TRANSTECNO®
the modular gearmotor

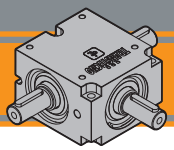
BB

Right-angle bevel gearboxes

Rinvii angolari
Right-angle bevel gearboxes



brand of TRANSTECNO®



ENERGY SAVING

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Caratteristiche tecniche

I rinvii angolari serie BB sono stati progettati per applicazioni industriali dove occorre trasmettere un moto rotatorio tra alberi disposti perpendicolarmente tra loro.

Sono disponibili:

- 2 grandezze: BB50 e BB90
- 5 rapporti: 1/1, 1/1.5, 1/2, 1/3 e 1/4 per BB50; 1/1 per BB90
- 2 o 1 prese di moto in uscita;

Caratteristiche comuni a tutta la serie sono:

- Carter monoblocco in lega di alluminio
- Coppia Conica Spiroidale GLEASON in acciaio al Nikel Cromo con trattamento di Cementazione - Tempra
- Alberi cavi in acciaio al carbonio e alberi maschi con trattamento di cementazione e tempra. Le sedi linguetta possono assumere qualsiasi posizione angolare
- Cuscinetti radiali a sfere
- Anelli nilos su BB50
- Anelli di tenuta tipo A in NBR su BB90
- Lubrificazione con grasso minerale 2 EP permanente per la grandezza BB50
- Lubrificazione con grasso minerale 00 EP permanente per la grandezza BB90

Technical features

BB-series right-angle bevel gearboxes are designed for industrial applications where rotary motion must be transmitted between perpendicularly arranged shafts.

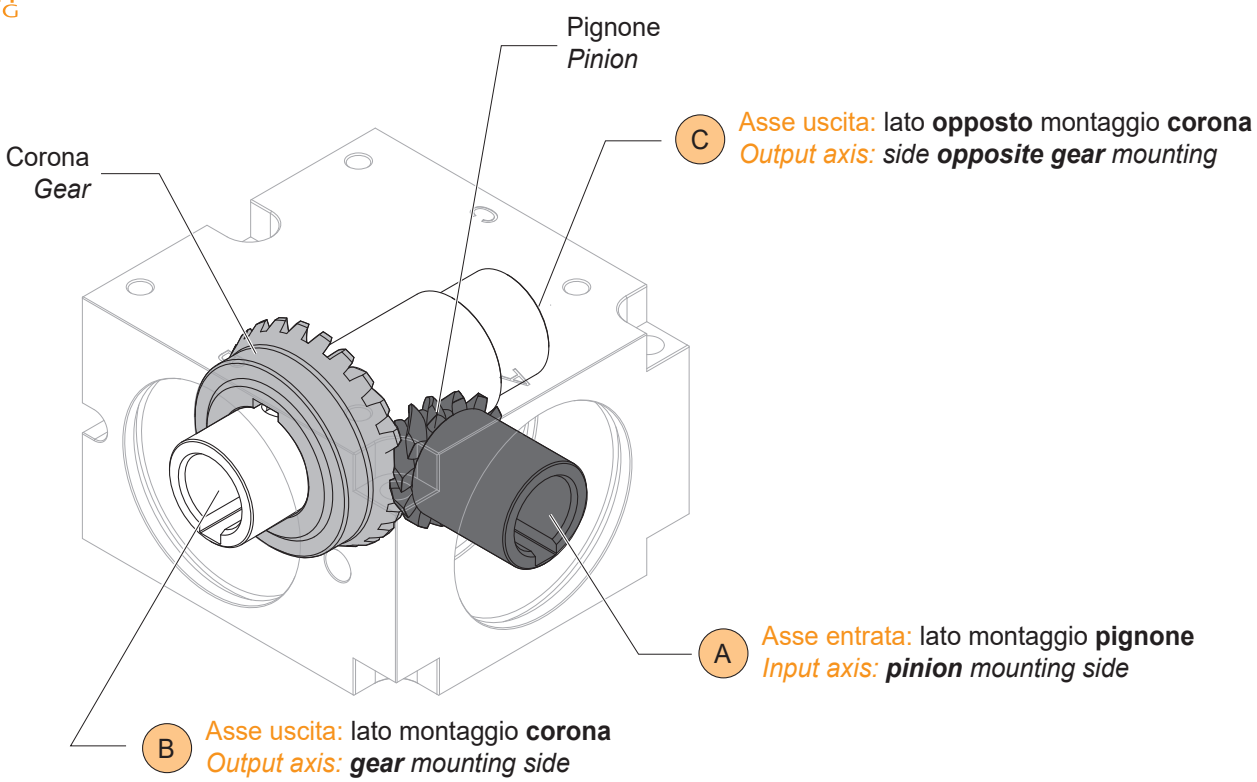
Those available:

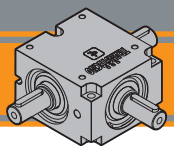
- *2 sizes: BB50 and BB90*
- *5 ratios: 1/1, 1/1.5, 1/2, 1/3 and 1/4 for BB50; 1/1 for BB90*
- *2 or 1 output power take-off;*

Common features throughout the series are:

- *One-piece aluminium alloy casing*
- *GLEASON spiral bevel gear in Nickel Chrome steel with Case hardening treatment*
- *Carbon steel hollow shafts and solid shafts with case hardening treatment. The feather key seats can assume any angular position*
- *Radial ball bearings*
- *Nilos rings on BB50*
- *Sealing rings type A in NBR on BB90*
- *Lubrication with permanent 2 EP mineral grease for size BB50*
- *Lubrication with permanent 00 EP mineral grease for size BB90*

ENERGY SAVING





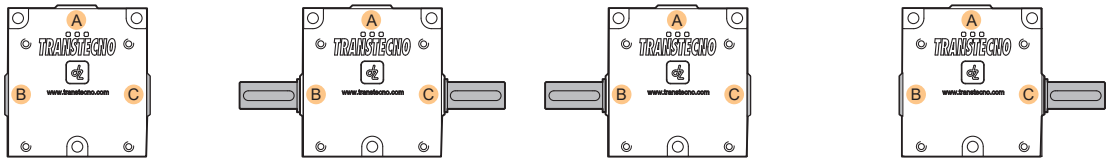
Designazione — *Classification*

RINVIO ANGOLARE / *RIGHT-ANGLE BEVEL GEARBOX*

BB	IS	50	3	U	10	VS (*)
Tipo *Type*	Albero entrata (A) *Input shaft (A)*	Grandezza *Size*	Vie *Shafts*	Albero uscita (B e C) *Output shaft (B and C)*	Rapporto *Ratio*	Albero uscita (D) *Output shaft (D)*
BB	**-** Albero cavo *Hollow shaft*	**50**	**3**	**U**	**10** (i=1)	**-** (*) 4 vie D albero cavo *4 shafts D hollow shaft*
	**IS** Albero maschio *Shafts male*	**90**	**4** (*) *Solo gr.50 *Only size 50*	**BC**	**15** (i=1.5) (*)	**VS** (*) 4 vie D albero maschio *4 shafts D male*
				**B**	**20** (i=2) (*)	* Solo gr.50 * *Only size 50*
				C	**30** (i=3) (*)	
					40 (i=4) (*)	
					* Solo gr.50 * *Only size 50*	

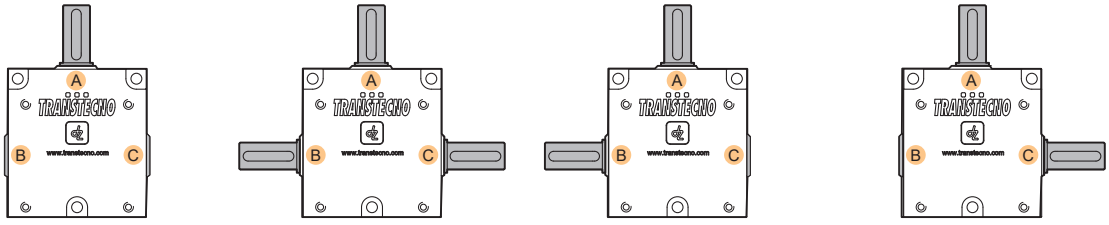
Versione — *Version*

BB - 3 VIE / 3 *SHAFTS*



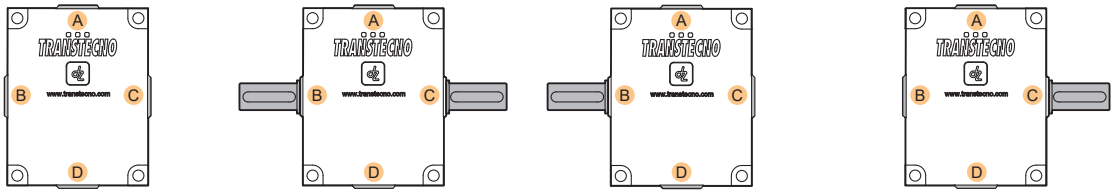
BB..3U.. BB..3BC.. BB..3B.. BB..3C..

BBIS - 3 VIE / 3 *SHAFTS*



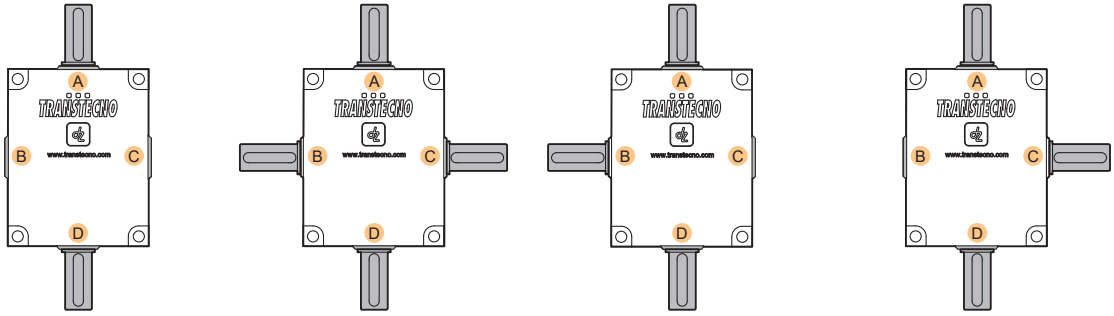
BBIS..3U.. BBIS..3BC.. BBIS..3B.. BBIS..3C..

BB - 4 VIE / *SHAFTS* - Solo gr. 50 / Only size 50



BB..4U.. BB..4BC.. BB..4B.. BB..4C..

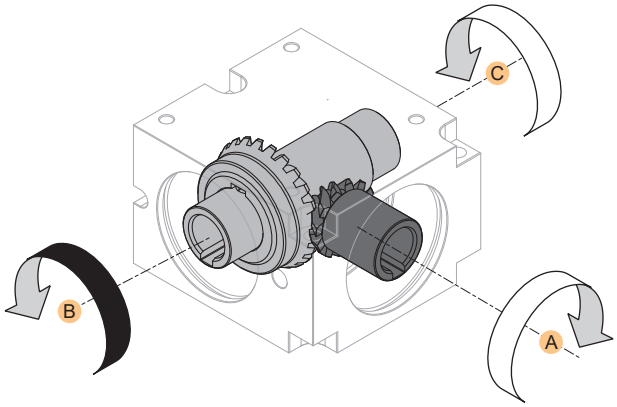
BBIS - 4 VIE / 4 *SHAFTS* - Solo gr. 50 / Only size 50



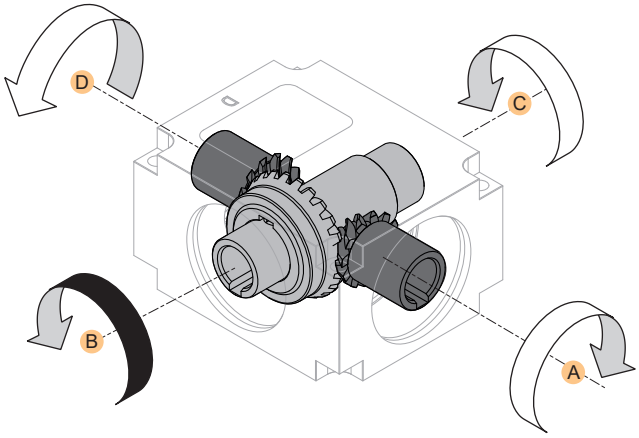
BBIS..4U..VS BBIS..4BC..VS BBIS..4B..VS BBIS..4C..VS

Sensi di rotazione — *Direction of rotation*

3 VIE / 3 *SHAFTS*

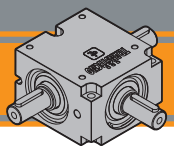


4 VIE / 4 *SHAFTS*



Simbologia — *Symbols*

n_1	[min^{-1}]	Velocità in ingresso / *Input speed*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*
i		Rapporto di riduzione / *Ratio*
P_1	[kW]	Potenza in entrata / *Input power*
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / *Output torque referred to P_1*
Pn_1	[kW]	Potenza nominale in entrata / *Nominal input power*
Mn_2	[Nm]	Coppia nominale in uscita in funzione di Pn_1 / *Nominal output torque referred to Pn_1*
sf		Fattore di servizio / *Service factor*
R_1	[N]	Carico radiale ammissibile in entrata / *Permitted input radial load*
A_1	[N]	Carico assiale ammissibile in entrata / *Permitted input axial load*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*
A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*
Kg	[kg]	Peso del solo riduttore / *Weight of the gearbox only*



Lubrificazione — *Lubrication*

I rinvii angolari serie BB, sono forniti completi di lubrificante minerale 2 EP.

Possono essere installati in qualunque posizione di montaggio.

BB-series right-angle bevel gearboxes are supplied complete with 2 EP mineral lubricant.

They can be installed in any mounting position.

Carichi radiali e assiali — *Radial and axial loads*

Contattare il servizio tecnico.

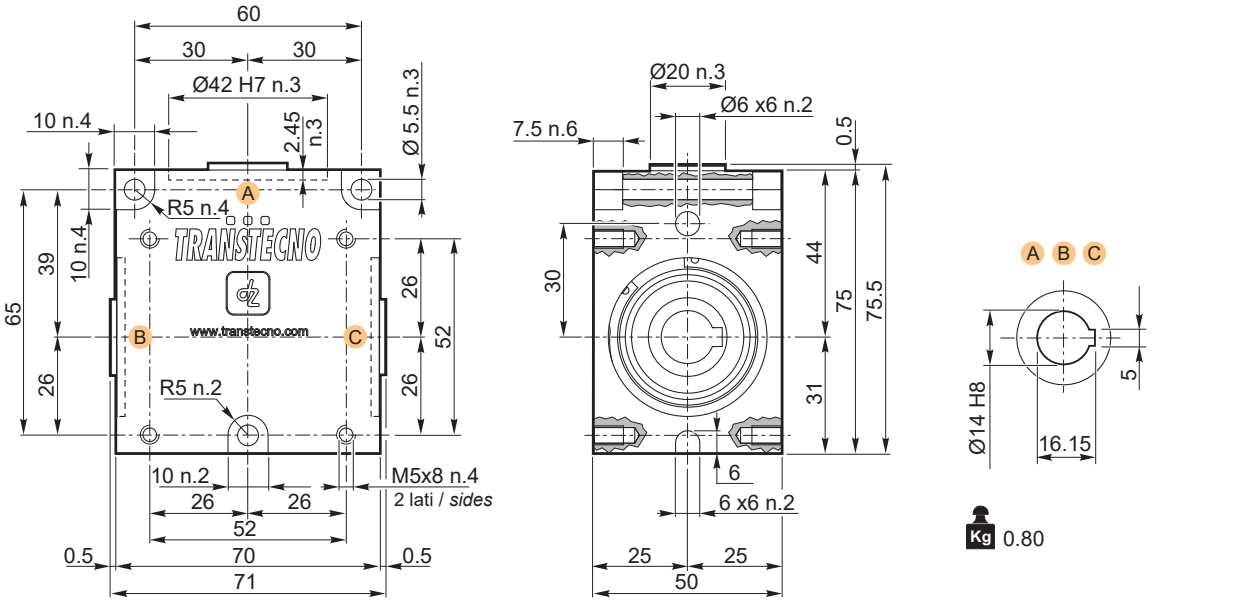
Contact technical service.

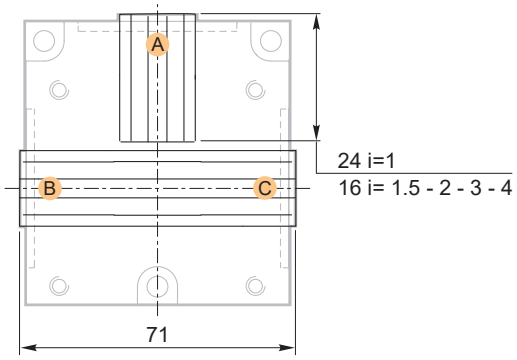
Dati tecnici — *Technical data*

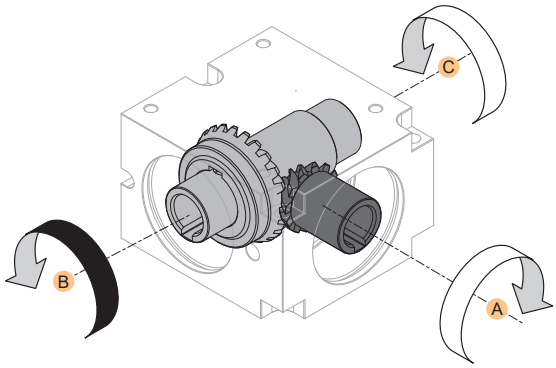
	i	n_1 [min^{-1}]	n_2 [min^{-1}]	M_{n2} [Nm]	P_{n1} [kW]	n_1 [min^{-1}]	n_2 [min^{-1}]	M_{n2} [Nm]	P_{n1} [kW]	n_1 [min^{-1}]	n_2 [min^{-1}]	M_{n2} [Nm]	P_{n1} [kW]	n_1 [min^{-1}]	n_2 [min^{-1}]	M_{n2} [Nm]	P_{n1} [kW]	n_1 [min^{-1}]	n_2 [min^{-1}]	M_{n2} [Nm]	P_{n1} [kW]
BB 50	1	50	50	25.4	0.13	100	100	21.3	0.21	250	250	17.0	0.43	500	500	11.8	0.59	750	750	9.5	0.72
	1.5		33	31.0	0.10		67	25.5	0.17		167	18.0	0.30		333	13.5	0.45		500	11.0	0.55
	2		25	20.0	0.05		50	19.5	0.10		125	18	0.23		250	14.5	0.36		375	11.7	0.44
	3		17	10.0	0.02		33	9.9	0.03		83	9.8	0.08		167	9.6	0.16		250	9.4	0.24
	4		13	6.7	0.01		25	6.6	0.02		63	6.5	0.04		125	6.4	0.08		188	6.3	0.12
	1		-				-				-				-				-		
	1.5		667	9.5	0.64		-				-				-				-		
	2	1000	500	10.3	0.52	1500	750	10	0.72	2000	-			2500	-			3000	-		
	3		333	9.2	0.31		500	9.0	0.45		750	10	0.72		667	8.0	0.5		-		
	4		250	6.2	0.16		375	6.1	0.23		500	9.0	0.45		500	6.0	0.3		625	6.0	0.4
BB 90	1	50	50	47.0	0.24	100	100	39.0	0.39	250	250	33.0	0.83	500	500	28.0	1.41	750	750	24.0	1.81
	1	1000	-			1500	-			2000	-			2500	-			3000	-		

Dimensioni — *Dimensions*

BB 503 U...



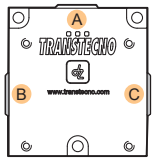




Le sedi linguetta negli alberi cavi come negli alberi maschi possono assumere qualsiasi posizione angolare.

The keyways in hollow shafts as in solid shafts can assume any angular position.

Versione — *Version*



BB..3U..

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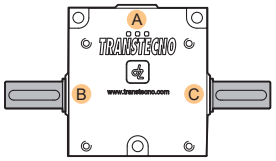
1.5	BB503U15 TTN
2	BB503U20 TTN
3	BB503U30 TTN
4	BB503U40 TTN



BB..3BC..

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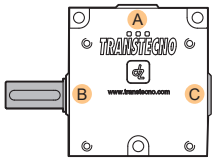
3	BB503BC30 TTN
4	BB503BC40 TTN



BB..3B..

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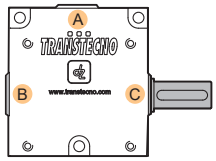

BB..3C..

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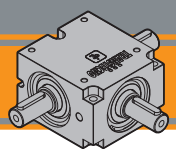
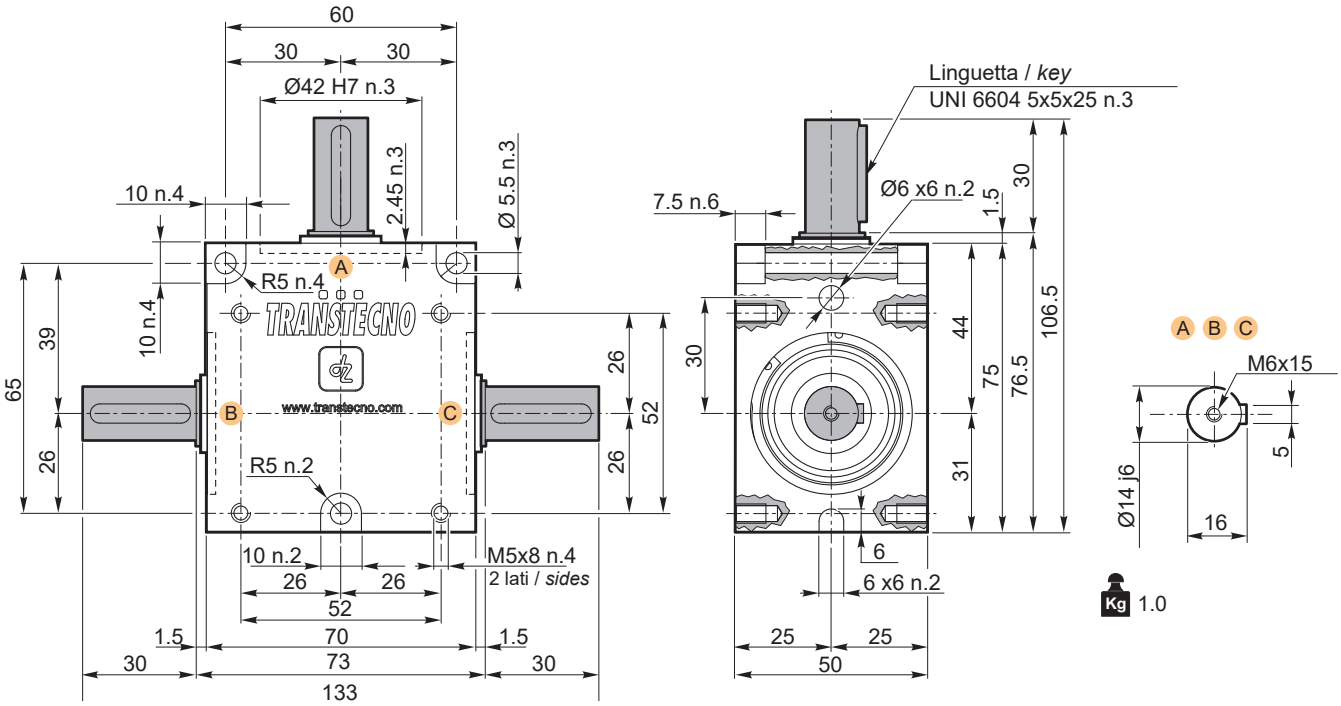
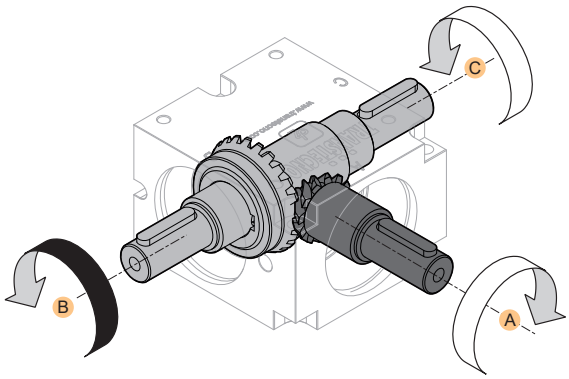


Dimensioni — *Dimensions*

BBIS 503 BC...

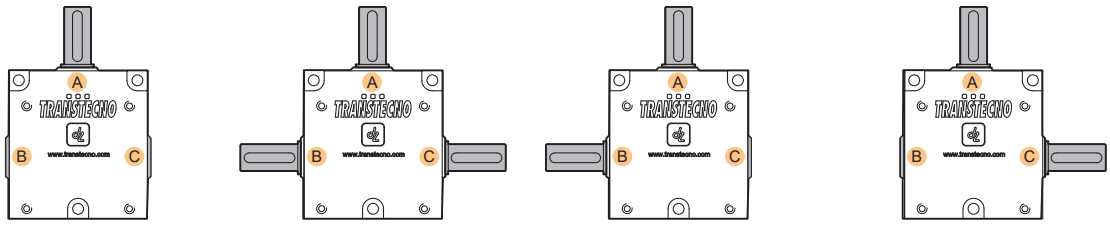




Le sedi linguetta negli alberi cavi come negli alberi maschi possono assumere qualsiasi posizione angolare.

The keyways in hollow shafts as in solid shafts can assume any angular position.

Versione — *Version*



BBIS..3U.. BBIS..3BC.. BBIS..3B.. BBIS..3C..

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2	BBIS503U20 TTN
3	BBIS503U30 TTN
4	BBIS503U40 TTN

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1.5	BBIS503BC15 TTN
2	BBIS503BC20 TTN
3	BBIS503BC30 TTN
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i	Code
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1.5	BBIS503B15 TTN
2	BBIS503B20 TTN
3	BBIS503B30 TTN
4	BBIS503B40 TTN

i	Code
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3	BBIS503C30 TTN
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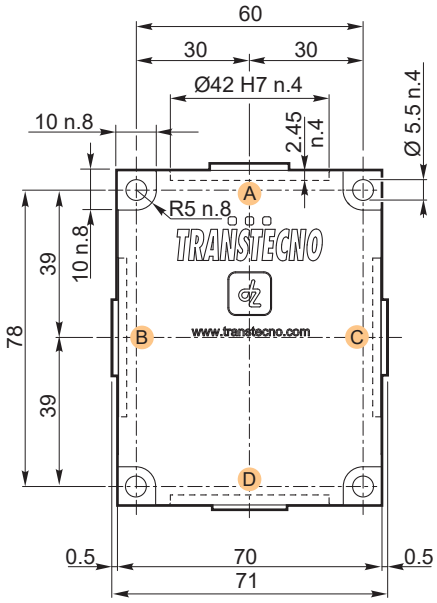
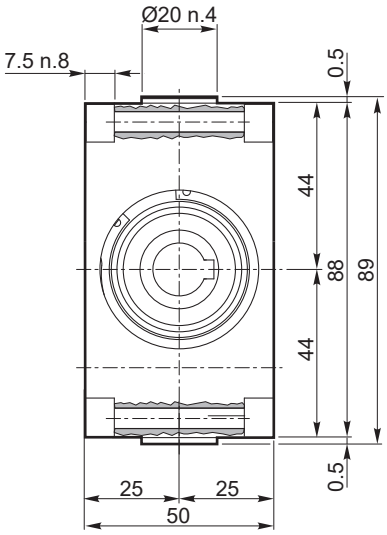
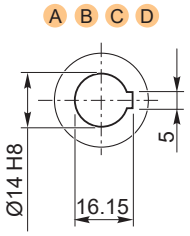
Dimensioni — *Dimensions*

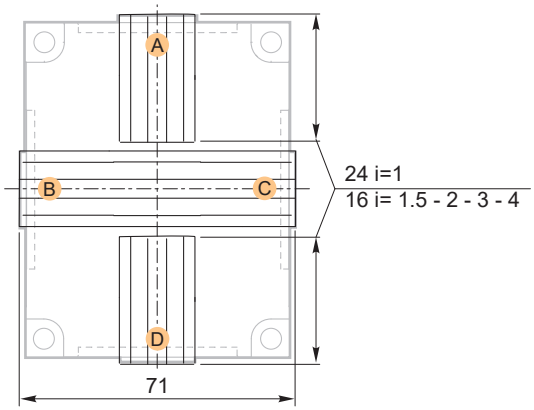
BB 504 U...

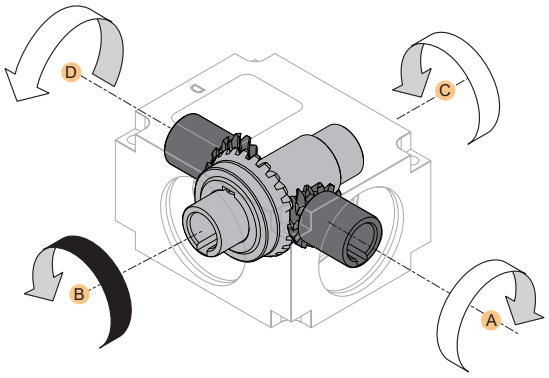






Kg 1.0

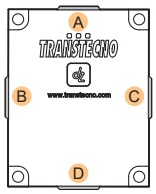




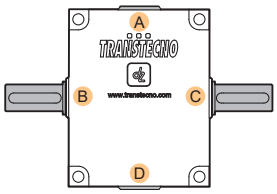
Le sedi linguetta negli alberi cavi come negli alberi maschi possono assumere qualsiasi posizione angolare.

The keyways in hollow shafts as in solid shafts can assume any angular position.

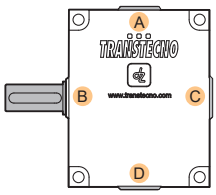
Versione — *Version*



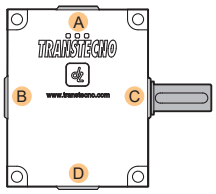
BB..4U..



BB..4BC..



BB..4B..



BB..4C..

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1.5	BB504U15 TTN
2	BB504U20 TTN
3	BB504U30 TTN
4	BB504U40 TTN

i	Code
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4	BB504BC40 TTN

i	Code
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1.5	BB504B15 TTN
2	BB504B20 TTN
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4	BB504B40 TTN

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1.5	BB504C15 TTN
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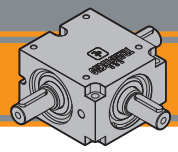
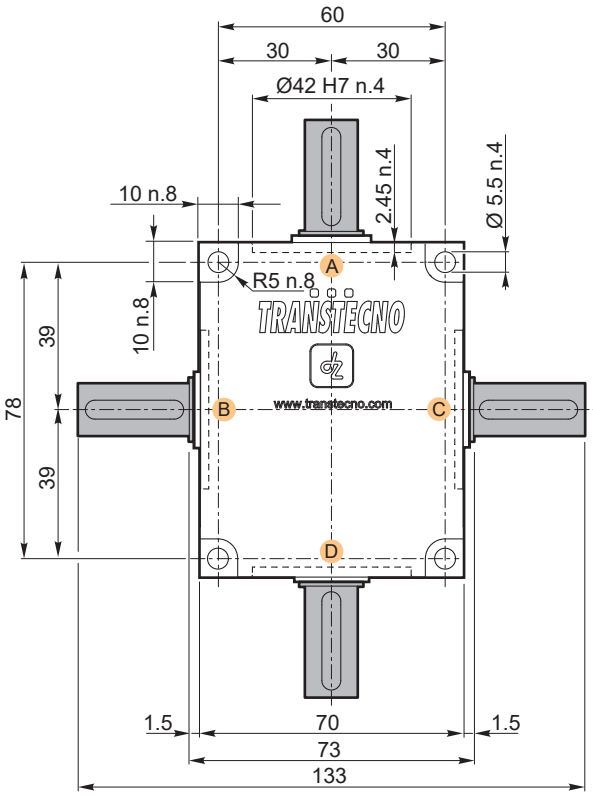
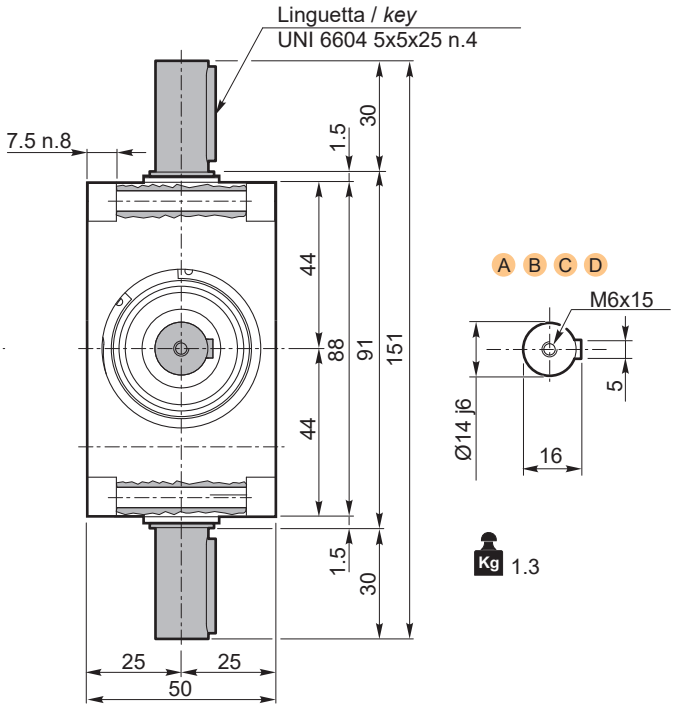
4	BB504C40 TTN

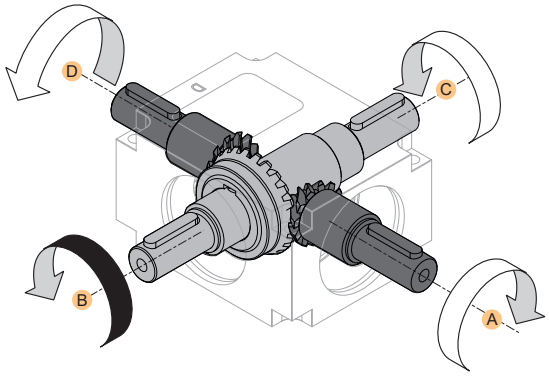


Dimensioni — *Dimensions*

BBIS 504 BC...VS



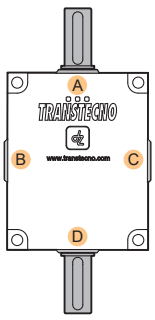




Le sedi linguetta negli alberi cavi come negli alberi maschi possono assumere qualsiasi posizione angolare.

The keyways in hollow shafts as in solid shafts can assume any angular position.

Versione — *Version*



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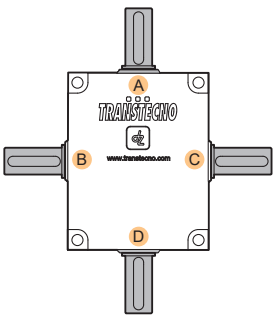

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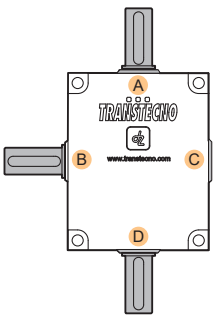

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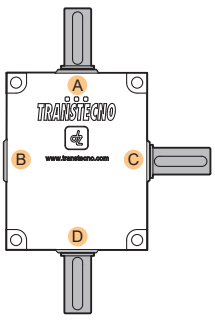

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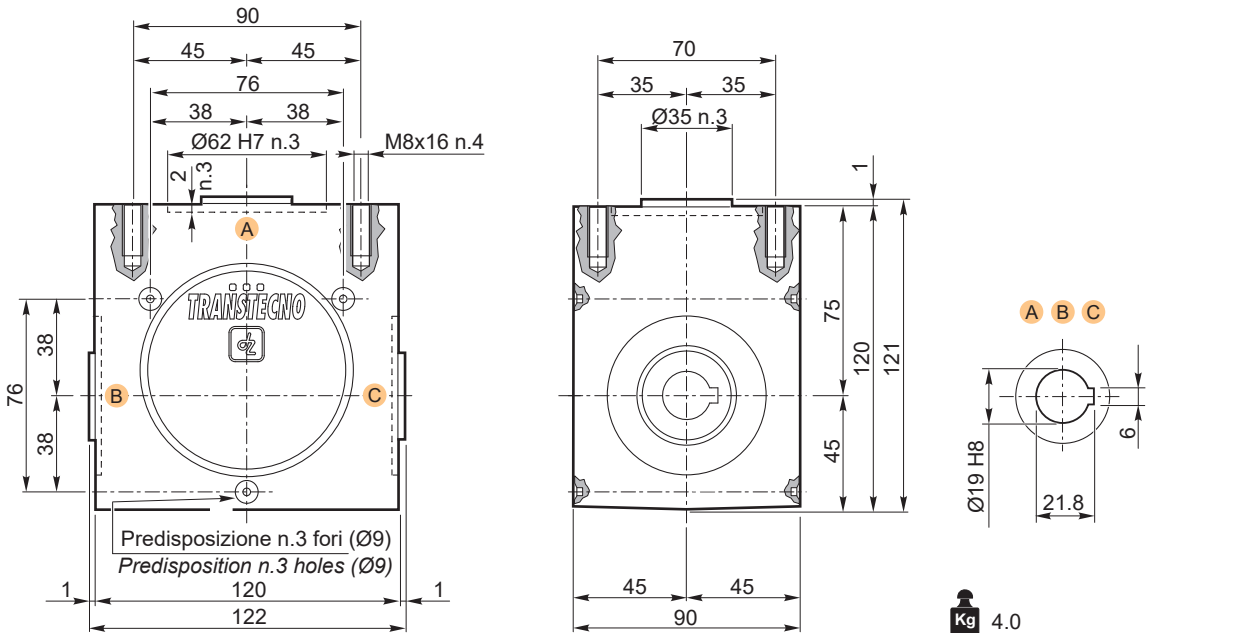
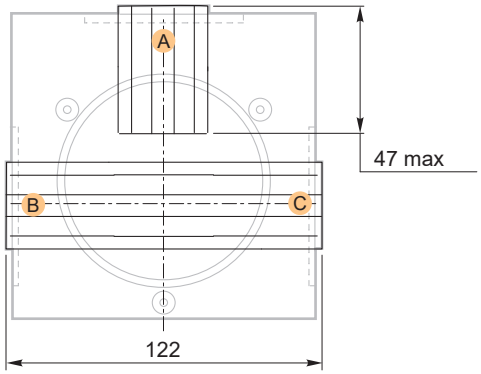
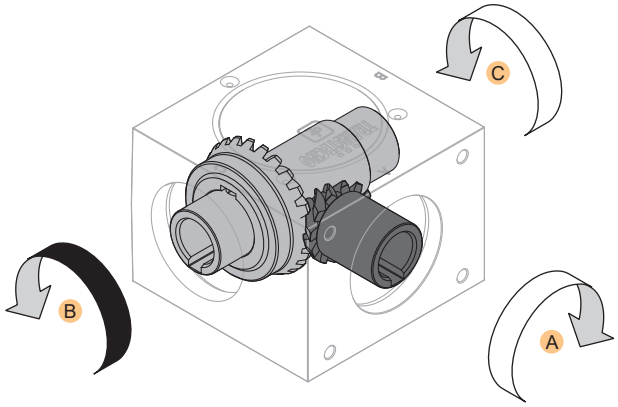
Dimensioni — *Dimensions*

BB 903 U...







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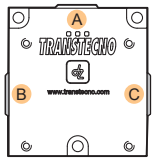

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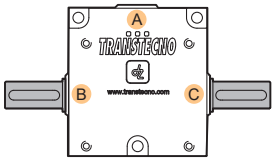

BB..3BC..

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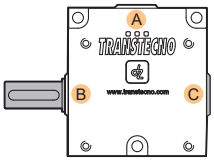

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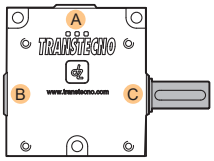

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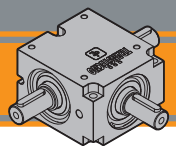
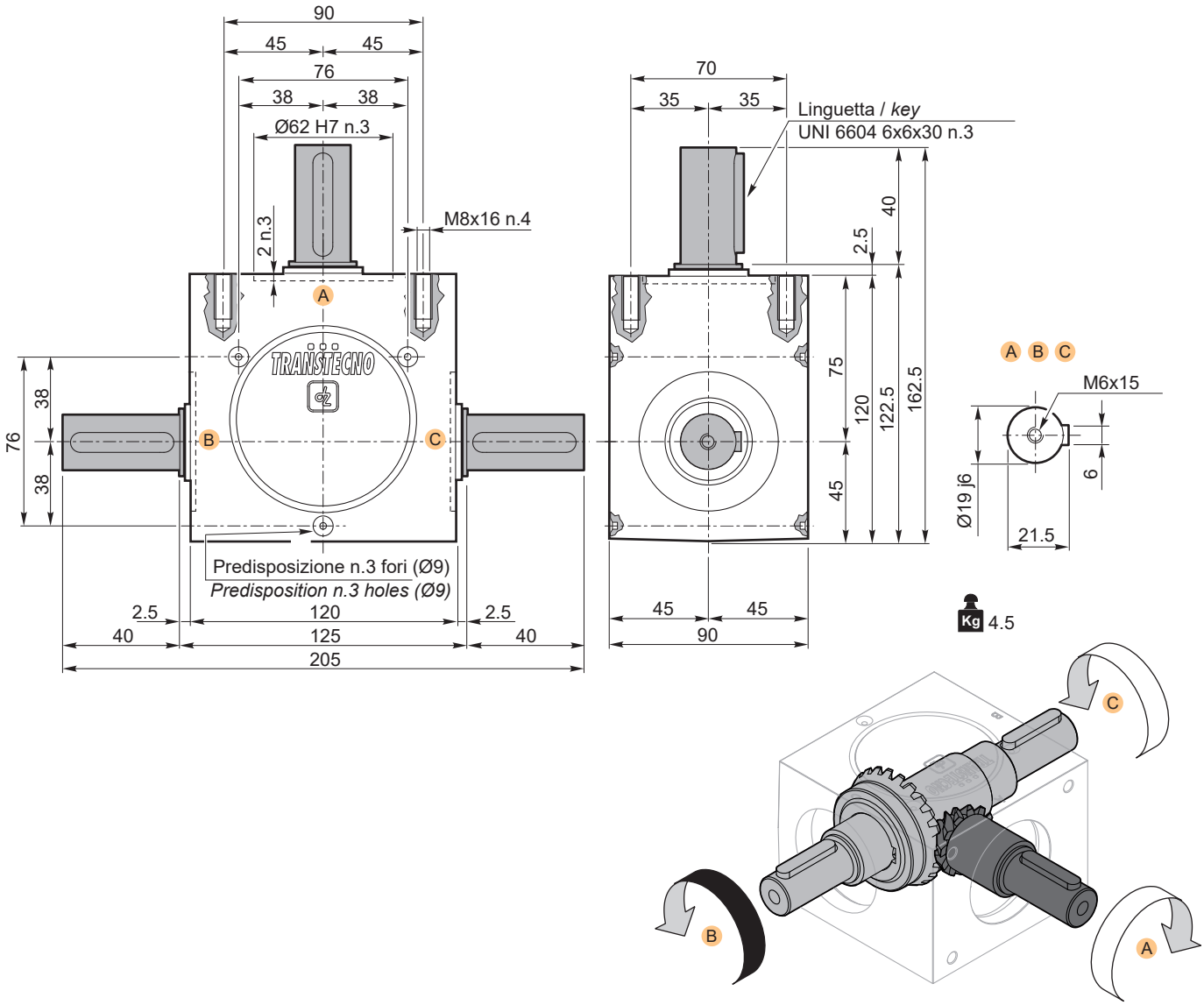


Dimensioni — *Dimensions*

BBIS 903 BC...



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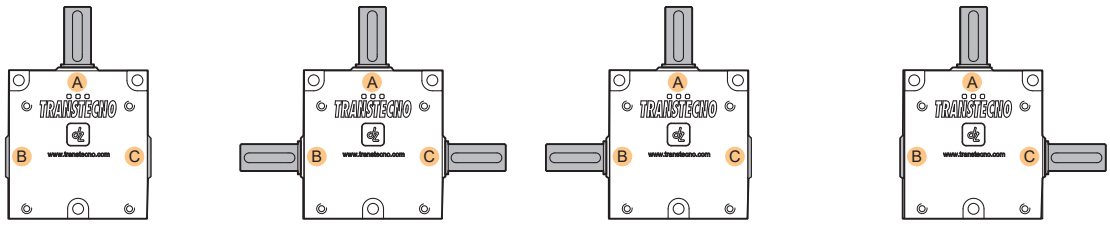

BBIS..3U.. BBIS..3BC.. BBIS..3B.. BBIS..3C..

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i	Code
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i	Code
1	BBIS903B10 TTN

i	Code
1	BBIS903C10 TTN

Note/*Notes*