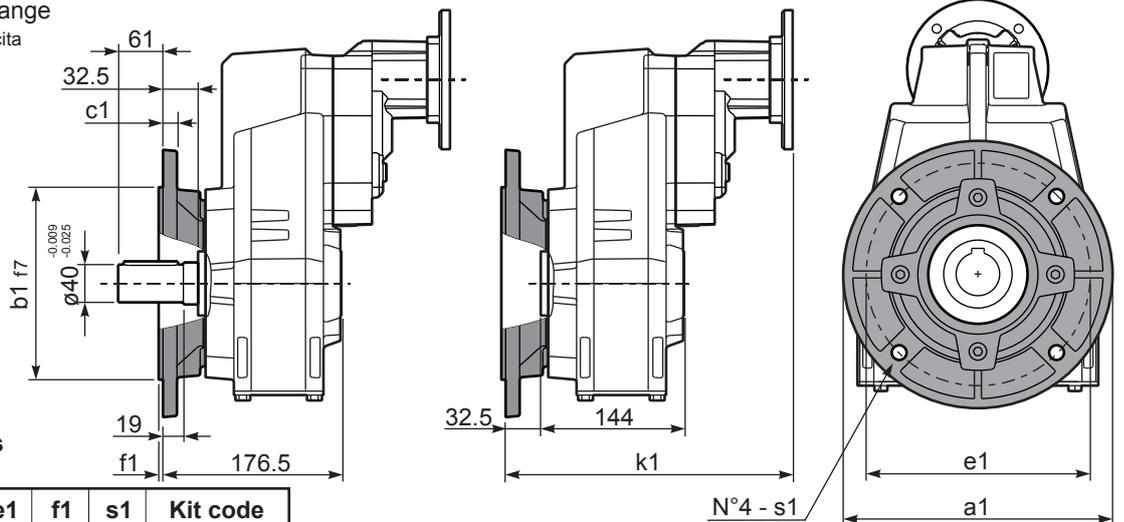


**PFC73...-F...** Output flange  
Flangia uscita

M. flanges	k1
63B5	283
71B5	281
80/90B5	283
71B14	281
80B14	282
90B14	283

Available output flanges  
Flange di uscita

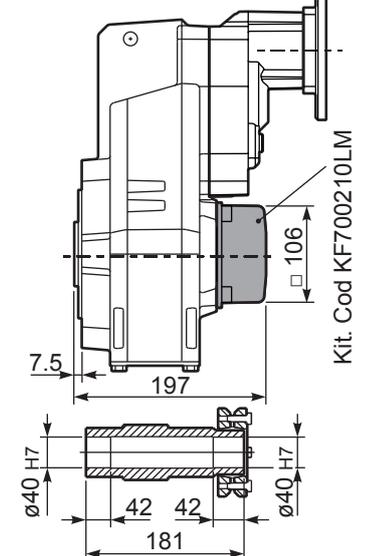
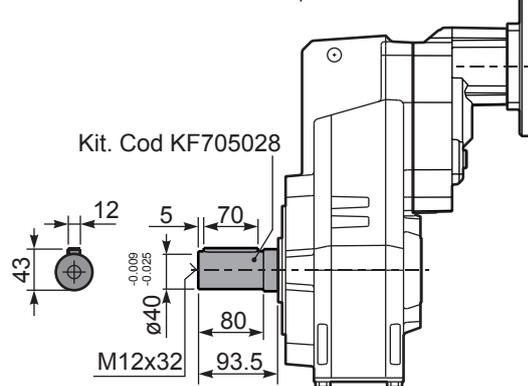
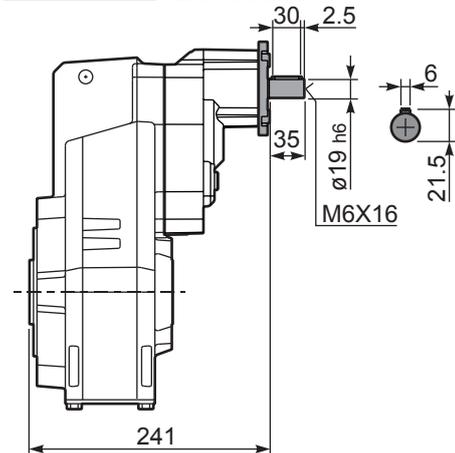
a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012
350	250	18	300	4	18	KF70.9.013



**RFC73C...** Input Shaft  
Albero in entrata

**PFC73 A...** Single output shaft  
Albero uscita semplice

**PFC73D...** Shrink disk  
Calettatore





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges				Output Shaft 	Ratios code	
							-H	-I	-	-	-	-			
							160	180	-	-	-	-			
528	<b>2.65</b>	22	374	1.7	<b>36.7</b>	<b>650</b>			<b>not available</b>				2361	<b>standard</b>	01
409	<b>3.42</b>	22	483	1.6	<b>32.8</b>	<b>750</b>							1965	<b>ø50</b>	02
304	<b>4.60</b>	22	649	1.5	<b>30.9</b>	<b>950</b>							1569		03
256	<b>5.46</b>	22	771	1.3	<b>27.4</b>	<b>1000</b>							1371	<b>ø55</b>	04
211	<b>6.64</b>	22	937	1.3	<b>26.5</b>	<b>1175</b>							1173	On request	05

The dynamic efficiency is **0.98** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC81** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC81** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC81** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

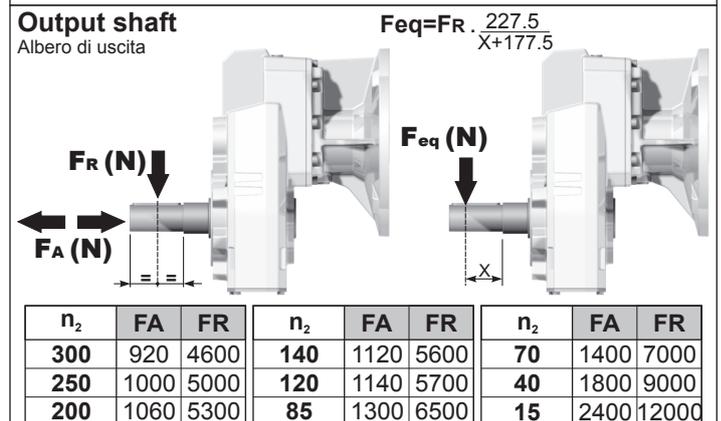
**F** Le réducteur de type **FC81** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC81** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

H1	H4	H3	H2	H5	H6
5.50 LT	3.50 LT	3.50 LT	3.50 LT	6.20 LT	4.40 LT
<b>AGIP Blasias 460</b>					

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS



**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

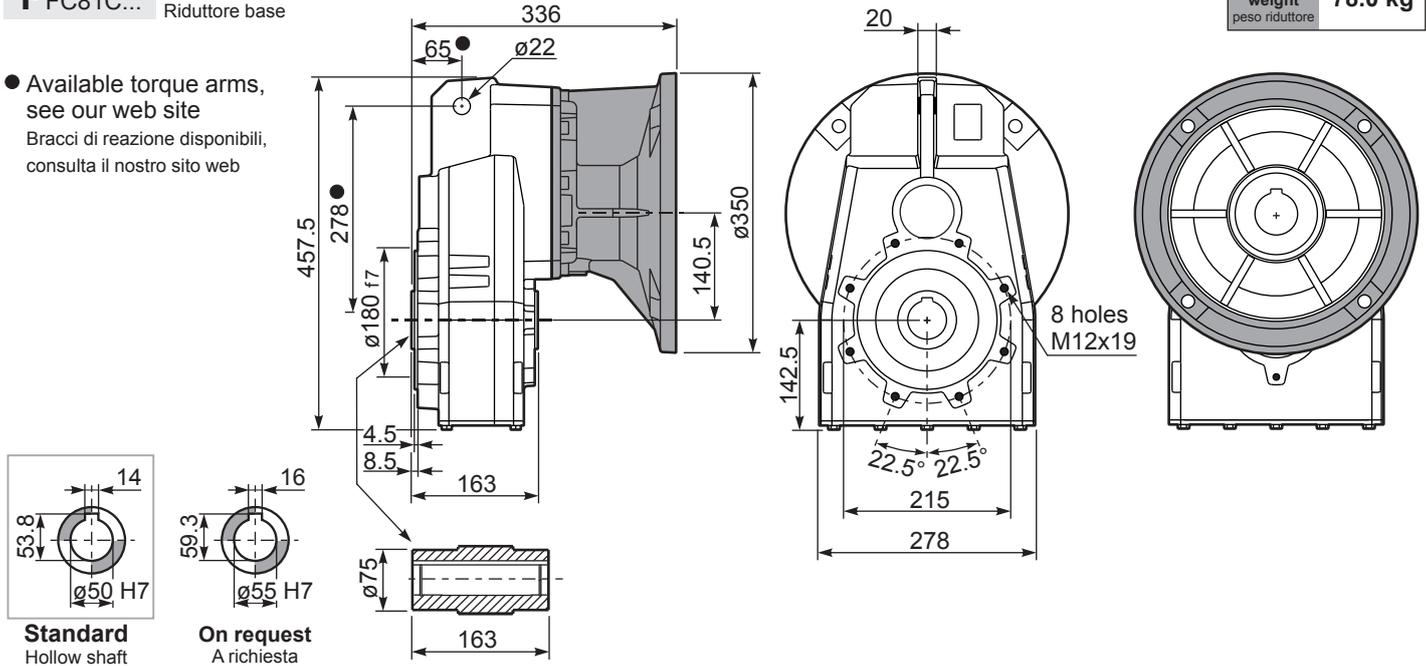
**tab. 2**

**PFC81C...**

Basic gearbox  
Riduttore base

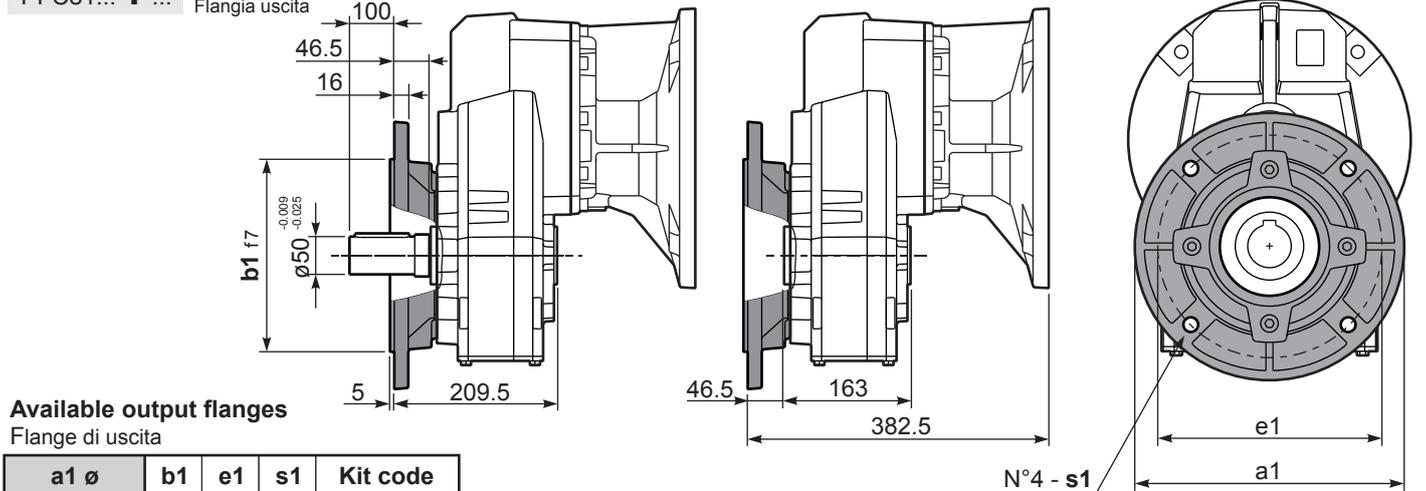
Gearbox weight  
peso riduttore **78.0 kg**

- Available torque arms, see our web site  
Bracci di reazione disponibili, consulta il nostro sito web



**PFC81...-F...**

Output flange  
Flangia uscita

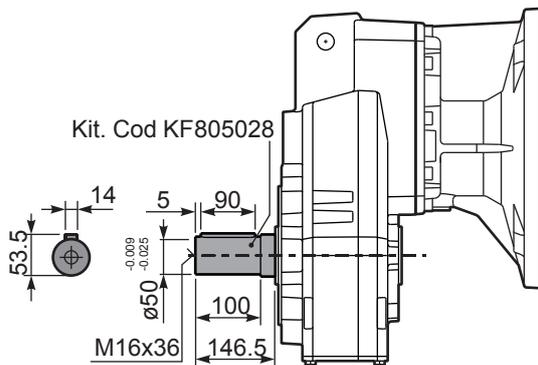


Available output flanges  
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012
400	300	350	18	KF80.9.013

**PFC81A...**

Single output shaft  
Albero uscita semplice





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code 
							-F	-G	-H	-I	-	-	-	-		
							100	132	160	180	-	-	-	-		
234	<b>5.98</b>	22	827	1.2	<b>25.5</b>	<b>1000</b>	B							3015	01	
197	<b>7.10</b>	22	982	1.2	<b>25.3</b>	<b>1175</b>	B							3013	02	
162	<b>8.63</b>	22	1193	1.1	<b>23.9</b>	<b>1350</b>	B							3011	03	
124	<b>11.27</b>	18.5	1310	1.1	<b>20.3</b>	<b>1500</b>	B							2015	04	
105	<b>13.38</b>	18.5	1555	1.1	<b>19.4</b>	<b>1700</b>	B							2013	05	
92	<b>15.24</b>	18.5	1771	1.1	<b>19.0</b>	<b>1900</b>	B							1615	06	
86	<b>16.26</b>	18.5	1889	1.1	<b>19.7</b>	<b>2100</b>	B							2011	07	
77	<b>18.09</b>	18.5	2102	1.0	<b>17.7</b>	<b>2100</b>	B							1613	08	
71	<b>19.82</b>	15	1865	1.1	<b>15.9</b>	<b>2060</b>	B							1315	09	
64	<b>21.98</b>	15	2069	1.0	<b>14.6</b>	<b>2100</b>	B							1611	10	
60	<b>23.53</b>	15	2214	0.9	<b>13.6</b>	<b>2100</b>	B							1313	11	
58	<b>24.25</b>	11	1677	1.2	<b>12.2</b>	<b>1940</b>	B							1115	12	
48.6	<b>28.80</b>	11	1991	1.1	<b>11.1</b>	<b>2100</b>	B							1113	13	
40.0	<b>34.99</b>	9	2063	1.0	<b>9.2</b>	<b>2100</b>	B							1111	14	
33.6	<b>41.64</b>	7.5	1976	1.0	<b>7.2</b>	<b>1960</b>	B							813	15	
27.7	<b>50.60</b>	5.5	1774	1.2	<b>6.3</b>	<b>2100</b>	B							811	16	

The dynamic efficiency is **0.96** for all ratios

- Motor Flanges Available  
Flange Motore Disponibili
- B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **FC82** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC82** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC82** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC82** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC82** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

H1	H4	H3	H2	H5	H6
5.70 LT	3.60 LT	3.60 LT	3.60 LT	6.60 LT	4.50 LT

**AGIP** Blasias 460

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>300</b>	920	4600	<b>140</b>	1120	5600	<b>70</b>	1400	7000
<b>250</b>	1000	5000	<b>120</b>	1140	5700	<b>40</b>	1800	9000
<b>200</b>	1060	5300	<b>85</b>	1300	6500	<b>15</b>	2400	12000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
<b>1400</b>	700	3500
<b>900</b>	840	4200
<b>500</b>	900	4500

tab. 2





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code		
							-C	-D	-E	-F	-G	-R	-T	-U	-V				
							71	80	90	100 112	132	80	90	100 112	132				
28.8	<b>48.55</b>	7.5	2257	0.9	6.7	2100	B									201315	standard ø50	01	
24.3	<b>57.64</b>	5.5	1980	1.1	5.7	2100	B									201313		02	
21.3	<b>65.64</b>	5.5	2255	0.9	5.0	2100	B									161315		03	
20.0	<b>70.04</b>	4	1760	1.2	4.7	2100	B									201311		04	
18.0	<b>77.93</b>	4	1958	1.1	4.2	2100	B									161313		05	
16.4	<b>85.36</b>	4	2145	1.0	3.8	2100	B									131315		06	
14.8	<b>94.70</b>	4	2380	0.9	3.5	2100	B									161311		07	
13.8	<b>101.35</b>	3	1917	1.1	3.2	2100	B									131313		08	
11.4	<b>123.15</b>	3	2330	0.9	2.7	2100	B									131311		09	
9.3	<b>150.73</b>	2.2	2100	1.0	2.2	2100	B									111311		On request	10
7.8	<b>179.39</b>	1.5	1722	1.2	1.8	2100	B									81313		11	
6.4	<b>217.98</b>	1.5	2093	1.0	1.5	2100	B									81311		12	
5.7	<b>247.03</b>	1.1	1732	1.1	1.2	1950	B									61313		13	
4.7	<b>300.17</b>	1.1	2105	1.0	1.1	2100	B									61311		14	

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **FC83** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **FC83** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **FC83** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **FC83** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **FC83** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

H1	H4	H3	H2	H5	H6
5.80 LT	3.90 LT	3.90 LT	3.90 LT	6.80 LT	4.90 LT

**AGIP** Blasias 460

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

**tab. 2**

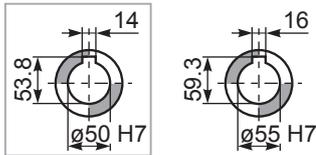
**PFC83C...**

Basic gearbox  
Riduttore base

Gearbox weight **68.5 kg**  
peso riduttore

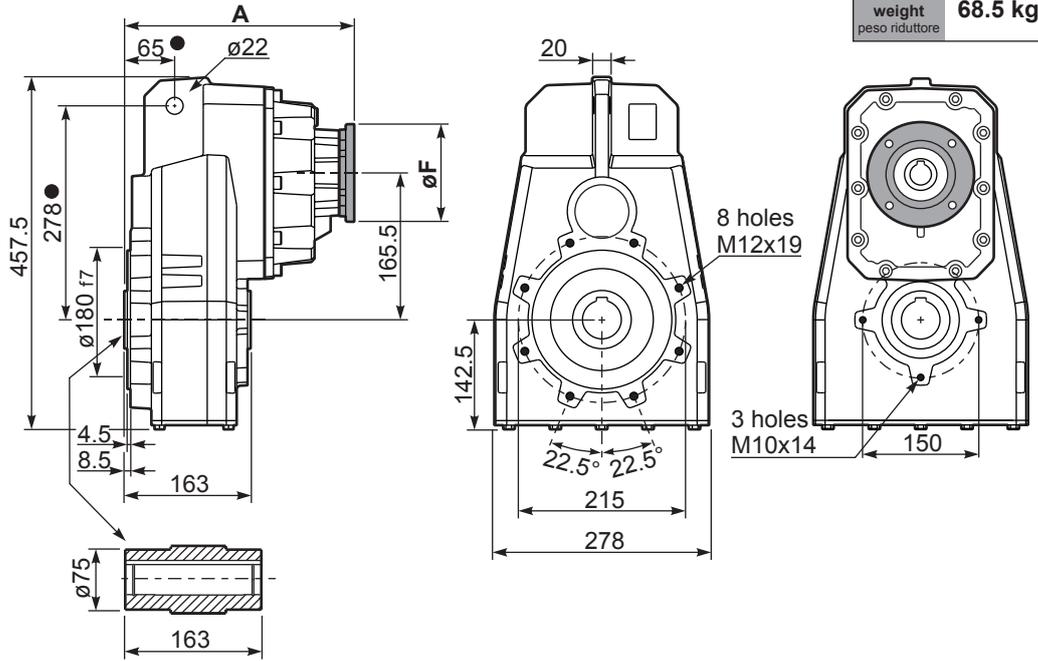
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	292.5
80/90B5	K023.4.042	200	294.5
100/112B5	K023.4.043	250	303.5
132B5	KC50.4.043	300	321.5
80B14	K085.4.046	120	294.5
90B14	K085.4.045	140	294.5
100/112B14	K085.4.047	160	303.5
132B14	KC50.4.041	200	321.5

● Available torque arms,  
see our web site  
Bracci di reazione disponibili,  
consulta il nostro sito web



**Standard**  
Hollow shaft

**On request**  
A richiesta



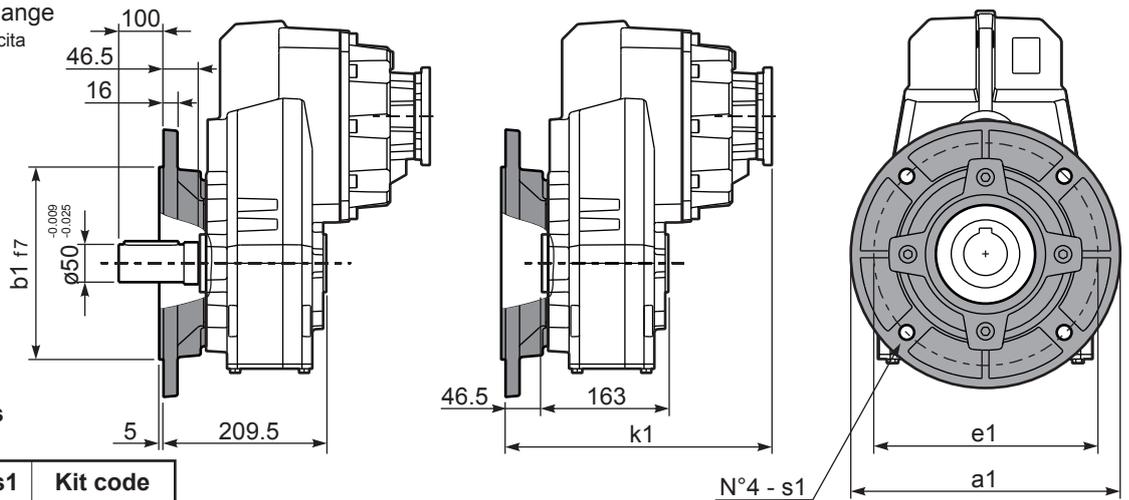
**PFC83...-F...**

Output flange  
Flangia uscita

M. flanges	k1
71B5	339
80/90B5	341
100/112B5	347
132B5	368.5
80B14	339
90B14	339
100/112B14	350
132B14	368.5

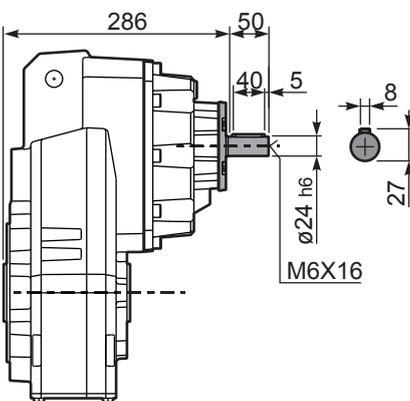
Available output flanges  
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012
400	300	350	18	KF80.9.013



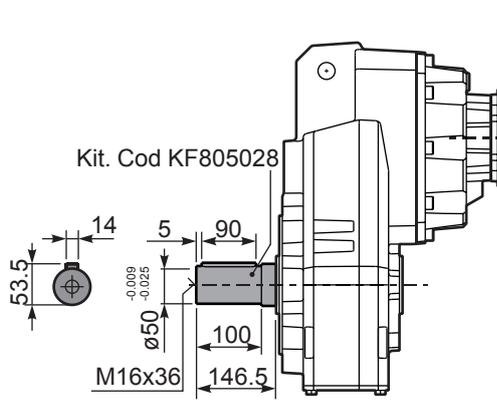
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Input Shaft  
Albero in entrata



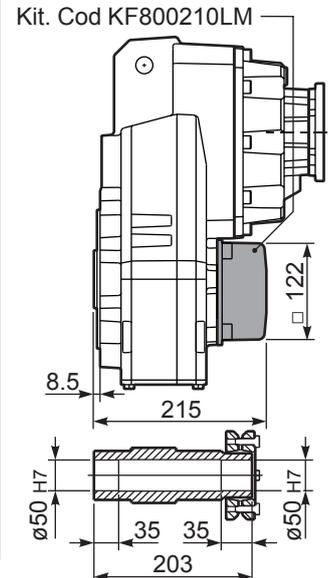
**PFC83 A...**

Single output shaft  
Albero uscita semplice



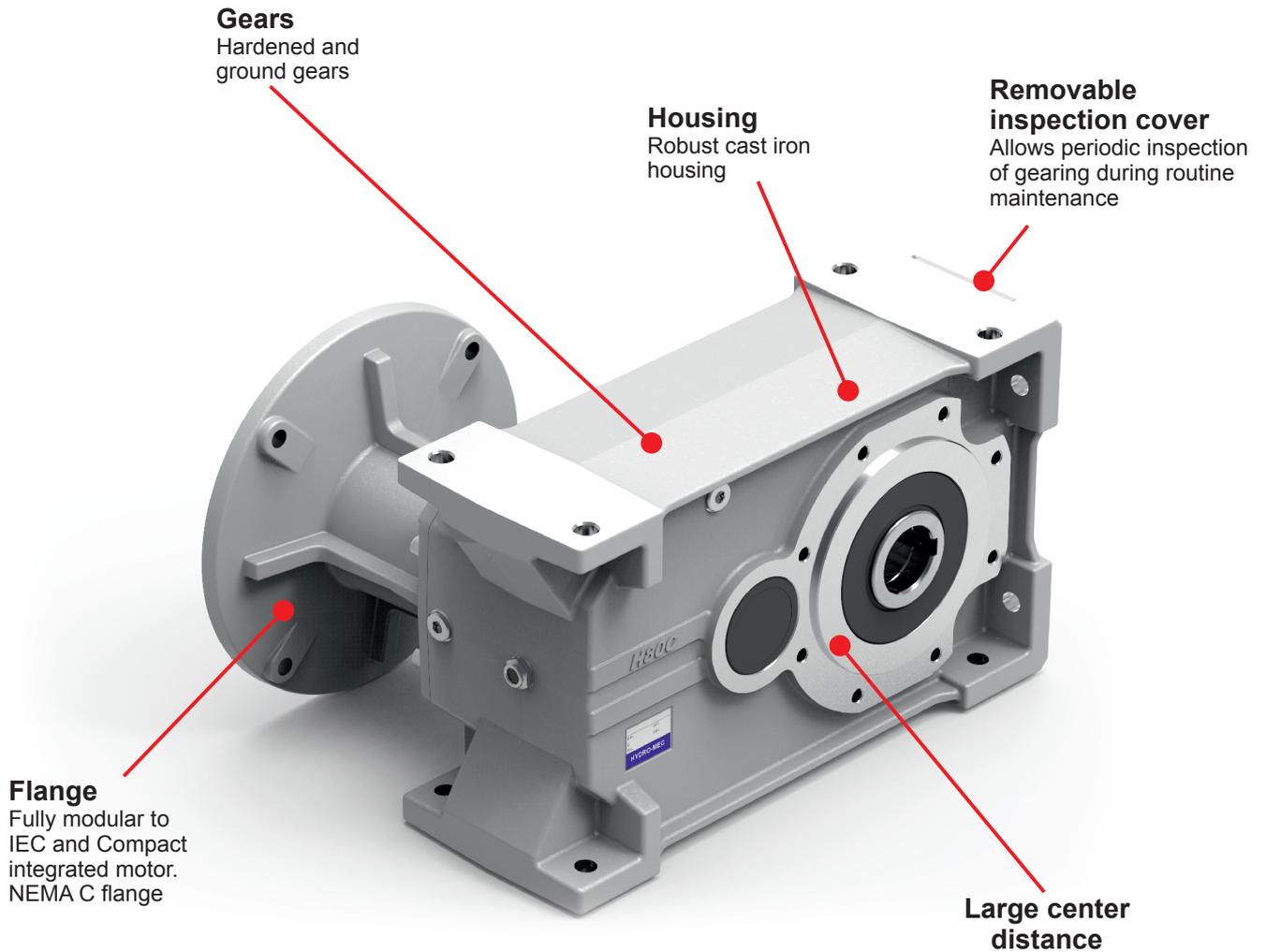
**PFC83D...**

Shrink disk  
Calettatore



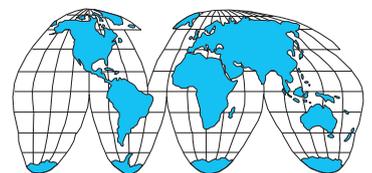
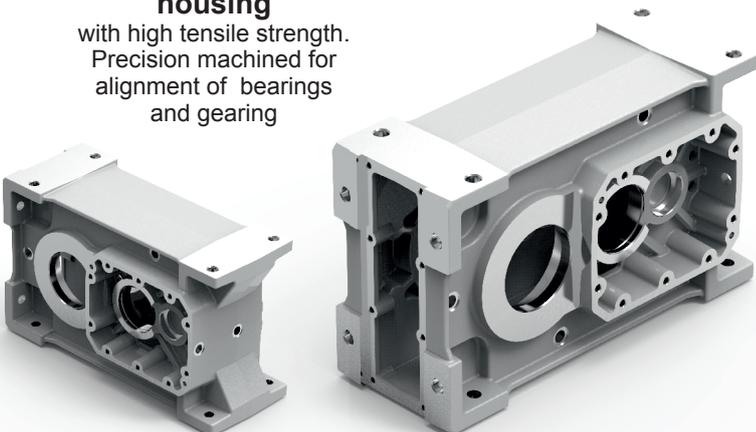
# Cast iron parallel shaft gearboxes

A modular and compact product



## Single-piece Cast Iron housing

with high tensile strength. Precision machined for alignment of bearings and gearing

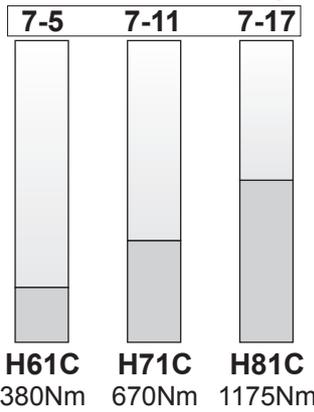


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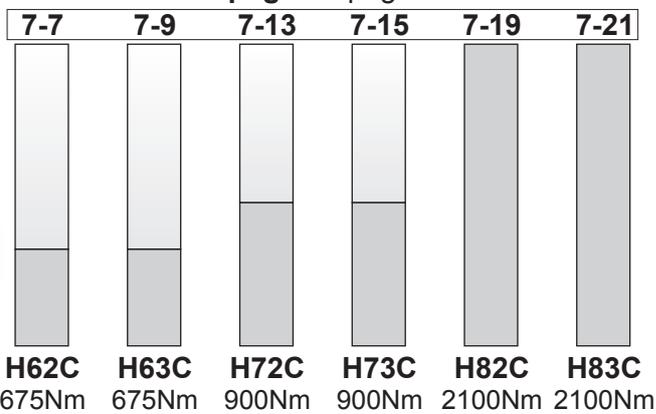
1 Stage



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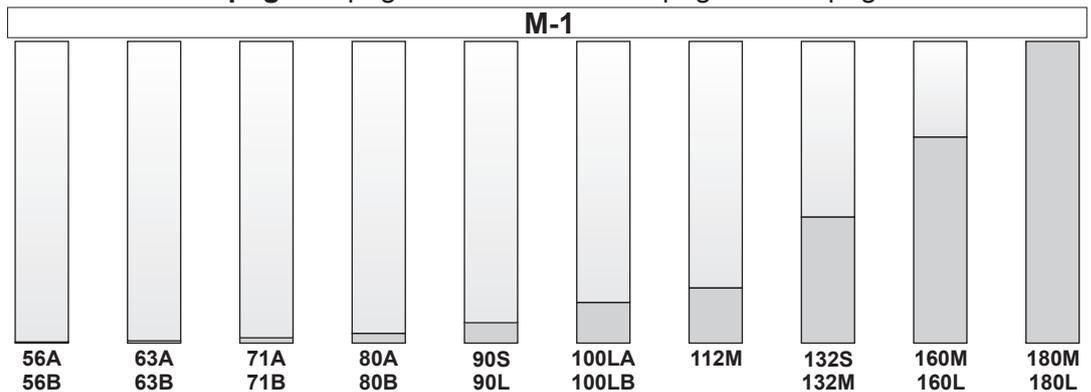
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2 and 3 Stage

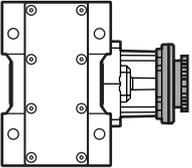
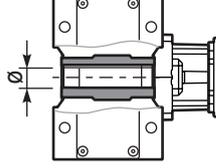
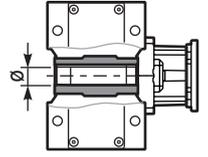
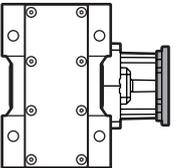
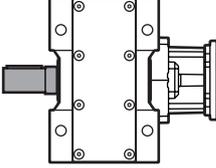
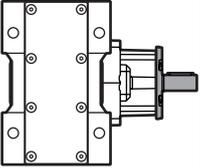
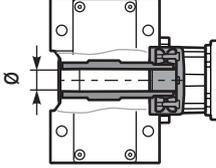
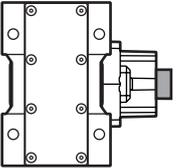
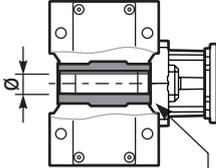
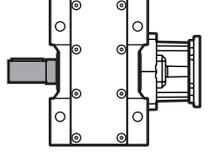
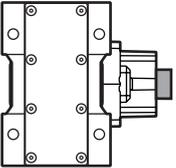
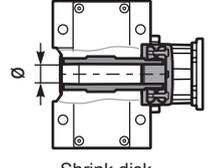


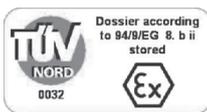
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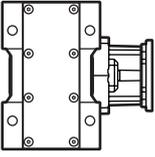
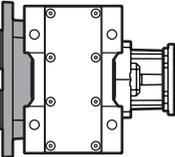
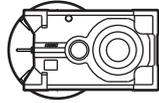
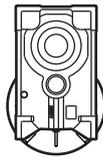
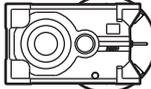
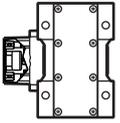
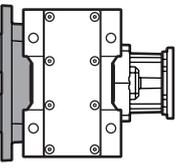
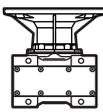
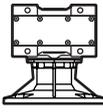
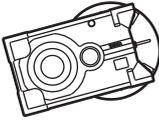
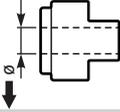


Types / Tipi /  
Tipen / Types /  
Tipos

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Grösse Taille - Tomaño	Mounting - Montaggio Montage - Fixation Tipo de montaje	Rapporto - Ratio Untersetzung Reduction - Relacion	Output shaft Albero uscita Abtriebswelle Arbre de sortie Eje en salida
<b>M</b>	<b>H62C</b>	<b>C</b>	<b>12.39</b>	<b>-E</b>
<p>Parallel shaft helical Riduttori ad assi paralleli</p>  <p>With IEC motor <b>M</b></p>	<p>1 Stage Riduzione Stufe Trains Etapas</p> <p>2 Stages Riduzioni Stufen Trains Etapas</p> <p>3 Stages Riduzioni Stufen Trains Etapas</p> <p>Cast Iron/Ghisa/Grauguss/Fonfe/Fundicion</p>	 <p>Hollow output shaft <b>C</b></p>	<p>See technical data table</p> <p>Vedi tabelle dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p>	 <p><b>STANDARD</b> ⇒ Only on request for Q.ty A richiesta per quantità</p>
 <p>With motor flange <b>P</b></p>	<p><b>H61C</b> <b>H71C</b> <b>H81C</b></p>	 <p>Single output shaft <b>A</b></p>		<p>H61C H62C H63C <b>-E</b> ⇒ <math>\varnothing 35</math> <b>-F</b> ⇒ <math>\varnothing 40</math></p>
 <p>With male input shaft <b>R</b></p>	<p><b>H62C</b> <b>H72C</b> <b>H82C</b></p> <p><b>H63C</b> <b>H73C</b> <b>H83C</b></p>	 <p>Shrink Disk <b>D</b></p> <p>Only on request for Q.ty A richiesta per quantità</p>		<p>H71C H72C H73C <b>-F</b> ⇒ <math>\varnothing 40</math> <b>-G</b> ⇒ <math>\varnothing 45</math></p> <p>H81C H82C H83C <b>-H</b> ⇒ <math>\varnothing 50</math> <b>-I</b> ⇒ <math>\varnothing 55</math></p>
 <p>Modular base <b>B</b></p> <p>Not available for: H61C, H71C, H81C, H82C</p>		 <p>Stainless steel hub <b>I</b></p> <p>On request for q.ty</p> <p>Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox</p>		 <p>Single output shaft</p> <p><b>-N</b> H61/2/3C ⇒ <math>\varnothing 35</math> <b>-O</b> H71/2/3C ⇒ <math>\varnothing 40</math> <b>-K</b> H81/2/3C ⇒ <math>\varnothing 50</math></p>
 <p>Shrink disk <b>D</b></p> <p><b>-T</b> H62/3C ⇒ <math>\varnothing 35</math> <b>-U</b> H72/3C ⇒ <math>\varnothing 40</math> <b>-V</b> H82/3C ⇒ <math>\varnothing 50</math></p>				 <p>Shrink disk</p>



On request we can deliver our products according to the ATEX  
 A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
 Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
 Sur demande nos produits peuvent se conformer à la réglementation ATEX  
 A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Type - Tipo - Typ Types - Tipo	Output flange Flangia uscita Ausgangsflansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Grösse Motor Grösse Grandeur moteur - Tamaño motor	Terminal box position Posizione morsettiera Klemmkastenlage Position boîte à bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Coupling Giunto Kupplung Joint Juntura
<b>-N</b>	<b>N</b>	<b>-C</b>	<b>B</b>	<b>B3</b>	<b>C</b>
 <p><b>-N</b> Senza flangia Without flange</p>	 <p><b>N</b> Senza flangia Without flange H61C H62C H63C <b>4</b> → <b>∅250</b> H71C H72C H73C <b>4</b> → <b>∅250</b> <b>5</b> → <b>∅300</b> H81C H82C H83C <b>5</b> → <b>∅300</b> <b>6</b> → <b>∅350</b> <b>7</b> → <b>∅400</b></p>	<p>Flange Flangia </p> <p>Type R Tipo R </p> <p><b>B5</b> <b>-A</b>=56 (∅120) <b>-B</b>=63 (∅140) <b>-C</b>=71 (∅160) <b>-D</b>=80 (∅200) <b>-E</b>=90 (∅200) <b>-F</b>=100+112 (∅250) <b>-G</b>=132 (∅300) <b>-H</b>=160 (∅350) <b>-I</b>=180 (∅350)</p>	 <p><b>A</b></p>  <p><b>B</b> STANDARD</p>  <p><b>C</b></p>  <p><b>D</b></p>	 <p><b>B3</b> STANDARD</p>  <p><b>B6</b></p>  <p><b>B7</b></p>  <p><b>B8</b></p>	<p><b>0</b> Without coupling Senza giunto</p> 
 <p><b>-F</b> Whit output flange con flangia uscita</p>		<p>Without flange Senza flangia </p> <p><b>-M</b> → With coupling H63C H73C <b>-1</b> → <b>∅14</b> (71B5) <b>-2</b> → <b>∅19</b> (80B5) <b>-3</b> → <b>∅24</b> (90B5) <b>-4</b> → <b>∅28</b> (100B5)</p> <p>H62C H72C H83C <b>-2</b> → <b>∅19</b> (80B5) <b>-3</b> → <b>∅24</b> (90B5) <b>-4</b> → <b>∅28</b> (100B5)</p>		 <p><b>V5</b></p>  <p><b>V6</b></p>  <p><b>V8</b></p>	<p><b>-</b> Nothing indication: standard bore Nessuna indicazione: foro standard COUPLING</p>  <p><b>A</b> = 9mm <b>B</b> = 11mm <b>C</b> = 14mm <b>D</b> = 19mm <b>E</b> = 24mm <b>F</b> = 28mm</p>

POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA

Lifting / sollevamento / hubantriebe / levage / elevación

$$P \text{ [KW]} = \frac{M \text{ [Kg]} \cdot g \text{ [9.81]} \cdot v \text{ [m / s]}}{1000}$$

Rotation / rotazione / drehung / rotation / rotacion

$$P \text{ [KW]} = \frac{M \text{ [Nm]} \cdot n \text{ [rpm]}}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P \text{ [KW]} = \frac{F \text{ [N]} \cdot v \text{ [m / s]}}{1000}$$

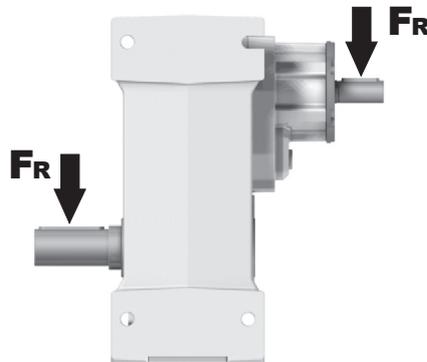
TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR

$$M \text{ [Nm]} = \frac{9550 \cdot P \text{ [KW]}}{n \text{ [rpm]}}$$

$$M \text{ [lb in]} = \frac{63030 \cdot P \text{ [HP]}}{n \text{ [rpm]}}$$

RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida



$$F_R \text{ [N]} = \frac{M \text{ [Nm]} \cdot 2000}{d \text{ [mm]}} \cdot f_k$$

$$F_R \text{ [N]} = \frac{M \text{ [lb in]} \cdot 8.9}{d \text{ [in]}} \cdot f_k$$

<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor

**B** Output speed  
Velocità in uscita  
Abtriebsdrehzahl  
Vitesse de sortie  
Velocidad de salida

Nominal power  
Potenza nominale  
Max. mögliche Leistung  
Poissance nominale  
Potencia nominal

**A** Nominal torque  
Momento torcente nominale  
Nenn Drehmoment  
Couple nominal  
Par de torsión nominal

Flange code  
Codice flangia  
Flanschtype  
Code bride  
Código bridas

Input speed  
Velocità in entrata  
Eintriebsdrehzahl  
Vitesse en entrée  
Velocidad de entrada

Gear size  
Grandezza riduttore  
Getriebegröße  
Taille réducteur  
Tamaño reductor

Motor power  
Potenza motore  
Motorleistung  
Puisseance moteur  
Potencia motor

# H62C

## Cube gear 675Nm

Rating - Cast Iron  
PARALLEL SHAFT GEARBOXES

QUICK SELECTION / Selezione veloce							input speed (n <sub>1</sub> ) = 1400 min <sup>-1</sup>											
Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft		
							-C	-D	-E	-F	-G	-R	-T	-U	-V		Ratio code	
213	<b>6.57</b>	7.5	312	1.2	8.8	380	B										3018	01
185	<b>7.56</b>	7.5	358	1.1	7.9	390	B										3016	02
159	<b>8.82</b>	7.5	419	1.0	7.1	410	B										3014	03
113	<b>12.39</b>	7.5	588	1.0	7.2	580	B										2018	04

**C** Ratio  
Rapporto  
Untersetzung  
Rapport de réduction  
Relación

Transmitted torque  
Momento torcente trasmesso  
Mögliche Drehmomente  
Couple de sortie  
Par transmitido

Service factor  
Fattore di servizio  
Betriebsfaktor  
Facteur de service  
Factor de servicio

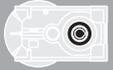
Output shaft diam.  
Diam. albero uscita  
Durchmesser abtriebswelle  
Diametre arbre lent  
Diametro eje de salida

Notes  
Note  
Anmerkungen  
Note  
Notas

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

<b>D</b>	Motor flange available Flange disponibili Erhältliche Motorflansche Brides disponibles Bridas disponibles	
<b>B)</b>	Mounting with reduction ring Montaggio con boccia di riduzione Reduzierhülsen Montage avec douille de réduction Montaje con casquillo de reducción	
<b>C)</b>	Motor flangeholes position/terminal box position Posizione fori flangia/basetta motore Bohrungsposition am Motorflansch/-socket Position trous bride/barrette à bornes moteur Posición agujeros brida / base motor	
<b>B)</b>	Available without reduction bushes Disponibile anche senza boccia Auch ohne Reduzierbuchse verfügbar Disponible aussi sans douille de réduction Disponible tambien sin casquillo	

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges				Output Shaft		
							-G	132	-	-	-	-	-	-	-
507	<b>2.76</b>	9	166	1.6	<b>14.4</b>	<b>265</b>			<b>not available</b>				2980	<b>standard</b>	01
395	<b>3.54</b>	9	213	1.3	<b>11.6</b>	<b>275</b>							2485	<b>ø35</b>	02
277	<b>5.06</b>	9	304	1.0	<b>8.6</b>	<b>290</b>							1891		03
241	<b>5.81</b>	7.5	281	1.2	<b>8.5</b>	<b>330</b>							1693	ø40	04
206	<b>6.79</b>	7.5	329	1.2	<b>8.4</b>	<b>380</b>							1495	On request	05

The dynamic efficiency is **0.98** for all ratios

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H61C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **H61C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **H61C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **H61C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **H61C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil							
	Per queste posizioni specificare in fase d'ordine o aggiungere olio							
B3	B6	B7	B8	V5	V6	V8	V8	V8
2.25 LT	3.20 LT	3.00 LT	2.25 LT	4.35 LT	2.35 LT	Ask	Ask	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320				

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{149.5}{X+119.5}$

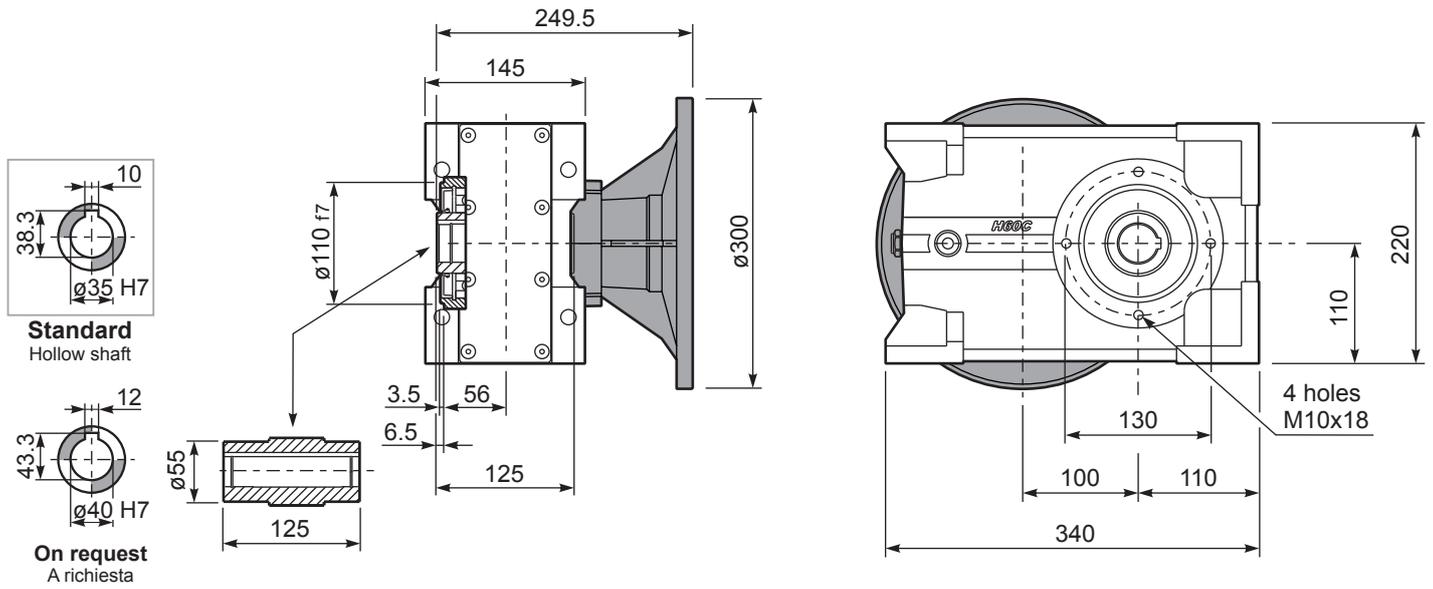
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

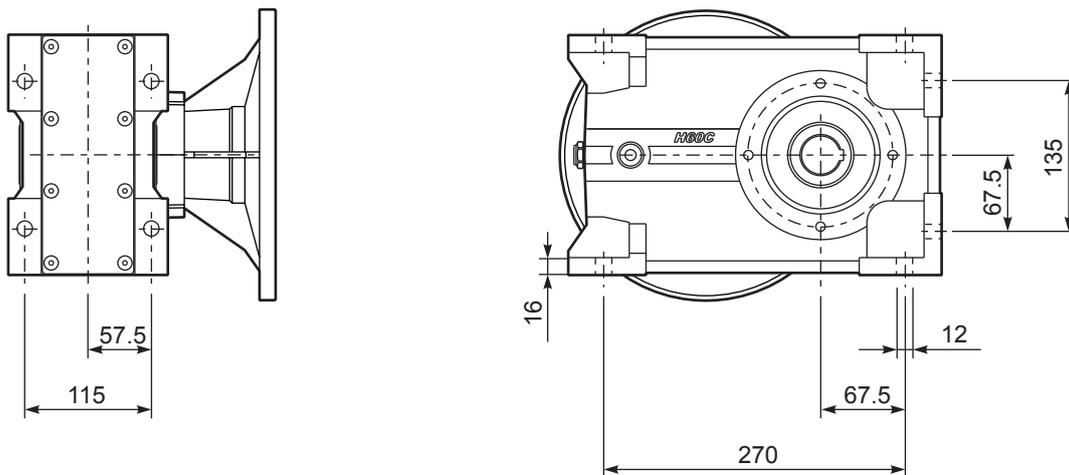
**tab. 2**

**PH61C...** Basic gearbox  
Riduttore base

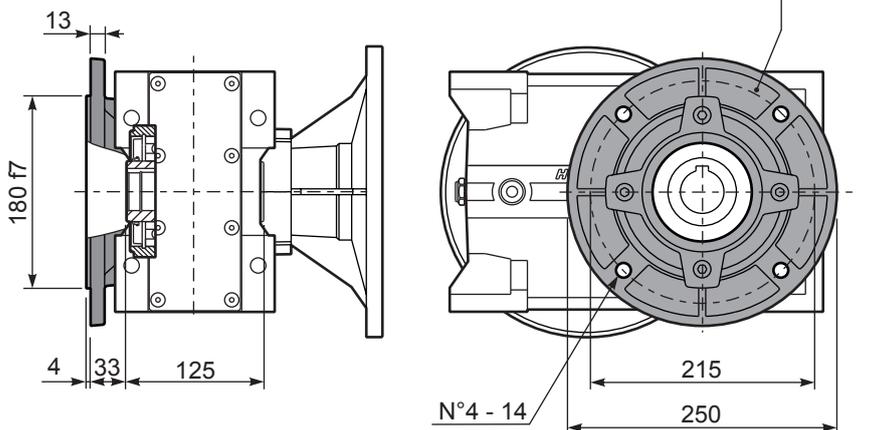
Gearbox weight  
peso riduttore **40.0 kg**



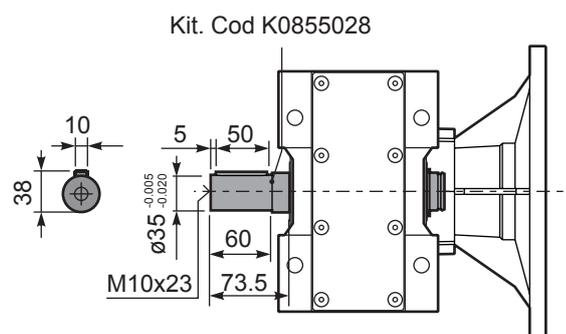
**PH61C...-N** Feet  
Piedini

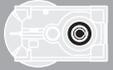


**PH61C...-F** Output flange  
Flangia uscita



**PH61C A...** Single output shaft  
Albero uscita semplice





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code	
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
213	<b>6.57</b>	7.5	312	1.2	8.8	380	B										3018	01
185	<b>7.56</b>	7.5	358	1.1	7.9	390	B										3016	02
159	<b>8.82</b>	7.5	419	1.0	7.1	410	B										3014	03
113	<b>12.39</b>	7.5	588	1.0	7.2	580	B										2018	04
98	<b>14.24</b>	5.5	499	1.2	6.4	600	B										2016	05
84	<b>16.75</b>	5.5	587	1.1	6.1	665	B										1618	06
73	<b>19.25</b>	5.5	675	1.0	5.4	675	B										1616	07
64	<b>21.78</b>	4	558	1.2	4.7	675	B										1318	08
56	<b>25.04</b>	4	642	1.1	4.1	675	B										1316	09
47.9	<b>29.23</b>	4	750	0.9	3.5	675	B										1314	10
45.7	<b>30.65</b>	3	592	1.1	3.4	675	B										1116	11
39.1	<b>35.78</b>	3	691	1.0	2.9	675	B										1114	12
36.3	<b>38.55</b>	2.2	548	1.1	2.3	580	B										818	13
31.6	<b>44.32</b>	2.2	630	1.1	2.3	665	B										816	14
27.1	<b>51.74</b>	2.2	735	0.9	2.0	675	B										814	15
22.9	<b>61.03</b>	1.1	437	1.1	1.2	480	B										616	16
19.6	<b>71.25</b>	1.1	510	1.1	1.2	560	B										614	17

The dynamic efficiency is **0.96** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H62C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **H62C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **H62C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **H62C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **H62C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil					
	Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
2.25 LT	3.20 LT	3.00 LT	2.25 LT	4.35 LT	2.35 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{149.5}{X+119.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

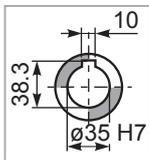
tab. 2

**PH62C...**

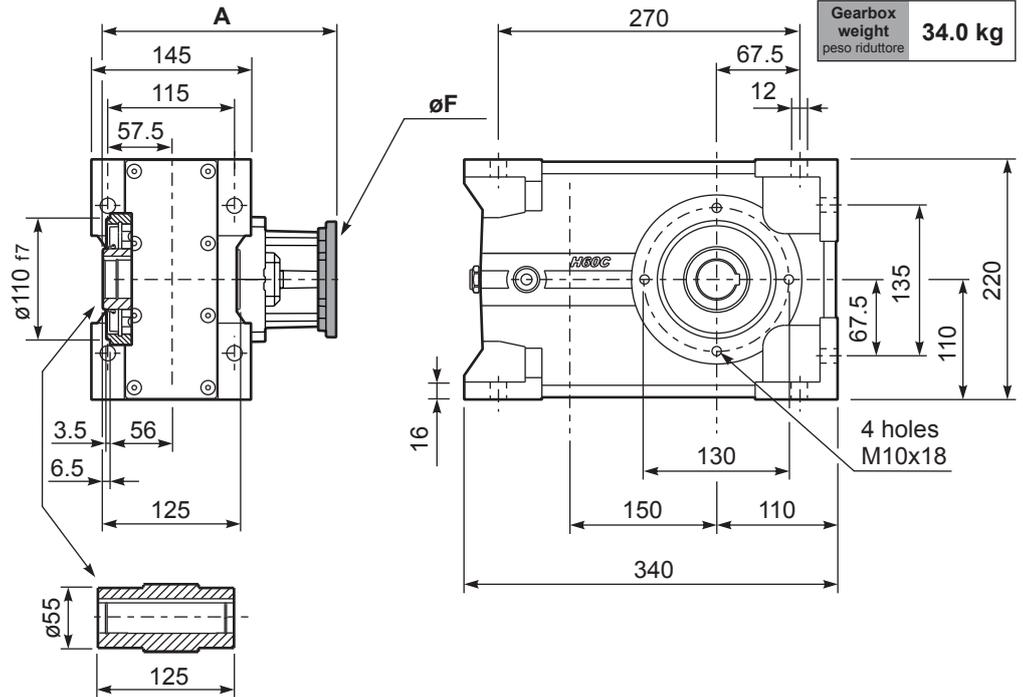
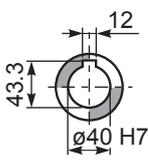
Basic gearbox  
Riduttore base

M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	227
<b>80/90B5</b>	K023.4.042	200	229
<b>100/112B5</b>	K023.4.043	250	238
<b>132B5</b>	KC50.4.043	300	256
<b>80B14</b>	K085.4.046	120	229
<b>90B14</b>	K085.4.045	140	229
<b>100/112B14</b>	K085.4.047	160	238
<b>132B14</b>	KC50.4.041	200	256

**Standard**  
Hollow shaft

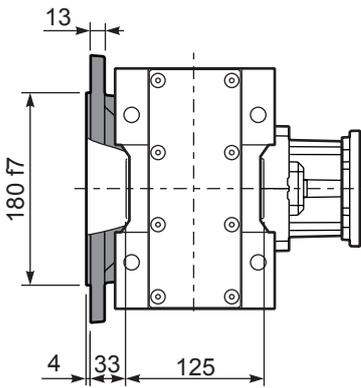


**On request**  
A richiesta

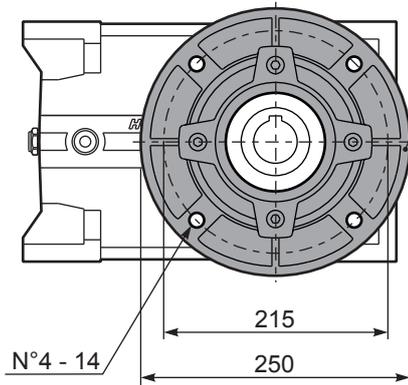


**PH62C...-F**

Output flange  
Flangia uscita

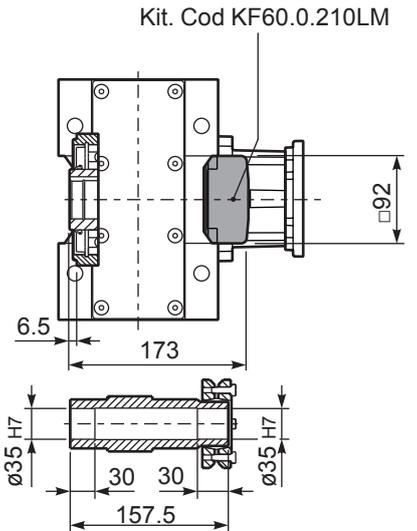


Kit. Cod KF60.9.011



**PH62C D...**

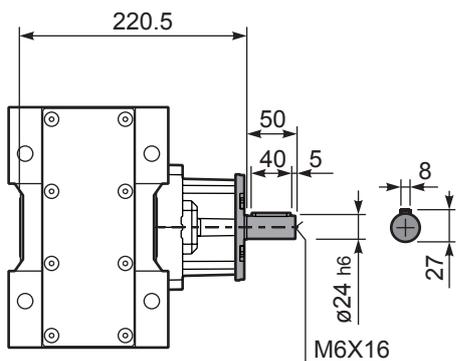
Shrink disk  
Calettatore



Kit. Cod KF60.0.210LM

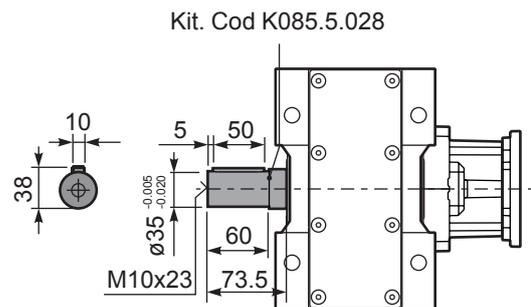
**RH62C...**

Input Shaft  
Albero in entrata



**PH62C A...**

Single output shaft  
Albero uscita semplice



Kit. Cod K085.5.028



QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
22.6	<b>61.89</b>	1.5	594	1.1	1.7	675	B				C	C		191318	01
19.7	<b>71.16</b>	1.5	683	1.0	1.5	675	B				C	C		191316	02
17.0	<b>82.48</b>	1.5	792	0.9	1.3	675	B				C	C		171316	03
14.5	<b>96.29</b>	1.1	675	1.0	1.1	675	B				C	C		171314	04
13.9	<b>100.51</b>	1.1	705	1.0	1.0	675	B				C	C		131318	05
12.1	<b>115.56</b>	0.75	556	1.2	0.91	675	B				C	C		131316	06
11.1	<b>125.96</b>	0.75	606	1.1	0.82	665	B				C	C		190816	07
10.4	<b>134.91</b>	0.75	649	1.0	0.78	675	B				C	C		131314	08
9.5	<b>147.05</b>	0.75	707	1.0	0.72	675	B				C	C		190814	09
8.2	<b>170.44</b>	0.55	605	1.1	0.62	675	B				C	C		170814	10
7.6	<b>184.15</b>	0.55	653	1.0	0.57	675	B				C	C		101314	11
6.8	<b>205.87</b>	0.55	730	0.9	0.51	675	B				C	C		91316	12
5.8	<b>240.34</b>	0.37	570	1.2	0.44	675	B				C	C		91314	13
5.0	<b>279.22</b>	0.37	662	1.0	0.37	665	B				C	C		100816	14
4.3	<b>325.97</b>	0.37	773	0.9	0.32	675	B				C	C		100814	15
3.8	<b>364.41</b>	0.25	583	1.1	0.28	665	B				C	C		90816	16
3.3	<b>425.43</b>	0.25	681	1.0	0.25	675	B				C	C		90814	17
2.9	<b>481.19</b>	0.18	589	1.1	0.22	665	B				C	C		70816	18
2.5	<b>561.76</b>	0.18	687	1.0	0.19	675	B				C	C		70814	19

The dynamic efficiency is **0.94** for all ratios

Motor Flanges Available Flange Motore Disponibili  
 Supplied with Reduction Bushing Fornito con Bussola di Riduzione  
 Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione  
 Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **H63C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **H63C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **H63C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **H63C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **H63C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio							
B3	B6	B7	B8	V5	V6	V8	V8	V8
2.35 LT	3.85 LT	3.15 LT	2.35 LT	4.55 LT	2.50 LT	Ask	Ask	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320				

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{149.5}{X+119.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	600	3000	140	720	3600	70	940	4700
250	640	3200	120	740	3700	40	1220	6100
200	690	3460	85	860	4300	15	1300	6500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

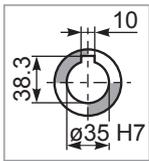
$n_1$	FA	FR
1400	240	1200
900	280	1400
500	340	1700

tab. 2

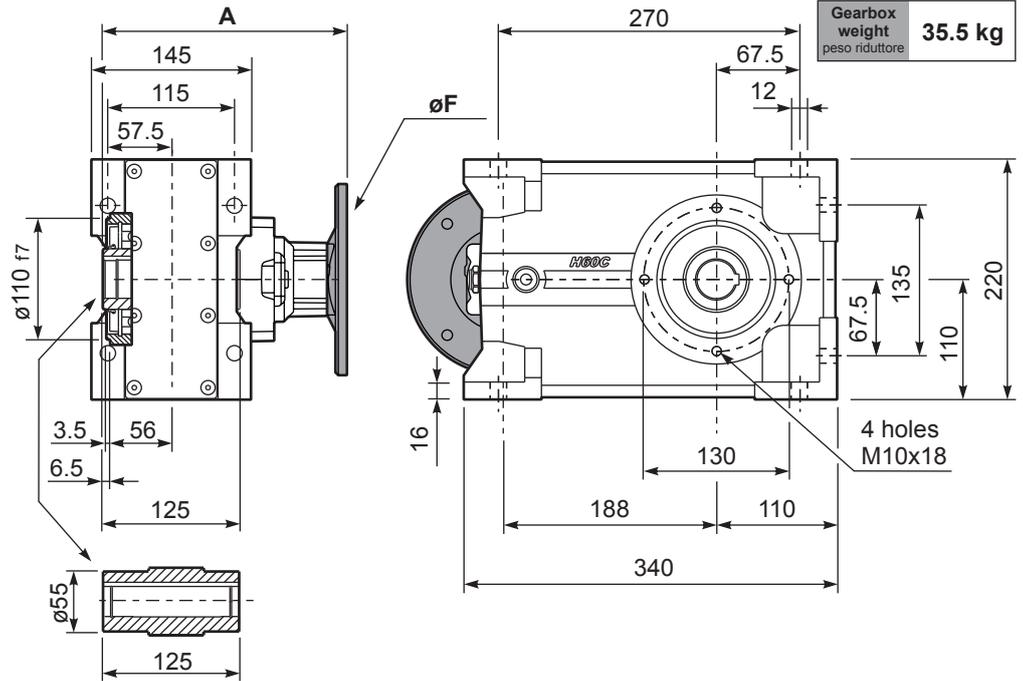
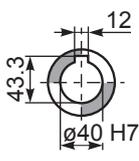
**PH63C...** Basic gearbox  
Riduttore base

M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	239
<b>71B5</b>	K063.4.042	160	237
<b>80/90B5</b>	K063.4.043	200	239
<b>71B14</b>	K063.4.047	105	237
<b>80B14</b>	K063.4.046	120	239
<b>90B14</b>	K063.4.041	140	239

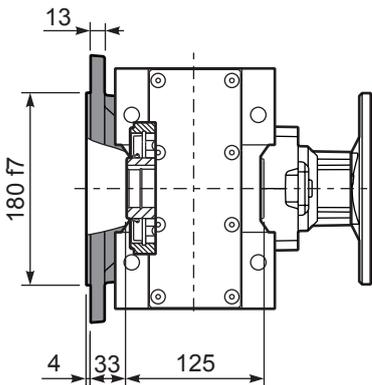
**Standard**  
Hollow shaft



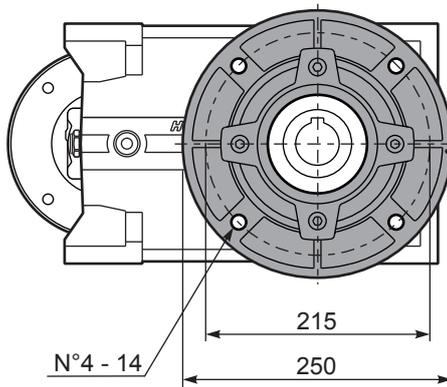
**On request**  
A richiesta



**PH63C...-F** Output flange  
Flangia uscita

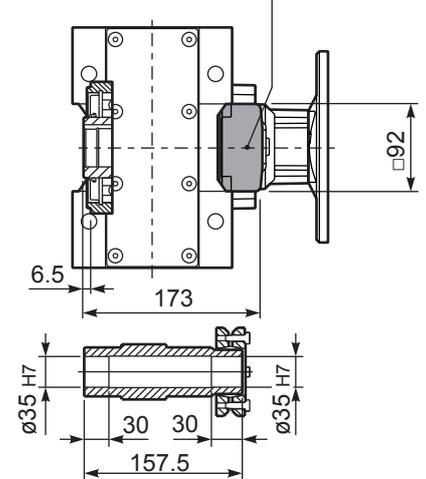


Kit. Cod KF609011

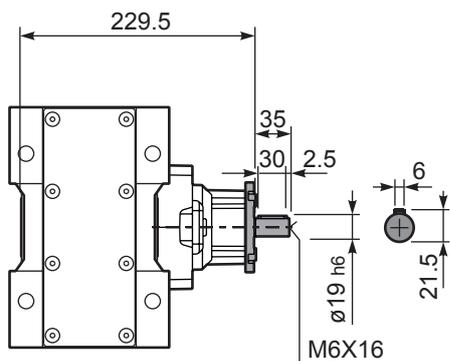


**PH63C D...** Shrink disk  
Calettatore

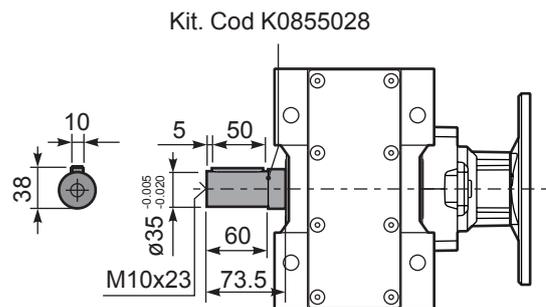
Kit. Cod KF600210LM

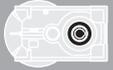


**RH63C...** Input Shaft  
Albero in entrata



**PH63C A...** Single output shaft  
Albero uscita semplice





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				B14 motor flanges				Output Shaft		
							-G								Ratios code		
227	<b>6.17</b>	9	371	1.2	<b>10.9</b>	<b>450</b>	not available				not available				18111	<b>standard</b>	01
198	<b>7.06</b>	9	425	1.4	<b>12.7</b>	<b>600</b>									16113	<b>ø40</b>	02
170	<b>8.21</b>	9	494	1.4	<b>12.2</b>	<b>670</b>									14115	<b>ø45</b>	03
The dynamic efficiency is <b>0.98</b> for all ratios											On request						

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H71C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H71C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H71C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben.  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H71C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H71C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.20 LT	4.65 LT	4.00 LT	3.20 LT	6.00 LT	3.10 LT	Ask
AGIP Blasia 460						

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$

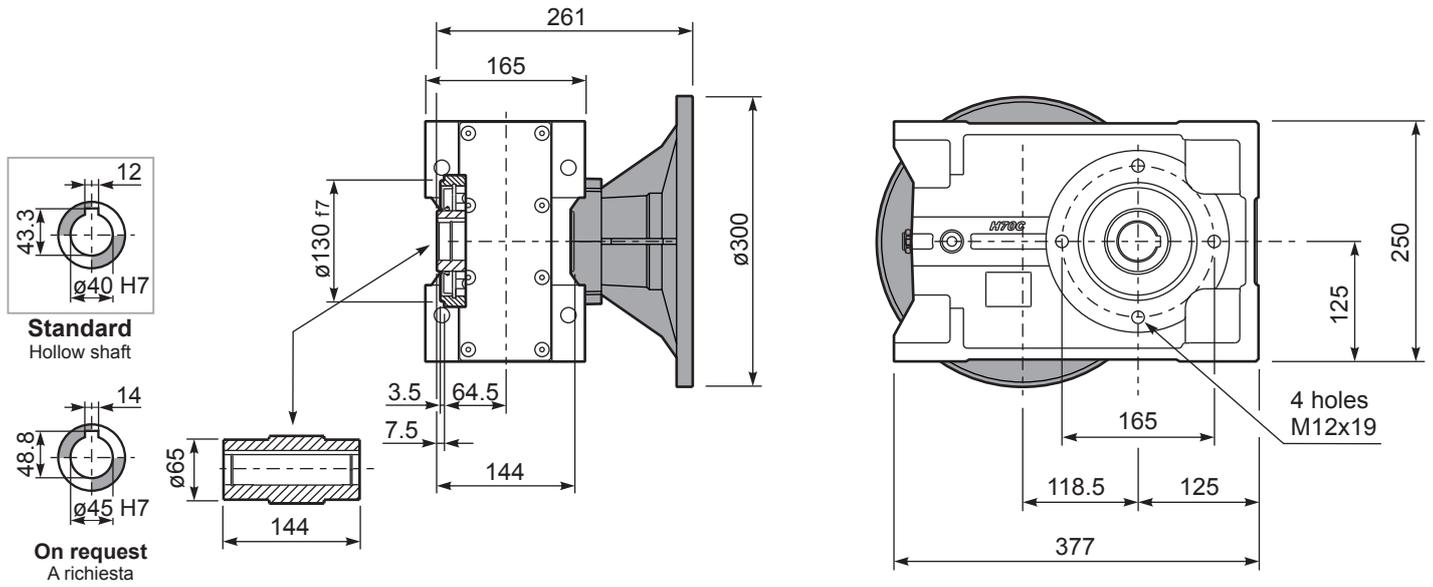
$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$
300	740	3700	140	860	4300	70	1020	5100
250	800	4000	120	900	4500	40	1300	6500
200	830	4150	85	970	4850	15	1700	8500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

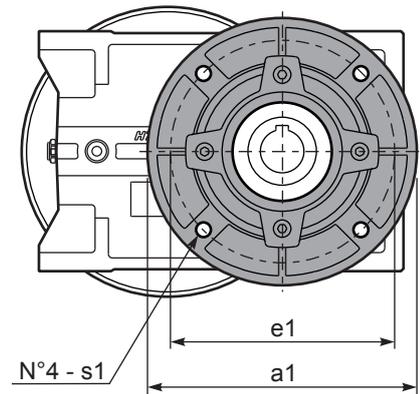
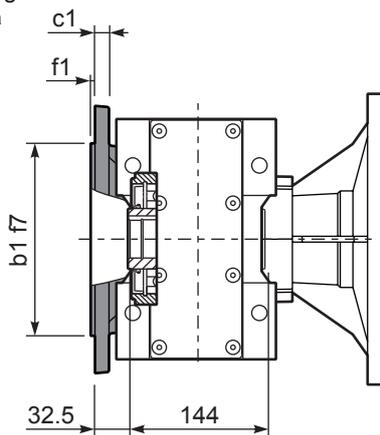
**tab. 2**

**PH71C...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **51.0 kg**



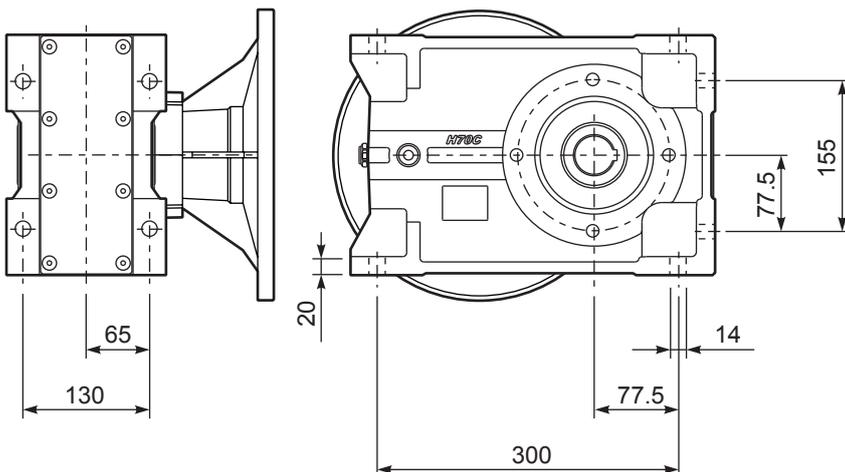
**PH71C...-F** Output flange  
Flangia uscita



Available output flanges  
Flange di uscita

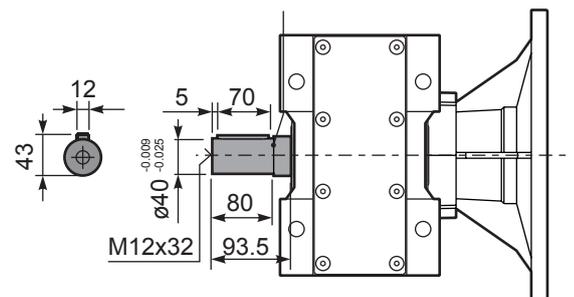
a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

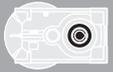
**PH71C...-N** Feet  
Piedini



**PH71C A...** Single output shaft  
Albero uscita semplice

Kit. Cod KF705028





**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
175	<b>8.02</b>	9	473	1.1	<b>9.9</b>	<b>520</b>	B									3018	01
152	<b>9.18</b>	9	541	1.1	<b>9.8</b>	<b>590</b>	B									3016	02
131	<b>10.68</b>	9	630	1.1	<b>9.7</b>	<b>680</b>	B									3014	03
93	<b>15.11</b>	7.5	717	1.1	<b>7.8</b>	<b>775</b>	B									2018	04
81	<b>17.30</b>	7.5	821	1.1	<b>7.8</b>	<b>885</b>	B									2016	05
70	<b>20.13</b>	7.5	955	0.9	<b>6.8</b>	<b>900</b>	B									2014	06
60	<b>23.39</b>	5.5	820	1.1	<b>5.9</b>	<b>900</b>	B									1616	07
51	<b>27.21</b>	5.5	954	0.9	<b>5.1</b>	<b>900</b>	B									1614	08
46.0	<b>30.42</b>	4	780	1.2	<b>4.5</b>	<b>900</b>	B									1316	09
39.6	<b>35.38</b>	4	907	1.0	<b>3.9</b>	<b>900</b>	B									1314	10
37.6	<b>37.24</b>	3	719	1.2	<b>3.7</b>	<b>895</b>	B									1116	11
32.3	<b>43.31</b>	3	836	1.1	<b>3.2</b>	<b>900</b>	B									1114	12
29.8	<b>47.02</b>	2.2	668	1.1	<b>2.3</b>	<b>705</b>	B									818	13
26.0	<b>53.85</b>	2.2	765	1.1	<b>2.3</b>	<b>810</b>	B									816	14
22.4	<b>62.63</b>	2.2	890	1.0	<b>2.2</b>	<b>900</b>	B									814	15
18.9	<b>74.16</b>	1.1	531	1.1	<b>1.2</b>	<b>585</b>	B									616	16
16.2	<b>86.25</b>	1.1	617	1.1	<b>1.2</b>	<b>680</b>	B									614	17

The dynamic efficiency is **0.96** for all ratios

- Motor Flanges Available** Flange Motore Disponibili
- B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **H72C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>	<b>V8</b>
3.20 LT	4.65 LT	4.00 LT	3.20 LT	6.20 LT	3.10 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**I** Il riduttore tipo **H72C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H72C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H72C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H72C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>300</b>	740	3700	<b>140</b>	860	4300	<b>70</b>	1020	5100
<b>250</b>	800	4000	<b>120</b>	900	4500	<b>40</b>	1300	6500
<b>200</b>	830	4150	<b>85</b>	970	4850	<b>15</b>	1700	8500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
<b>1400</b>	450	2250
<b>900</b>	500	2500
<b>500</b>	600	3000

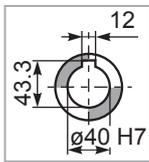
**tab. 2**

**PH72C...**

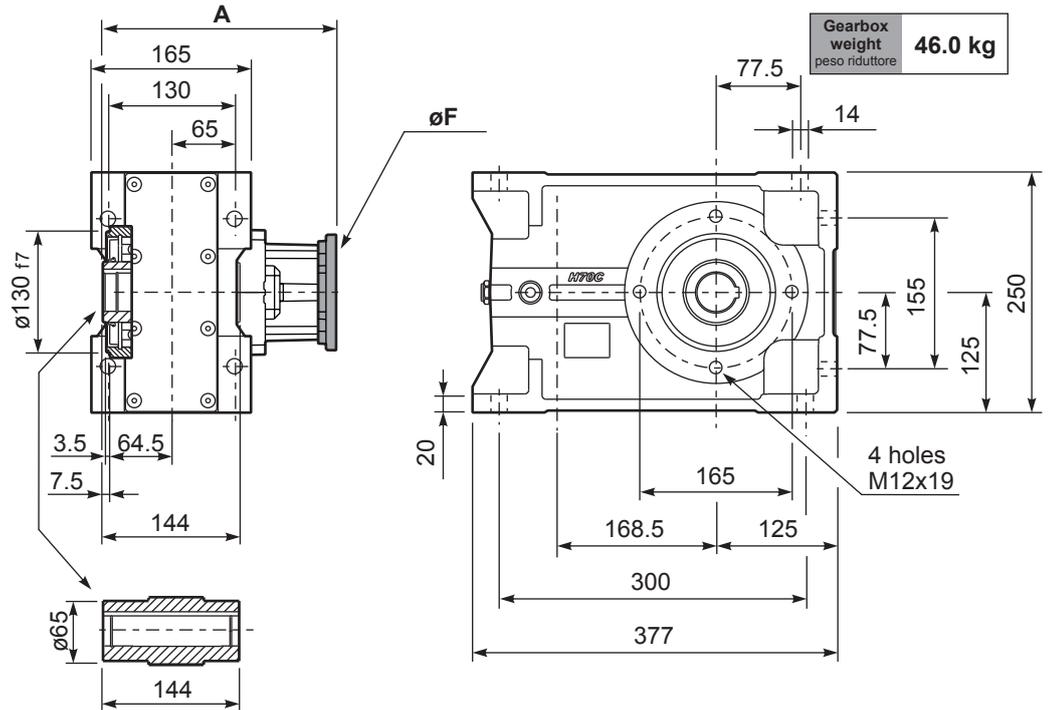
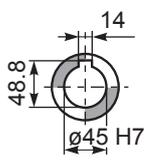
Basic gearbox  
Riduttore base

M. flanges	Kit code	øF	A
71B5	K023.4.041	160	238.5
80/90B5	K023.4.042	200	240.5
100/112B5	K023.4.043	250	249.5
132B5	KC50.4.043	300	267.5
80B14	K085.4.046	120	240.5
90B14	K085.4.045	140	240.5
100/112B14	K085.4.047	160	249.5
132B14	KC50.4.041	200	267.5

**Standard**  
Hollow shaft

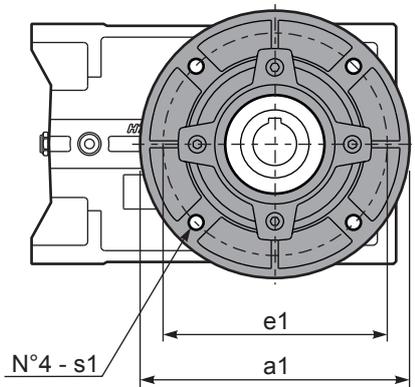
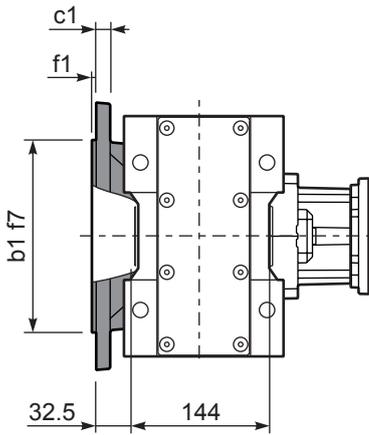


**On request**  
A richiesta



**PH72C...-F**

Output flange  
Flangia uscita



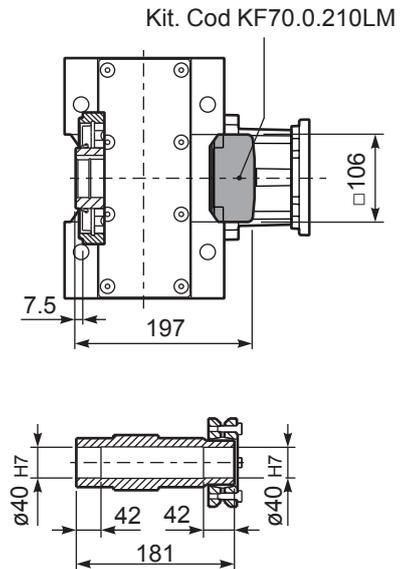
**Available output flanges**

Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

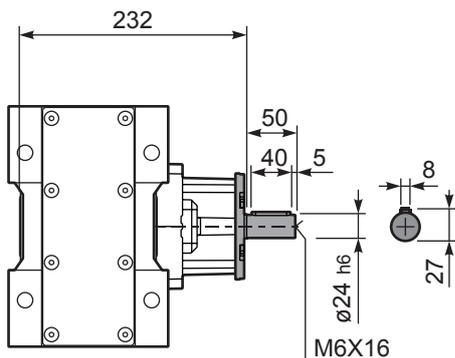
**PH72C D...**

Shrink disk  
Calettatore



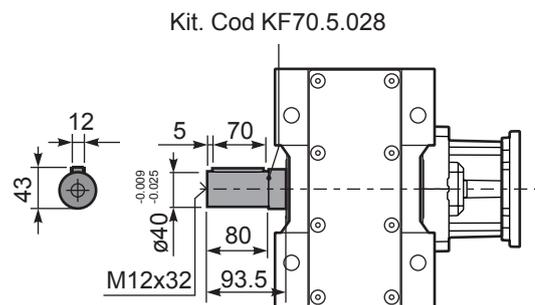
**RH72C...**

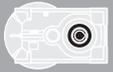
Input Shaft  
Albero in entrata



**PH72C A...**

Single output shaft  
Albero uscita semplice





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.5	<b>75.50</b>	1.5	725	1.1	1.7	825	B				C	C		191318	01
16.2	<b>86.47</b>	1.5	830	1.1	1.6	900	B				C	C		191316	02
14.0	<b>100.22</b>	1.5	962	0.9	1.4	900	B				C	C		171316	03
12.0	<b>116.56</b>	1.1	817	1.1	1.2	900	B				C	C		171314	04
10.2	<b>136.82</b>	1.1	959	0.9	1.0	900	B				C	C		151314	05
9.1	<b>153.05</b>	0.75	736	1.1	0.83	810	B				C	C		190816	06
8.6	<b>163.31</b>	0.75	785	1.1	0.86	900	B				C	C		131314	07
7.9	<b>178.01</b>	0.75	856	1.1	0.79	900	B				C	C		190814	08
7.3	<b>191.67</b>	0.75	922	1.0	0.73	900	B				C	C		101316	09
6.8	<b>206.32</b>	0.75	992	0.9	0.68	900	B				C	C		170814	10
6.3	<b>222.92</b>	0.55	791	1.1	0.63	900	B				C	C		101314	11
5.8	<b>242.18</b>	0.55	859	1.0	0.58	900	B				C	C		150814	12
5.6	<b>250.15</b>	0.55	888	1.0	0.56	900	B				C	C		91316	13
4.8	<b>289.08</b>	0.55	1026	0.9	0.49	900	B				C	C		130814	14
4.2	<b>330.31</b>	0.37	783	1.1	0.42	890	B				C	C		71316	15
3.5	<b>394.59</b>	0.37	936	1.0	0.36	900	B				C	C		100814	16
2.7	<b>514.99</b>	0.25	824	1.1	0.27	900	B				C	C		90814	17
2.1	<b>680.03</b>	0.18	832	1.1	0.21	900	B				C	C		70814	18

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H73C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H73C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H73C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H73C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **H73C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
3.30 LT	5.70 LT	4.15 LT	3.30 LT	6.40 LT	3.25 LT	Ask

AGIP Blasias 460

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{174.5}{X+134.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	740	3700	140	860	4300	70	1020	5100
250	800	4000	120	900	4500	40	1300	6500
200	830	4150	85	970	4850	15	1700	8500

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

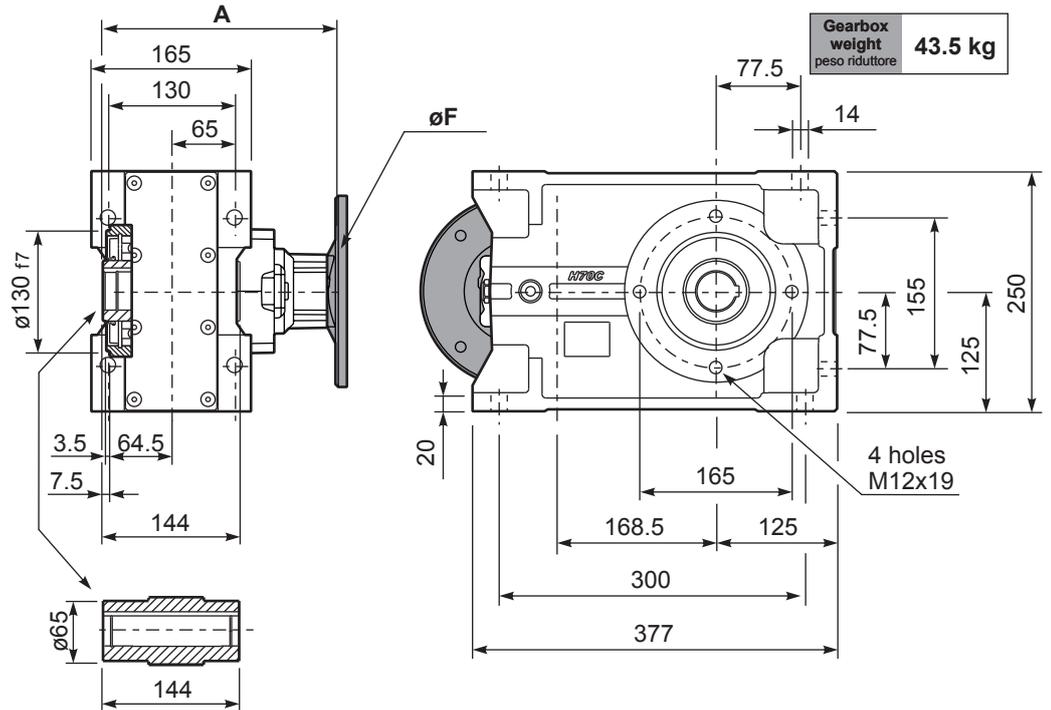
**tab. 2**

**PH73C...**

Basic gearbox  
Riduttore base

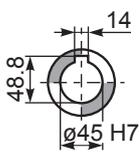
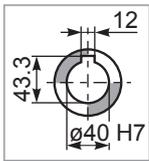
Gearbox weight  
peso riduttore **43.5 kg**

M. flanges	Kit code	øF	A
63B5	K063.4.041	140	250.5
71B5	K063.4.042	160	248.5
80/90B5	K063.4.043	200	250.5
71B14	K063.4.047	105	248.5
80B14	K063.4.046	120	250.5
90B14	K063.4.041	140	250.5



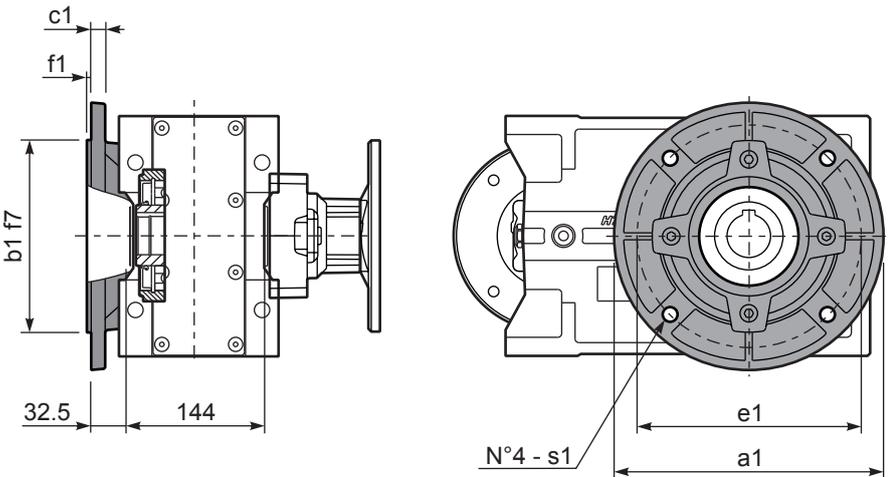
**Standard**  
Hollow shaft

**On request**  
A richiesta



**PH73C...-F**

Output flange  
Flangia uscita



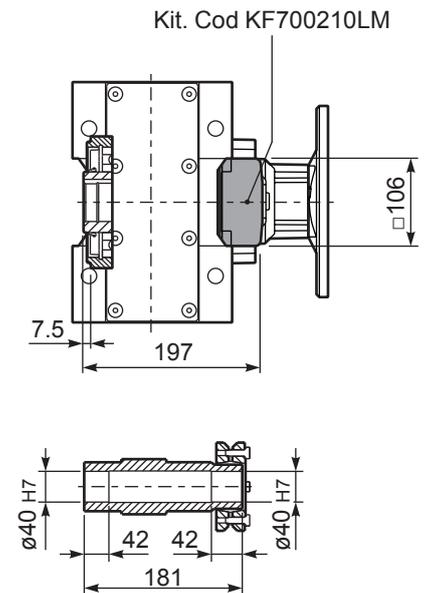
**Available output flanges**

Flange di uscita

a1 ø	b1	c1	e1	f1	s1	Kit code
250	180	13	215	3	14	KF70.9.011
300	230	16	265	4	14	KF70.9.012

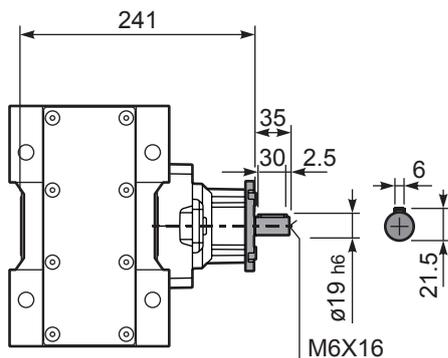
**PH73C D...**

Shrink disk  
Calettatore



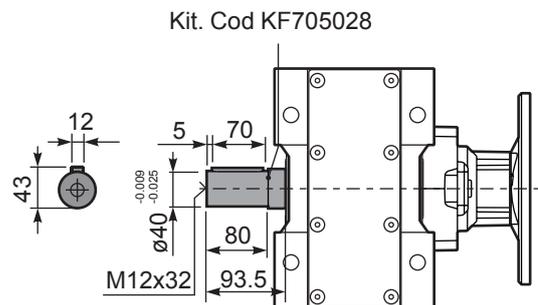
**RH73C...**

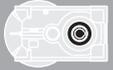
Input Shaft  
Albero in entrata



**PH73C A...**

Single output shaft  
Albero uscita semplice





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges				Output Shaft 	Ratios code	
							-H	-I	-	-	-	-			
							160	180	-	-	-	-			
528	<b>2.65</b>	22	374	1.7	<b>36.7</b>	<b>650</b>			<b>not available</b>				2361	<b>standard</b>	01
409	<b>3.42</b>	22	483	1.6	<b>32.8</b>	<b>750</b>							1965	<b>ø50</b>	02
304	<b>4.60</b>	22	649	1.5	<b>30.9</b>	<b>950</b>							1569		03
256	<b>5.46</b>	22	771	1.3	<b>27.4</b>	<b>1000</b>							1371	ø55	04
211	<b>6.64</b>	22	937	1.3	<b>26.5</b>	<b>1175</b>							1173	On request	05

The dynamic efficiency is **0.98** for all ratios

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **H81C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H81C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H81C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H81C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H81C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.70 LT	7.00 LT	7.90 LT	5.70 LT	10.20 LT	5.60 LT	Ask
AGIP Blasias 460						

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

Output shaft  
Albero di uscita

$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

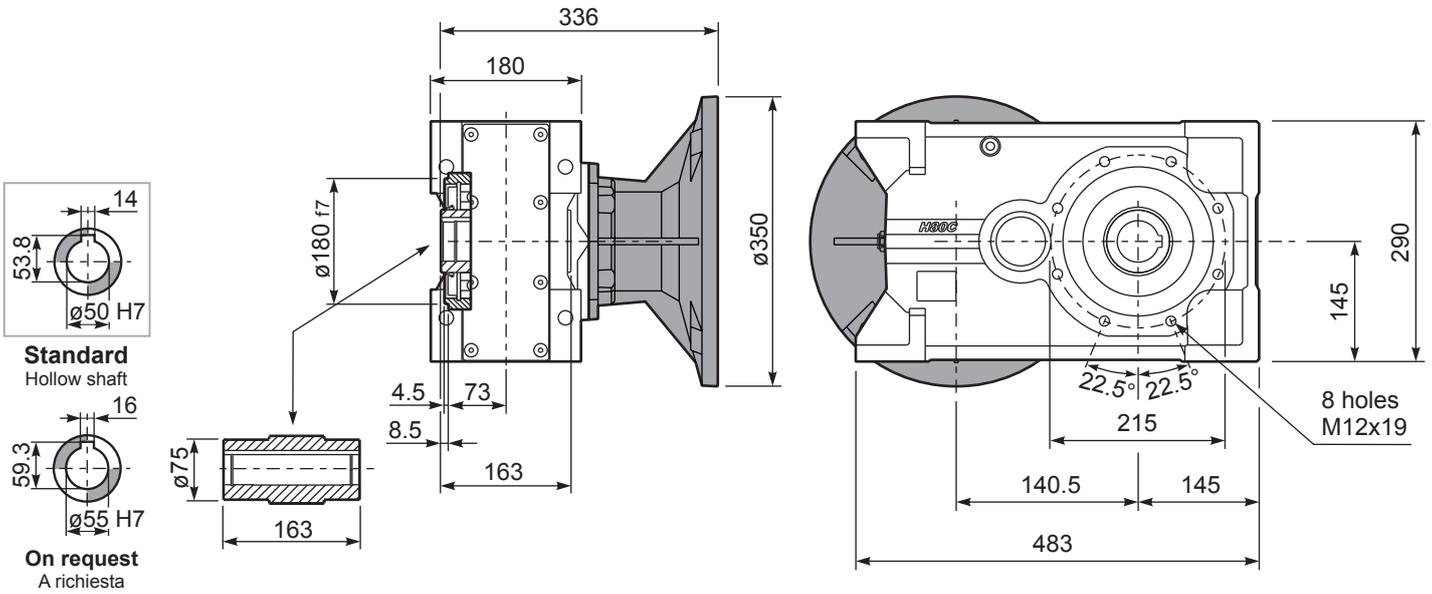
**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**tab. 2**

**PH81C...**

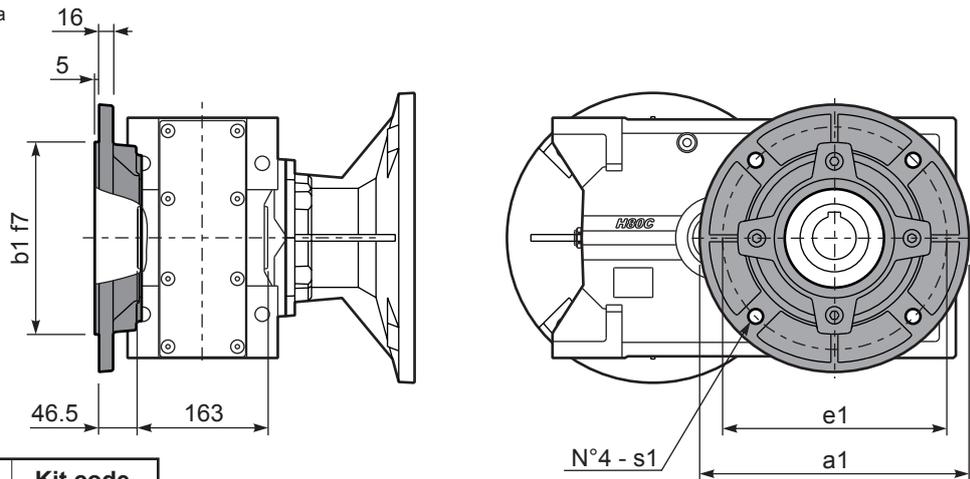
Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **89.0 kg**



**PH81C...-F**

Output flange  
Flangia uscita

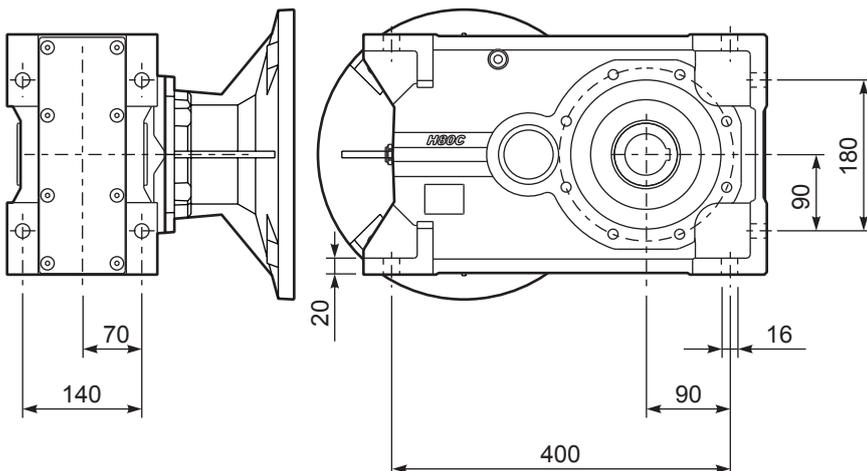


Available output flanges  
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012
400	300	350	18	KF80.9.013

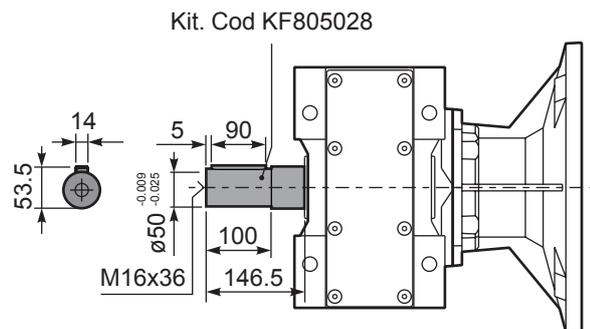
**PH81C...-N**

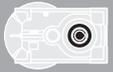
Feet  
Piedini



**PH81C A...**

Single output shaft  
Albero uscita semplice





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code 
							-F	-G	-H	-I	-	-	-	-		
							100	132	160	180	-	-	-	-		
234	<b>5.98</b>	22	827	1.2	<b>25.5</b>	<b>1000</b>	B							3015	01	
197	<b>7.10</b>	22	982	1.2	<b>25.3</b>	<b>1175</b>	B							3013	02	
162	<b>8.63</b>	22	1193	1.1	<b>23.9</b>	<b>1350</b>	B							3011	03	
124	<b>11.27</b>	18.5	1310	1.1	<b>20.3</b>	<b>1500</b>	B							2015	04	
105	<b>13.38</b>	18.5	1555	1.1	<b>19.4</b>	<b>1700</b>	B							2013	05	
92	<b>15.24</b>	18.5	1771	1.1	<b>19.0</b>	<b>1900</b>	B							1615	06	
86	<b>16.26</b>	18.5	1889	1.1	<b>19.7</b>	<b>2100</b>	B							2011	07	
77	<b>18.09</b>	18.5	2102	1.0	<b>17.7</b>	<b>2100</b>	B							1613	08	
71	<b>19.82</b>	15	1865	1.1	<b>15.9</b>	<b>2060</b>	B							1315	09	
64	<b>21.98</b>	15	2069	1.0	<b>14.6</b>	<b>2100</b>	B							1611	10	
60	<b>23.53</b>	15	2214	0.9	<b>13.6</b>	<b>2100</b>	B							1313	11	
58	<b>24.25</b>	11	1677	1.2	<b>12.2</b>	<b>1940</b>	B							1115	12	
48.6	<b>28.80</b>	11	1991	1.1	<b>11.1</b>	<b>2100</b>	B							1113	13	
40.0	<b>34.99</b>	9	2063	1.0	<b>9.2</b>	<b>2100</b>	B							1111	14	
33.6	<b>41.64</b>	7.5	1976	1.0	<b>7.2</b>	<b>1960</b>	B							813	15	
27.7	<b>50.60</b>	5.5	1774	1.2	<b>6.3</b>	<b>2100</b>	B							811	16	

The dynamic efficiency is **0.96** for all ratios

- Motor Flanges Available  
Flange Motore Disponibili
- Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione
- Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione
- Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **H82C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H82C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H82C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H82C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H82C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.60 LT	6.80 LT	7.80 LT	5.60 LT	10.00 LT	5.50 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

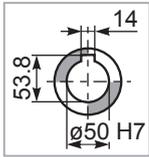
$n_1$	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

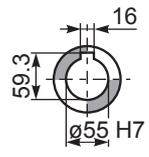
**PH82C...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **86.0 kg**

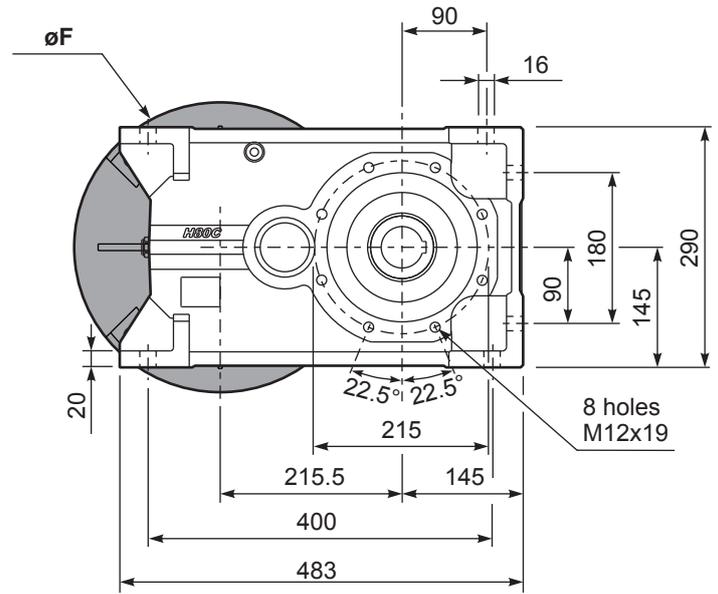
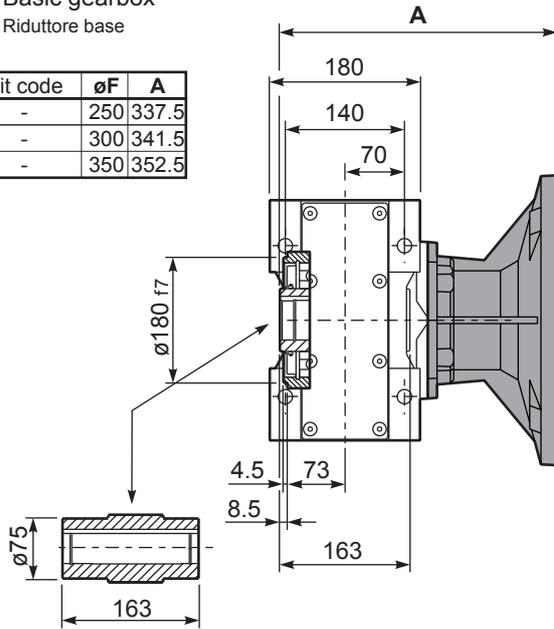
M. flanges	Kit code	øF	A
100/112B5	-	250	337.5
132B5	-	300	341.5
160/180B5	-	350	352.5



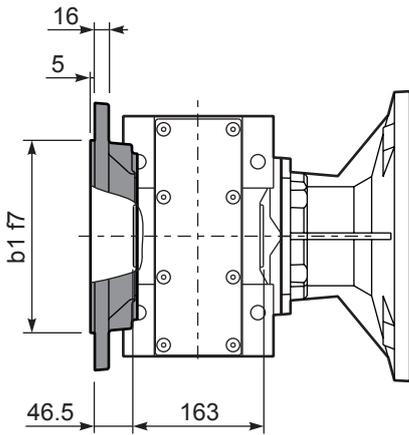
**Standard**  
Hollow shaft



**On request**  
A richiesta

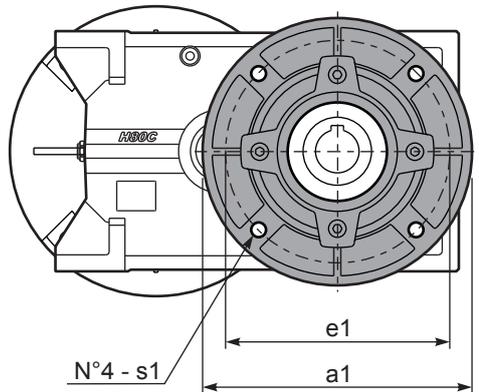


**PH82C...-F** Output flange  
Flangia uscita

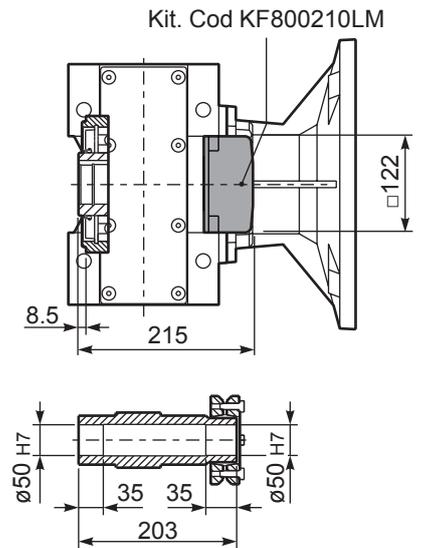


**Available output flanges**  
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012
400	300	350	18	KF80.9.013

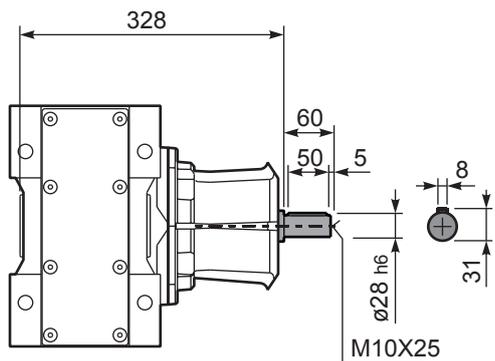


**PH82C D...** Shrink disk  
Calettatore

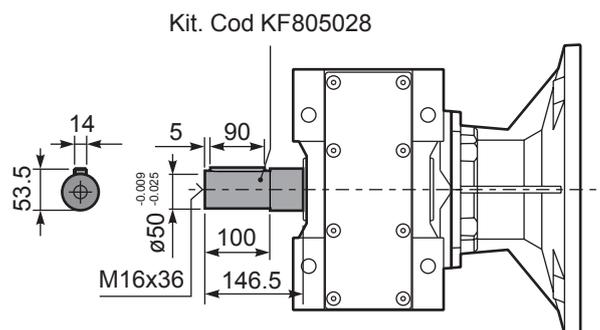


Kit. Cod KF800210LM

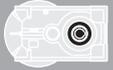
**RH82C...** Input Shaft  
Albero in entrata



**PH82C A...** Single output shaft  
Albero uscita semplice



Kit. Cod KF805028



**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\varnothing$	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
28.8	<b>48.55</b>	7.5	2257	0.9	6.7	2100	B									201315	01
24.3	<b>57.64</b>	5.5	1980	1.1	5.7	2100	B									201313	02
21.3	<b>65.64</b>	5.5	2255	0.9	5.0	2100	B									161315	03
20.0	<b>70.04</b>	4	1760	1.2	4.7	2100	B									201311	04
18.0	<b>77.93</b>	4	1958	1.1	4.2	2100	B									161313	05
16.4	<b>85.36</b>	4	2145	1.0	3.8	2100	B									131315	06
14.8	<b>94.70</b>	4	2380	0.9	3.5	2100	B									161311	07
13.8	<b>101.35</b>	3	1917	1.1	3.2	2100	B									131313	08
11.4	<b>123.15</b>	3	2330	0.9	2.7	2100	B									131311	09
9.3	<b>150.73</b>	2.2	2100	1.0	2.2	2100	B									111311	10
7.8	<b>179.39</b>	1.5	1722	1.2	1.8	2100	B									81313	11
6.4	<b>217.98</b>	1.5	2093	1.0	1.5	2100	B									81311	12
5.7	<b>247.03</b>	1.1	1732	1.1	1.2	1950	B									61313	13
4.7	<b>300.17</b>	1.1	2105	1.0	1.1	2100	B									61311	14

The dynamic efficiency is **0.94** for all ratios

- Motor Flanges Available  
Flange Motore Disponibili
- Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione
- Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione
- Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **H83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **H83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **H83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **H83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **H83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
5.80 LT	7.10 LT	8.20 LT	5.80 LT	10.80 LT	6.00 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{227.5}{X+177.5}$

$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$	$n_2$	$F_A$	$F_R$
300	920	4600	140	1120	5600	70	1400	7000
250	1000	5000	120	1140	5700	40	1800	9000
200	1060	5300	85	1300	6500	15	2400	12000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

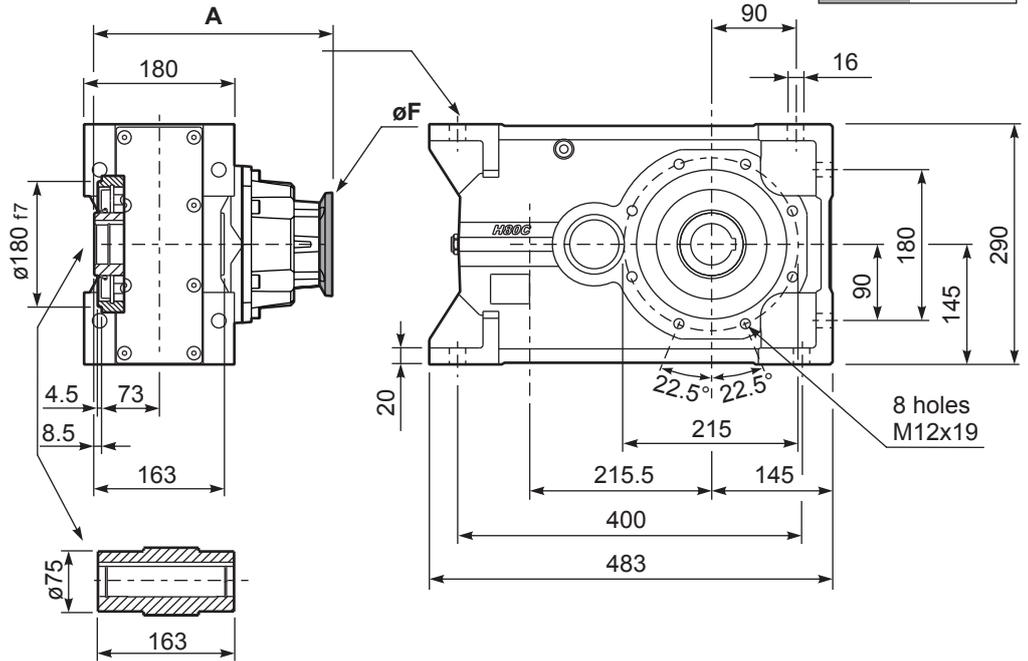
$n_1$	$F_A$	$F_R$
1400	450	2250
900	500	2500
500	600	3000

**tab. 2**

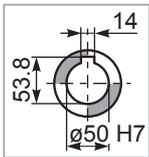
**PH83C...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **81.0 kg**

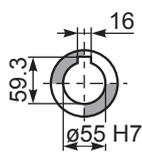
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	292.5
80/90B5	K023.4.042	200	294.5
100/112B5	K023.4.043	250	303.5
132B5	KC50.4.043	300	321.5
80B14	K085.4.046	120	294.5
90B14	K085.4.045	140	294.5
100/112B14	K085.4.047	160	303.5
132B14	KC50.4.041	200	321.5



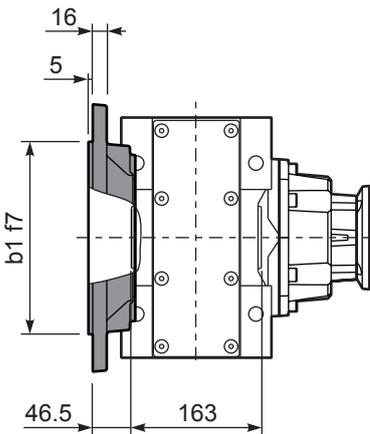
**Standard**  
Hollow shaft



**On request**  
A richiesta

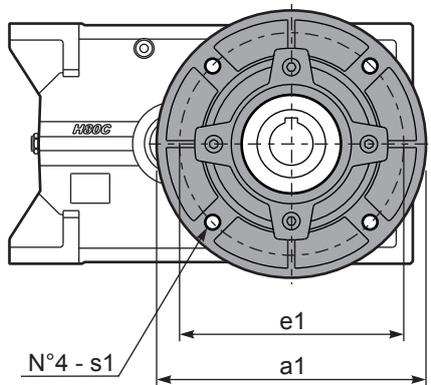


**PH83C...-F** Output flange  
Flangia uscita



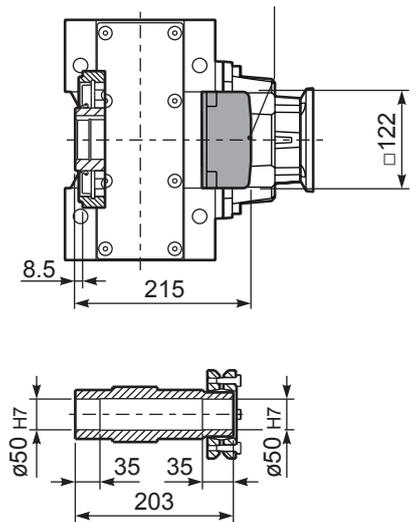
**Available output flanges**  
Flange di uscita

a1 ø	b1	e1	s1	Kit code
300	230	265	14	KF80.9.011
350	250	300	18	KF80.9.012
400	300	350	18	KF80.9.013

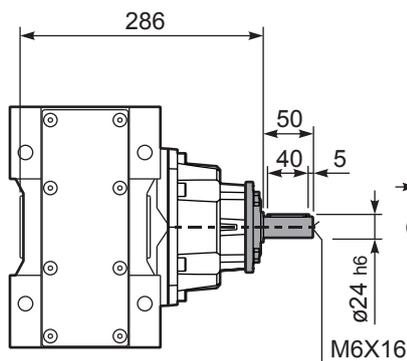


**PH83C D...** Shrink disk  
Calettatore

Kit. Cod KF80.0.210LM

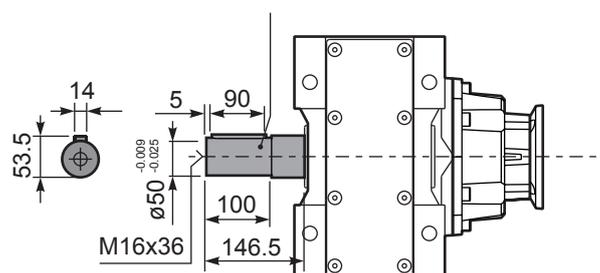


**RH83C...** Input Shaft  
Albero in entrata



**PH83C A...** Single output shaft  
Albero uscita semplice

Kit. Cod KF80.5.028



# Aluminum and cast iron helical bevel gearboxes

**A modular and compact product**  
**Very energy efficient drive**

## Removable inspection cover

Allows periodic inspection of gearing during routine maintenance

## Gears

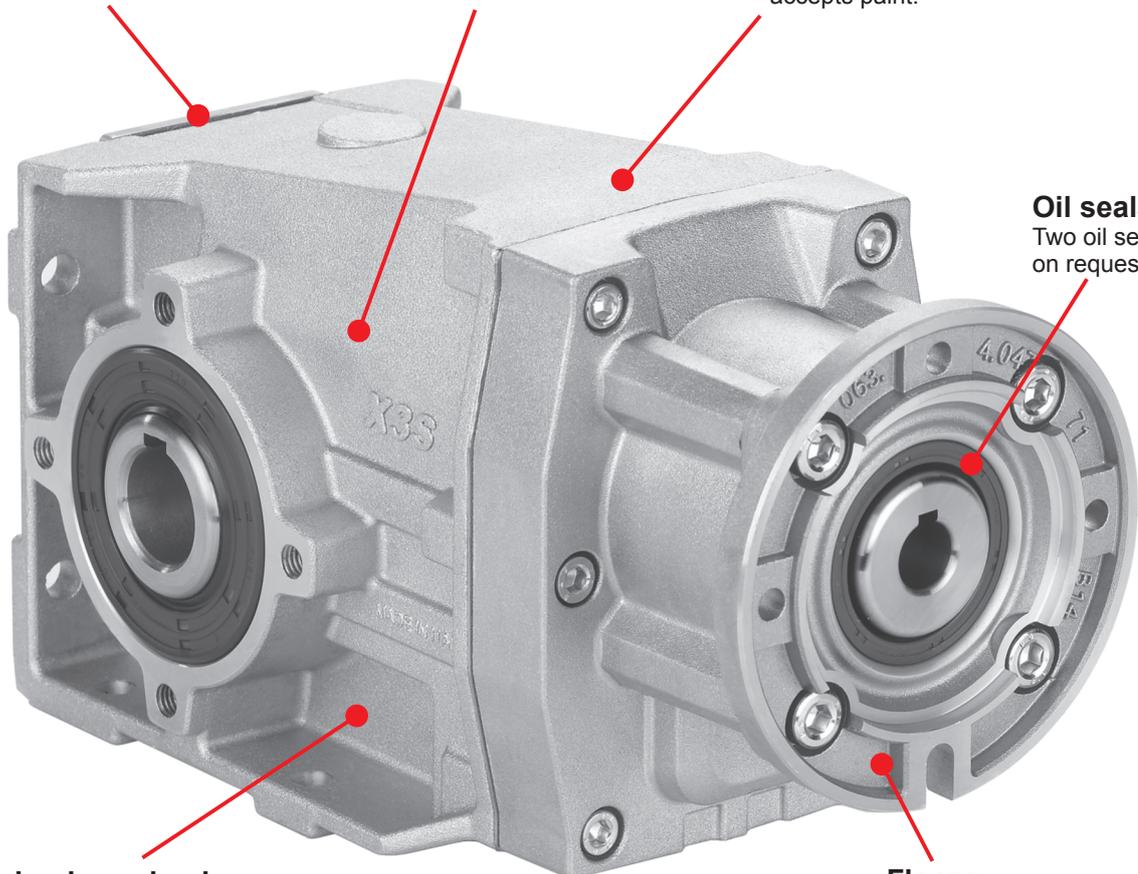
Hardened and ground gears

## Alloy housing

Is vacuum impregnated (MIL-STD 276) for protection and sealing. No secondary finish required but readily accepts paint.

## Oil seals

Two oil seals on request



## Single-piece aluminum

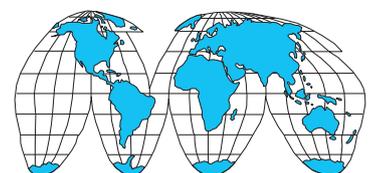
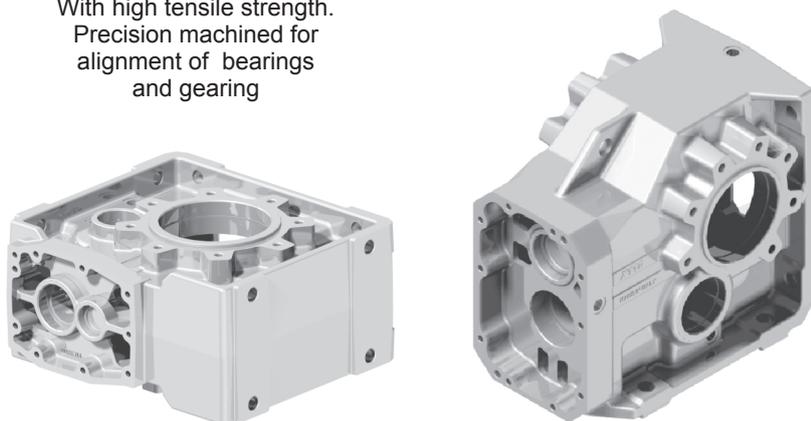
Combines light weight with high tensile strength. Precision machined for alignment of bearings and gearing

## Flange

Fully modular to IEC and Compact integrated motor. NEMA C flange

## Cast Iron housing

With high tensile strength. Precision machined for alignment of bearings and gearing

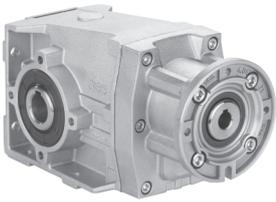


World wide sales network.

# Specific type datasheet on page...

On page / A pagina / Auf Seite / À la page / En la página

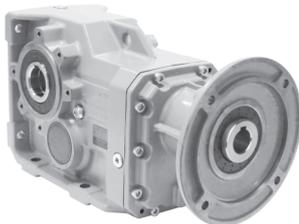
8-5	8-7	8-9	8-11	8-13	8-15	8-17	8-19	8-21
<b>X22S</b> 50Nm	<b>X32S</b> 90Nm	<b>X33S</b> 100Nm	<b>X42A</b> 150Nm	<b>X43A</b> 160Nm	<b>X52A</b> 250Nm	<b>X53A</b> 250Nm	<b>X62A</b> 410Nm	<b>X63A</b> 410Nm



Types / Tipi  
Typen / Types  
Tipos

On page / A pagina / Auf Seite / À la page / En la página

8-23	8-25	8-27	8-29	8-31	8-33	8-35	8-37	8-39	8-41
<b>X73C</b> 675Nm	<b>X74C</b> 675Nm	<b>X83C</b> 1000Nm	<b>X84C</b> 1000Nm	<b>X93C</b> 1600Nm	<b>X94C</b> 1650Nm	<b>X103</b> 3000Nm	<b>X104</b> 3000Nm	<b>X113</b> 4500Nm	<b>X114</b> 4600Nm



Types / Tipi  
Typen / Types  
Tipos

On page / A pagina / Auf Seite / À la page / En la página

8-43	8-45	8-47	8-49
<b>113C</b> 675Nm	<b>114C</b> 675Nm	<b>133C</b> 1000Nm	<b>134C</b> 1000Nm



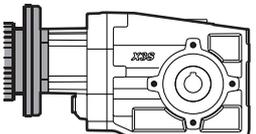
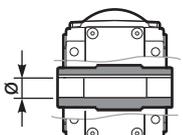
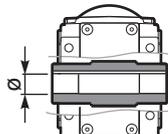
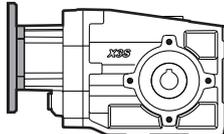
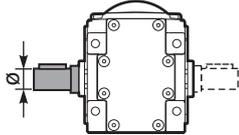
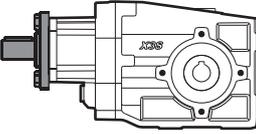
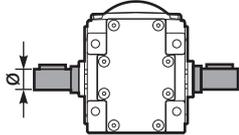
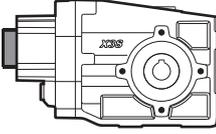
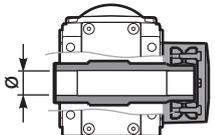
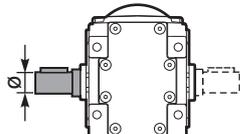
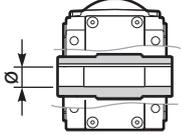
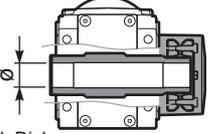
Types / Tipi  
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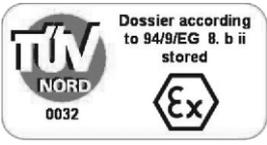
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M-1									
<b>56A</b> 56B	<b>63A</b> 63B	<b>71A</b> 71B	<b>80A</b> 80B	<b>90S</b> 90L	<b>100LA</b> 100LB	<b>112M</b>	<b>132S</b> 132M	<b>160M</b> 160L	<b>180M</b> 180L

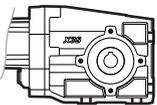
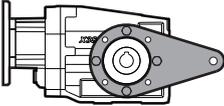
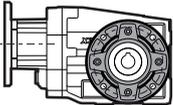
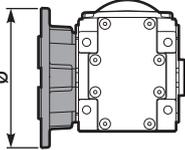
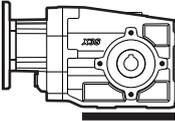
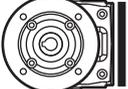
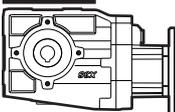
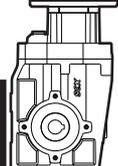
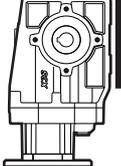
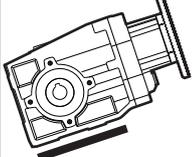
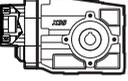
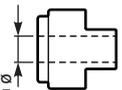


Types / Tipi  
Typen / Types  
Tipos

Type - Tipo - Typ Type - Tipo	Size - Grandezza - Größe Taille - Tomaño	Mounting - Montaggio Montage - Fixation Tipo de montaje	Rapporto - Ratio Untersetzung Reduction Relacion	Output shaft - Albero uscita Ausgangsflansch Arbre de sortie Brida en solida																																		
<b>M</b>	<b>X22S</b>	<b>C</b>	<b>4.83</b>	<b>-A</b>																																		
<p>Helical-bevel gear Riduttori ortogonali</p>  <p>With IEC motor</p> <p><b>M</b></p>	<p>2 Stages Riduzioni Stufen Trains Etapas</p> <p>3 Stages Riduzioni Stufen Trains Etapas</p> <p><b>Aluminum Alluminio Aluminium Aluminio</b></p>	 <p>Hollow output shaft</p> <p><b>C</b></p>	<p>See technical data table</p> <p>Vedi tabella dati tecnici.</p> <p>Technisches Datenblatt beachten</p> <p>Voir Tableau données techniques</p> <p>Ver tabla datos técnicos</p>	 <p>→ <b>STANDARD</b></p> <p>Hollow output shaft</p> <table border="1"> <tr> <td>X22S</td> <td>X73/4C X83/4C</td> </tr> <tr> <td>-A ⇒ <math>\varnothing 18</math></td> <td>-F ⇒ <math>\varnothing 40</math></td> </tr> <tr> <td>-B ⇒ <math>\varnothing 20</math></td> <td>-H ⇒ <math>\varnothing 45</math></td> </tr> <tr> <td></td> <td>113C 114C</td> </tr> <tr> <td>X32S X33S</td> <td>-F ⇒ <math>\varnothing 40</math></td> </tr> <tr> <td>-B ⇒ <math>\varnothing 20</math></td> <td>-G ⇒ <math>\varnothing 42</math></td> </tr> <tr> <td>-C ⇒ <math>\varnothing 25</math></td> <td>133C 134C</td> </tr> <tr> <td>X42A X43A</td> <td>-F ⇒ <math>\varnothing 40</math></td> </tr> <tr> <td>-C ⇒ <math>\varnothing 25</math></td> <td>-H ⇒ <math>\varnothing 45</math></td> </tr> <tr> <td>-D ⇒ <math>\varnothing 30</math></td> <td>X93C X94C</td> </tr> <tr> <td>X52A X53A</td> <td>-H ⇒ <math>\varnothing 45</math></td> </tr> <tr> <td>-D ⇒ <math>\varnothing 30</math></td> <td>-J ⇒ <math>\varnothing 50</math></td> </tr> <tr> <td>-E ⇒ <math>\varnothing 35</math></td> <td>X103 X104</td> </tr> <tr> <td>X62A X63A</td> <td>-K ⇒ <math>\varnothing 60</math></td> </tr> <tr> <td>-E ⇒ <math>\varnothing 35</math></td> <td>X113 X114</td> </tr> <tr> <td>-F ⇒ <math>\varnothing 40</math></td> <td>-T ⇒ <math>\varnothing 70</math></td> </tr> </table>	X22S	X73/4C X83/4C	-A ⇒ $\varnothing 18$	-F ⇒ $\varnothing 40$	-B ⇒ $\varnothing 20$	-H ⇒ $\varnothing 45$		113C 114C	X32S X33S	-F ⇒ $\varnothing 40$	-B ⇒ $\varnothing 20$	-G ⇒ $\varnothing 42$	-C ⇒ $\varnothing 25$	133C 134C	X42A X43A	-F ⇒ $\varnothing 40$	-C ⇒ $\varnothing 25$	-H ⇒ $\varnothing 45$	-D ⇒ $\varnothing 30$	X93C X94C	X52A X53A	-H ⇒ $\varnothing 45$	-D ⇒ $\varnothing 30$	-J ⇒ $\varnothing 50$	-E ⇒ $\varnothing 35$	X103 X104	X62A X63A	-K ⇒ $\varnothing 60$	-E ⇒ $\varnothing 35$	X113 X114	-F ⇒ $\varnothing 40$	-T ⇒ $\varnothing 70$		
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 <p>With motor flange</p> <p><b>P</b></p>	<p><b>X22S X32S X42A X52A X62A</b></p>	 <p>Single output shaft</p> <p><b>A</b></p>																																				
 <p>With male input shaft</p> <p><b>R</b></p>	<p><b>X33S X43A X53A X63A</b></p>	 <p>Double output shaft only for 113/4C, 133/4C, X73/4C, X83/4C, X93/4C, X103/4 and X113/4</p> <p><b>B</b></p>																																				
 <p>Modular base</p> <p><b>B</b></p> <p>Not available for: X93C, X103, X104, X113, X114.</p>	<p>3 Stages Riduzioni Stufen Trains Etapas</p> <p>4 Stages Riduzioni Stufen Trains Etapas</p> <p><b>Cast Iron Ghisa Grauguss Fonte Fundicion</b></p> <table border="1"> <tr> <td><b>113C</b></td> <td><b>114C</b></td> </tr> <tr> <td><b>133C</b></td> <td><b>134C</b></td> </tr> <tr> <td><b>X73C</b></td> <td><b>X74C</b></td> </tr> <tr> <td><b>X83C</b></td> <td><b>X84C</b></td> </tr> <tr> <td><b>X93C</b></td> <td><b>X94C</b></td> </tr> <tr> <td><b>X103</b></td> <td><b>X104</b></td> </tr> <tr> <td><b>X113</b></td> <td><b>X114</b></td> </tr> </table>	<b>113C</b>	<b>114C</b>	<b>133C</b>	<b>134C</b>	<b>X73C</b>	<b>X74C</b>	<b>X83C</b>	<b>X84C</b>	<b>X93C</b>	<b>X94C</b>	<b>X103</b>	<b>X104</b>	<b>X113</b>	<b>X114</b>	 <p>Shrink Disk (only on the DX side)</p> <p><b>D</b></p> <p>Only on request for Q.ty A richiesta per quantità</p>		 <p>Single and double output shaft</p> <table border="1"> <tr> <td>-I X22S X32/3S</td> <td>⇒ <math>\varnothing 20</math></td> </tr> <tr> <td>-L X32/3S X42/3A</td> <td>⇒ <math>\varnothing 25</math></td> </tr> <tr> <td>-M X52/3A</td> <td>⇒ <math>\varnothing 30</math></td> </tr> <tr> <td>-N X52/3A X62/3A X73/4A*</td> <td>⇒ <math>\varnothing 35</math></td> </tr> <tr> <td>-V X83/4A 113/4C</td> <td>⇒ <math>\varnothing 40^*</math></td> </tr> <tr> <td>-O 113/4C</td> <td>⇒ <math>\varnothing 42^*</math></td> </tr> <tr> <td>-P 133/4C</td> <td>⇒ <math>\varnothing 45^*</math></td> </tr> <tr> <td>-1 X93/4C</td> <td>⇒ <math>\varnothing 50^*</math></td> </tr> <tr> <td>-3 X103/4</td> <td>⇒ <math>\varnothing 60^*</math></td> </tr> <tr> <td>-5 X113/4</td> <td>⇒ <math>\varnothing 70^*</math></td> </tr> </table> <p>* Also available double output shaft</p>	-I X22S X32/3S	⇒ $\varnothing 20$	-L X32/3S X42/3A	⇒ $\varnothing 25$	-M X52/3A	⇒ $\varnothing 30$	-N X52/3A X62/3A X73/4A*	⇒ $\varnothing 35$	-V X83/4A 113/4C	⇒ $\varnothing 40^*$	-O 113/4C	⇒ $\varnothing 42^*$	-P 133/4C	⇒ $\varnothing 45^*$	-1 X93/4C	⇒ $\varnothing 50^*$	-3 X103/4	⇒ $\varnothing 60^*$	-5 X113/4	⇒ $\varnothing 70^*$
<b>113C</b>	<b>114C</b>																																					
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-V X83/4A 113/4C	⇒ $\varnothing 40^*$																																					
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 <p>Stainless steel hub</p> <p><b>I</b></p> <p><b>Stainless steel hub Mozzo in acciaio Inox Edelstahlhohlwelle Moyeu en acier Inox Nucleo corona de acero Inox</b></p> <p>Only on request for Q.ty A richiesta per quantità</p>				 <p>Shrink Disk</p> <table border="1"> <tr> <td>-U X22S X32/3S</td> <td>⇒ <math>\varnothing 20</math></td> </tr> <tr> <td>-Q X42/3A</td> <td>⇒ <math>\varnothing 30</math></td> </tr> <tr> <td>-R X52/3A</td> <td>⇒ <math>\varnothing 35</math></td> </tr> <tr> <td>-S X62/3A X73/4A X83/4A 113/4C</td> <td>⇒ <math>\varnothing 40</math></td> </tr> <tr> <td>-6 133/4C</td> <td>⇒ <math>\varnothing 45</math></td> </tr> <tr> <td>-7 X93/4C</td> <td>⇒ <math>\varnothing 50</math></td> </tr> <tr> <td>-8 X103/4</td> <td>⇒ <math>\varnothing 65</math></td> </tr> <tr> <td>-9 X113/4</td> <td>⇒ <math>\varnothing 75</math></td> </tr> </table>	-U X22S X32/3S	⇒ $\varnothing 20$	-Q X42/3A	⇒ $\varnothing 30$	-R X52/3A	⇒ $\varnothing 35$	-S X62/3A X73/4A X83/4A 113/4C	⇒ $\varnothing 40$	-6 133/4C	⇒ $\varnothing 45$	-7 X93/4C	⇒ $\varnothing 50$	-8 X103/4	⇒ $\varnothing 65$	-9 X113/4	⇒ $\varnothing 75$																		
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On request we can deliver our products according to the ATEX  
 A richiesta possiamo fornire i nostri prodotti secondo le normative ATEX  
 Auf Anfrage können wir unsere Produkte den Richtlinien ATEX entsprechend liefern  
 Sur demande nos produits peuvent se conformer à la réglementation ATEX  
 A pedido, se pueden enviar nuestros productos de acuerdo con las normas ATEX.

Type - Tipo - Typ Type - Tipo	Output flange Flangia di uscita Ausgangs Flansch Bride de sortie Brida en salida	Motor size - Grandezza motore Motor Größe Grandeur moteur - Tamaño motor	Terminal box position Posizione morsetteria Klemmkastenlage Position boîte à bornes Posición caja de bornes	Mounting position Posizione montaggio Einbaulage Position de montage Posición de montaje	Coupling Giunto Kupplung Joint Juntura	
BR	N	-O	B	B3	C	
 <p><b>FB</b> Forma base Universal</p>  <p><b>BR</b> Braccio d reazione Reaction arm</p>  <p><b>-F</b> Flangia uscita output flange</p>	 <p><b>N</b> Senza flangia Without flange X22S</p> <p><b>0</b> ⇒ Ø110 <b>1</b> ⇒ Ø120 X32S X33S</p> <p><b>1</b> ⇒ Ø120 <b>2</b> ⇒ Ø160 X42-3A X52-3A X62-3A</p> <p><b>2</b> ⇒ Ø160 <b>3</b> ⇒ Ø200 <b>4</b> ⇒ Ø250 X73C X74C X83C X84C</p> <p><b>4</b> ⇒ Ø250 113C 114C X93C X94C</p> <p><b>C</b> ⇒ Ø280 <b>L</b> ⇒ Ø280 133C 134C</p> <p><b>C</b> ⇒ Ø320 X103 X104</p> <p><b>6</b> ⇒ Ø350 X113 X114</p> <p><b>7</b> ⇒ Ø450</p>	<p><b>Flange Flangia</b> </p> <p><b>B5</b></p> <p><b>-A</b>=56 (Ø120) <b>-B</b>=63 (Ø140) <b>-C</b>=71 (Ø160) <b>-D</b>=80 (Ø200) <b>-E</b>=90 (Ø200) <b>-F</b>=100+112 (Ø250) <b>-G</b>=132 (Ø300) <b>-H</b>=160 (Ø350) <b>-I</b>=180 (Ø350) <b>-L</b>=200 (Ø400) <b>CA</b>=225 (Ø450)</p> <p><b>B14</b></p> <p><b>-O</b>=56 (Ø80) <b>-P</b>=63 (Ø90) <b>-Q</b>=71 (Ø105) <b>-R</b>=80 (Ø120) <b>-T</b>=90 (Ø140) <b>-U</b>=100+112 (Ø160) <b>-V</b>=132 (Ø200)</p> <p><b>Type R Tipo R</b> </p> <p>X22S X33S X43A</p> <p><b>-1</b> ⇒ Ø14 X32S X42A X53A X63A X74C X84C 114C 134C</p> <p><b>-2</b> ⇒ Ø19 X52A X62A 113C 133C X73C X83C X94C</p> <p><b>-3</b> ⇒ Ø24 X93C X104 X114</p> <p><b>-4</b> ⇒ Ø28 X103 X113</p> <p><b>-6</b> ⇒ Ø42</p>	<p><b>Without flange Senza flangia</b> </p> <p><b>-M</b> ⇒ With coupling X22S X33S X43A</p> <p><b>-Z</b> ⇒ Ø9 (56B5) <b>-0</b> ⇒ Ø11 (63B5) <b>-1</b> ⇒ Ø14 (71B5) X32S X42A X53A X63A X74C X84C 114C 134C</p> <p><b>-1</b> ⇒ Ø14 (71B5) <b>-2</b> ⇒ Ø19 (80B5) <b>-3</b> ⇒ Ø24 (90B5) X52A X62A 113C 133C X73C X83C X94C</p> <p><b>-2</b> ⇒ Ø19 (80B5) <b>-3</b> ⇒ Ø24 (90B5) <b>-4</b> ⇒ Ø28 (100B5)</p>	 <p><b>A</b></p>  <p><b>B</b> STANDARD</p>  <p><b>C</b></p>  <p><b>D</b></p>	 <p><b>B3</b> STANDARD</p>  <p><b>B6</b></p>  <p><b>B7</b></p>  <p><b>B8</b></p>  <p><b>V5</b></p>  <p><b>V6</b></p>  <p><b>V8</b></p>	<p><b>0</b> Without coupling Senza giunto</p>  <p><b>-</b> Nothing indication: standard bore Nessuna indicazione: foro standard</p> <p>COUPLING</p>  <p><b>A</b> = 9mm <b>B</b> = 11mm <b>C</b> = 14mm <b>D</b> = 19mm <b>E</b> = 24mm <b>F</b> = 28mm</p>

**POTENZA RICHIESTA / REQUIRED POWER / ERFORDERLICHE LEISTUNG / PUISSANCE NECESSAIRE / POTENCIA NECESARIA**

Lifting / sollevamento / hubantriebe / levage / elevación

$$P [KW] = \frac{M [Kg] \cdot g [9.81] \cdot v [m / s]}{1000}$$

Rotation / rotazione / drehung / rotation / rotacion

$$P [KW] = \frac{M [Nm] \cdot n [rpm]}{9550}$$

Linear movement / traslazione / linearbewegung / translation / translacion

$$P [KW] = \frac{F [N] \cdot v [m / s]}{1000}$$

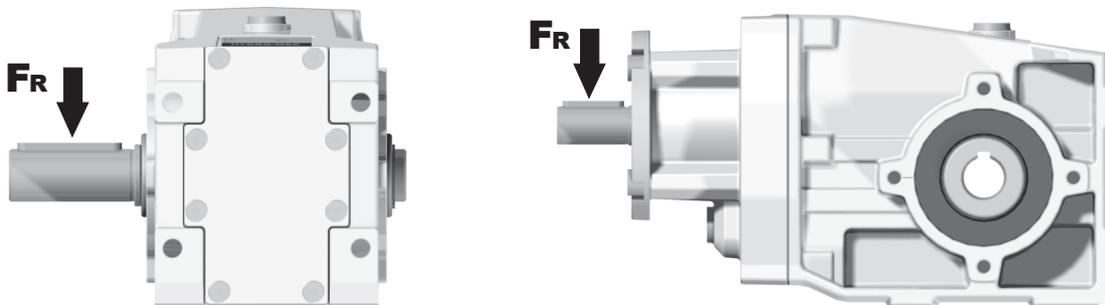
**TORQUE / COPPIA / DREHMOMENT / COUPLE / PAR**

$$M [Nm] = \frac{9550 \cdot P[KW]}{n [rpm]}$$

$$M [lb in] = \frac{63030 \cdot P[HP]}{n [rpm]}$$

**RADIAL LOADS / CARICHI RADIALI / RADIALE - UND AXIALLASTEN / CHARGES RADIALES / CARGA RADIAL Y AXIAL**

- Radial load generated by external transmissions keyed onto input and/or output shafts.
- Forza radiale generata da organi di trasmissione calettati sugli alberi di ingresso e/o uscita.
- Belastungen der Antriebs- bzw. Abtriebswellen durch von aussen eingebrachte Radiallasten.
- Charge radiale générée par la transmissions calés sur les entrées et / ou des arbres de sortie
- Cargas radiales, generada por transmisiones externas, aplicadas sobre los ejes de entrada y/o salida

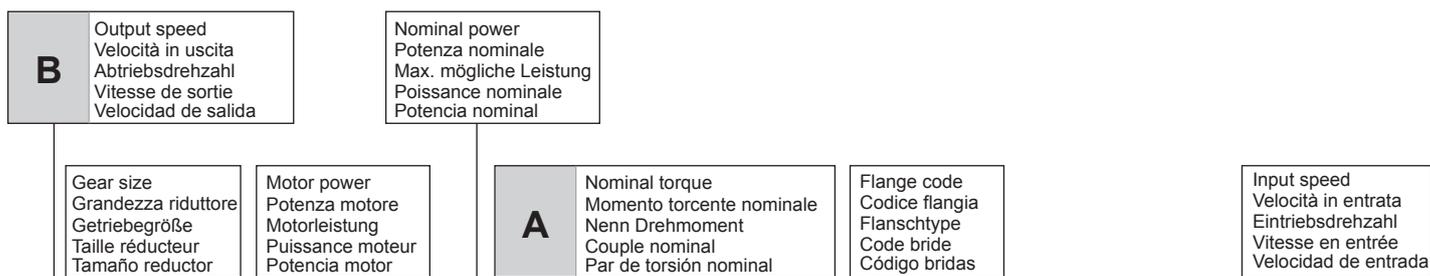


8

	$F_R [N] = \frac{M [Nm] \cdot 2000}{d [mm]} \cdot f_k$	$F_R [N] = \frac{M [lb in] \cdot 8.9}{d [in]} \cdot f_k$
<b>M</b>	Momento torcente / Output torque / Abtriebsdrehmoment / Couple / Par torsion	
<b>d</b>	Diametro primitivo / Diam. of driving element / Durchmesser der Abtriebseinheit / Diamètre primitif / Diámetro primitivo	
<b>f<sub>k</sub></b>	Coefficiente di trasformazione / Factor / Faktor / Coefficient de transmission / Coeficiente de transmisión <b>1.15</b> Ingranaggi / Gearwheels / Zahnrad / Engrenage / Engranaje <b>1.25</b> Catena / Chain sprockets / Antriebskette / Chaîne / Cadena <b>1.75</b> Cinghia Trapezoidale / Narrow v-belt pulley / Keilriemen / Courroie trap. / Correa trapezoidal <b>2.50</b> Cinghia piatta / Flat-belt pulley / Flachzahnriem. / Courroie crantée / Correa plana	

- If your application requires higher radial loads, contact our technical office. Higher load may be possible.
- Nel caso la vostra applicazione richieda carichi radiali superiori consultare il nostro ufficio tecnico, valori maggiori possono essere accettati.
- Wenn Ihre Anwendung höhere Radialbelastungen erfordert, so wenden Sie sich bitte an unser technischen Büro.
- Si votre application demande des charges radiales supérieures, s'adresser à notre bureau technique.
- En el caso en que una aplicación exija una carga radial superior a la especificada en el catálogo, consultar a nuestra oficinas técnica.

How to select a gearbox / Come selezionare un riduttore / Wie wählt man ein Getriebe  
Comment sélectionner un réducteur / Cómo seleccionar un reductor



**X22S** Angletech Gear **50Nm** Rating - Aluminum  
HELICAL-BEVEL GEARBOXES

**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code 
							-B	-C	-O	-P	-Q		
289.7	<b>4.83</b>	0.37	11.7	2.6	<b>0.95</b>	<b>30</b>	63	71	C	C		289	01
189.2	<b>7.40</b>	0.37	17.9	1.7	<b>0.62</b>	<b>30</b>			C	C		287	02
146.2	<b>9.58</b>	0.37	23.2	1.7	<b>0.64</b>	<b>40</b>			C	C		199	03
127.5	<b>10.98</b>	0.37	26.6	1.7	<b>0.63</b>	<b>45</b>			C	C		179	04



**fs**

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

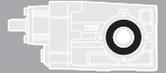
**D** Motor flange available  
Flange disponibili  
Erhältliche Motorflansche  
Brides disponibles  
Bridas disponibles

**B)** Mounting with reduction ring  
Montaggio con boccia di riduzione  
Reduzierhülsen  
Montage avec douille de réduction  
Montaje con casquillo de reducción

**C)** Motor flangeholes position/terminal box position  
Bohrungsposition am Motorflansch/-socket  
Position trous bride/barrette à bornes moteur  
Posición agujeros brida / base motor

**B)** Available without reduction bushes  
Disponibile anche senza boccia  
Auch ohne Reduzierbuchse verfügbar  
Disponible aussi sans douille de réduction  
Disponible tambien sin casquillo

<b>A</b>	Select required torque (according to service factor)	Seleziona la coppia desiderata (comprensiva del fattore di servizio)	Max. Drehmoment in Bezug zum Betriebsfaktor	Sélectionner le couple souhaité (comprenant le facteur de service)	Seleccionar el par deseado (incluyendo el factor de servicio)
<b>B</b>	Select output speed	Seleziona la velocità in uscita	Ausgewählte Abtriebsdrehzahl	Sélectionner la vitesse de sortie	Seleccionar la velocidad de salida
<b>C</b>	On the same line of selected geared motor, you can find the gear ratio	Sulla riga corrispondente alla motorizzazione prescelta si può rilevare il rapporto di riduzione	Auf der gleichen Linie wie die ausgewählte Motorleistung steht auch die Getriebeuntersetzung	Sur la ligne correspondante à la motorisation pré-choisie on peut relever le rapport de réduction	En la línea correspondiente al motor preseleccionado es posible encontrar la relación de reducción
<b>D</b>	Select motor flange available (if requested)	Scegli la flangia disponibile (se richiesta)	Erhältliche Motorflansche (auf Anfrage)	Choisir la bride disponible (si elle est demandée)	Seleccionar la brida disponible (sobre pedido)



**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
290	<b>4.83</b>	0.37	12	2.6	<b>0.95</b>	<b>30</b>			C	C		289	01
189	<b>7.40</b>	0.37	18	1.7	<b>0.62</b>	<b>30</b>			C	C		287	02
146	<b>9.58</b>	0.37	23	1.7	<b>0.64</b>	<b>40</b>			C	C		199	03
128	<b>10.98</b>	0.37	27	1.7	<b>0.63</b>	<b>45</b>			C	C		179	04
107	<b>13.07</b>	0.37	32	1.4	<b>0.53</b>	<b>45</b>			C	C		159	05
95	<b>14.66</b>	0.37	35	1.3	<b>0.47</b>	<b>45</b>			C	C		197	06
89	<b>15.79</b>	0.37	38	1.2	<b>0.44</b>	<b>45</b>			C	C		139	07
83	<b>16.81</b>	0.37	41	1.1	<b>0.41</b>	<b>45</b>			C	C		177	08
70	<b>20.00</b>	0.37	48	1.0	<b>0.37</b>	<b>48</b>			C	C		157	09
64	<b>21.93</b>	0.37	53	0.9	<b>0.35</b>	<b>50</b>			C	C		109	10
58	<b>24.18</b>	0.25	39	1.3	<b>0.32</b>	<b>50</b>			C	C		137	11
48.2	<b>29.04</b>	0.25	47	1.1	<b>0.26</b>	<b>50</b>			C	C		99	12
41.7	<b>33.57</b>	0.18	42	1.2	<b>0.23</b>	<b>50</b>			C	C		107	13
36.2	<b>38.67</b>	0.18	48	1.0	<b>0.20</b>	<b>50</b>			C	C		79	14
31.5	<b>44.44</b>	0.18	55	0.9	<b>0.17</b>	<b>50</b>			C	C		97	15
23.7	<b>59.18</b>	0.12	48	1.0	<b>0.13</b>	<b>50</b>			C	C		77	16
19.9	<b>70.24</b>	0.09	45	1.1	<b>0.11</b>	<b>50</b>			C	C		67	17

Motor Flanges Available Flange Motore Disponibili B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **X22S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X22S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X22S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X22S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X22S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
0.25 LT	0.25 LT	0.25 LT	0.25 LT	0.43 LT	0.31 LT	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320		

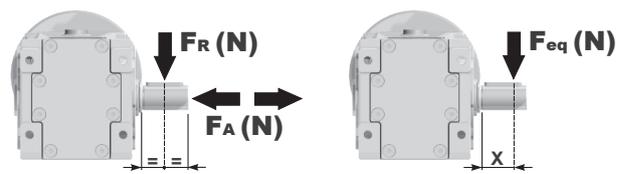
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{42}{X+23}$$

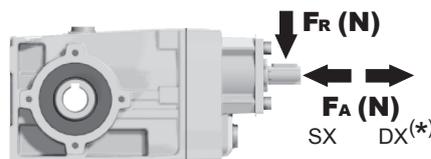


n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
400	360	1800	100	440	2200	25	440	2200
250	380	1900	75	440	2200	15	440	2200
150	420	2100	50	440	2200			

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

#### Input shaft

albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA	FR
1400	140	700
900	160	800
500	190	950

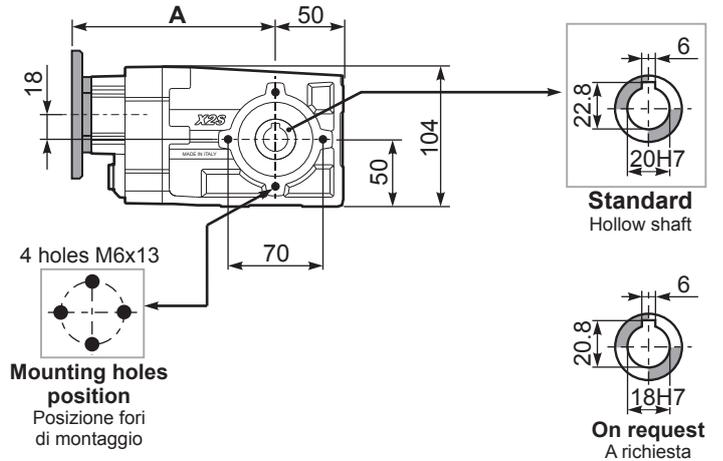
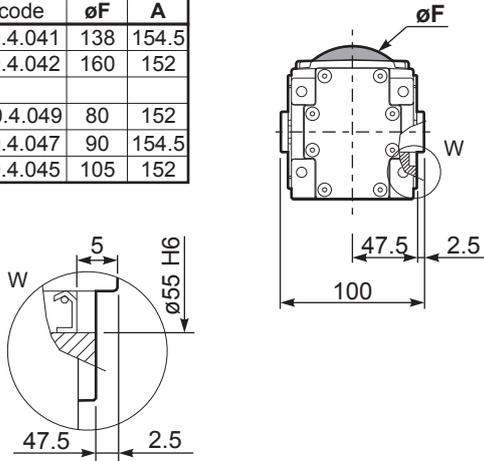
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

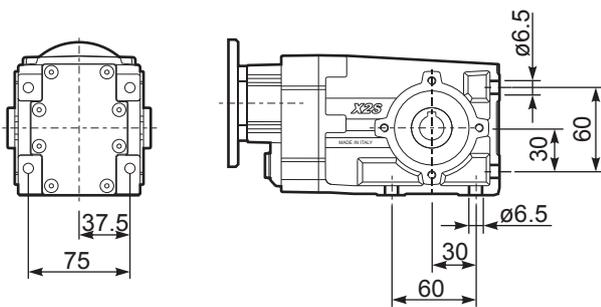
**P**X22SC... Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **3.70 kg**

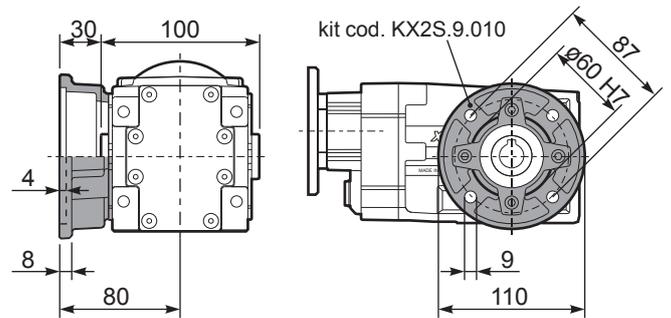
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	154.5
<b>71B5</b>	K050.4.042	160	152
<b>56B14</b>	KC40.4.049	80	152
<b>63B14</b>	K050.4.047	90	154.5
<b>71B14</b>	K050.4.045	105	152



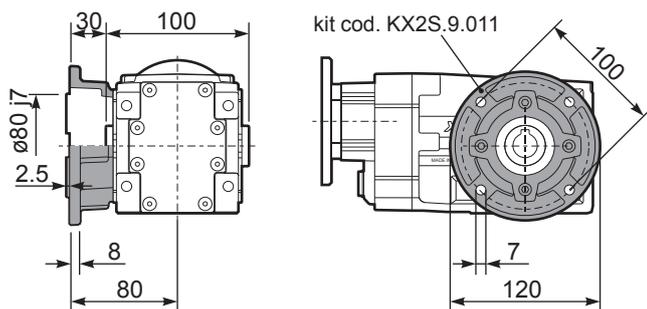
PX22S...**FB**.. Feet  
Piedini



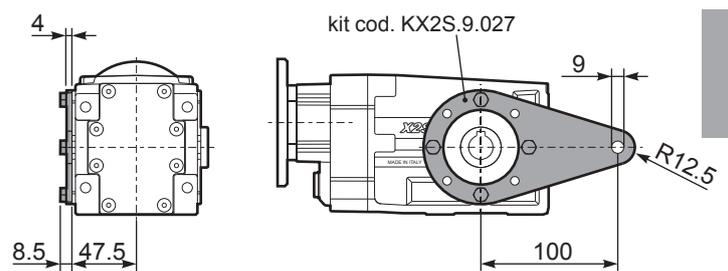
PX22S...**F0**.. Output flange  
Flangia uscita



PX22S...**F1**.. Output flange  
Flangia uscita

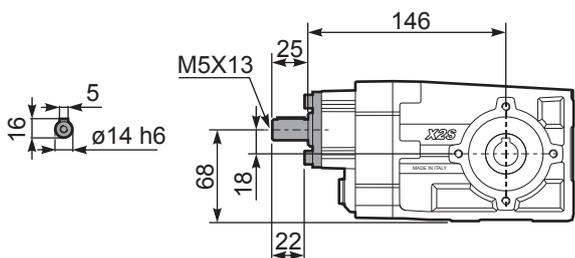


PX22S...**BR**.. Reaction Arm  
Braccio di reazione

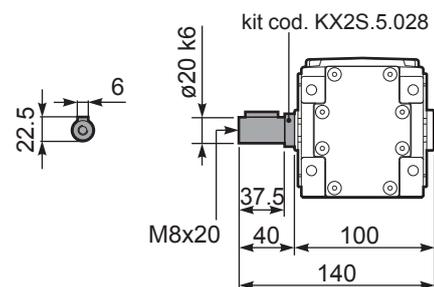


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**R**X22S... Input shaft  
Albero in entrata



PX22S**A**.. Single output shaft  
Albero semplice in uscita





**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code		
							-B	-C	-D	-E	-Q	-R	-T				
							63	71	80	90	71	80	90				
191	<b>7.33</b>	1.5	72	1.0	1.5	70	B				C	C		289	standard ø20	01	
125	<b>11.22</b>	1.1	80	1.1	1.2	85	B				C	C		287		02	
106	<b>13.26</b>	1.1	95	0.9	0.98	85	B				C	C		199		03	
91	<b>15.37</b>	1.1	110	0.8	0.89	90	B				C	C		179		04	
78	<b>18.04</b>	0.75	89	1.0	0.76	90	B				C	C		159		05	
69	<b>20.30</b>	0.75	100	0.9	0.68	90	B				C	C		197		06	
65	<b>21.54</b>	0.75	106	0.9	0.64	90	B				C	C		139		07	
59	<b>23.53</b>	0.55	85	1.1	0.58	90	B				C	C		177		08	
51	<b>27.62</b>	0.55	100	0.9	0.50	90	B				C	C		157		09	
47.6	<b>29.40</b>	0.55	106	0.8	0.47	90	B				C	C		109		On request	10
42.5	<b>32.97</b>	0.37	80	1.1	0.42	90	B				C	C		137		11	
36.5	<b>38.37</b>	0.37	93	1.0	0.36	90	B				C	C		99		12	
31.1	<b>45.00</b>	0.25	73	1.2	0.31	90	B				C	C		107		13	
27.6	<b>50.67</b>	0.25	83	1.1	0.27	90	B				C	C		79		14	
23.8	<b>58.73</b>	0.18	73	1.2	0.23	90	B				C	C		97		15	
18.1	<b>77.55</b>	0.18	97	0.9	0.18	90	B				C	C		77		16	

Motor Flanges Available Flange Motore Disponibili B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **X32S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X32S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X32S** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X32S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X32S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

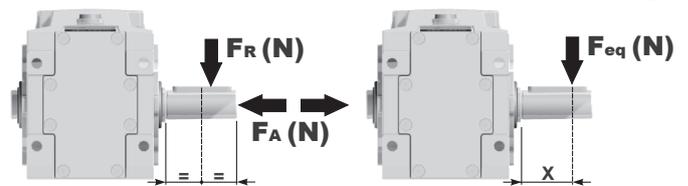
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
0.40 LT	0.60 LT	0.40 LT	0.60 LT	0.85 LT	0.60 LT	Ask	
AGIP Telium VSF 320				SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

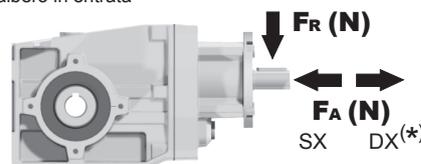
$$F_{eq} = F_R \cdot \frac{47.5}{X+28.5}$$



n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	400	2000	75	560	2800	15	560	2800
150	450	2250	50	560	2800			
100	500	2500	25	560	2800			

**F<sub>R</sub>** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

**Input shaft**  
albero in entrata

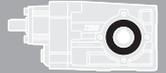


n <sub>1</sub> [min <sup>-1</sup> ]	FA	FR
1400	240	1200
900	280	1400
500	340	1700

**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**





**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.94** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code 
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
38.7	<b>36.17</b>	0.37	86	1.2	<b>0.43</b>	<b>100</b>			C	C		17179	02
31.7	<b>44.21</b>	0.37	105	1.0	<b>0.35</b>	<b>100</b>			C	C		19139	03
27.6	<b>50.68</b>	0.25	81	1.2	<b>0.31</b>	<b>100</b>			C	C		17139	04
25.3	<b>55.36</b>	0.25	89	1.1	<b>0.28</b>	<b>100</b>			C	C		17177	05
23.2	<b>60.31</b>	0.25	96	1.0	<b>0.26</b>	<b>100</b>			C	C		15139	06
21.2	<b>65.88</b>	0.25	105	0.9	<b>0.24</b>	<b>100</b>			C	C		15177	07
19.4	<b>72.25</b>	0.18	88	1.1	<b>0.22</b>	<b>100</b>			C	C		10179	08
17.6	<b>79.64</b>	0.18	97	1.0	<b>0.20</b>	<b>100</b>			C	C	standard ø20	13177	09
15.2	<b>92.31</b>	0.18	113	0.9	<b>0.17</b>	<b>100</b>			C	C		15137	10
14.6	<b>95.65</b>	0.18	117	0.9	<b>0.16</b>	<b>100</b>			C	C		9179	11
13.8	<b>101.23</b>	0.12	80	1.2	<b>0.15</b>	<b>100</b>			C	C	ø25	10139	12
11.0	<b>127.37</b>	0.12	101	1.0	<b>0.12</b>	<b>100</b>			C	C	On request	7179	13
9.3	<b>151.16</b>	0.09	95	1.0	<b>0.10</b>	<b>100</b>			C	C		6179	14
7.8	<b>178.46</b>	0.09	113	0.9	<b>0.09</b>	<b>100</b>			C	C		7139	15
6.6	<b>211.79</b>	0.06	88	1.1	<b>0.07</b>	<b>100</b>			C	C		6139	16
6.1	<b>231.37</b>	0.06	96	1.0	<b>0.07</b>	<b>100</b>			C	C		6177	17
5.1	<b>273.16</b>	0.06	113	0.9	<b>0.06</b>	<b>100</b>			C	C		7137	18
4.3	<b>324.18</b>	0.06	134	0.7	<b>0.05</b>	<b>100</b>			C	C		6137	19

**Motor Flanges Available** Flange Motore Disponibili  
**B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione  
**B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione  
**C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **X33S** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X33S** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X33S** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X33S** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X33S** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

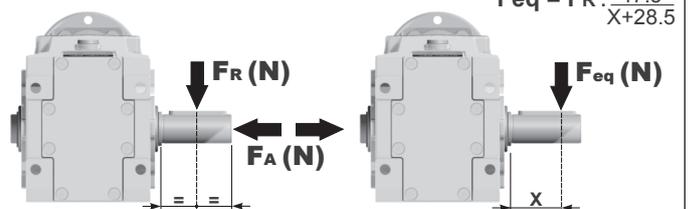
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
0.70 LT	0.65 LT	0.40 LT	0.65 LT	0.95 LT	0.65 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita

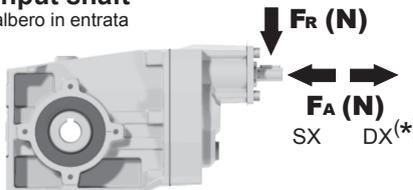


n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	400	2000	75	560	2800	15	560	2800
150	450	2250	50	560	2800			
100	500	2500	25	560	2800			

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

#### Input shaft

albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA	FR
1400	140	700
900	160	800
500	190	950

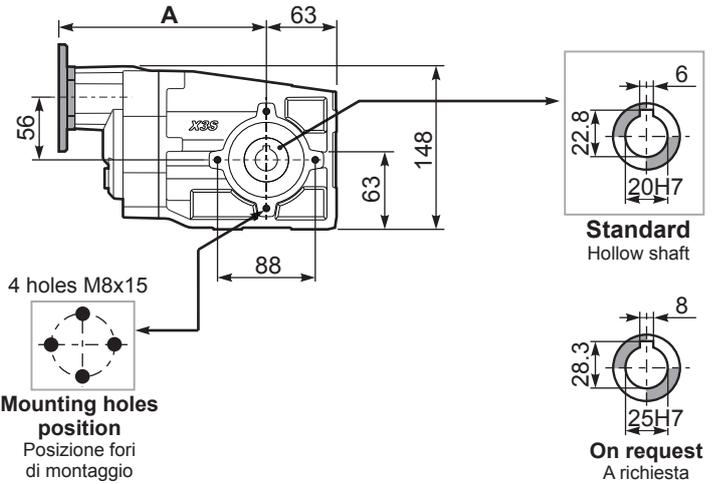
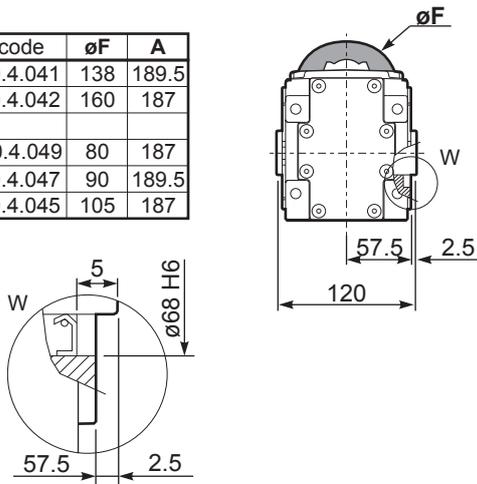
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

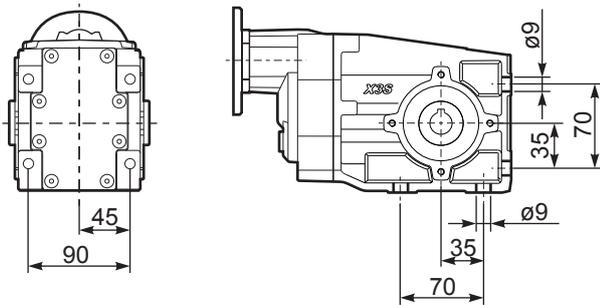
**PX33SC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **6.55 kg**

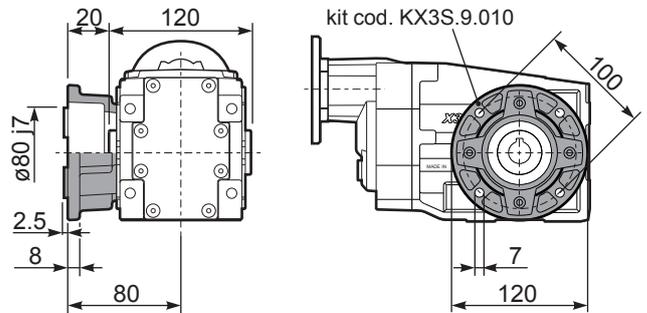
M. flanges	Kit code	øF	A
<b>63B5</b>	K050.4.041	138	189.5
<b>71B5</b>	K050.4.042	160	187
<b>56B14</b>	KC40.4.049	80	187
<b>63B14</b>	K050.4.047	90	189.5
<b>71B14</b>	K050.4.045	105	187



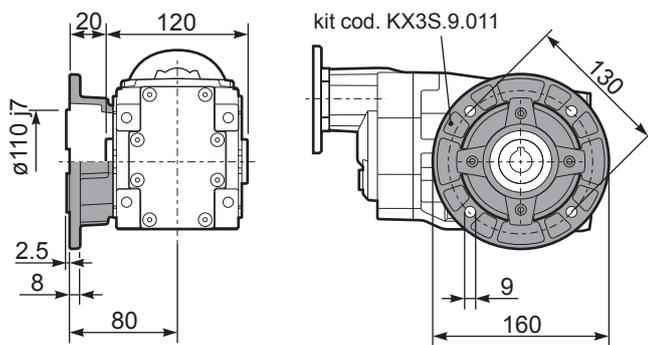
**PX33S...FB..** Feet  
Piedini



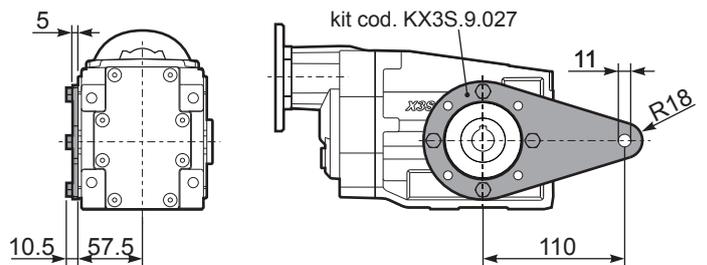
**PX33S...-F1..** Output flange  
Flangia uscita



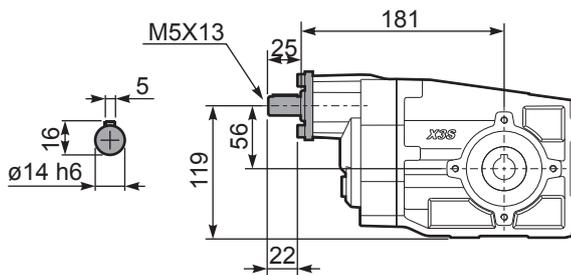
**PX33S...-F2..** Output flange  
Flangia uscita



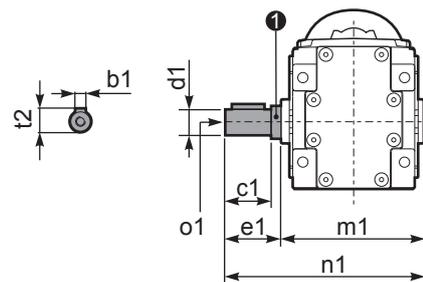
**PX33S...BR..** Reaction Arm  
Braccio di reazione



**RX33S...** Input shaft  
Albero in entrata



**PX33SA..** Single output shaft  
Albero semplice in uscita



d1	b1	c1	e1	m1	n1	t2	o1	1 kit code
ø20 <sup>-0.005/-0.020</sup>	6	37.5	40	120	160	22.5	M8x20	KX2S.5.028
ø25 <sup>-0.005/-0.020</sup>	8	60	63.2	126.8	190	28	M8x20	K063.5.028



**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-B	-C	-D	-E	-F	-Q	-R	-T	-U		
							63	71	80	90	100	112	71	80	90		
192	<b>7.29</b>	2.2	104	0.9	<b>2.0</b>	<b>95</b>	B					C	C			2811	01
125	<b>11.20</b>	2.2	159	0.9	<b>2.0</b>	<b>150</b>	B					C	C			288	02
106	<b>13.18</b>	1.5	129	1.2	<b>1.7</b>	<b>150</b>	B					C	C			1911	03
92	<b>15.27</b>	1.1	109	1.4	<b>1.5</b>	<b>150</b>	B					C	C			1711	04
78	<b>17.93</b>	1.1	128	1.2	<b>1.3</b>	<b>150</b>	B					C	C			1511	05
69	<b>20.25</b>	1.1	145	1.0	<b>1.1</b>	<b>150</b>	B					C	C			198	06
65	<b>21.40</b>	1.1	153	1.0	<b>1.1</b>	<b>150</b>	B					C	C			1311	07
60	<b>23.47</b>	0.75	115	1.3	<b>0.98</b>	<b>150</b>	B					C	C			178	08
51	<b>27.55</b>	0.75	135	1.1	<b>0.83</b>	<b>150</b>	B					C	C			158	09
47.9	<b>29.21</b>	0.75	143	1.0	<b>0.78</b>	<b>150</b>	B					C	C			1011	10
42.6	<b>32.88</b>	0.75	161	0.9	<b>0.70</b>	<b>150</b>	B					C	C			138	11
36.7	<b>38.12</b>	0.55	138	1.1	<b>0.60</b>	<b>150</b>	B					C	C			911	12
31.2	<b>44.89</b>	0.55	163	0.9	<b>0.51</b>	<b>150</b>	B					C	C			108	13
27.8	<b>50.34</b>	0.37	122	1.1	<b>0.40</b>	<b>131</b>	B					C	C			711	14
23.9	<b>58.58</b>	0.37	142	1.1	<b>0.39</b>	<b>150</b>	B					C	C			98	15
18.1	<b>77.36</b>	0.25	126	1.2	<b>0.30</b>	<b>150</b>	B					C	C			78	16

Motor Flanges Available Flange Motore Disponibili B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **X42A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X42A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X42A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X42A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X42A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.60 LT	0.75 LT	0.50 LT	0.70 LT	1.10 LT	0.60 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

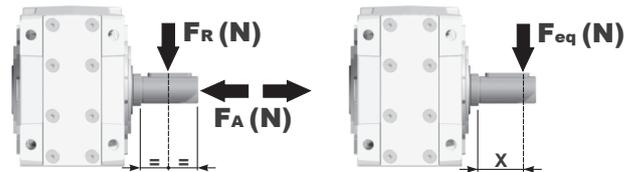
For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{54}{X+28}$$



n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	500	2500	75	800	4000	15	960	4800
150	600	3000	50	960	4800			
100	700	3500	25	960	4800			

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata

n <sub>1</sub> [min <sup>-1</sup> ]	FA	FR
1400	240	1200
900	280	1400
500	340	1700

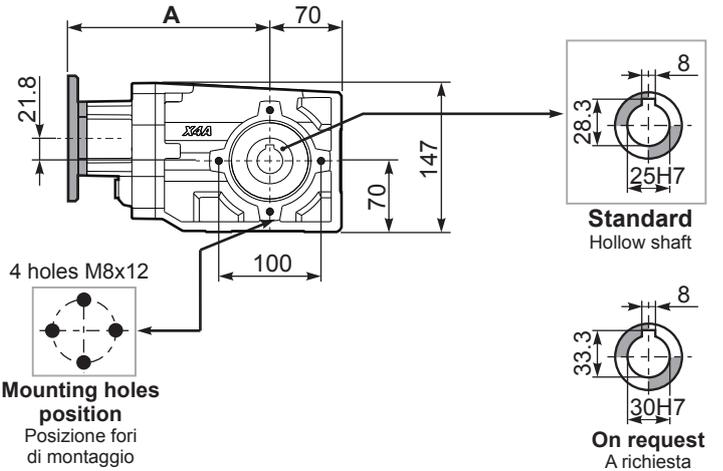
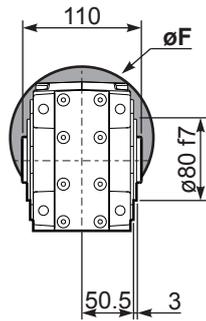
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

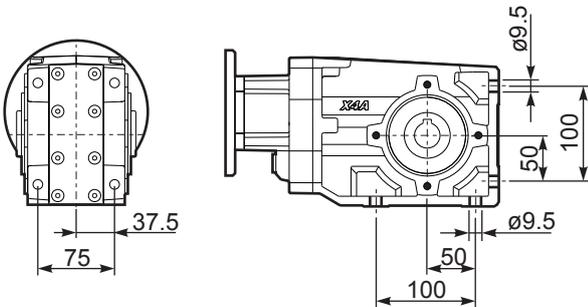
**PX42AC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **7.82 kg**

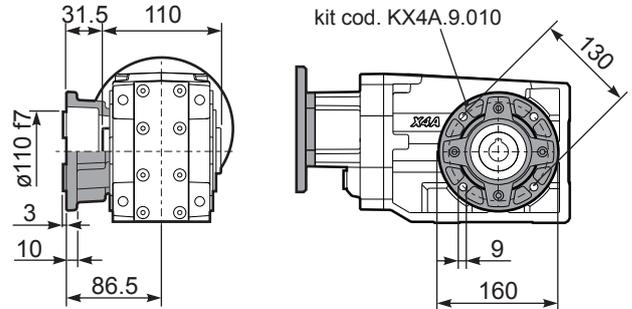
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	199.5
<b>71B5</b>	K063.4.042	160	197.5
<b>80/90B5</b>	K063.4.043	200	199.5
<b>100/112B5</b>	KC40.4.043	250	214.3
<b>71B14</b>	K063.4.047	105	197.5
<b>80B14</b>	K063.4.046	120	199.5
<b>90B14</b>	K063.4.041	140	199.5
<b>100/112B14</b>	KC40.4.041	160	214.3



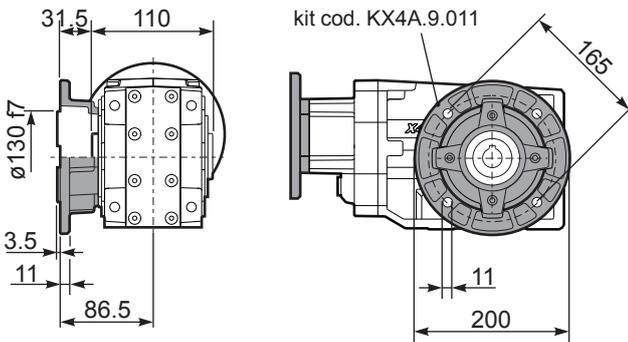
**PX42A...FB..** Feet  
Piedini



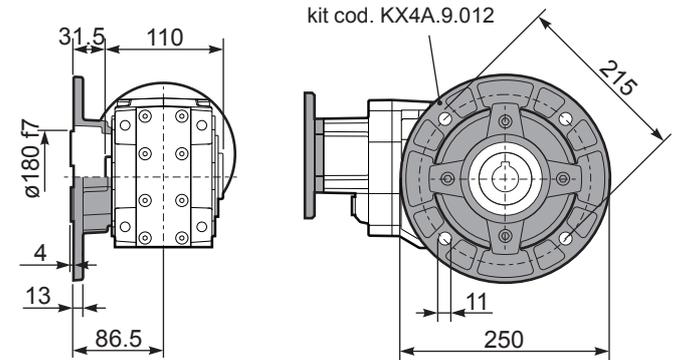
**PX42A...-F2..** Output flange  
Flangia uscita



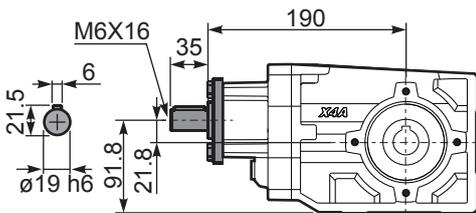
**PX42A...-F3..** Output flange  
Flangia uscita



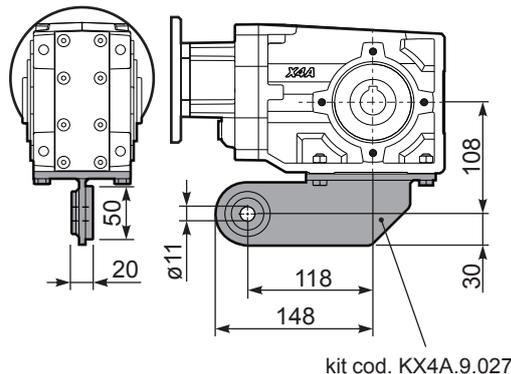
**PX42A...-F4..** Output flange  
Flangia uscita



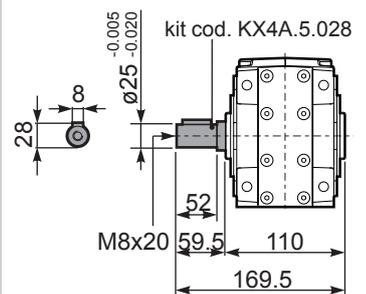
**RX42A...** Input shaft  
Albero in entrata



**PX42A...BR..** Reaction Arm  
Braccio di reazione



**PX42A...** Single output shaft  
Albero semplice in uscita





**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.94** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges		Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-O	-P	-Q		
							63	71	56	63	71		
27.8	<b>50.35</b>	0.37	119	1.3	<b>0.46</b>	<b>150</b>			C	C		171311	01
25.4	<b>55.22</b>	0.37	131	1.1	<b>0.42</b>	<b>150</b>			C	C		17178	02
23.4	<b>59.92</b>	0.37	142	1.1	<b>0.39</b>	<b>150</b>			C	C		151311	03
21.3	<b>65.72</b>	0.37	156	1.0	<b>0.36</b>	<b>150</b>			C	C		15178	04
19.5	<b>71.78</b>	0.25	115	1.3	<b>0.33</b>	<b>150</b>			C	C		101711	05
17.6	<b>79.44</b>	0.25	127	1.2	<b>0.29</b>	<b>150</b>			C	C		13178	06
15.2	<b>92.08</b>	0.25	147	1.0	<b>0.25</b>	<b>150</b>			C	C		15138	07
14.7	<b>95.03</b>	0.25	152	1.0	<b>0.25</b>	<b>150</b>			C	C		91711	08
11.1	<b>126.55</b>	0.18	155	1.0	<b>0.20</b>	<b>160</b>			C	C		71711	09
10.5	<b>133.15</b>	0.18	163	1.0	<b>0.19</b>	<b>160</b>			C	C		91311	10
9.3	<b>150.18</b>	0.12	119	1.3	<b>0.17</b>	<b>160</b>			C	C		61711	11
7.9	<b>177.30</b>	0.12	140	1.1	<b>0.14</b>	<b>160</b>			C	C		71311	12
6.7	<b>210.42</b>	0.09	133	1.2	<b>0.12</b>	<b>160</b>			C	C		61311	13
6.1	<b>230.79</b>	0.09	146	1.1	<b>0.11</b>	<b>160</b>			C	C		6178	14
5.1	<b>272.47</b>	0.06	113	1.4	<b>0.09</b>	<b>160</b>			C	C		7138	15
4.3	<b>323.37</b>	0.06	134	1.2	<b>0.08</b>	<b>160</b>			C	C		6138	16

Motor Flanges Available Flange Motore Disponibili B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **X43A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X43A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X43A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X43A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X43A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

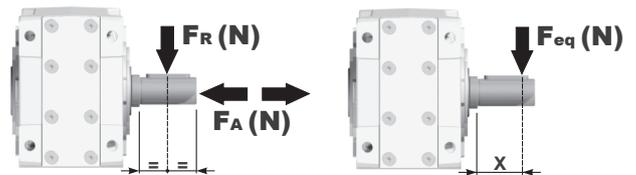
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
0.80 LT	0.80 LT	0.60 LT	0.80 LT	1.20 LT	0.70 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

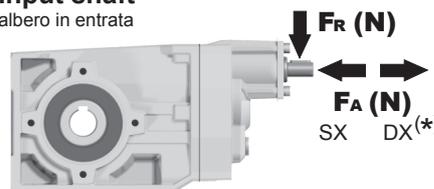
$$F_{eq} = F_R \cdot \frac{54}{X+28}$$



n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	500	2500	75	800	4000	15	960	4800
150	600	3000	50	960	4800			
100	700	3500	25	960	4800			

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

**Input shaft**  
albero in entrata



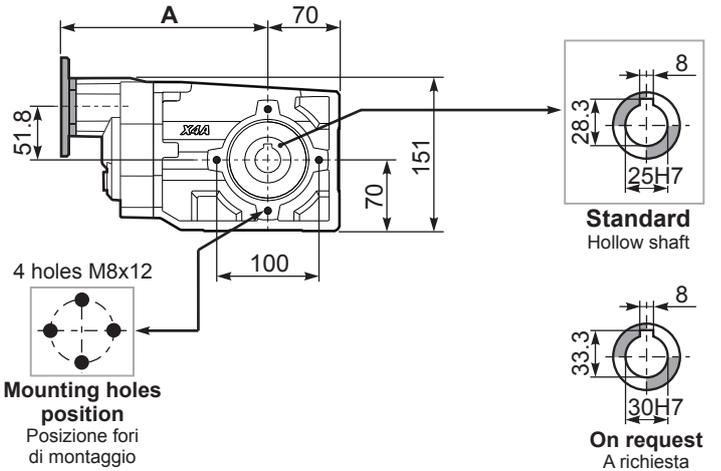
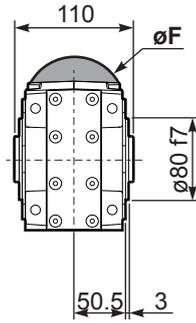
n <sub>1</sub> [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	140	700
900	160	800
500	190	950

\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

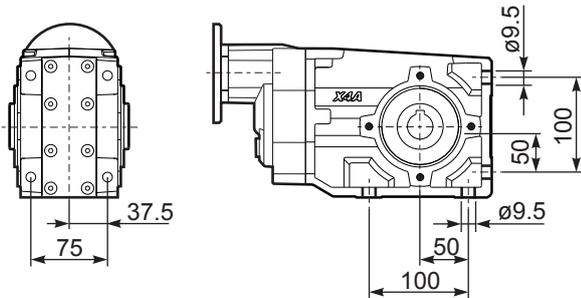
**PX43AC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **7.93 kg**

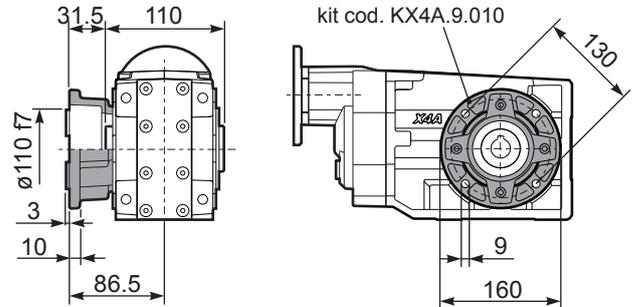
M. flanges	Kit code	øF	A
63B5	K050.4.041	138	205
71B5	K050.4.042	160	202.5
56B14	KC40.4.049	80	202.5
63B14	K050.4.047	90	205
71B14	K050.4.045	105	202.5



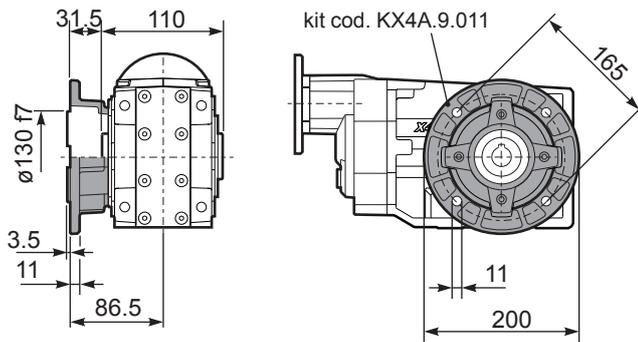
**PX43A...FB..** Feet  
Piedini



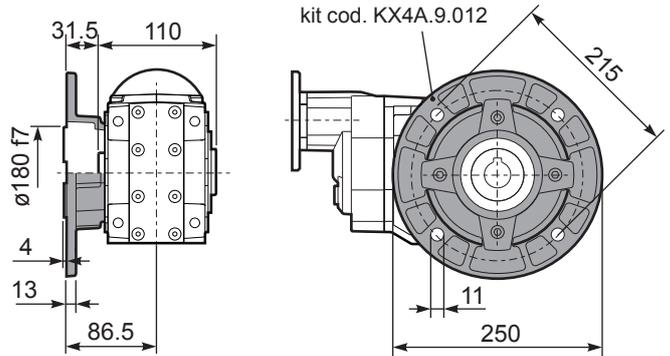
**PX43A...-F2..** Output flange  
Flangia uscita



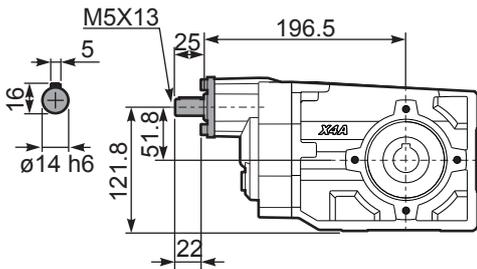
**PX43A...-F3..** Output flange  
Flangia uscita



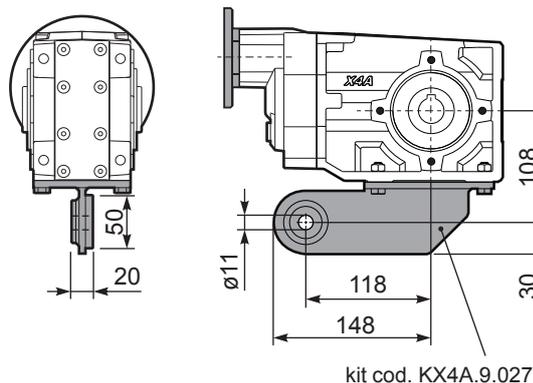
**PX43A...-F4..** Output flange  
Flangia uscita



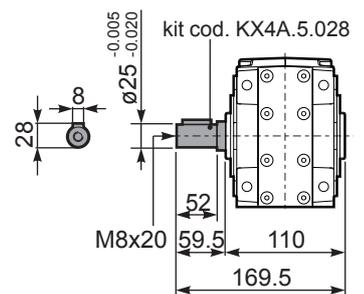
**RX43A...** Input shaft  
Albero in entrata



**PX43A...BR..** Reaction Arm  
Braccio di reazione



**PX43AA..** Single output shaft  
Albero semplice in uscita





**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-C	-D	-E	-F	-R	-T	-U		
							71	80	90	100 112	80	90	100 112		
232	<b>6.03</b>	3	116	1.2	<b>3.4</b>	<b>135</b>	B							3011	01
151	<b>9.26</b>	3	179	0.9	<b>2.6</b>	<b>155</b>	B							308	02
123	<b>11.36</b>	3	219	1.0	<b>3.1</b>	<b>230</b>	B							2011	03
91	<b>15.36</b>	2.2	218	1.1	<b>2.5</b>	<b>250</b>	B							1611	04
80	<b>17.46</b>	2.2	248	1.0	<b>2.2</b>	<b>250</b>	B							208	05
70	<b>19.97</b>	2.2	284	0.9	<b>1.9</b>	<b>250</b>	B							1311	06
59	<b>23.60</b>	1.5	231	1.1	<b>1.6</b>	<b>250</b>	B							168	07
57	<b>24.45</b>	1.5	239	1.0	<b>1.6</b>	<b>250</b>	B							1111	08
45.6	<b>30.69</b>	1.1	220	1.1	<b>1.2</b>	<b>250</b>	B							138	09
39.6	<b>35.35</b>	1.1	253	1.0	<b>1.1</b>	<b>250</b>	B							811	10
37.3	<b>37.57</b>	1.1	269	0.9	<b>1.0</b>	<b>250</b>	B							118	11
28.8	<b>48.68</b>	0.75	239	1.0	<b>0.78</b>	<b>250</b>	B							611	12
25.8	<b>54.33</b>	0.75	267	0.9	<b>0.70</b>	<b>250</b>	B							88	13
18.7	<b>74.81</b>	0.37	181	1.2	<b>0.43</b>	<b>210</b>	B							68	14

**A) Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X52A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X52A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X52A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X52A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X52A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
B3	B6	B7	B8	V5	V6	V8	V8
0.90 LT	1.50LT	0.75 LT	1.40 LT	1.95 LT	1.15 LT	Ask	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320			

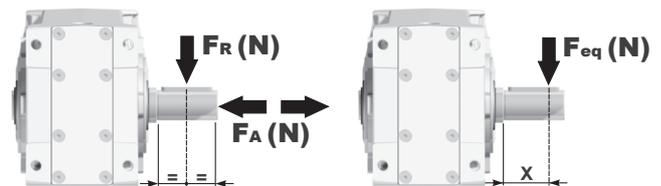
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{61.5}{X+31}$$

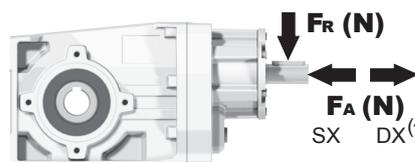


n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	600	3000	75	820	4100	15	1660	8300
150	700	3500	50	960	4800			
100	800	4000	25	1350	6750			

**F<sub>R</sub>** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

### Input shaft

albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA	FR
1400	450	2250
900	500	2500
500	600	3000

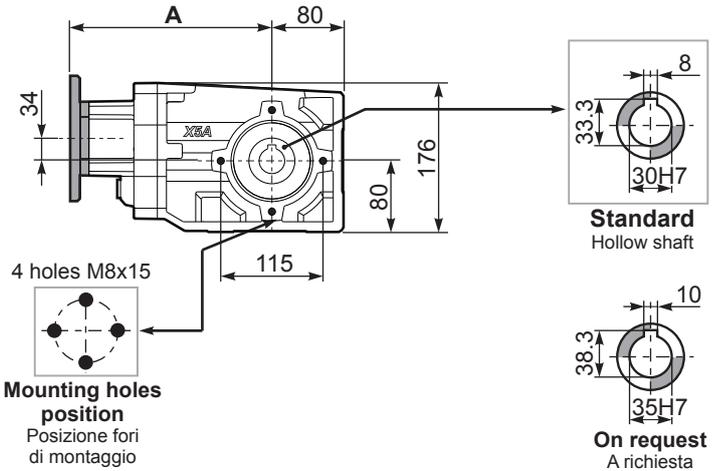
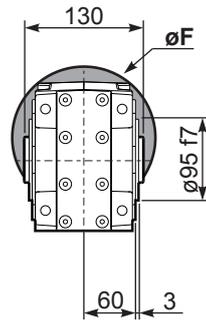
**\*Strong axial loads in the DX direction are not allowed.**  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

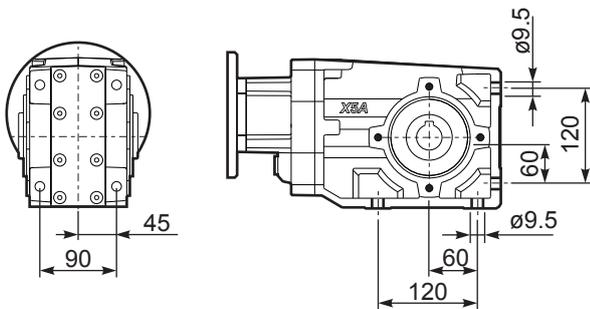
**PX52AC...** Basic Gearbox  
Riduttore base

Gearbox weight **12.80 kg**  
peso riduttore

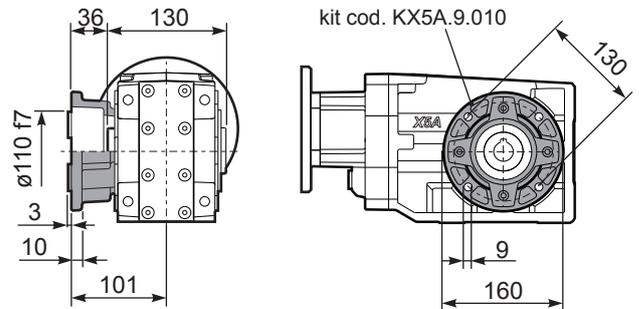
M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	234
<b>80/90B5</b>	K023.4.042	200	236
<b>100/112B5</b>	K023.4.043	250	245
<b>80B14</b>	K085.4.046	120	236
<b>90B14</b>	K085.4.045	140	236
<b>100/112B14</b>	K085.4.047	160	245



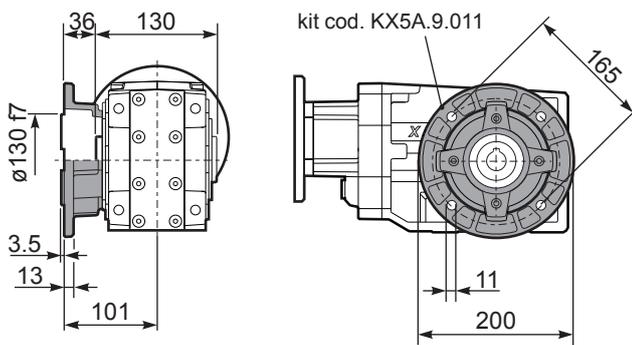
**PX52A...FB..** Feet  
Piedini



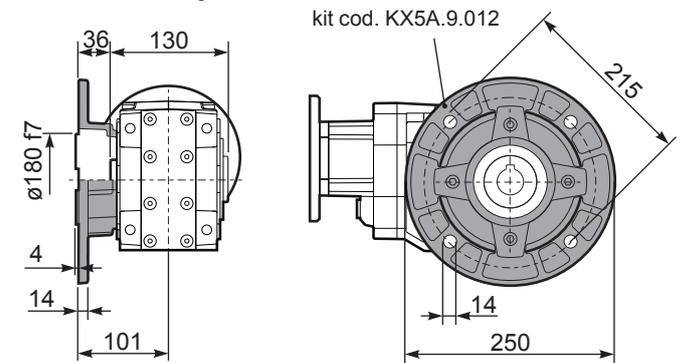
**PX52A...-F2..** Output flange  
Flangia uscita



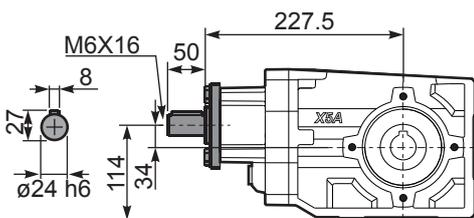
**PX52A...-F3..** Output flange  
Flangia uscita



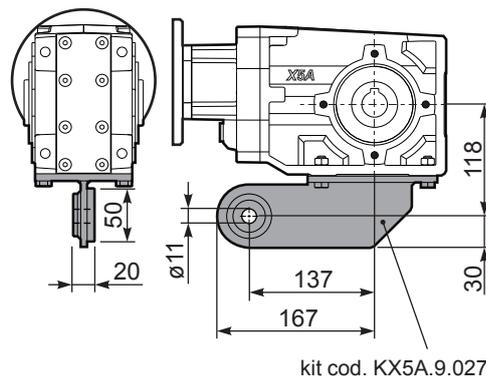
**PX52A...-F4..** Output flange  
Flangia uscita



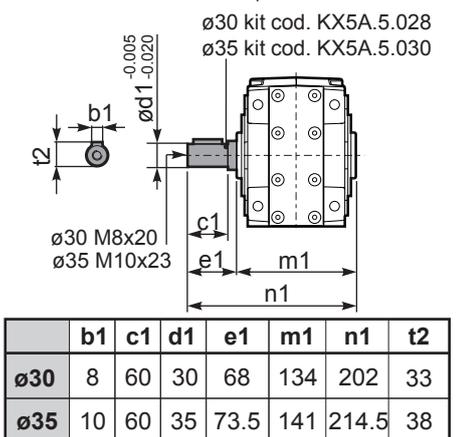
**RX52A...** Input shaft  
Albero in entrata



**PX52A...BR..** Reaction Arm  
Braccio di reazione



**PX52AA..** Single output shaft  
Albero semplice in uscita





**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.94** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
24.7	<b>56.76</b>	0.55	201	1.2	0.69	<b>250</b>	B				C	C		191311	01
21.3	<b>65.79</b>	0.55	233	1.1	0.59	<b>250</b>	B				C	C		171311	02
18.1	<b>77.23</b>	0.55	274	0.9	0.50	<b>250</b>	B				C	C		151311	03
16.0	<b>87.23</b>	0.37	207	1.2	0.45	<b>250</b>	B				C	C		19138	04
15.2	<b>92.18</b>	0.37	219	1.1	0.42	<b>250</b>	B				C	C		131311	05
13.9	<b>100.47</b>	0.37	238	1.0	0.39	<b>250</b>	B				C	C		19811	06
12.0	<b>116.45</b>	0.37	276	0.9	0.33	<b>250</b>	B				C	C		17811	07
11.1	<b>125.82</b>	0.25	201	1.2	0.31	<b>250</b>	B				C	C	standard ø30	101311	08
9.9	<b>141.66</b>	0.25	227	1.1	0.28	<b>250</b>	B				C	C		13138	09
8.6	<b>163.16</b>	0.25	261	1.0	0.24	<b>250</b>	B				C	C		13811	10
7.8	<b>178.96</b>	0.18	219	1.1	0.22	<b>250</b>	B				C	C	ø35	1788	11
7.2	<b>193.36</b>	0.18	237	1.1	0.20	<b>250</b>	B				C	C	On request	10138	12
6.5	<b>216.84</b>	0.18	265	0.9	0.18	<b>250</b>	B				C	C		71311	13
5.5	<b>252.36</b>	0.12	200	1.3	0.15	<b>250</b>	B				C	C		9138	14
4.8	<b>290.67</b>	0.12	230	1.1	0.13	<b>250</b>	B				C	C		9811	15
4.2	<b>333.23</b>	0.12	263	0.9	0.12	<b>250</b>	B				C	C		7138	16
3.6	<b>383.82</b>	0.12	303	0.8	0.10	<b>250</b>	B				C	C		7811	17
3.1	<b>446.70</b>	0.12*	353	0.7	0.09	<b>250</b>	B				C	C		988	18
2.4	<b>589.85</b>	0.12*	466	0.5	0.07	<b>250</b>	B				C	C		788	19

Motor Flanges Available Flange Motore Disponibili    
 **B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione    
 **B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione    
 **C) Motor Flange Holes Position** Posizione Fori Flangia Motore

\* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M<sub>2R</sub>  
 Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M<sub>2R</sub>

**EN** Unit **X53A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X53A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X53A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial- und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X53A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X53A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
1.30 LT	1.55 LT	0.85 LT	1.45 LT	2.10 LT	1.25 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

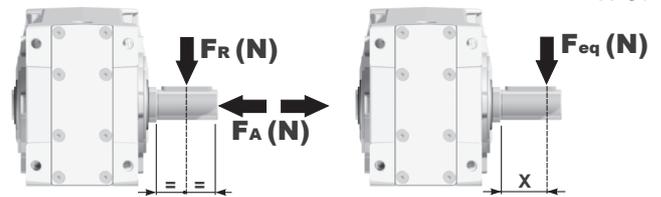
For all details on lubrication and plugs check our website **tab. 1**  
 Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita

$$F_{eq} = F_R \cdot \frac{61.5}{X+31}$$

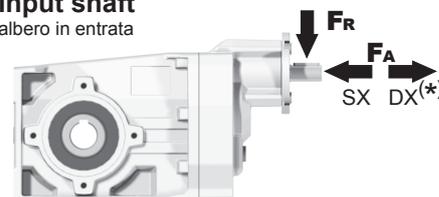


n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	600	3000	75	820	4100	15	1660	8300
150	700	3500	50	960	4800			
100	800	4000	25	1350	6750			

**FR** On request taper roller bearings to increase radial loads.  
 A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

#### Input shaft

albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA [N]	FR [N]
1400	400	2000
900	440	2200
500	440	2200

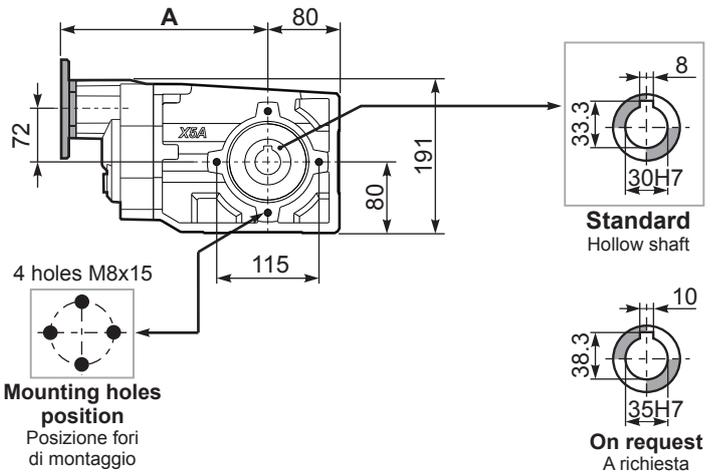
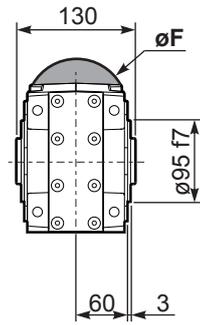
\*Strong axial loads in the DX direction are not allowed.  
 Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

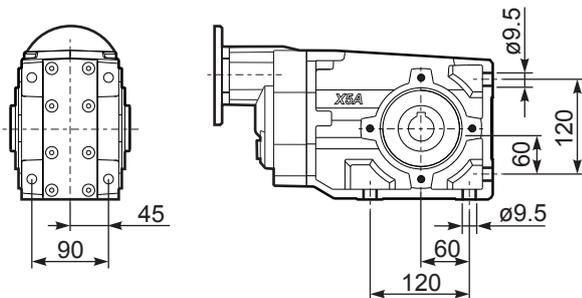
**PX53AC...** Basic Gearbox  
Riduttore base

Gearbox weight **12.65 kg**  
peso riduttore

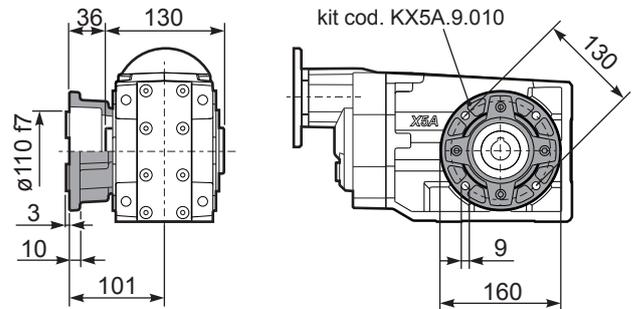
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	246
<b>71B5</b>	K063.4.042	160	244
<b>80/90B5</b>	K063.4.043	200	246
<b>71B14</b>	K063.4.047	105	244
<b>80B14</b>	K063.4.046	120	246
<b>90B14</b>	K063.4.041	140	246



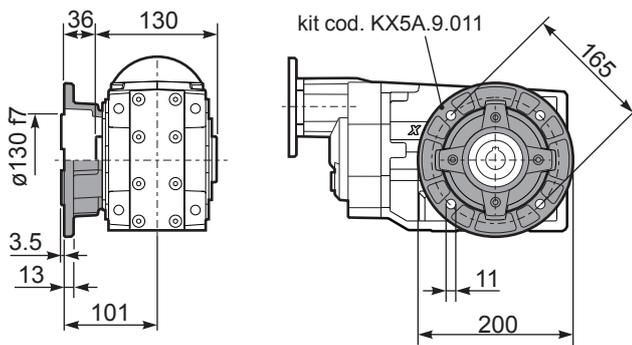
**PX53A...FB..** Feet  
Piedini



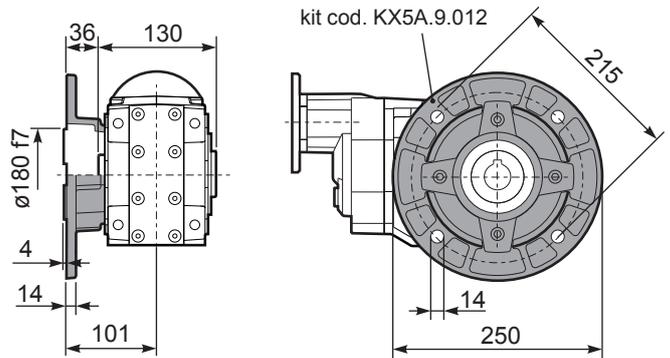
**PX53A...-F2..** Output flange  
Flangia uscita



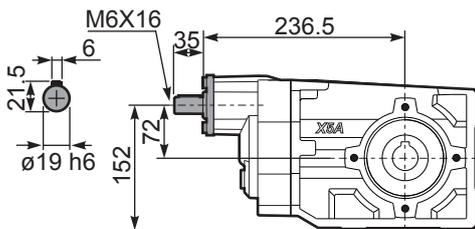
**PX53A...-F3..** Output flange  
Flangia uscita



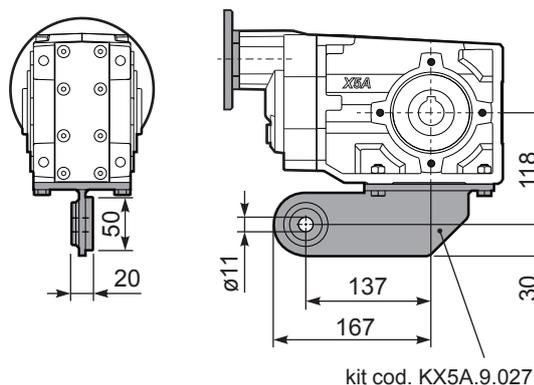
**PX53A...-F4..** Output flange  
Flangia uscita



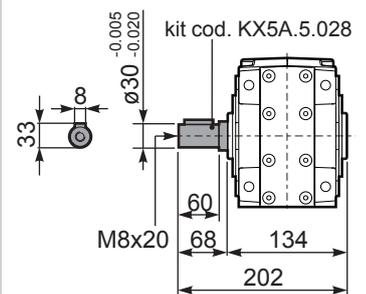
**RX53A...** Input shaft  
Albero in entrata

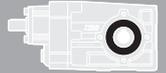


**PX53A...BR..** Reaction Arm  
Braccio di reazione



**PX53A...** Single output shaft  
Albero semplice in uscita





**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.96** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
232	<b>6.03</b>	5.5	211	1.1	<b>6.1</b>	<b>240</b>	B									3011	01
151	<b>9.26</b>	4	238	1.1	<b>4.5</b>	<b>270</b>	B									308	02
123	<b>11.36</b>	4	291	1.2	<b>4.7</b>	<b>350</b>	B									2011	03
91	<b>15.36</b>	4	394	1.0	<b>3.8</b>	<b>385</b>	B									1611	04
80	<b>17.46</b>	4	448	0.9	<b>3.5</b>	<b>400</b>	B									208	05
70	<b>19.97</b>	3	386	1.1	<b>3.1</b>	<b>410</b>	B									1311	06
59	<b>23.60</b>	3	456	0.9	<b>2.7</b>	<b>410</b>	B									168	07
57	<b>24.45</b>	3	472	0.9	<b>2.6</b>	<b>410</b>	B									1111	08
45.6	<b>30.69</b>	2.2	436	0.9	<b>2.0</b>	<b>410</b>	B									138	09
39.6	<b>35.35</b>	1.5	346	1.2	<b>1.8</b>	<b>410</b>	B									811	10
37.3	<b>37.57</b>	1.5	368	1.1	<b>1.7</b>	<b>410</b>	B									118	11
28.8	<b>48.68</b>	1.1	348	1.0	<b>1.1</b>	<b>365</b>	B									611	12
25.8	<b>54.33</b>	1.1	389	1.1	<b>1.2</b>	<b>410</b>	B									88	13
18.7	<b>74.81</b>	0.75	367	1.0	<b>0.73</b>	<b>360</b>	B									68	14

**Motor Flanges Available** Flange Motore Disponibili  
**B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione  
**B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione  
**C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **X62A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X62A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X62A** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X62A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X62A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

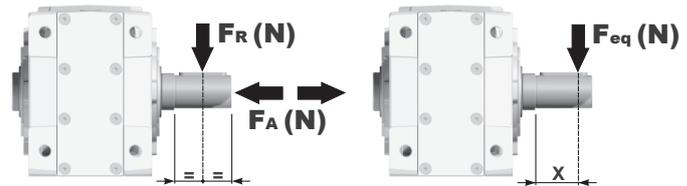
Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio						
B3	B6	B7	B8	V5	V6	V8	V8
1.25 LT	1.70 LT	0.95 LT	1.60 LT	2.45 LT	1.50 LT	Ask	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

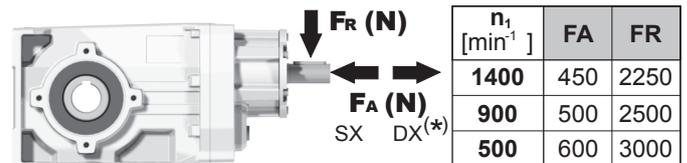
$$F_{eq} = F_R \cdot \frac{69}{X+39}$$



n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	600	3000	75	890	4450	15	1660	8300
150	700	3500	50	1140	5700			
100	780	3900	25	1330	6650			

**FR** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.

**Input shaft**  
albero in entrata



n <sub>1</sub> [min <sup>-1</sup> ]	FA	FR
1400	450	2250
900	500	2500
500	600	3000

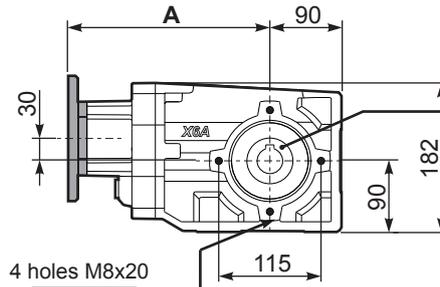
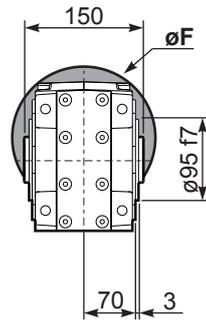
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

**tab. 2**

**PX62AC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **15.80 kg**

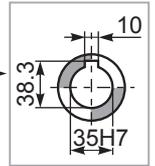
M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	253
<b>80/90B5</b>	K023.4.042	200	255
<b>100/112B5</b>	K023.4.043	250	264
<b>132B5</b>	KC50.4.043	300	282
<b>80B14</b>	K085.4.046	120	255
<b>90B14</b>	K085.4.045	140	255
<b>100/112B14</b>	K085.4.047	160	264
<b>132B14</b>	KC50.4.041	200	282



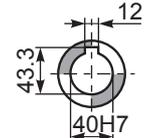
4 holes M8x20



**Mounting holes position**  
Posizione fori di montaggio

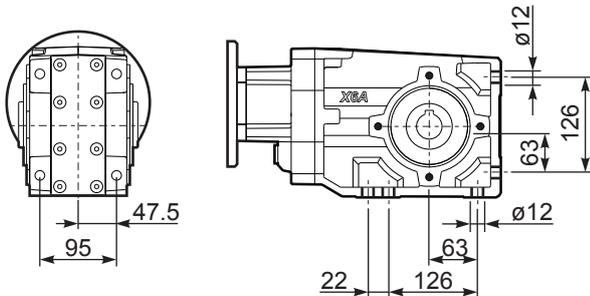


**Standard**  
Hollow shaft

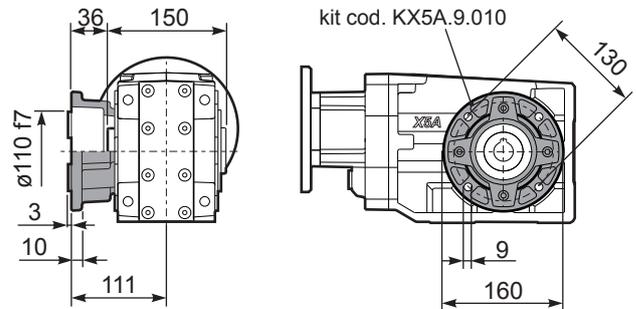


**On request**  
A richiesta

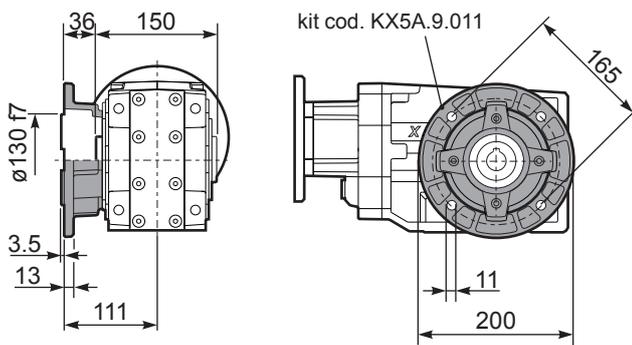
**PX62A...FB..** Feet  
Piedini



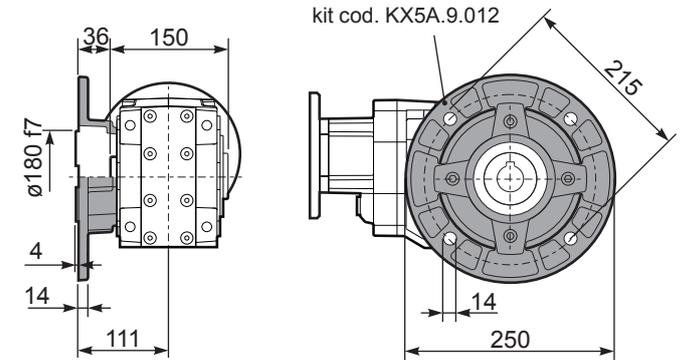
**PX62A...-F2..** Output flange  
Flangia uscita



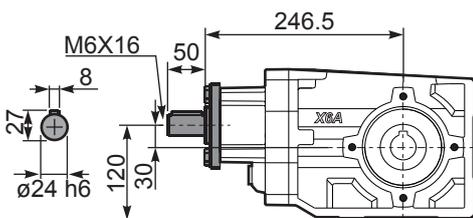
**PX62A...-F3..** Output flange  
Flangia uscita



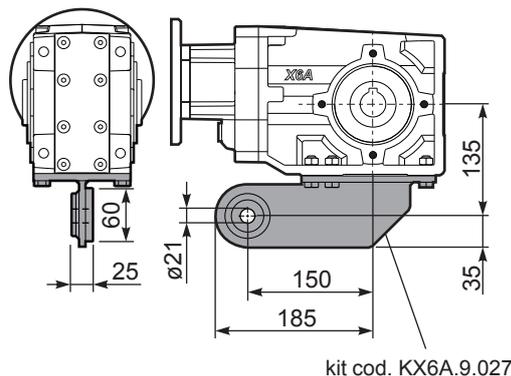
**PX62A...-F4..** Output flange  
Flangia uscita



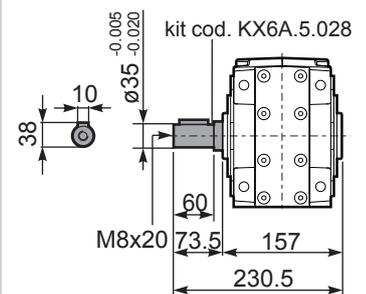
**RX62A...** Input shaft  
Albero in entrata

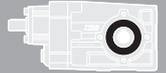


**PX62A...BR..** Reaction Arm  
Braccio di reazione



**PX62AA..** Single output shaft  
Albero semplice in uscita





**QUICK SELECTION / Selezione veloce** The dynamic efficiency is **0.94** for all ratios **input speed (n<sub>1</sub>) = 1400 min<sup>-1</sup>**

Output Speed n <sub>2</sub> [min <sup>-1</sup> ]	Ratio i	Motor power P <sub>1M</sub> [kW]	Output torque M <sub>2M</sub> [Nm]	Service factor f.s.	Nominal power P <sub>1R</sub> [kW]	Nominal torque M <sub>2R</sub> [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
24.7	<b>56.76</b>	1.1	398	1.0	<b>1.1</b>	<b>410</b>	B				C	C		191311	01
21.3	<b>65.79</b>	0.75	316	1.3	<b>0.97</b>	<b>410</b>	B				C	C		171311	02
18.1	<b>77.23</b>	0.75	371	1.1	<b>0.83</b>	<b>410</b>	B				C	C		151311	03
16.0	<b>87.23</b>	0.75	420	1.0	<b>0.73</b>	<b>410</b>	B				C	C		19138	04
15.2	<b>92.18</b>	0.75	443	0.9	<b>0.69</b>	<b>410</b>	B				C	C		131311	05
13.9	<b>100.47</b>	0.55	357	1.2	<b>0.64</b>	<b>410</b>	B				C	C		19811	06
12.0	<b>116.45</b>	0.55	413	1.0	<b>0.55</b>	<b>410</b>	B				C	C		17811	07
11.1	<b>125.82</b>	0.55	446	0.9	<b>0.51</b>	<b>410</b>	B				C	C		101311	08
9.9	<b>141.66</b>	0.37	336	1.2	<b>0.45</b>	<b>410</b>	B				C	C		13138	09
8.6	<b>163.16</b>	0.37	387	1.1	<b>0.39</b>	<b>410</b>	B				C	C		13811	10
7.8	<b>178.96</b>	0.37	424	1.0	<b>0.36</b>	<b>410</b>	B				C	C		1788	11
7.2	<b>193.36</b>	0.37	459	0.9	<b>0.33</b>	<b>410</b>	B				C	C		10138	12
6.5	<b>216.84</b>	0.25	347	1.2	<b>0.29</b>	<b>410</b>	B				C	C		71311	13
5.5	<b>252.36</b>	0.25	404	1.0	<b>0.25</b>	<b>410</b>	B				C	C		9138	14
4.8	<b>290.67</b>	0.25	465	0.9	<b>0.22</b>	<b>410</b>	B				C	C		9811	15
4.2	<b>333.23</b>	0.18	408	1.0	<b>0.19</b>	<b>410</b>	B				C	C		7138	16
3.6	<b>383.82</b>	0.18	470	0.9	<b>0.17</b>	<b>410</b>	B				C	C		7811	17
3.1	<b>446.70</b>	0.12	353	1.2	<b>0.14</b>	<b>410</b>	B				C	C		988	18
2.4	<b>589.85</b>	0.12	466	0.9	<b>0.11</b>	<b>410</b>	B				C	C		788	19

Motor Flanges Available Flange Motore Disponibili  
 B) Supplied with Reduction Bushing Fornito con Bussola di Riduzione  
 B) Available on Request without reduction bushing Disponibile a Richiesta senza Bussola di Riduzione  
 C) Motor Flange Holes Position Posizione Fori Flangia Motore

**EN** Unit **X63A** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X63A** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X63A** ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

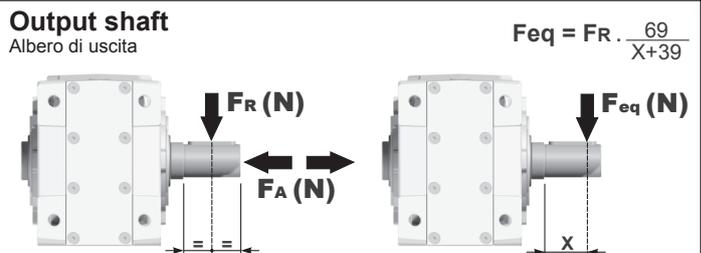
**F** Le réducteur **X63A** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X63A** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil					
	Per queste posizioni specificare in fase d'ordine o aggiungere olio					
1.80 LT	1.80 LT	1.05 LT	1.70 LT	2.60 LT	1.65 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

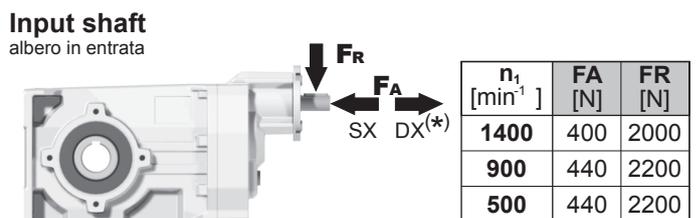
For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS



n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR	n <sub>2</sub> [min <sup>-1</sup> ]	FA	FR
250	600	3000	75	890	4450	15	1660	8300
150	700	3500	50	1140	5700			
100	780	3900	25	1330	6650			

**F<sub>R</sub>** On request taper roller bearings to increase radial loads.  
A richiesta cuscinetti a rulli conici per aumentare i carichi radiali.



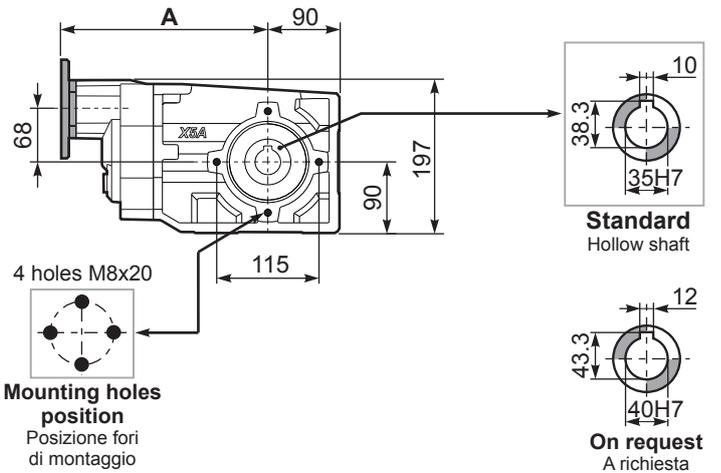
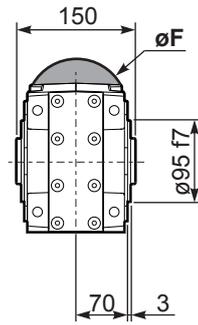
\*Strong axial loads in the DX direction are not allowed.  
Non sono consentiti forti carichi assiali con direzione DX

tab. 2

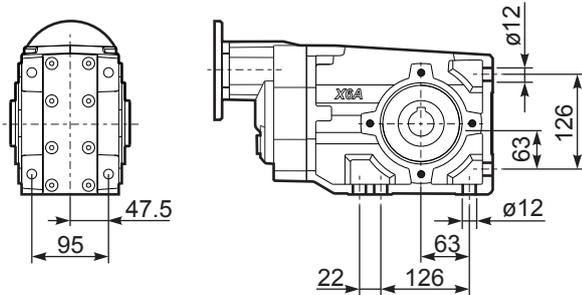
**PX63AC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **15.98 kg**

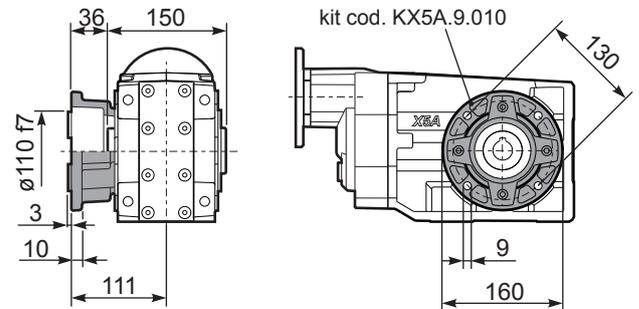
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	265
<b>71B5</b>	K063.4.042	160	263
<b>80/90B5</b>	K063.4.043	200	265
<b>71B14</b>	K063.4.047	105	263
<b>80B14</b>	K063.4.046	120	265
<b>90B14</b>	K063.4.041	140	265



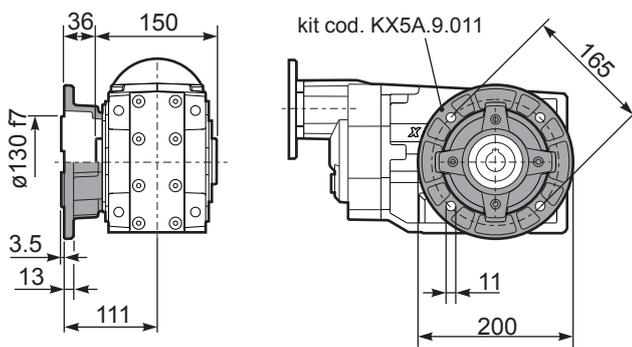
**PX63A...FB..** Feet  
Piedini



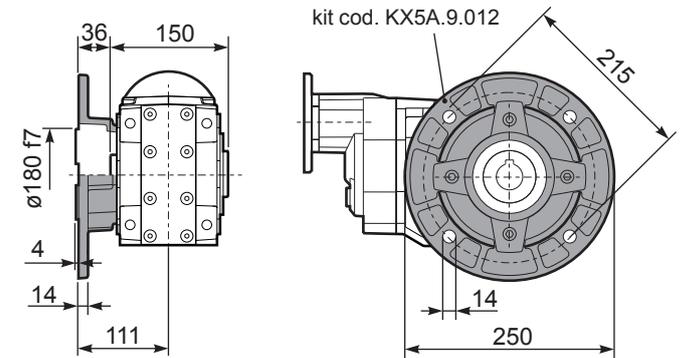
**PX63A...-F2..** Output flange  
Flangia uscita



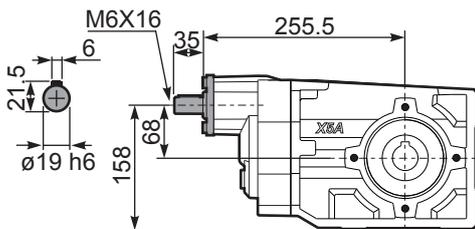
**PX63A...-F3..** Output flange  
Flangia uscita



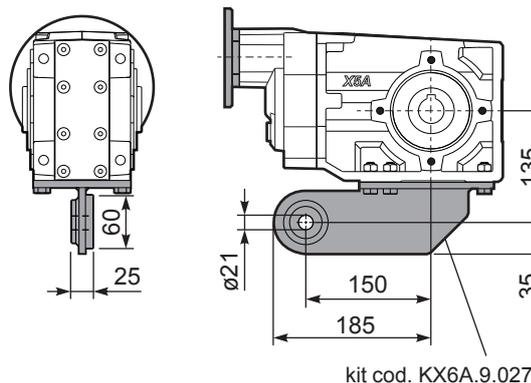
**PX63A...-F4..** Output flange  
Flangia uscita



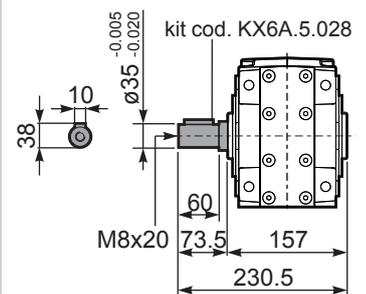
**RX63A...** Input shaft  
Albero in entrata

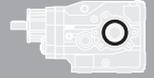


**PX63A...BR..** Reaction Arm  
Braccio di reazione



**PX63A...** Single output shaft  
Albero semplice in uscita





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code	
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
176	<b>7.94</b>	7.5	369	1.0	7.5	380	B										302418	01
153	<b>9.13</b>	7.5	425	0.9	6.7	390	B										302416	02
131	<b>10.66</b>	5.5	366	1.1	6.0	410	B										302414	03
94	<b>14.97</b>	5.5	514	1.1	6.0	580	B										202418	04
81	<b>17.21</b>	5.5	591	1.0	5.4	600	B										202416	05
69	<b>20.24</b>	5.5	695	1.0	5.2	675	B										162418	06
60	<b>23.27</b>	4	585	1.2	4.5	675	B										162416	07
53	<b>26.31</b>	4	661	1.0	4.0	675	B										132418	08
46.3	<b>30.25</b>	4	760	0.9	3.5	675	B										132416	09
39.6	<b>35.32</b>	3	668	1.0	3.0	675	B										132414	10
37.8	<b>37.03</b>	3	701	1.0	2.8	675	B										112416	11
32.4	<b>43.23</b>	2.2	602	1.1	2.4	675	B										112414	12
30.1	<b>46.58</b>	2.2	649	1.0	2.3	675	B										82418	13
26.1	<b>53.55</b>	2.2	746	0.9	2.0	675	B										82416	14
22.4	<b>62.52</b>	1.5	600	1.1	1.7	675	B										82414	15
19.0	<b>73.75</b>	1.1	517	1.1	1.2	580	B										62416	16
16.3	<b>86.09</b>	1.1	604	1.1	1.2	675	B										62414	17

The dynamic efficiency is **0.94** for all ratios

- Motor Flanges Available**  
Flange Motore Disponibili
- B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X73C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X73C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X73C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X73C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X73C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
2.45 LT	2.55 LT	1.80 LT	1.95 LT	4.05 LT	2.55 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1360	6800	140	1480	7400	70	1720	8600
250	1400	7000	120	1520	7600	40	1840	9200
200	1440	7200	85	1560	7800	15	1920	9600

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero di entrata

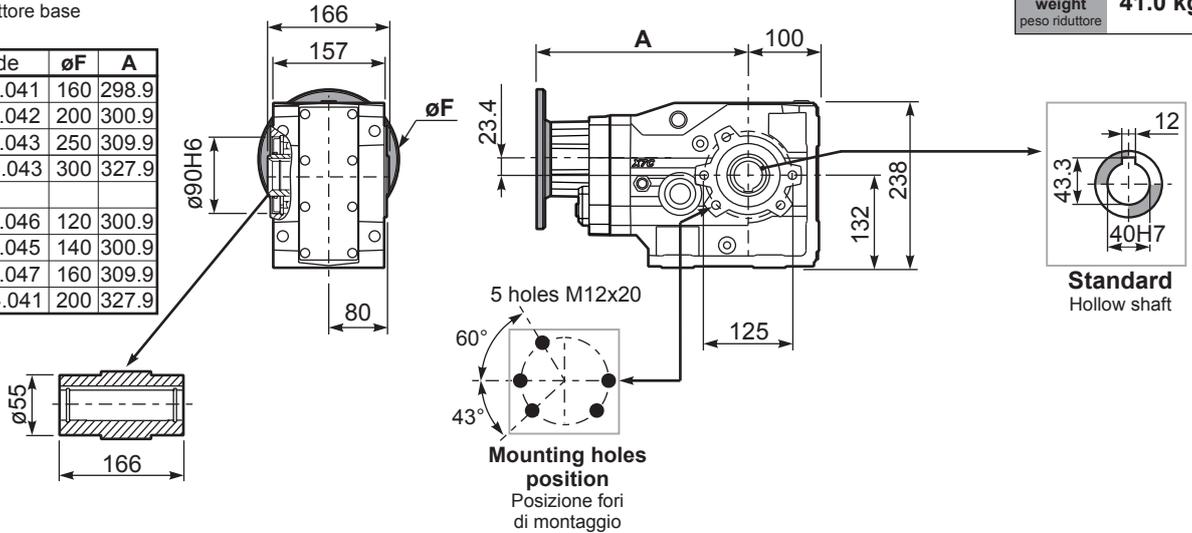
$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

**PX73CC...** Basic Gearbox  
Riduttore base

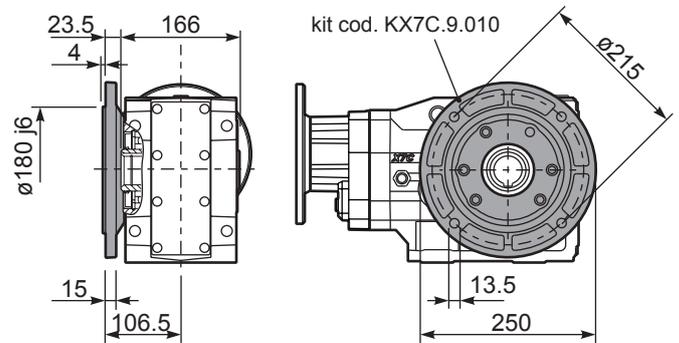
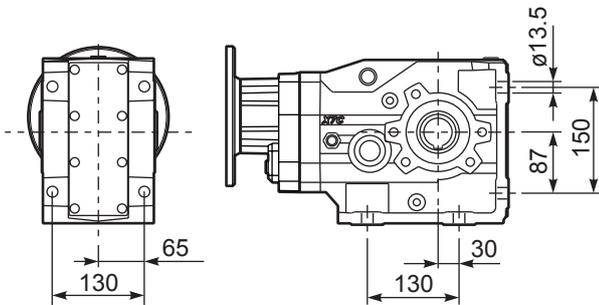
Gearbox weight  
peso riduttore **41.0 kg**

M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	298.9
<b>80/90B5</b>	K023.4.042	200	300.9
<b>100/112B5</b>	K023.4.043	250	309.9
<b>132B5</b>	KC50.4.043	300	327.9
<b>80B14</b>	K085.4.046	120	300.9
<b>90B14</b>	K085.4.045	140	300.9
<b>100/112B14</b>	K085.4.047	160	309.9
<b>132B14</b>	KC50.4.041	200	327.9



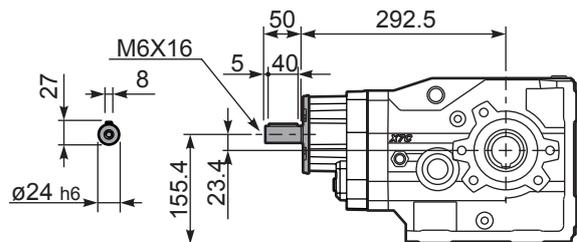
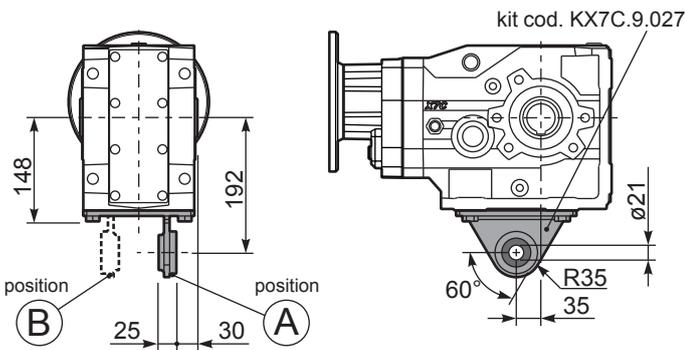
**PX73C...FB..** Feet  
Piedini

**PX73C...-F4..** Output flange  
Flangia uscita



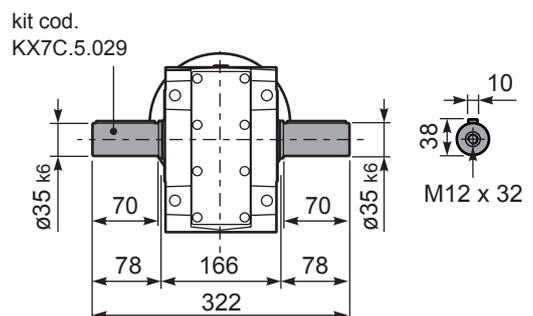
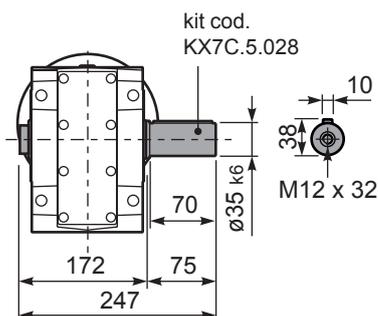
**PX73C...BR..** Reaction Arm  
Braccio di reazione

**RX73C...** Input shaft  
Albero in entrata



**PX73CA...** Single shaft  
Albero lento semplice

**PX73CB...** Double shaft  
Albero lento bisp.





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.7	<b>74.79</b>	1.5	704	1.0	1.4	675	B				C	C		19132418	01
16.3	<b>85.99</b>	1.1	591	1.1	1.3	675	B				C	C		19132416	02
14.0	<b>99.66</b>	1.1	685	1.0	1.1	675	B				C	C		17132416	03
12.0	<b>116.35</b>	0.75	548	1.2	0.92	675	B				C	C		17132414	04
11.5	<b>121.45</b>	0.75	572	1.2	0.89	675	B				C	C		13132418	05
10.0	<b>139.64</b>	0.75	658	1.0	0.77	675	B				C	C		13132416	06
9.2	<b>152.21</b>	0.75	717	0.9	0.71	675	B				C	C		19082416	07
8.6	<b>163.02</b>	0.55	567	1.2	0.66	675	B				C	C		13132414	08
7.9	<b>177.69</b>	0.55	618	1.1	0.61	675	B				C	C		19082414	09
6.8	<b>205.95</b>	0.55	716	0.9	0.52	675	B				C	C		17082414	10
6.3	<b>222.52</b>	0.55	774	0.9	0.48	675	B				C	C		10132414	11
5.6	<b>248.76</b>	0.37	578	1.2	0.43	675	B				C	C		9132416	12
4.8	<b>290.41</b>	0.37	675	1.0	0.37	675	B				C	C		9132414	13
4.1	<b>337.39</b>	0.37	784	0.9	0.32	675	B				C	C		10082416	14
3.6	<b>393.88</b>	0.25	618	1.1	0.27	675	B				C	C		10082414	15
3.2	<b>440.33</b>	0.25	690	1.0	0.24	675	B				C	C		9082416	16
2.7	<b>514.06</b>	0.18	616	1.1	0.21	675	B				C	C		9082414	17
2.4	<b>581.44</b>	0.18	697	1.0	0.18	675	B				C	C		7082416	18
2.1	<b>678.79</b>	0.12	526	1.3	0.16	675	B				C	C		7082414	19

The dynamic efficiency is **0.92** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X74C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **X74C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **X74C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur **X74C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **X74C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
3.55 LT	2.65 LT	1.90 LT	2.05 LT	4.25 LT	2.65 LT	Ask
AGIP Telium VSF 320			SHELL Omala S4 WE 320			

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{178.5}{X+143.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1360	6800	140	1480	7400	70	1720	8600
250	1400	7000	120	1520	7600	40	1840	9200
200	1440	7200	85	1560	7800	15	1920	9600

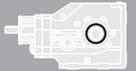
**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	240	1200
900	280	1400
500	310	1700

tab. 2





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\varnothing$	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
145	<b>9.69</b>	9	560	1.3	<b>12.2</b>	<b>755</b>	B									302418	01
126	<b>11.09</b>	9	641	1.1	<b>9.6</b>	<b>680</b>	B									302416	02
108	<b>12.90</b>	9	746	1.1	<b>9.6</b>	<b>790</b>	B									302414	03
77	<b>18.26</b>	7.5	849	1.1	<b>8.0</b>	<b>935</b>	B									202418	04
67	<b>20.91</b>	7.5	972	1.0	<b>7.5</b>	<b>1000</b>	B									202416	05
58	<b>24.32</b>	5.5	835	1.2	<b>6.4</b>	<b>1000</b>	B									202414	06
49.5	<b>28.27</b>	5.5	971	1.0	<b>5.5</b>	<b>1000</b>	B									162416	07
42.6	<b>32.88</b>	4	826	1.2	<b>4.7</b>	<b>1000</b>	B									162414	08
38.1	<b>36.76</b>	4	924	1.1	<b>4.2</b>	<b>1000</b>	B									132416	09
32.7	<b>42.76</b>	3	809	1.2	<b>3.6</b>	<b>1000</b>	B									132414	10
31.1	<b>45.00</b>	3	851	1.2	<b>3.5</b>	<b>1000</b>	B									112416	11
26.8	<b>52.33</b>	3	990	1.0	<b>3.0</b>	<b>1000</b>	B									112414	12
24.6	<b>56.82</b>	2.2	791	1.1	<b>2.3</b>	<b>850</b>	B									82418	13
21.5	<b>65.07</b>	2.2	906	1.1	<b>2.3</b>	<b>975</b>	B									82416	14
18.5	<b>75.68</b>	2.2	1054	0.9	<b>2.1</b>	<b>1000</b>	B									82414	15
15.6	<b>89.61</b>	1.1	628	1.1	<b>1.2</b>	<b>710</b>	B									62416	16
13.4	<b>104.22</b>	1.1	731	1.1	<b>1.2</b>	<b>820</b>	B									62414	17

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X83C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X83C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X83C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X83C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **X83C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

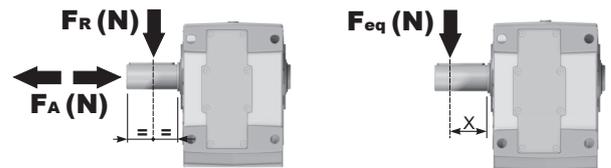
B3	B6	B7	B8	V5	V6	V8
2.80 LT	3.10 LT	2.00 LT	2.50 LT	4.95 LT	2.80 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita



$$F_{eq} = F_R \cdot \frac{196.5}{X + 156.5}$$

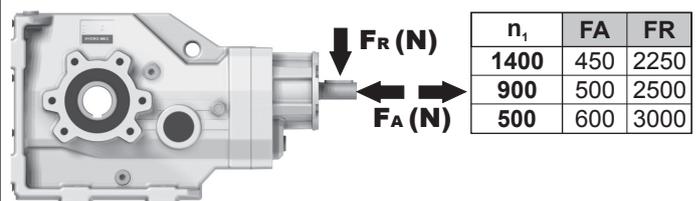
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1700	8500	140	1860	9300	70	2160	10800
250	1760	8800	120	1900	9500	40	2300	11500
200	1800	9000	85	1960	9800	15	2400	12000

**On request reinforced bearings to increase loads.**

A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**

Albero in entrata



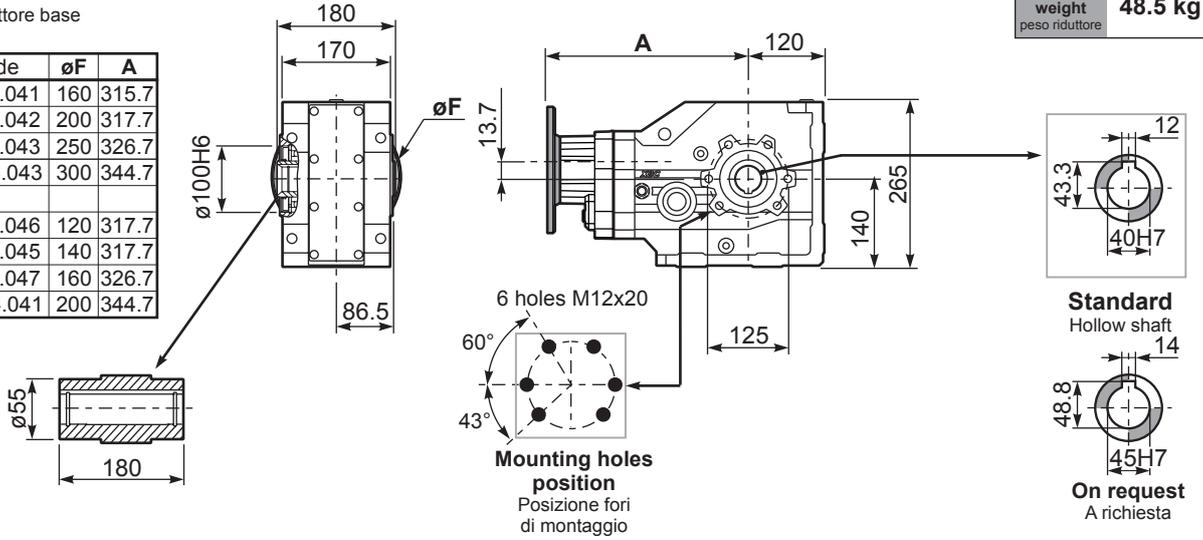
$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

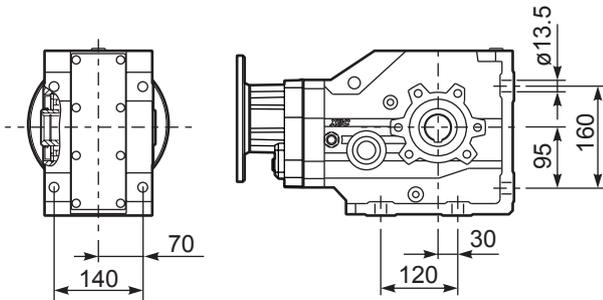
**PX83CC...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **48.5 kg**

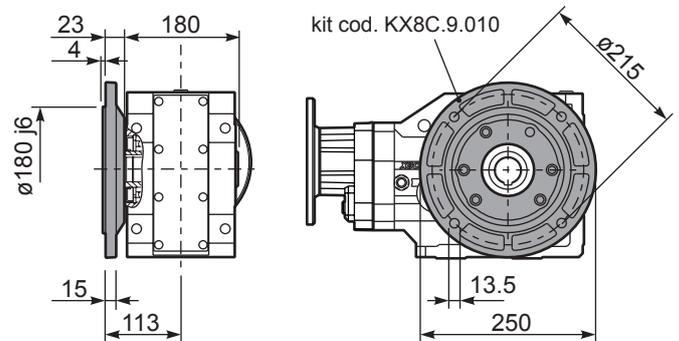
M. flanges	Kit code	øF	A
71B5	K023.4.041	160	315.7
80/90B5	K023.4.042	200	317.7
100/112B5	K023.4.043	250	326.7
132B5	KC50.4.043	300	344.7
80B14	K085.4.046	120	317.7
90B14	K085.4.045	140	317.7
100/112B14	K085.4.047	160	326.7
132B14	KC50.4.041	200	344.7



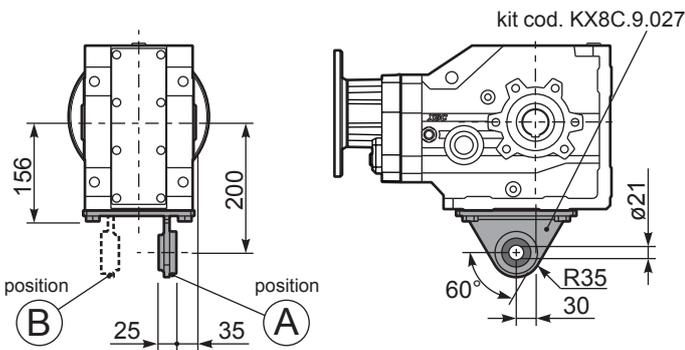
**PX83C...FB..** Feet  
Piedini



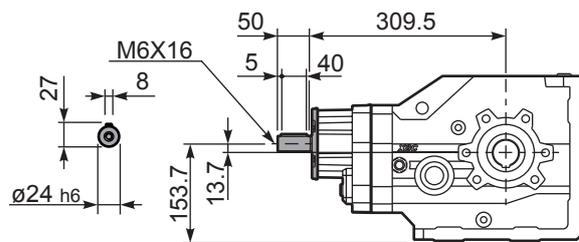
**PX83C...-F4..** Output flange  
Flangia uscita



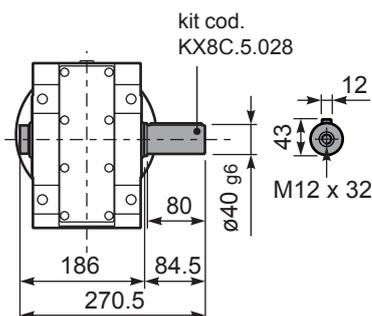
**PX83C...BR..** Reaction Arm  
Braccio di reazione



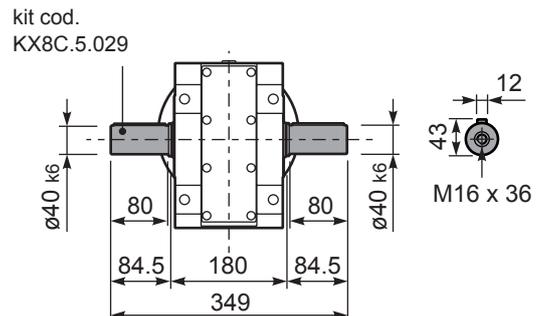
**RX83C...** Input shaft  
Albero in entrata



**PX83CA...** Single shaft  
Albero lento semplice



**PX83CB...** Double shaft  
Albero lento bisp.





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
15.3	<b>91.23</b>	1.5	858	1.2	1.7	1000	B				C	C		19132418	01
13.4	<b>104.48</b>	1.5	983	1.0	1.5	1000	B				C	C		19132416	02
11.6	<b>121.10</b>	1.5	1139	0.9	1.3	1000	B				C	C		17132416	03
9.9	<b>140.84</b>	1.1	968	1.0	1.1	1000	B				C	C		17132414	04
8.5	<b>165.32</b>	1.1	1136	0.9	0.96	1000	B				C	C		15132414	05
7.6	<b>184.94</b>	0.75	872	1.1	0.86	1000	B				C	C		19082416	06
7.1	<b>197.34</b>	0.75	930	1.1	0.81	1000	B				C	C		13132414	07
6.5	<b>215.10</b>	0.75	1014	1.0	0.74	1000	B				C	C		19082414	08
6.0	<b>231.60</b>	0.55	805	1.2	0.69	1000	B				C	C		10132416	09
5.6	<b>249.31</b>	0.55	867	1.2	0.64	1000	B				C	C		17082414	10
5.2	<b>269.37</b>	0.55	937	1.1	0.59	1000	B				C	C		10132414	11
4.8	<b>292.64</b>	0.55	1018	1.0	0.54	1000	B				C	C		15082414	12
4.6	<b>302.26</b>	0.55	1051	1.0	0.53	1000	B				C	C		9132416	13
4.0	<b>349.30</b>	0.37	812	1.2	0.46	1000	B				C	C		13082414	14
3.5	<b>399.12</b>	0.37	928	1.1	0.40	1000	B				C	C		7132416	15
2.9	<b>476.80</b>	0.37	1108	0.9	0.33	1000	B				C	C		10082414	16
2.2	<b>622.28</b>	0.25	976	1.0	0.26	1000	B				C	C		9082414	17
1.7	<b>821.70</b>	0.18	985	1.0	0.19	1000	B				C	C		7082414	18

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X84C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X84C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X84C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X84C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X84C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
4.25 LT	3.20 LT	2.10 LT	2.60 LT	5.20 LT	2.90 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{196.5}{X+156.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1700	8500	140	1860	9300	70	2160	10800
250	1760	8800	120	1900	9500	40	2300	11500
200	1800	9000	85	1960	9800	15	2400	12000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

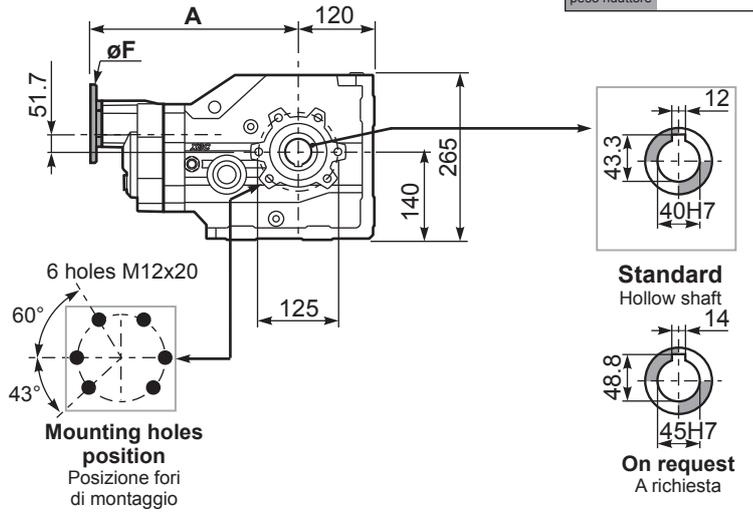
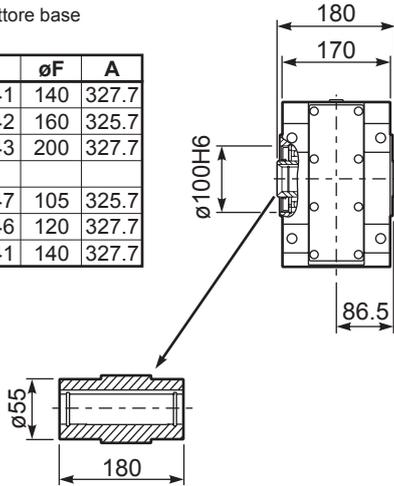
$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

**tab. 2**

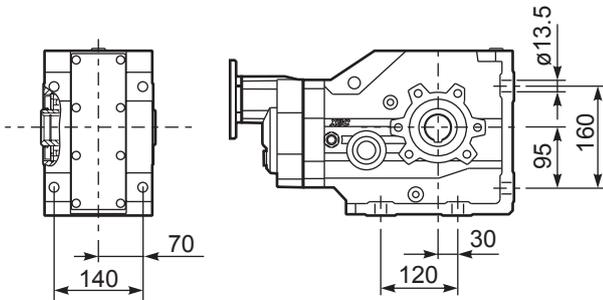
**PX84CC...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **46.5 kg**

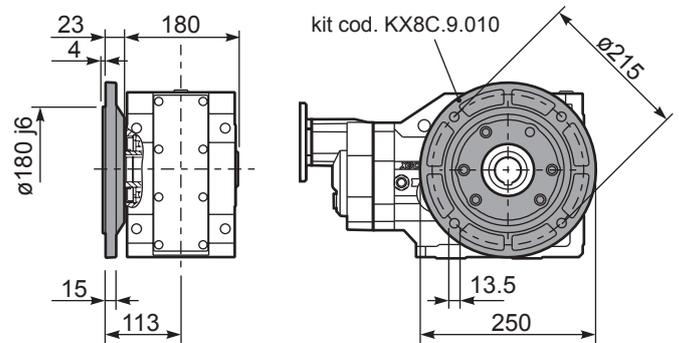
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	327.7
<b>71B5</b>	K063.4.042	160	325.7
<b>80/90B5</b>	K063.4.043	200	327.7
<b>71B14</b>	K063.4.047	105	325.7
<b>80B14</b>	K063.4.046	120	327.7
<b>90B14</b>	K063.4.041	140	327.7



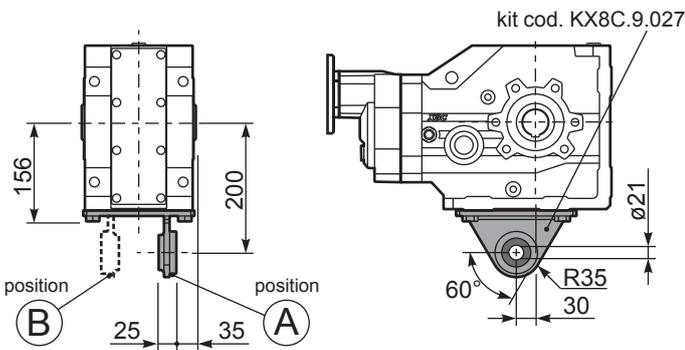
**PX84C...FB..** Feet  
Piedini



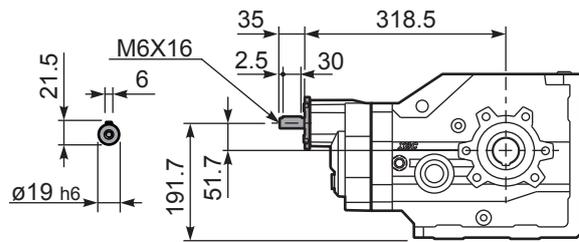
**PX84C...-F4..** Output flange  
Flangia uscita



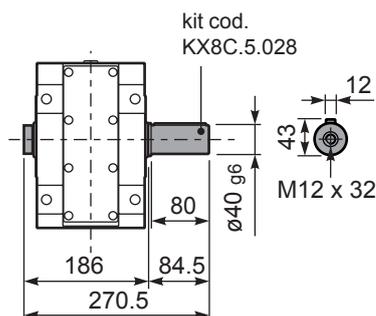
**PX84C...BR..** Reaction Arm  
Braccio di reazione



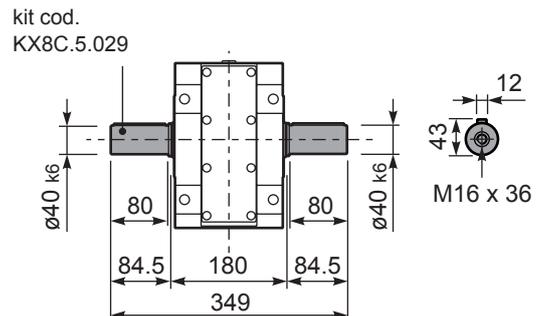
**RX84C...** Input shaft  
Albero in entrata

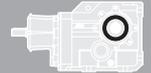


**PX84CA...** Single shaft  
Albero lento semplice



**PX84CB...** Double shaft  
Albero lento bisp.





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code 
							-F	-G	-H	-I	-	-	-	-		
							100 112	132	160	180	-	-	-	-		
236	<b>5.94</b>	22	806	1.0	<b>21.0</b>	<b>800</b>	B							302915	standard ø50  ø45 On request	01
196	<b>7.13</b>	18.5	812	1.0	<b>17.9</b>	<b>820</b>	B							302913		02
163	<b>8.58</b>	18.5	977	1.0	<b>17.3</b>	<b>950</b>	B							302911		03
125	<b>11.20</b>	15	1033	1.0	<b>13.9</b>	<b>1000</b>	B							202915		04
104	<b>13.43</b>	15	1239	1.1	<b>15.7</b>	<b>1350</b>	B							202913		05
92	<b>15.15</b>	15	1397	1.0	<b>14.4</b>	<b>1400</b>	B							162915		06
87	<b>16.17</b>	15	1492	1.0	<b>14.0</b>	<b>1450</b>	B							202911		07
77	<b>18.16</b>	15	1675	0.9	<b>13.3</b>	<b>1550</b>	B							162913		08
71	<b>19.70</b>	11	1335	1.2	<b>12.3</b>	<b>1550</b>	B							132915		09
64	<b>21.87</b>	11	1482	1.1	<b>11.4</b>	<b>1600</b>	B							162911		10
59	<b>23.62</b>	11	1600	1.0	<b>10.6</b>	<b>1600</b>	B							132913		11
48.4	<b>28.91</b>	9	1671	1.0	<b>8.6</b>	<b>1600</b>	B							112913		12
40.2	<b>34.81</b>	7.5	1618	1.0	<b>7.2</b>	<b>1600</b>	B							112911		13
33.5	<b>41.81</b>	5.5	1436	1.1	<b>6.0</b>	<b>1600</b>	B							82913		14
27.8	<b>50.34</b>	5.5	1729	0.9	<b>5.0</b>	<b>1600</b>	B							82911		15

The dynamic efficiency is **0.94** for all ratios

- Motor Flanges Available** Flange Motore Disponibili
- B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **X93C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X93C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X93C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X93C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **X93C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
<b>B3</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>	<b>V5</b>	<b>V6</b>	<b>V8</b>
4.20 LT	3.60 LT	4.40 LT	5.10 LT	7.10 LT	5.00 LT	Ask
<b>AGIP Blasias 460</b>						

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{218}{X+168}$

**F<sub>eq</sub> (N)**

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
<b>300</b>	1800	9000	<b>140</b>	2700	13500	<b>70</b>	3020	15100
<b>250</b>	2400	12000	<b>120</b>	2800	14000	<b>40</b>	3200	16000
<b>200</b>	2600	13000	<b>85</b>	2900	14500	<b>15</b>	3500	17500

**Input shaft**  
Albero in entrata

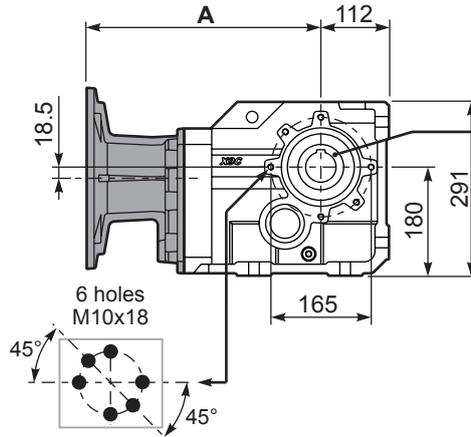
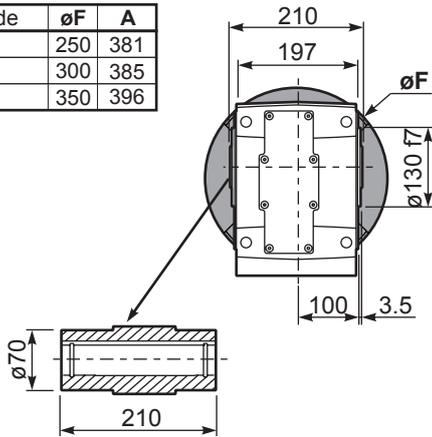
$n_1$	FA	FR
<b>1400</b>	700	3500
<b>900</b>	840	4200
<b>500</b>	900	4500

**tab. 2**

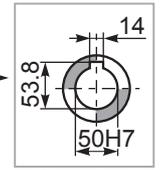
**PX93CC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **75.0 kg**

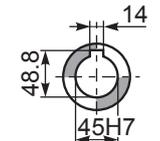
M. flanges	Kit code	øF	A
100/112B5	-	250	381
132B5	-	300	385
160/180B5	-	350	396



Mounting holes position  
Posizione fori di montaggio

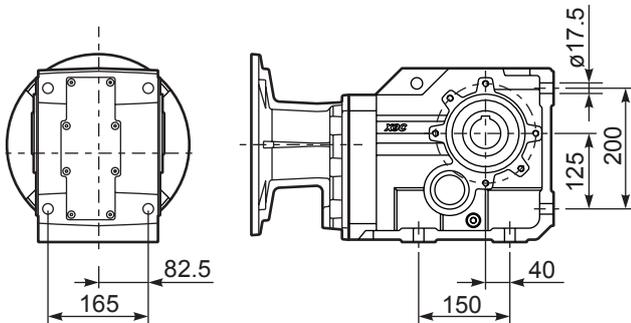


Standard  
Hollow shaft

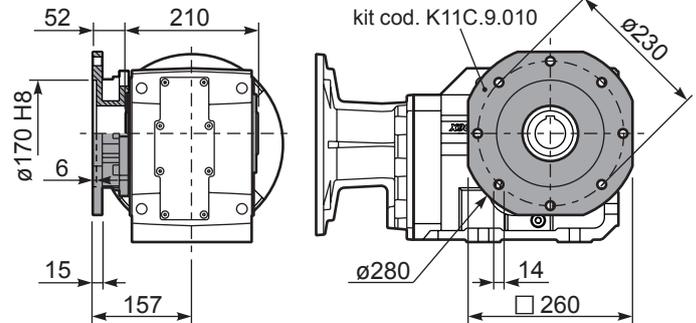


On request  
A richiesta

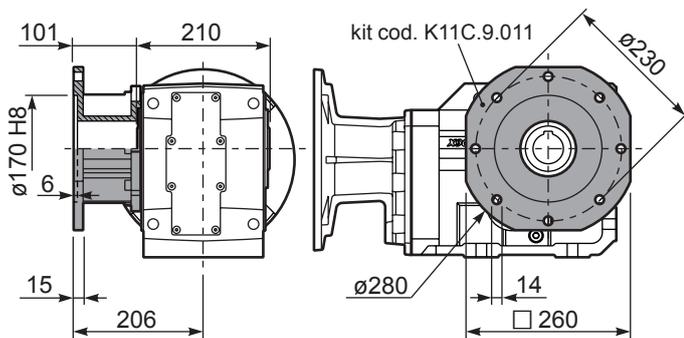
**PX93C...FB..** Feet  
Piedini



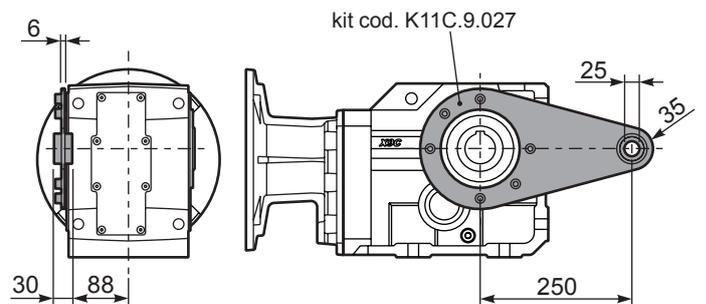
**PX93C...-FC..** Output flange  
Flangia uscita



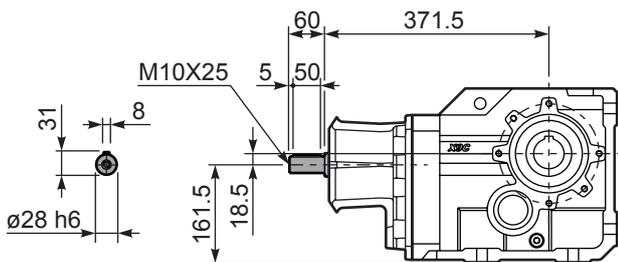
**PX93C...-FL..** Output flange  
Flangia uscita



**PX93C...BR..** Reaction Arm  
Braccio di reazione

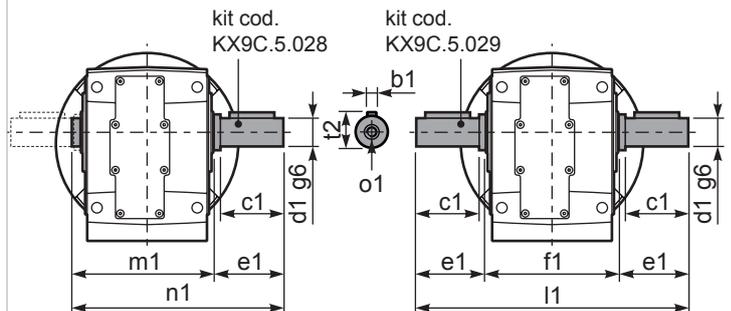


**RX93C...** Input shaft  
Albero in entrata



**PX93CA...** Single shaft  
Albero lento semplice

**PX93CB...** Double shaft  
Albero lento bisp.



	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
Standard	14	100	50	105	210	420	218	323	53.5	M16
-	-	-	-	-	-	-	-	-	-	-



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
45.6	<b>30.70</b>	7.5	1399	1.1	8.3	1600	B									30132913	01
37.9	<b>36.97</b>	7.5	1685	0.9	6.9	1600	B									30132911	02
29.0	<b>48.26</b>	5.5	1625	1.0	5.3	1600	B									20132915	03
24.2	<b>57.86</b>	4	1425	1.1	4.4	1600	B									20132913	04
21.5	<b>65.24</b>	4	1607	1.0	3.9	1600	B									16132915	05
20.1	<b>69.68</b>	4	1716	1.0	3.8	1650	B									20132911	06
17.9	<b>78.23</b>	3	1450	1.1	3.4	1650	B									16132913	07
16.5	<b>84.85</b>	3	1573	1.0	3.0	1600	B									13132915	08
14.9	<b>94.20</b>	3	1747	0.9	2.8	1650	B									16132911	09
13.8	<b>101.74</b>	3	1886	0.9	2.6	1650	B									13132913	10
11.4	<b>122.51</b>	2.2	1672	1.0	2.1	1650	B									13132911	11
9.3	<b>149.95</b>	1.5	1411	1.2	1.8	1650	B									11132911	12
7.8	<b>180.09</b>	1.5	1694	1.0	1.5	1650	B									8132913	13
6.8	<b>206.81</b>	1.1	1421	1.1	1.2	1600	B									6132915	14
6.5	<b>216.85</b>	1.1	1490	1.1	1.2	1650	B									8132911	15
5.6	<b>247.99</b>	1.1	1704	1.0	1.1	1650	B									6132913	16
4.7	<b>298.61</b>	0.75	1407	1.2	0.88	1650	B									6132911	17

The dynamic efficiency is **0.92** for all ratios

- Motor Flanges Available  
Flange Motore Disponibili
- B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione
- B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione
- C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit **X94C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X94C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X94C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X94C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X94C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
4.50 LT	3.80 LT	4.50 LT	5.30 LT	7.60 LT	5.30 LT	Ask
AGIP Blasias 460						

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{218}{X+168}$

$F_R$  (N)  
 $F_A$  (N)

$F_{eq}$  (N)

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	1800	9000	140	2700	13500	70	3020	15100
250	2400	12000	120	2800	14000	40	3200	16000
200	2600	13000	85	2900	14500	15	3500	17500

**Input shaft**  
Albero di entrata

$F_R$  (N)  
 $F_A$  (N)

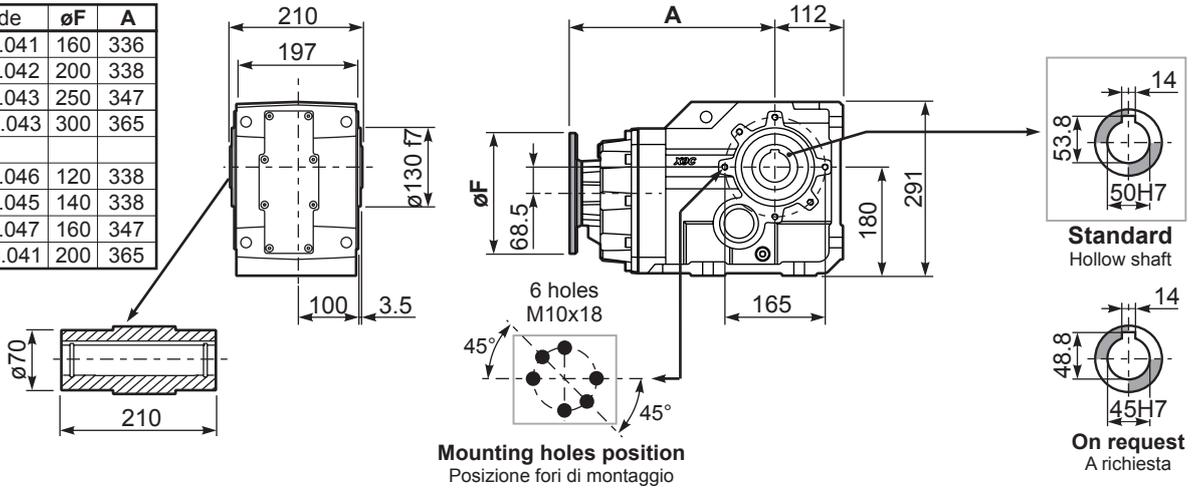
$n_1$	FA	FR
1400	450	2250
900	500	2500
500	600	3000

tab. 2

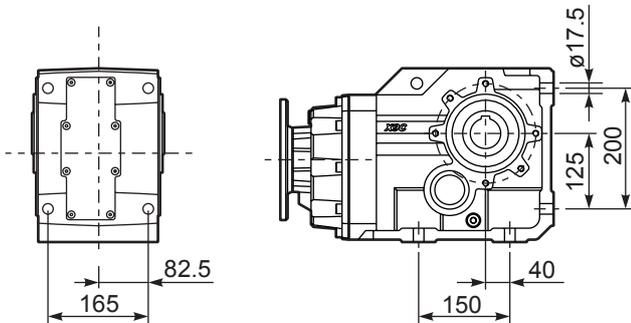
**PX94CC...** Basic Gearbox  
Riduttore base

Gearbox weight **68.5 kg**  
peso riduttore

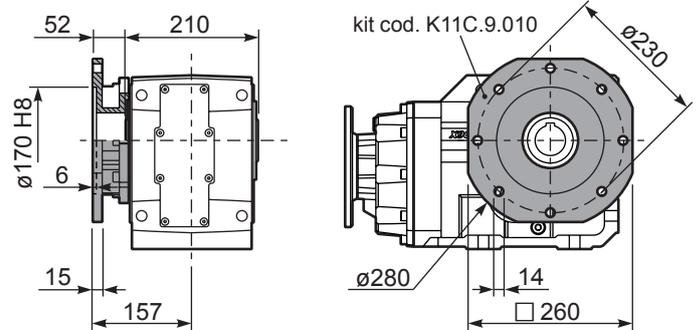
M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	336
<b>80/90B5</b>	K023.4.042	200	338
<b>100/112B5</b>	K023.4.043	250	347
<b>132B5</b>	KC50.4.043	300	365
<b>80B14</b>	K085.4.046	120	338
<b>90B14</b>	K085.4.045	140	338
<b>100/112B14</b>	K085.4.047	160	347
<b>132B14</b>	KC50.4.041	200	365



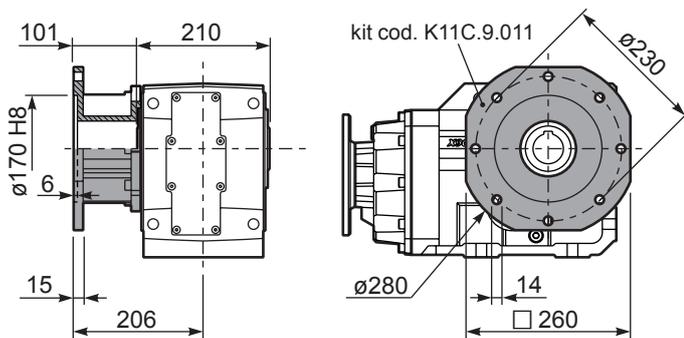
**PX94C...FB..** Feet  
Piedini



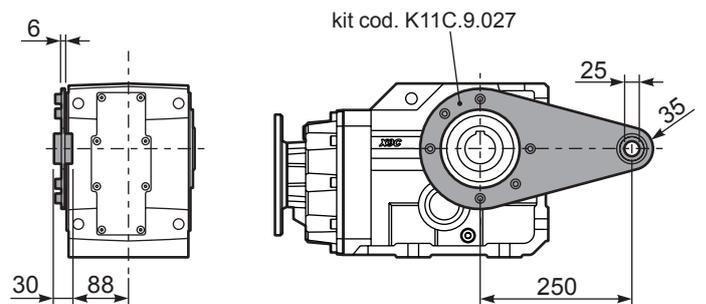
**PX94C...-FC..** Output flange  
Flangia uscita



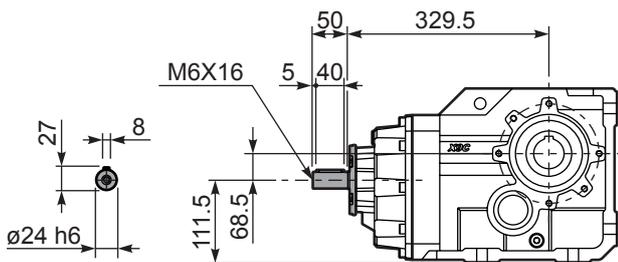
**PX94C...-FL..** Output flange  
Flangia uscita



**PX94C...BR..** Reaction Arm  
Braccio di reazione

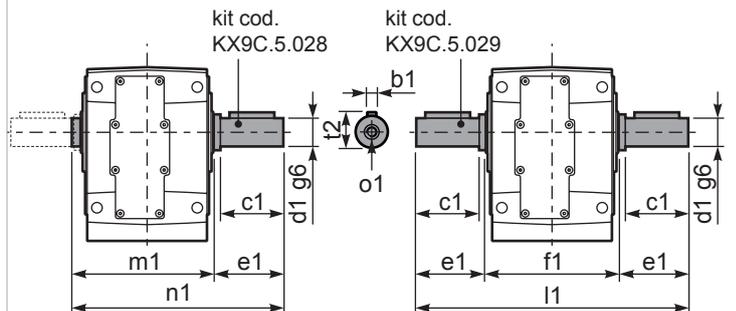


**RX94C...** Input shaft  
Albero in entrata



**PX94CA...** Single shaft  
Albero lento semplice

**PX94CB...** Double shaft  
Albero lento bisp.



	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
<b>Standard</b>	14	100	50	105	210	420	218	323	53.5	M16
-	-	-	-	-	-	-	-	-	-	-



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges				B14 motor flanges				Output Shaft 	Ratios code
							-G	-H	-I	-L	-	-	-	-		
							132	160	180	200	-	-	-	-		
219	<b>6.39</b>	30	1180	1.1	<b>31.7</b>	<b>1300</b>								392914	01	
200	<b>7.00</b>	30	1292	1.1	<b>31.2</b>	<b>1400</b>								392913	02	
164	<b>8.55</b>	30	1578	1.0	<b>27.4</b>	<b>1500</b>								392911	03	
140	<b>10.01</b>	22	1357	1.2	<b>24.9</b>	<b>1600</b>								302914	04	
128	<b>10.97</b>	22	1486	1.1	<b>24.2</b>	<b>1700</b>								302913	05	
105	<b>13.39</b>	22	1815	1.2	<b>24.5</b>	<b>2100</b>								302911	06	
89	<b>15.71</b>	22	2130	1.0	<b>21.8</b>	<b>2200</b>								222914	07	
81	<b>17.21</b>	22	2333	1.0	<b>20.8</b>	<b>2300</b>								222913	08	
67	<b>21.02</b>	18.5	2394	1.0	<b>17.8</b>	<b>2400</b>								222911	09	
59	<b>23.73</b>	18.5	2703	1.0	<b>17.1</b>	<b>2600</b>								162914	10	
54	<b>25.99</b>	18.5	2960	0.9	<b>16.8</b>	<b>2800</b>								162913	11	
50	<b>27.93</b>	15	2576	1.1	<b>16.2</b>	<b>2900</b>								142914	12	
45.8	<b>30.59</b>	15	2822	1.0	<b>14.8</b>	<b>2900</b>								142913	13	
44.1	<b>31.74</b>	15	2928	1.0	<b>14.2</b>	<b>2900</b>								162911	14	
37.5	<b>37.36</b>	11	2532	1.1	<b>12.1</b>	<b>2900</b>								142911	15	
33.8	<b>41.37</b>	11	2804	1.0	<b>10.9</b>	<b>2900</b>								102914	16	
30.9	<b>45.31</b>	9	2618	1.1	<b>10.0</b>	<b>2900</b>								102913	17	
25.3	<b>55.33</b>	7.5	2573	1.2	<b>8.5</b>	<b>3000</b>								102911	18	

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X103** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X103** è fornito privo di lubrificazione con tappi di sfio, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X103** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X103** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **X103** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados.  
En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
11.50 LT	5.50 LT	10.50 LT	7.50 LT	13.50 LT	9.50 LT	Ask
AGIP Blasias 460						

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{253}{X+193}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2000	10000	140	2800	14000	70	3500	17500
250	2500	12500	120	3000	15000	40	4200	21000
200	2700	13500	85	3200	16000	15	5400	27000

**Input shaft**  
Albero in entrata

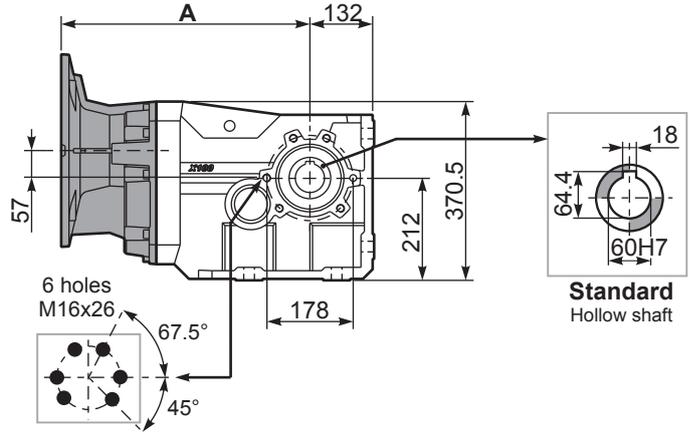
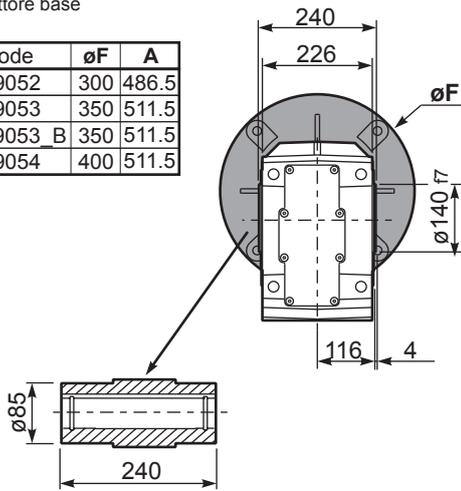
$n_1$	FA	FR
1400	1120	5600
900	1220	6100
500	1300	6500

tab. 2

**PX103C...** Basic Gearbox  
Riduttore base

Gearbox weight **125 kg**  
peso riduttore

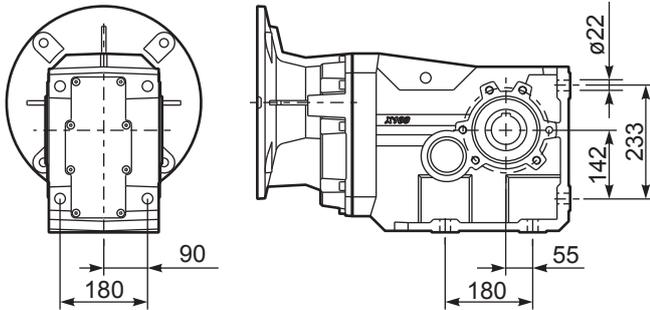
M. flanges	Kit code	øF	A
<b>132B5</b>	KC1109052	300	486.5
<b>160B5</b>	KC1109053	350	511.5
<b>180B5</b>	KC1109053_B	350	511.5
<b>200B5</b>	KC1109054	400	511.5



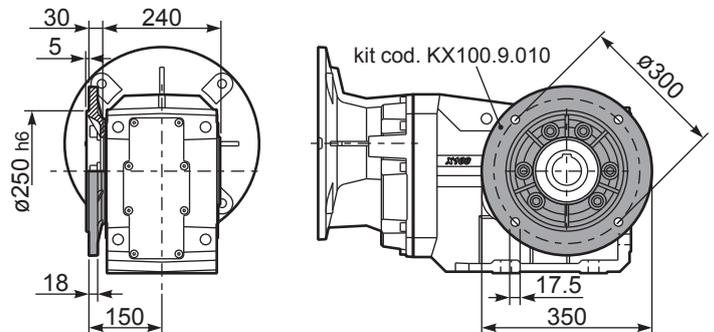
**Mounting holes position**  
Posizione fori di montaggio

**Standard**  
Hollow shaft

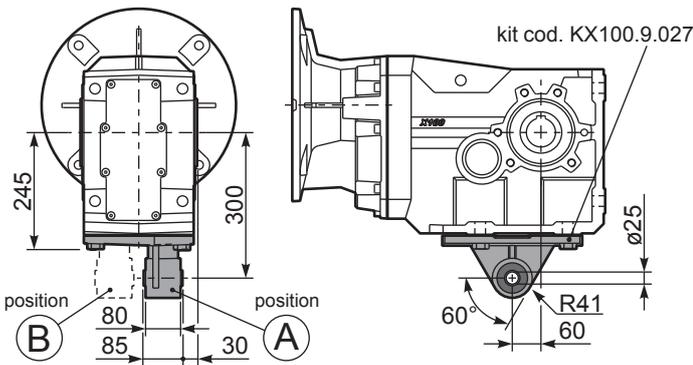
**PX103...FB..** Feet  
Piedini



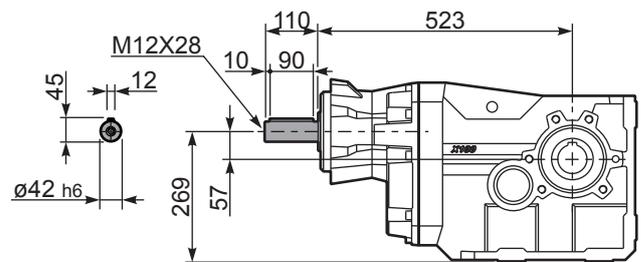
**PX103...-F6..** Output flange  
Flangia uscita



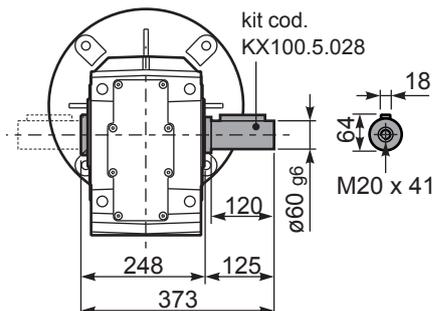
**PX103...BR..** Reaction Arm  
Braccio di reazione



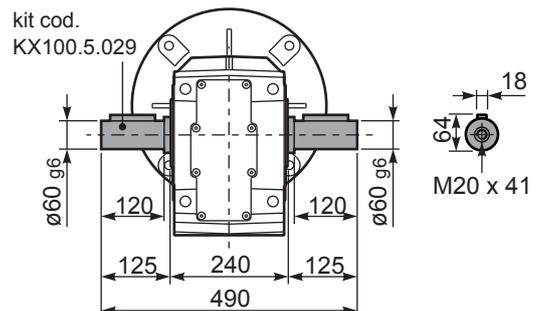
**RX103...** Input shaft  
Albero in entrata



**PX103A...** Single shaft  
Albero lento semplice



**PX103B...** Double shaft  
Albero lento bisp.





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges		B14 motor flanges			Output Shaft  $\varnothing$	Ratios code 
							-F	-G	-	-	-		
28.8	<b>48.57</b>	9	2750	1.1	9.5	2900	B					30142911	01
20.5	<b>68.43</b>	7.5	3118	1.0	7.0	3000	B					20142914	02
18.7	<b>74.95</b>	5.5	2523	1.2	6.4	3000	B					20142913	03
15.1	<b>92.53</b>	5.5	3115	1.0	5.2	3000	B					16142914	04
13.8	<b>101.33</b>	4	2496	1.2	4.7	3000	B					16142913	05
11.6	<b>120.33</b>	4	2963	1.0	4.0	3000	B					13142914	06
11.3	<b>123.75</b>	4	3048	1.0	3.9	3000	B					16142911	07
10.6	<b>131.78</b>	4	3245	0.9	3.6	3000	B					13142913	08
9.5	<b>147.28</b>	3	2731	1.1	3.2	3000	B					11142914	09
8.7	<b>161.30</b>	3	2990	1.0	3.0	3000	B					11142913	10
7.1	<b>196.98</b>	2.2	2689	1.1	2.4	3000	B					11142911	11
6.6	<b>212.99</b>	2.2	2907	1.0	2.2	3000	B					8142914	12
6.0	<b>233.26</b>	2.2	3184	0.9	2.0	3000	B					8142913	13
4.9	<b>284.86</b>	2.2	3889	0.8	1.7	3000	B					8142911	14

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X104** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X104** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X104** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X104** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **X104** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil					
	Per queste posizioni specificare in fase d'ordine o aggiungere olio					
12.00 LT	6.00 LT	11.50 LT	8.00 LT	14.50 LT	11.00 LT	Ask

AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

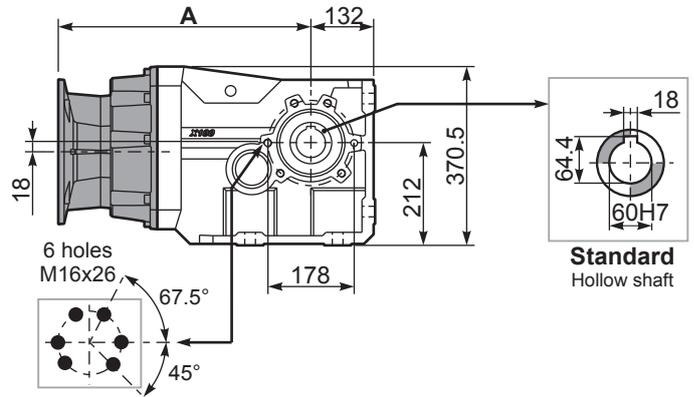
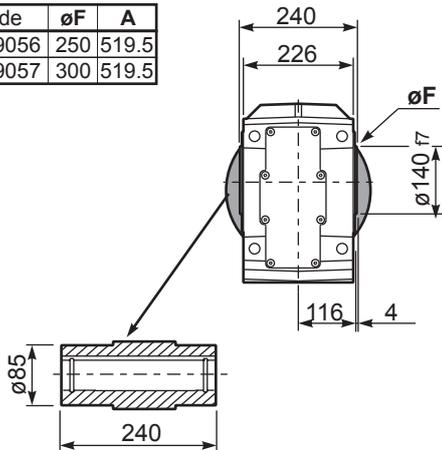
RADIAL AND AXIAL LOADS								
<b>Output shaft</b> Albero di uscita			$F_{eq} = FR \cdot \frac{253}{X+193}$					
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2000	10000	140	2800	14000	70	3500	17500
250	2500	12500	120	3000	15000	40	4200	21000
200	2700	13500	85	3200	16000	15	5400	27000
<b>Input shaft</b> Albero in entrata								
$n_1$	FA	FR						
1400	700	3500						
900	840	4200						
500	900	4500						

tab. 2

**PX104C...** Basic Gearbox  
Riduttore base

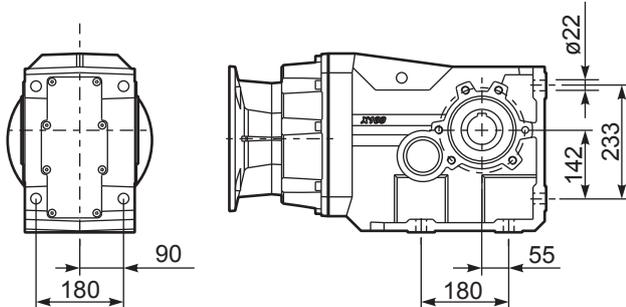
Gearbox weight **118 kg**  
peso riduttore

M. flanges	Kit code	øF	A
100/112B5	KC1109056	250	519.5
132B5	KC1109057	300	519.5

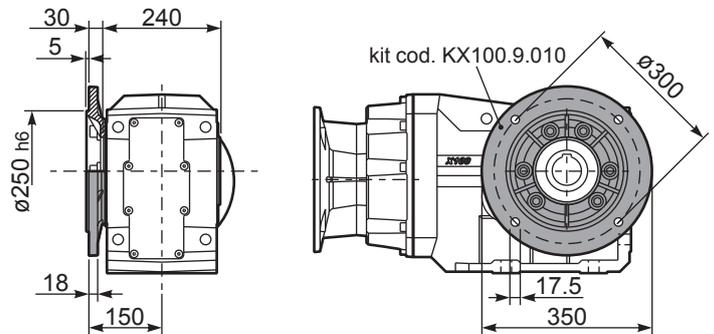


**Mounting holes position**  
Posizione fori di montaggio

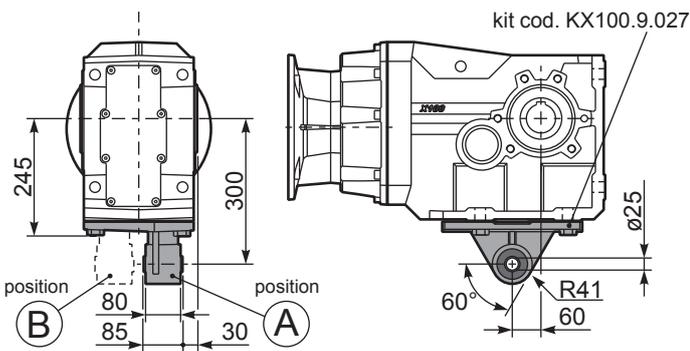
**PX104...FB..** Feet  
Piedini



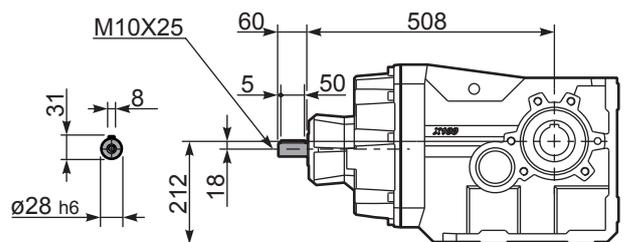
**PX104...-F6..** Output flange  
Flangia uscita



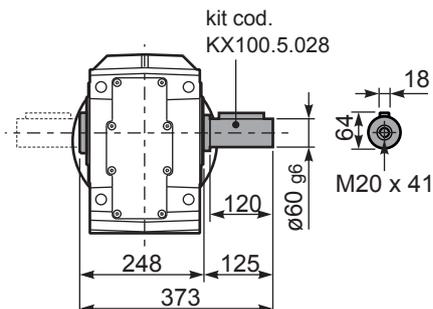
**PX104...BR..** Reaction Arm  
Braccio di reazione



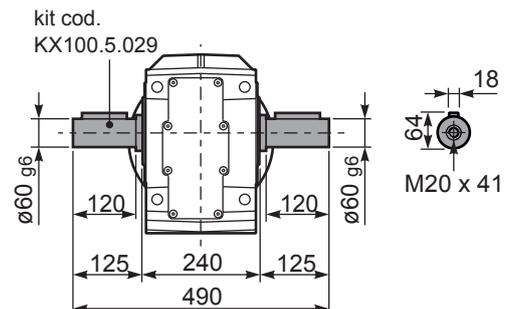
**RX104...** Input shaft  
Albero in entrata



**PX104A...** Single shaft  
Albero lento semplice



**PX104B...** Double shaft  
Albero lento bisp.





**QUICK SELECTION / Selezione veloce**

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges					B14 motor flanges			Output Shaft 	Ratios code
							-G	-H	-I	-L	CA	-	-	-		
							132	160	180	200	225	-	-	-		
219	<b>6.39</b>	45	1757	1.4	<b>61.0</b>	<b>2500</b>								392914	01	
200	<b>7.00</b>	45	1925	1.4	<b>59.0</b>	<b>2650</b>								392913	02	
164	<b>8.55</b>	45	2350	1.2	<b>51.1</b>	<b>2800</b>								392911	03	
140	<b>10.01</b>	45	2752	1.2	<b>49.8</b>	<b>3200</b>								302914	04	
128	<b>10.97</b>	45	3014	1.1	<b>45.5</b>	<b>3200</b>								302913	05	
105	<b>13.39</b>	37	3025	1.1	<b>39.6</b>	<b>3400</b>								302911	06	
89	<b>15.71</b>	37	3550	1.0	<b>34.7</b>	<b>3500</b>								222914	07	
81	<b>17.21</b>	37	3888	1.0	<b>33.5</b>	<b>3700</b>								222913	08	
67	<b>21.02</b>	30	3877	1.0	<b>29.7</b>	<b>4000</b>								222911	09	
59	<b>23.73</b>	30	4378	0.9	<b>26.9</b>	<b>4100</b>								162914	10	
54	<b>25.99</b>	22	3523	1.2	<b>25.8</b>	<b>4300</b>								162913	11	
50	<b>27.93</b>	22	3786	1.1	<b>24.0</b>	<b>4300</b>								142914	12	
45.8	<b>30.59</b>	22	4146	1.1	<b>22.9</b>	<b>4500</b>								142913	13	
44.1	<b>31.74</b>	22	4302	1.0	<b>22.1</b>	<b>4500</b>								162911	14	
37.5	<b>37.36</b>	18.5	4255	1.1	<b>18.8</b>	<b>4500</b>								142911	15	
33.8	<b>41.37</b>	18.5	4712	1.0	<b>17.0</b>	<b>4500</b>								102914	16	
30.9	<b>45.31</b>	15	4179	1.1	<b>15.5</b>	<b>4500</b>								102913	17	
25.3	<b>55.33</b>	11	3750	1.2	<b>12.7</b>	<b>4500</b>								102911	18	

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **X113** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo **X113** è fornito privo di lubrificazione con tappi di sfio, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **X113** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **X113** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño **X113** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
13.50 LT	8.00 LT	15.50 LT	14.50 LT	22.00 LT	13.00 LT	Ask
AGIP Blasia 460						

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**RADIAL AND AXIAL LOADS**

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{325.5}{X+255.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2100	10500	140	3100	15500	70	4200	21000
250	2600	13000	120	3240	16200	40	5600	28000
200	3000	15000	85	3600	18000	15	8000	40000

**Input shaft**  
Albero in entrata

$n_1$	FA	FR
1400	1120	5600
900	1220	6100
500	1300	6500

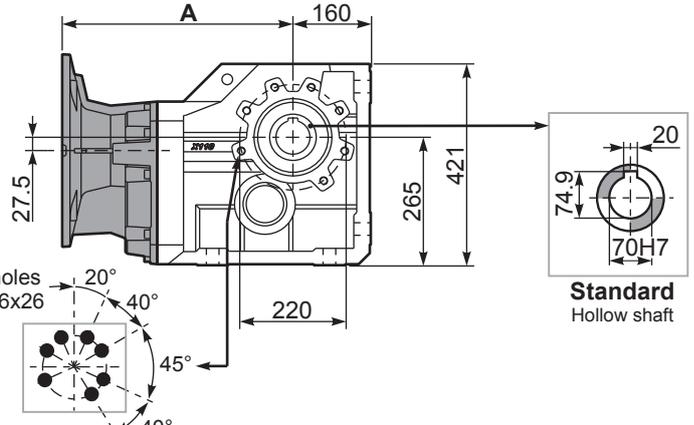
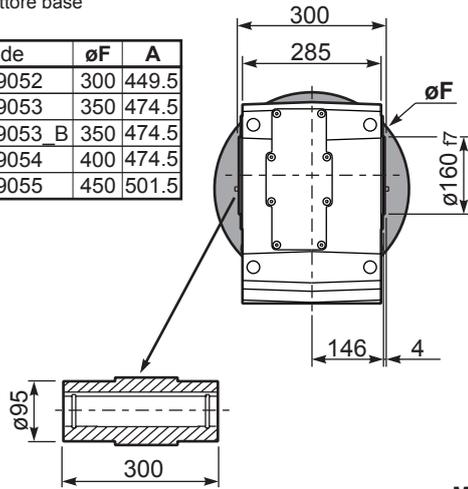
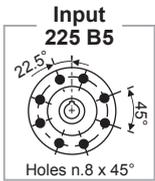
**tab. 2**

**P**X113C...

Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **170 kg**

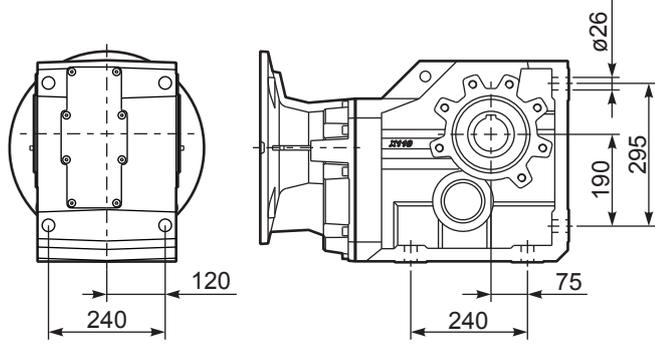
M. flanges	Kit code	øF	A
<b>132B5</b>	KC1109052	300	449.5
<b>160B5</b>	KC1109053	350	474.5
<b>180B5</b>	KC1109053_B	350	474.5
<b>200B5</b>	KC1109054	400	474.5
<b>225B5</b>	KC1109055	450	501.5



**Mounting holes position**  
Posizione fori di montaggio

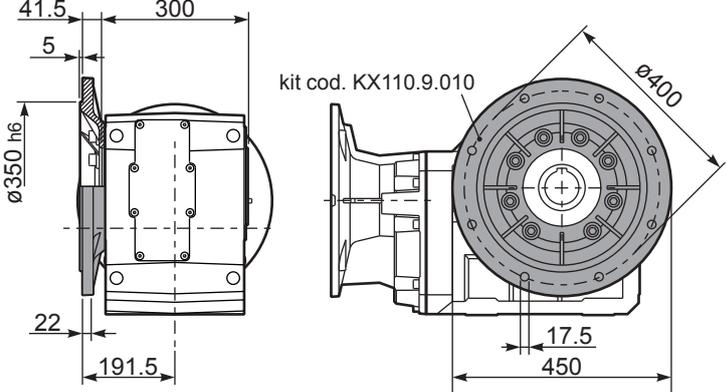
PX113...**FB**..

Feet  
Piedini



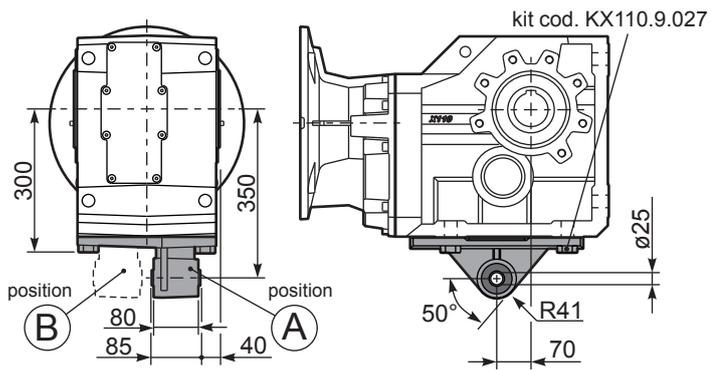
PX113...**-F7**..

Output flange  
Flangia uscita



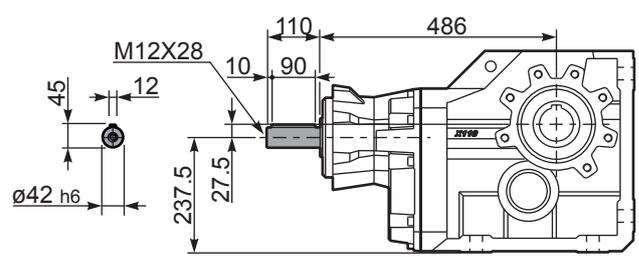
PX113...**BR**..

Reaction Arm  
Braccio di reazione



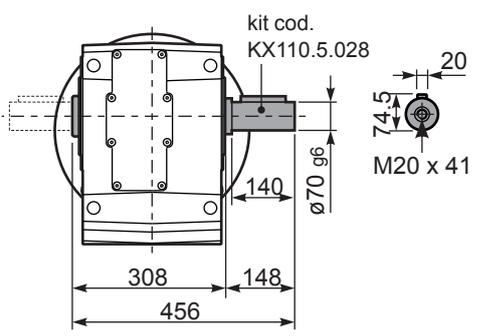
**R**X113...

Input shaft  
Albero in entrata



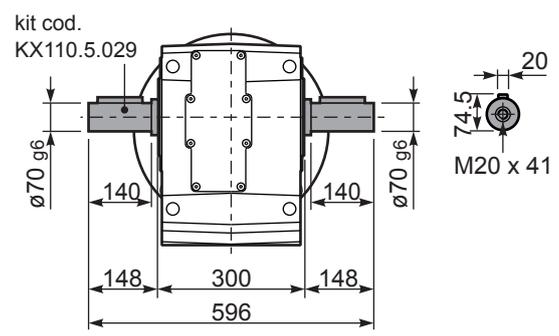
PX113**A**...

Single shaft  
Albero lento semplice



PX113**B**...

Double shaft  
Albero lento bisp.





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	B5 motor flanges			B14 motor flanges				Output Shaft 	Ratios code
							-F	-G	-H	-	-	-			
							100 112	132	160	-	-	-			
28.8	<b>48.57</b>	15	4390	1.0	<b>14.8</b>	<b>4500</b>	B						30142911		01
20.5	<b>68.43</b>	11	4545	1.0	<b>10.7</b>	<b>4600</b>	B						20142914		02
18.7	<b>74.95</b>	11	4977	0.9	<b>9.8</b>	<b>4600</b>	B						20142913		03
15.1	<b>92.53</b>	7.5	4216	1.1	<b>7.9</b>	<b>4600</b>	B						16142914		04
13.8	<b>101.33</b>	7.5	4617	1.0	<b>7.2</b>	<b>4600</b>	B						16142913		05
11.6	<b>120.33</b>	5.5	4051	1.1	<b>6.1</b>	<b>4600</b>	B						13142914		06
11.3	<b>123.75</b>	5.5	4166	1.1	<b>5.8</b>	<b>4500</b>	B						16142911	standard ø70	07
10.6	<b>131.78</b>	5.5	4436	1.0	<b>5.6</b>	<b>4600</b>	B						13142913		08
9.5	<b>147.28</b>	5.5	4958	0.9	<b>5.0</b>	<b>4600</b>	B						11142914		09
8.7	<b>161.30</b>	4	3972	1.2	<b>4.5</b>	<b>4600</b>	B						11142913		10
7.1	<b>196.98</b>	3	3652	1.2	<b>3.6</b>	<b>4500</b>	B						11142911		11
6.6	<b>212.99</b>	3	3949	1.2	<b>3.4</b>	<b>4600</b>	B						8142914		12
6.0	<b>233.26</b>	3	4324	1.1	<b>3.1</b>	<b>4600</b>	B						8142913		13
4.9	<b>284.86</b>	2.2	3889	1.2	<b>2.5</b>	<b>4500</b>	B						8142911		14

The dynamic efficiency is **0.92** for all ratios

Motor Flanges Available  
Flange Motore Disponibili

B) Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

B) Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

C) Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit X114 is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo X114 è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße X114 wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type X114 est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño X114 se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
B3	B6	B7	B8	V5	V6	V8
14.50 LT	8.50 LT	16.50 LT	16.00 LT	23.00 LT	14.50 LT	Ask

AGIP Blasias 460

For all details on lubrication and plugs check our website  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{325.5}{X+255.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	2100	10500	140	3100	15500	70	4200	21000
250	2600	13000	120	3240	16200	40	5600	28000
200	3000	15000	85	3600	18000	15	8000	40000

**Input shaft**  
Albero in entrata

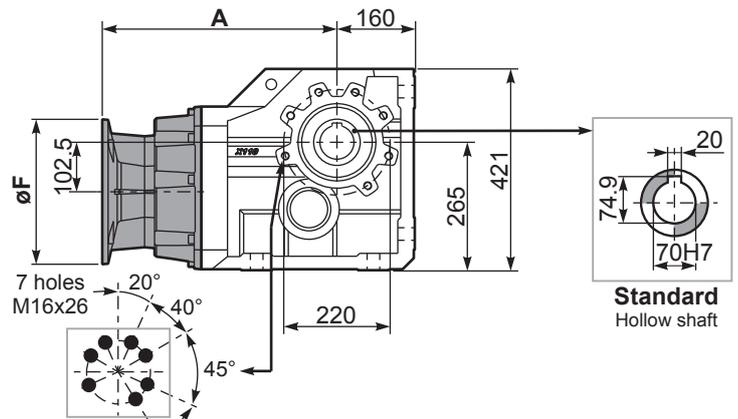
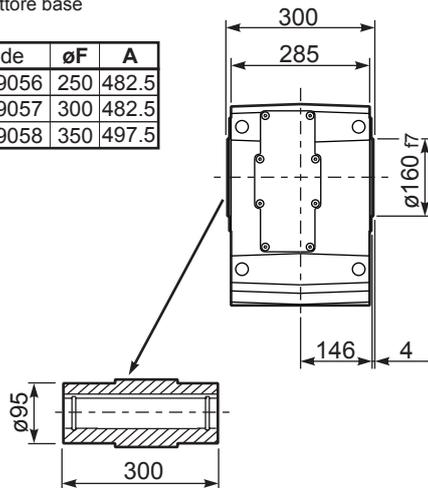
$n_1$	FA	FR
1400	700	3500
900	840	4200
500	900	4500

tab. 2

**PX114C...** Basic Gearbox  
Riduttore base

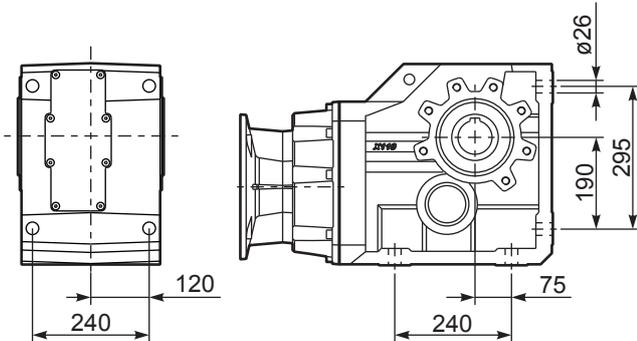
Gearbox weight **161 kg**  
peso riduttore

M. flanges	Kit code	øF	A
<b>100/112B5</b>	KC1109056	250	482.5
<b>132B5</b>	KC1109057	300	482.5
<b>160B5</b>	KC1109058	350	497.5

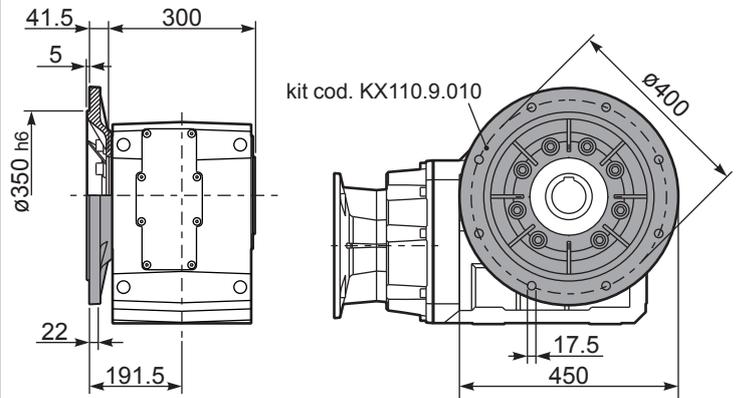


**Mounting holes position**  
Posizione fori di montaggio

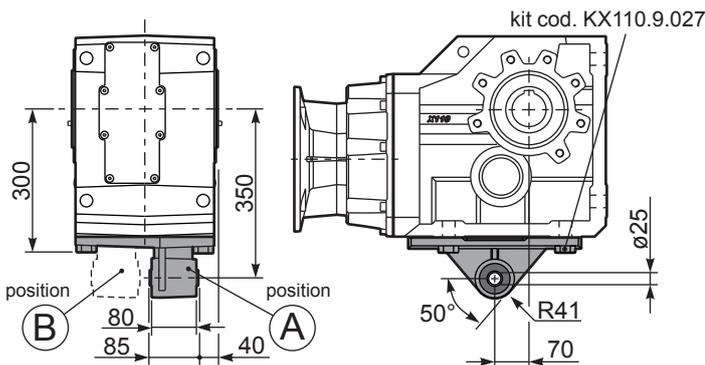
**PX114...FB..** Feet  
Piedini



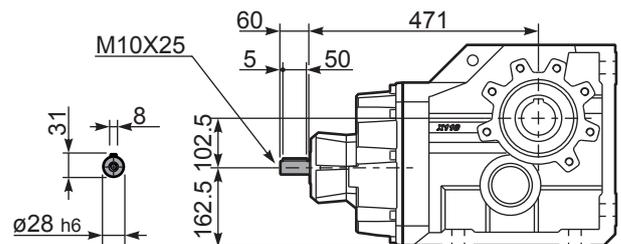
**PX114...-F7..** Output flange  
Flangia uscita



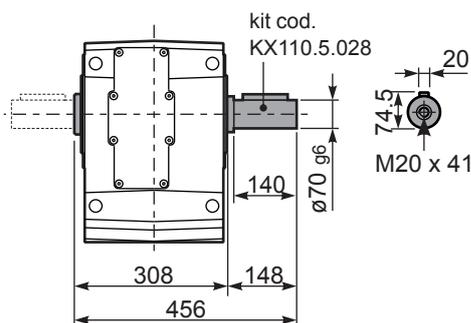
**PX114...BR..** Reaction Arm  
Braccio di reazione



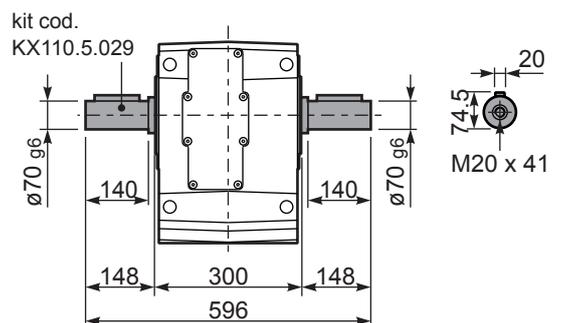
**RX114...** Input shaft  
Albero in entrata

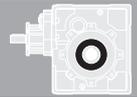


**PX114A...** Single shaft  
Albero lento semplice



**PX114B...** Double shaft  
Albero lento bisp.





## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft 	Ratios code	
							-C	-D	-E	-F	-G	-R	-T	-U	-V			
							71	80	90	100 112	132	80	90	100 112	132			
176	<b>7.94</b>	7.5	369	1.0	7.5	380	B										302418	01
153	<b>9.13</b>	7.5	425	0.9	6.7	390	B										302416	02
131	<b>10.66</b>	5.5	366	1.1	6.0	410	B										302414	03
94	<b>14.97</b>	5.5	514	1.1	6.0	580	B										202418	04
81	<b>17.21</b>	5.5	591	1.0	5.4	600	B										202416	05
69	<b>20.24</b>	5.5	695	1.0	5.2	675	B										162418	06
60	<b>23.27</b>	4	585	1.2	4.5	675	B										162416	07
53	<b>26.31</b>	4	661	1.0	4.0	675	B										132418	08
46.3	<b>30.25</b>	4	760	0.9	3.5	675	B										132416	09
39.6	<b>35.32</b>	3	668	1.0	3.0	675	B										132414	10
37.8	<b>37.03</b>	3	701	1.0	2.8	675	B										112416	11
32.4	<b>43.23</b>	2.2	602	1.1	2.4	675	B										112414	12
30.1	<b>46.58</b>	2.2	649	1.0	2.3	675	B										82418	13
26.1	<b>53.55</b>	2.2	746	0.9	2.0	675	B										82416	14
22.4	<b>62.52</b>	1.5	600	1.1	1.7	675	B										82414	15
19.0	<b>73.75</b>	1.1	517	1.1	1.2	580	B										62416	16
16.3	<b>86.09</b>	1.1	604	1.1	1.2	675	B										62414	17

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available** Flange Motore Disponibili  
**B) Supplied with Reduction Bushing** Fornito con Bussola di Riduzione  
**B) Available on Request without reduction bushing** Disponibile a Richiesta senza Bussola di Riduzione  
**C) Motor Flange Holes Position** Posizione Fori Flangia Motore

**EN** Unit **113C** is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore **113C** viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe **113C** ist mit synthetischem Öl gefüllt und ist lebensdauergeschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

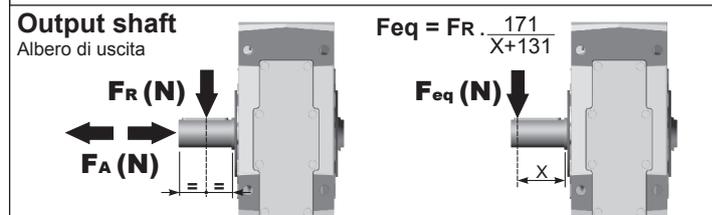
**F** Le réducteur **113C** est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño **113C** se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
4.00 LT	2.60 LT	2.60 LT	2.60 LT	5.15 LT	2.20 LT	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

## RADIAL AND AXIAL LOADS

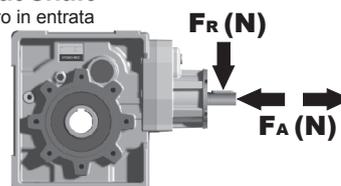


$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	640	3200	140	860	4300	70	1080	5400
250	700	3500	120	900	4500	40	1300	6500
200	740	3700	85	1000	5000	15	1840	9200

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

### Input shaft

Albero in entrata



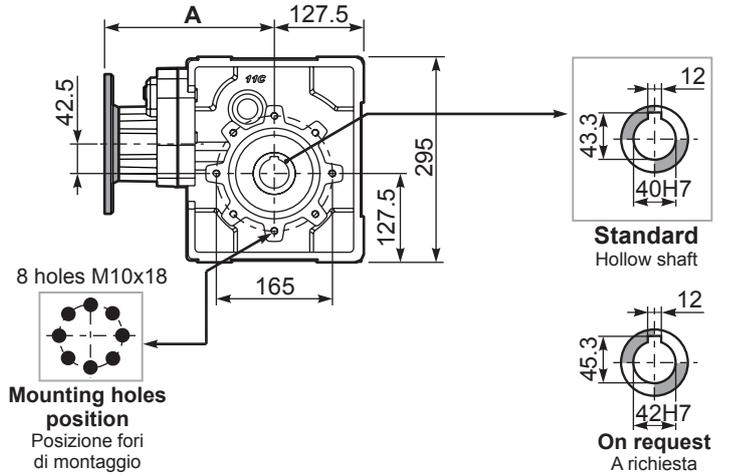
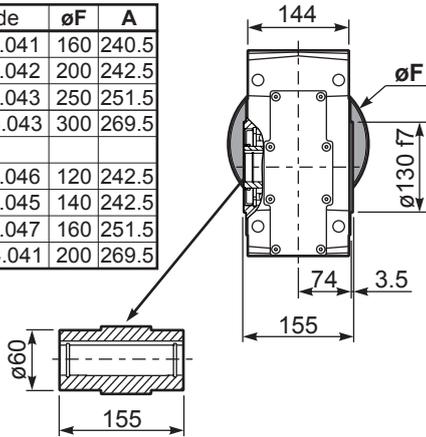
$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

tab. 2

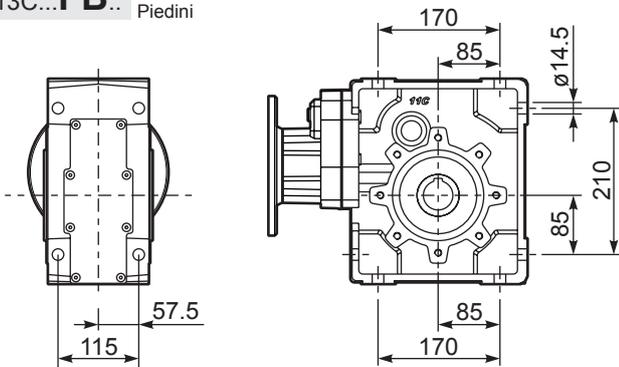
**P113CC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **38.0 kg**

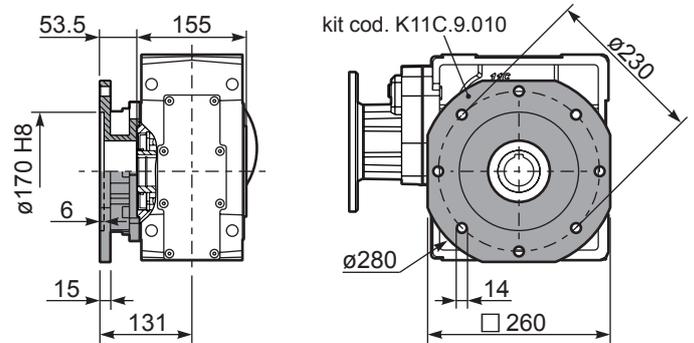
M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	240.5
<b>80/90B5</b>	K023.4.042	200	242.5
<b>100/112B5</b>	K023.4.043	250	251.5
<b>132B5</b>	KC50.4.043	300	269.5
<b>80B14</b>	K085.4.046	120	242.5
<b>90B14</b>	K085.4.045	140	242.5
<b>100/112B14</b>	K085.4.047	160	251.5
<b>132B14</b>	KC50.4.041	200	269.5



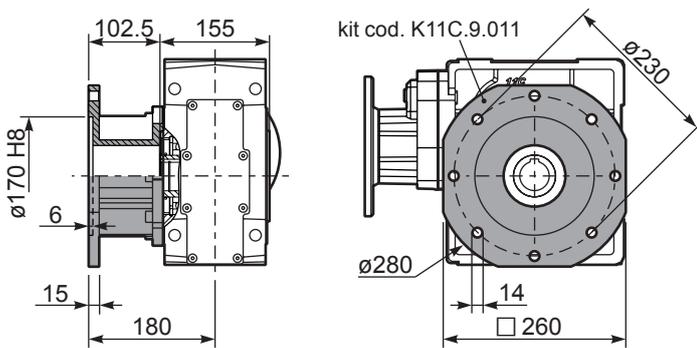
**P113C...FB..** Feet  
Piedini



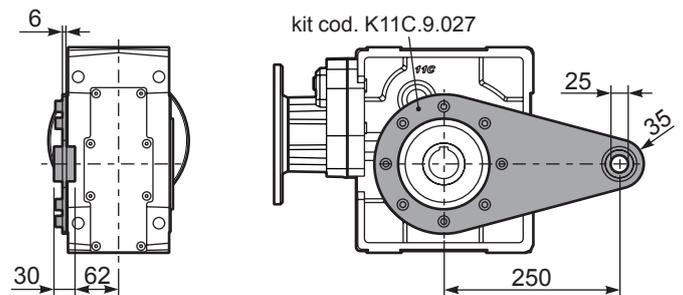
**P113C...-FC..** Output flange  
Flangia uscita



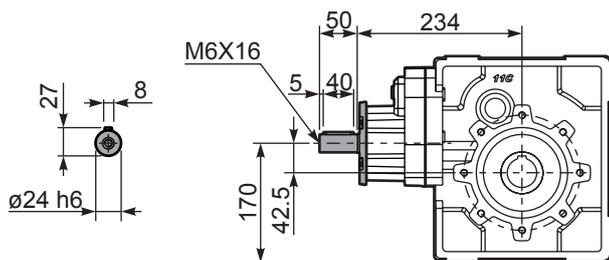
**P113C...-FL..** Output flange  
Flangia uscita



**P113C...BR..** Reaction Arm  
Braccio di reazione

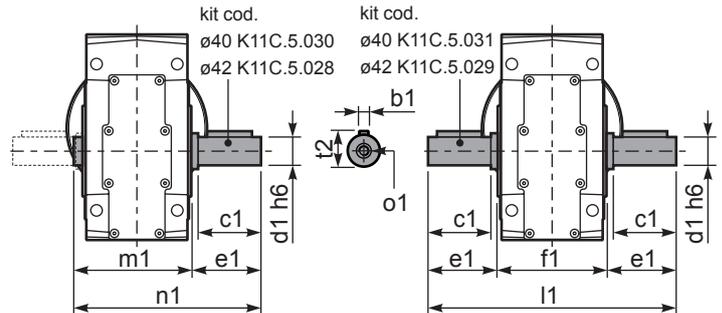


**R113C...** Input shaft  
Albero in entrata

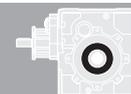


**P113CA...** Single shaft  
Albero lento semplice

**P113CB...** Double shaft  
Albero lento bisp.



	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
ø40 Standard	12	80	40	84.5	155	324	164.5	249	43	M12
ø42 On request	12	80	42	84.5	155	324	164.5	249	45	M16



## QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
18.7	<b>74.79</b>	1.5	704	1.0	1.4	675	B				C	C		19132418	01
16.3	<b>85.99</b>	1.1	591	1.1	1.3	675	B				C	C		19132416	02
14.0	<b>99.66</b>	1.1	685	1.0	1.1	675	B				C	C		17132416	03
12.0	<b>116.35</b>	0.75	548	1.2	0.92	675	B				C	C		17132414	04
11.5	<b>121.45</b>	0.75	572	1.2	0.89	675	B				C	C		13132418	05
10.0	<b>139.64</b>	0.75	658	1.0	0.77	675	B				C	C		13132416	06
9.2	<b>152.21</b>	0.75	717	0.9	0.71	675	B				C	C		19082416	07
8.6	<b>163.02</b>	0.55	567	1.2	0.66	675	B				C	C		13132414	08
7.9	<b>177.69</b>	0.55	618	1.1	0.61	675	B				C	C		19082414	09
6.8	<b>205.95</b>	0.55	716	0.9	0.52	675	B				C	C		17082414	10
6.3	<b>222.52</b>	0.55	774	0.9	0.48	675	B				C	C	On request	10132414	11
5.6	<b>248.76</b>	0.37	578	1.2	0.43	675	B				C	C		9132416	12
4.8	<b>290.41</b>	0.37	675	1.0	0.37	675	B				C	C		9132414	13
4.1	<b>337.39</b>	0.37	784	0.9	0.32	675	B				C	C		10082416	14
3.6	<b>393.88</b>	0.25	618	1.1	0.27	675	B				C	C		10082414	15
3.2	<b>440.33</b>	0.25	690	1.0	0.24	675	B				C	C		9082416	16
2.7	<b>514.06</b>	0.18	616	1.1	0.21	675	B				C	C		9082414	17
2.4	<b>581.44</b>	0.18	697	1.0	0.18	675	B				C	C		7082416	18
2.1	<b>678.79</b>	0.12	526	1.3	0.16	675	B				C	C		7082414	19

The dynamic efficiency is **0.92** for all ratios

**A** Motor Flanges Available  
Flange Motore Disponibili

**B** Supplied with Reduction Bushing  
Fornito con Bussola di Riduzione

**B** Available on Request without reduction bushing  
Disponibile a Richiesta senza Bussola di Riduzione

**C** Motor Flange Holes Position  
Posizione Fori Flangia Motore

**EN** Unit 114C is supplied with synthetic oil for lifetime lubrication, no maintenance is necessary. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore 114C viene fornito completo di olio sintetico per la lubrificazione permanente e non necessita di alcuna manutenzione. Vedi tab.1 per oli e quantità consigliati. In tab.2 sono presenti i carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe 114C ist mit synthetischem Öl gefüllt und ist lebensdauer geschmiert. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur 114C est fourni complet avec de l'huile synthétique pour la lubrification permanente et ne nécessite aucun entretien. Voir tableau 1 concernant les huiles et les quantités conseillées. Les charges radiales et axiales applicables au réducteur sont précisées dans le tableau 2.

**E** El reductor tamaño 114C se suministra, lubricado de por vida con aceite sintético y no requieren mantenimiento alguna. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

Standard supplied	For these mounting position specify in the order or add oil Per queste posizioni specificare in fase d'ordine o aggiungere olio					
4.10 LT	2.70 LT	2.70 LT	2.70 LT	5.30 LT	2.35 LT	Ask
AGIP Telium VSF 320				SHELL Omala S4 WE 320		

For all details on lubrication and plugs check our website [www.angletech.com](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

tab. 1

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = F_R \cdot \frac{171}{X+131}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	640	3200	140	860	4300	70	1080	5400
250	700	3500	120	900	4500	40	1300	6500
200	740	3700	85	1000	5000	15	1840	9200

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

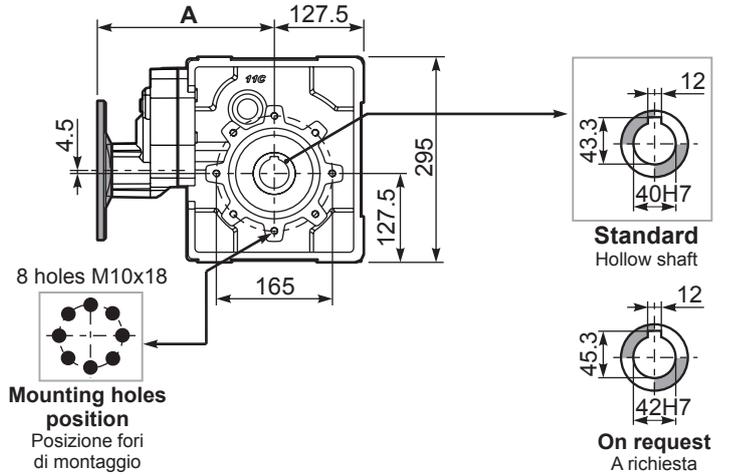
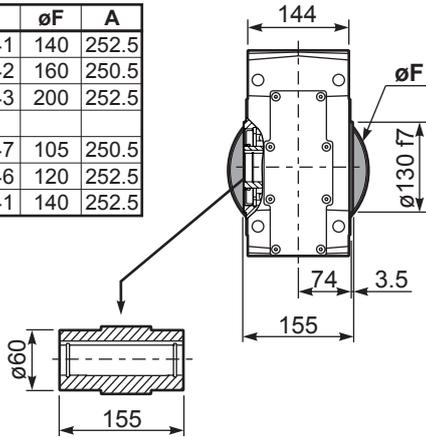
$n_1$	FA	FR
1400	240	1200
900	280	1400
500	310	1700

tab. 2

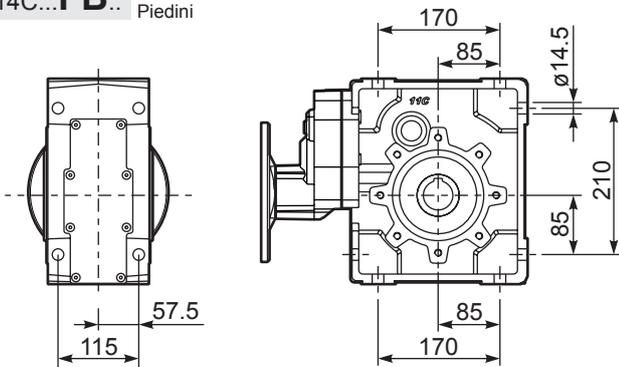
**P114CC...** Basic Gearbox  
Riduttore base

Gearbox weight  
peso riduttore **38.0 kg**

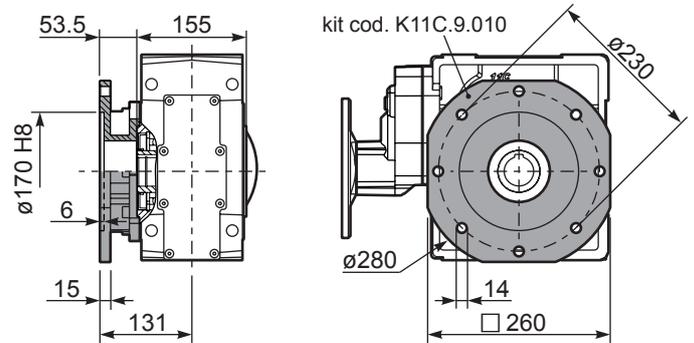
M. flanges	Kit code	øF	A
63B5	K063.4.041	140	252.5
71B5	K063.4.042	160	250.5
80/90B5	K063.4.043	200	252.5
71B14	K063.4.047	105	250.5
80B14	K063.4.046	120	252.5
90B14	K063.4.041	140	252.5



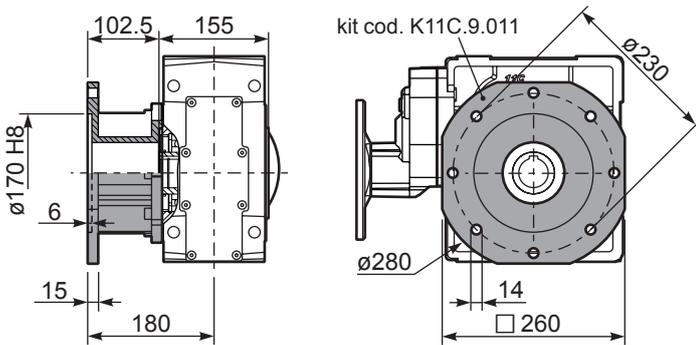
**P114C...FB..** Feet  
Piedini



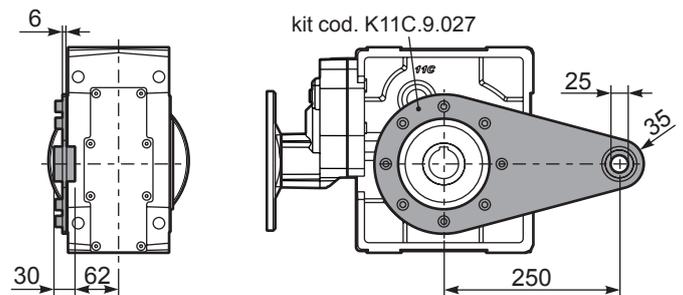
**P114C...-FC..** Output flange  
Flangia uscita



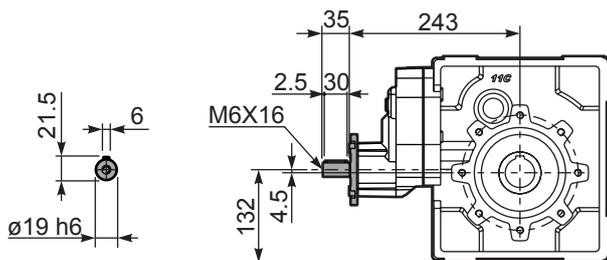
**P114C...-FL..** Output flange  
Flangia uscita



**P114C...BR..** Reaction Arm  
Braccio di reazione

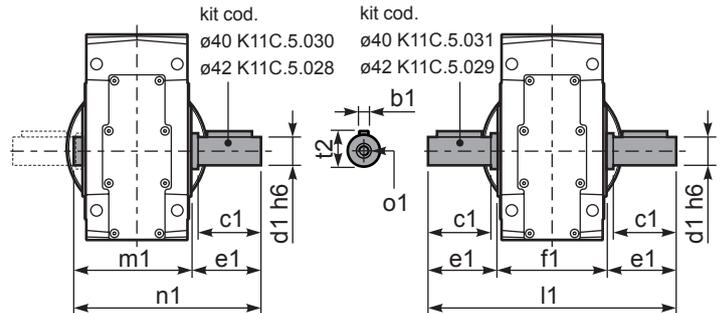


**R114C...** Input shaft  
Albero in entrata

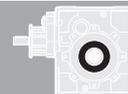


**P114CA...** Single shaft  
Albero lento semplice

**P114CB...** Double shaft  
Albero lento bisp.



	b1	c1	d1	e1	f1	l1	m1	n1	t2	o1
ø40 Standard	12	80	40	84.5	155	324	164.5	249	43	M12
ø42 On request	12	80	42	84.5	155	324	164.5	249	45	M16



### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor $f.s.$	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges					Available B14 motor flanges				Output Shaft  $\varnothing$	Ratios code 
							-C	-D	-E	-F	-G	-R	-T	-U	-V		
							71	80	90	100 112	132	80	90	100 112	132		
145	<b>9.69</b>	9	560	1.3	<b>12.2</b>	<b>755</b>	B									302418	01
126	<b>11.09</b>	9	641	1.1	<b>9.6</b>	<b>680</b>	B									302416	02
108	<b>12.90</b>	9	746	1.1	<b>9.6</b>	<b>790</b>	B									302414	03
77	<b>18.26</b>	7.5	849	1.1	<b>8.0</b>	<b>935</b>	B									202418	04
67	<b>20.91</b>	7.5	972	1.0	<b>7.5</b>	<b>1000</b>	B									202416	05
58	<b>24.32</b>	5.5	835	1.2	<b>6.4</b>	<b>1000</b>	B									202414	06
49.5	<b>28.27</b>	5.5	971	1.0	<b>5.5</b>	<b>1000</b>	B									162416	07
42.6	<b>32.88</b>	4	826	1.2	<b>4.7</b>	<b>1000</b>	B									162414	08
38.1	<b>36.76</b>	4	924	1.1	<b>4.2</b>	<b>1000</b>	B									132416	09
32.7	<b>42.76</b>	3	809	1.2	<b>3.6</b>	<b>1000</b>	B									132414	10
31.1	<b>45.00</b>	3	851	1.2	<b>3.5</b>	<b>1000</b>	B									112416	11
26.8	<b>52.33</b>	3	990	1.0	<b>3.0</b>	<b>1000</b>	B									112414	12
24.6	<b>56.82</b>	2.2	791	1.1	<b>2.3</b>	<b>850</b>	B									82418	13
21.5	<b>65.07</b>	2.2	906	1.1	<b>2.3</b>	<b>975</b>	B									82416	14
18.5	<b>75.68</b>	2.2	1054	0.9	<b>2.1</b>	<b>1000</b>	B									82414	15
15.6	<b>89.61</b>	1.1	628	1.1	<b>1.2</b>	<b>710</b>	B									62416	16
13.4	<b>104.22</b>	1.1	731	1.1	<b>1.2</b>	<b>820</b>	B									62414	17

The dynamic efficiency is **0.94** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit 133C is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug. See table 1 for lubrication and recommended quantity. In table 2 please see possible radial loads and axial loads on the gearbox.

**I** Il riduttore tipo 133C è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso. Tab.1 per oli e quantità consigliati. Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße 133C wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen. In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben. In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type 133C est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants. S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé. Voir tableau 1 concernant les huiles et les quantités conseillées. Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur.

**E** El reductor tamaño 133C se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético. Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

B3	B6	B7	B8	V5	V6	V8
6.00 LT	4.30 LT	4.30 LT	3.30 LT	7.40 LT	3.10 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website [tab. 1](#)  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

### RADIAL AND AXIAL LOADS

#### Output shaft

Albero di uscita



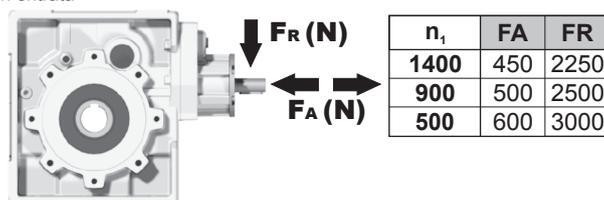
$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	800	4000	140	1120	5600	70	1400	7000
250	900	4500	120	1200	6000	40	1700	8500
200	960	4800	85	1300	6500	15	2400	12000

**On request reinforced bearings to increase loads.**

A richiesta cuscinetti rinforzati per aumentare i carichi.

#### Input shaft

Albero in entrata

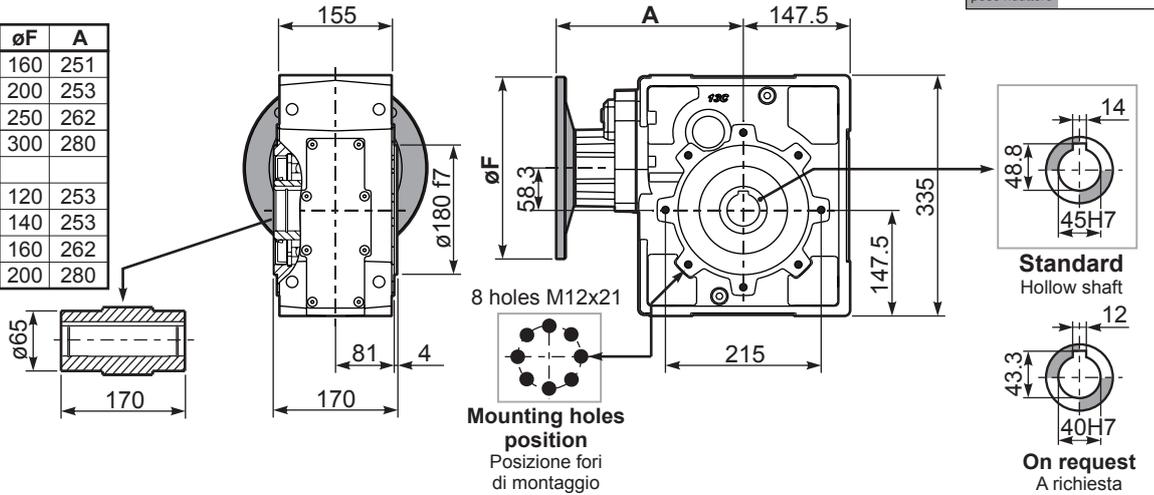


tab. 2

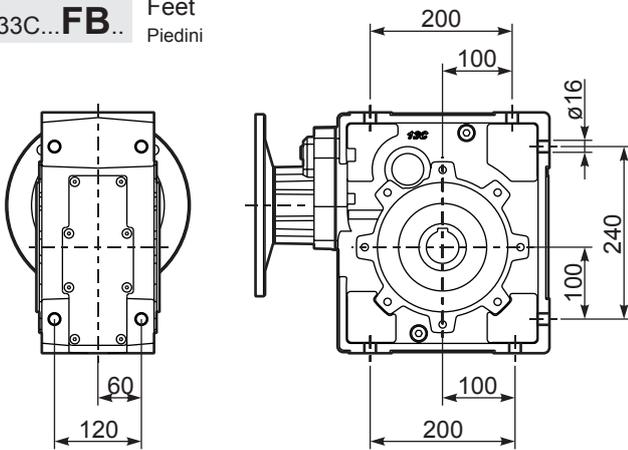
**P133CC...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **53.5 kg**

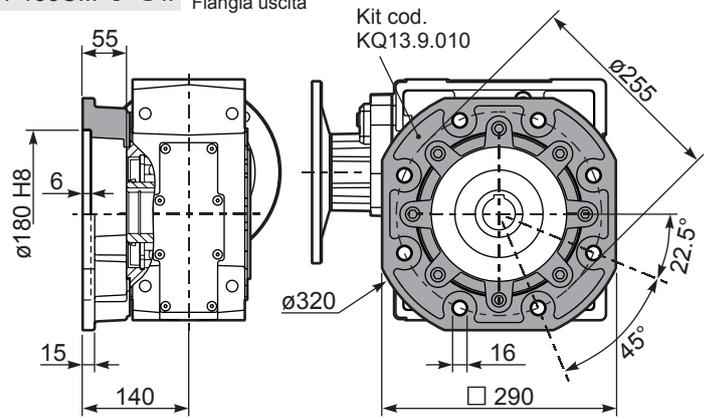
M. flanges	Kit code	øF	A
<b>71B5</b>	K023.4.041	160	251
<b>80/90B5</b>	K023.4.042	200	253
<b>100/112B5</b>	K023.4.043	250	262
<b>132B5</b>	KC50.4.043	300	280
<b>80B14</b>	K085.4.046	120	253
<b>90B14</b>	K085.4.045	140	253
<b>100/112B14</b>	K085.4.047	160	262
<b>132B14</b>	KC50.4.041	200	280



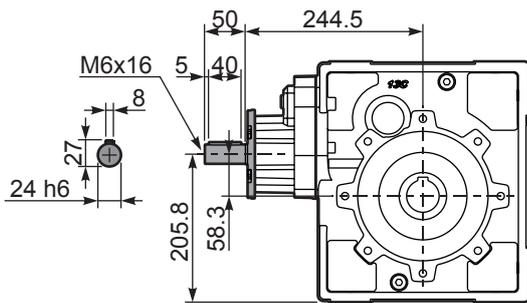
**P133C...FB..** Feet  
Piedini



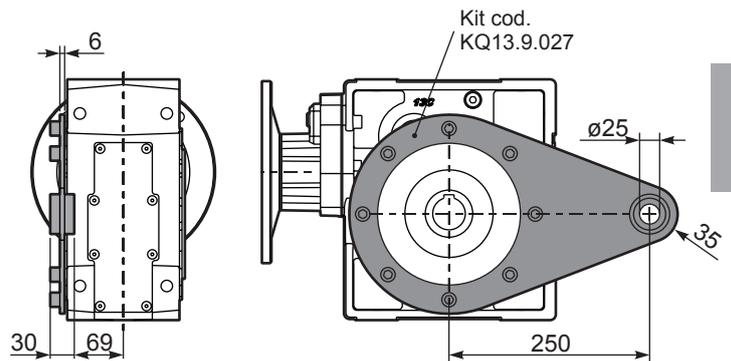
**P133C...-FC..** Output flange  
Flangia uscita



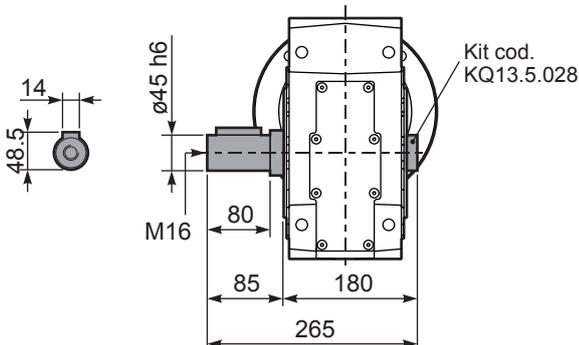
**R133C...** Input Shaft  
Albero in entrata



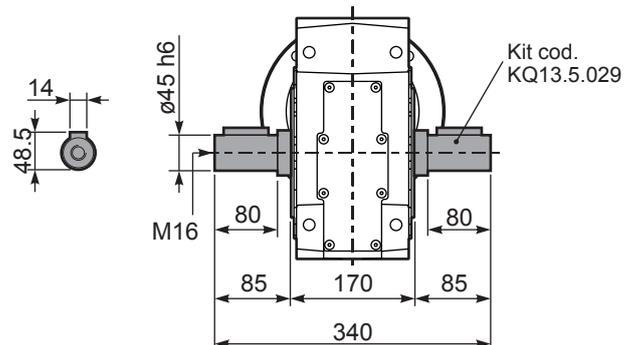
**P133C...BR..** Reaction arm  
Braccio di reazione

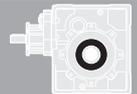


**P133CA..** Single output Shaft  
Albero lento semplice



**P133CB..** Double Input Shaft  
Albero lento bisporgente





### QUICK SELECTION / Selezione veloce

input speed ( $n_1$ ) = 1400 min<sup>-1</sup>

Output Speed $n_2$ [min <sup>-1</sup> ]	Ratio $i$	Motor power $P_{1M}$ [kW]	Output torque $M_{2M}$ [Nm]	Service factor f.s.	Nominal power $P_{1R}$ [kW]	Nominal torque $M_{2R}$ [Nm]	Available B5 motor flanges				Available B14 motor flanges			Output Shaft 	Ratios code
							-B	-C	-D	-E	-Q	-R	-T		
							63	71	80	90	71	80	90		
15.3	<b>91.23</b>	1.5	858	1.2	1.7	1000	B				C	C		19132418	01
13.4	<b>104.48</b>	1.5	983	1.0	1.5	1000	B				C	C		19132416	02
11.6	<b>121.10</b>	1.5	1139	0.9	1.3	1000	B				C	C		17132416	03
9.9	<b>140.84</b>	1.1	968	1.0	1.1	1000	B				C	C		17132414	04
8.5	<b>165.32</b>	1.1	1136	0.9	0.96	1000	B				C	C		15132414	05
7.6	<b>184.94</b>	0.75	872	1.1	0.86	1000	B				C	C		19082416	06
7.1	<b>197.34</b>	0.75	930	1.1	0.81	1000	B				C	C		13132414	07
6.5	<b>215.10</b>	0.75	1014	1.0	0.74	1000	B				C	C		19082414	08
6.0	<b>231.60</b>	0.55	805	1.2	0.69	1000	B				C	C		10132416	09
5.6	<b>249.31</b>	0.55	867	1.2	0.64	1000	B				C	C		17082414	10
5.2	<b>269.37</b>	0.55	937	1.1	0.59	1000	B				C	C		10132414	11
4.8	<b>292.64</b>	0.55	1018	1.0	0.54	1000	B				C	C		15082414	12
4.6	<b>302.26</b>	0.55	1051	1.0	0.53	1000	B				C	C		9132416	13
4.0	<b>349.30</b>	0.37	812	1.2	0.46	1000	B				C	C		13082414	14
3.5	<b>399.12</b>	0.37	928	1.1	0.40	1000	B				C	C		7132416	15
2.9	<b>476.80</b>	0.37	1108	0.9	0.33	1000	B				C	C		10082414	16
2.2	<b>622.28</b>	0.25	976	1.0	0.26	1000	B				C	C		9082414	17
1.7	<b>821.70</b>	0.18	985	1.0	0.19	1000	B				C	C		7082414	18

The dynamic efficiency is **0.92** for all ratios

**Motor Flanges Available**  
Flange Motore Disponibili

**B) Supplied with Reduction Bushing**  
Fornito con Bussola di Riduzione

**B) Available on Request without reduction bushing**  
Disponibile a Richiesta senza Bussola di Riduzione

**C) Motor Flange Holes Position**  
Posizione Fori Flangia Motore

**EN** Unit **134C** is supplied without lubricant and equipped with a breather, level and drain plugs. User can add mineral oil keeping existing plugs. Should the user wish to fill it with synthetic oil, it is recommended to replace the existing plugs with a closed plug.  
See table 1 for lubrication and recommended quantity.  
In table 2 please see possible radial loads and axial loads on the gearbox.

B3	B6	B7	B8	V5	V6	V8
6.10 LT	4.40 LT	4.40 LT	3.40 LT	7.50 LT	3.20 LT	Ask

**AGIP Blasias 460**

For all details on lubrication and plugs check our website **tab. 1**  
Per maggiori dettagli su lubrificazione e tappi olio vedi il nostro sito web

**I** Il riduttore tipo **134C** è fornito privo di lubrificazione con tappi di sfiato, livello e scarico olio. L'utente può immettere olio minerale mantenendo i tappi esistenti. Se immetterà olio sintetico, dovrà sostituire i tappi esistenti con altri tipo chiuso.  
Tab.1 per oli e quantità consigliati.  
Tab.2 carichi radiali e assiali applicabili al riduttore.

**D** Das Getriebe der Baugröße **134C** wird ohne Schmiermittel geliefert. Es ist jedoch mit Einfüllschraube, Überdruckventil und Ablassschraube ausgerüstet. Das benötigte mineralische Öl kann über die Einfüllschraube eingefüllt werden. Sollte synthetisches Öl bevorzugt werden, so ist sind das eingebaute Überdruckventil durch eine geschlossenen Schraube zu ersetzen.  
In Tabelle 1 ist die Schmiermenge und das empfohlene Schmiermittel angegeben  
In Tabelle 2 sind die zulässigen Radial - und Axialbelastungen des Getriebes aufgeführt.

**F** Le réducteur de type **134C** est fourni sans lubrification et avec un bouchon de remplissage, de niveau et d'évacuation de l'huile. L'utilisateur peut y verser de l'huile minérale en conservant les bouchons existants.  
S'il y versera de l'huile synthétique, il devra substituer les bouchons existants avec d'autres bouchons de type fermé.  
Voir tableau 1 concernant les huiles et les quantités conseillées.  
Voir tableau 2 concernant les charges radiales et axiales applicables au réducteur

**E** El reductor tamaño **134C** se suministra sin lubricante, provisto de tapones de respiración, nivel y descarga de aceite. El usuario puede utilizar aceite mineral, manteniendo los tapones existentes. Si prefiere utilizar aceite sintético deberá sustituir los tapones existentes por tapones ciegos. La prerreducción se suministra con tapones ciegos, lubricado de por vida con aceite sintético.  
Ver tabla 1, para cantidades y aceites recomendados. En la tabla 2, se encuentran las cargas radiales y axiales admitidas por el reductor.

### RADIAL AND AXIAL LOADS

**Output shaft**  
Albero di uscita

$F_{eq} = FR \cdot \frac{184.5}{X + 144.5}$

$n_2$	FA	FR	$n_2$	FA	FR	$n_2$	FA	FR
300	800	4000	140	1120	5600	70	1400	7000
250	900	4500	120	1200	6000	40	1700	8500
200	960	4800	85	1300	6500	15	2400	12000

**On request reinforced bearings to increase loads.**  
A richiesta cuscinetti rinforzati per aumentare i carichi.

**Input shaft**  
Albero in entrata

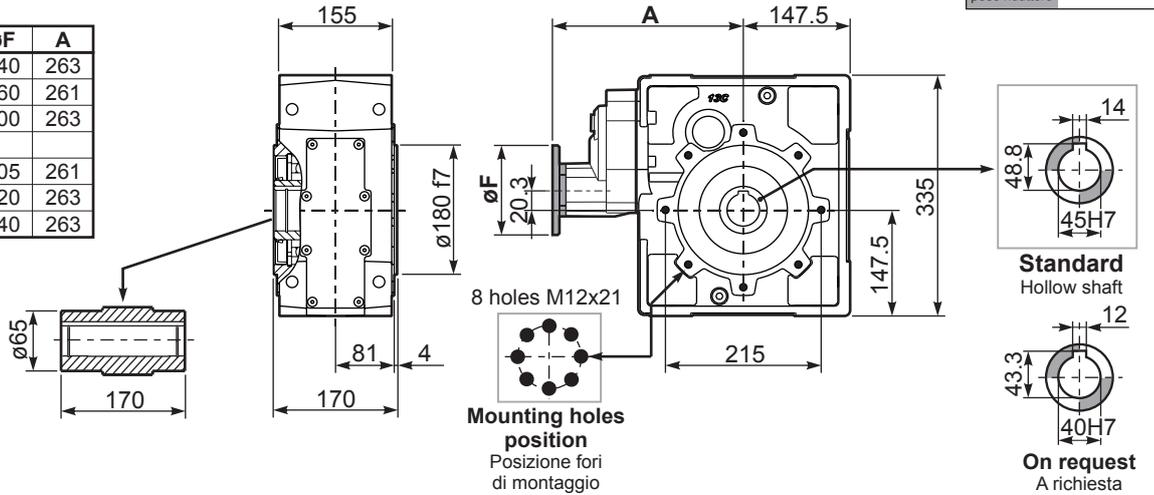
$n_1$	FA	FR
1400	400	2000
900	440	2200
500	440	2200

**tab. 2**

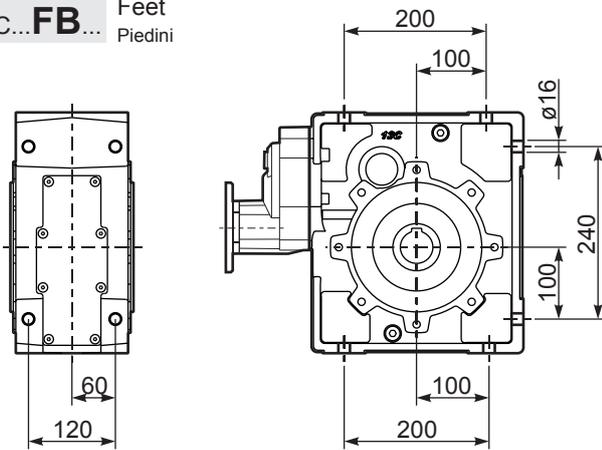
**P134CC...** Basic gearbox  
Riduttore base

Gearbox weight  
peso riduttore **53.5 kg**

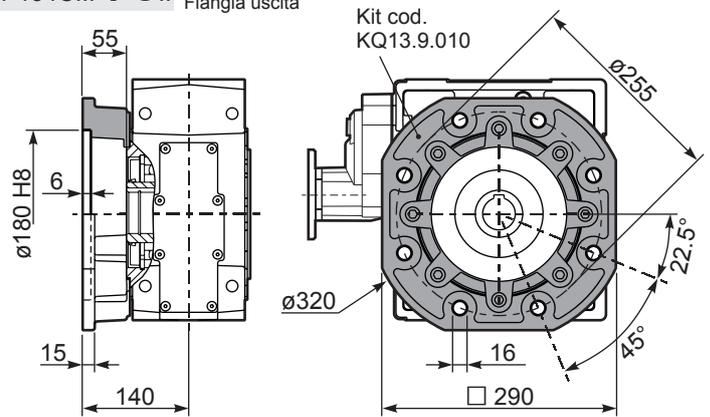
M. flanges	Kit code	øF	A
<b>63B5</b>	K063.4.041	140	263
<b>71B5</b>	K063.4.042	160	261
<b>80/90B5</b>	K063.4.043	200	263
<b>71B14</b>	K063.4.047	105	261
<b>80B14</b>	K063.4.046	120	263
<b>90B14</b>	K063.4.041	140	263



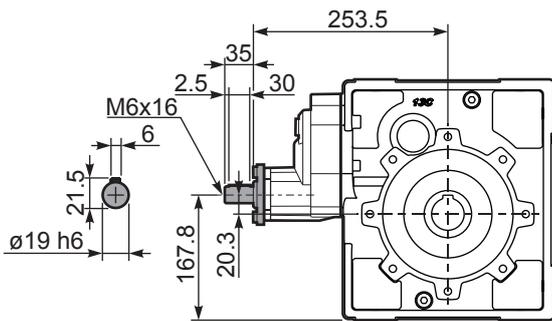
**P134C...FB...** Feet  
Piedini



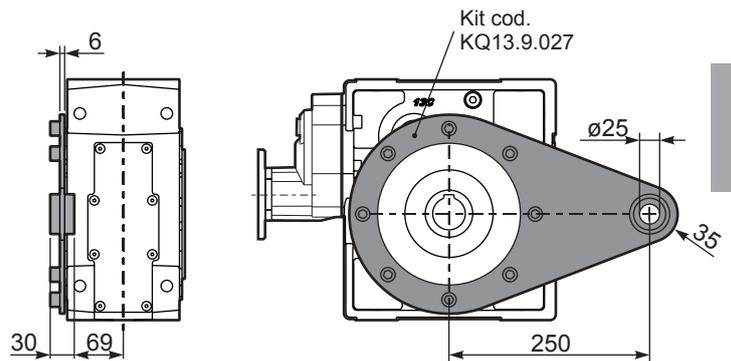
**P134C...-FC..** Output flange  
Flangia uscita



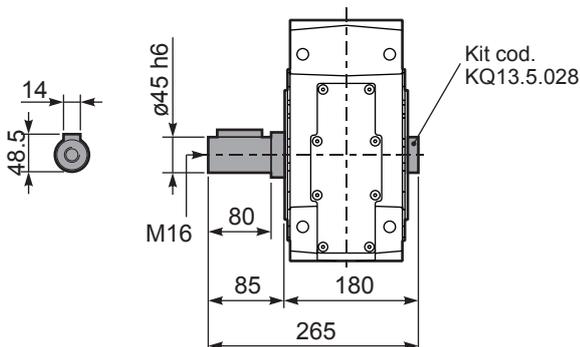
**R134C...** Input Shaft  
Albero in entrata



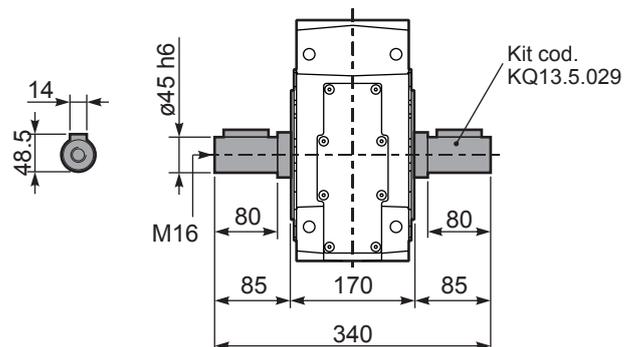
**P134C...BR..** Reaction arm  
Braccio di reazione



**P134CA..** Single output Shaft  
Albero lento semplice



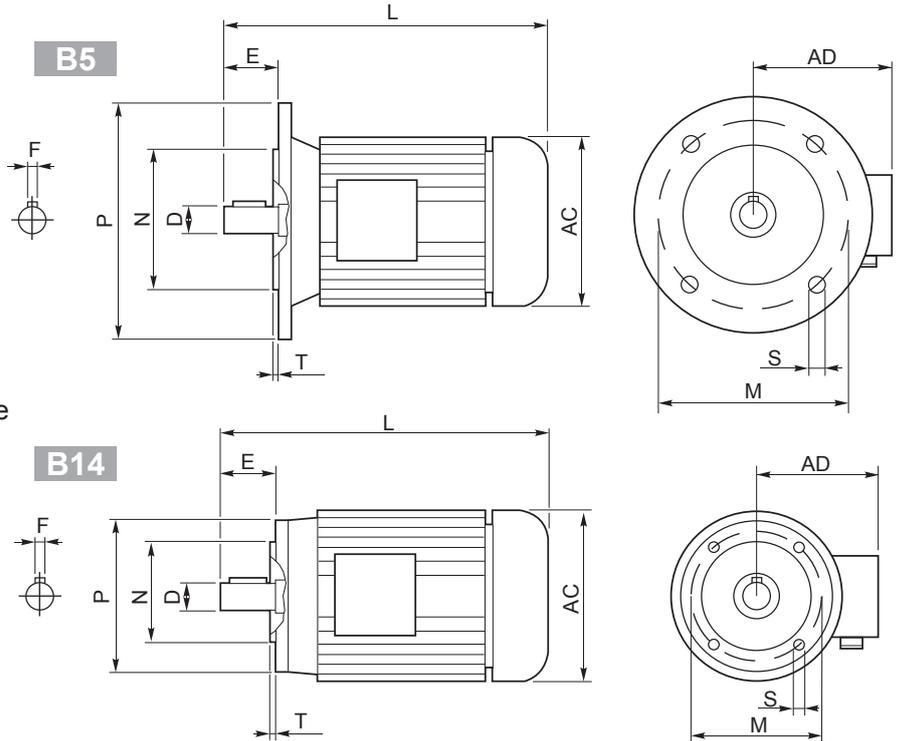
**P134CB..** Double Input Shaft  
Albero lento bisporgente





- 1) 230/400V - 50Hz three-phase asynchronous induction motor
- 2) Class F insulation
- 3) S1 duty
- 4) IP 55 protection
- 5) Not painted
- 6) Hard plastic sleeve to protect output shaft during the transportation

- 1) 230/400V - 50Hz motore trifase asincrono
- 2) Isolamento Classe F
- 3) S1 servizio continuo
- 4) Protezione IP 55
- 5) Non verniciato
- 6) Manicotto di protezione per l'albero motore



Outside dimensions and weight may be different according to manufacturers.  
 Le dimensioni esterne e il peso sono indicative, possono variare tra i vari costruttori.

	2 poli / poles			4 poli / poles			6 poli / poles			B5-B14					B5					B14					Kg	
	kW	Nm	A <sub>(400V)</sub>	kW	Nm	A <sub>(400V)</sub>	kW	Nm	A <sub>(400V)</sub>	D	F	E	L	AC	AD	N	M	P	S	T	N	M	P	S		T
<b>56 A</b>	0.09	0.32	0.38	0.06	0.44	0.27	—	—	—	9	3	20	199	108	96	80	100	120	7	2.5	50	65	80	M5	2.5	2.7
<b>56 B</b>	0.12	0.42	0.46	0.09	0.67	0.37	—	—	—	9	3	20	199	108	96	80	100	120	7	2.5	50	65	80	M5	2.5	2.9
<b>63 A</b>	0.18	0.63	0.60	0.12	0.84	0.50	0.09	0.99	0.57	11	4	23	208	120	99	95	115	140	9.5	3	60	75	90	M5	2.5	3.8
<b>63 B</b>	0.25	0.87	0.76	0.18	1.30	0.69	0.12	1.32	0.74	11	4	23	208	120	99	95	115	140	9.5	3	60	75	90	M5	2.5	4.2
<b>71 A</b>	0.37	1.30	1.00	0.25	1.70	0.91	0.18	1.90	0.80	14	5	30	-	130	104	110	130	160	9.5	3.5	70	85	105	M6	2.5	5.9
<b>71 B</b>	0.55	1.90	1.54	0.37	2.52	1.14	0.25	2.72	1.10	14	5	30	255	141	107	110	130	160	9.5	3.5	70	85	105	M6	2.5	6.5
<b>80 A</b>	0.75	2.60	1.85	0.55	3.77	1.51	0.37	3.84	1.18	19	6	40	296	159	127	130	165	200	11.5	3.5	80	100	120	M6	3	8.5
<b>80 B</b>	1.1	3.90	2.64	0.75	5.11	2.57	0.55	5.84	1.80	19	6	40	296	159	127	130	165	200	11.5	3.5	80	100	120	M6	3	10
<b>90 S</b>	1.5	5.00	3.31	1.1	7.45	2.78	0.75	7.92	2.32	24	8	50	-	170	135	130	165	200	11.5	3.5	95	115	140	M8	3	12.5
<b>90 L</b>	2.2	7.50	4.46	1.5	10.2	3.61	1.1	11.6	3.45	24	8	50	330	170	135	130	165	200	11.5	3.5	95	115	140	M8	3	15
<b>100 LA</b>	3.0	10.0	6.28	2.2	14.8	5.07	1.5	15.4	3.88	28	8	60	-	190	148	180	215	250	13	4	110	130	160	M8	3.5	20
<b>100 LB</b>	—	—	—	3.0	20.1	6.66	—	—	—	28	8	60	-	190	148	180	215	250	13	4	110	130	160	M8	3.5	22
<b>112 M</b>	4.0	13.4	8.10	4.0	26.7	8.55	2.2	22.6	5.30	28	8	60	381	210	164	180	215	250	13	4	110	130	160	M8	3.5	35
<b>132 S</b>	5.5	18.3	11.2	5.5	36.5	11.4	3.0	30.2	7.20	38	10	80	455	244	180	230	265	300	14	4	130	165	200	M10	4	41
	7.5	24.9	15.3	7.5	49.4	15.0	4.0	40.0	9.13	38	10	80	455	244	180	230	265	300	14	4	130	165	200	M10	4	51
<b>132 M</b>	—	—	—	7.5	49.4	15.0	4.0	40.0	9.13	38	10	80	500	244	180	230	265	300	14	4	130	165	200	M10	4	51
	—	—	—	9	61.4	18.5	—	—	—	38	10	80	500	244	180	230	265	300	14	4	130	165	200	M10	4	51
<b>160 M</b>	—	—	—	11	72	21.5	—	—	—	42	12	110	613	335	246	250	300	350	18	5	—	—	—	—	—	79.2
	—	—	—	15	98	29	—	—	—	42	12	110	657	335	246	250	300	350	18	5	—	—	—	—	—	97.5
<b>180 M</b>	—	—	—	18.5	121	35.5	—	—	—	48	14	110	712	366	266	250	300	350	19	5	—	—	—	—	—	170
<b>180 L</b>	—	—	—	22	144	42	—	—	—	48	14	110	712	366	266	250	300	350	19	5	—	—	—	—	—	170
<b>200 L</b>	—	—	—	30	196	53	—	—	—	55	16	110	780	405	341	300	350	400	19	5	—	—	—	—	—	240
<b>225 S</b>	—	—	—	37	240	69	—	—	—	60	18	140	888	463	360	350	400	450	19	5	—	—	—	—	—	305
<b>225 M</b>	—	—	—	45	292	84	—	—	—	60	18	140	888	463	360	350	400	450	19	5	—	—	—	—	—	310



**Protection**

Standard IP55  
Please specify on purchase orders if you need a higher IP protection class.

**Grado di protezione**

IP55 Standard  
Specificare in sede di ordinazione per IP superiore.

**Schutzart**

IP55 Standard.  
Höheren IP Grad bitte im Auftrag angeben.

**Degré de protection**

IP55 standard.  
Au moment de la commande, spécifiez si vous souhaitez IP supérieur.

**Grado de protección**

IP55 standard.  
Especificar en el pedido cuando necesiten protección IP superior.

**Insulation**

Standard CI.F  
To be specified upon placing the order if different insulation is required.

**Isolamento**

CI.F Standard  
Specificare in sede di ordinazione classe di isolamento diversa.

**Isolierung**

CI.F Standard.  
Davon abweichende Isolierungsklasse im Auftrag angeben.

**Isolement**

CI.F Standard.  
Au moment de la commande, spécifiez si vous souhaitez une classe d'isolement différente.

**Aislamiento**

CI.F standard.  
Especificar al efectuar el pedido la clase diferente de aislamiento.

Insulation / Isolamento Isolierung /Aislamiento		E	B	F	H
Max. temp.	C°	120°	130°	155°	175°
	F*	248°	266°	311°	347°

**Connections**

**Collegamenti**

**Verbindungselemente**

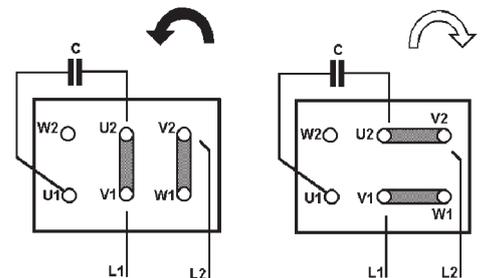
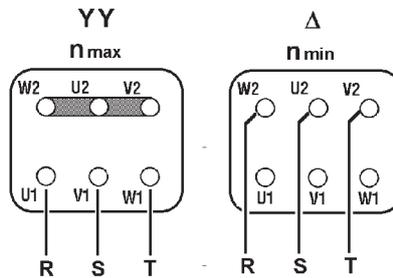
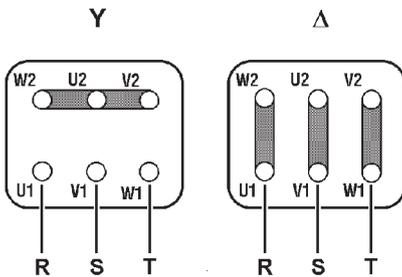
**Branchements**

**Conexiones**

Threephase asynchronous single polarity  
Asincrono trifase singola polarità  
Asynchronmotor 3-ph eine Drehzahl  
Moteur triphasé à une vitesse  
Asincrono trifasico de una velocidad

Threephase asynchronous double polarity  
Asincrono trifase doppia polarità  
Asynchronmotor 3-ph doppelte Drehzahl  
Moteur triphasé à deux vitesses  
Asincrono trifasico de dos velocidades

Single phase asynchronous  
Asincrono monofase  
Einphasen-Asynchronmotor  
Moteur monophasé  
Asincrono monofasico







**Please Read Carefully**

The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your product.

Read ALL instructions prior to operating reducer. Injury to personnel or reducer failure may be caused by improper installation, maintenance or operation.

**WARNING:**

- Written authorization is required to operate or use reducers in man lift or people moving devices.
- Check to make sure that certain applications do not exceed the allowable load capacities published in the current catalog.
- Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which Buyer shall apply the product. The application by Buyer shall not be subject to any implied warranty of fitness for a particular purpose.
- For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.
- Gearboxes operating in high position should have a protective shield for any possible parts falling down for casual accidents where people are moving under them.
- Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs and vents.
- Make certain that the power supply is disconnected before attempting to service or remove any components. Lock out the power supply and tag it to prevent unexpected application power.
- Reducers are not to be considered fail safe or self-locking devices. If these features are required, a properly sized, independent holding device should be utilized. Reducers should not be used as a brake.
- Any brakes that are used in conjunction with a reducer must be sized or positioned in such a way so as to not subject the reducer to loads beyond the catalog rating.
- Lifting supports including eyebolts are to be used for vertically lifting the gearbox only and not other associated attachments or motors.
- Use of an oil with an EP additive on units with backstops may prevent proper operation of the backstop. Injury to personnel, damage to the reducer or other equipment may result.
- Overhung loads subject shaft bearings and shafts to stress which may cause premature bearing failure and or shaft breakage from bending fatigue, if not sized properly.

**SELLING CONDITIONS**

Warranty for manufacturing defects will expire one-year the invoicing date. Hydro-Mec will replace or repair defective parts but will not accept any further changes for direct or indirect damages of any kind. The warranty will become null and void if repairs or changes are carried out without our prior written authorization.

**Our company will not be responsible for any direct or indirect damages, caused by a wrong use of the products or for not observing the catalogue/web indication**

**Leggere attentamente**

Le seguenti raccomandazioni sono fondamentali per la vostra protezione e per garantirvi molti anni di sicuro funzionamento del vostro prodotto senza alcun problema.

Leggere attentamente tutte le istruzioni prima di azionare il riduttore. L'inappropriata installazione, manutenzione o funzionamento del riduttore può causare incidenti al personale addetto e danni al riduttore stesso.

**ATTENZIONE:**

- E' richiesta autorizzazione scritta per azionare riduttori in ascensori o dispositivi per il movimento delle persone.
- Controllare che alcune applicazioni non eccedano la massima capacità di carico ammessa pubblicata in questo catalogo.
- L'acquirente è l'unico responsabile per la determinazione dell'adeguatezza del prodotto per qualcuna o tutte le utilizzazioni che l'acquirente stesso farà del riduttore. L'applicazione dell'acquirente non potrà essere soggetta ad alcuna implicita garanzia di montaggio per uno scopo particolare.
- Per ragioni di sicurezza l'acquirente dovrà provvedere a porre protezioni adeguate su tutta la lunghezza dell'albero a tutti gli organi in movimento. L'utilizzatore è responsabile del controllo di tutti i codici di sicurezza e la predisposizione di protezioni adeguate. In assenza di tali precauzioni si possono verificare incidenti alle persone e danni agli apparati.
- Su riduttori installati in posizioni elevate utilizzare protezioni adeguate per qualsiasi distacco accidentale di parti nel caso di passaggio di persone al di sotto.
- Olio e riduttori bollenti possono causare gravi ustioni. Usare estrema cautela nella rimozione dei tappi e delle ventole.
- Assicurarsi che la corrente di alimentazione sia scollegata prima di riparare o rimuovere alcun componente. Chiudere l'alimentazione e contrassegnare tale operazione per evitare accensioni accidentali.
- I riduttori non devono essere considerati esenti da guasti o a bloccaggio automatico. Se sono indispensabili queste caratteristiche, deve essere utilizzato un dispositivo indipendente della dimensione adatta. I riduttori non devono essere utilizzati come freni.
- Qualsiasi freno sia utilizzato insieme al riduttore deve essere della giusta grandezza e posizionato in modo da non causare carichi eccessivi non previsti dai dati forniti nel catalogo.
- I dispositivi di sollevamento come le golfare devono essere usati solo per sollevare verticalmente il riduttore e non altri dispositivi associati o motori.
- L'utilizzo di un olio con un additivo EP su gruppi provvisti di dispositivo di arresto possono inficiare l'uso corretto del freno e provocare danni alle persone, alle cose ed al riduttore stesso nonché ad altri apparecchi.
- I Carichi sospesi assoggettano i cuscinetti della vite e la vite stessa a sollecitazioni che possono causare, se non adeguatamente dimensionati, l'usura prematura dei cuscinetti e/o la rottura della vite a causa della resistenza alla flessione.

**CONDIZIONI DI VENDITA**

La garanzia relativa a difetti di costruzione ha la durata di un anno dalla data di fatturazione della merce. Tale garanzia comporta per Hydro-mec l'onere della sostituzione o riparazione delle parti difettose ma non ammette ulteriori addebiti per eventuali danni diretti o indiretti di qualsiasi natura.

La garanzia decade nel caso in cui siano state eseguite riparazioni o apportate modifiche senza nostro consenso scritto.

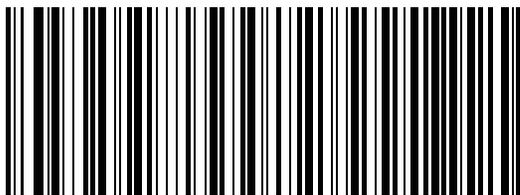
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