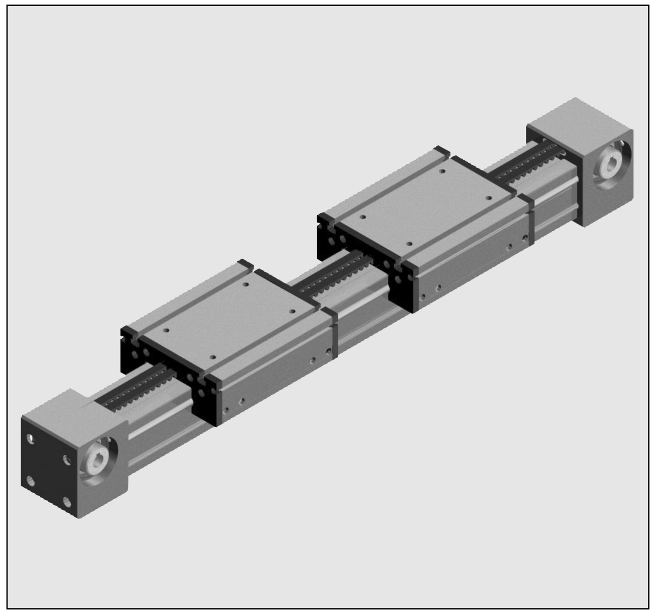


Features

- ● Combination of high speed linear guide and belt driving structure
- ● Optimized for multi-shaft combination system with quality and economic performance guaranteed
- ● Iron core reinforcing high tension timing belt applied
- ● Easy maintenance
- ● Responding to various customer requirements such as mounting, accessory formation, etc
- ● Able to conduct independent motion with application of two independent pulley, timing belt and block

Order type

MBB – 60 – ○ – S – 500 – 0 – 5

1 2 3 4 5 6 7

1 **TYPE**

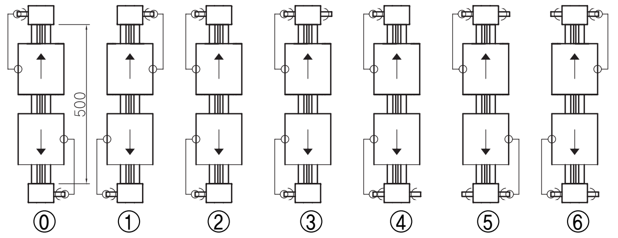
2 **Type number**
60, 80, 100

3 **Slider format**
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)**

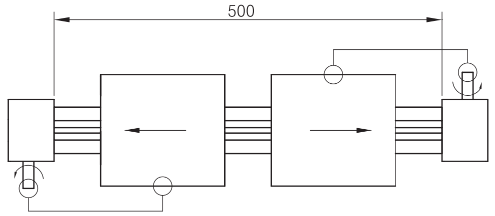
6 **Coupling attachment type & belt attaching location**



7 **Quantity**

▶ Ordering of Module

MBB – 60 – □ – S – 500 – 0 – 5



▶ Accessory

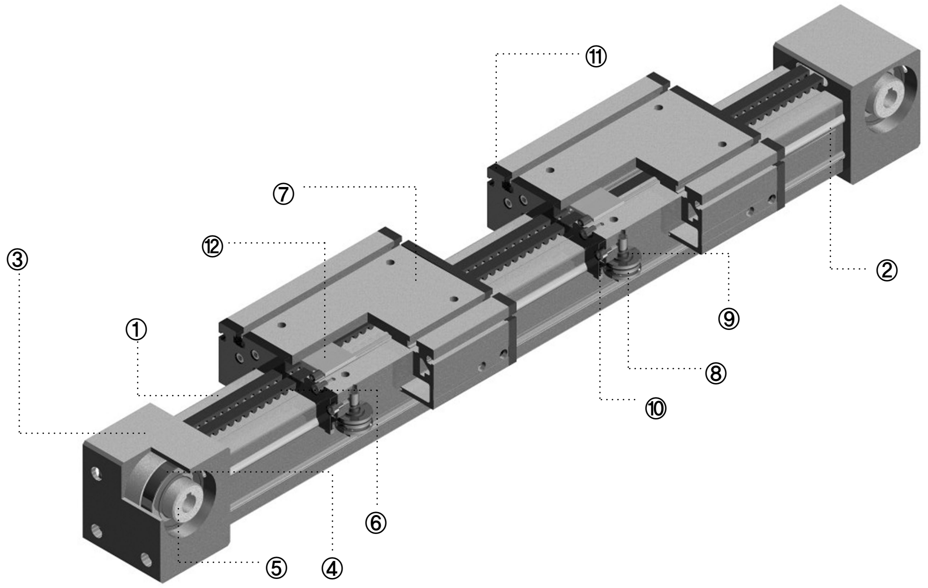
☐ **Motor** (Name of company :)
(Model name :)
(Power : 〈kw〉)

☐ **Reducer**
□Pulley Reducer
□기 타(Name of company :)
(Model name :)
(Reduction gear ratio :)

☐ **MSK (Sensor Bracket)**
□Photo Sensor
□Proximity Sensor

☐ **MBK (Mounting block)**
Quantity : EA

☐ **Urethane stopper**



▶ Specification of Components

No	Component name		Material	No	Component name	Material
1	Rail		Aluminum alloy	7	Rail	Aluminum alloy
2	Product No.	Shaft	Bearing steel	8	Track roller	Aluminum alloy
	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		Urethane	12	Belt clip	Carbon steel

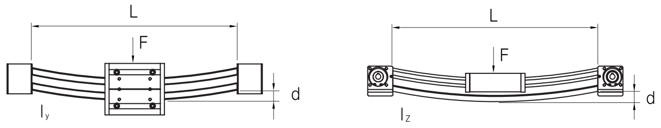
▶ Performance sheet

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

▶ Timing belt dimension and Rail size

Model No.	Length	Belt type	Belt width	Material of velt
60	6000	RPP5	09	Polyurethane With Steel cord
80	6000	RPP8	12	
100	6000	RPP8	20	

▶ Max. deflection of rail



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

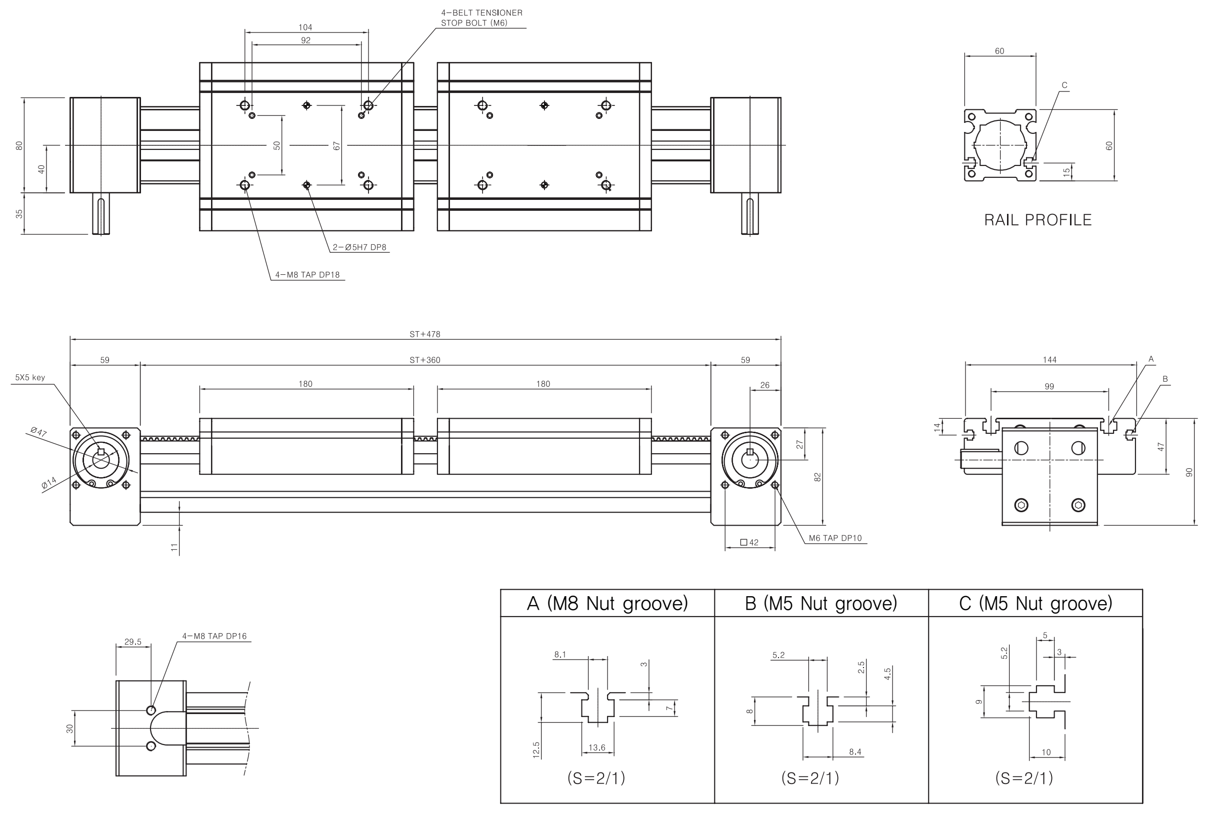
$$d = \frac{F \times L^3}{192 \times E \times I}$$

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]

MBB 60

Dimensions

(㎜)



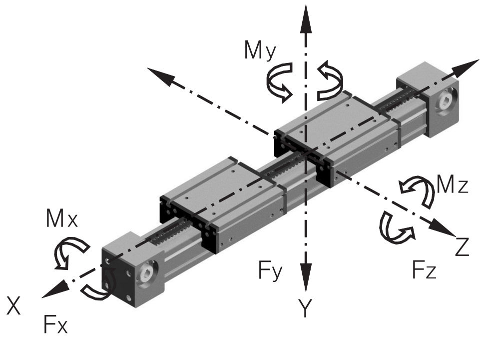
* Rails that esceed Max. rail length without joint also available on customer's request.

▶ Technical data

- Speed · Max. 5㎧
- Acceleration · Max. 20㎨
- Pulley P. C. D. · · · · · · · · · · · · · · · · · · · 41.38㎜
- Stroke per revolution · · · · · · · · · · · · · · · · ≒130㎜/rev.
- No-load torque · · · · · · · · · · · · · · · · · · · 0.61Nm
- 2'nd moment of area · · · · · · · · · · · · · · · · $I_y=6.8\times10^5$㎜^{4}
  $I_z=6.7\times10^5$㎜^{4}
- Weights

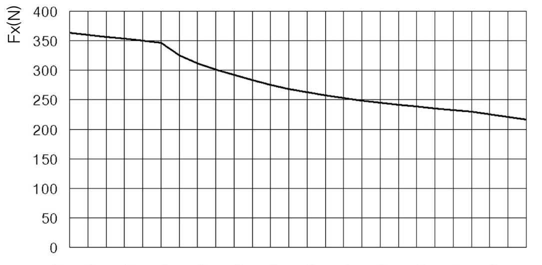
  Basic weight with zero stroke · · · · · · · · · · · 7.3㎏
  Weight/100㎜ stroke · · · · · · · · · · · · · · · · 0.5㎏

▶ Forces and moments



Slider Type	Forces/ Torques	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)
MBB60	STATIC	Max.363	1700	3000	67	130	96
	DYNAMIC		1100	2000	43	105	76

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

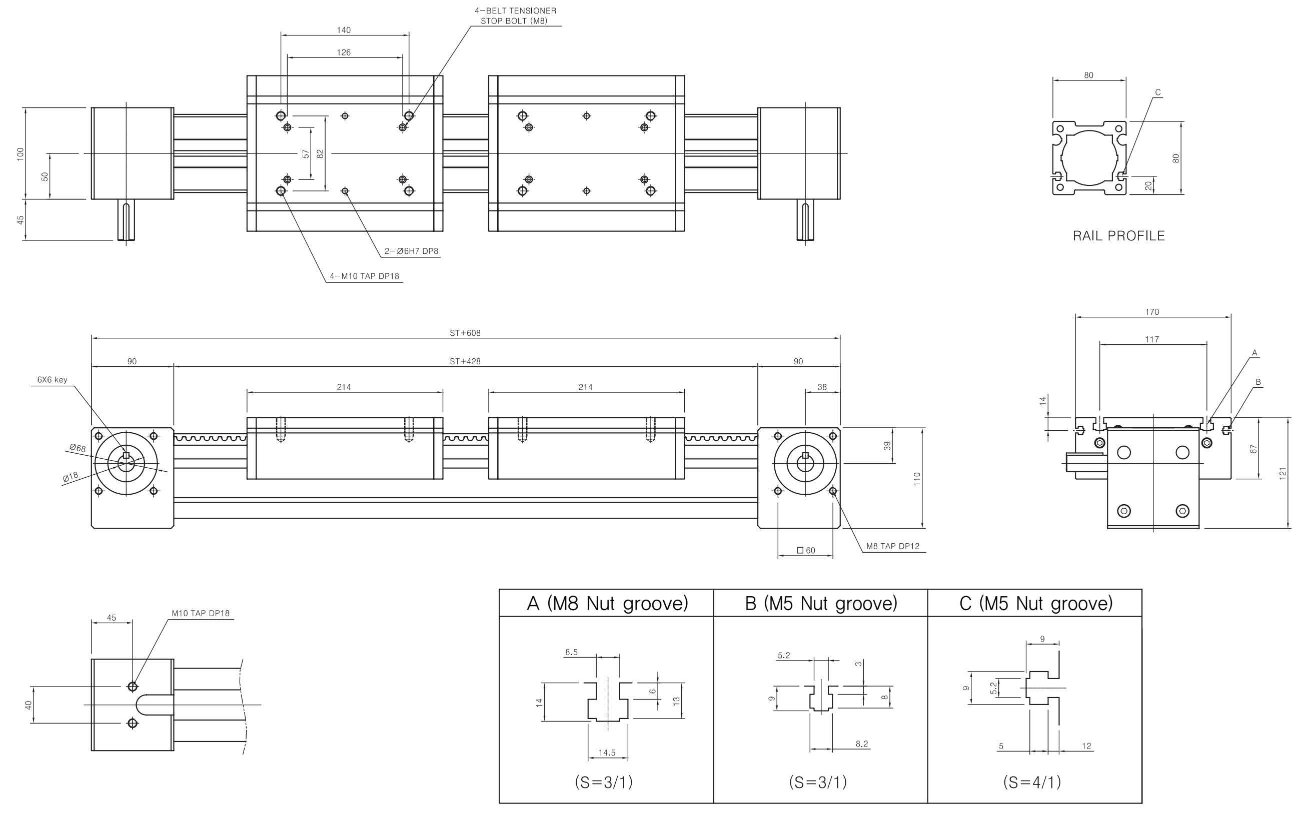


* Fx depends on speed, see respective chart.

MBB 80

Dimensions

(㎜)



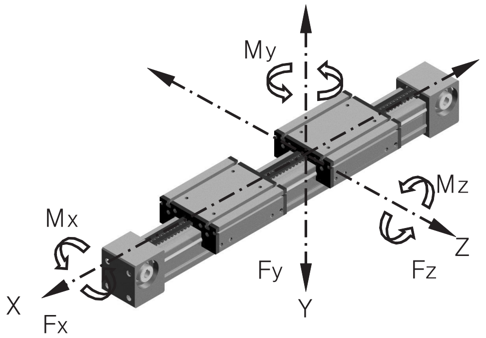
* Rails that esceed Max. rail length without joint also available on customer's request.

▶ Technical data

- Speed · Max. 6㎧
- Acceleration · Max. 20㎨
- Pulley P. C. D. · · · · · · · · · · · · · · · · · · · 61.12㎜
- Stroke per revolution · · · · · · · · · · · · · · · · ≒192㎜/rev.
- No-load torque · · · · · · · · · · · · · · · · · · · 0.93Nm
- 2'nd moment of area · · · · · · · · · · · · · · · · $I_y=21.01\times10^5$㎜^{4}
  $I_z=19.5\times10^5$㎜^{4}
- Weights

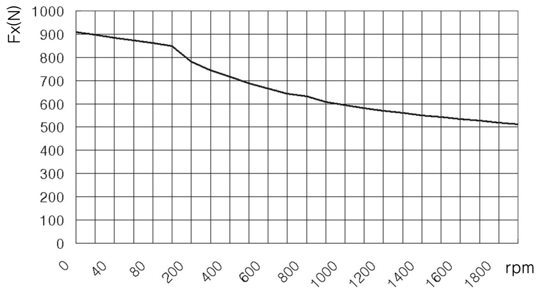
  Basic weight with zero stroke · · · · · · · · · · · 15.9㎏
  Weight/100㎜ stroke · · · · · · · · · · · · · · · · 0.8㎏

▶ Forces and moments



Slider Type	Forces/ Torques	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)
MBB80	STATIC	Max.908	1700	3000	90	162	116
	DYNAMIC		1100	2000	55	130	84

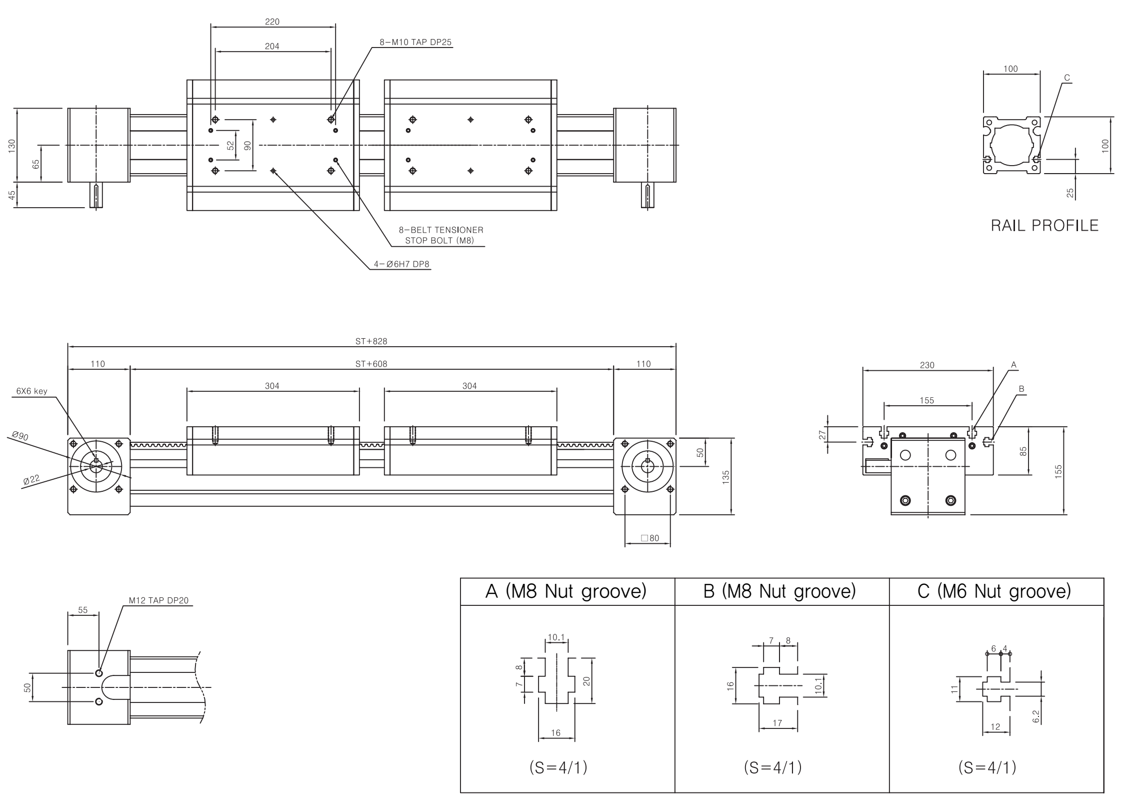
* Having bigger value in case of selecting slider special specification (T,H)



* Fx depends on speed, see respective chart.

Dimensions

(㎜)



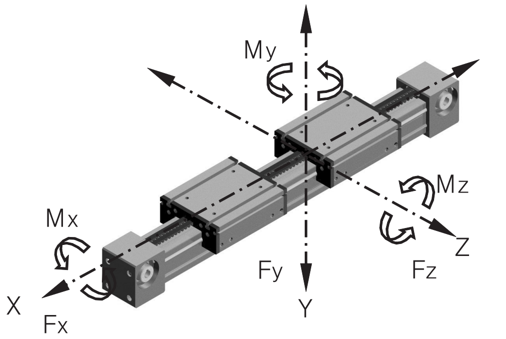
∗ Rails that esceed Max. rail length without joint also available on customer's request.

▶ Technical data

- Speed · Max. 10㎧
- Acceleration · Max. 20㎨
- Pulley P. C. D. · · · · · · · · · · · · · · · · · · · 81.49㎜
- Stroke per revolution · · · · · · · · · · · · · · · · ≒256㎜/rev.
- No-load torque · · · · · · · · · · · · · · · · · · · 1.44Nm
- 2'nd moment of area · · · · · · · · · · · · · · · · $I_y=54.2\times10^5$㎜^{4}
  $I_z=50.5\times10^5$㎜^{4}
- Weights

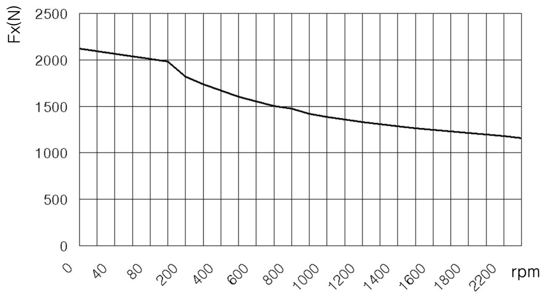
  Basic weight with zero stroke · · · · · · · · · · · 36.0㎏
  Weight/100㎜ stroke · · · · · · · · · · · · · · · · 1.4㎏

▶ Forces and moments



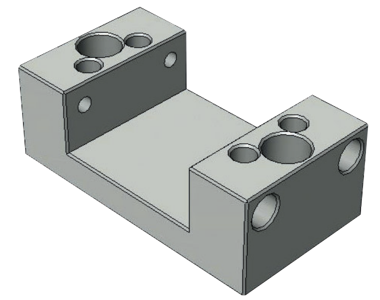
Slider Type	Forces/ Torques	Fx (N)	Fy (N)	Fz (N)	Mx (Nm)	My (Nm)	Mz (Nm)
MBB100	STATIC	Max.2120	3600	8000	300	770	422
	DYNAMIC		2200	6500	230	519	275

∗ Having bigger value in case of selecting slider special specification (T.H)



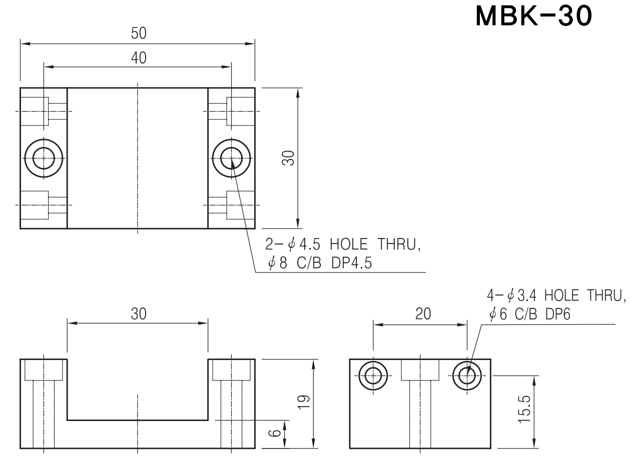
∗ Fx depends on speed, see respective chart.

Mounting block

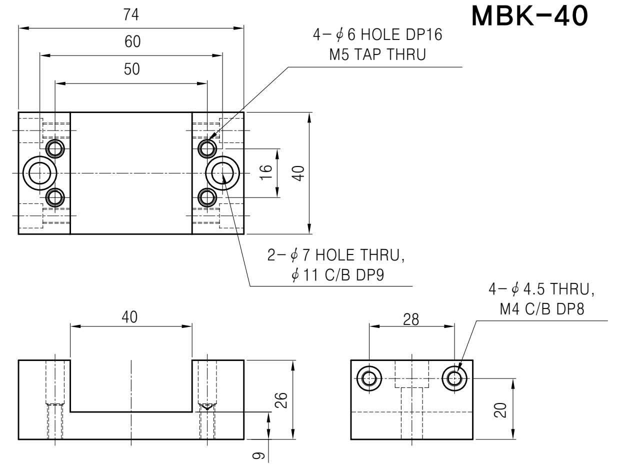


- ● Mounting block for M and Q series
- ● component for firm mounting with attaching at linear module
- ● High precision and strength guaranteed by one-bodied processing of aluminum alloy material
- ● Possible for additionally attaching along with linear module lengths

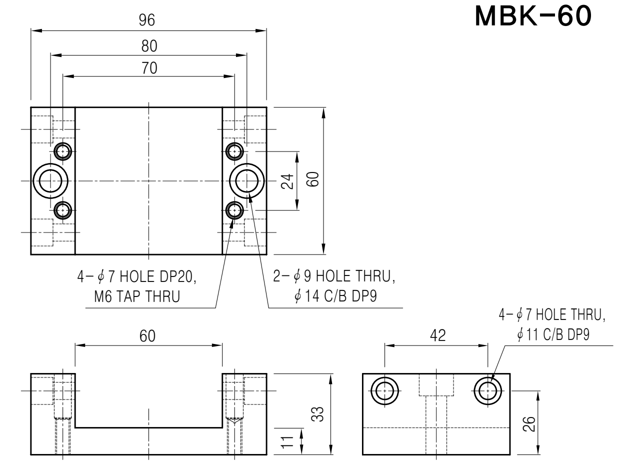
MBK-30



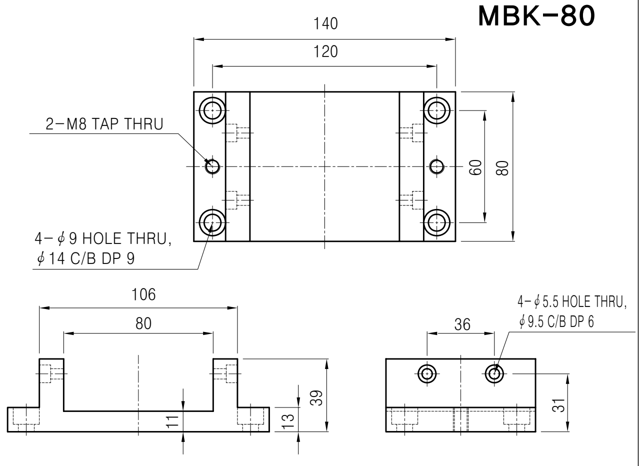
MBK-40



MBK-60



MBK-80



MBK-100