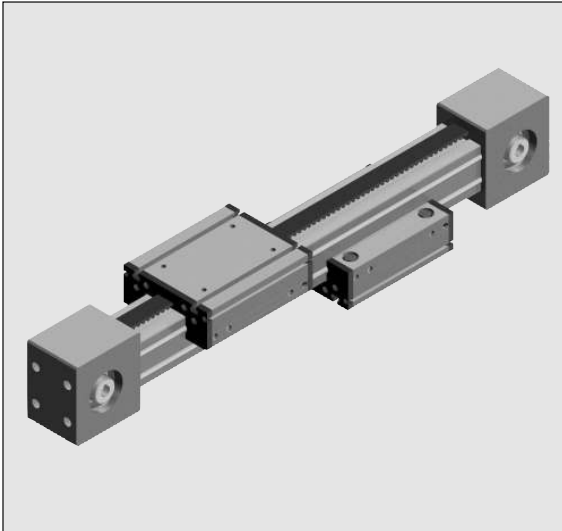


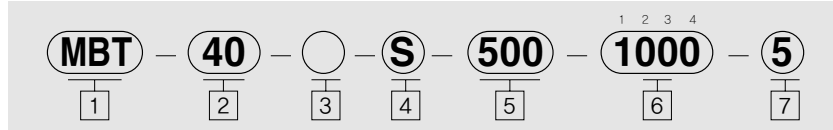
MBT 40, 60, 80, 100



Features

- Combination of high speed linear guide and belt driving structure
- Comfortable for multi-shaft combination with quality and economic performance
- Iron core reinforcing high tension timing belt applied
- Easy maintenance
- Responding to various customer requirements such as mounting, accessory formation, etc
- Two sliders are run by one circulating timing belt, moving to each opposite direction

Order type



1 TYPE

2 Type number
40, 60, 80, 100

3 Slider type
Non-symbol : Standard
D : Upper/lower slider

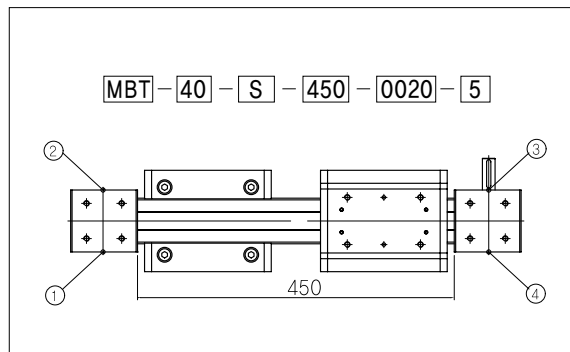
4 Slider type
S : Standard slider
T : Standard slider + Roller 2
H : Standard slider + Roller 4

5 Rail length(mm)

6 Coupling attachment type
0 : STANDARD
2 : SHAFT TYPE

7 Quantity

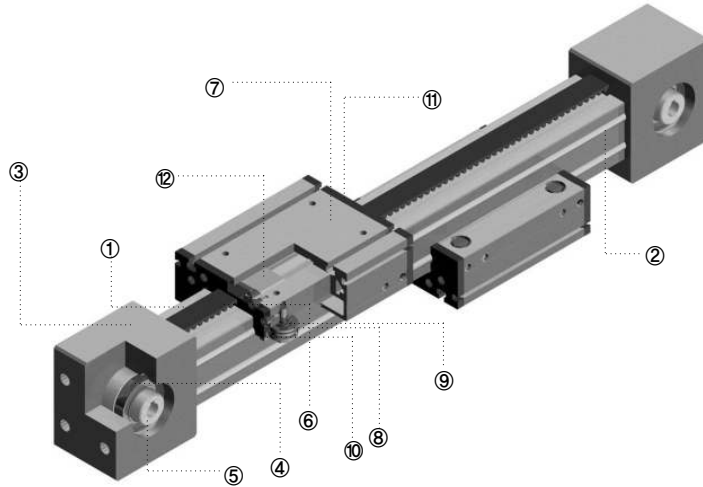
▶ Ordering of Module



▶ Accessory

- | | |
|---|---|
| <input type="checkbox"/> Motor (Name of company :)
(Model name :)
(Power : (kw)) | <input type="checkbox"/> MSK (Sensor Bracket)
<input type="checkbox"/> Photo Sensor
<input type="checkbox"/> Proximity Sensor |
| <input type="checkbox"/> Reducer
<input type="checkbox"/> Pulley Reducer
<input type="checkbox"/> Others (Name of company :)
(Model name :)
(Reduction gear ratio :) | <input type="checkbox"/> MBK (Mounting block)
Quantity : EA
<input type="checkbox"/> Urethane stopper |

MBT Series Specifications



► Specification of Components

No	Component name		Material	No	Component name	Material
1	Rail		Aluminum alloy	7	Slider	Aluminum alloy
2	Product No.	Shaft	Bearing steel	8	Track roller	Bearing steel
	40	Ø6				
	60	Ø10				
	80	Ø12				
	100	Ø16				
3	Pulley box		Aluminum alloy	9	Flat washer	-
4	Bearing		-	10	Wiper	FELT
5	Timing pulley		High carbon steel	11	Sealing	EP
6	Timing belt		Urethan	12	Belt clip	Carbon steel

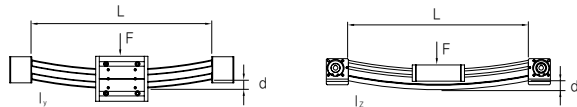
► Performance sheet

repeating accuracy	±0.05mm
Straightness of rail	0.35mm/m
Parallelism between shafts	±0.02mm/m
Tolerance of length	±0.5mm

► Timing belt dimension and Rail size

Model No.	Length	Belt type	Belt width	Material of velt
40	4000	RPP5	15	Polyurethane With Steel cord
60	6000	RPP5	25	
80	6000	RPP8	30	
100	6000	RPP8	50	

► Max. deflection of rail



*Formula for deflection of rail is the same to the whole dimension.

$$d = \frac{F \times L^3}{192 \times E \times I}$$

E : Young's modulus, aluminum -

70,000N/mm²

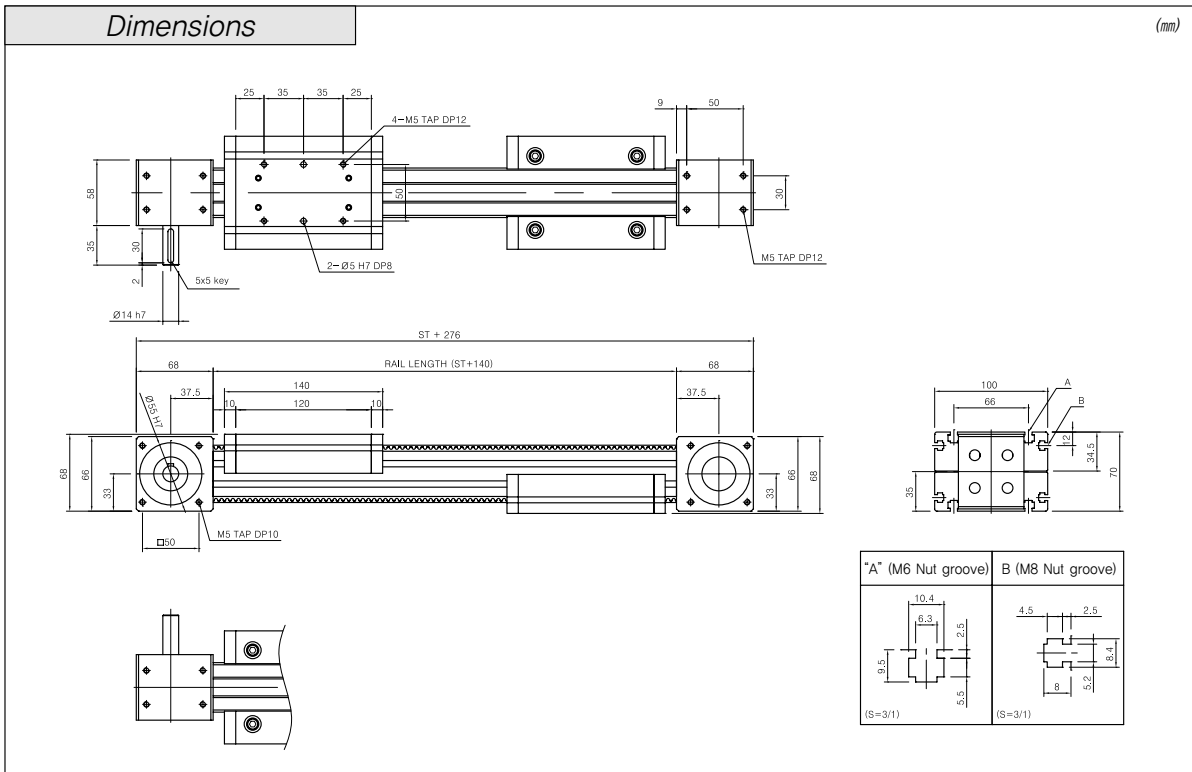
d : deflection [mm]

F : load [N]

L : free length [mm]

I : 2'nd moment of area [mm⁴]

MBT 40

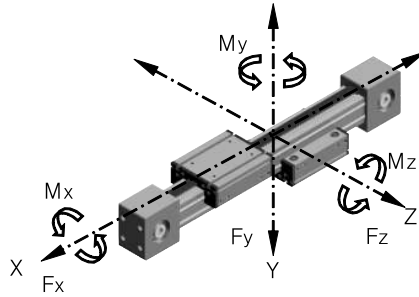


* Rails that exceed Max. rail length without joint also available on customer's request.

► Technical data

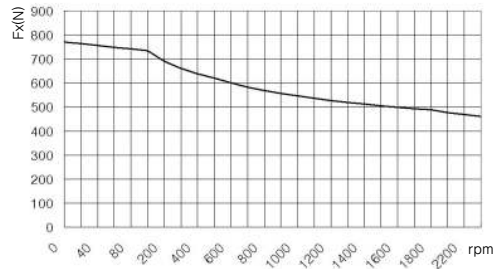
- Speed Max. 4%
- Acceleration Max. 20%
- Pulley P. C. D. 47.74mm
- Stroke per revolution ≈150mm/rev.
- No-load torque 0.32Nm
- 2nd moment of area $I_y=1.4 \times 10^6 \text{mm}^4$
 $I_z=1.2 \times 10^6 \text{mm}^4$
- Weights
 Basic weight with zero stroke 2.7kg
 Weight/100mm stroke 0.3kg

► Forces and moments



Slider Type	Forces/Torques	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)
MBT40	STATIC	Max.770	900	1200	25	33	27
	DYNAMIC		650	700	20	22	15

* Having bigger value in case of selecting slider special specification (T,H)



* Fx depends on speed, see respective chart.

MBT 60



Dimensions (mm)

ST + 370
RAIL LENGTH (ST + 180)

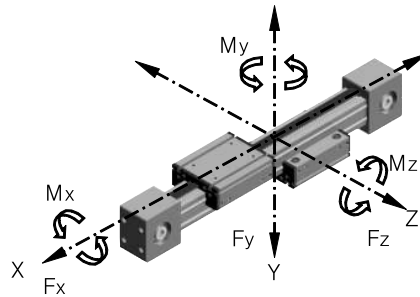
A* (M6 Nut groove)	B (M8 Nut groove)

* Rails that exceed Max. rail length without joint also available on customer's request.

► Technical data

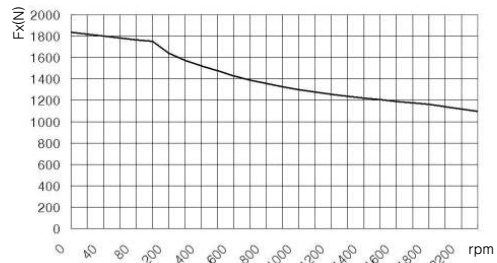
- Speed Max. 5%
- Acceleration Max. 20%
- Pulley P. C. D. 70.3mm
- Stroke per revolution ≈220mm/rev.
- No-load torque 0.61Nm
- 2nd moment of area $I_y=6.8 \times 10^2 \text{mm}^4$
 $I_x=6.7 \times 10^2 \text{mm}^4$
- Weights
- Basic weight with zero stroke 7.3kg
- Weight/100mm stroke 0.5kg

► Forces and moments



Slider Type	Forces/Torques	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)
MBT60	STATIC	Max.1835	1700	3000	67	130	96
	DYNAMIC		1100	2000	43	105	76

* Having bigger value in case of selecting slider special specification (T,H)



* Fx depends on speed, see respective chart.

