



Standard Linear tables BB series

The tables manufactured by Meccanica Besnatese range from small to large-size systems, in compliance with standard instructions. Just as for manufacturing on third parties account, the company is ready to accomplish mass-produced work orders in a limited number up to single units.

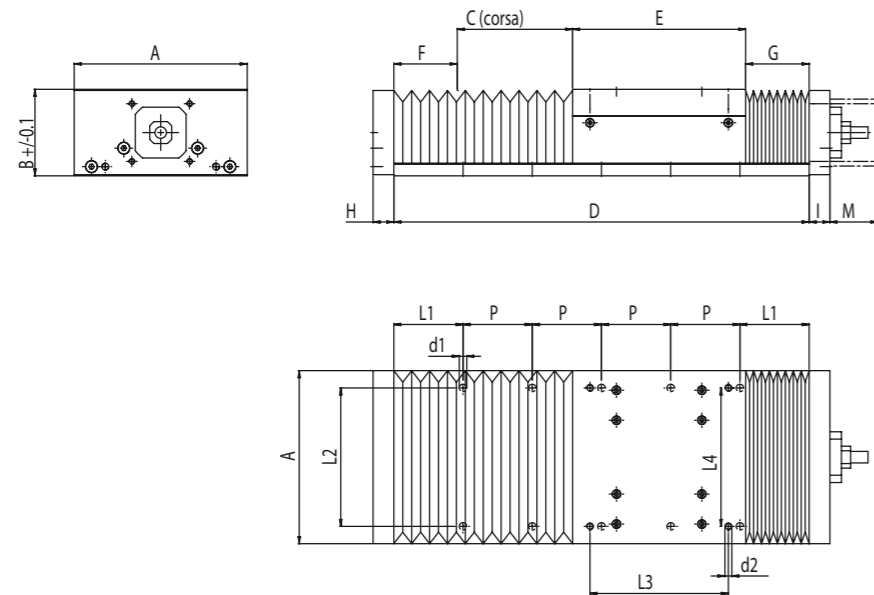
The components in use are purchased from the most qualified suppliers to offer customers a top-quality finished product for easy replacement.

The tables included in the catalogue are generally used for positioning and handling light objects and if no high level of accuracy and rigidity is required, they can offer an excellent quality/price ratio.

Precision tables BB series

Precision linear tables, modular for X Y Z and multi-axis assembly

OVERALL DIMENSIONS



TYPE OF TABLE	Dimensions (mm)																	
	A	B	C	D	E	F-G	H	I	L1	L2	P	d1	L3	L4	d2	M		
BB 150	100	150	75	100	360	150	55	18	18	60	120	6,5	120	120	M6	According to the motor type		
	200			200	460					55							110	4x60
	300			300	600					75							60	4x60
	400			400	700					75							50	4x120
BB 180	150	180	80	150	440	180	55	20	20	70	150	8,5	150	150	M8			
	250			250	540					75							115	4x75
	350			350	680					75							115	3x150
	450			450	780					75							90	4x150
BB 240	200	240	100	200	550	240	55	20	32	75	200	8,5	200	200	M8			
	300			300	650					80							125	4x100
	400			400	800					80							100	4x100
	500			500	900					80							50	6x100
																		8x100

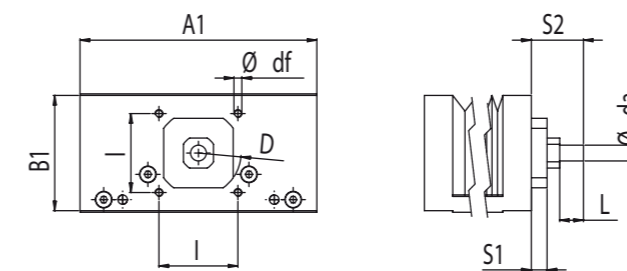
CONSTRUCTIVE FEATURES

TYPE OF TABLE	Screw		Guides		Structure	Protections
	Tip	ø x pitch	Tip	Size		
BB 150		16x5		15	Aluminium alloy	Bellow
BB 180	ball screw ground single nut pre-loaded	20x10	Single guides with ball sliding blocks	15		
BB 240		25x10		20		

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MOTOR SUPPORT CONNECTION



TYPE OF TABLE	A1	B1	I	D	S1	S2	df	da	L
BB 150	150	73	50	54	10	33	M5	10	15
BB 180	180	78	64	63	15	47	M6	12	20
BB 240	240	98	80	85	22	60	M6	15	27

CONSTRUCTION TOLERANCE VALUES

TYPE OF TABLE	Trolley levelness	Value (µm)	Trolley side movement parall. or vertical	Travel mm	
				Travel mm	Accuracy micron
BB 150		20		< 150	15
BB 180				150 - 300	20
BB 240				> 300	25

Accessories and variants

- Motor support for direct assembly or indirect assembly by means of motion transmission gears
- Axis limit stop
- Customisation for assembling and fastening equipment

SCREWS - FEATURES AND ADMISSIBLE LOADS

TYPE OF TABLE	Diameter per pitch	Admissible load (N)		Axial clearance	Accuracy degree micron	Repeatability mechanical accuracy micron
		C stat.	C dyn.			
		BB150	16x5			
BB180	20x10	25000	14500	0	IT5 E/300=23	10
BB240	25x10	31500	20500	0		10

Screws are supported on both ends on all tables of the BB series.

SPEED

TYPE OF TABLE	Travel mm	n (r / min) max screw
BB 150	100	2400
	200	2250
	300	2100
	400	2000
BB 180	150	2600
	250	2500
	350	2400
BB 240	450	2300
	200	3200
	300	3100
	400	3000
	500	2900

The trolley traversing speed is proportional to the pitch (p:mm) and to the screw revolutions. The maximum values specified by the table (n=rev/min) consider the critical screw speed, according to the ϕ and free length between the constraints.

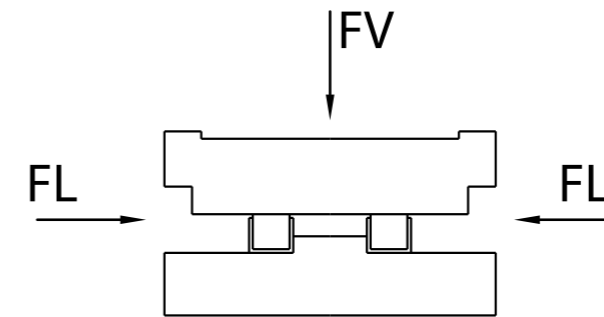
Example:

$$\frac{n \cdot p}{60} = \frac{2400 \times 10}{60} = 400 \text{ mm/sec}$$

LUBRIFICATION

Screws and guides are properly lubricated at the time of assembly. However, the system lubrication shall be checked at regular intervals. If necessary, restore initial conditions. Centralised oil lubrication systems can be installed on TV2/TV3 tables, upon request.

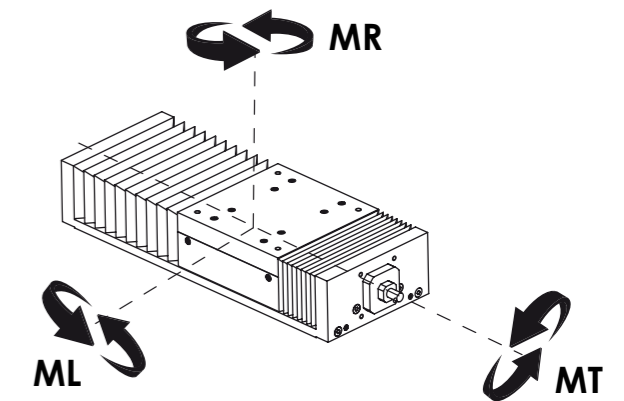
APPLICABLE LOADS (N)



TYPE OF TABLE	Admissible load (N)	
	FV = FL	
	Static	Dynamic
BB 150	29000	15000
BB 180	50000	27000
BB 240	102000	58000

APPLICABLE MOMENTS

TYPE OF TABLE	Admissible moments (Nm)			
	MT		ML=MR	
	Static	Dynamic	Static	Dynamic
BB150	1560	660	1305	675
BB180	2750	1485	2100	1134
BB240	6120	3480	5059	2876



WEIGHT OF TABLES

TYPE OF TABLE	Total weight of tables (Kg)									Trolley weight (Kg) and related parts
	Travel 100	Travel 150	Travel 200	Travel 250	Travel 300	Travel 350	Travel 400	Travel 450	Travel 500	
BB150	7,5		8,5		9,5		10,5			2
BB180		11		13		15		17		3
BB240			23		26		29		32	7



Certified according to
EN 9100:2018, AS9100D, JISQ 9100:2016
ISO 9001:2015



MB
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