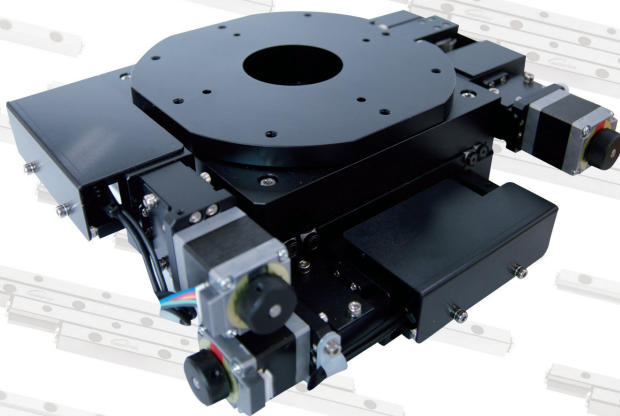


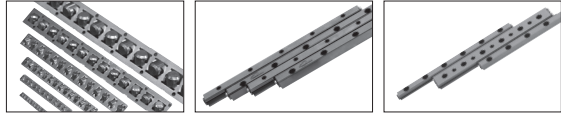
MENTOR

Product Line-Up

Cross Roller Slide Guide / Cross Roller Slide Table / Motorized Stage /
Dovetail Stage / Manual Stage / Micrometer Head



Crossed Roller Slide Guide



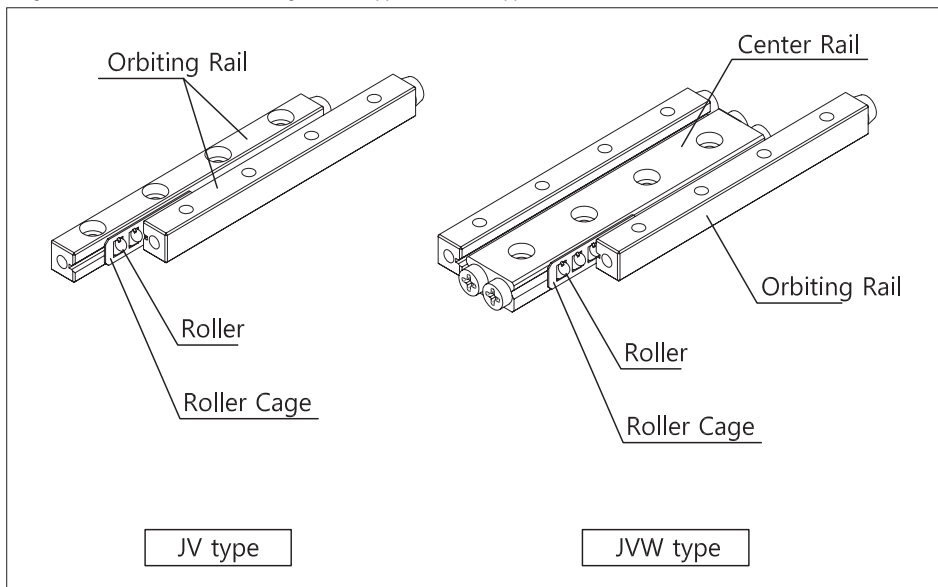
JV1/ JV2/ JV3/ JV4/ JV6/ JV9/ JVNB6/ JVNB9

JVW1/ JVW2/ JVW3/ JVW4

JC1/ JC2/ JC3/ JC4/ JC6/ JC9

Cross Roller Slide Guide

〈Fig.1〉 Structure of cross roller guide JV type and JVW type



Structure

MENTOR cross roller guide JV type is a linear guide instrument by assembling cage actively between two-patterned orbiting planes after making V-shaped two-surfaces as an orbiting groove. It is a highly rigid and precise linear motion system of limited type since rollers are arranged orthogonally so it may receive load from various directions. there are various kinds to choose from. It is in a wide range of applications in precision equipments such as OA instruments and peripherals, or in slides such as optical meter, optical stage, and handling equipments.

Features

Cross roller guide JV type is used by combining roller cage, which is assembled by arranging precision roller orthogonally, with the roller surface of 90 V groove which is manufactured onto its specialized rail. Since double-ranged roller guide is attached horizontally, the load from all directions passing through the axle at a right angle can be received.

High rigidity

There is no clearance since applying preload is quite simple. Furthermore, the contact length between the roller and the contact plane is long so that high rigidity can be obtained.

Soft motion

MENTOR cross roller guide JV type is at an orbiting surface of high precision. Plus, the roller with no skew phenomenon and accurate maintenance for its size is assembled into the cage, so that soft rolling motion with low rolling resistance without stick-slips can be acquired.

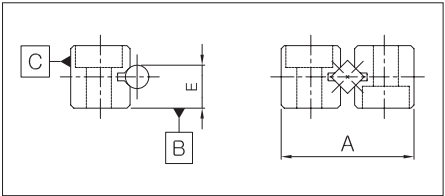
Easy to fix

Fixing holes in the orbiting plane are manufactured with counter and tap process. For fixing onto the orbiting plane, thus, there are two methods; the one is to fix it onto the tap of machine and installments. The other is to push the bolt from the machine and equipments and fix it. So there's no limitation to the fixing structure. Since orbiting plane has uniform structure of two-patterned orbiting planes in the inside, fixing structure is quite simple. Therefore, there is no manufacturing error in fixing part and linear motion of high precision can be obtained.

Accuracy size

Precision of a rail specialized for cross roller guide is classified into highly superior group and precision group according to <Table.1>

<Fig.2>

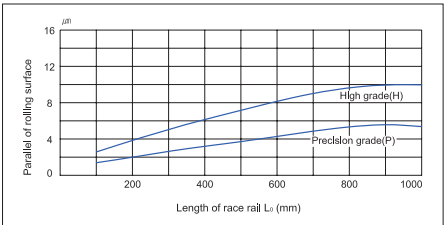


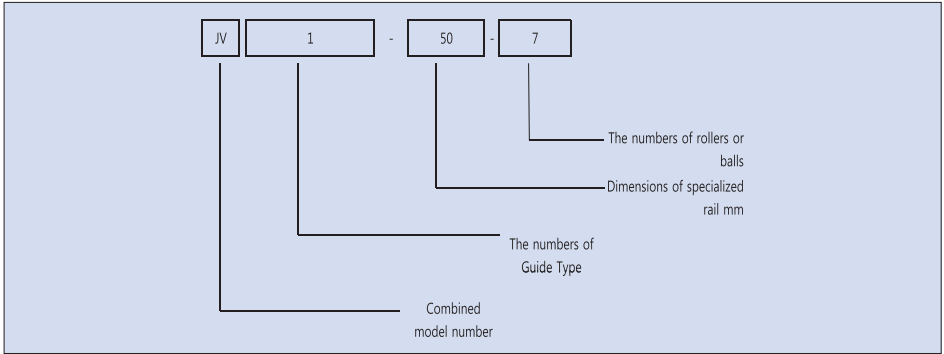
<Table 1>

Grade of precision	Highly superior group	Precision group
Items	H	P
Parallel of rolling surface to the side of B and C	Refer to <Fig.2>	
Permissible deviation in dimensions of height E	± 0.02	± 0.01
Pair deviation of height E (Note)	0.01	0.005
Permissible deviation in dimensions of width A	0 -0.2	0 -0.1

Note) Pair deviation of height E is applied to four-patterned rail used for the same surface.

<Fig.3> Length of a race rail and parallel of rolling surface





Formation of model number

Cross roller guide is organized as model number as follow. '1 set' in the number mentioned above means combination of four-patterned rail and two-patterned cage.

Basic static load capacity C_0

If excessive load is given to JV type when it is stalled or in motion, there occurs permanent transformation between rolling surface and vibrator. Basic static load capacity (C_0) is the load when the sum of permanent transformation volume of the rolling surface and vibrator is 0.0001 times more the diameter of the latter (Refer to Load capacity of each direction in B-11). If the sum of permanent transformation volume breaks 0.0001 times of the diameter, its motion will be adversely affected. Static safety factor (f_s) to the load should be considered in order to prevent it. (Refer to Static safety factor B-11)

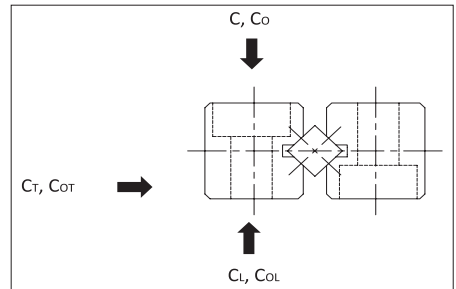
Basic dynamic load capacity

When each of JV types in the first group is in motion, the load that does not transform its size at the direction where 90% of the first group's rated life span reaches $L=100\text{km}$ is called basic dynamic load capacity C , which can be used for calculating life span. (Refer to B-12 rated life span L)

Load capacity in each direction

When each of JV types in the first group is in motion, the load that does not transform its size at the direction where 90% of the first group's rated life span reaches $L=100\text{km}$ is called basic dynamic load capacity C , which can be used for calculating life span. (Refer to B-12 rated life span L)

<Fig.4>



$$C = C_L = \left(\frac{Z}{2}\right)^{\frac{3}{4}} \times C_Z, C_T = 2C$$

$$C_0 = C_{0L} = \left(\frac{Z}{2}\right) \times C_{0Z}, C_{0T} = 2C_0$$

[Remove numbers coming after the decimal point for

$\left\lceil \frac{Z}{2} \right\rceil$

C_Z : Basic dynamic load capacity in the dimension table (kN)
 C_{0Z} : Basic static load capacity in the dimension table (kN)
 Z : The number of vibrator under use (The number within valid load)

Static safety factor f_s

Sudden external force can be created when JV type stops or is in motion due to vibration, impact or maneuvered stall. For this, static safety factor to the applied load needs to be taken into account.

$$f_s = \frac{C_0}{P_c}$$

f_s : Static Safety factor C_0 : Basic static load capacity
 P_c : Calculated load

Machine for use	Load condition	Lower limit of f_s
Standard industrial machine	With vibration or impact	1.0~1.3
	Without vibration or impact	2.0~3.0
Machine tools	With vibration or impact	1.0~1.5
	Without vibration or impact	2.5~7.0

Rated life span L

The life span of cross roller guide can be calculated with the following formula after basic dynamic load capacity is calculated.

$$L = \left(\frac{f_r}{f_w} \cdot \frac{C}{P_c} \right)^{\frac{10}{3}} \times 100$$

L : Rated life span (km)

(It's the total distance where 90% of the first group can reach without flaking when each of the same JV type in the first group is put in motion under the same condition.)

C : Basic dynamic load capacity (kN)

P_c : Calculated load (kN)

f_r : Temperature factor (Refer to picture 5)

f_w : Load factor (Refer to table 3)

When the length and lap number of stroke is uniform, service life can be figured by using the following formula after rated life span (L) is calculated from the formula mentioned above.

$$L_n = \frac{L \times 10^6}{2 \times l_s \times n_1 \times 60}$$

L_n : Life time (h)

l_s : Length of stroke (mm)

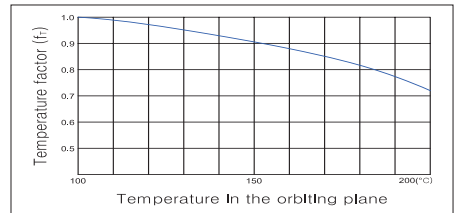
n_1 : Lap number per minute

(min⁻¹)

f_r : Temperature factor

When the environment temperature where the direct-acting system is used is over 100°C, temperature factor below should be multiplied considering the possible adverse effect caused by high temperature.

(Fig.4)



(Note) In case that environment temperature is over 100°C, contact MENTOR.

f_w : Load factor

Shuffling machines is likely to be affected by vibration or impact during drive. While driving high-speed, particularly, it is a lot more difficult to calculate each value precisely. Therefore, if the load applied to the direct-acting system cannot be calculated or the impact of speed vibration is large, the load factor in the table below should be divided into the basic load capacity (C) and (C_0).

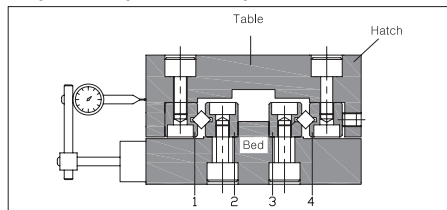
(Table.3)

Vibration • Impact	Velocity (V)	f_w
Meager	For meager speed $V \leq 0.25 \text{ m/s}$	1.0~1.2
Small	For low speed $0.25 < V \leq 1.0 \text{ m/s}$	1.2~1.5
Averager	For average speed $1.0 < V \leq 2.0 \text{ m/s}$	1.5~2.0
Large	For high speed $V > 2.0 \text{ m/s}$	2.0~3.5

Cross roller guide fixing method

When using clearance adjust bolt

〈 Fig.6 〉 Fixing cross roller guide



① Stick rail 2 and 3 to the base and rail 1 to the fixing plane precisely, and then firmly fasten the rail fixing bolt.

② Fasten rail 4 to the table temporarily.

Note) A fixing bolt for rails should be designed to be able to be fastened after being fixed.

③ Locate the base and table according to the 〈Fig.6〉 and then, insert the roller cage from the end. In case the cage failed to be inserted due to no clearance, try installing again after moving the rail 4 to the side to adjust bolt.

④ Set the dial gauge according to the 〈Fig.6〉. Regulate all adjust bolts uniformly by pushing the table gently on both sides until no vibration can be felt.

⑤ Fix the stopper at the end of a rail.

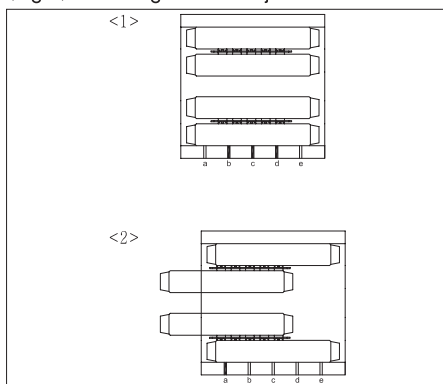
⑥ Rectify the location of the cage in order to obtain some scale of strokes by moving the table.

⑦ Locate the roller cage in the middle of a rail according to the 〈Fig.7〉 (1). Fasten the adjust bolts b, c, and d within the range of a roller uniformly by using a torque wrench until the dial gauge displays some displacement. Note) Displacement of the dial gauge is the preload of the roller cage in the first row.

⑧ Follow the procedure in the aforementioned and fasten the rest of the adjust bolts a and e by moving the table according to the 〈Fig.7〉 (2).

Note) When assembling several groups, calculate the fastening torque or slide frictional resistance force for the first group of adjust bolt. Then, from the second group, almost the same preload can be applied when assembled with same fastening torque or slide frictional resistance force of the first group.

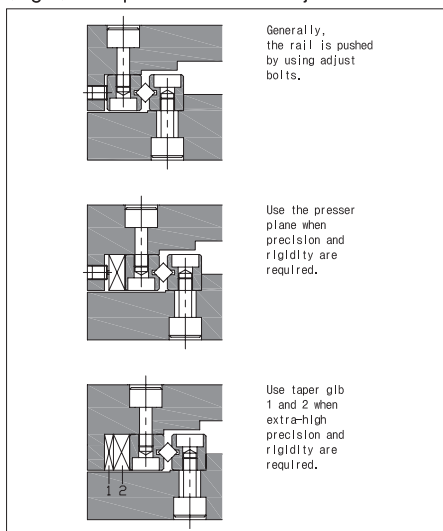
〈Fig.7〉 Fastening order of adjust bolts



Examples of clearance adjustment

Please design the adjust bolts in a way to press the same board with roller.

〈Fig.8〉 Examples of clearance adjustment



Preload of cross roller guide

Excess preload is the cause of errors such as denting or shortened service life. When fastening the adjust bolts, checking displacement value of the roller's fixing plane is needed. Permissible preload of the roller cage in the first row is displayed in the dimension table.

Precision of fixing plane

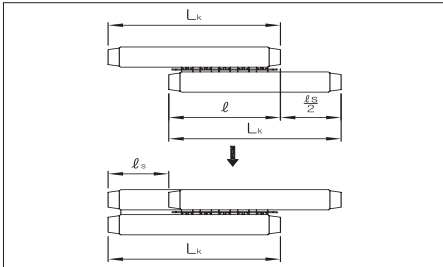
In order to obtain highly accurate driving precision, precision tolerance such as parallel or straightness of the rail fixing plane is required. The parallel and sectional level of the rail fixing plane is recommended to map with more than the equivalent of the parallel of a rail based on the grinding work (B-10 (Fig.3)). Likewise, the rail should be fixed precisely in the fixing plane.

Cautions when using

Length of a rail

Roller cage moves to the same direction as a half of table movement. Given that the length of a cage ℓ and that of stroke ℓ_s , the length of a rail (L_k) should be

$$L_k \geq \ell + \frac{\ell_s}{2} \quad \text{in order for a cage not to be overhung the orbiting plane.}$$



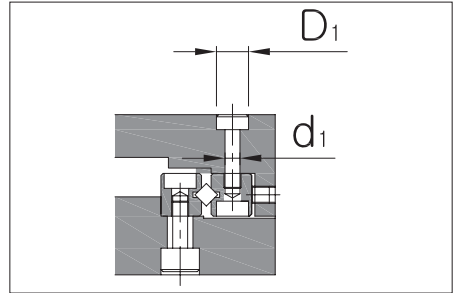
About stopper

Stopper is attached to the sectional side of a rail to prevent the cage from omitting. But the cage's frequent collision with the stopper, for example, due to over strokes creates the stopper's wear and loosening of its fixed screws. It certainly leads to the falling of a cage. Therefore, separate stopper needs to be made externally so that the occurrence of over strokes as well as the collision of a cage can be prevented.

Component parts

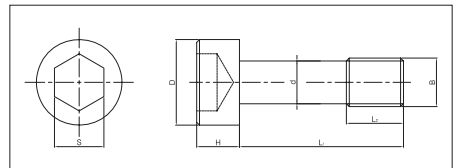
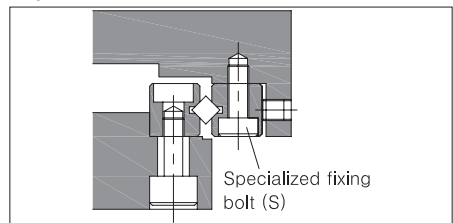
Fixing rails where clearance adjustment is needed should be fixed by using screw holes manufactured in a rail according to (Fig.9). In this case, bolt holes (d_1), and (D_1) needs to be manufactured in proportion to adjusted quantity.

(Fig.9)



If specific structure calls for fixing like the (Fig.10), fixing bolt (S) of this rail should have its own fixing bolt just like the one displayed in the (Table.4)

(Fig.10)

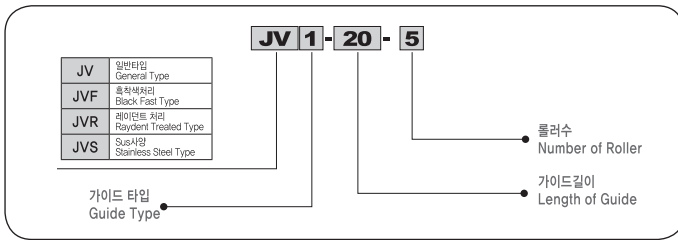
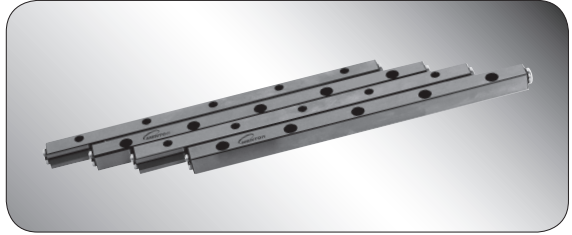


(Unit: mm)

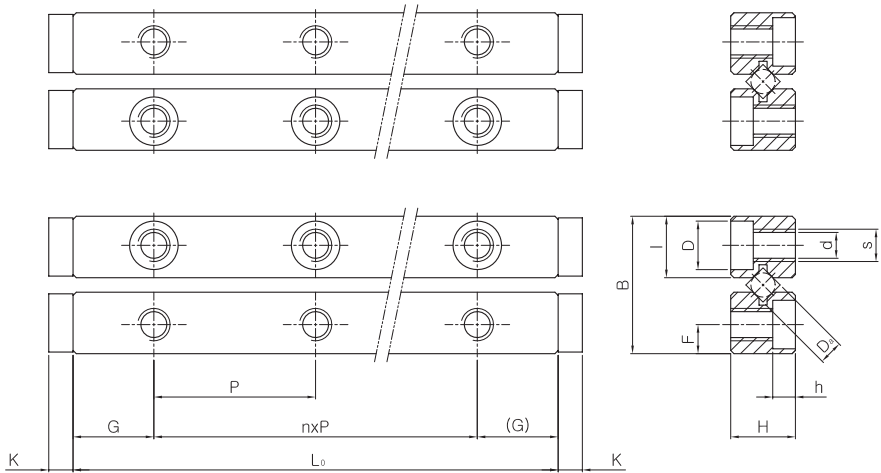
Model No.	B	d	D	H	L1	L2	S	Supported rail
MBT 3	M3X0.5	2.6	5	3	12	5	2.5	MVR 3
MBT 4	M4X0.7	3.5	5.8	4	15	7	3	MVR 4
MBT 6	M5X0.8	4.4	8	5	20	8	4	MVR 6
MBT 9	M6	5.3	8.5	6	30	11	5	MVR 9

JV 1

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스토로크 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JV 1 - 20 - 5	12	8.5	4	20	1 x 10	5	3.8	1.8	M2 x 0.4
JV 1 - 30 - 7	22			30	2 x 10				
JV 1 - 40 - 10	27			40	3 x 10				
JV 1 - 50 - 13	32			50	4 x 10				
JV 1 - 60 - 16	37			60	5 x 10				
JV 1 - 70 - 19	42			70	6 x 10				
JV 1 - 80 - 21	52			80	7 x 10				



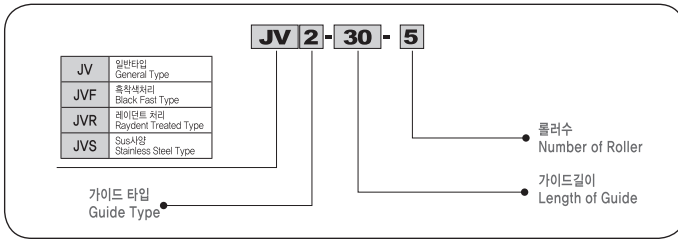
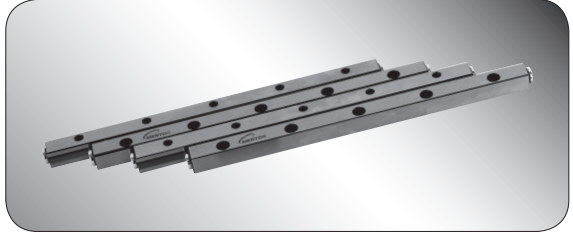
(Unit : mm)

Main Dimension						허용예압량 Permissible Preload δ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m
Assembling Dimension				케이지길이 Length of Cage C	롤러수 The number of roller Z		Cz KN	Coz KN	
d	D	h	K						
1.65	3	1.4	1.5	14	5	-2	0.152	0.153	0.11
				19	7				
				26.5	10				
				34	13				
				41.5	16				
				49	19				
				54	21				

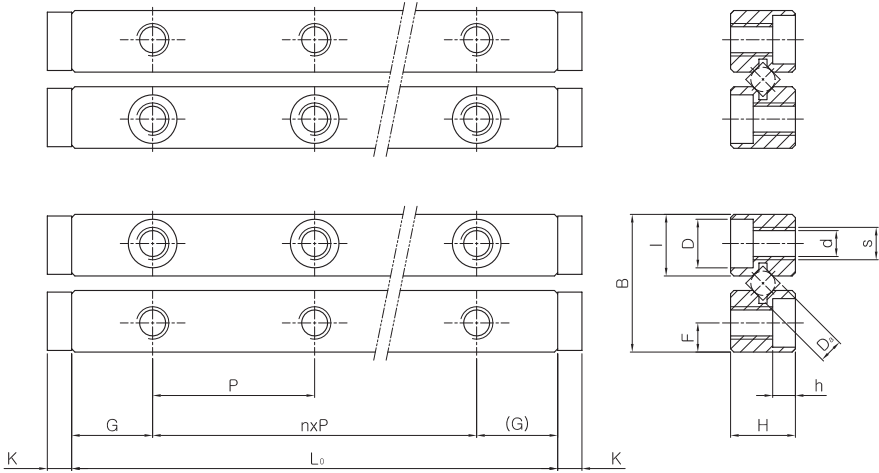
1kN = 102kgf

JV 2

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스โตร크 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JV 2 - 30 - 5	18	12	6	30	1 x 15	7.5	5.6	2.5	M3 x 0.5
JV 2 - 45 - 8	24			45	2 x 15				
JV 2 - 60 - 11	30			60	3 x 15				
JV 2 - 75 - 13	44			75	4 x 15				
JV 2 - 90 - 16	50			90	5 x 15				
JV 2 - 105 - 18	64			105	6 x 15				
JV 2 - 120 - 21	70			120	7 x 15				
JV 2 - 135 - 23	84			135	8 x 15				
JV 2 - 150 - 26	90			150	9 x 15				
JV 2 - 165 - 29	96			165	10 x 15				
JV 2 - 180 - 32	102			180	11 x 15				

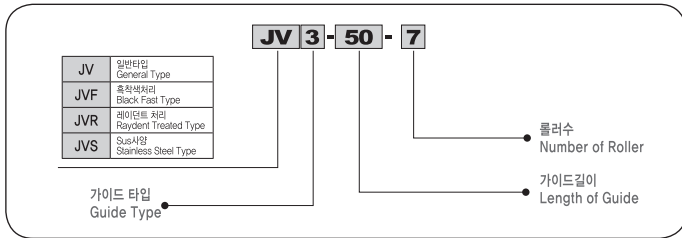
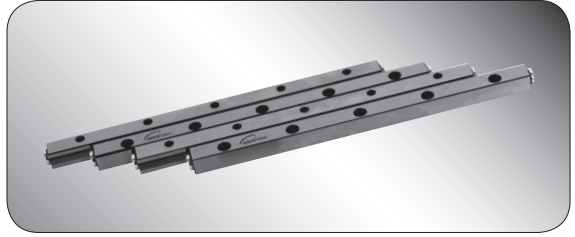


Main Dimension					허용예압량 Permissible Preload δ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m	
Assembling Dimension				케이지길이 Length of Cage C		롤러수 The number of roller Z	Cz KN		Coz KN
d	D	h	K						
2.55	4.4	2	2	21	5	-3	0.276	0.271	0.23
				33	8				
				45	11				
				53	13				
				65	16				
				73	18				
				85	21				
				93	23				
				105	26				
				117	29				
				129	32				

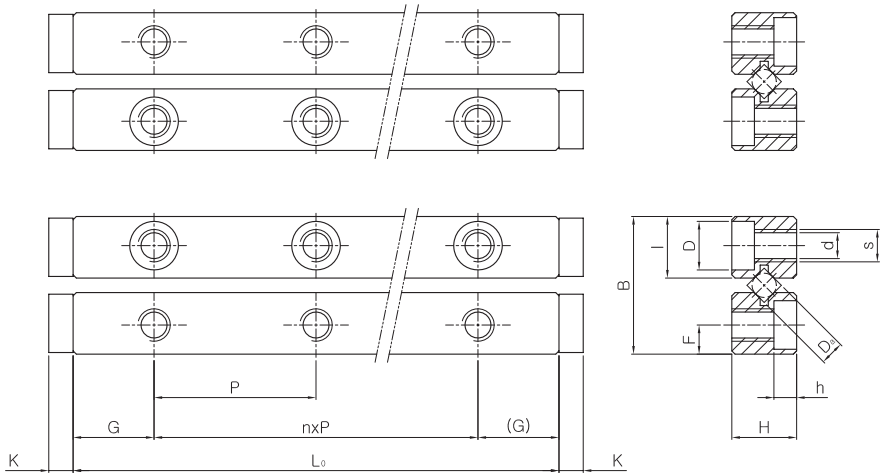
1kN = 102kgf

JV 3

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스โตร크 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JV 3 - 50 - 7	28	18	8	50	1 x 25	12.5	8.3	3.5	M4 x 0.7
JV 3 - 75 - 10	48			75	2 x 25				
JV 3 - 100 - 14	58			100	3 x 25				
JV 3 - 125 - 17	78			125	4 x 25				
JV 3 - 150 - 21	88			150	5 x 25				
JV 3 - 175 - 24	108			175	6 x 25				
JV 3 - 200 - 28	118			200	7 x 25				
JV 3 - 225 - 31	138			225	8 x 25				
JV 3 - 250 - 35	148			250	9 x 25				
JV 3 - 275 - 38	168			275	10 x 25				
JV 3 - 300 - 42	178			300	11 x 25				



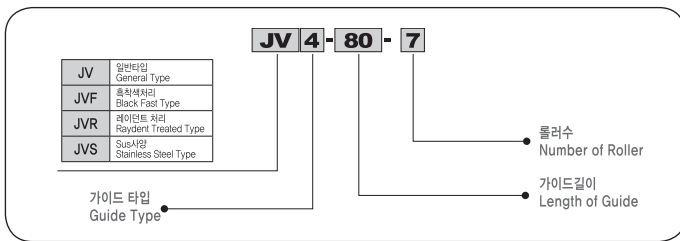
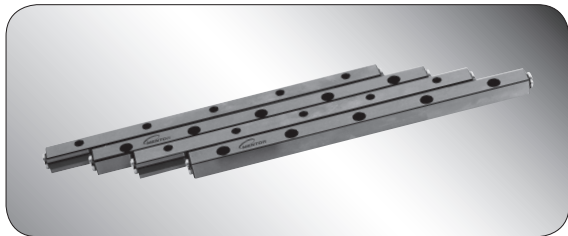
(Unit : mm)

Main Dimension					허용예압량 Permissible Preload δ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m	
Assembling Dimension				케이지길이 Length of Cage C		롤러수 The number of roller Z	Cz KN		Coz KN
d	D	h	K						
3.3	6	3.1	2.5	36	7	-4	0.639	0.611	0.45
				51	10				
				71	14				
				86	17				
				106	21				
				121	24				
				141	28				
				156	31				
				176	35				
				191	38				
				211	42				

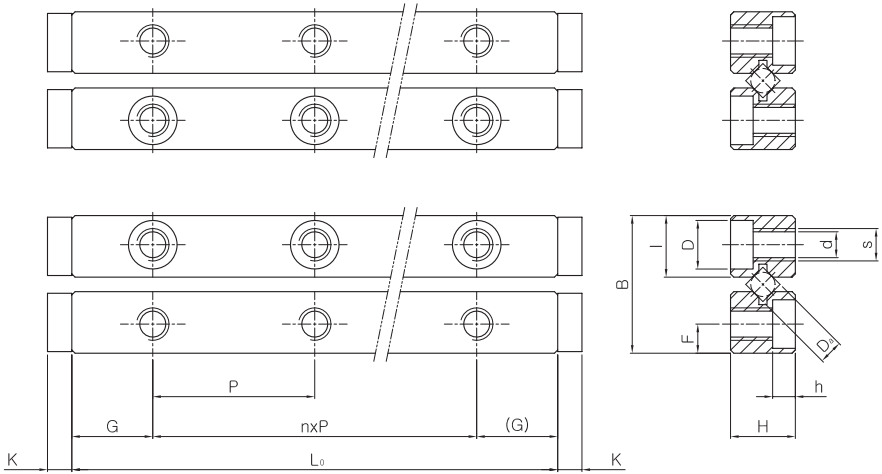
1kN = 102kgf

JV 4

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스โตร크 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JV 4 - 80 - 7	58	22	11	80	1 x 40	20	10.2	4.5	M5 x 0.8
JV 4 - 120 - 11	82			120	2 x 40				
JV 4 - 160 - 15	106			160	3 x 40				
JV 4 - 200 - 19	130			200	4 x 40				
JV 4 - 240 - 23	154			240	5 x 40				
JV 4 - 280 - 27	178			280	6 x 40				
JV 4 - 320 - 31	202			320	7 x 40				
JV 4 - 360 - 35	226			360	8 x 40				
JV 4 - 400 - 39	250			400	9 x 40				
JV 4 - 440 - 43	274			440	10 x 40				
JV 4 - 480 - 47	298			480	11 x 40				



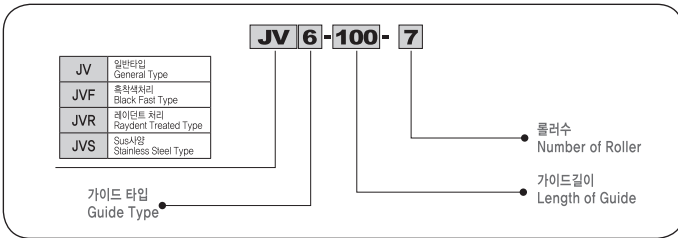
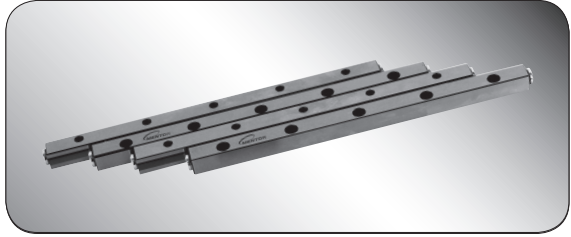
(Unit : mm)

Main Dimension						허용예압량 Permissible Preload δ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m
Assembling Dimension				케이지길이 Length of Cage C	롤러수 The number of roller Z		Cz KN	Coz KN	
d	D	h	K						
4.3	8	4.2	2.5	51	7	-5	1.38	1.35	0.8
				79	11				
				107	15				
				135	19				
				163	23				
				191	27				
				219	31				
				247	35				
				275	39				
				303	43				
				331	47				

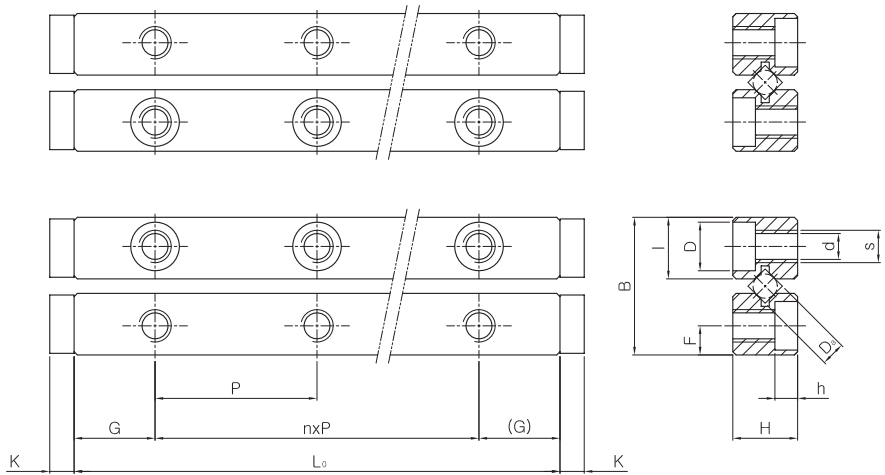
1kN = 102kgf

JV 6

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스โตร크 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JV 6 - 100 - 7	56	30	15	100	1 x 50	25	14.4	6	M6 x 1.0
JV 6 - 150 - 10	96			150	2 x 50				
JV 6 - 200 - 13	136			200	3 x 50				
JV 6 - 250 - 17	156			250	4 x 50				
JV 6 - 300 - 20	196			300	5 x 50				
JV 6 - 350 - 24	216			350	6 x 50				
JV 6 - 400 - 27	256			400	7 x 50				
JV 6 - 450 - 31	276			450	8 x 50				
JV 6 - 500 - 34	316			500	9 x 50				
JV 6 - 550 - 38	336			550	10 x 50				
JV 6 - 600 - 41	376			600	11 x 50				



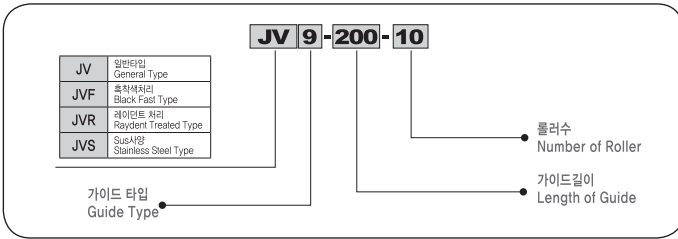
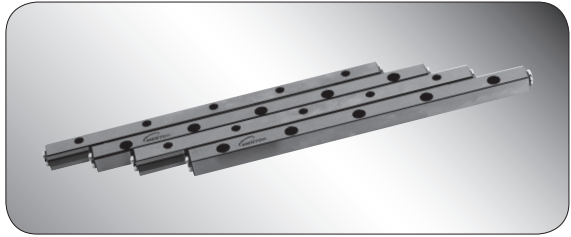
(Unit : mm)

Main Dimension					허용예압량 Permissible Preload δ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m	
Assembling Dimension				케이지길이 Length of Cage C		롤러수 The number of roller Z	Cz KN		Coz KN
d	D	h	K						
5.2	9.5	5.2	3	72	7	-7	3.78	3.78	1.5
				102	10				
				132	13				
				172	17				
				202	20				
				242	24				
				272	27				
				312	31				
				342	34				
				382	38				
				412	41				

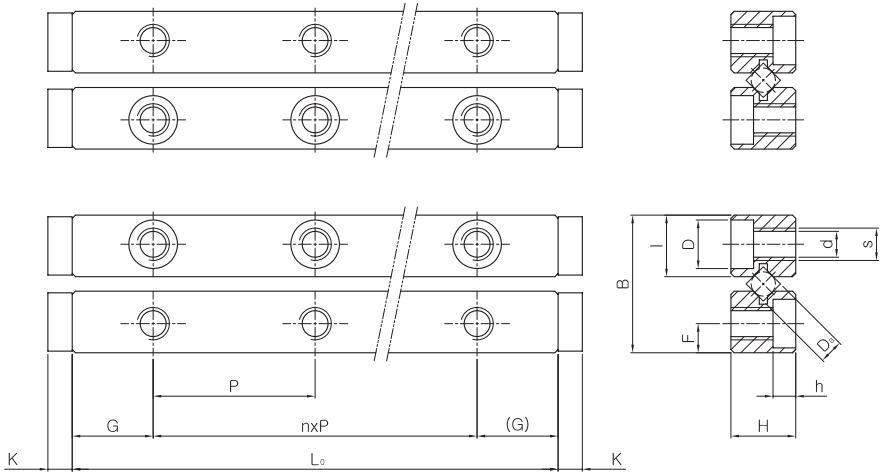
1kN = 102kgf

JV 9

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스토로크 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JV 9 - 200 - 10	118	40	20	200	1 x 100	50	19.2	8	M8 x 1.25
JV 9 - 300 - 15	178			300	2 x 100				
JV 9 - 400 - 20	238			400	3 x 100				
JV 9 - 500 - 25	298			500	4 x 100				
JV 9 - 600 - 30	358			600	5 x 100				
JV 9 - 700 - 35	418			700	6 x 100				
JV 9 - 800 - 40	478			800	7 x 100				
JV 9 - 900 - 45	538			900	8 x 100				
JV 9 - 1000 - 50	598			1000	9 x 100				
JV 9 - 1100 - 55	658			1100	10 x 100				
JV 9 - 1200 - 60	718			1200	11 x 100				



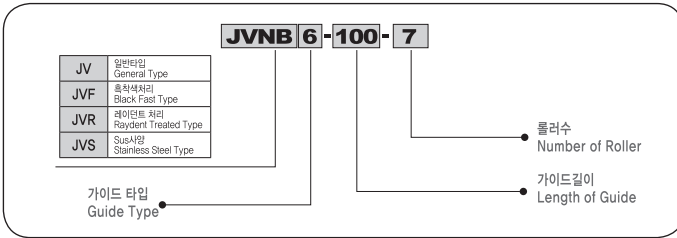
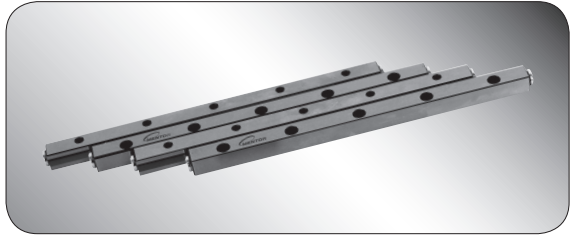
(Unit : mm)

Main Dimension						허용예압량 Permissible Preload $\hat{\delta}$ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m
Assembling Dimension				케이지길이 Length of Cage C	롤러수 The number of roller Z		Cz KN	CoZ KN	
d	D	h	K						
6.8	10.5	6.2	3	141	10	-10	9.53	9.48	3.2
				211	15				
				281	20				
				351	25				
				421	30				
				491	35				
				561	40				
				631	45				
				701	50				
				771	55				
				841	60				

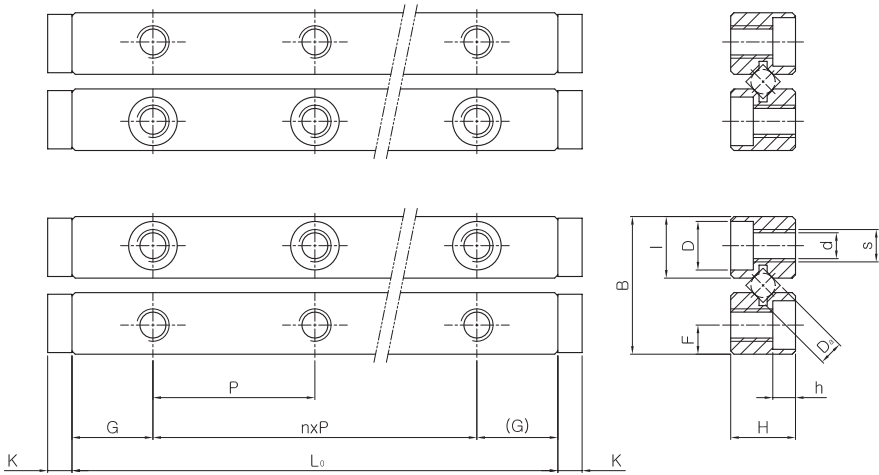
1kN = 102kgf

JVNB6

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스โตร크 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JVNB 6 - 100 - 7	56	31	15	100	1 x 50	25	14.2	6	M6 x 1.0
JVNB 6 - 150 - 10	96			150	2 x 50				
JVNB 6 - 200 - 13	136			200	3 x 50				
JVNB 6 - 250 - 17	156			250	4 x 50				
JVNB 6 - 300 - 20	196			300	5 x 50				
JVNB 6 - 350 - 24	216			350	6 x 50				
JVNB 6 - 400 - 27	256			400	7 x 50				
JVNB 6 - 450 - 31	276			450	8 x 50				
JVNB 6 - 500 - 34	316			500	9 x 50				
JVNB 6 - 550 - 38	336			550	10 x 50				
JVNB 6 - 600 - 41	376			600	11 x 50				



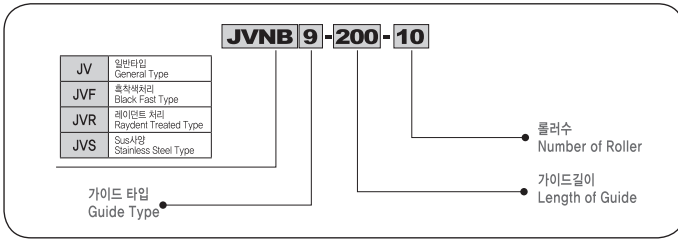
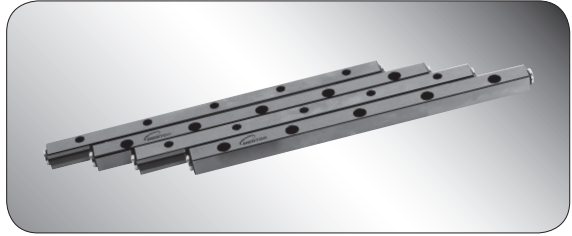
(Unit : mm)

Main Dimension						허용예압량 Permissible Preload δ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m
Assembling Dimension				케이지길이 Length of Cage C	롤러수 The number of roller Z		Cz KN	Coz KN	
d	D	h	K						
5.2	9.5	5.2	3	72	7	-7	3.78	3.78	1.5
				102	10				
				132	13				
				172	17				
				202	20				
				242	24				
				272	27				
				312	31				
				342	34				
				382	38				
				412	41				

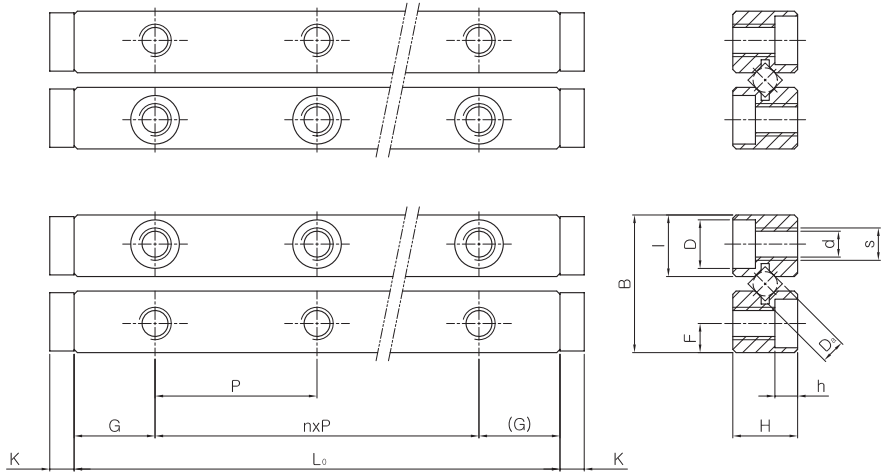
1kN = 102kgf

JVNB9

크로스 롤러 슬라이드 가이드
Crossed - Roller Slide Guide



Specification Model	스토록 Stroke	주요치수							
		조합지수 Combination Dimension			장착치수				
		B	H	Lo	n x P	G	I	F	S
JVNB 9 - 200 - 10	118	44	22	200	1 x 100	50	20.2	9	M8 x 1.25
JVNB 9 - 300 - 15	178			300	2 x 100				
JVNB 9 - 400 - 20	238			400	3 x 100				
JVNB 9 - 500 - 25	298			500	4 x 100				
JVNB 9 - 600 - 30	358			600	5 x 100				
JVNB 9 - 700 - 35	418			700	6 x 100				
JVNB 9 - 800 - 40	478			800	7 x 100				
JVNB 9 - 900 - 45	538			900	8 x 100				
JVNB 9 - 1000 - 50	598			1000	9 x 100				



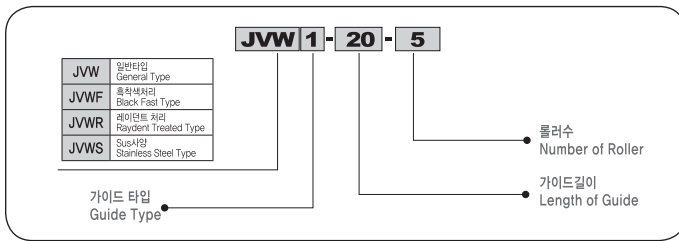
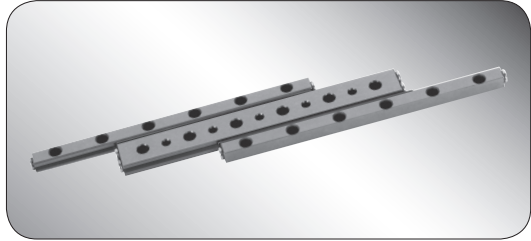
(Unit : mm)

Main Dimension						허용예압량 Permissible Preload δ μm	기본정격하중(롤러 1개당) Basic Proper Load (Per 1 roller)		질량(레일) Weight of Rail Kg/m
Assembling Dimension				케이지길이 Length of Cage C	롤러수 The number of roller Z		Cz KN	Coz KN	
d	D	h	K						
6.8	10.5	6.2	3	141	10	-10	9.53	9.48	3.2
				211	15				
				281	20				
				351	25				
				421	30				
				491	35				
				561	40				
				631	45				
				701	50				

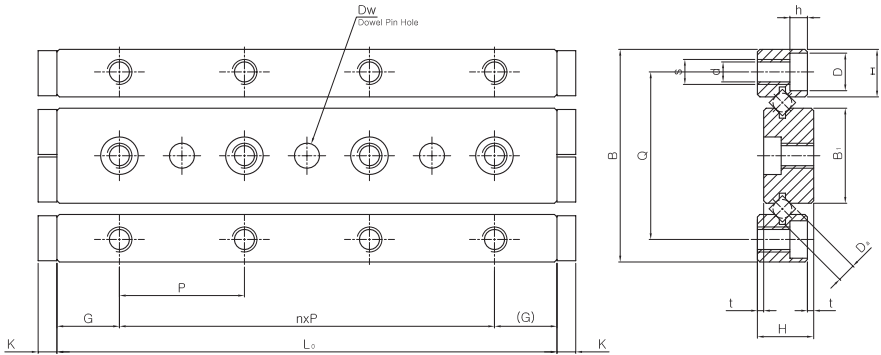
1kN = 102kgf

JVW 1

와이드 타입, 크로스 롤러 슬라이드 가이드
Wide Type, Crossed-Roller Slide Guide



Specification Model	스트로크 Stroke	D _a	롤러수 The number of roller Z	주요치수						
				Lo	H	t	B	B ₁	I	Q
JVW 1 - 20 - 5	12	1.5	5	20	4.5	0.5	17	7.6	3.8	13.4
JVW 1 - 30 - 7	22		7	30						
JVW 1 - 40 - 10	27		10	40						
JVW 1 - 50 - 13	32		13	50						
JVW 1 - 60 - 16	37		16	60						
JVW 1 - 70 - 19	42		19	70						
JVW 1 - 80 - 21	52		21	80						



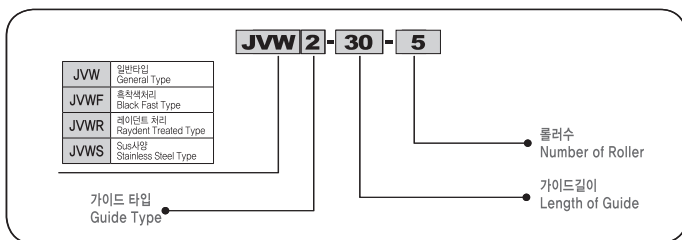
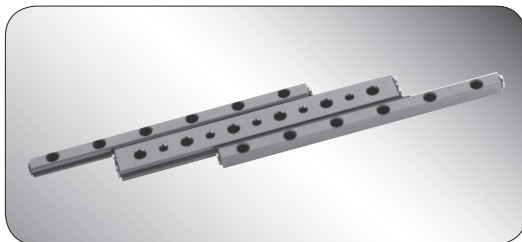
(Unit : mm)

Main Dimension								기본정격하중 Basic Proper Load		질량(레일) Weight of Rail
n x P	G	S	d	D	h	K	Dw	Cz KN	Coz KN	Kg/m
1 x 10	5	M2 x 0.4	1.65	3	1.4	1.5	2 + 0.020	34	31	0.46
2 x 10								46	47	
3 x 10								68	78	
4 x 10								78	94	
5 x 10								96	125	
6 x 10								105	140	
7 x 10								114	156	

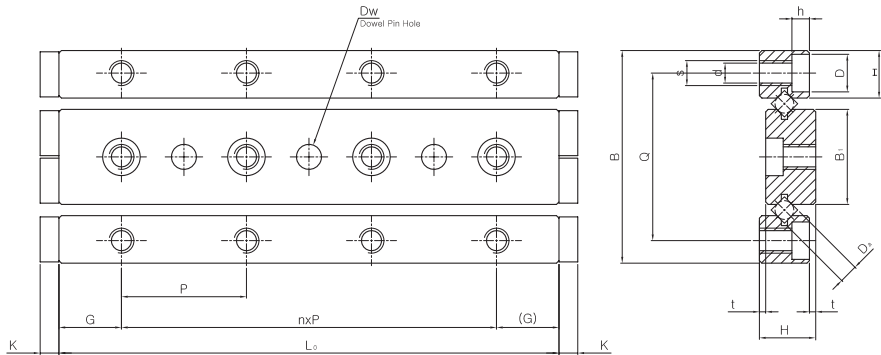
1KN = 102kgf

JVW 2

와이드 타입, 크로스 롤러 슬라이드 가이드
Wide Type, Crossed-Roller Slide Guide



Specification Model	스트로크 Stroke	D _s	롤러수 The number of roller Z	주요치수						
				Lo	H	t	B	B ₁	I	Q
JVW 2 - 30 - 5	18	2	5	30	6.5	0.5	24	11	5.5	19
JVW 2 - 45 - 8	24		8	45						
JVW 2 - 60 - 11	30		11	60						
JVW 2 - 75 - 13	44		13	75						
JVW 2 - 90 - 16	50		16	90						
JVW 2 - 105 - 18	64		18	105						
JVW 2 - 120 - 21	70		21	120						



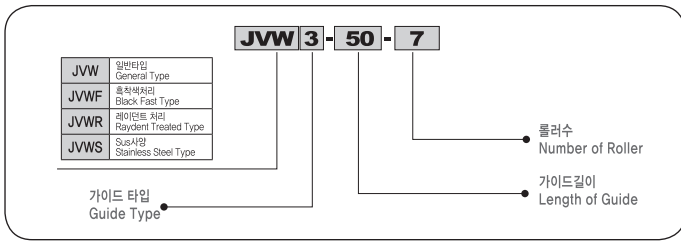
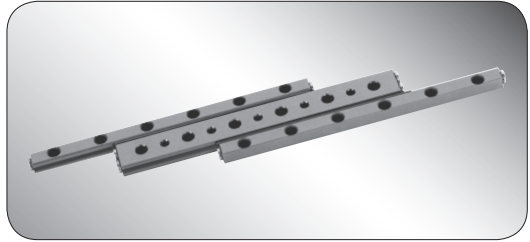
(Unit : mm)

Main Dimension								기본정격하중 Basic Proper Load		질량(레일) Weight of Rail Kg/m
n x P	G	S	d	D	h	K	D _w	C _z KN	C _{oz} KN	
1 x 15	7.5	M3 x 0.5	2.55	4.4	2	2	3 + 0.020	59	59	0.98
2 x 15								100	118	
3 x 15								118	147	
4 x 15								135	176	
5 x 15								168	235	
6 x 15								184	265	
7 x 15								199	294	

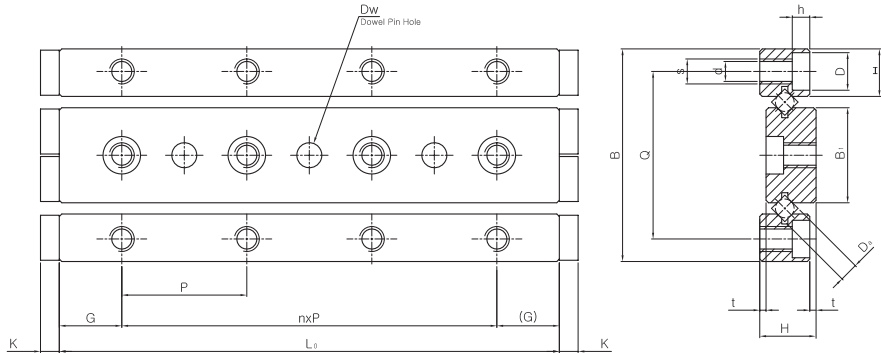
1KN = 102kgf

JVW 3

와이드 타입, 크로스 롤러 슬라이드 가이드
Wide Type, Cross-Roller Slide Guide



Specification Model	스โตร크 Stroke	D.	롤러수 The number of roller Z	주요치수						
				Lo	H	t	B	B ₁	I	Q
JVW 3 - 50 - 7	28	3	7	50	8.5	0.5	36	16.6	8.3	29
JVW 3 - 75 - 10	48		10	75						
JVW 3 - 100 - 14	58		14	100						
JVW 3 - 125 - 17	78		17	125						
JVW 3 - 150 - 21	88		21	150						
JVW 3 - 175 - 24	108		24	175						
JVW 3 - 200 - 28	118		28	200						



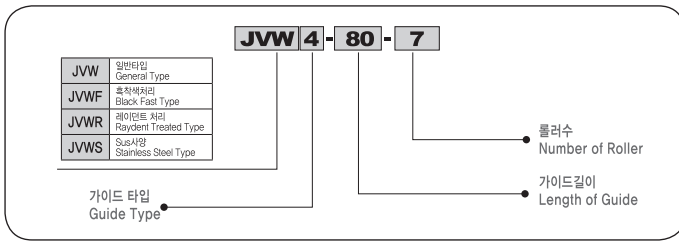
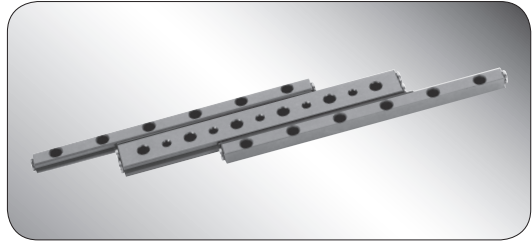
(Unit : mm)

Main Dimension								기본정격하중 Basic Proper Load	질량(레일) Weight of Rail	
n x P	G	S	d	D	h	K	D _w	C _z KN	C _{oz} KN	Kg/m
1 x 25	12.5	M4 x 0.7	3.3	6	3.1	2.5	4	180	212	1.94
2 x 25								264	353	
3 x 25								340	494	
4 x 25								376	565	
5 x 25								444	706	
6 x 25								510	847	
7 x 25								572	988	

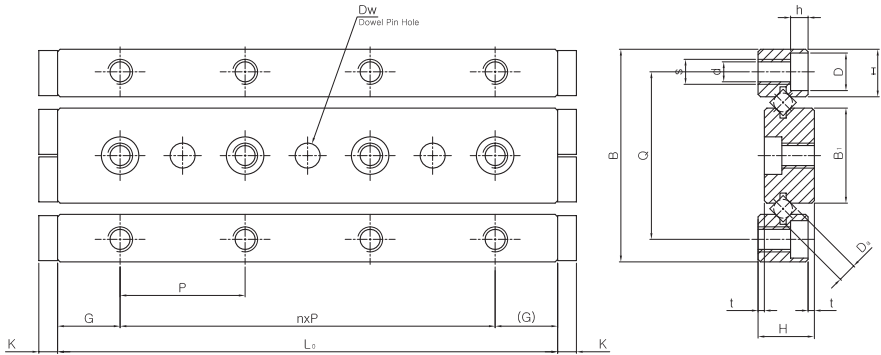
1KN = 102kgf

JVW 4

와이드 타입, 크로스 롤러 슬라이드 가이드
Wide Type, Crossed-Roller Slide Guide



Specification Model	스트로크 Stroke	D _s	롤러수 The number of roller Z	주요치수						
				Lo	H	t	B	B ₁	I	Q
JVW 4 - 80 - 7	58	4	7	80	11.5	0.5	44	20.4	10.2	35
JVW 4 - 120 - 11	82		11	120						
JVW 4 - 160 - 15	106		15	160						
JVW 4 - 200 - 19	130		19	200						
JVW 4 - 240 - 23	154		23	240						
JVW 4 - 280 - 27	178		27	280						



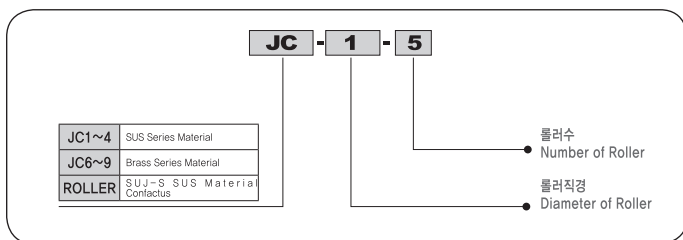
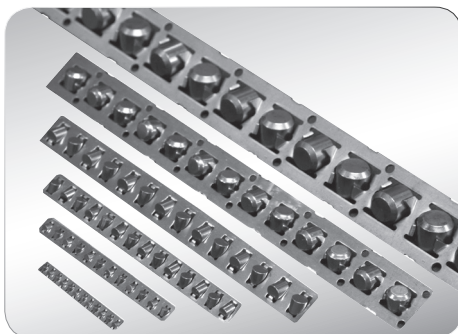
(Unit : mm)

Main Dimension								기본정격하중 Basic Proper Load		질량(레일) Weight of Rail
n x P	G	S	d	D	h	K	D _w	C _z KN	C _{oz} KN	Kg/m
1 x 40	20	M5 x 0.8	4.3	8	4.5	2.5	5	356	435	3.36
2 x 40								522	725	
3 x 40								672	1020	
4 x 40								812	1310	
5 x 40								943	1600	
6 x 40								1070	1890	

1KN = 102Kgf

JC

롤러 케이지
Roller Cage

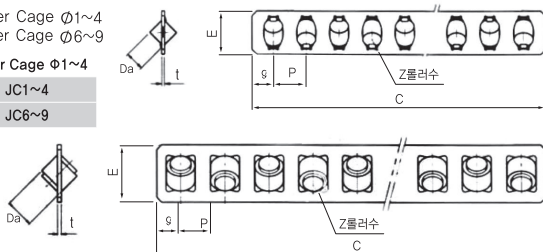


Roller Cage $\phi 1 \sim 4$
Roller Cage $\phi 6 \sim 9$

Roller Cage $\phi 1 \sim 4$

JC1~4

JC6~9



Specification Model	적용가이드 Applicable Guide	주 요 치 수 Main Dimension					기본정격하중 Basic Proper Load	
		D _a	t	E	P	g	C _z KN	Co _z KN
JC 1	JV1	1.5	0.2	3.5	2.5	2	0.069	21.6
JC 2	JV2	2	0.3	5	4	2.5	0.127	39.2
JC 3	JV3	3	0.4	7	5	3	0.275	87.3
JC 4	JV4	4	0.4	9	7	4.5	0.637	155
JC 6	JV6	6	0.8	13	10	6	1.76	353
JC 9	JV9	9	1.2	18	14	7.5	4.36	784

Crossed Roller Slide Table



B

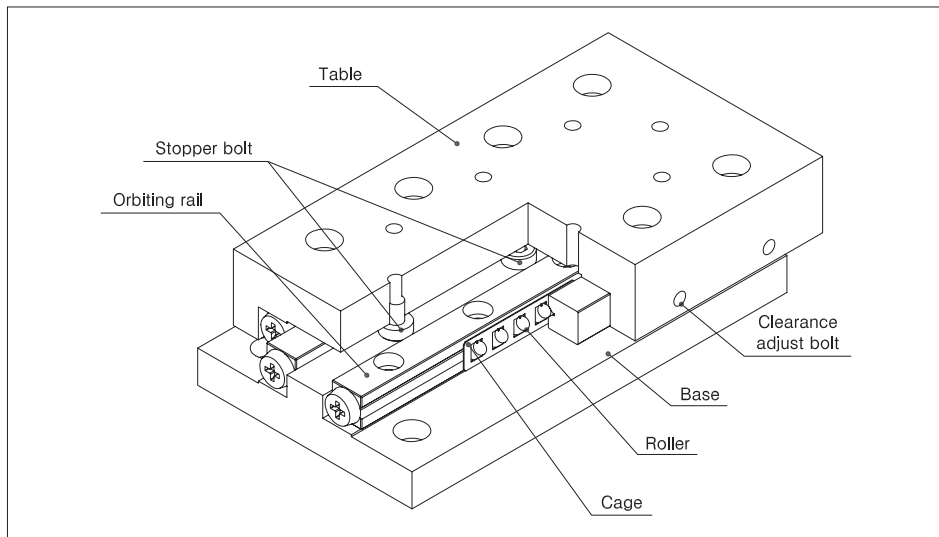
JVT 1/ 2/ 3

JVT 1-A/ 2-A/ 3-A

JVU 1/ 2/ 3/ 4/ 6/ 9

Cross Roller Slide Table Guide

〈Fig. 1〉 Structure of cross roller rotary guide model



Structure

Cross roller table is of high-precision, compact and linear guide instrument through addembling MENTOR cross roller linear guide JVU type between the table and base manufactured with superior precision. Rigidity and soft linear motion can be acquired since there's no elastic displacement against the load from each direction. There are JVU type and miniature version of JVT type for limited cross roller table. It is widely used for OA instruments and peripherals, precision equipments such as meters, printed circuit board hole manufacturer or slides including universal center lathe, tool grinders, internal grinding machine, small-sized surface grinder, and computerized wire-cut.

Features

■ High precision

High precision with stable linear motion can be achieved by mounting uniformly-structured orbiting plane to the base of simple structure with no manufacture errors. For opposite table side, stable linear motion with high precision can be achieved by assembling MENTOR cross roller linear guide JVU type.

■ High rigidity

The rigidity of table and base is made to be high by integrating the component parts. Moreover, the elastic displacement is small so that high rigidity is obtained for the load from each direction.

■ Wide range of permissible load

A roller with heavy load rating is assembled with fine pitch. Hence it resists heavy load and has such longevity by consisting of linear guide machine with high rigidity.

■ Simple Installation

As the cross roller guide is assembled between the table and the base that have been processed with high precision level, the linear guide of high precision can be obtained.

■ Outstanding resistance to corrosion

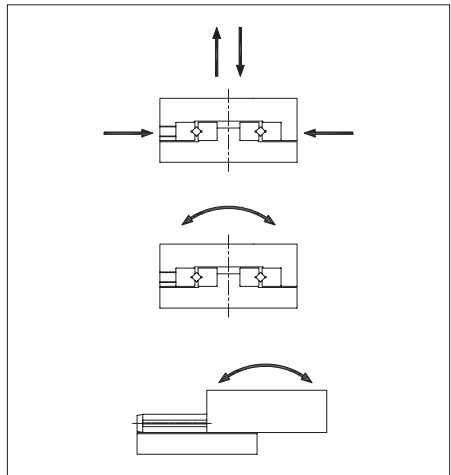
- Stainless + light-type aluminum
(JVWS, JVTs, JVTs-A type)

the table of JVWS type and JVTs-A type adopts aluminum material. Furthe, the rail and roller gauge adopts stainless, making it possible that product is light and highly resistant to corrosion.

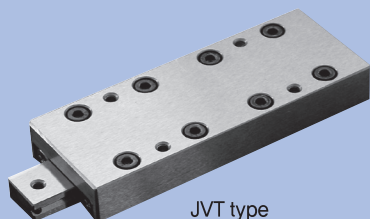
■ Various kinds of using methods

Since the rollers are arranged orthogonally by turns, loads from every direction applied to the table are uniformly carried.

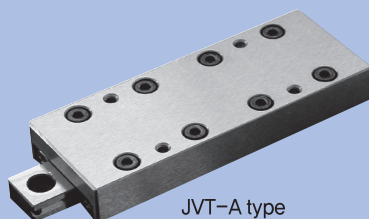
〈Fig.2〉 Load direction



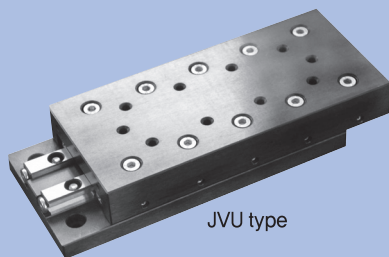
Features



JVT type



JVT-A type

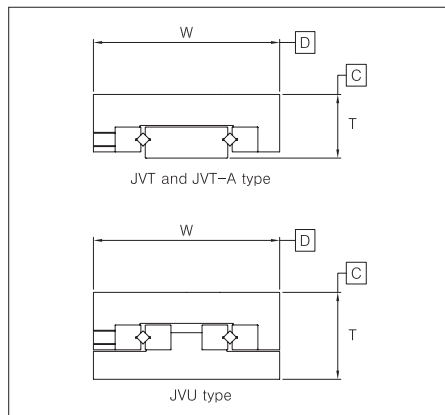


JVU type

Accuracy standards

The height of cross roller table(T). Permissible width(W) and the level of distance of C and D sides to the fixing plane of the base are written in the dimension table.

〈Fig.3〉 Standard size



Basic static load rating C_0

If excessive load or impact is given to JVT and JVU type when it is stalled or in motion, there occurs permanent transformation between rolling surface and roller. Basic static load rating(C_0) is the load when the sum of permanent transformation volume of the rolling surface and roller is 0.0001 times more the diameter of the latter. (Refer to Load rating of each direction). If the sum of permanent transformation volume breaks 0.0001 times of the roller's diameter, its motion will be adversely affected. Static safety factor(f_s) to the load should be considered in order to prevent it. (Refer to Static safety factor)

Basic dynamic load rating C

High precision

When each of JVT and JTV types in the first group is in motion, the load that does not transform its size at the direction where 90% of the first group's rated life span reaches L=100km is called basic dynamic load rating(C), which can be used for calculate life span. (Refer to Rated Life span)

Load ratings in each direction

Load rating of JVT and JTV type is equal from all four direction including radial, reverse radial, and horizontal side. The value is written in (C) and (C₀) in the dimension table.

Static safety factor F_s

Sudden external force can be created when direct-acting system stops or is in motion due to vibration, impact or maneuvered stall. That's why the static safety factor to the applied load needs to be taken into account.

$$f_s = \left(\frac{C_0}{P_C}\right) \text{ or } f_s = \left(\frac{M_0}{M}\right)$$

- f_s : Static safety factor
- C₀ : Basic static load rating
- M₀ : Static-permissible moment (MP₀ · MR₀ · MR₀)
- P_C : Applied load

M : Applied moment

Reference value of static safety factor Static safety factor written in the <Table.1> should be used as the minimum reference value depending on each for use.

<Table.1> Reference value of static safety factor(f_s)

Machine for use	Load condition	Lower limit of f _s
Standard industrial machine	With vibration or impact	1.0~1.3
	Without vibration or impact	2.0~3.0
Machine tools	With vibration or impact	1.0~1.5
	Without vibration or impact	2.5~7.0

Rated life span L

The life span of cross roller table can be calculated with the following formula.

$$L_0 = \left(\frac{f_T}{f_W} \cdot \frac{C}{P_C}\right)^{\frac{10}{3}} \times 100$$

- L : Rated life span (km)
(It's the total distance where 90% of the first group can reach without flaking when each of the same JVT · JTV type in the first group is put in motion under the same condition.)

- C : Basic dynamic load rating (kN)
- P_C : Applied load (kN)
- f_T : Temperature factor refer to <Fig.4>
- f_W : Load factor refer to <table.2>

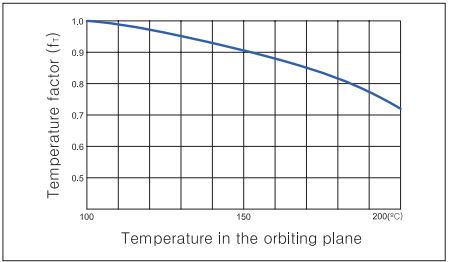
When the length and lap number of stroke is uniform, service life can be figured by using the following formula after rated life span(L) is calculated from the formula mentioned above.

$$L_h = \left(\frac{L \times 10^6}{2 \times \ell_s \times n_1 \times 60}\right)$$

f_T : Temperature factor

When the environment temperature where the linear motion system is used is over 100℃, temperature factor below should be multiplied considering the possible adverse effect caused by high temperature.

<Fig.4>Temperature factor (f_T)



Note) In case that environment temperature is over 100℃ contact MENTOR

■ f_w : Load factor

Shuffling machine is likely to be affected by vibration or impact during drive. While driving highspeed, particularly, it is a lot more difficult to calculate each value precisely. Therefore, when the load applied to the JVT and JVU type cannot be calculated or the impact of speed vibration is large, the load factor in the table below should be divided into the basic load rating(C) and (C_0).

〈Table.2〉 Load factor (f_w)

Vibration • Impact	Velocity (V)	f_w
Meager	For meager speed $V \leq 0.25\text{m/s}$	1.0 ~ 1.2
	For low speed $0.25 < V \leq 1.0\text{m/s}$	1.2 ~ 1.5
Standard industrial machine	For average speed $1.0 < V \leq 2.0\text{m/s}$	1.5 ~ 2.0
Machine tools	For high speed $V > 2.0\text{m/s}$	2.0 ~ 3.5

Cautions when using

■ Lubrication

- 1) To lubricate a cross roller table, use lithium soap grease or properly just like with the standard bearing.
- 2) Completely eliminate a rust preventive oil and apply a lubricant to the product before using a product.
- 3) Do not mix lubricants having different physical properties.
- 4) General lubricants may not be used at clean rooms or places exposed to regular vibrations, or under special environments such as vacuum, low temperatures and high temperatures.
- 5) Please consult with MENTOR before using the lubricants when special lubricants are to be used.

■ Handling

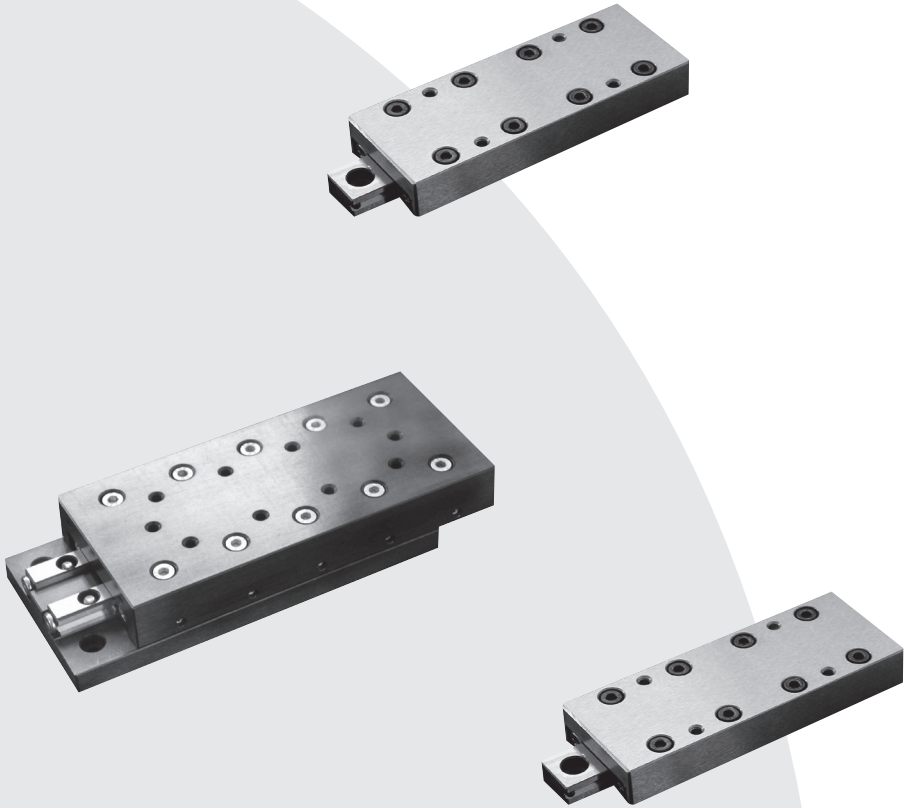
- 1) Please do not disassemble a product as the separation of components from product is responsible for inflow of dust into the product or poor assembling accuracy in mounting faces of the respective components.
- 2) The cross coller table may be damaged if a cross coller table is dropped or impacted. Please be careful not to impact the product as the impact may damage functions of the product although the product looks normal when an impact is applied to a product.

■ Additional process of table & base

- 1) Becareful not to let any chips put into the cross roller guide parts.
- 2) Fixing holes should be blocked, not penetrated. It also can be manufactured according to specific designation.
Clearance of the cross roller table is already adjusted with appropriate preload, thus do not touch the clearance adjust screws.

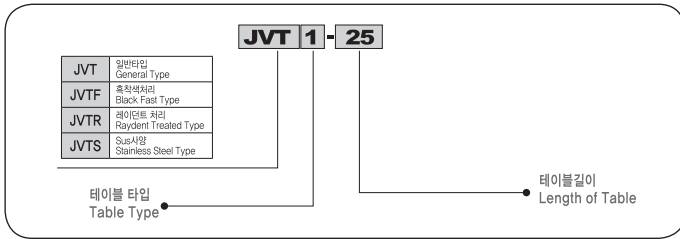
■ Distortion of a cage

Although roller-sustaining cage moves with sharp accuracy, distortion can occur due to a moment or mechanic vibrations. When such distortion is the problem, using miniature version of linear rail system is recommended.

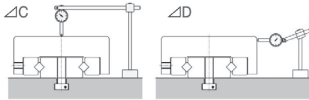
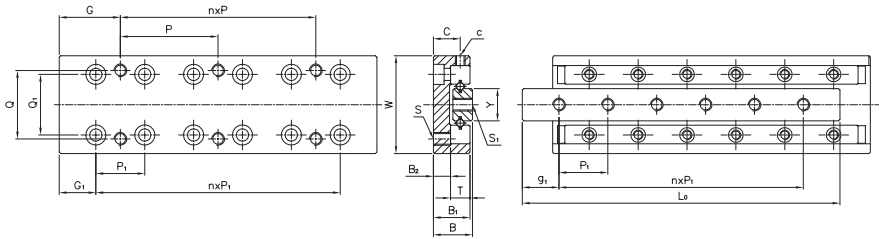


JVT 1

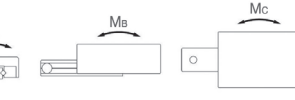
베이스 탭 타입
Base Tap Type



Specification Model		주요 치수 Main Dimension					테이블면치수 Table Surface Dimension								
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L _o	질량 Weight g	테이블장착탭위치 Table Tap Position					P ₁	n X P ₁	Q ₁	G ₁
							Q	P	n X P	G	S				
JVT 1- 25		12	20	8	25	23	14	18	1 x 18	3.5	M2.6 x 0.45	10	1 x 10	12.4	7.5
JVT 1- 35		18			35	33		28	1 x 28				2 x 10		
JVT 1- 45		25			45	43		20	1 x 20	3 x 10					
JVT 1- 55		32			55	53		30	1 x 30	4 x 10					
JVT 1- 65		40			65	63		20	2 x 20	5 x 10					
JVT 1- 75		45			75	73		30	1 x 30	22.5			6 x 10		
JVT 1- 85		50			85	83		30	2 x 30	12.5			7 x 10		



정도 Accuracy



각방향의 모멘트 Moment in each direction

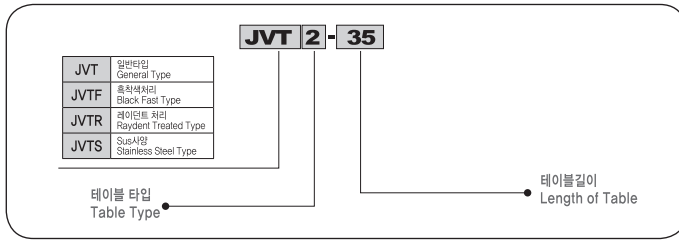
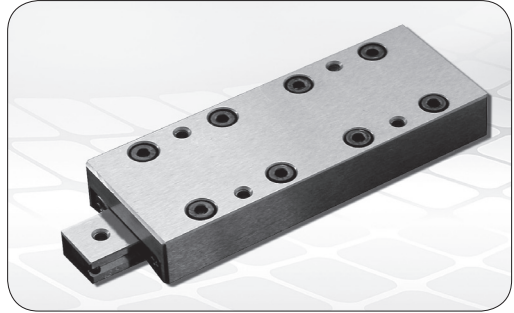
(Unit : mm)

측면치수 Side Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momnet			정도 μ m Accuracy	
B ₁	B ₂	T	Y	C	c		S ₁	P ₁	n X P ₁	g ₁	롤러수 The number of roller Z	C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
7.5	3.5	4	6.6	5.5	M2	M2.6 X 0.45		7.5	2 x 7.5	5	5	0.46	0.61	2.29	1.52	1.25	4	2
								10	2 x 10	7.5	7	0.63	0.92	3.44	2.62	2.32		
									3 x 10		10	0.95	1.53	5.73	4.14	4.53		
									4 x 10		12	1.09	1.83	6.87	5.92	6.41		
									5 x 10		14	1.23	2.14	8.02	8.08	8.62		
									6 x 10		18	1.50	2.75	10.3	13.3	14.0		
									7 x 10		20	1.63	3.05	11.5	16.4	17.2		

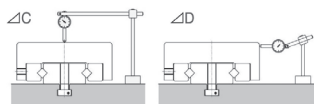
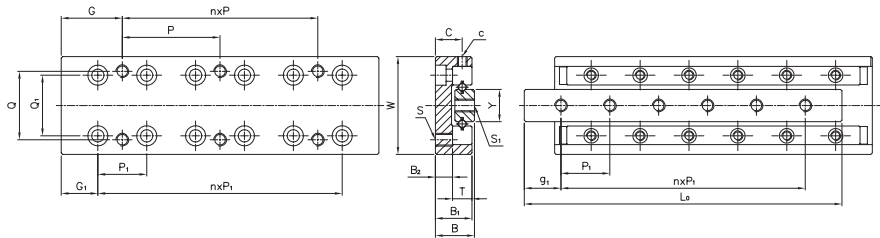
1KN $\approx$ 102kgf 1N $\cdot$ m $\approx$ 0.102Kgf

JVT 2

베이스 탭 타입
Base Tap Type



Specification Model		주요 치 수 Main Dimension					테 이 블 면 치 수 Table Surface Dimension								
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L _s	중량 Weight g	테이블장착탭위치 Table Tap Position					P ₁	n X P ₁	Q ₁	G ₁
							Q	P	n X P	G	S				
JVT 2- 35		18			35	78		28	1 x 28	3.5	M3 x 0.5	15	1 x 15	20	10
JVT 2- 50		30			50	114		43	1 x 43				2 x 15		
JVT 2- 65		40			65	150		30	1 x 30	3 x 15					
JVT 2- 80		50	30	12	80	186	22	45	1 x 45	4 x 15					
JVT 2- 95		60			95	222		30	2 x 30	5 x 15					
JVT 2- 110		70			110	258		45	1 x 45	6 x 15					
JVT 2- 125		80			125	294		45	2 x 45	17.5			7 x 15		



정도 Accuracy



각방향의 모멘트 Moment in each direction

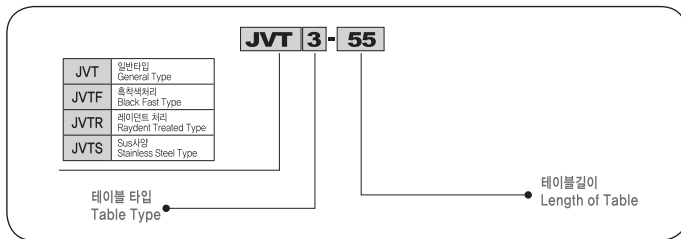
(Unit : mm)

측면치수 Side Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position				기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 μ m Accuracy	
B ₁	B ₂	T	Y	C	c	S ₁	P ₁	n X P ₁	g ₁	롤러수 The number of roller Z	C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
11.5	5.5	6	12	8.5	M2	M3 x 0.5	20	1 x 20	7.5	5	0.84	1.09	7.06	4.32	3.55	2	4
								2 x 15	10	7	1.16	1.63	10.6	7.45	6.59		
								3 x 15		9	1.46	2.17	14.1	11.8	10.5		
								4 x 15		12	2.01	3.26	21.2	16.8	18.2		
								5 x 15		14	2.26	3.80	24.7	23.0	24.5		
								6 x 15		17	2.51	4.34	28.2	37.9	35.7		
								7 x 15		19	2.76	4.89	31.8	46.7	44.3		
11.5	5.5	6	12	8.5	M2	M3 x 0.5	15	1 x 20	7.5	5	0.84	1.09	7.06	4.32	3.55	2	5
								2 x 15	10	7	1.16	1.63	10.6	7.45	6.59		
								3 x 15		9	1.46	2.17	14.1	11.8	10.5		
								4 x 15		12	2.01	3.26	21.2	16.8	18.2		
								5 x 15		14	2.26	3.80	24.7	23.0	24.5		
								6 x 15		17	2.51	4.34	28.2	37.9	35.7		
								7 x 15		19	2.76	4.89	31.8	46.7	44.3		

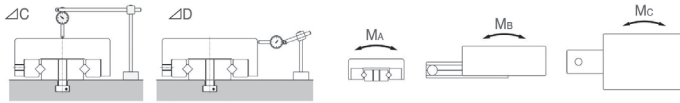
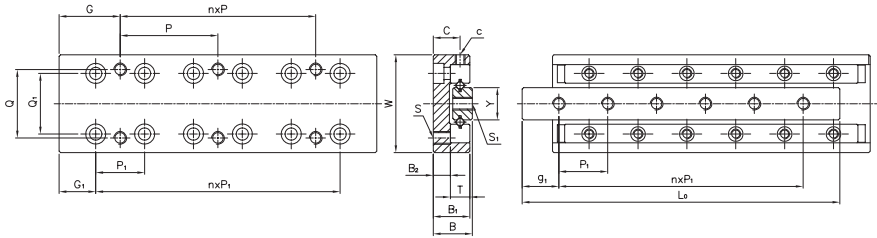
1KN $\approx$ 102Kgf 1N $\cdot$ m=0.102Kgf

JVT 3

베이스 탭 타입
Base Tap Type



Specification Model		주요 치수 Main Dimension					테이블면 치수 Table Surface Dimension								
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L	중량 Weight g	테이블장착탭위치 Table Tap Position					P ₁	n X P ₁	Q ₁	G ₁
							Q	P	n X P	G	S				
JVT 3 - 55		30	40	16	55	229	30	40	1 x 40	7.5	M4 x 0.7	25	1 x 25	28.4	15
JVT 3 - 80		45			80	337		65	1 x 65				2 x 25		
JVT 3 - 105		60			105	445		50	1 x 50	3 x 25					
JVT 3 - 130		75			130	553		75	1 x 75	4 x 25					
JVT 3 - 155		90			155	661		50	2 x 50	5 x 25					
JVT 3 - 180		105			180	769		75	1 x 75	6 x 25					
JVT 3 - 205		130			205	877		75	2 x 75	27.5			7 x 25		



정도 Accuracy

각방향의 모멘트 Moment in each direction

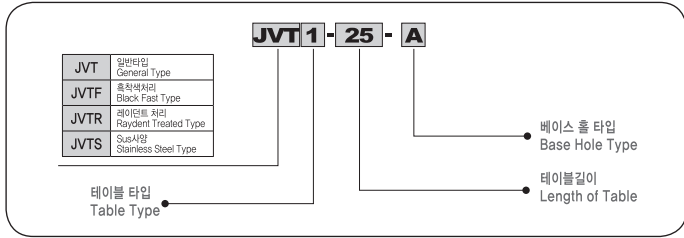
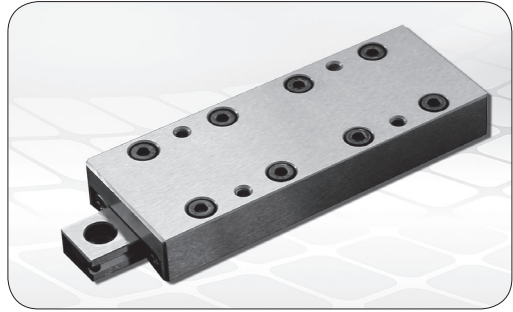
(Unit : mm)

측면치수 Side Dimension						베이스면 치수 장착구멍 위치 Base Dimension & Hole Position					기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momnet			정도 μ m Accuracy	
B ₁	B ₂	T	Y	C	c	S ₁	P ₁	n X P ₁	g ₁	롤러수 The number of roller Z	C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
15.5	7.5	8	16	11.5	M2	M4 x 0.7	35	1 x 35	10	6	2.71	3.67	31.9	12.2	13.9	2	5
							25	2 x 25	15	10	4.06	6.11	53.1	33.1	36.2		
								3 x 25		13	4.68	7.33	63.8	64.6	59.8	3	6
								4 x 25		17	5.87	9.77	85	107	100		
								5 x 25		20	6.98	12.2	106	131	138		
								6 x 25		24	8.05	14.7	128	189	196		
							7 x 25	26	8.57	15.9	138	222	230				

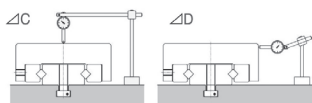
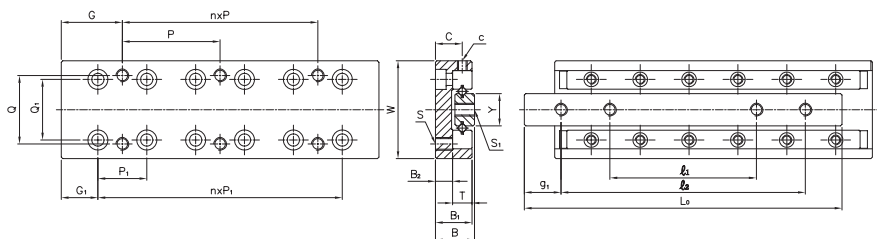
1KN $\approx$ 102Kgf 1N · m $\approx$ 0.102Kgf

JVT 1-A

베이스 홀 타입
Base Hole Type



Specification Model		주요 치 수 Main Dimension					테 이 블 면 치 수 Table Surface Dimension								
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L _s	중량 Weight g	테이블장착탭위치 Table Tap Position					P ₁	n X P ₁	Q ₁	G ₁
							Q	P	n X P	G	S				
JVT 1 - 25 - A		12	20	8	25	23	14	18	1 x 18	3.5	M2.6 x 0.45	10	1 x 10	12.4	7.5
JVT 1 - 35 - A		18			35	32		28	1 x 28				2 x 10		
JVT 1 - 45 - A		25			45	42		20	1 x 20	3 x 10					
JVT 1 - 55 - A		32			55	52		30	1 x 30	4 x 10					
JVT 1 - 65 - A		40			65	62		20	2 x 20	5 x 10					
JVT 1 - 75 - A		45			75	72		30	1 x 30	22.5			6 x 10		
JVT 1 - 85 - A		50			85	82		30	2 x 30	12.5			7 x 10		



정도 Accuracy



각방향의 모멘트 Moment in each direction

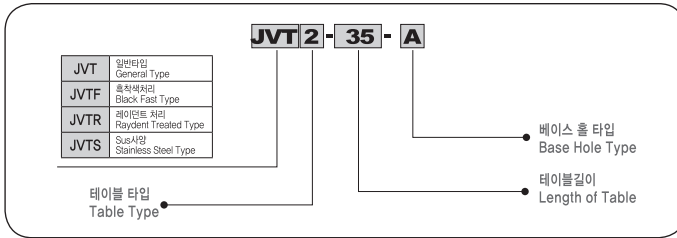
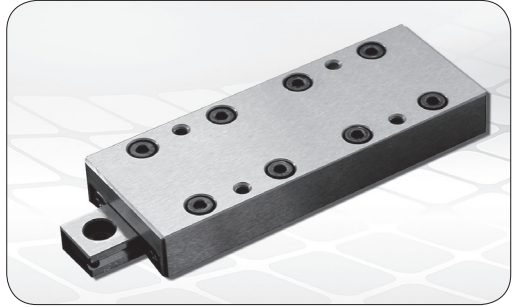
(Unit : mm)

측면치수 Side Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position				기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momenet			정도 μm Accuracy	
B ₁	B ₂	T	Y	C	c	d x D x h	ℓ_1	ℓ_2	g ₁	롤러수 The number of roller Z	C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
7.5	3.5	4	6.6	5.5	M2	2.5 x 4.1 x 2.2	—	18	3.5	5	0.46	0.61	2.29	1.52	1.25	2	4
							—	25	5	7	0.63	0.92	3.44	2.62	2.32		
							25	38	3.5	10	0.95	1.53	5.73	4.14	4.53	5	
							29	48	3.5	12	1.09	1.83	6.87	5.92	6.41		
							31	55	5	14	1.23	2.14	8.02	8.08	8.62		
							35	65	5	18	1.50	2.75	10.3	13.3	14.0		
							40	75	5	20	1.63	3.05	11.5	16.4	17.2		

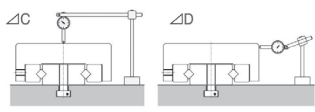
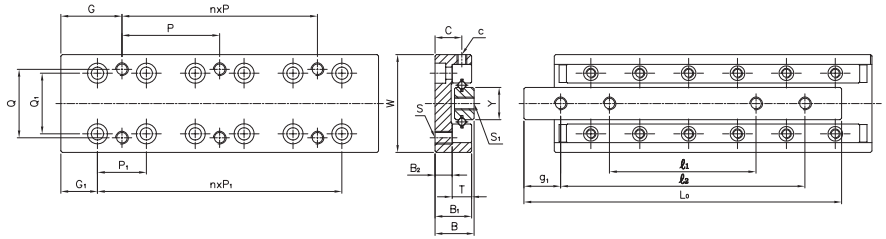
1KN ≒ 102Kgf 1N · m ≒ 0.102Kgf

JVT 2-A

베이스 홀 타입
Base Hole Type



Specification Model		주요 치 수 Main Dimension					테 이 블 면 치 수 Table Surface Dimension								
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L ₁	질량 Weight g	테이블장착탭위치 Table Tap Position					P ₁	n X P ₁	Q ₁	G ₁
							Q	P	n X P	G	S				
JVT 2 - 35 - A	18	30	12	35	78	22	28	1 x 28	3.5	M3 x 0.5	15	1 x 15	20	10	
JVT 2 - 50 - A	30			50	113		43	1 x 43				2 x 15			
JVT 2 - 65 - A	40			65	147		30	1 x 30				3 x 15			
JVT 2 - 80 - A	50			80	186		45	1 x 45	17.5			4 x 15			
JVT 2 - 95 - A	60			95	217		30	2 x 30				5 x 15			
JVT 2 - 110 - A	70			110	254		45	1 x 45				6 x 15			
JVT 2 - 125 - A	80			125	287		45	2 x 45	17.5			7 x 15			



정도 Accuracy



각방향의 모멘트 Moment in each direction

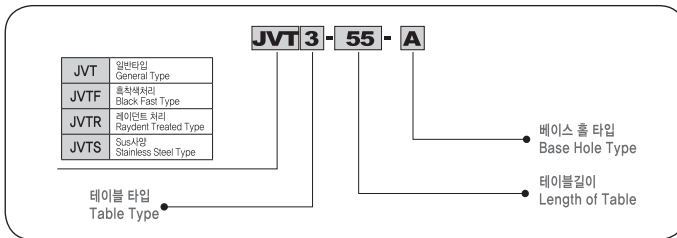
(Unit : mm)

측면치수 Side Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position				기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 μ m Accuracy	
B ₁	B ₂	T	Y	C	c	d x D x h	l ₁	l ₂	g ₁	롤러수 The number of roller Z	C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
11.5	5.5	6	12	8.5	M2	3.5 x 6 x 3.2	-	25	5	5	0.84	1.09	7.06	4.32	3.55	2	4
							-	35	7.5	7	1.16	1.63	10.6	7.45	6.59		
							33	55	5	9	1.46	2.17	14.1	11.8	10.5	2	5
							40	70	5	12	2.01	3.26	21.2	16.8	18.2		
							45	85	5	14	2.26	3.80	24.7	23.0	24.5		
							50	95	7.5	17	2.51	4.34	28.2	37.9	35.7		
							55	110	7.5	19	2.76	4.89	31.8	46.7	44.3		

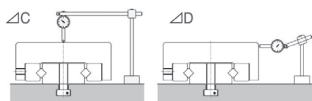
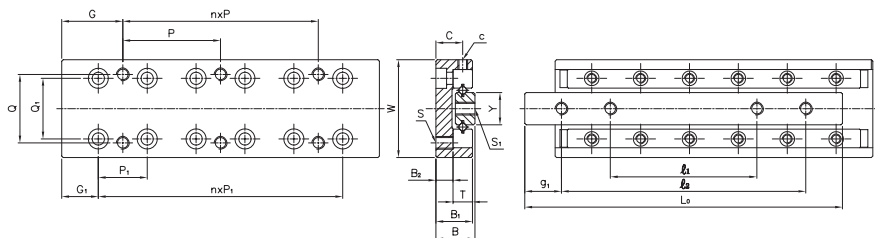
1KN $\approx$ 102Kgf 1N $\cdot$ m $\approx$ 0.102Kgf

JVT 3-A

베이스 홀 타입
Base Hole Type



Specification Model		주요 치 수 Main Dimension					테이블면 치수 Table Surface Dimension								
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L ₀	중량 Weight g	테이블장착탭위치 Table Tap Position					P ₁	n X P ₁	Q ₁	G ₁
							Q	P	n X P	G	S				
JVT 3 - 55 - A	30	40	16	55	226	30	40	1 X 40	7.5	M4 x 0.7	25	1 x 25	28.4	15	
JVT 3 - 80 - A	45			80	334		65	1 x 65				2 x 25			
JVT 3 - 105 - A	60			105	442		50	1 x 50	3 x 25						
JVT 3 - 130 - A	75			130	550		75	1 x 75	4 x 25						
JVT 3 - 155 - A	90			155	658		50	2 x 50	5 x 25						
JVT 3 - 180 - A	105			180	766		75	1 x 75	52.5			6 x 25			
JVT 3 - 205 - A	130			205	874		75	2 x 75	27.5			7 x 25			



정도 Accuracy



각방향의 모멘트 Moment in each direction

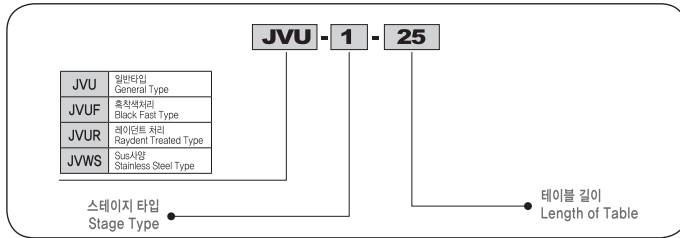
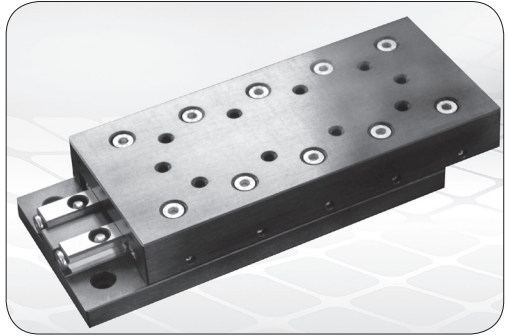
(Unit : mm)

측면치수 Side Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position				기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Monnet			정도 μm Accuracy	
B ₁	B ₂	T	Y	C	c	d x D x h	l ₁	l ₂	g ₁	롤러수 The number of roller Z	C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
15.5	7.5	8	16	11.5	M2	4.5 x 7.5 x 4.2	-	40	7.5	6	2.71	3.67	31.9	12.2	13.9	2	5
							43	68	6	10	4.06	6.11	53.1	33.1	36.2		
							55	90	7.5	13	4.68	7.33	63.8	64.6	59.8	3	6
							65	115		17	5.87	9.77	85	107	100		
							95	140		20	6.98	12.2	106	131	138		
							85	165		24	8.05	14.7	128	189	196		
							90	190		26	8.57	15.9	138	222	230		

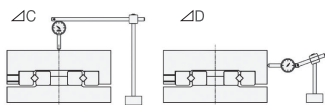
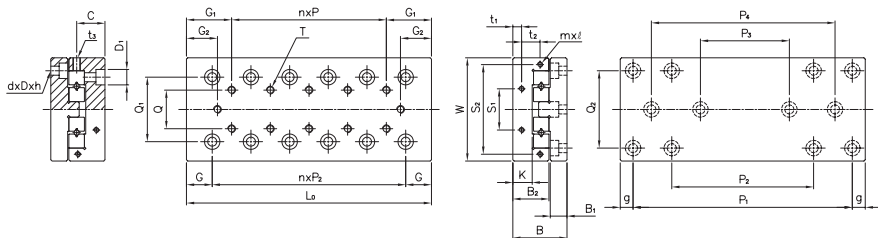
1KN $\approx$ 102Kgf 1N · m $\approx$ 0.102Kgf

JVU 1

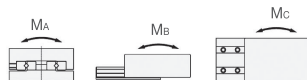
소형 스테이지
Miniature Stage



Specification Model	주요 치수 Main Dimension					테이블면치수 Table Surface Dimension										
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L _o	질량 Weight g	테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position					
						Q	n X P	G ₁	G ₂	T	Q ₁	n X P ₂	G	s ₁	t ₁	m x ℓ
JVU 1 - 25	12			25	85		-		2.5			1 x 10				
JVU 1 - 35	18			35	117		1 x 10		4.5			2 x 10				
JVU 1 - 45	25			45	149		2 x 10		6			3 x 10				
JVU 1 - 55	32	30	17	55	181	10	3 x 10	12.5	7.5	M2 x 0.4	18	4 x 10	7.5	12.0	2.5	M2 x 4
JVU 1 - 65	40			65	213		4 x 10		8.5			5 x 10				
JVU 1 - 75	45			75	245		5 x 10		11			6 x 10				
JVU 1 - 85	50			85	277		6 x 10		13.5			7 x 10				



정도 Accuracy



각방향의 모멘트 Moment in each direction

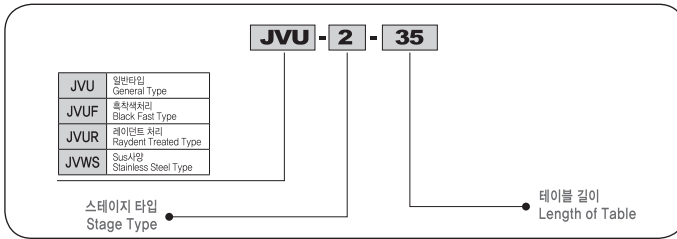
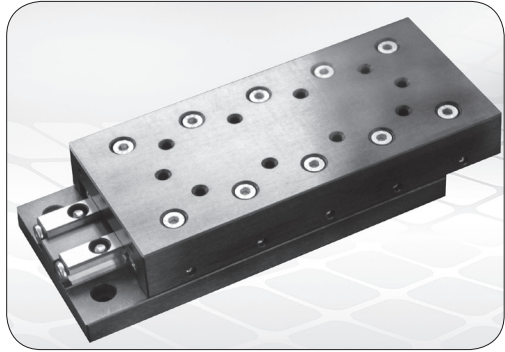
(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position						롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momenet			정도 μ m Accuracy	
B ₂	B ₁	K	d x D x h	D ₁	C	t ₃	Q ₂	P ₁	P ₂	P ₃	P ₄	g		C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
11	5.5	6.5	2.55 x 4.1 x 2.5	4.1	9	M2	22	18	-	-	-	3.5	5	0.46	0.61	4.12	1.52	1.25	2	4
								28	-	-	-		7	0.63	0.92	6.18	2.62	2.32		
								38	-	-	-		10	0.95	1.53	10.3	4.14	4.53		
								48	28	-	-		12	1.09	1.83	12.4	5.92	6.41	5	5
								58	38	-	-		14	1.23	2.14	14.4	8.08	8.62		
								68	48	-	-		18	1.50	2.75	18.6	13.3	14.0		
								78	58	-	-		20	1.63	3.05	20.6	16.4	17.2		

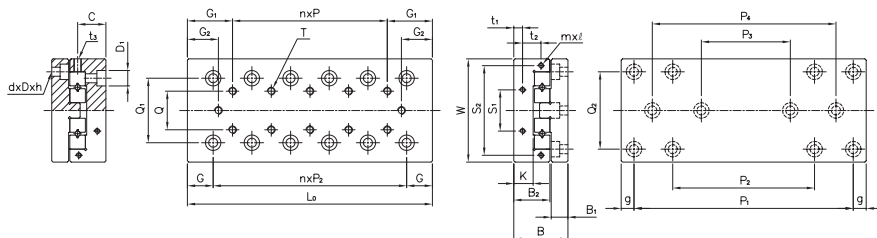
1KN $\approx$ 102Kg_f 1N $\cdot$ m $\approx$ 0.102Kg_f

JVU 2

소형 스테이지
Miniature Stage



Specification Model		주요치수 Main Dimension					테이블면치수 Table Surface Dimension										
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L	질량 Weight g	테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position					
							Q	n X P	G ₁	G ₂	T	Q ₁	n X P ₂	G	s ₁	t ₁	m x ℓ
JVU 2 – 35		18	40	21	35	199	15	—	17.5	3	M3 x 0.5	25	1 x 15	10	16.0	3.4	M2 x 4
JVU 2 – 50		30			50	278		1 x 15		4.5			2 x 15				
JVU 2 – 65		40			65	357		2 x 15		7			3 x 15				
JVU 2 – 80		50			80	436		3 x 15		9.5			4 x 15				
JVU 2 – 95		60			95	515		4 x 15		12			5 x 15				
JVU 2 – 110		70			110	594		5 x 15		14.5			6 x 15				
JVU 2 – 125		80			125	673		6 x 15		17			7 x 15				



정도 Accuracy

각방향의 모멘트 Moment in each direction

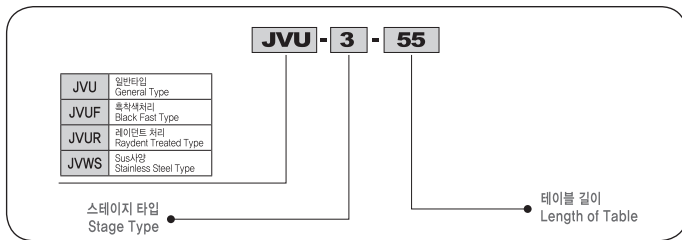
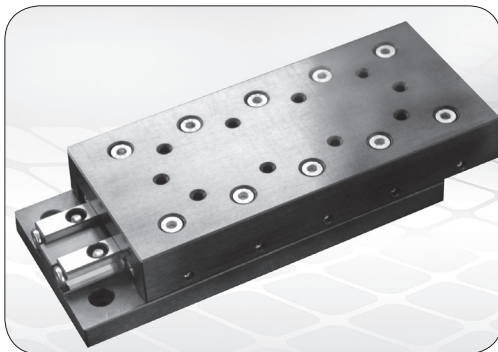
(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position							롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momenet			정도 μ m Accuracy	
B ₂	B ₁	K	d x D x h	D ₁	C	t ₃	Q ₂	P ₁	P ₂	P ₃	P ₄	g	C KN		Co KN	MA N.m	MB N.m	Mc N.m	C	D	
14	6.5	7.5	3.5 x 6 x 3.5	6	11	M3	30	25	-	-	-	5	5	0.84	1.09	9.77	4.32	3.55	2	4	
								40	-	-	-		7	1.16	1.63	14.7	7.45	6.59			
								55	-	-	-		9	1.46	2.17	19.5	11.8	10.6			
								70	40	-	-		12	2.01	3.26	29.3	16.9	18.2	3	5	
								85	55	-	-		14	2.26	3.80	34.2	23	24.5			
								100	70	-	-		17	2.51	4.34	39.1	37.9	35.7			
								115	85	-	-		19	2.76	4.89	44.0	46.7	44.3			

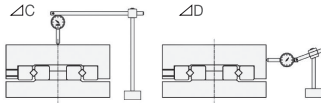
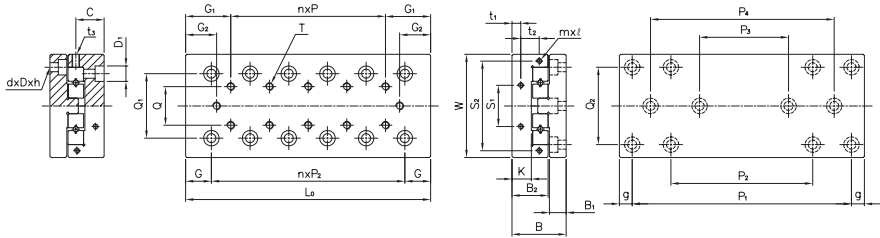
1KN $\approx$ 102Kg_f 1N $\cdot$ m $\approx$ 0.102Kg_f

JVU 3

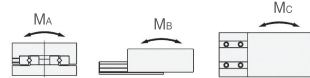
소형 스테이지
Miniature Stage



Specification Model	주요치수 Main Dimension					테이블면치수 Table Surface Dimension									
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L _o	질량 Weight g	테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position				
						Q	$n \times P$	G ₁	G ₂	T	Q ₁	$n \times P_2$	G	s ₁	t ₁
JVU 3 - 55	30			55	570		-		5.5			1 x 25			
JVU 3 - 80	45			80	825		1 x 25		10.5			2 x 25			
JVU 3 - 105	60			105	1080		2 x 25		15.5			3 x 25			
JVU 3 - 130	75	60	28	130	1335	25	3 x 25	27.5	20.5	M4 x 0.7	39	4 x 25	15	40	5.5
JVU 3 - 155	90			155	1590		4 x 25		25.5			5 x 25			
JVU 3 - 180	105			180	1845		5 x 25		30.5			6 x 25			
JVU 3 - 205	130			205	2100		6 x 25		30.5			7 x 25			



정도 Accuracy



각방향의 모멘트 Moment in each direction

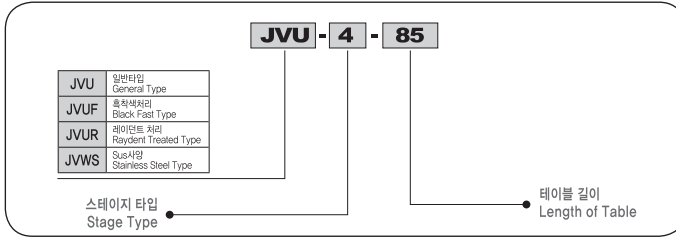
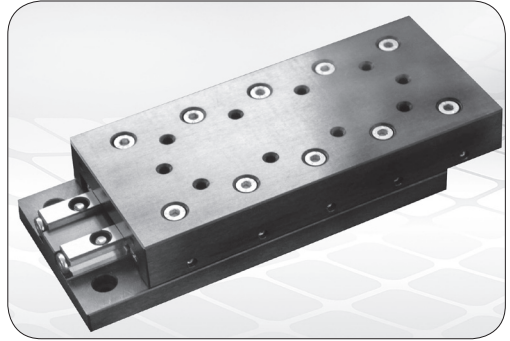
(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position						롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Moment			정도 μ m Accuracy	
B ₂	B ₁	K	d x D x h	D ₁	C	t ₃	Q ₂	P ₁	P ₂	P ₃	P ₄	g		C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
18.5	9	10	4.5 x 7.5 x 5	7.5	15	M4	40	35	-	-	-	10	6	2.71	3.67	51.3	12.2	13.9	2	5
								60	-	-	-		10	4.06	6.11	85.5	33.1	36.2		
								85	-	-	-		13	4.68	7.33	103	64.6	59.8	3	6
								110	-	-	-		17	5.87	9.77	137	107	100		
								135	-	85	-		20	6.98	12.2	171	131	138		
								160	-	110	-		24	8.05	14.7	205	189	196		
								185	85	135	-		26	8.57	15.9	222	222	230		7

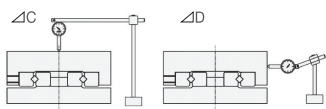
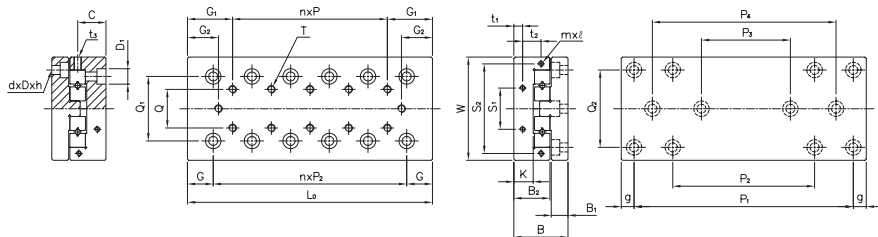
1KN $\approx$ 102Kgf 1N · m $\approx$ 0.102Kgf

JVU 4

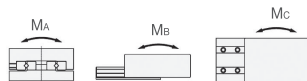
소형 스테이지
Miniature Stage



Specification		주요 치 수 Main Dimension					테이블면치수 Table Surface Dimension									
		최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L _c	질량 Weight g	테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position				
							Q	n X P	G ₁	G ₂	T	Q ₁	n X P ₂	G	s ₁	t ₁
Model																
JVU 4 - 85		50	80	35	40	—		10.5	M5 x 0.8	53	1 x 40					M3 x 6
JVU 4 - 125		75				125	2310	1 x 40				18	2 x 40			
JVU 4 - 165		105				165	3120	2 x 40				23	3 x 40			
JVU 4 - 205		135				205	3930	3 x 40				30.5	4 x 40			
JVU 4 - 245		155				245	4740	4 x 40				38	5 x 40			
JVU 4 - 285		185				285	5550	5 x 40				43	6 x 40			



정도 Accuracy



각방향의 모멘트 Moment in each direction

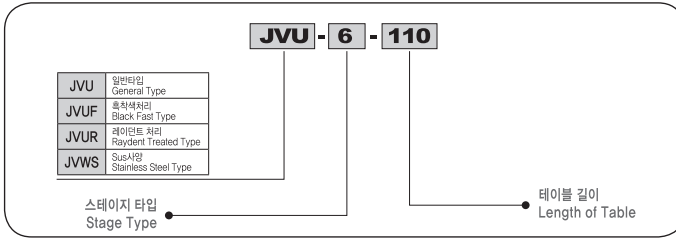
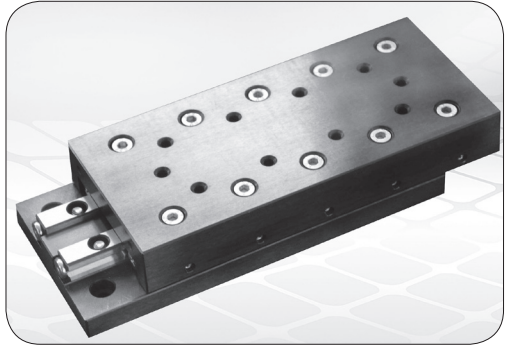
(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position						물러수 The number of roller Z		기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momnet			정도 μ m Accuracy	
B ₂	B ₁	K	d x D x h	D ₁	C	t ₃	Q ₂	P ₁	P ₂	P ₃	P ₄	g			C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
24	10.5	12.5	5.5 x 9.5 x 6	9.5	18.5	M4	60	65	-	-	-	10	7	7	5.90	8.11	162	64.9	57.4	2	5
								80	-	-	-		11	11	8.82	13.5	270	147	134		6
								120	-	-	-		14	14	11.5	18.9	378	200	214		7
								160	80	-	-	22.5	18	18	14.0	24.3	486	330	347	3	
								200	120	-	-		22	22	16.3	29.7	594	492	513		
								240	160	-	-		26	26	18.6	35.1	703	687	711		

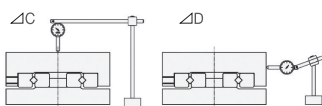
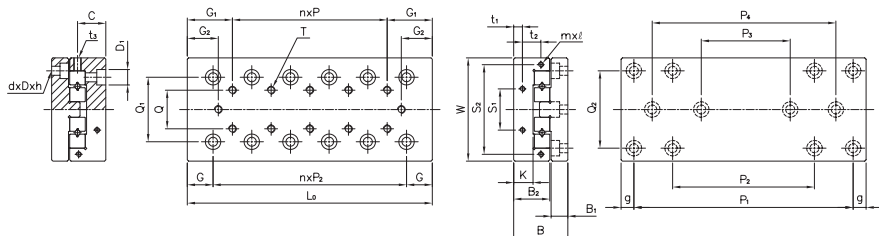
1KN $\approx$ 102Kgf 1N $\cdot$ m $\approx$ 0.102Kgf

JVU 6

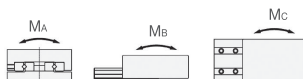
소형 스테이지
Miniature Stage



Specification Model	주요치수 Main Dimension					테이블면치수 Table Surface Dimension												
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height H ±0.1	길이 Length L ±0.1	중량 Weight kg	테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position							
						Q	n X P	G ₁	G ₂	T	Q ₁	n X P ₂	G	s ₁	s ₂	t ₁	t ₂	m x l
JVU 6 - 110	60			110	3.2		-		16			1 x 50						
JVU 6 - 160	95			160	4.6		1 x 50		23.5			2 x 50						
JVU 6 - 210	130			210	6		2 x 50		31			3 x 50						
JVU 6 - 260	165	100	45	260	7.4	50	3 x 50	55	38.5	M6	63	4 x 50	30	60	92	8	15	M4 x 8
JVU 6 - 310	200			310	8.7		4 x 50		46			5 x 50						
JVU 6 - 360	235			360	10.1		5 x 50		53.5			6 x 50						
JVU 6 - 410	265			410	11.5		6 x 50		63			7 x 50						



정도 Accuracy



각방향의 모멘트 Moment in each direction

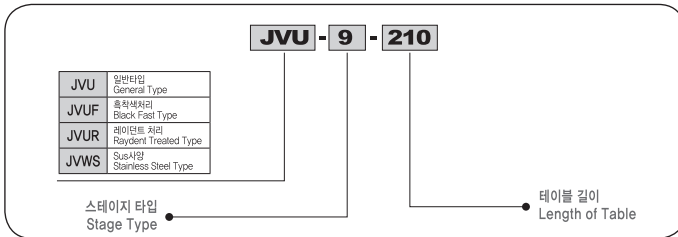
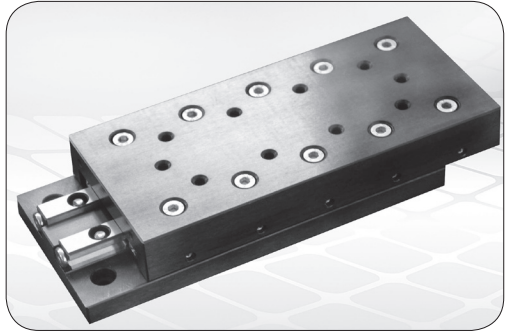
(Unit : mm)

Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position							롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momnet			정도 μ m Accuracy	
B ₂	B ₁	K	d x D x h	D ₁	C	t ₃	Q ₂	P ₁	P ₂	P ₃	P ₄	g	C KN		Co KN	MA N.m	MB N.m	Mc N.m	C	D	
31	13	15	7 x 11 x 7	11	23.5	M5	60	90	-	-	-	10	6	16.4	22.7	510	150	172	3	6	
								140	-	-	-		9	20.5	30.2	680	410	367	3	6	
								190	-	90	-		13	28.2	45.3	1020	800	740	3	7	
								240	-	140	-		16	35.3	60.5	1360	1040	1100	3	7	
								290	-	190	-		19	38.8	68.0	1530	1630	1540	4	8	
								340	140	240	-		22	45.3	83.1	1870	1970	2050	4	8	
								390	190	290	-		26	51.6	98.3	2210	2750	2840	4	8	

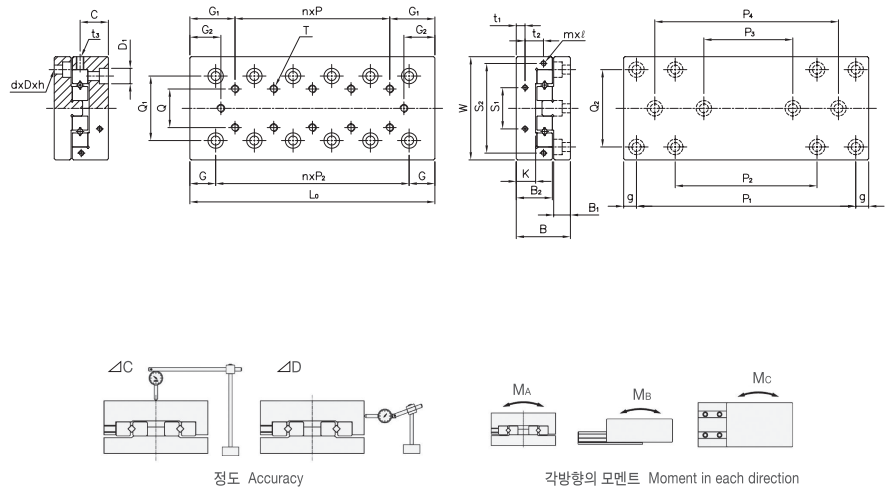
1KN $\approx$ 102Kgf 1N $\cdot$ m $\approx$ 0.102Kgf

JVU 9

소형 스테이지
Miniature Stage



Specification Model	주요 치수 Main Dimension					테이블면 치수 Table Surface Dimension												
	최대 스트로크 Max Stroke	폭 Width W ±0.1	높이 Height B ±0.1	길이 Length L _o	중량 Weight kg	테이블장착탭위치 Table Tap Position					테이블장착탭위치 Table Tap Position							
						Q	n X P	G ₁	G ₂	T	Q ₁	n X P ₂	G	s ₁	s ₂	t ₁	t ₂	m x l
JVU 9 - 210	130			210	12		-		27			1 x 100						
JVU 9 - 310	180			310	17.6		1 x 100		52			2 x 100						
JVU 9 - 410	350			410	23.2		2 x 100					3 x 100						
JVU 9 - 510	450	145	60	510	28.8	85	3 x 100	105		M8	96	4 x 100	55	90	135	11	20	M4 x 8
JVU 9 - 610	550			610	34.4		4 x 100		17			5 x 100						
JVU 9 - 710	650			710	40		5 x 100					6 x 100						
JVU 9 - 810	750			810	45.6		6 x 100					7 x 100						

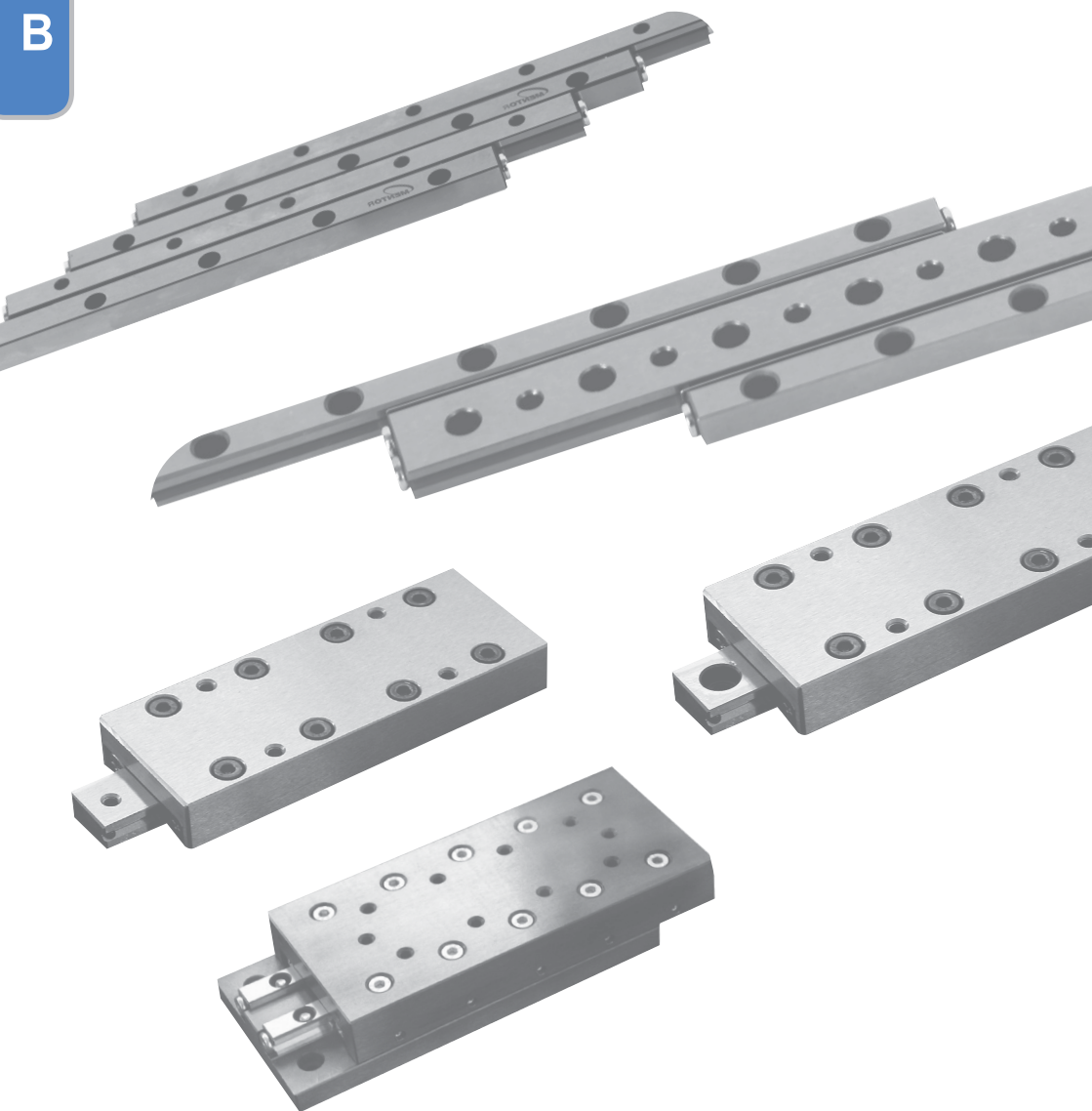


(Unit : mm)

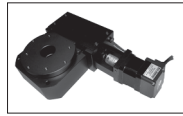
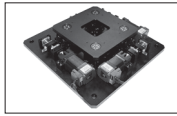
Table Surface Dimension							베이스면 치수 장착구멍 위치 Base Dimension & Hole Position						롤러수 The number of roller Z	기본정격하중 Basic Proper Load		정격허용모멘트 Regular Permissible Momenet			정도 μ m Accuracy	
B ₂	B ₁	K	d x D x h	D ₁	C	t ₃	Q ₂	P ₁	P ₂	P ₃	P ₄	g		C KN	Co KN	MA N.m	MB N.m	Mc N.m	C	D
43	16	21	9 x 14 x 9	14	32	M6	90	100	-	-	-	55	9	52.3	75.8	2730	1440	1290	3	7
								200	-	-	-		14	81.1	133	4780	2810	2990	3	7
								300	-	100	-		15	81.1	133	4780	3660	3420	4	8
								400	-	200	-		19	98.7	171	6140	5710	5410	4	8
								500	100	300	-		22	115	208	7500	6910	7200	4	9
								600	200	400	-		26	131	246	8870	9640	9980	4	9
								700	300	500	100		29	139	265	9550	12800	12400	5	10

1KN ≒ 102Kgf 1N · m≒0.102Kgf

B



Motorized Stage



JMA Series(Motorized Alignment Stage)

JMA-120
JMA-180
JMA-200
JMA-300

JMU Series(Motorized XYR Stage)

JMU-100
JMU-120
JMU-150
JMU-200

JMSX Series (Linear Stage)

JMSX-40
JMSX-60

JMTX Series (Linear Stage)

JMX-6060
JMTX-6060
JMTX-6070

JMX Series (Linear Stage)

JMX-40
JMX-60
JMX-80
JMX-812
JMX-816

JMHZ Series (Horizontal Z Stage)

JMHZ-60
JMHZ-80
JMHZ-120
JMHZ-200

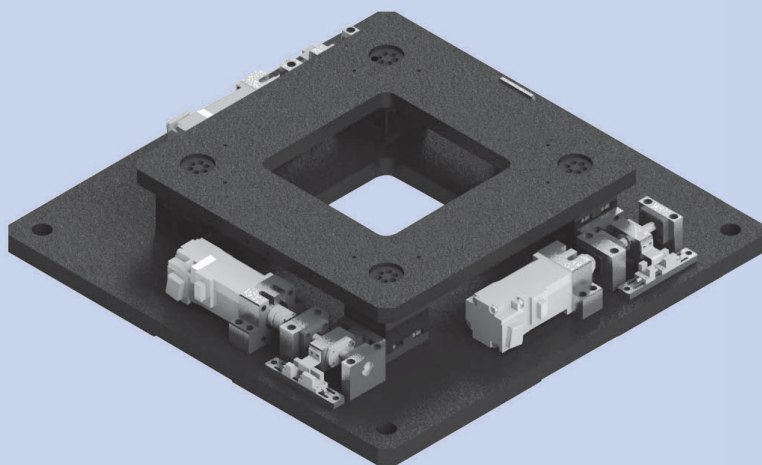
JMR Series(Rotary Stage)

JMR-60
JMR-80
JMR-100
JMR-120
JMR-150

JMG / JMT Series(Motorized Goniometer Stage)

JMG-7070
JMG-70101
JMG2-7070
JMT-100

Motorized Alignment Stage JMA



Structure

MENTOR's motorized alignment stage module type JMA is a low-section and large-sized precision positioning stage in which alignment module having an angle adjustment mechanism is arranged on the same plane, and can perform XYθ Motion.

Features

■ Realization of diversified operations

Not only linear motion in the XY direction but also swing motion can be performed. In the case of swing motion, especially, an optional desired position can be set as the center of swing. This can achieve diversified operation.

■ High accuracy, rigidity, and reliability

Alignment module is designed on a basis of precision position table, high-rigidity crossed roller bearing, and linear way to obtain high accuracy, high rigidity, and high reliability.

■ Optimally applicable to large equipment

A combination of alignment module with an aluminum alloy stage and base can configure a large stage. Alignment module can be easily applicable to a larger than the dimensions described in the catalog. Consult MENTOR about it if necessary.

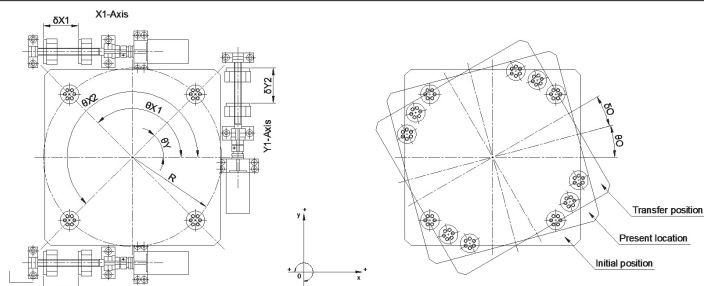
■ Hollow structure

The stage and base have a hollow structure with a large diameter. This is useful for the measurement of transmitted light from the bottom side, cord wiring of machines and equipment, etc.

Example of motion specification

Achievement of diversified movements : To achieve XY motion and θ motion (swing motion) at the same moment, a combination of XY positioning table and θ stage is normally required. However, MENTOR motorized alignment stage module type adopting alignment module enables these movements with a low profile single stage.

Motorized 3Axis Alignment Stage – Feed formula



Feed formula

As expression below to find the relative feed rate of each axis to obtain the arbitrary rotation angle $\delta \Theta$ table.

$$X_1 \text{ 축} : \delta X_1 = R \cos(\delta \theta + \theta X_1 + \theta O) - R \cos(\theta X_1 + \theta O) \text{ — 식(1)}$$

$$X_2 \text{ 축} : \delta X_2 = R \cos(\delta \theta + \theta X_2 + \theta O) - R \cos(\theta X_2 + \theta O) \text{ — 식(2)}$$

$$Y \text{ 축} : \delta Y = R \sin(\delta \theta + \theta Y + \theta O) - R \sin(\theta Y + \theta O) \text{ — 식(3)}$$

δX_1 : X_1 relative feed amount of axis (mm)

δX_2 : X_2 relative feed amount of axis (mm)

δY : Y relative feed amount of axis (mm)

θX_1 : Angle of Cross Roller Bearing center, which is connected to the X_1 axis (°) = 135°

θX_2 : Angle of Cross Roller Bearing center, which is connected to the X_2 axis (°) = 225°

θY : Angle of Cross Roller Bearing center that is connected to the Y-axis (°) = 45°

θO : Initial position angle (°)

$\delta \theta$: Request rotation angle (°)

R : Connected to each axis the Cross Roller Bearing central radius (mm)
(See Product Parameter table)

Product parameter table

Type	R	θY	θX_1	θX_2
JMA-200	90	45°	135°	225°
JMA-300	155			
JMA-400	207.5			

Final calculation value

(Unit : mm)

구동축	상대 이송량			
	Case (a)		Case (b)	Case ©
	X-방향 +1mm	Y-방향 + 0.5mm	θ -방향 +2°	θ -방향 -0.3°
X_1	1	0	-3.7583	0.5550
	(+1)	(0)	(-2.7583)	(2.2033)
X_2	1	0	3.8918	-0.5921
	(+1)	(0)	(+4.8918)	(+4.2997)
Y	0	0.5	3.7583	-0.5550
	(0)	(-0.5)	(+4.2583)	(+3.9733)

Feed formula

Motor

AC Servo Motor : SGMAH-A5A (Yaskawa, 50W)
Encoder : 2048 Pulse/Revolution

Ball Screw

Ø10 , Lead 2

Resolution

$$\text{Resolution} = \frac{\text{Ball Screw Lead}}{\text{Encoder Line}} = \frac{2}{2048} = 0,0009765\text{mm}$$

① Motion Profile

When operating as follows Carriage Plate in the origin initial position on the figure left page is to determine the feed rate of each axis

- (a) X-axis + 1mm, Y-axis + 0.5mm move parallel
- (b) Carriage Plate In central rotation center is rotated + 2 °
- (c) Rotate -0.3 ° from the state of (b)

② Examples of feed rate calculation

- (a) X-axis + 1mm, Y-axis + 0.5mm move parallel

③ Feed X-axis

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{1}{2} \times 2048 = 1024$$

► Therefore X₁, sending only 1024 Pulse in the same direction by X₂ axis synchronization.

③ Feed Y-axis

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{0.5}{2} \times 2048 = 512$$

► Therefore, I will send only 512 Pulse in the Y-axis + direction.

- (b) Carriage Plate In central rotation center is rotated + 2 °

$$\begin{aligned} \theta X_1 &= 135^\circ & \theta X_2 &= 225^\circ \\ \theta Y &= 45^\circ & R &= 155 \end{aligned}$$

In addition, depending on the initial conditions of Motion

$$\theta_0 = 0^\circ \quad \delta\theta = 2^\circ$$

Equation 1 above conditions, Equation 2, and substituting in equation 3,

$$\delta X_1 = 155\cos(2+135+0) - 155\cos(135+0) = -3.7583\text{mm}$$

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{-3.7583}{2} \times 2048 = -3,848.50$$

► Therefore, X₁ axis - direction to send only 3848.50 Pulse.

$$\delta X_2 = 155\cos(2+225+0) - 155\cos(225+0) = 3.8918\text{mm}$$

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{3.8918}{2} \times 2048 = 3,985.20$$

► Therefore, send only 3985.20 Pulse to X₂ axis + direction.

$$\delta Y = 155\sin(2+45+0) - 155\sin(45+0) = 3.7583\text{mm}$$

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{3.7583}{2} \times 2048 = 3,848.50$$

► Therefore, send only 3848.50 Pulse in the Y-axis + direction.

- (c) Rotate -0.3 ° in the state of (b)

The condition (b)

$$\begin{aligned} \theta_0 &= 2^\circ \\ \delta\theta &= -0.3^\circ \end{aligned}$$

Equation 1 above conditions, Equation 2, and substituting in equation 3,

$$\delta X_1 = 155\cos(-0.3+135+2) - 155\cos(135+2) = 0.5550\text{mm}$$

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{0.5550}{2} \times 2048 = 568.32$$

► Therefore, send only 568.32 Pulse to X₁ axis + direction.

$$\delta X_2 = 155\cos(-0.3+225+2) - 155\cos(225+2) = -0.5921\text{mm}$$

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{-0.5921}{2} \times 2048 = -606.31$$

► Therefore, X₂ axis - direction to send only 606.31 Pulse.

$$\delta Y = 155\sin(-0.3+45+2) - 155\sin(45+2) = -0.5550\text{mm}$$

$$\text{Pulse} = \frac{\text{Request Feed}}{\text{Ball Screw Lead}} \times \text{Encoder_Line} = \frac{-0.5550}{2} \times 2048 = -568.32$$

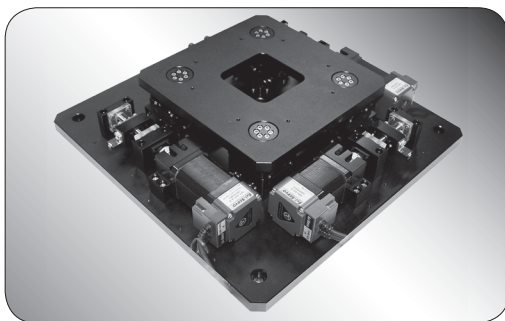
► Therefore, Y-axis - direction to send only 568.32 Pulse.

JMA-Series / Motorized Stage

JMA

Model Selection

1) 2) 3) 4)
JMA-200-B5-O

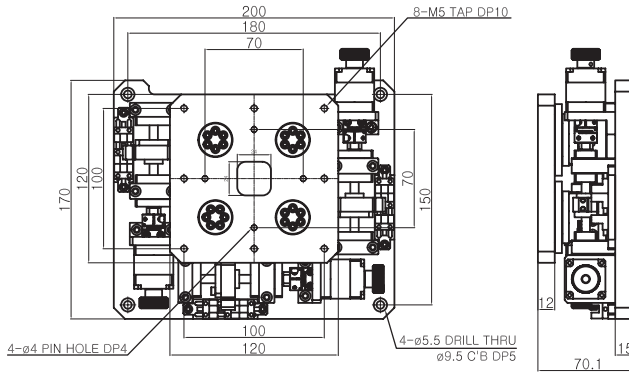


1) Axis	2) Table Size	3) Grade of Ball Screw	4) Motor
JMA : UVW-stage	120 : 120x120mm 180 : 180x180mm 200 : 200x200mm 300 : 300x300mm OP : Make to Order	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O 42 : Oriental Motor (5Phase) S 42 : Sanyo (2Phase) E 42 : Ezi-Servo Y 40 : Yaskawa Servo M 40 : Mitsubishi Servo X 40 : Without Motor & Bracket

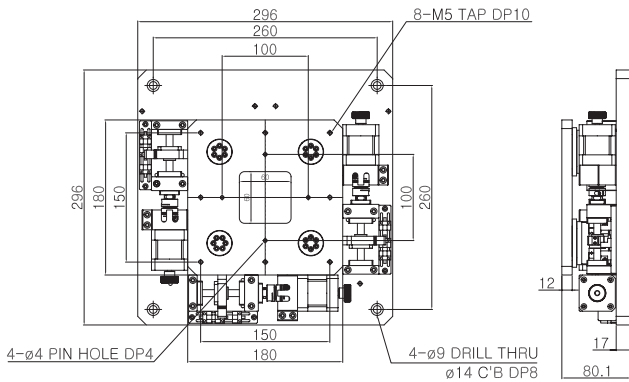
Model	JMA-120	JMA-180
Surface Size	120 x 120mm	180 x 180mm
Travel Range	±5/ ±5/ ±5 °	±10/ ±10/ ±5 °
Travel Guide	Crossed-Roller guide , Cross Roller ring	
Resolution	2μm (Full step)	
Max. Speed	10mm/sec (based on 5phase motor)	
Applicable Ball Screw	Ø8, lead 1(C5/C7)	Ø8, lead 1(C5/C7)
Accuracy	7μm(C5) / 12μm(C7)	7μm(C5) / 12μm(C7)
Bi-Repeatability	± 2μm(C5) / ± 3μm(C7)	± 2μm(C5) / ± 3μm(C7)
Load Capacity	15 Kg	30 Kg
Parallelism	30μm	30μm
Driving Parallelism	20μm	20μm
Staightness	10μm	10μm
Weight	5Kg	13Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMA

C



JMA-120



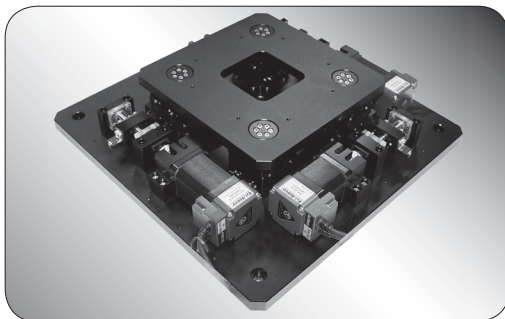
JMA-180

JMA-Series / Motorized Stage

JMA

Model Selection

1) 2) 3) 4)
JMA-200-B5-O

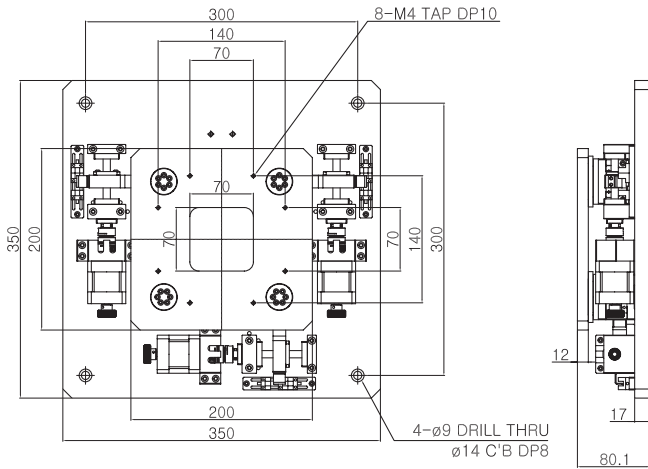


1) Axis	2) Table Size	3) Grade of Ball Screw	4) Motor
JMA : UVW- stage	120 : 120x120mm 180 : 180x180mm 200 : 200x200mm 300 : 300x300mm OP : Make to Order	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O 42 : Oriental Motor (5Phase) S 42 : Sanyo (2Phase) E 42 : Ezi-Servo Y 40 : Yaskawa Servo M 40 : Mitsubishi Servo X 40 : Without Motor & Bracket

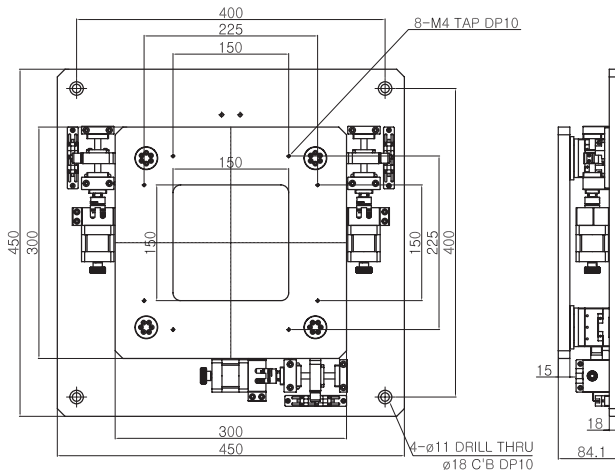
Model	JMA-200	JMA-300
Surface Size	200 x 200mm	300 x 300mm
Travel Range	±5/ ±5/ ±2.5 °	±5/ ±5/ ±2.5 °
Travel Guide	Crossed-Roller guide , Cross Roller ring	
Resolution	2μm (Full step)	
Max. Speed	10mm/sec (based on 5phase motor)	
Applicable Ball Screw	Ø8, lead 1(C5/C7)	Ø8, lead 1(C5/C7)
Accuracy	7μm(C5) / 12μm(C7)	7μm(C5) / 12μm(C7)
Bi-Repeatability	± 2μm(C5) / ± 3μm(C7)	± 2μm(C5) / ± 3μm(C7)
Load Capacity	30 Kg	40 Kg
Parallelism	30μm	30μm
Driving Parallelism	20μm	20μm
Staightness	10μm	10μm
Weight	15Kg	20Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMA

C



JMA-200



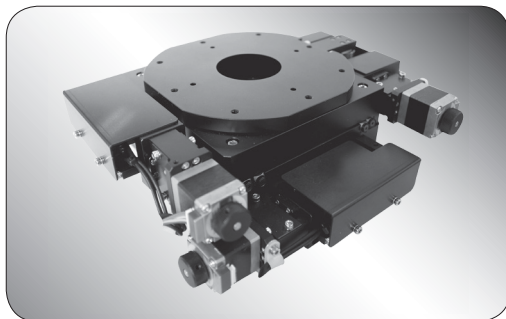
JMA-300

JMU-Series / Motorized Stage

JMU

Model Selection

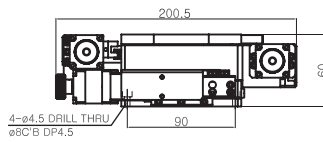
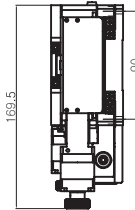
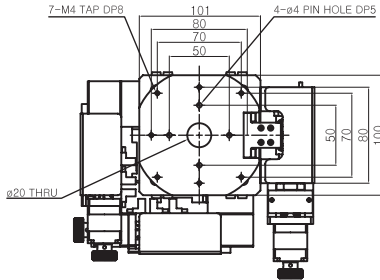
1) 2) 3) 4)
JMU-200-B5-O



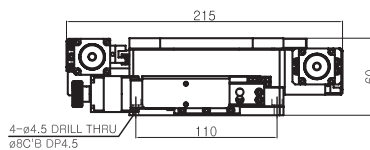
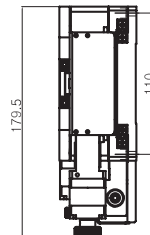
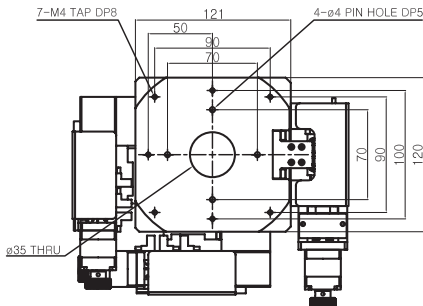
1) Axis	2) Table Size	3) Grade of Ball Screw	4) Motor
JMU : XYR- stage	100 : 100x100mm 120 : 120x120mm 150 : 150x150mm 200 : 200x200mm	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo E 42 : Ezi-Servo X: Without Motor & Bracket

Model	JMU-100	JMU-120
Surface Size	100 x 100mm	120 x 120mm
Travel Range	$\pm 10/ \pm 10/ \pm 5^\circ$	$\pm 10/ \pm 10/ \pm 5^\circ$
Travel Guide	Crossed-Roller guide , Cross Roller ring	
Resolution	$2\mu\text{m}$ (Full step)	
Max. Speed	10mm/sec (based on 5phase motor)	
Applicable Ball Screw	$\varnothing 8$, lead 1(C5/C7)	$\varnothing 8$, lead 1(C5/C7)
Accuracy	$7\mu\text{m}$ (C5) / $12\mu\text{m}$ (C7)	$7\mu\text{m}$ (C5) / $12\mu\text{m}$ (C7)
Bi-Repeatability	$\pm 2\mu\text{m}$ (C5) / $\pm 3\mu\text{m}$ (C7)	$\pm 2\mu\text{m}$ (C5) / $\pm 3\mu\text{m}$ (C7)
Load Capacity	10 Kgf	12 Kgf
Parallelism	$40\mu\text{m}$	$40\mu\text{m}$
Driving Parallelism	$20\mu\text{m}$	$20\mu\text{m}$
Staightness	$10\mu\text{m}$	$10\mu\text{m}$
Weight	3.5Kg	4Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMU



JMU-100



JMU-120

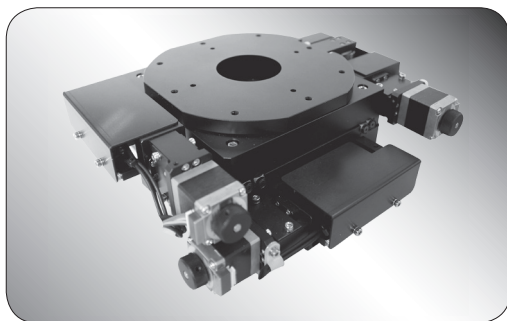
C

JMU-Series / Motorized Stage

JMU

Model Selection

1) 2) 3) 4)
JMU-200-B5-O

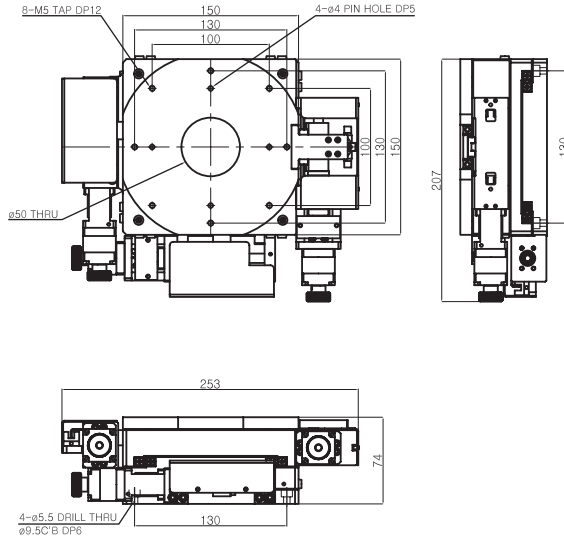


1) Axis	2) Table Size	3) Grade of Ball Screw	4) Motor
JMU : XYR- stage	100 : 100x100mm 120 : 120x120mm 150 : 150x150mm 200 : 200x200mm	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo E 42 : Ezi-Servo X: Without Motor & Bracket

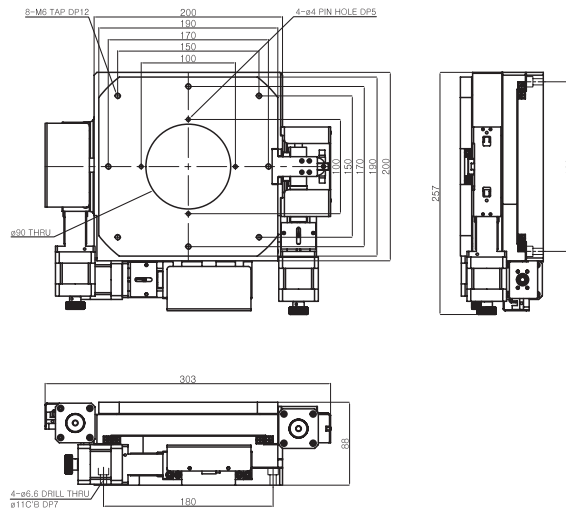
Model	JMU-150	JMU-200
Surface Size	150 x 150mm	200 x 200mm
Travel Range	$\pm 20/ \pm 20/ \pm 5^{\circ}$	$\pm 20/ \pm 20/ \pm 4^{\circ}$
Travel Guide	Crossed-Roller guide , Cross Roller ring	
Resolution	2 μ m (Full step)	
Max. Speed	10mm/sec (based on 5phase motor)	
Applicable Ball Screw	$\varnothing 8$, lead 1(C5/C7)	$\varnothing 8$, lead 1(C5/C7)
Accuracy	7 μ m(C5) / 12 μ m(C7)	7 μ m(C5) / 12 μ m(C7)
Bi-Repeatability	$\pm 2\mu$ m(C5) / $\pm 3\mu$ m(C7)	$\pm 2\mu$ m(C5) / $\pm 3\mu$ m(C7)
Load Capacity	15 Kgf	25 Kgf
Parallelism	40 μ m	50 μ m
Driving Parallelism	20 μ m	20 μ m
Staightness	10 μ m	10 μ m
Weight	5.2Kg	7Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMU

C

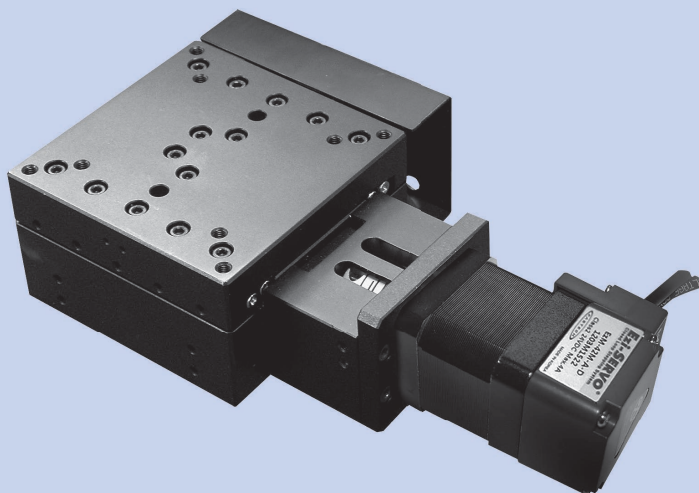


JMU-150



JMU-200

Motorized Linear Stage



Features of linear ball guide

■ Thin type

Machined guide structure eliminates the need fixing bolts. (Reduce 33% thickness, compared to conventional crossed roller stage).

■ High rigidity

Fewer fixing parts and stainless steel realize high rigidity with thin structure. (Load capacity is doubled compares to conventional crossed roller stage).

■ High accuracy

Machining the guide directly on housing increase driving performance and parallelism upper and lower surface. (Straightness is reduced to one-third and parallelism of motion is reduced to half).

■ Low price

Original production method significantly reduces cost. (Price is reduced by 30% or more compared to conventional crossed roller stage).

Features of crossed roller stage

■ Light weight

Housing made of aluminum makes the stage lighter.

■ Compact

Crossed roller stage series more compact than conventional. (A photo sensor is embedded in the stage housing with few projections. You can use it without worrying about the operating position. High rigidity in spite of the thin body. A maximum load is 25kg).

■ High accuracy

The line contact between the roller and the V groove rail provides high rigidity high and an excellent low-friction micro feed with little operating slip.

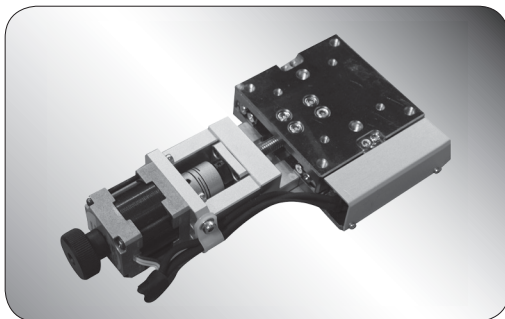
C

JMSX-Series / Motorized Stage

JMSX

Model Selection

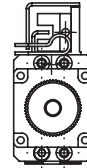
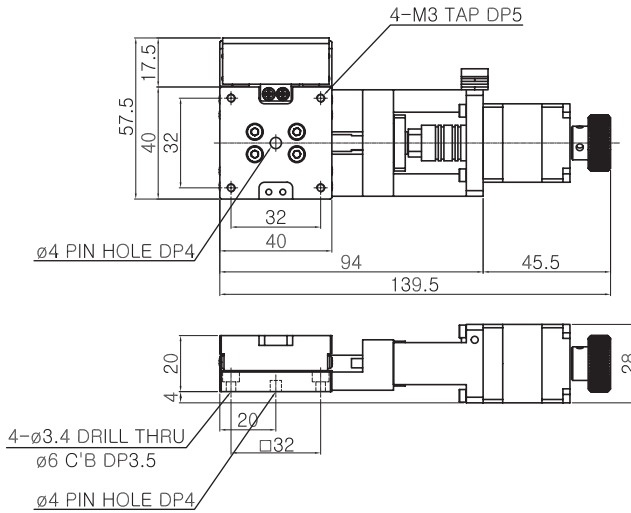
1) 2) 3) 4) 5)
JMSX-60L-B5-O



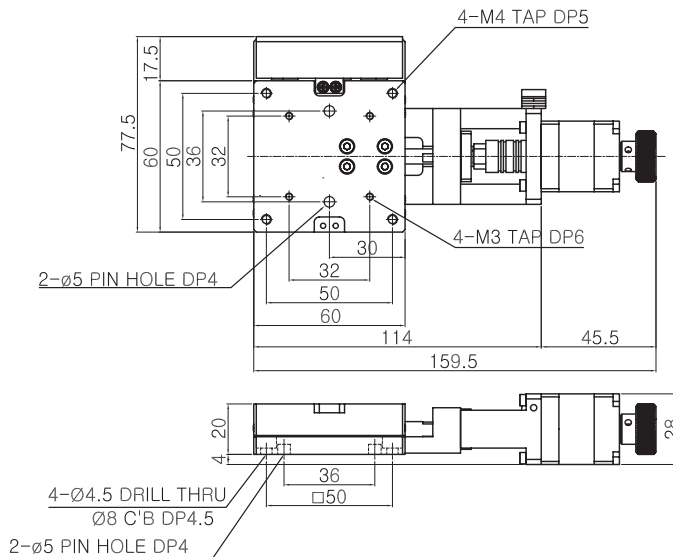
1) Axis	2) Surface Size	3) Position of Sensor & Connector	4) Grade of Ball Screw	5) Motor
JMSX : X-stage JMSXY : XY-stage JMSZ : Z-stage with bracket JMSXYZ : XYZ stage	40 : 40x40mm 60 : 60x60mm	L : Left from Motor R : Right from Motor	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMSX-40	JMSX-60
Surface Size	40 x 40mm	60 x 60mm
Travel Range	14mm	20mm
Travel Guide	Linear guide	
Resolution	2 μ m (Full step)	
Max. Speed	10mm/sec (based on 5phase motor)	
Applicable Ball Screw	$\varnothing 6$, lead 1(C5/C7)	$\varnothing 6$, lead 1(C5/C7)
Accuracy	7 μ m(C5) / 12 μ m(C7)	7 μ m(C5) / 12 μ m(C7)
Bi-Repeatability	$\pm 1.5\mu$ m(C5) / $\pm 3\mu$ m(C7)	$\pm 1.5\mu$ m(C5) / $\pm 3\mu$ m(C7)
Load Capacity	7 Kg $\bar{f}$	10 Kg $\bar{f}$
Parallelism	20 μ m	20 μ m
Driving Parallelism	10 μ m	10 μ m
Staightness	5 μ m	5 μ m
Weight	0.5Kg	0.7Kg
Material	Steel	
Finish Treatment	Electroless Nickel Plating	

JMSX



JMSX-40R



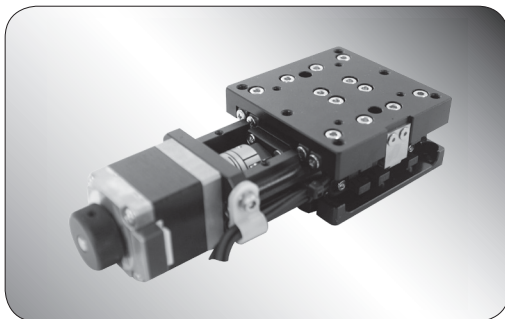
JMSX-60R

JMTX-Series / Motorized Stage

JMTX

Model Selection

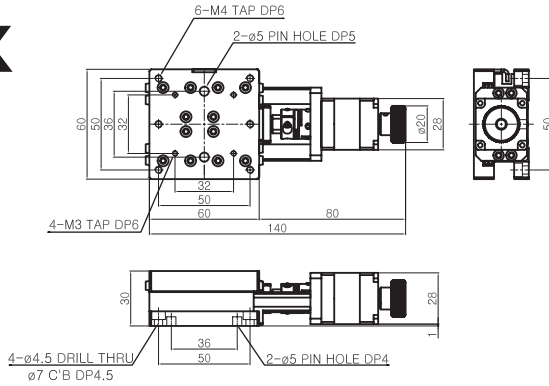
1) 2) 3) 4)
JMTX-6060-B5-O



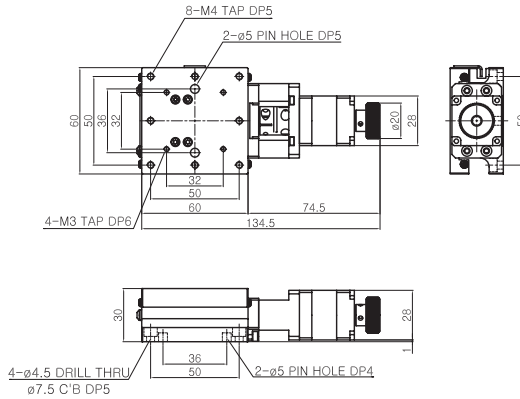
1) Axis	2) Surface Size	3) Grade of Ball Screw	4) Motor
JMTX : X-stage JMTXY : XY-stage JMTZ : Z-stage with bracket JMTXYZ : XYZ stage	6060 : 60x60mm 6070 : 60x70mm	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMX-6060	JMTX-6060	JMTX-6070
Surface Size	60 x 60mm	60 x 60mm	60 x 70mm
Travel Range	20mm	20mm	30mm
Travel Guide	Crossed-Roller guide	Linear guide	
Resolution	2μm (Full step)		
Max. Speed	10mm/sec (based on 5phase motor)		
Applicable Ball Screw	Ø6, lead 1(C5/C7)	Ø8, lead 1(C5/C7)	Ø8, lead 1(C5/C7)
Accuracy	7μm(C5) / 12μm(C7)	7μm(C5) / 12μm(C7)	7μm(C5) / 12μm(C7)
Bi-Repeatability	± 1.5μm(C5) / ± 3μm(C7)	± 1.5μm(C5) / ± 3μm(C7)	± 1.5μm(C5) / ± 3μm(C7)
Load Capacity	5 Kgf	10 Kgf	12 Kgf
Parallelism	20μm	20μm	20μm
Driving Parallelism	10μm	10μm	10μm
Staightness	8μm	5μm	5μm
Weight	0.45Kg	0.8Kg	1Kg
Material	Aluminum	Steel	Steel
Finish Treatment	Black Anodizing	Electroless Nickel Plating	

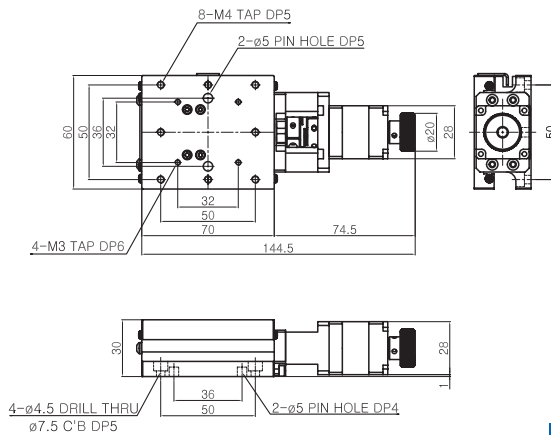
JMTX



JMX-6060



JMTX-6060



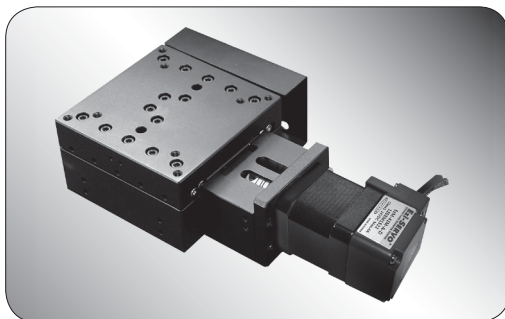
JMTX-6070

JMX-Series / Motorized Stage

JMX

Model Selection

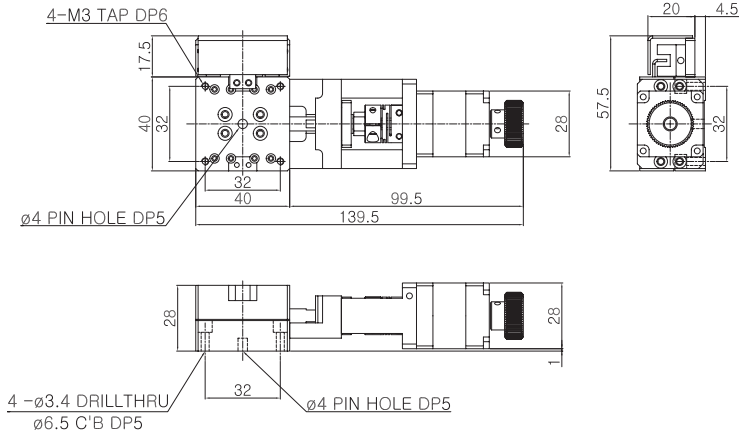
1) 2) 3) 4) 5)
JMX – 60L – B5 – O



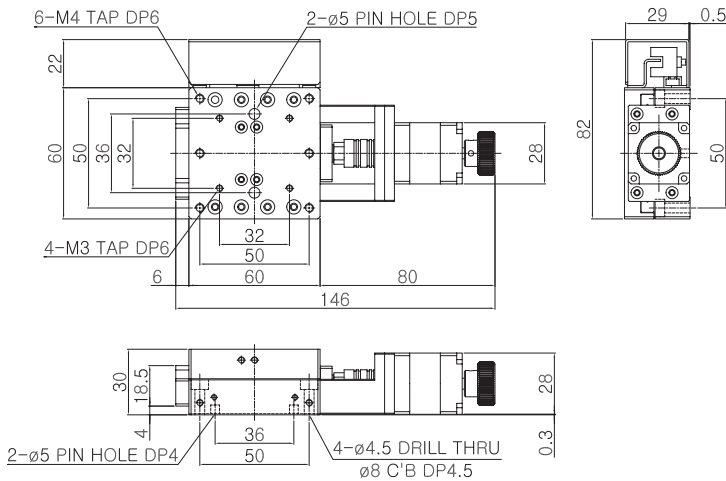
1) Axis	2) Surface Size	3) Position of Sensor & Connector	4) Grade of Ball Screw	5) Motor
JMX : X-stage JMX Y : XY-stage JMZ : Z-stage with bracket JMX YZ : XYZ stage	40 : 40x40mm 60 : 60x60mm 80 : 80x80mm 812 : 80x130mm 816 : 80x160mm	L : Left from Motor R : Right from Motor	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMX-40	JMX-60
Surface Size	40 x 40mm	60 x 60mm
Travel Range	12mm	20mm
Travel Guide	Crossed-Roller guide	
Resolution	2 μ m (Full step)	
Max. Speed	10mm/sec (based on 5phase motor)	
Applicable Ball Screw	$\varnothing 6$, lead 1(C5C7)	$\varnothing 8$, lead 1(C5/C7)
Accuracy	7 μ m(C5) / 12 μ m(C7)	7 μ m(C5) / 12 μ m(C7)
Bi-Repeatability	$\pm 1.5\mu\text{m}(\text{C5}) / \pm 3\mu\text{m}(\text{C7})$	$\pm 1.5\mu\text{m}(\text{C5}) / \pm 3\mu\text{m}(\text{C7})$
Load Capacity	3 Kgf	5 Kgf
Parallelism	20 μ m	20 μ m
Driving Parallelism	10 μ m	10 μ m
Staightness	5 μ m	8 μ m
Weight	0.3Kg	0.45Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMX



JMX-40R



JMX-60R

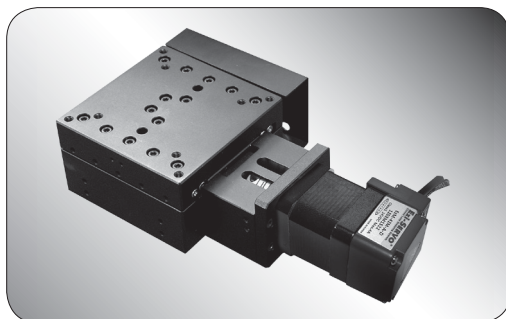
C

JMX-Series / Motorized Stage

JMX

Model Selection

1) 2) 3) 4) 5)
JMX – 60L – B5 – O

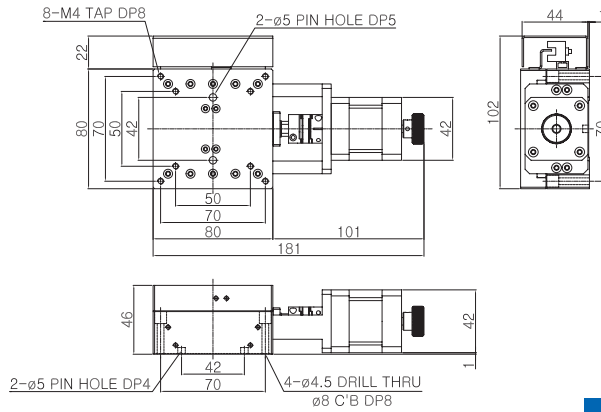


1) Axis	2) Surface Size	3) Position of Sensor & Connector	4) Grade of Ball Screw	5) Motor
JMX : X-stage JMX Y : XY-stage JMX Z : Z-stage with bracket JMX YZ : XYZ stage	40 : 40x40mm 60 : 60x60mm 80 : 80x80mm 812 : 80x130mm 816 : 80x160mm	L : Left from Motor R : Right from Motor	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

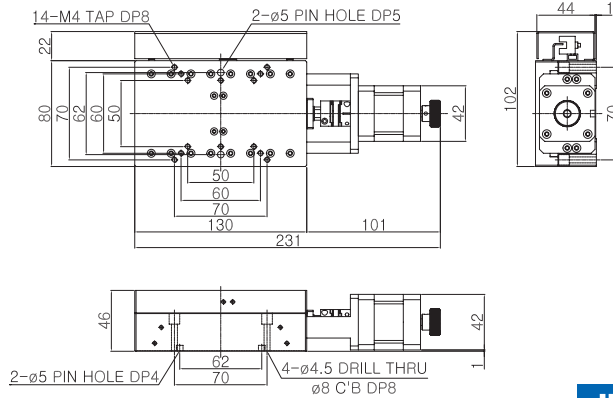
Model	JMX-80	JMX-812	JMX-816
Surface Size	80 x 80mm	80 x 130mm	80 x 160mm
Travel Range	30mm	60mm	100mm
Travel Guide	Crossed-Roller guide		
Resolution	2 μ m (Full step)		
Max. Speed	10mm/sec (based on 5phase motor)		
Applicable Ball Screw	$\varnothing$ 8, lead 1(C5/C7)	$\varnothing$ 8, lead 1(or 2) (C5/C7)	$\varnothing$ 8, lead 1(or 2) (C5/C7)
Accuracy	7 μ m(C5) / 12 μ m(C7)	7 μ m(C5) / 12 μ m(C7)	10 μ m(C5) / 15 μ m(C7)
Bi-Repeatability	$\pm$ 1.5 μ m(C5) / $\pm$ 3 μ m(C7)	$\pm$ 1.5 μ m(C5) / $\pm$ 3 μ m(C7)	$\pm$ 1.5 μ m(C5) / $\pm$ 3 μ m(C7)
Load Capacity	10 Kgf	15 Kgf	18 Kgf
Parallelism	30 μ m	30 μ m	30 μ m
Driving Parallelism	15 μ m	15 μ m	15 μ m
Staightness	8 μ m	8 μ m	8 μ m
Weight	1.4Kg	1.8Kg	2.2Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

JMX

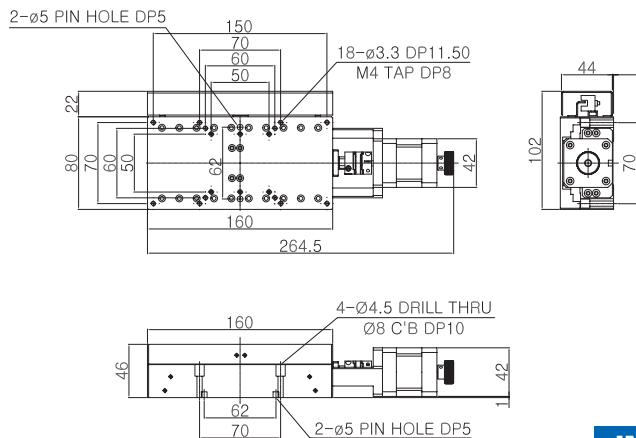
C



JMX-80R



JMX-812R



JMX-816R

Motorized Z-Stage

C



Features

■ Thin type

As Z axis having a direct moving X axis vertically supports load with the driving unit such as ballscrews, the horizontal plane Z axis stage supports the load with the wedge method crossed roller guides. It makes high rigidity and high tolerance.

■ High rigidity

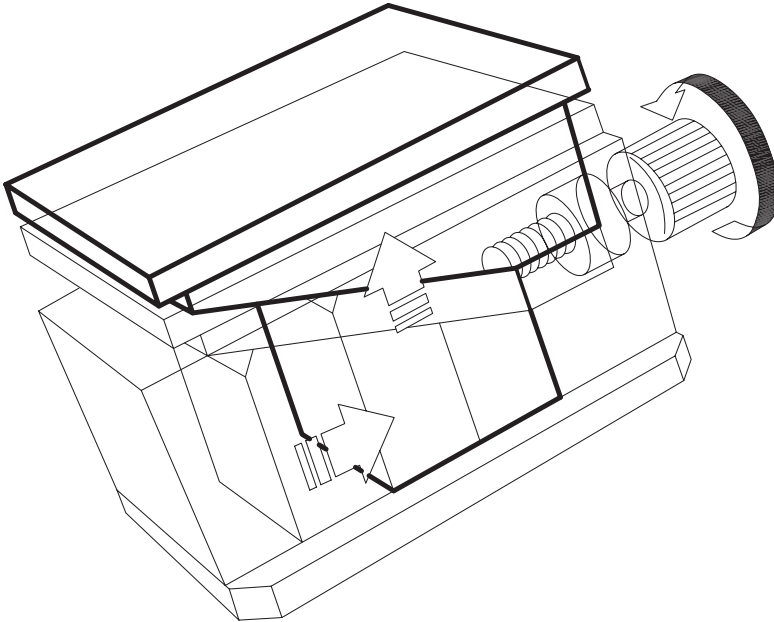
The crossed roller is employed to the vertical guides, and improve the rigidity of rolling direction. (Highly reliable and good guides system).

■ Thin type

improves rolling direction rigidity and makes the body very thin.

Wedge method crossed rollers

Place the V-groove rail and the crossed roller guide horizontally, diagonally, vertically in three okaces and moves up and down woth the precision ballscrew drive.



JMHZ-Series / Motorized Stage

JMHZ

Model Selection

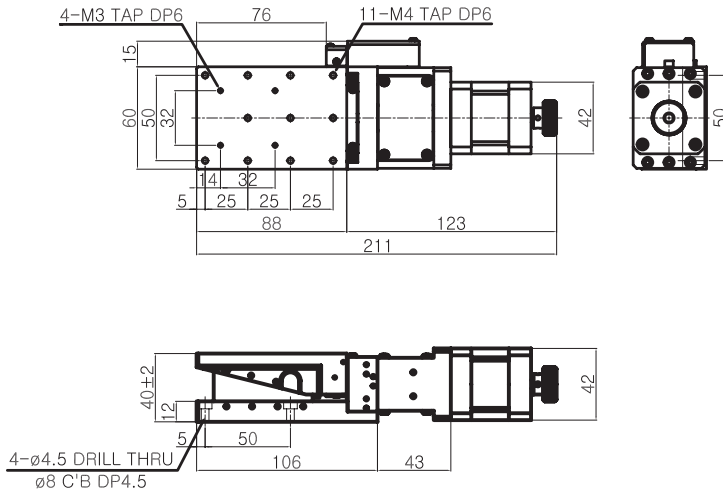
1) 2) 3) 4)
JMHZ – 60 – B5 – O



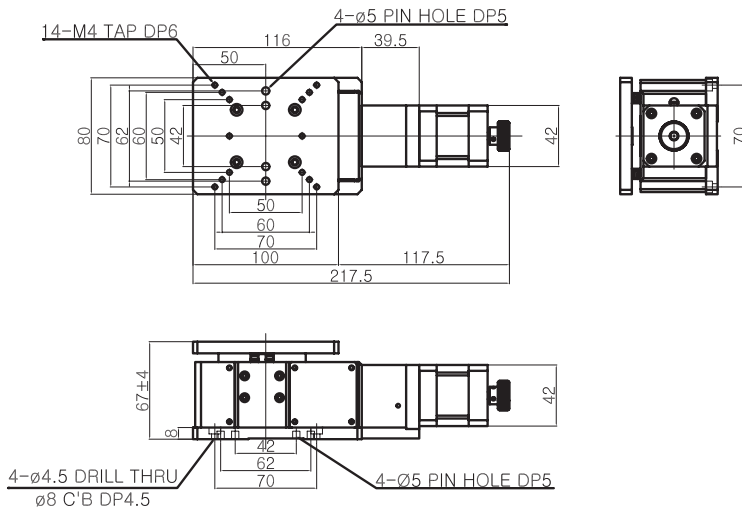
1) Axis	2) Surface Size	3) Grade of Ball Screw	4) Motor
JMHZ : Horizontal Z-stage	60 : 60x88mm 80 : 80x100mm 120 : 120x120mm 200 : 200x200mm	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor(5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMHZ-60	JMHZ-80
Surface Size	60 x 88mm	80 x 100mm
Travel Range	4mm	8mm
Travel Guide	Crossed-Roller guide	
Resolution	0.25 μ m/pulse (Full step)	0.72 μ m/pulse (Full step)
Max. Speed	2.5mm/sec	3.6mm/sec
Applicable Ball Screw	$\varnothing 8$, lead 1(C5/C7)	$\varnothing 8$, lead 1(C5/C7)
Accuracy	7 μ m(C5) / 12 μ m(C7)	7 μ m(C5) / 12 μ m(C7)
Bi-Repeatability	$\pm 1.5\mu$ m(C5) / $\pm 3\mu$ m(C7)	$\pm 1.5\mu$ m(C5) / $\pm 3\mu$ m(C7)
Load Capacity	5 Kgf	10 Kgf
Parallelism	30 μ m	30 μ m
Driving Parallelism	15 μ m	15 μ m
Staightness	10 μ m	10 μ m
Weight	1.2Kg	2Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMHZ



JMHZ-60



JMHZ-80

JMHZ-Series / Motorized Stage

JMHZ

Model Selection

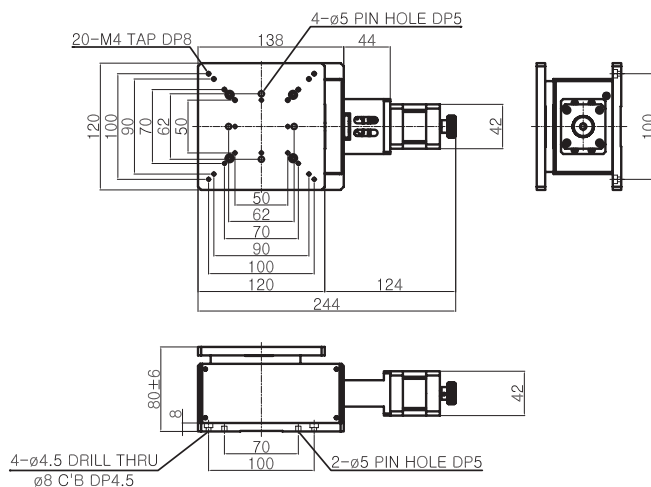
1) 2) 3) 4)
JMHZ – 60 – B5 – O



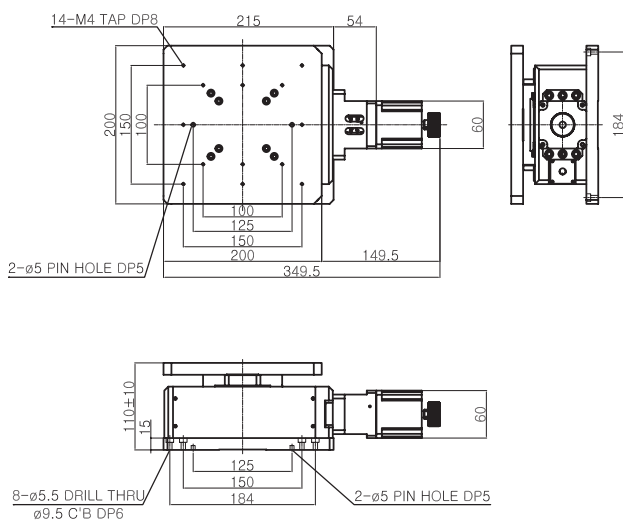
1) Axis	2) Surface Size	3) Grade of Ball Screw	4) Motor
JMHZ : Horizontal Z-stage	60 : 60x88mm 80 : 80x100mm 120 : 120x120mm 200 : 200x200mm	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor(5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMHZ-120	JMHZ-200
Surface Size	120 x 120mm	200 x 200mm
Travel Range	12mm	20mm
Travel Guide	Crossed-Roller guide	
Resolution	0.72μm/pulse (Full step)	3.6μm/pulse (Full step)
Max. Speed	3.6mm/sec	18mm/sec
Applicable Ball Screw	Ø8, lead 1(C5/C7)	Ø12, lead 5(C5/C7)
Accuracy	7μm(C5) / 12μm(C7)	10μm(C5) / 15μm(C7)
Bi-Repeatability	± 1.5μm(C5) / ± 3μm(C7)	± 2μm(C5) / ± 4μm(C7)
Load Capacity	20 Kgf	25 Kgf
Parallelism	40μm	50μm
Driving Parallelism	20μm	20μm
Staightness	15μm	20μm
Weight	3.6Kg	5.2Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMHZ

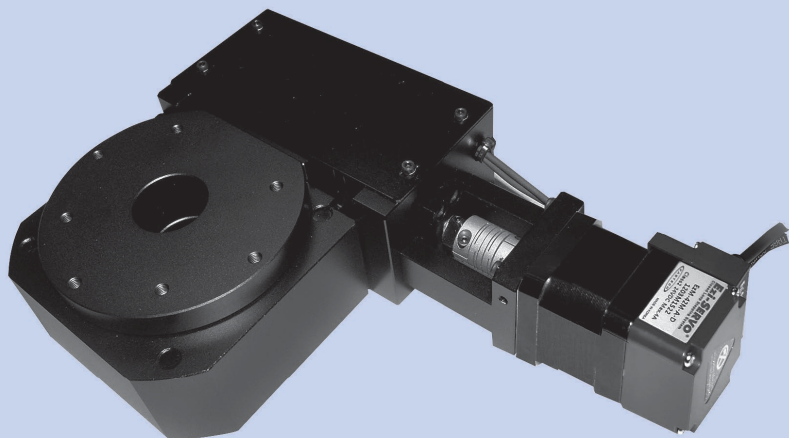


JMHZ-120



JMHZ-200

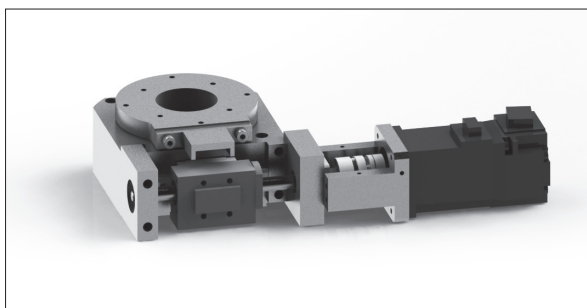
Motorized Rotary Stage



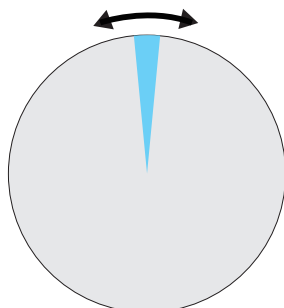
Basis of selection

■ Ballscrew type

Sine motion stages make rolling movements. They are rarely worn and highly durable against repeated positioning at small angle.



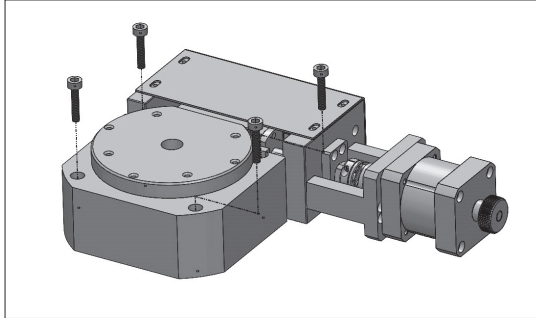
To rotate the stage around $\pm 5^\circ$, $\pm 8^\circ$, $\pm 15^\circ$ repeatedly.



Ballscrew type

Wedge method crossed rollers

Place the V-groove rail and the crossed roller guide horizontally, diagonally, vertically in three okaces and moves up and down with the precision ballscrew drive.



■ Objects to be attached on upper and lower surface of the stage

Fixing an object with irregular surface to the stage or attaching the stage to an object with irregular surface may deform the stage surface and deteriorate the accuracy. [required flatness: 10 μ m]

■ Stage attaching orientation

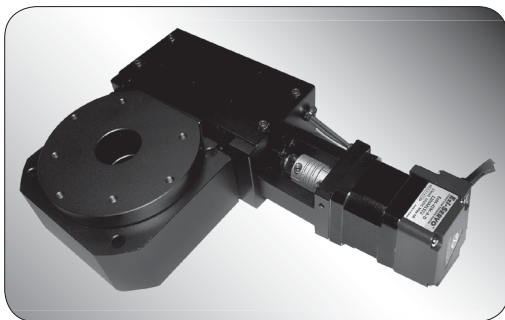
Specification of each product are those when installed on flat surface. Cautions are required for upside down, and vertical and horizontal mounting on side other than horizontal plane mounting. Load capacity and accuracy significantly change by the mounting orientation.

JMR-Series / Motorized Stage

JMR

Model Selection

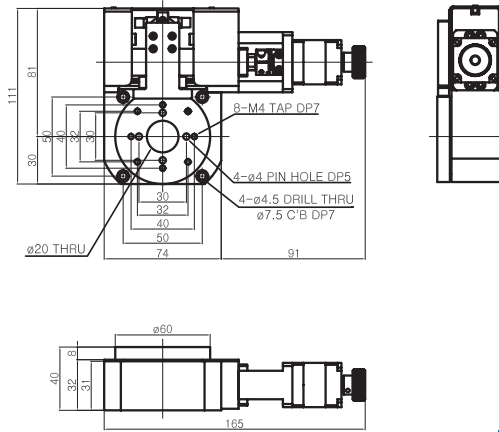
1) 2) 3) 4) 5)
JMR – 60L – B5 – O



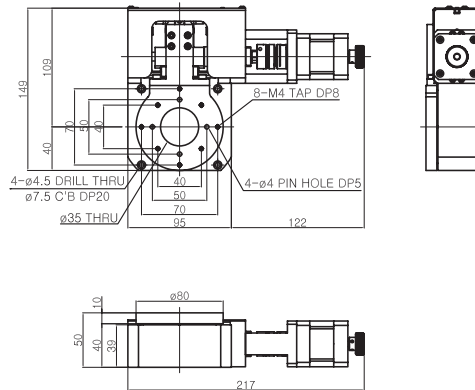
1) Axis	2) Surface Size	3) Position of Sensor & Connector	4) Grade of Ball Screw	5) Motor
JMR : Rotary-stage	60 : $\Phi 60$ 80 : $\Phi 80$ 100 : $\Phi 89$ 120 : $\Phi 120$ 150 : $\Phi 140$	L : Left from Motor R : Right from Motor	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMR-60	JMR-80	JMR-100
Surface Size	$\Phi 60$	$\Phi 80$	$\Phi 89$
Travel Range	$\pm 5^\circ$	$\pm 6^\circ$	$\pm 8^\circ$
Travel Guide	Thrust & Ball Bearing, Linerar Guide		
Resolution	$2\mu\text{m}$ (Full step)		
Max. Speed	$8.2^\circ/\text{sec}$ (based on lead 1 Ball Screw)	$5.9^\circ/\text{sec}$ (based on lead 1 Ball Screw)	$6.3^\circ/\text{sec}$ (based on lead 1 Ball Screw)
Moving Distance /1 rotation	0.87°	0.64°	0.68°
Applicable Ball Screw	$\Phi 8$, lead 1(C5/C7)	$\Phi 8$, lead 1(C5/C7)	$\Phi 8$, lead 1(C5/C7)
Accuracy	0.01° (C5) / 0.02° (C7)	0.01° (C5) / 0.02° (C7)	0.01° (C5) / 0.02° (C7)
Bi-Repeatability	$\pm 0.0015^\circ$ (C5) / $\pm 0.003^\circ$ (C7)	$\pm 0.0015^\circ$ (C5) / $\pm 0.003^\circ$ (C7)	$\pm 0.0015^\circ$ (C5) / $\pm 0.003^\circ$ (C7)
Load Capacity	5 Kg	8 Kg	10 Kg
Parallelism	$30\mu\text{m}$	$40\mu\text{m}$	$50\mu\text{m}$
Driving Parallelism	$15\mu\text{m}$	$20\mu\text{m}$	$20\mu\text{m}$
Staightness	$10\mu\text{m}$	$15\mu\text{m}$	$20\mu\text{m}$
Weight	1.6Kg	2Kg	2.2Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

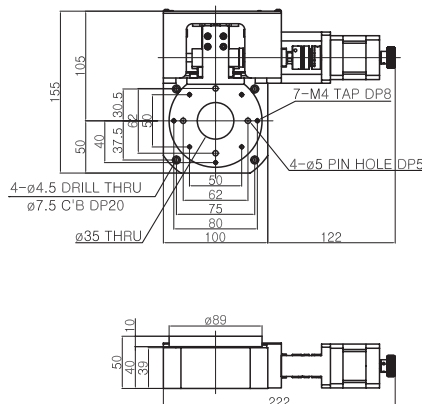
JMR



JMR-60L



JMR-80L



JMR-100L

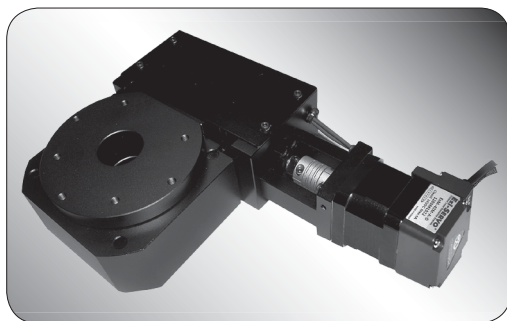
C

JMR-Series / Motorized Stage

JMR

Model Selection

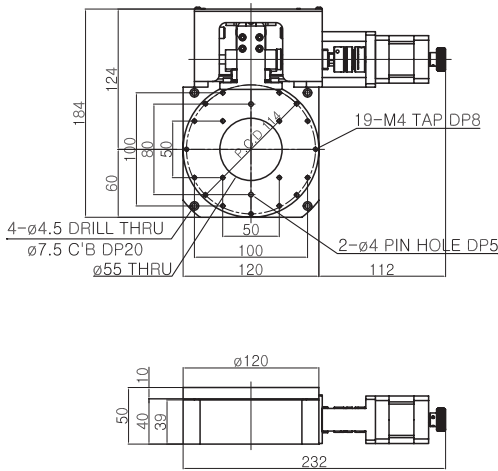
1) 2) 3) 4) 5)
JMR – 60L – B5 – O



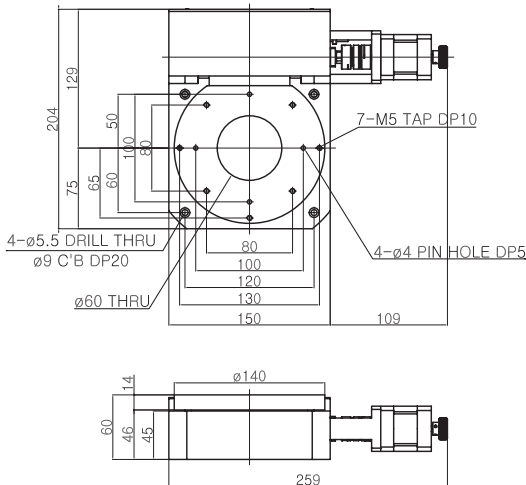
1) Axis	2) Surface Size	3) Position of Sensor & Connector	4) Grade of Ball Screw	5) Motor
JMR : Rotary-stage	60 : $\Phi 60$ 80 : $\Phi 80$ 100 : $\Phi 89$ 120 : $\Phi 120$ 150 : $\Phi 140$	L : Left from Motor R : Right from Motor	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMR-120	JMR-150
Surface Size	$\Phi 120$	$\Phi 140$
Travel Range	$\pm 6^\circ$	$\pm 15^\circ$
Travel Guide	Thrust & Ball Bearing, Linerar Guide	
Resolution	$2\mu\text{m}$ (Full step)	
Max. Speed	5.0 °/sec (based on lead 1 Ball Screw)	4.8 °/sec (based on lead 1 Ball Screw)
Moving Distance /1 rotation	0.55 °	0.53 °
Applicable Ball Screw	$\Phi 8$, lead 1(C5/C7)	$\Phi 8$, lead 1(C5/C7)
Accuracy	0.01 ° (C5) / 0.02 ° (C7)	0.01 ° (C5) / 0.02 ° (C7)
Bi-Repeatability	$\pm 0.0015^\circ$ (C5) / $\pm 0.003^\circ$ (C7)	$\pm 0.0015^\circ$ (C5) / $\pm 0.003^\circ$ (C7)
Load Capacity	12 Kg	20 Kg
Parallelism	50 μm	50 μm
Driving Parallelism	20 μm	20 μm
Staightness	20 μm	20 μm
Weight	2.8Kg	3.0Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMR



JMR-120L



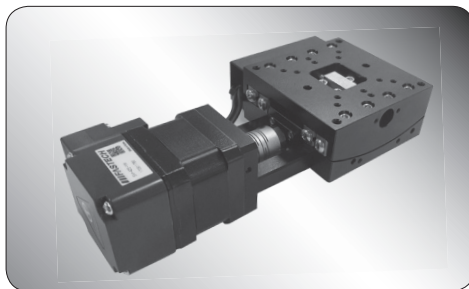
JMR-150L

JMG/JMT-Series / Motorized Stage

JMG/JMT

Model Selection

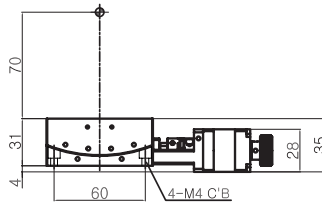
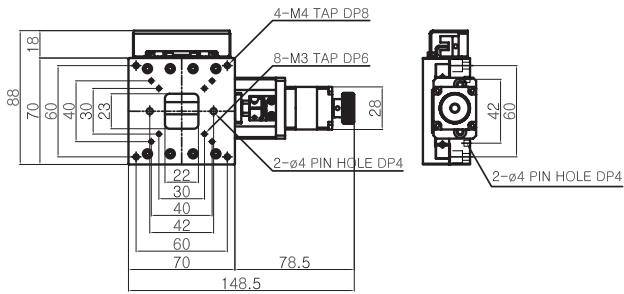
1) 2) 3) 4) 5)
JMG-7070L-B5-O



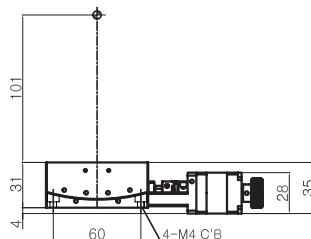
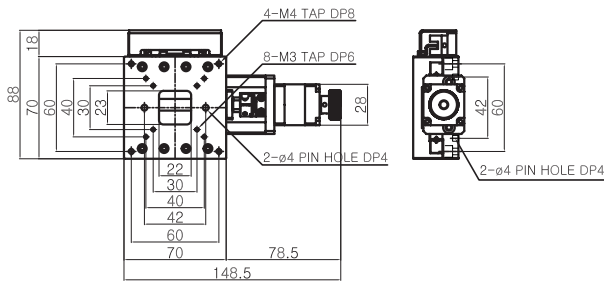
1) Axis	2) Surface Size	3) Position of Sensor & Connector	4) Grade of Ball Screw	5) Motor
JMG JMG2 JMT: Goniometer stage	7070 : 70x70mm 70101: 70x70mm 100 : 80x100mm	L : Left from Motor R : Right from Motor	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMG-7070	JMG-70101
Surface Size	70 x 70mm	70 x 70mm
Work Distance	70mm±0.2mm	101mm±0.2mm
Rotation Center	70mm	101mm
Angular Range	±8° 1mm(0.744°)	±5° 1mm(0.5305°)
Travel Guide	Goniometer Crossed Roller Guide	
Resolution	0.003° (Full step)	
Max. Speed	7.6 ° /sec	5.6 ° /sec
Applicable Ball Screw	Ø8, lead 1(C5/C7)	Ø8, lead 1(C5/C7)
Accuracy	0.01 ° (C5) / 0.02 ° (C7)	0.01 ° (C5) / 0.02 ° (C7)
Bi-Repeatability	± 0.0015 ° (C5) / ± 0.003 ° (C7)	± 0.0015 ° (C5) / ± 0.003 ° (C7)
Load Capacity	5 Kg	5 Kg
Weight	0.8Kg	0.8Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMG/JMT



JMG-7070R



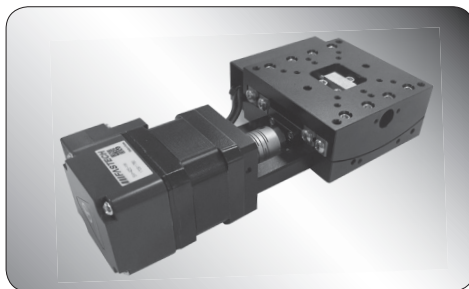
JMG-70101R

JMG/JMT-Series / Motorized Stage

JMG/JMT

Model Selection

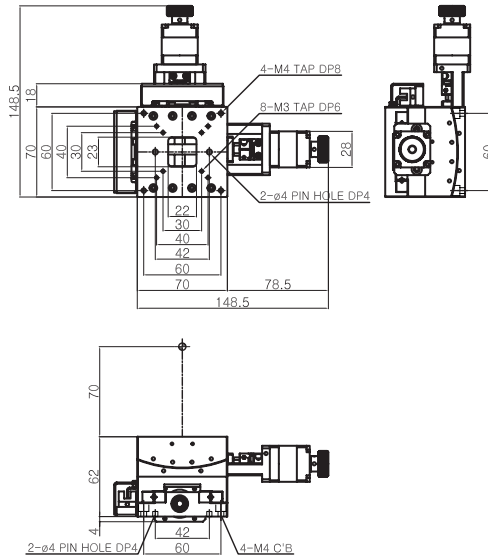
1) 2) 3) 4) 5)
JMG-7070L-B5-O



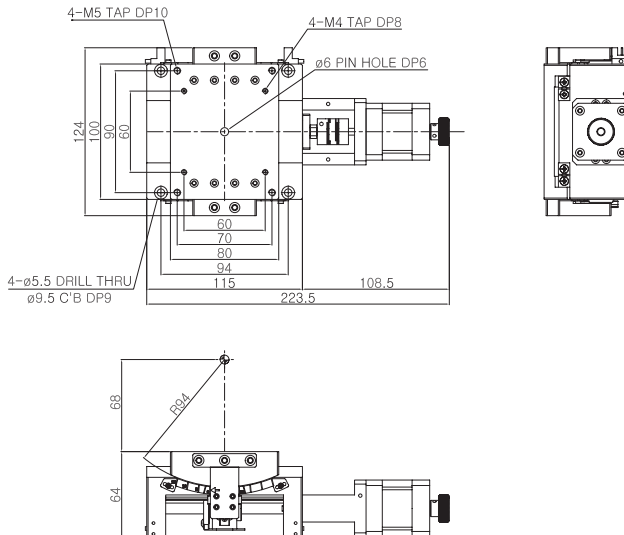
1) Axis	2) Surface Size	3) Position of Sensor & Connector	4) Grade of Ball Screw	5) Motor
JMG JMG2 JMT: Goniometer stage	7070 : 70x70mm 70101: 70x70mm 100 : 80x100mm	L : Left from Motor R : Right from Motor	B5 : C5 Grade Ball Screw B7 : C7 Grade Ball Screw	O : Oriental Motor (5Phase) S : Sanyo (2Phase) E : Ezi-Servo Y : Yaskawa Servo M : Mitsubishi Servo

Model	JMG2-7070	JMT-100
Surface Size	70 x 70mm	80 x 100mm
Work Distance	TX : 101mm ± 0.2mm TY : 70mm ± 0.2mm	68mm ± 0.2mm
Rotation Center	TX : 101mm TY : 70mm	68mm
Angular Range	TX : ± 5° 1mm(0.5305°) TY : ± 8° 1mm(0.744°)	± 15° , 1mm(0.5208°)
Travel Guide	Goniometer Crossed Roller Guide	
Resolution	0.003° (Full step)	
Max. Speed	5.6 ° /sec	25 ° /sec
Applicable Ball Screw	Ø8, lead 1(C5/C7)	Ø8, lead 5(C7)
Accuracy	0.01 ° (C5) / 0.02 ° (C7)	0.02 ° (C7)
Bi-Repeatability	± 0.0015 ° (C5) / ± 0.003 ° (C7)	± 0.003 ° (C7)
Load Capacity	4.2 Kg	5 Kg
Weight	1.6 Kg	1.9 Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

JMG/JMT

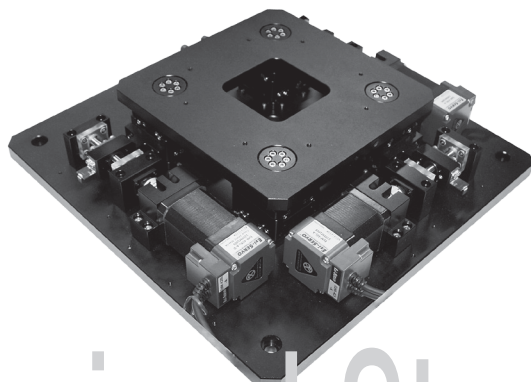


JMG-7070R

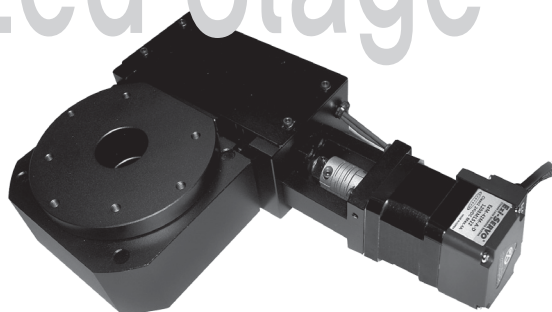


JMT-100

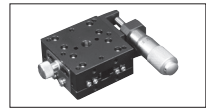
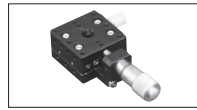
C



Motorized Stage



Manual Stage



JCX-25/ JCXY-25

JCZ-25/ JCXYZ-25

JX-25/ JXY-25

JZ-25/ JXYZ-25

JCX-30/ JCXY-30

JCZ-30/ JCXYZ-30

JX-30/ JXY-30

JZ-30/ JXYZ-30

JCX-40(18H)/ JCX-40

JCXY-40/ JCXY-40-S

JCZ-40/ JCXYZ-40

JX-40/ JXY-40

JXY-40-S/ JZ-40

JXYZ-40

JX-5015/ JX-6025

JCX-60(18H)/ JCX-60

JCX-60(24H)/ JCXY-60

JCXY-60-S/ JCZ-60

JCXYZ-60/ JX-60

JXY-60/ JXY-60-S

JZ-60/ JXYZ-60

JCX-80-13/ JCX-80-25

JCXY-80-13/ JCXY-80-25

JCZ-80-13/ JCZ-80-25

JCXYZ-80-13/ JCXYZ-80-25

JCX-90(24H)/ JCXY-90(24H)

JCX-100-25/ JCX-100-50

JCXY-100-25/ JCXY-100-50

JCX-120-25/ JCX-120-50

JCXY-120-25/ JCXY-120-50

JCHZ 40/ 60/ 80/ 100/ 120

D

JCX-Series(Aluminum Body)

JCX-25

JCX-25L



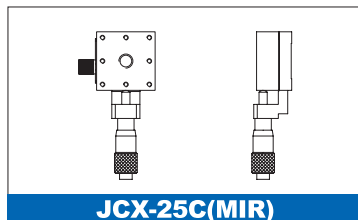
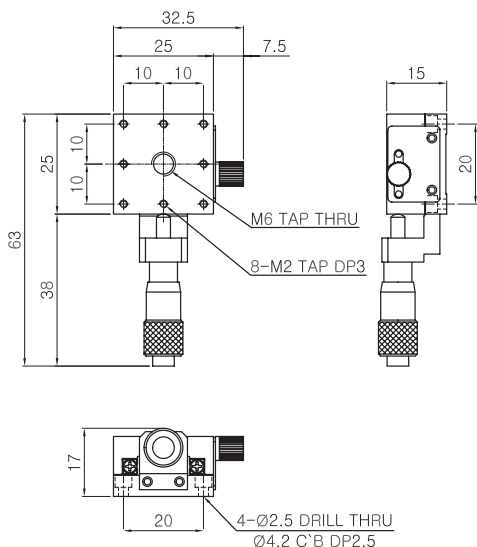
JCX-25C



JCX-25R

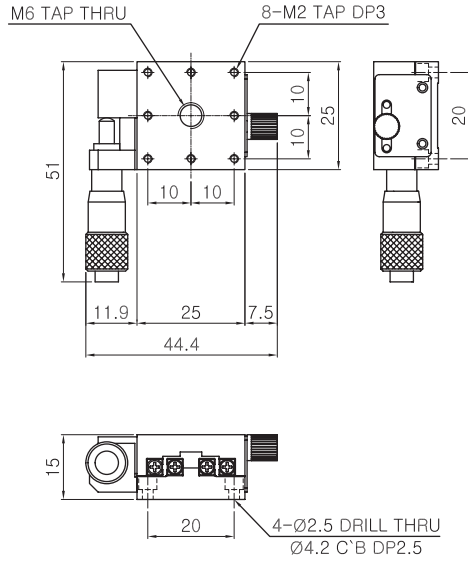


Model	JCX-25L	JCX-25R	JCX-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	1kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.04 kg	0.04 kg	0.04 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

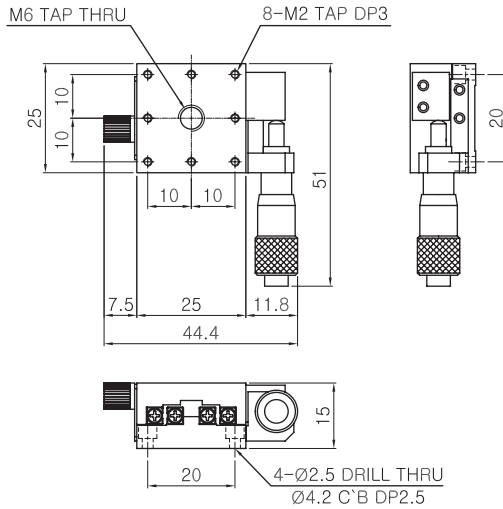


JCX-25C(MIR)

JCX-25C



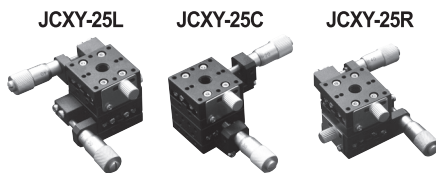
JCX-25L



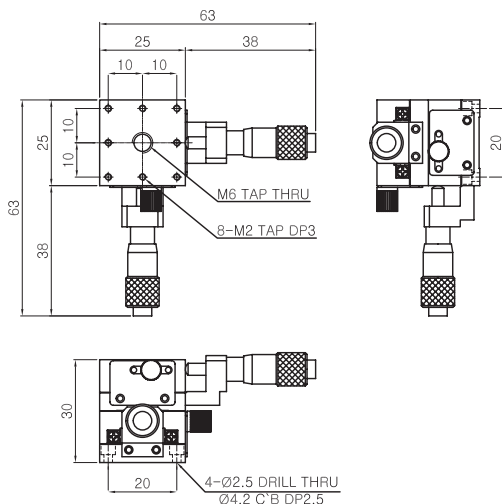
JCX-25R

JCXY-Series(Aluminum Body)

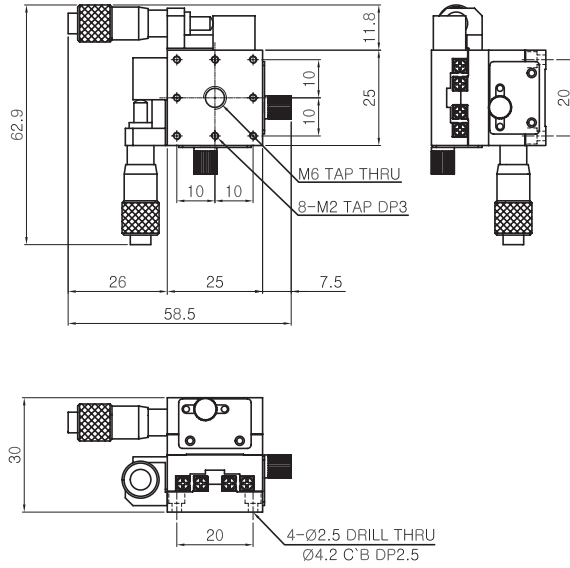
JCXY-25



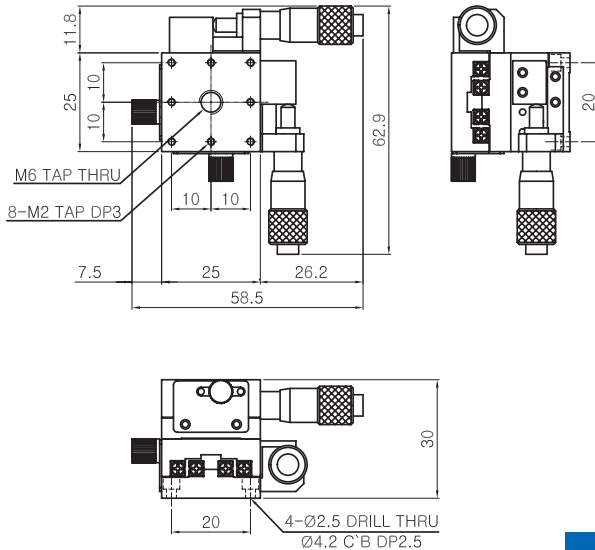
Model	JCXY-25L	JCXY-25R	JCXY-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	0.95kgf		
Parallelism	60 μ m		
Driving Parallelism	20 μ m		
Orthogonality	10 μ m		
Weight	0.08 kg	0.08 kg	0.08 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXY-25C



JCXY-25L



JCXY-25R

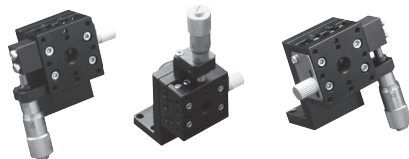
JCZ-Series(Aluminum Body)

JCZ-25

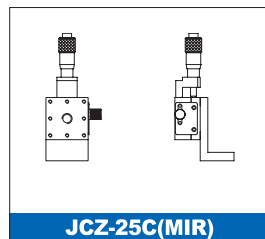
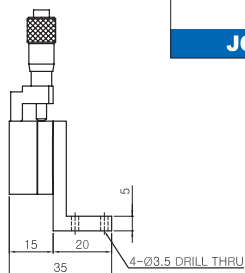
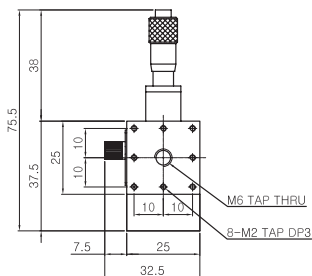
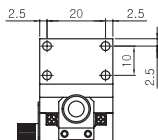
JCZ-25L

JCZ-25C

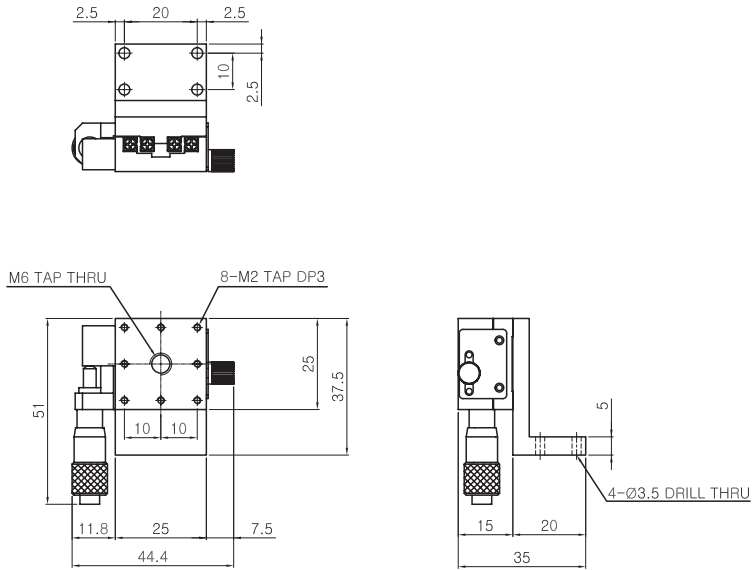
JCZ-25R



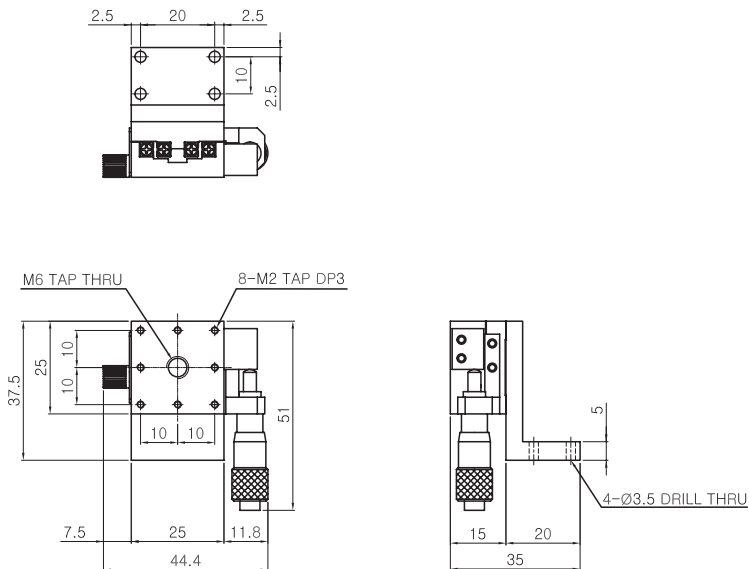
Model	JCZ-25L	JCZ-25R	JCZ-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	0.5 kgf		
Parallelism	50 μ m		
Driving Parallelism	20 μ m		
Weight	0.06 kg	0.06 kg	0.06 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCZ-25C



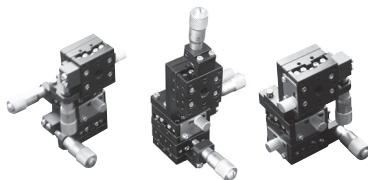
JCZ-25L



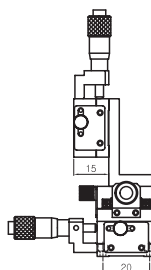
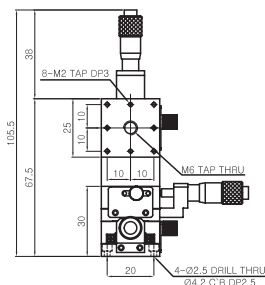
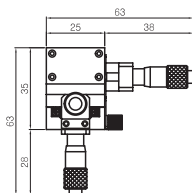
JCZ-25R

JCXYZ-25

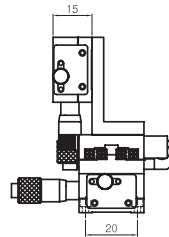
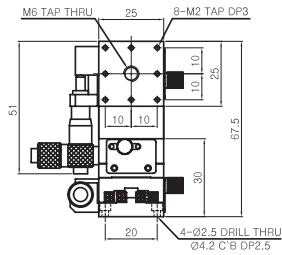
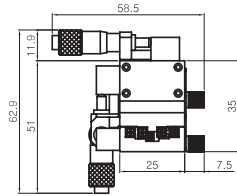
JCXYZ-25L JCXYZ-25C JCXYZ-25R



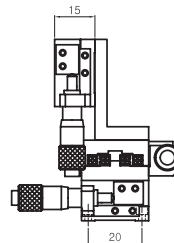
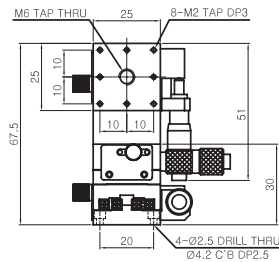
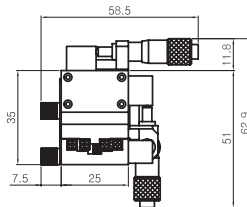
Assembling Model	JCXYZ-25L	JCXYZ-25R	JCXYZ-25C
Orthogonality	JCXY-25L + JCZ-25L	JCXY-25R + JCZ-25R	JCXY-25C + JCZ-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±3.25 mm		
Minimum Reading of Micrometer	10μm		
Guide Type	Crossed Roller Guide		
Load Capacity	0.5kgf		
Parallelism	80μm		
Driving Parallelism	25μm		
Weight	0.14 kg	0.14 kg	0.13 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXYZ-25C



JCXYZ-25L

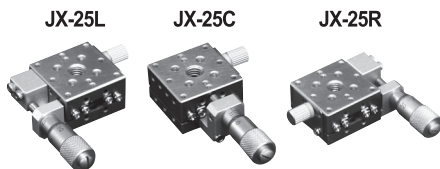


JCXYZ-25R

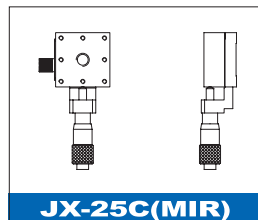
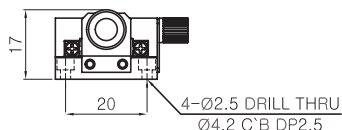
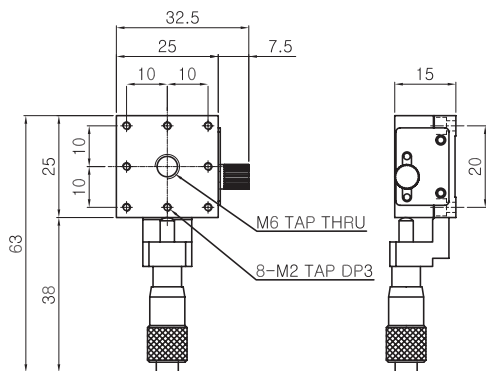
D

JX-Series(Steel Body)

JX-25

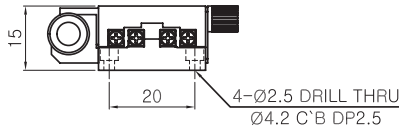
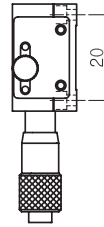
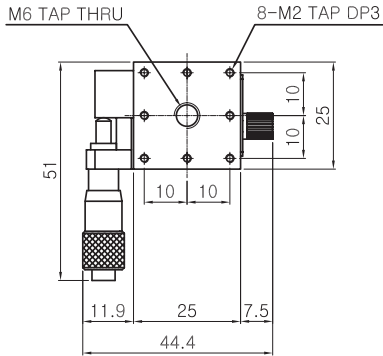


Model	JX-25L	JX-25R	JX-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball guide		
Load Capacity	1.2 kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.06 kg	0.06 kg	0.06 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		

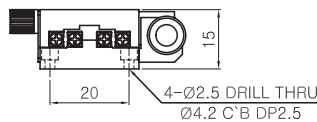
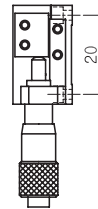
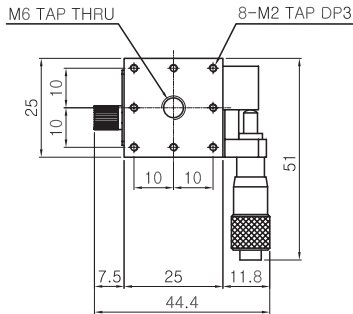


JX-25C(MIR)

JX-25C



JX-25L



JX-25R

JX-Series(Steel Body)

JXY-25

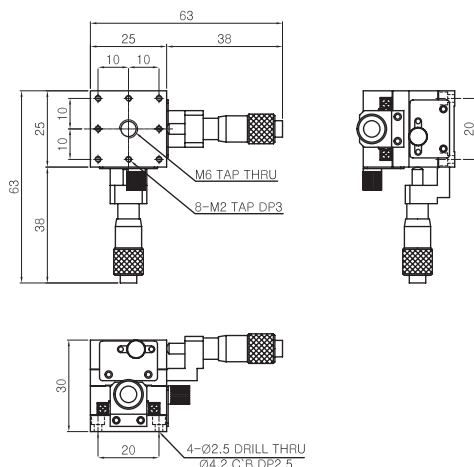
JXY-25L

JXY-25C

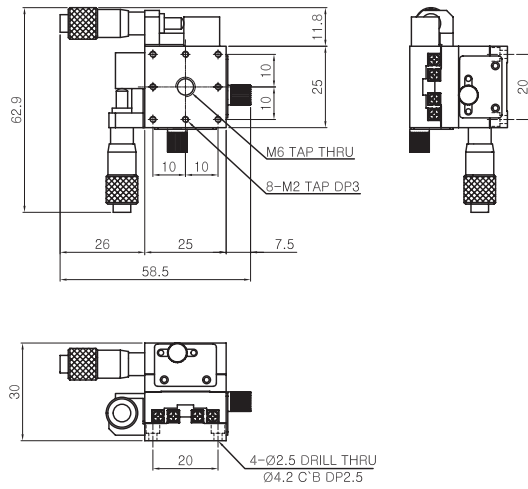
JXY-25R



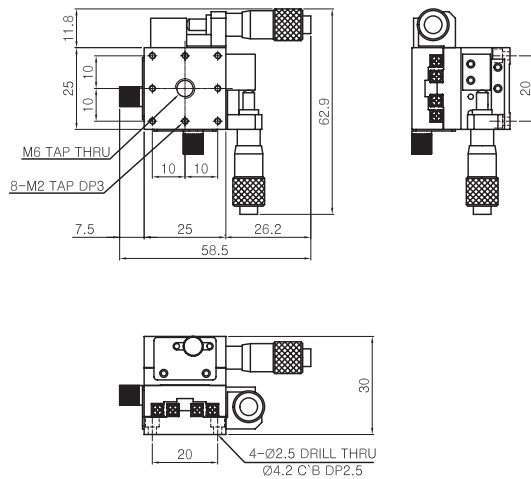
Model	JXY-25L	JXY-25R	JXY-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	1 kgf		
Parallelism	60 μ m		
Driving Parallelism	20 μ m		
Weight	0.12 kg	0.12 kg	0.12 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXY-25C



JXY-25L

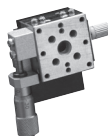


JXY-25R

JX-Series(Steel Body)

JZ-25

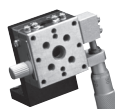
JZ-25L



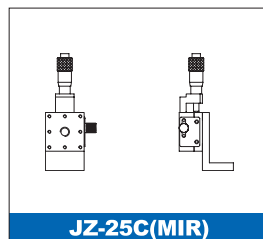
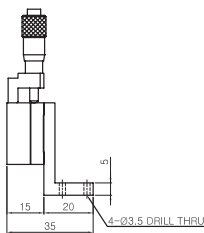
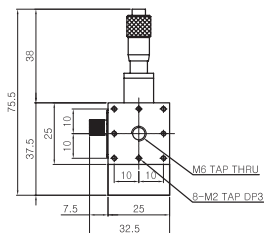
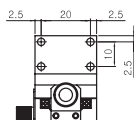
JZ-25C



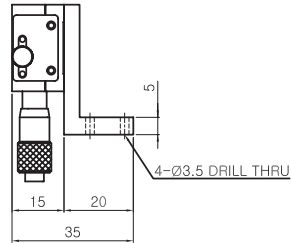
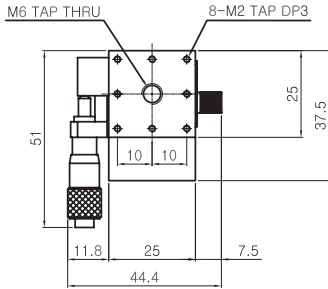
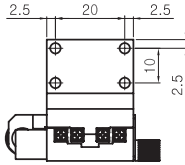
JZ-25R



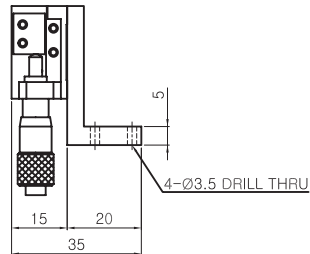
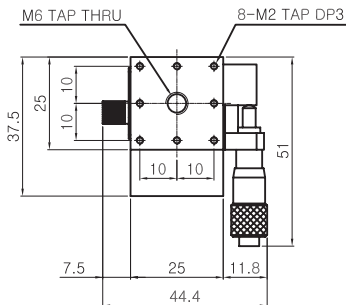
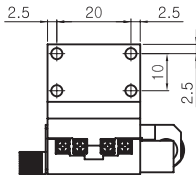
Model	JZ-25L	JZ-25R	JZ-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	0.7kgf		
Parallelism	50 μ m		
Driving Parallelism	20 μ m		
Weight	0.08 kg	0.06 kg	0.08 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JZ-25C



JZ-25L



JZ-25R

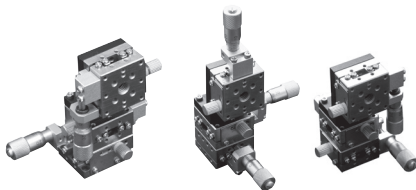
JXYZ-Series(Steel Body)

JXYZ-25

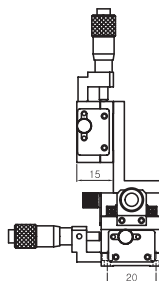
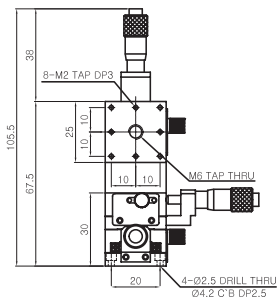
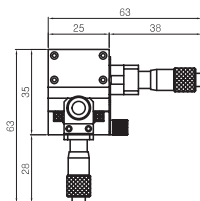
JXYZ-25L

JXYZ-25C

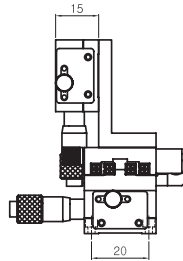
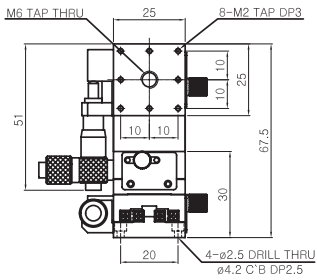
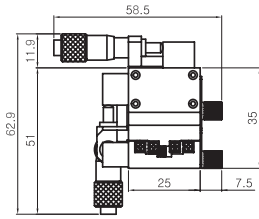
JXYZ-25R



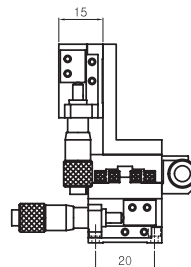
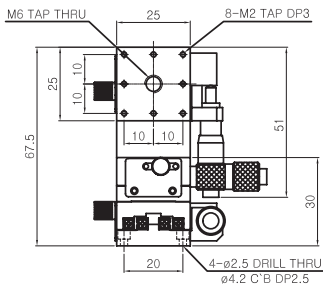
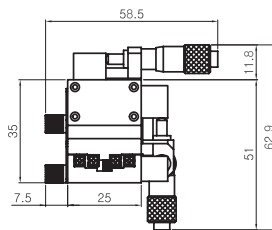
Assembling Model	JXYZ-25L	JXYZ-25R	JXYZ-25C
Orthogonality	JXY-25L + JZ-25L	JXY-25R + JZ-25R	JXY-25C + JZ-25C
Surface Size	25 x 25 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±3.25 mm		
Minimum Reading of Micrometer	10μm		
Guide Type	Linear Ball Guide		
Load Capacity	0.7kgf		
Parallelism	60μm		
Driving Parallelism	20μm		
Weight	0.2 kg	0.2 kg	0.2 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXYZ-25C



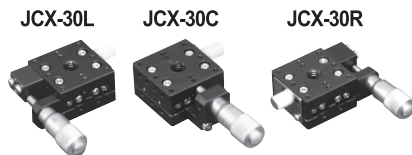
JXYZ-25L



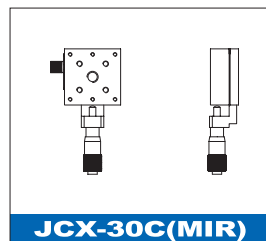
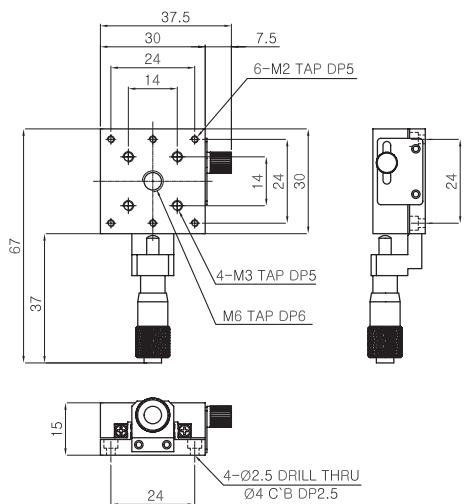
JXYZ-25R

JCX-Series(Aluminum Body)

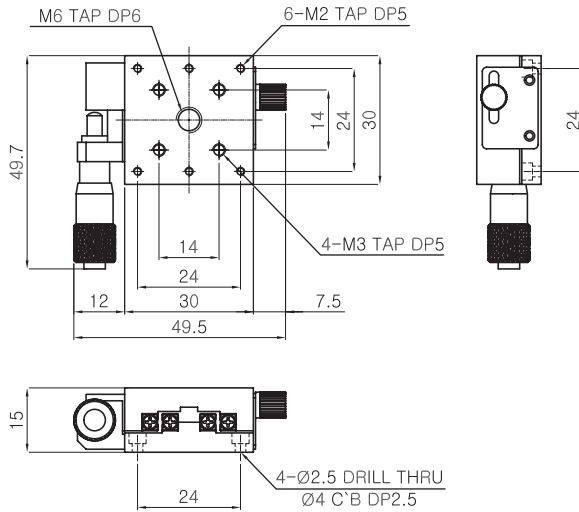
JCX-30



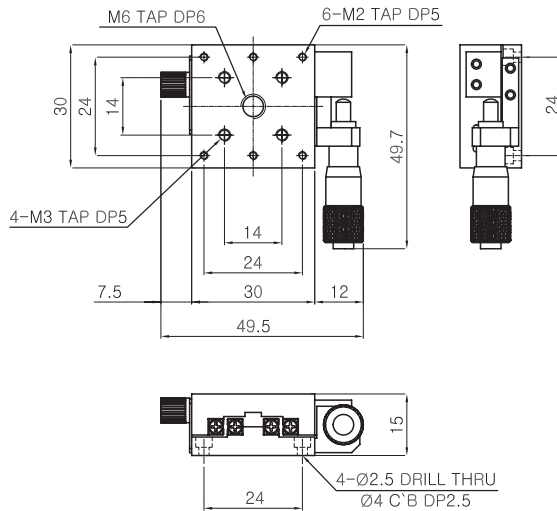
Model	JCX-30L	JCX-30R	JCX-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	1.2kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.07 kg	0.07 kg	0.07 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCX-30C



JCX-30L



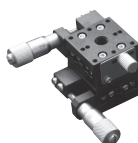
JCX-30R

D

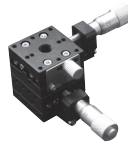
JCXY-Series(Aluminum Body)

JCXY-30

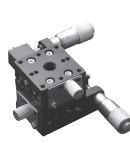
JCXY-30L



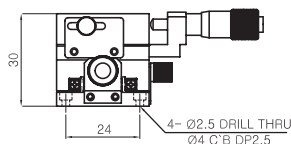
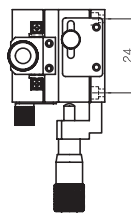
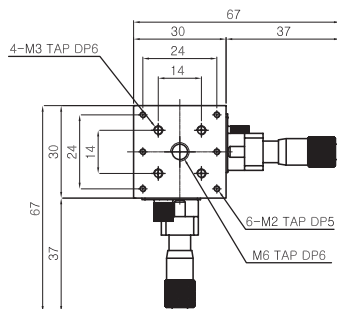
JCXY-30C



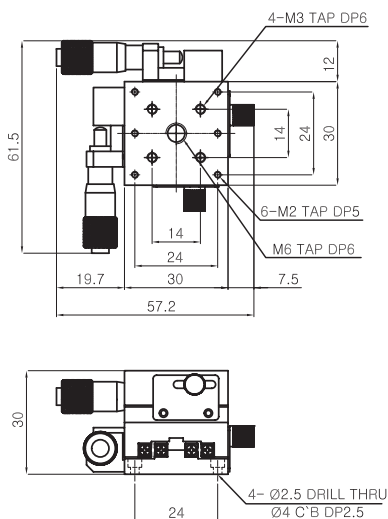
JCXY-30R



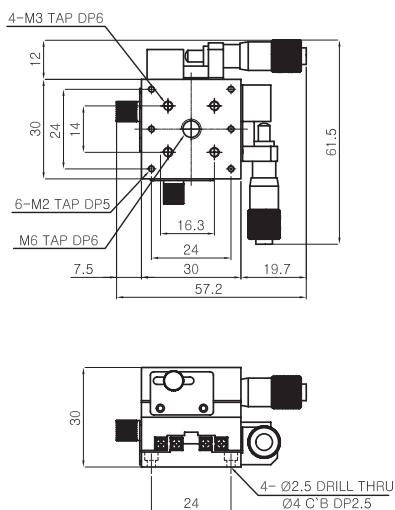
Model	JCXY-30L	JCXY-30R	JCXY-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	1 kgf		
Parallelism	60 μ m		
Driving Parallelism	20 μ m		
Orthogonality	10 μ m		
Weight	0.14 kg	0.14 kg	0.14 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXY-30C



JCXY-30L



JCXY-30R

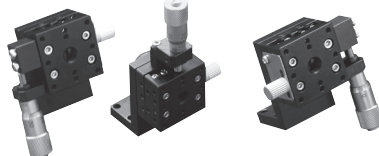
JCZ-Series(Aluminum Body)

JCZ-30

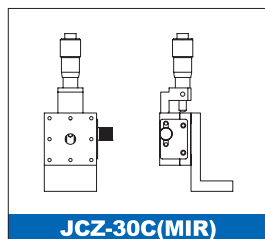
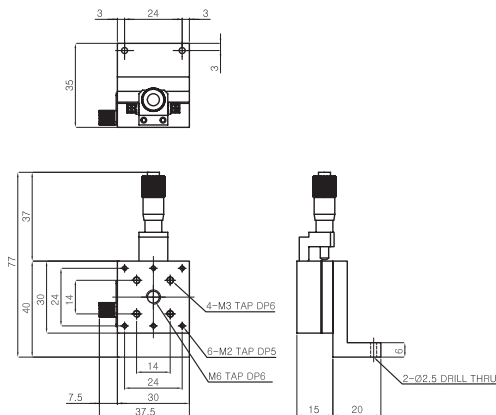
JCZ-30L

JCZ-30C

JCZ-30R



Model	JCZ-30L	JCZ-30R	JCZ-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	0.7kgf		
Parallelism	50 μ m		
Driving Parallelism	20 μ m		
Weight	0.09 kg	0.09 kg	0.09 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCZ-30C(MIR)

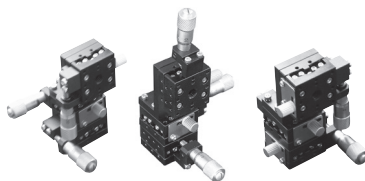
JCZ-30C



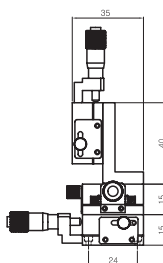
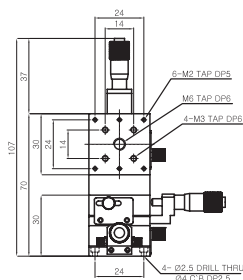
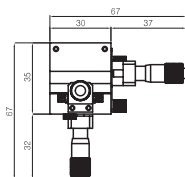
JCXYZ-Series(Aluminum Body)

JCXYZ-30

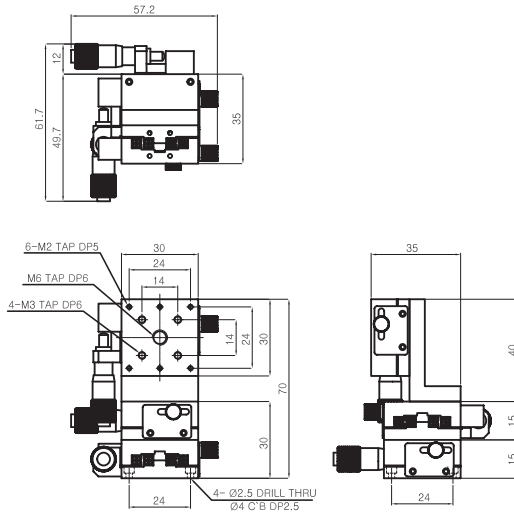
JCXYZ-30L JCXYZ-30C JCXYZ-30R



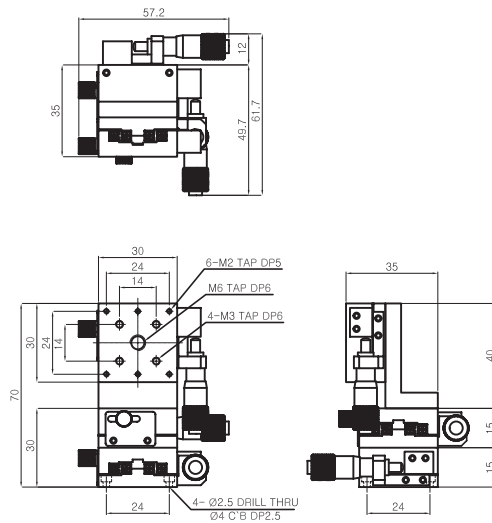
Model	JCXYZ-30L	JCXYZ-30R	JCXYZ-30C
Orthogonality	JCXY-30L + JCZ-30L	JCXY-30R + JCZ-30R	JCXY-30C + JCZ-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	0.7kgf		
Parallelism	80 μ m		
Driving Parallelism	25 μ m		
Weight	0.23 kg	0.23 kg	0.23 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXYZ-30C



JCXYZ-30L



JCXYZ-30R

JX-Series(Steel Body)

JX-30

JX-30L



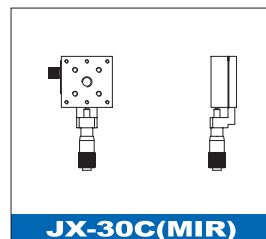
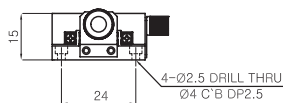
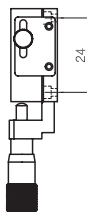
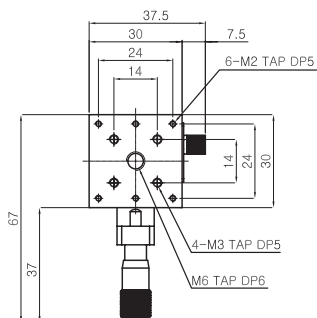
JX-30C



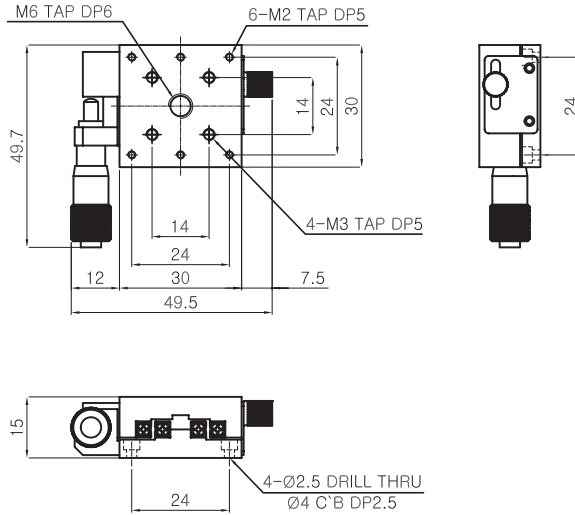
JX-30R



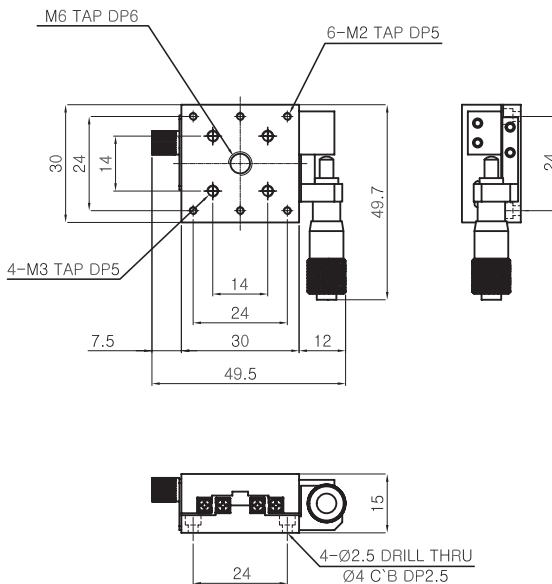
Model	JX-30L	JX-30R	JX-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	2kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.12 kg	0.12 kg	0.12 kg
Material	Steel		
Finish Treatment	Electroless Nckel Plating		



JX-30C



JX-30L

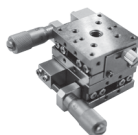


JX-30R

JXY-Series(Steel Body)

JXY-30

JXY-30L



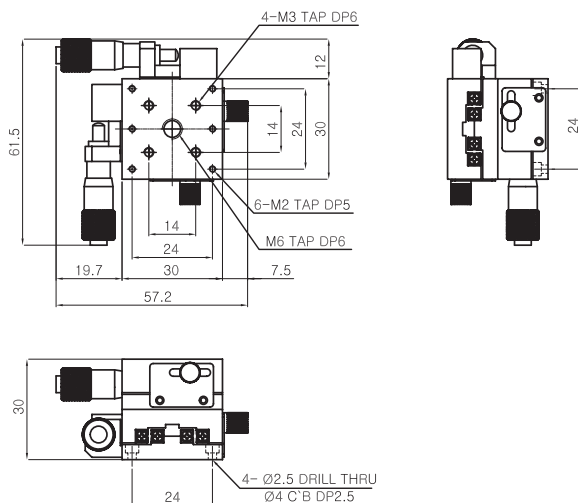
JXY-30C



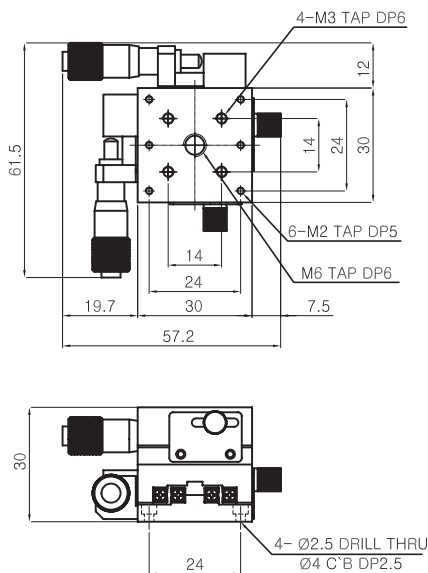
JXY-30R



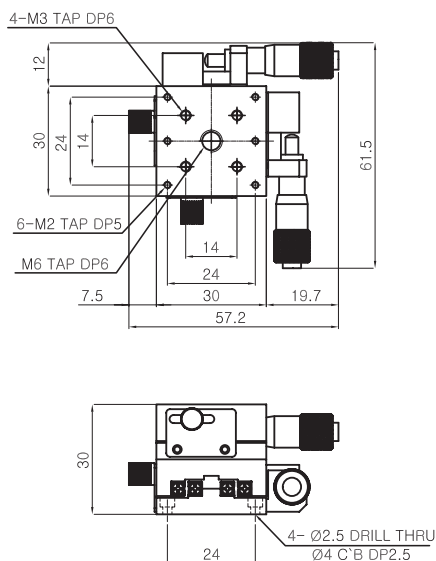
Model	JCXY-30L	JCXY-30R	JCXY-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	1.7kgf		
Parallelism	60 μ m		
Driving Parallelism	20 μ m		
Orthogonality	10 μ m		
Weight	0.24 kg	0.24 kg	0.24 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXY-30C



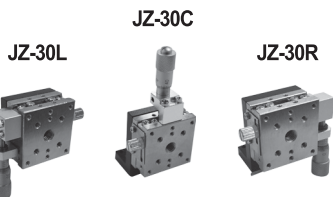
JXY-30L



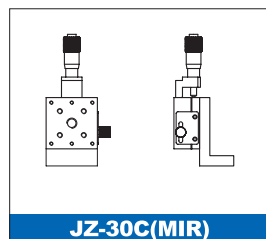
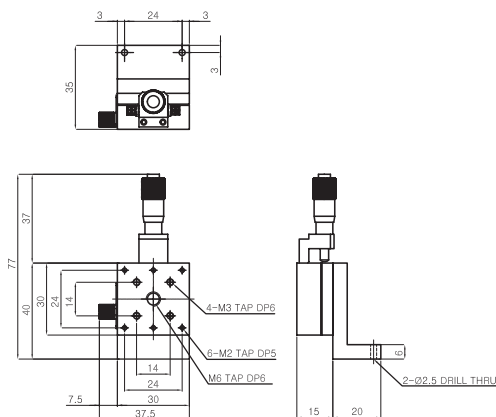
JXY-30R

JZ-Series(Steel Body)

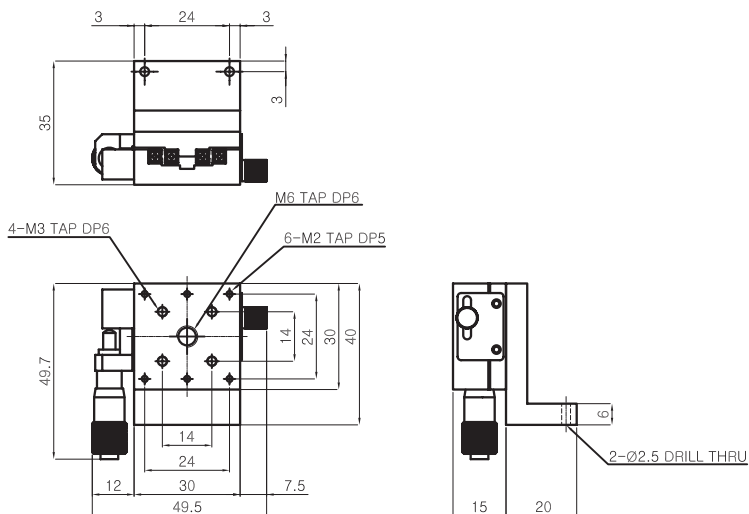
JZ-30



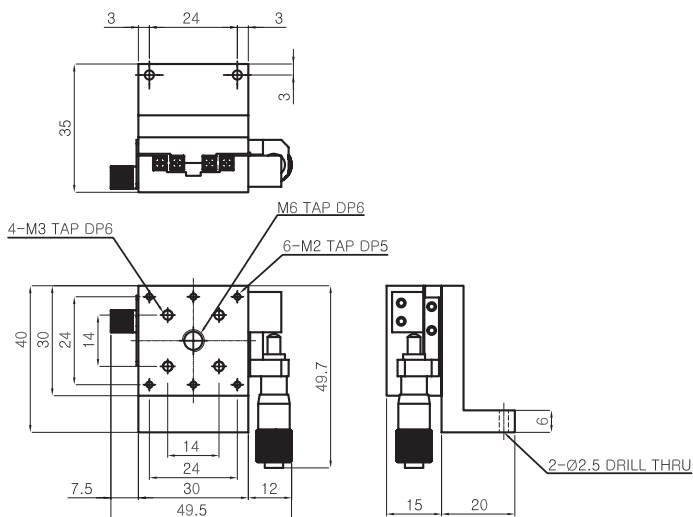
Model	JZ-30L	JZ-30R	JZ-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	1.0kgf		
Parallelism	50 μ m		
Driving Parallelism	20 μ m		
Weight	0.14 kg	0.14 kg	0.14 kg
Material	Steel		
Finish Treatment	Electroless Nckel Plating		



JZ-30C



JZ-30L



JZ-30R

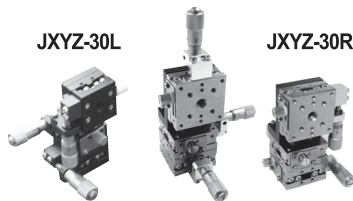
JXYZ-Series(Steel Body)

JXYZ-30

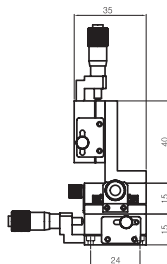
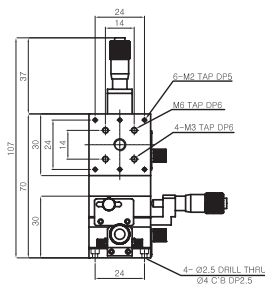
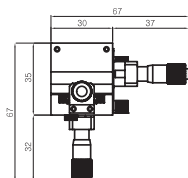
JXYZ-30C

JXYZ-30L

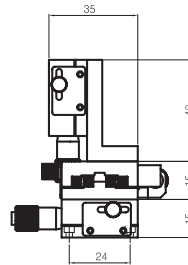
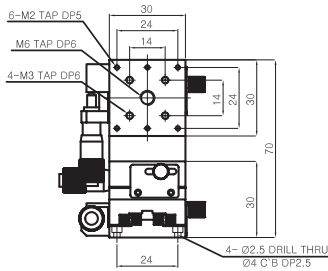
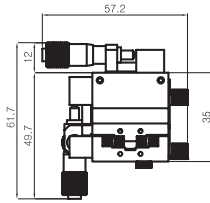
JXYZ-30R



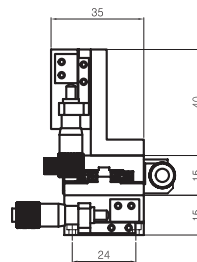
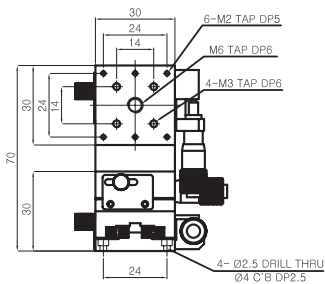
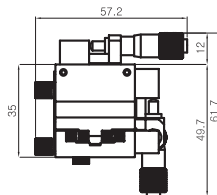
Model	JXYZ-30L	JXYZ-30R	JXYZ-30C
Orthogonality	JXY-30L + JZ-30L	JXY-30R + JZ-30R	JXY-30C + JZ-30C
Surface Size	30 x 30 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 3.25 mm		
Minimum Reading of Micrometer	1.0 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	1.0kgf		
Parallelism	50 μ m		
Driving Parallelism	20 μ m		
Weight	0.38 kg	0.38 kg	0.38 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXYZ-30C



JXYZ-30L



JXYZ-30R

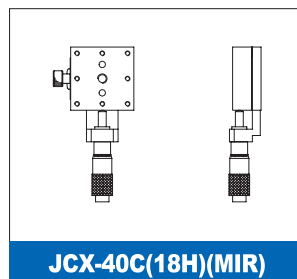
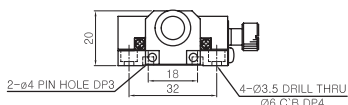
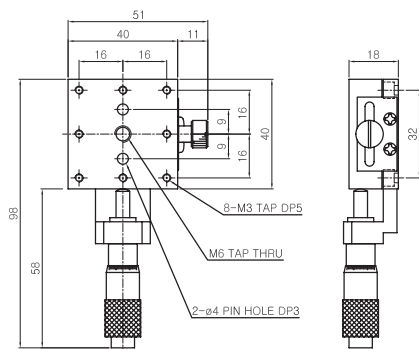
JCX-Series(Aluminum Body)

JCX-40(18H)

JCX-40L(18H) JCX-40C(18H) JCX-40R(18H)

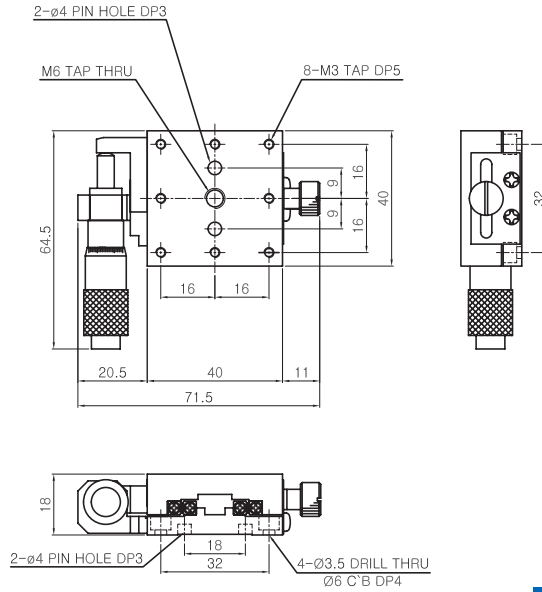


Model	JCX-40L(18H)	JCX-40R(18H)	JCX-40C(18H)
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	3kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.13 kg	0.13 kg	0.12 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

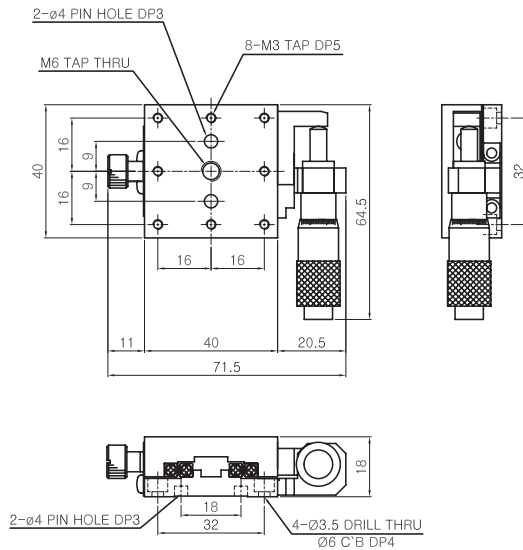


JCX-40C(18H)(MIR)

JCX-40C(18H)



JCX-40L(18H)



JCX-40R(18H)

JCX-Series(Aluminum Body)

JCX-40

JCX-40L



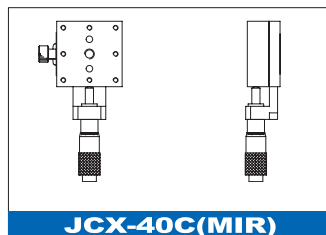
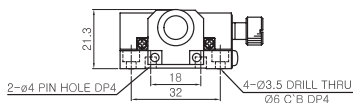
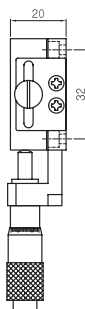
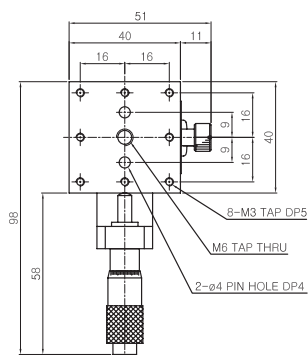
JCX-40C



JCX-40R

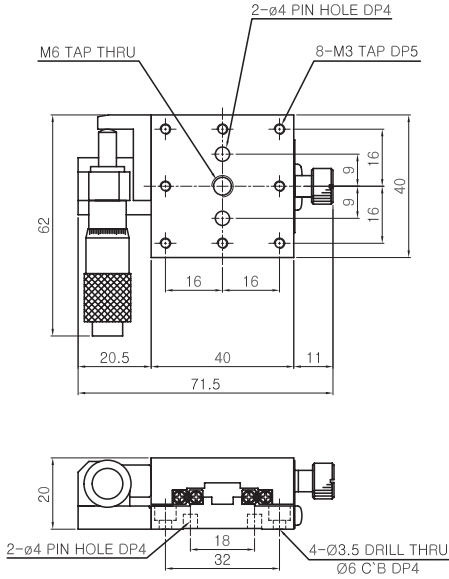


Model	JCX-40L	JCX-40R	JCX-40C
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±6.5 mm		
Minimum Reading of Micrometer	10μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	3kgf		
Parallelism	30μm		
Driving Parallelism	10μm		
Weight	0.14 kg	0.14 kg	0.14 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

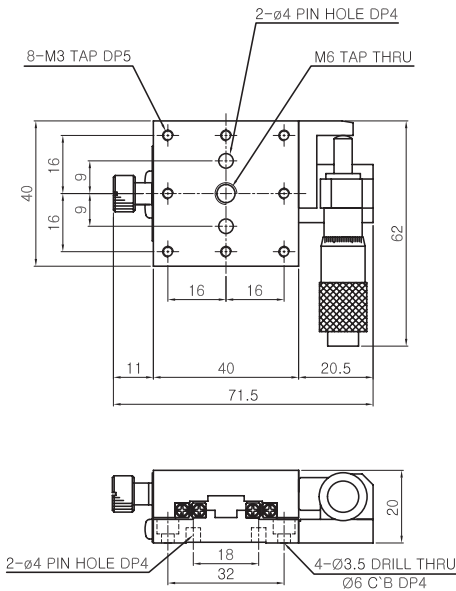


JCX-40C(MIR)

JCX-40C



JCX-40L



JCX-40R

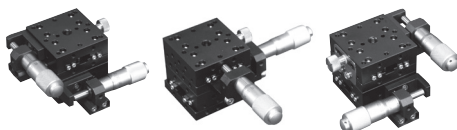
JCXY-Series(Aluminum Body)

JCXY-40

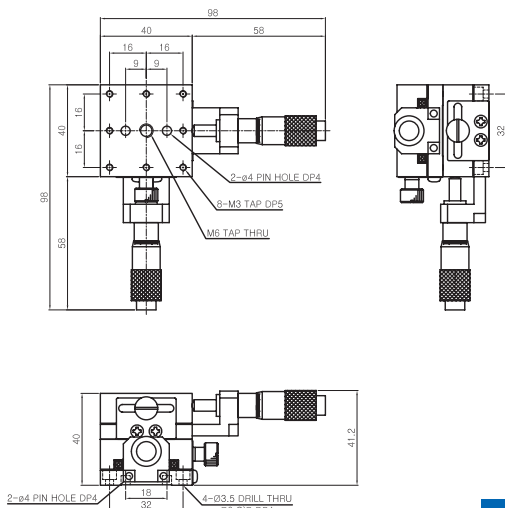
JCXY-40L

JCXY-40C

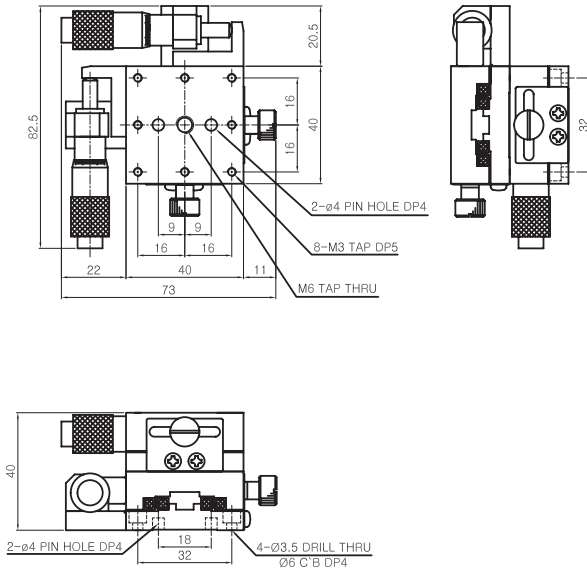
JCXY-40R



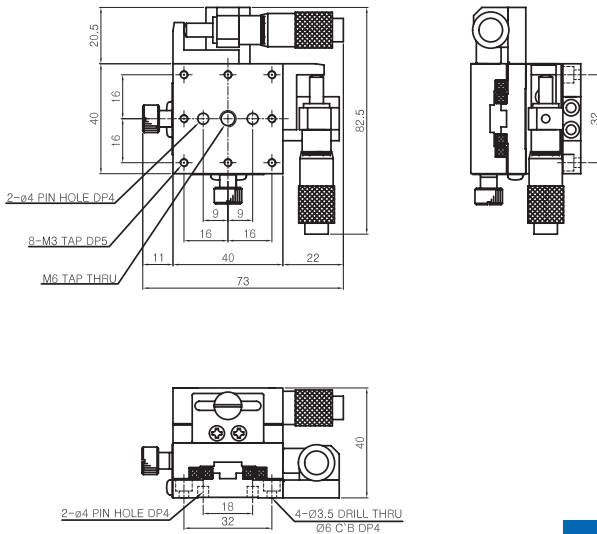
Model	JCXY-40L	JCXY-40R	JCXY-40C
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±6.5 mm		
Minimum Reading of Micrometer	10μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	2.8kgf		
Parallelism	60μm		
Driving Parallelism	20μm		
Orthogonality	10μm		
Weight	0.28 kg	0.28 kg	0.26 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXY-40C



JCXY-40L



JCXY-40R

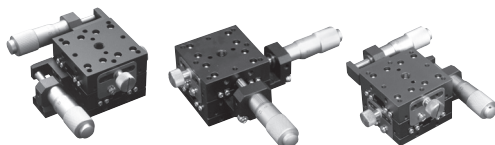
Slim JCY-Series(Aluminum Body)

JCXY-40-S

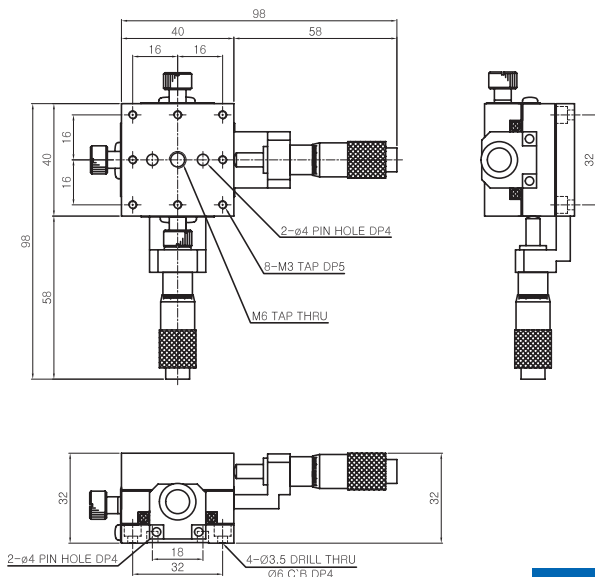
JCXY-40LS

JCXY-40CS

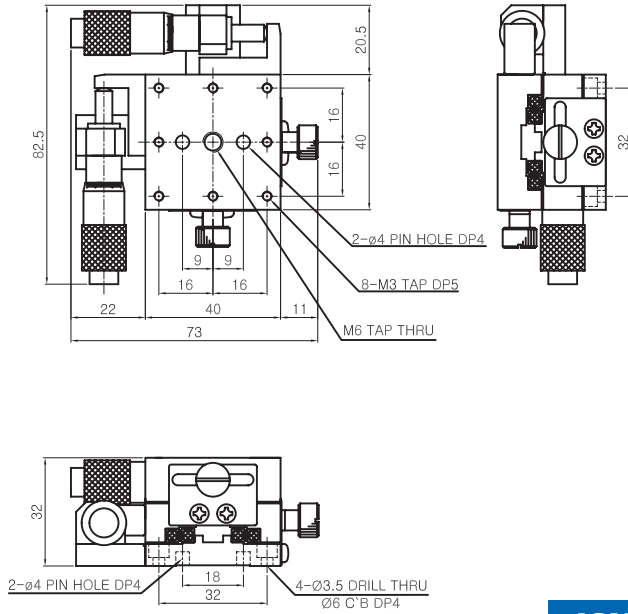
JCXY-40RS



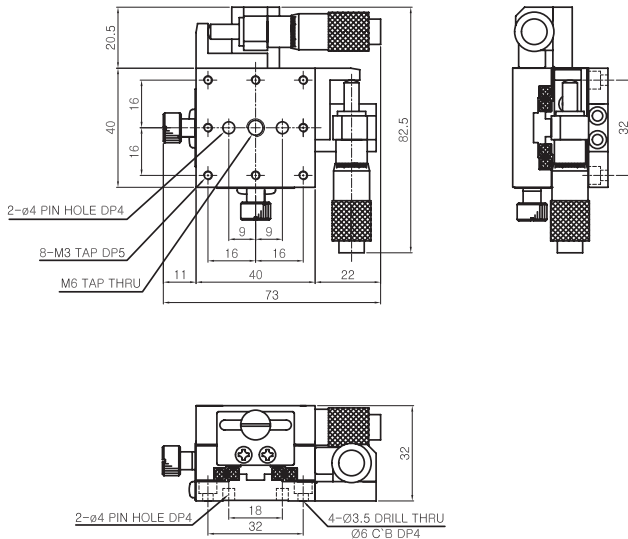
Model	JCXY-40LS	JCXY-40RS	JCXY-40CS
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±6.5 mm		
Minimum Reading of Micrometer	10μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	2.8kgf		
Parallelism	60μm		
Driving Parallelism	20μm		
Orthogonality	10μm		
Weight	0.22 kg	0.22 kg	0.20 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



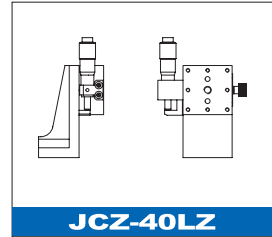
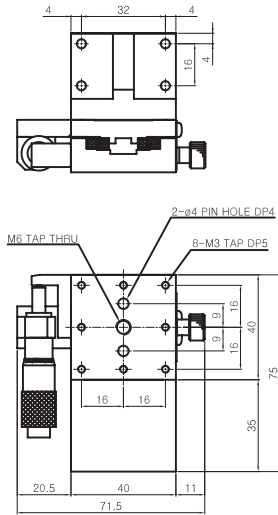
JCXY-40CS



JCXY-40LS



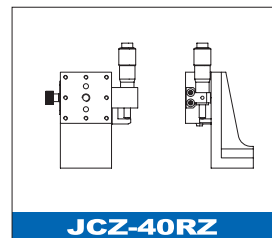
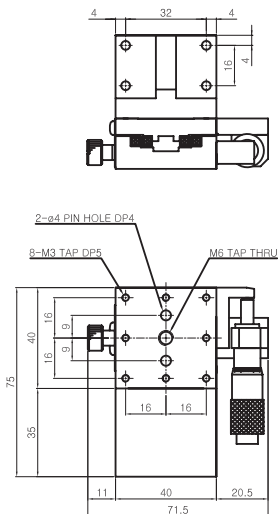
JCXY-40RS



JCZ-40LZ

D

JCZ-40L



JCZ-40RZ

JCZ-40R

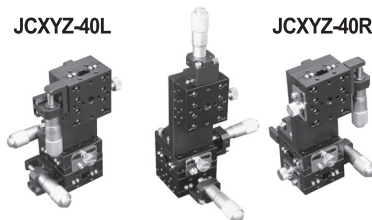
JCXYZ-Series(Aluminum Body)

JCXYZ-40

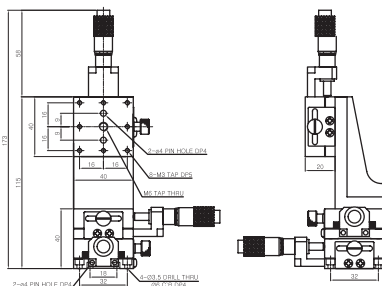
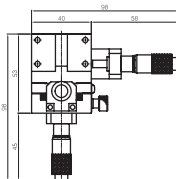
JCXYZ-40C

JCXYZ-40L

JCXYZ-40R



Assembling Model	JCXYZ-40L	JCXYZ-40R	JCXYZ-40C
Orthogonality	JCXY-40L + JCZ-40L	JCXY-40R + JCZ-40R	JCXY-40C + JCZ-40C
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed Roller Guide		
Load Capacity	1.5kgf		
Parallelism	90 μ m		
Driving Parallelism	30 μ m		
Weight	0.48 kg	0.48 kg	0.45 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXYZ-40C

JX-Series(Steel Body)

JX-40

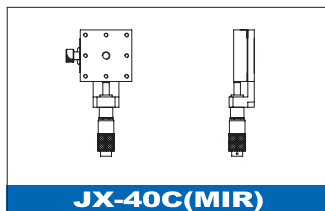
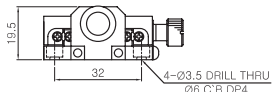
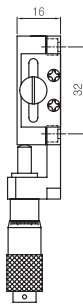
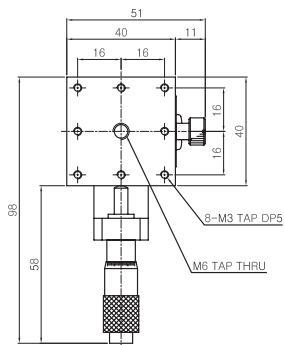
JX-40L

JX-40C

JX-40R

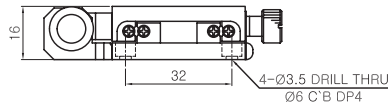
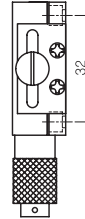
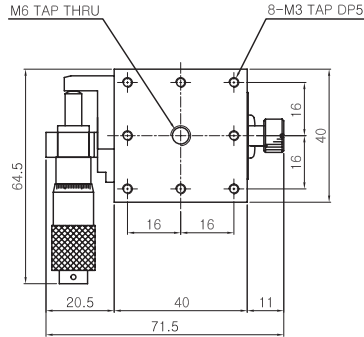


Model	JX-40L	JX-40R	JX-40C
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±6.5 mm		
Minimum Reading of Micrometer	10μm		
Guide Type	Linear Ball Guide		
Load Capacity	7kgf		
Parallelism	15μm		
Driving Parallelism	10μm		
Weight	0.21 kg	0.21 kg	0.20 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		

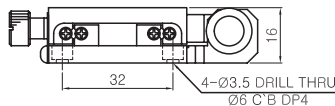
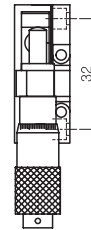
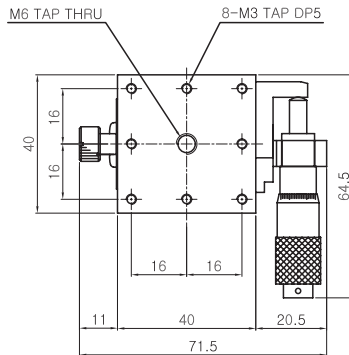


JX-40C(MIR)

JX-40C



JX-40L

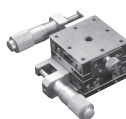


JX-40R

JXY-Series(Steel Body)

JXY-40

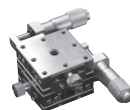
JXY-40L



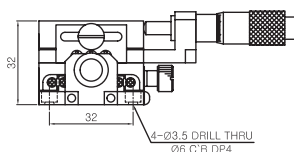
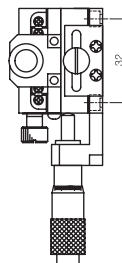
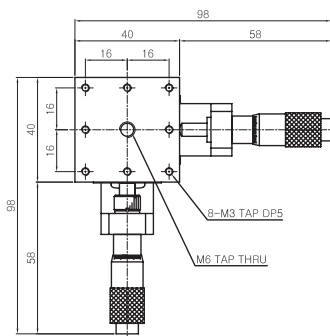
JXY-40C



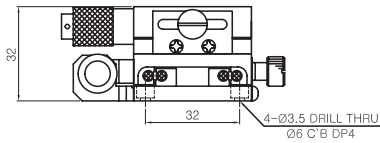
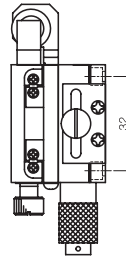
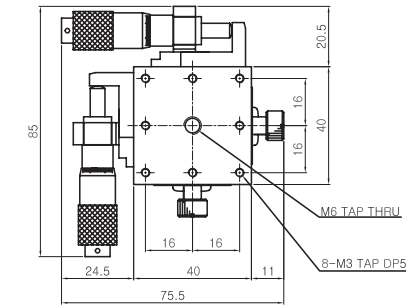
JXY-40R



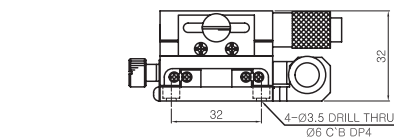
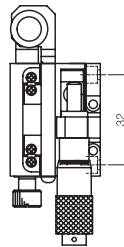
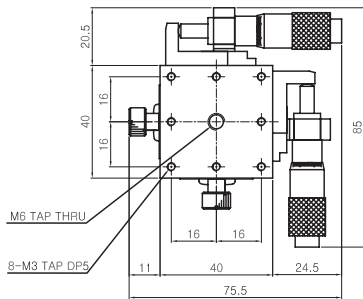
Model	JXY-40L	JXY-40R	JXY-40C
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	6.7kgf		
Parallelism	30 μ m		
Driving Parallelism	15 μ m		
Orthogonality	10 μ m		
Weight	0.42 kg	0.42 kg	0.42 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXY-40C



JXY-40L

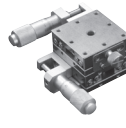


JXY-40R

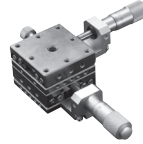
Slim JXY-Series(Steel Body)

JXY-40-S

JXY-40L-S



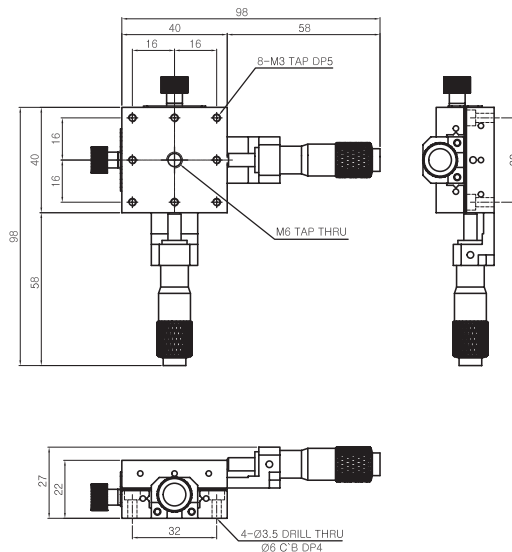
JXY-40C-S



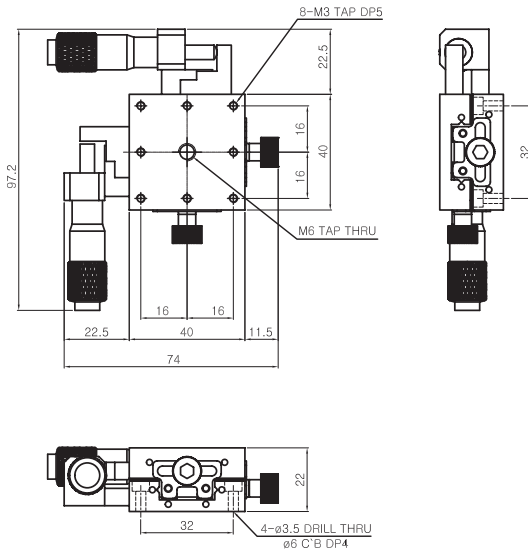
JXY-40R-S



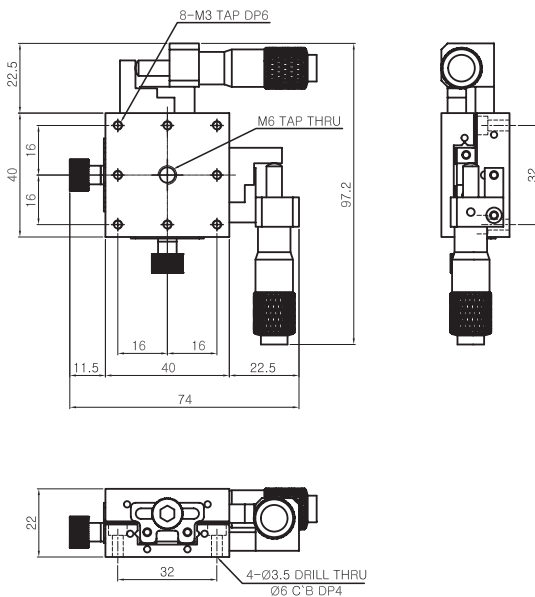
Model	JXY-40LS	JXY-40RS	JXY-40CS
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	7kgf		
Parallelism	30 μ m		
Driving Parallelism	15 μ m		
Orthogonality	10 μ m		
Weight	0.35 kg	0.35 kg	0.35 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXY-40CS



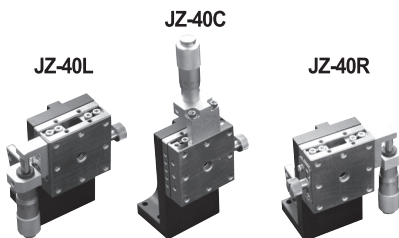
JXY-40LS



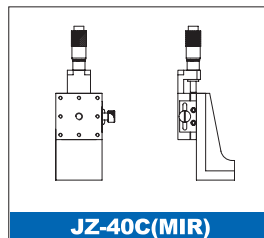
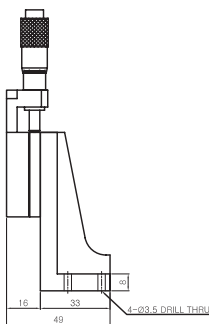
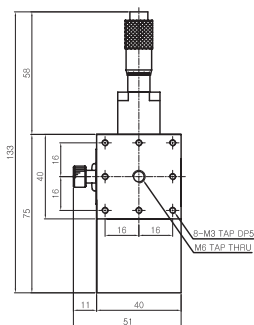
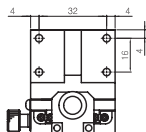
JXY-40RS

JZ-Series(Steel Body)

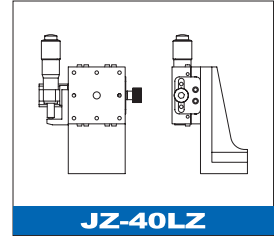
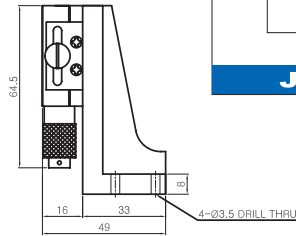
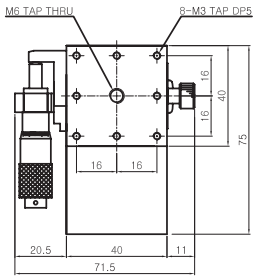
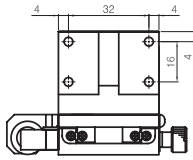
JZ-40



Model	JZ-40L	JZ-40R	JZ-40C
Surface Size	40 x 40 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	3.5kgf		
Parallelism	40 μ m		
Driving Parallelism	25 μ m		
Weight	0.31 kg	0.31 kg	0.30 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



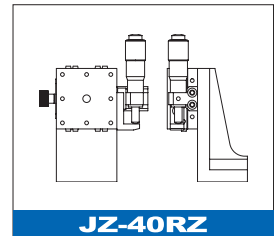
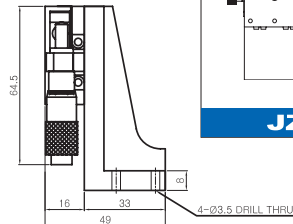
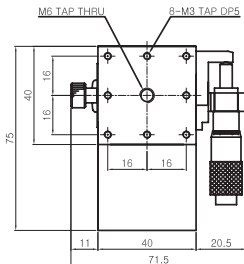
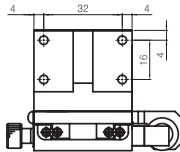
JZ-40C



JZ-40LZ

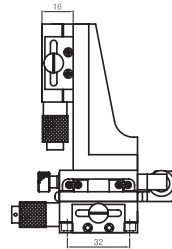
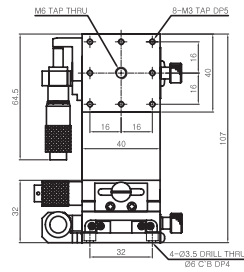
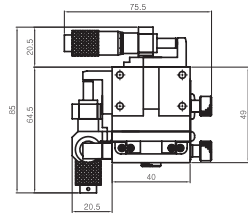
D

JZ-40L

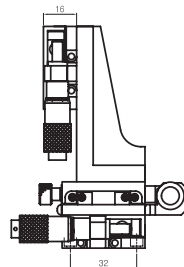
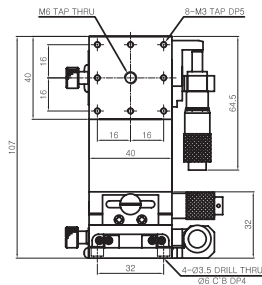
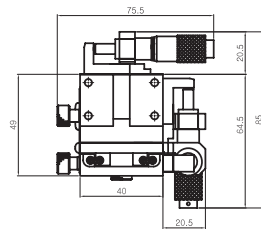


JZ-40RZ

JZ-40R



JXYZ-40L

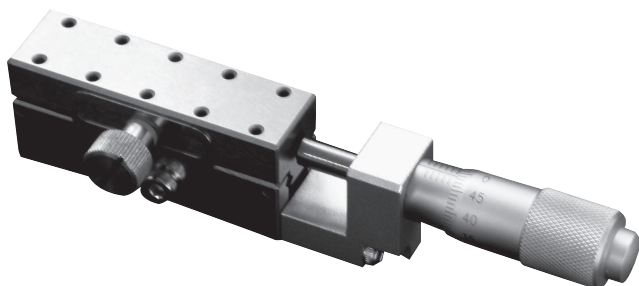


JXYZ-40R

D

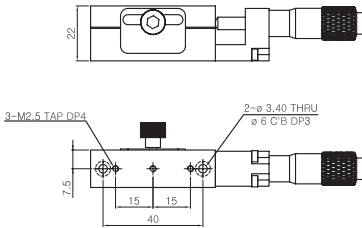
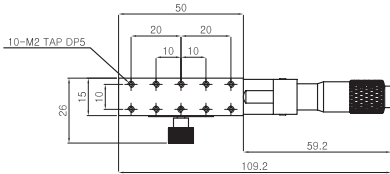
JX50-Series(Steel Body)

JX-5015/ JX-6025



D

Model	JX-5015	JX-6025
Surface Size	15 x 50 mm	25 x 60 mm
Position of Micrometer Head	Left	
Travel Range	$\pm 6.5\text{mm}$	
Minimum Reading of Micrometer	$10\mu\text{m}$	
Guide Type	Linear Ball Guide	
Load Capacity	3Kgf	5Kgf
Parallelism	$20\mu\text{m}$	
Driving Parallelism	$10\mu\text{m}$	
Weight	0.23Kg	0.3Kg
Material	Steel	
Finish Treatment	Electroless Nickel Plating	

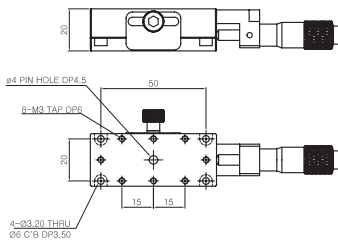
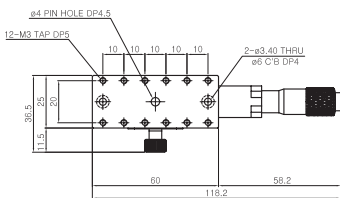


JX-5015(MIR)



D

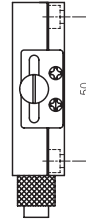
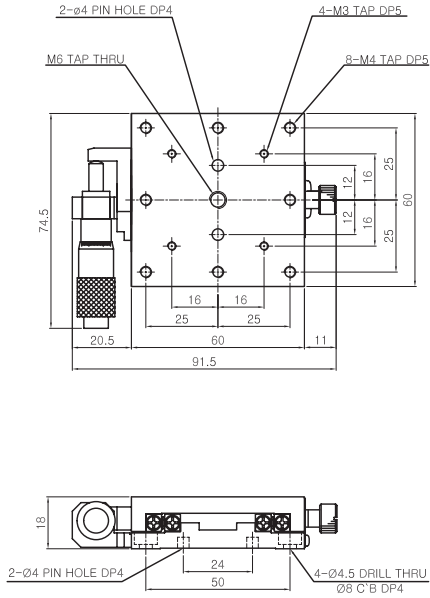
JX-5015



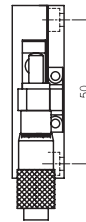
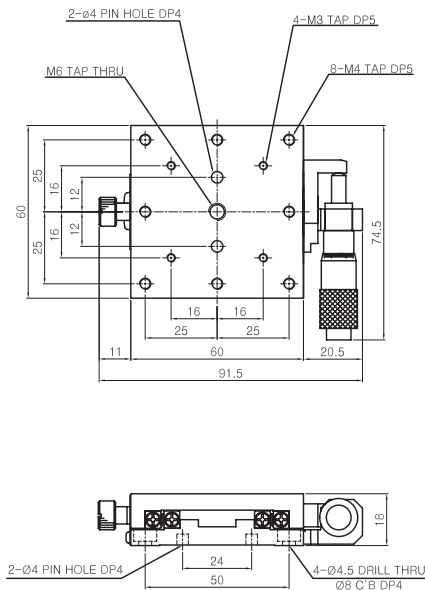
JX-6025(MIR)



JX-6025



JCX-60L(18H)



JCX-60R(18H)

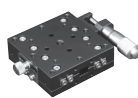
JCX-Series(Aluminum Body)

JCX-60

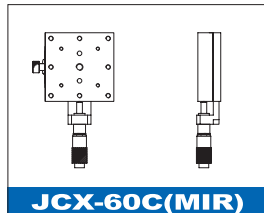
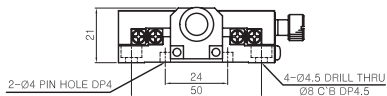
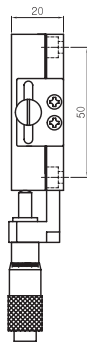
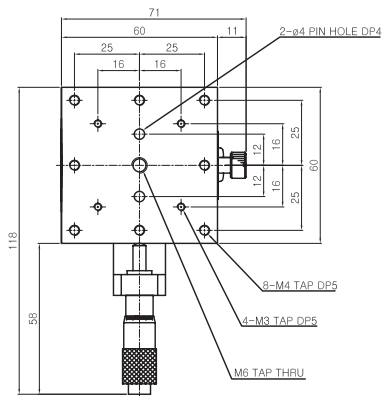
JCX-60L

JCX-60C

JCX-60R

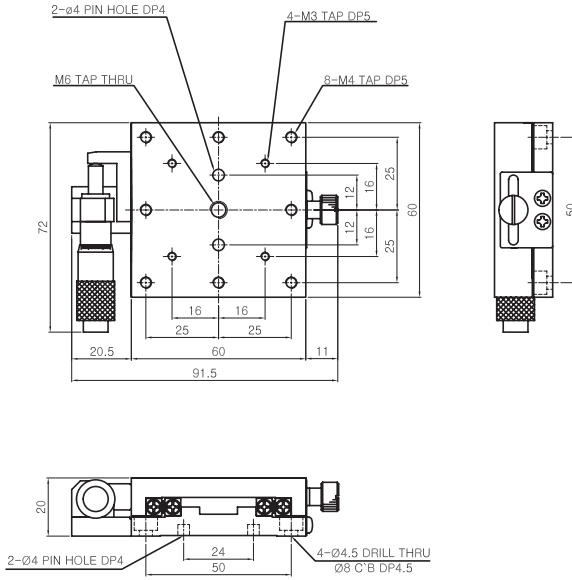


Model	JCX-60L	JCX-60R	JCX-60C
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	6kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.25 kg	0.25 kg	0.25 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

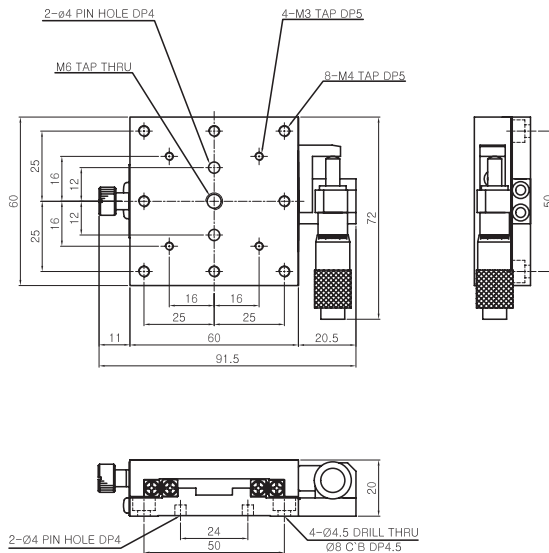


JCX-60C(MIR)

JCX-60C



JCX-60L



JCX-60R

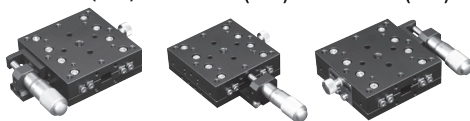
JCX-Series(Aluminum Body)

JCX-60(24H)

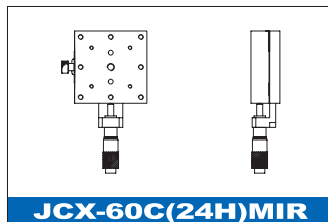
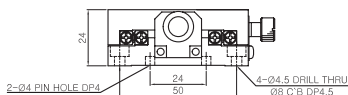
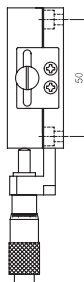
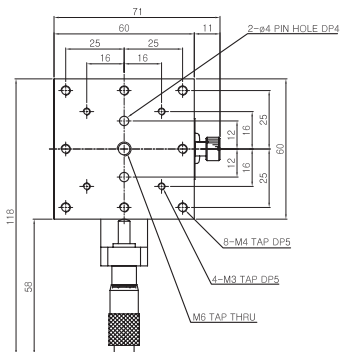
JCX-60L(24H)

JCX-60C(24H)

JCX-60R(24H)

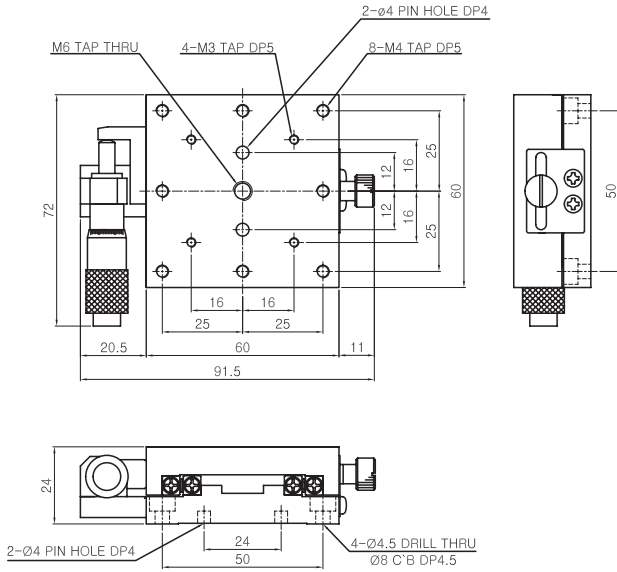


Model	JCX-60L(24H)	JCX-60R(24H)	JCX-60C(24H)
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	6kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.28 kg	0.28 kg	0.26 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

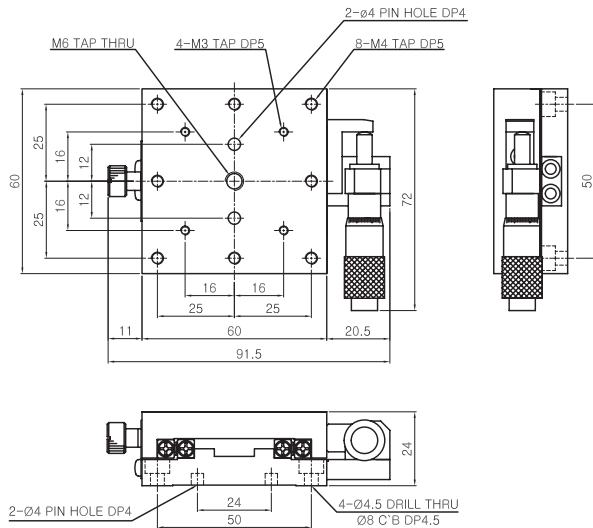


JCX-60C(24H)MIR

JCX-60C(24H)



JCX-60L(24H)

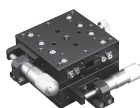


JCX-60R(24H)

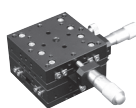
JCXY-Series(Aluminum Body)

JCXY-60

JCXY-60L



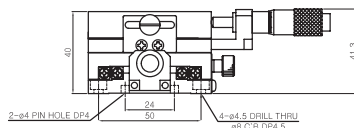
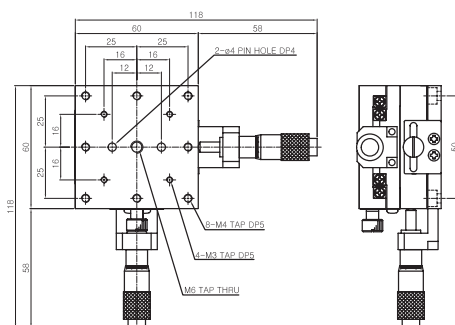
JCXY-60C



JCXY-60R



Model	JCXY-60L	JCXY-60R	JCXY-60C
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	5.7kgf		
Parallelism	60 μ m		
Driving Parallelism	20 μ m		
Orthogonality	10 μ m		
Weight	0.50 kg	0.50 kg	0.50 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXY-60C

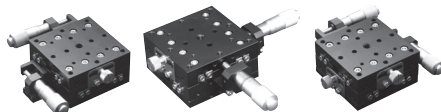
Slim JCXY-Series(Aluminum Body)

JCXY-60-S

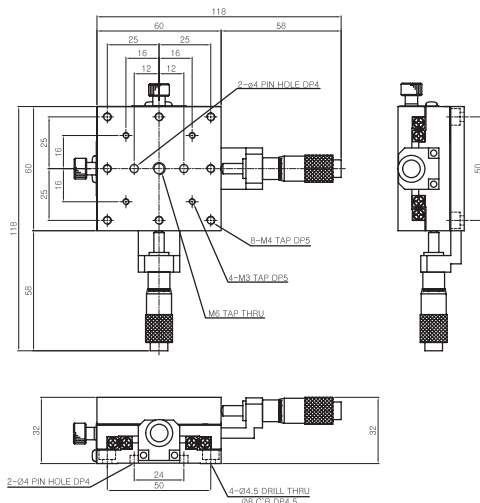
JCXY-60LS

JCXY-60CS

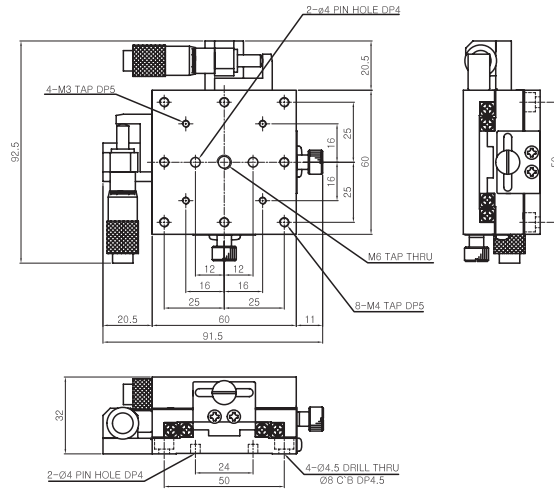
JCXY-60RS



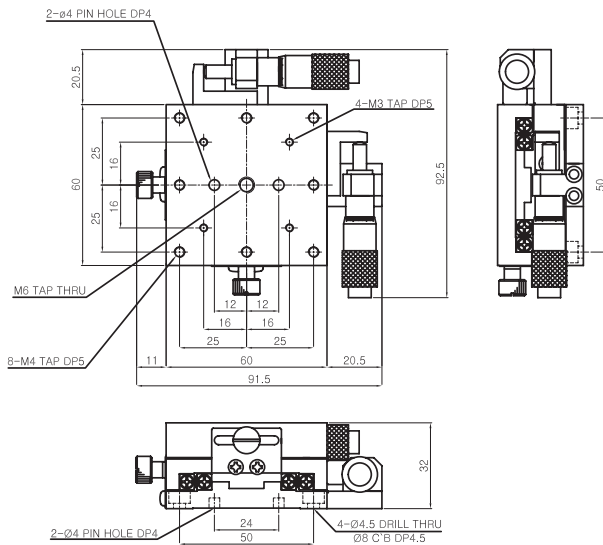
Model	JCXY-60LS	JCXY-60RS	JCXY-60CS
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	5.7kgf		
Parallelism	60 μ m		
Driving Parallelism	20 μ m		
Orthogonality	10 μ m		
Weight	0.42 kg	0.42 kg	0.40 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXY-60CS



JCXY-60LS



JCXY-60RS

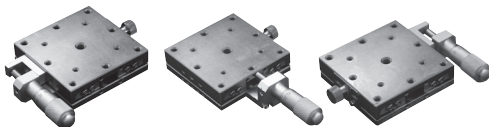
JX-Series(Steel Body)

JX-60

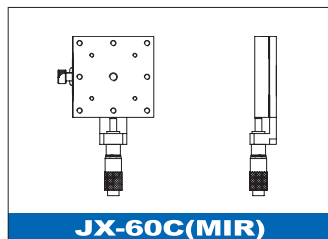
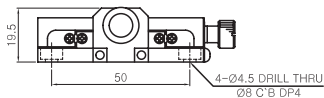
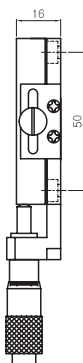
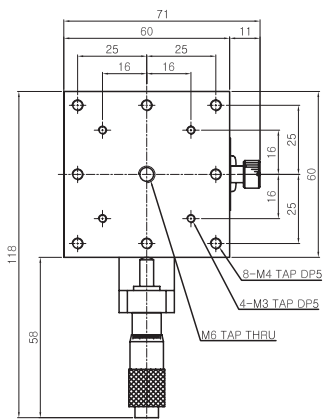
JX-60L

JX-60C

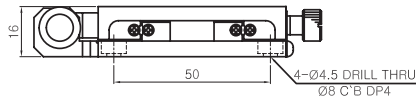
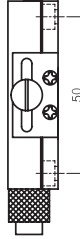
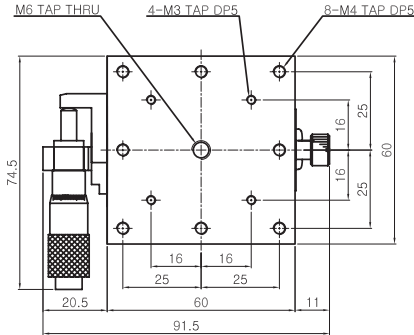
JX-60R



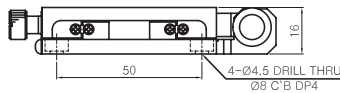
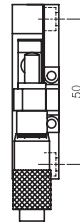
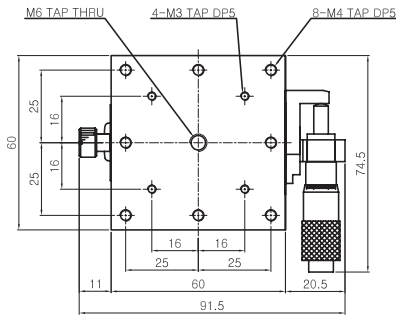
Model	JX-60L	JX-60R	JX-60C
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	12kgf		
Parallelism	15 μ m		
Driving Parallelism	10 μ m		
Weight	0.43 kg	0.43 kg	0.42 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JX-60C



JX-60L

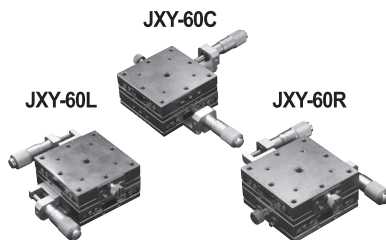


JX-60R

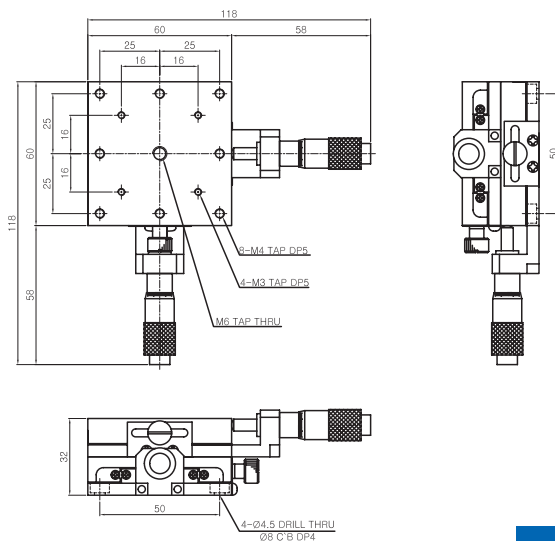
D

JXY-Series(Steel Body)

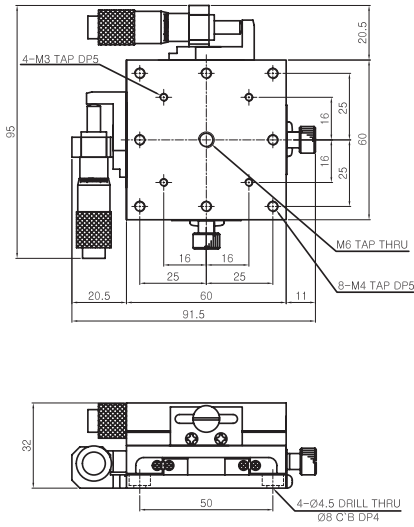
JXY-60



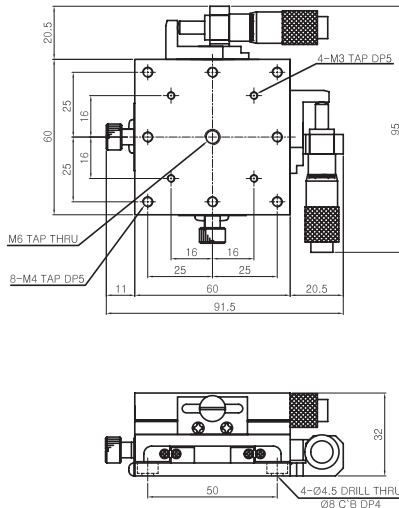
Model	JXY-60L	JXY-60R	JXY-60C
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	11.7kgf		
Parallelism	30 μ m		
Driving Parallelism	15 μ m		
Orthogonality	10 μ m		
Weight	0.86 kg	0.86 kg	0.86 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXY-60C



JXY-60L



JXY-60R

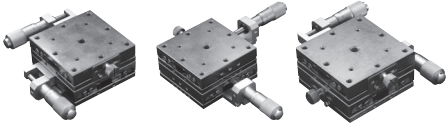
Slim JXY-Series(Steel Body)

JXY-60-S

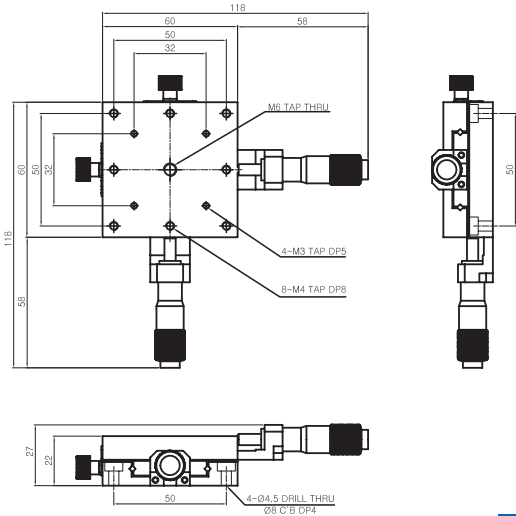
JXY-60LS

JXY-60CS

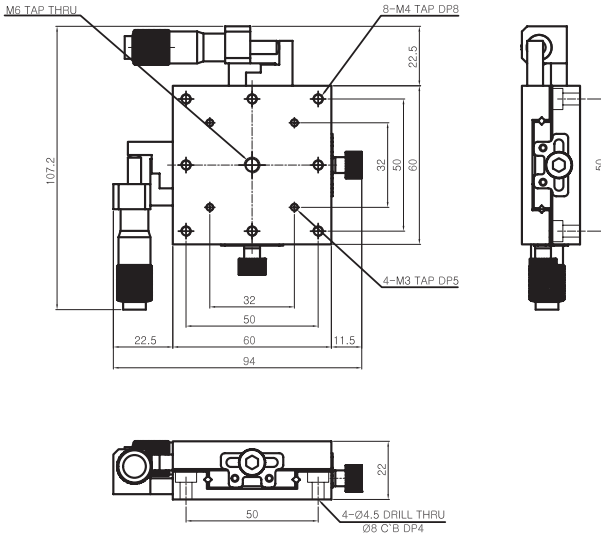
JXY-60RS



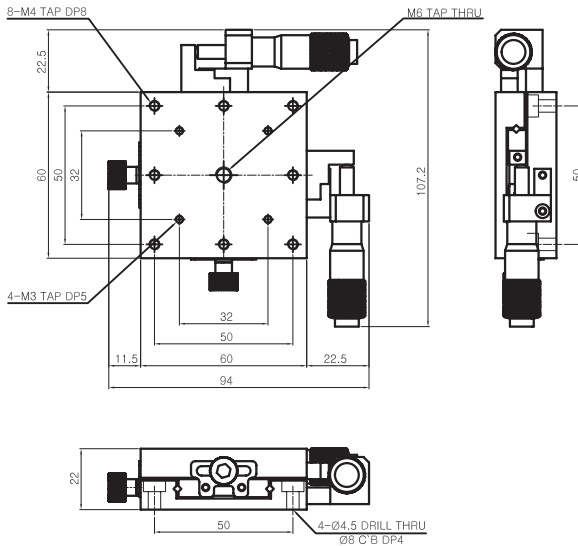
Model	JXY-60LS	JXY-60RS	JXY-60CS
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	12kgf		
Parallelism	30 μ m		
Driving Parallelism	15 μ m		
Orthogonality	10 μ m		
Weight	0.65 kg	0.65 kg	0.65 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



JXY-60CS



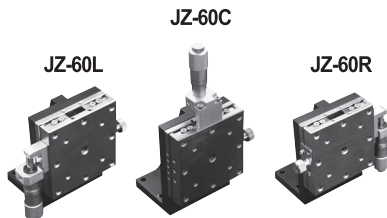
JXY-60LS



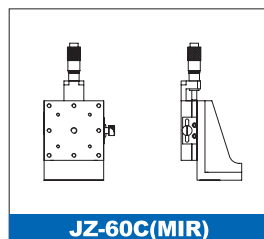
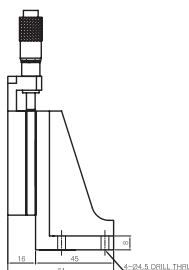
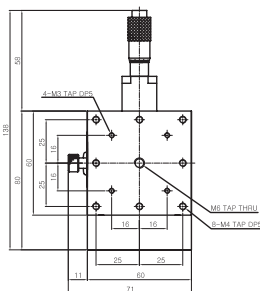
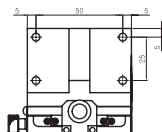
JXY-60RS

JZ-Series(Steel Body)

JZ-60

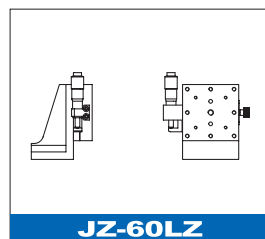
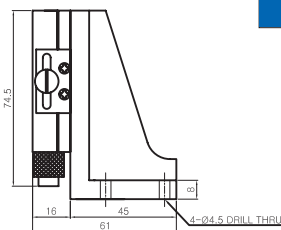
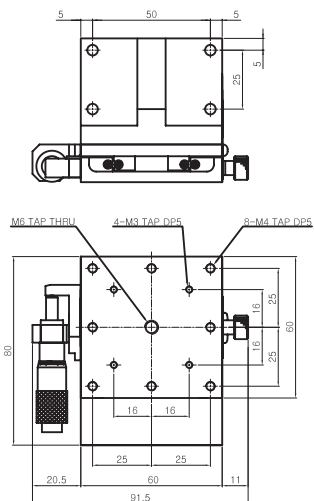


Model	JZ-60L	JZ-60R	JZ-60C
Surface Size	60 x 60 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Linear Ball Guide		
Load Capacity	6kgf		
Parallelism	50 μ m		
Driving Parallelism	25 μ m		
Weight	0.58 kg	0.58 kg	0.57 kg
Material	Steel		
Finish Treatment	Electroless Nickel Plating		



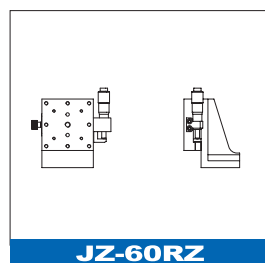
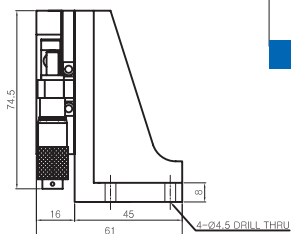
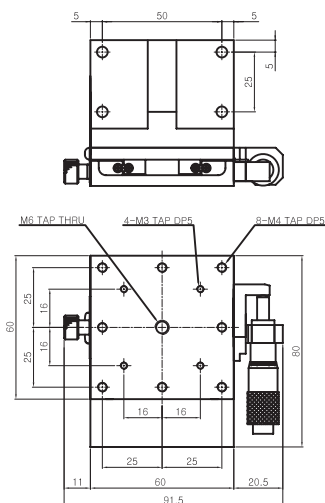
JZ-60C(MIR)

JZ-60C



JZ-60LZ

JZ-60L



JZ-60RZ

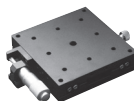
JZ-60R

D

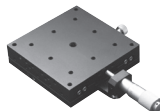
JCX-Series(Aluminum Body)

JCX-80-13

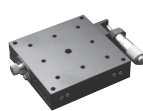
JCX-80L-13



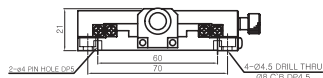
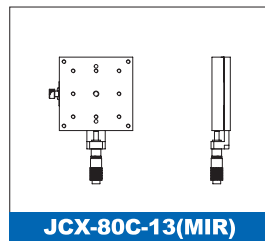
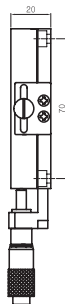
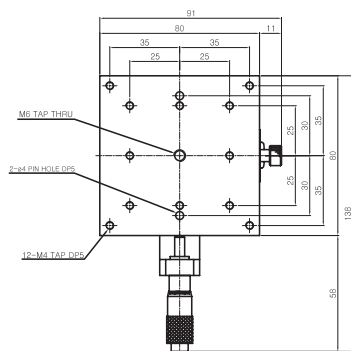
JCX-80C-13



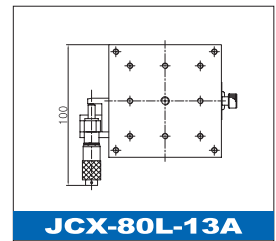
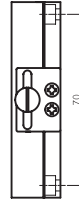
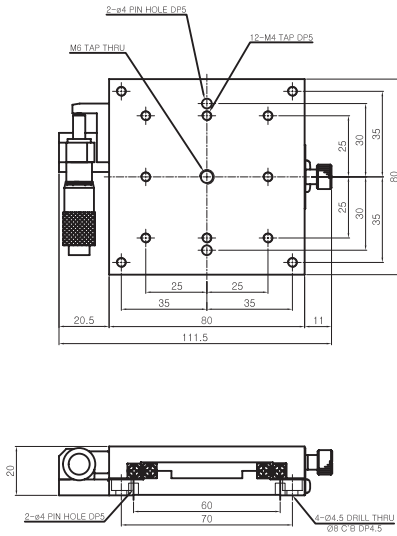
JCX-80R-13



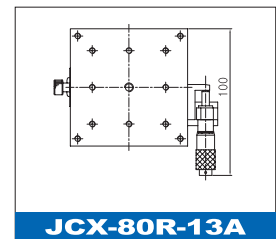
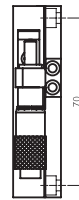
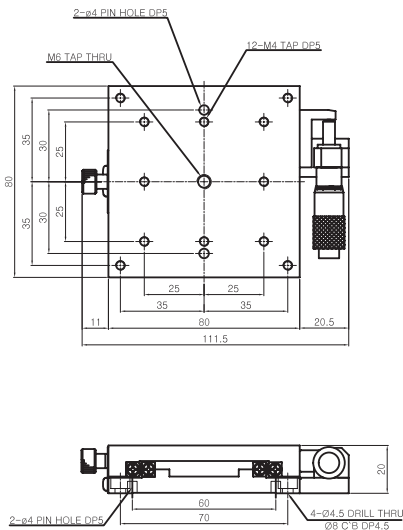
Model	JCX-80L-13	JCX-80R-13	JCX-80C-13
Surface Size	80 x 80 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	10kgf		
Parallelism	30 μ m		
Driving Parallelism	10 μ m		
Weight	0.40 kg	0.40 kg	0.39 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCX-80C-13

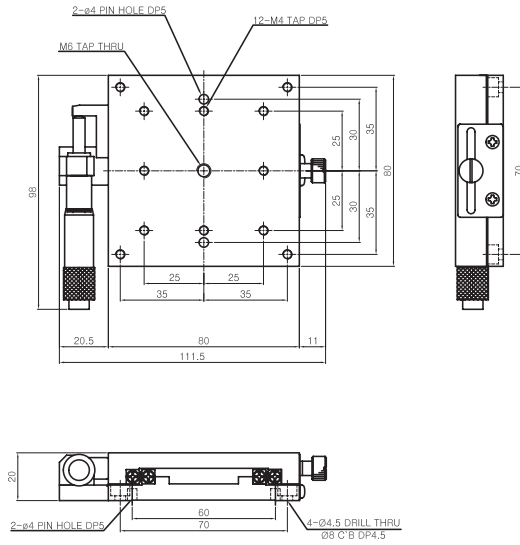


JCX-80L-13

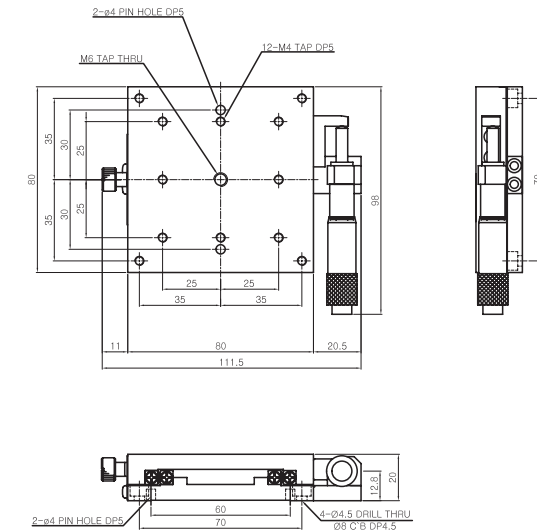


JCX-80R-13

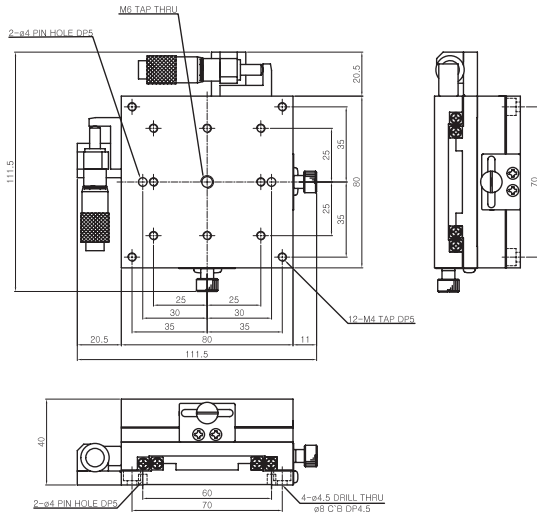
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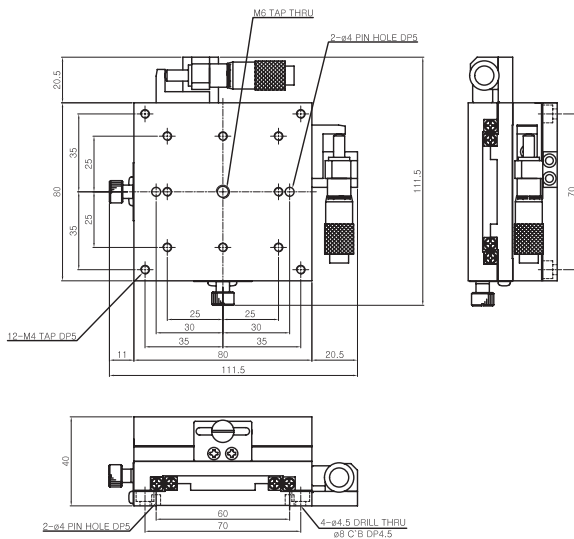
JCX-80L-25



JCX-80R-25



JCXY-80L-13



JCXY-80R-13

JCXY-Series(Aluminum Body)

JCXY-80-25

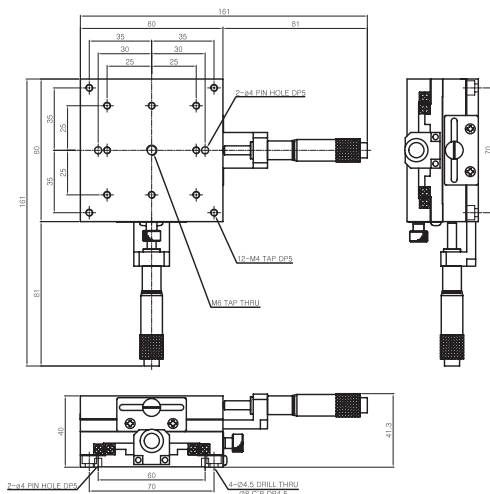
JCXY-80L-25

JCXY-80C-25

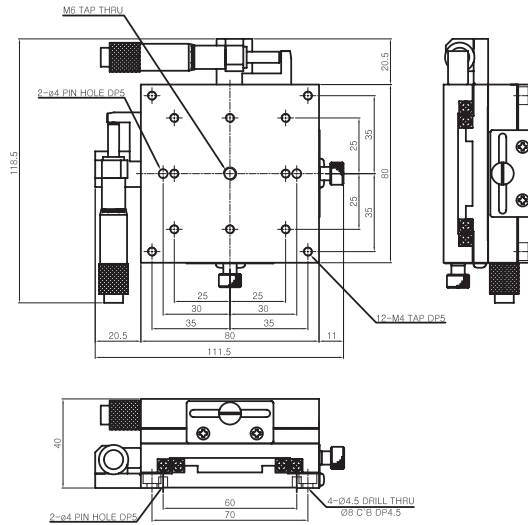
JCXY-80R-25



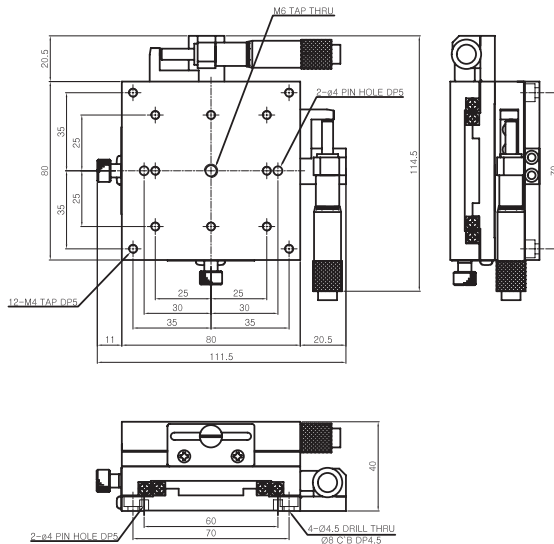
Model	JCXY-80L-25	JCXY-80R-25	JCXY-80C-25
Surface Size	80 x 80 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 12.5\text{mm}$		
Minimum Reading of Micrometer	$10\mu\text{m}$		
Guide Type	Crossed-Roller Guide		
Load Capacity	9.5kgf		
Parallelism	$60\mu\text{m}$		
Driving Parallelism	$20\mu\text{m}$		
Orthogonality	$10\mu\text{m}$		
Weight	0.82 kg	0.82 kg	0.82 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXY-80C-25



JCY-80L-25



JCY-80R-25

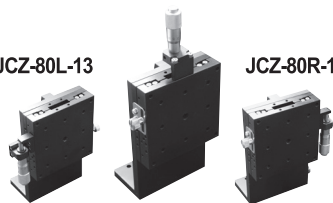
JCZ-Series(Aluminum Body)

JCZ-80-13

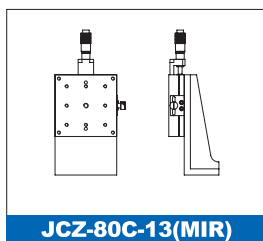
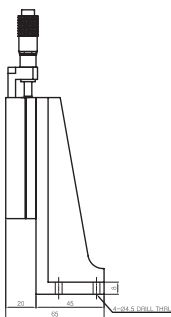
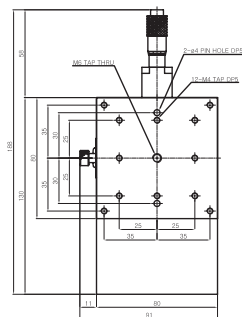
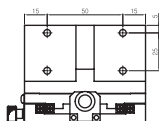
JCZ-80C-13

JCZ-80L-13

JCZ-80R-13



Model	JCZ-80L-13	JCZ-80R-13	JCZ-80C-13
Surface Size	80 x 80 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 6.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	5kgf		
Parallelism	80 μ m		
Driving Parallelism	30 μ m		
Weight	0.68 kg	0.68 kg	0.67 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCZ-80C-13

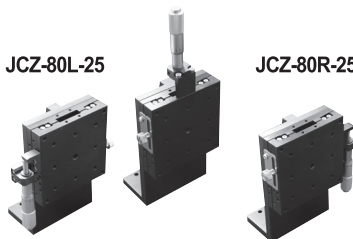
JCZ-Series(Aluminum Body)

JCZ-80-25

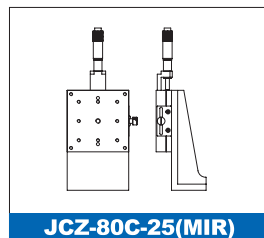
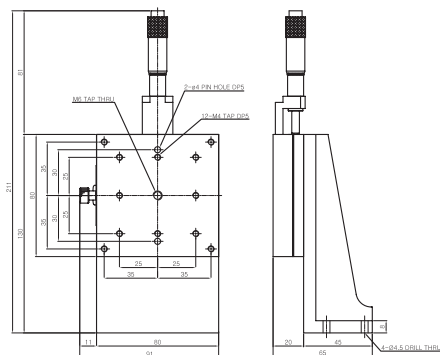
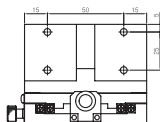
JCZ-80C-25

JCZ-80L-25

JCZ-80R-25

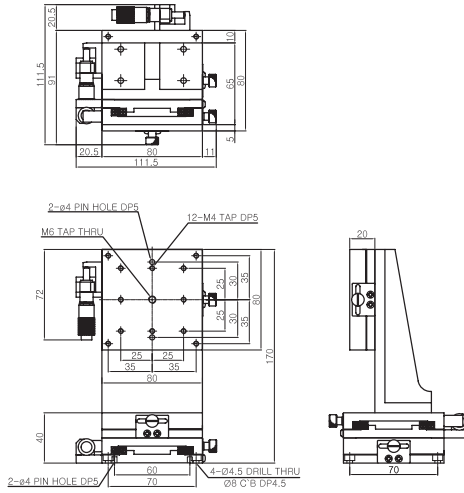


Model	JCZ-80L-25	JCZ-80R-25	JCZ-80C-25
Surface Size	80 x 80 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	± 12.5 mm		
Minimum Reading of Micrometer	10 μ m		
Guide Type	Crossed-Roller Guide		
Load Capacity	5kgf		
Parallelism	80 μ m		
Driving Parallelism	30 μ m		
Weight	0.69 kg	0.69 kg	0.69 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

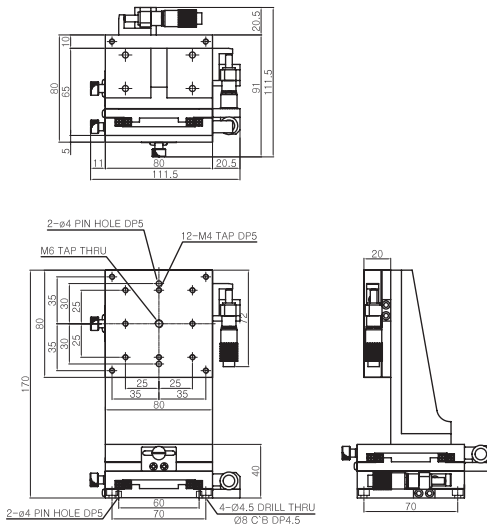


JCZ-80C-25





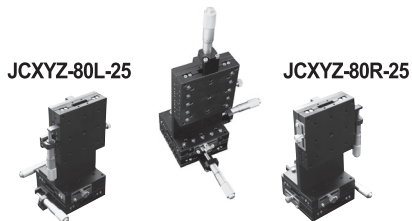
JCXYZ-80L-13



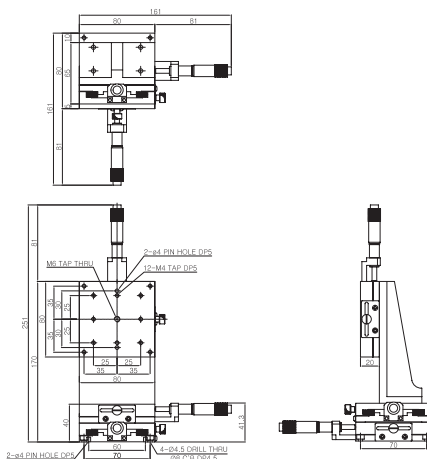
JCXYZ-80R-13

JCXYZ-80-25

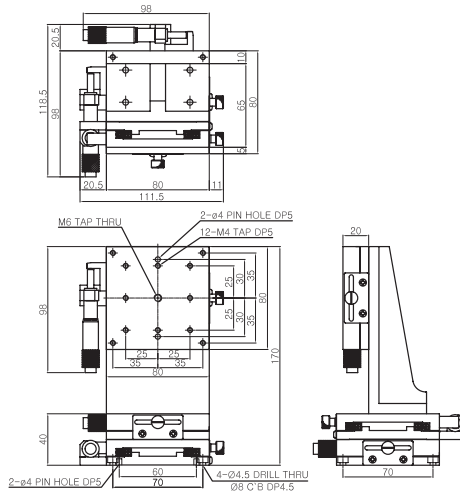
JCXYZ-80C-25



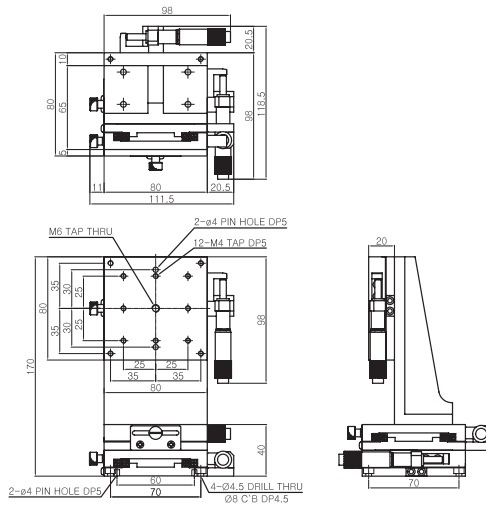
Assembling Model	JCXYZ-80L-25	JCXYZ-80R-25	JCXYZ-80C-25
Orthogonality	JCXYZ-80L-25 + JCZ-80L-25	JCXYZ-80R-25 + JCZ-80R-25	JCXYZ-80C-25 + JCZ-80C-25
Surface Size	80 x 80 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±12.5 mm		
Minimum Reading of Micrometer	10 μm		
Guide Type	Crossed Roller Guide		
Load Capacity	5.0kgf		
Parallelism	120 μm		
Driving Parallelism	40 μm		
Weight	1.51 kg	1.51 kg	1.51 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXYZ-80C-25



JCXYZ-80L-25



JCXYZ-80R-25

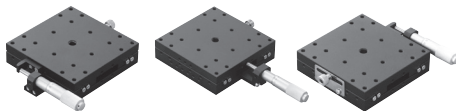
JCX-Series(Aluminum Body)

JCX-90(24H)

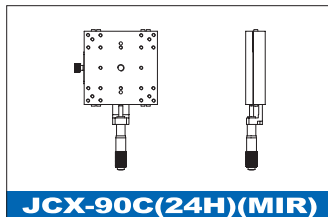
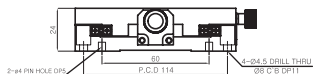
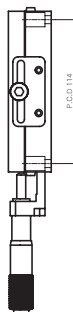
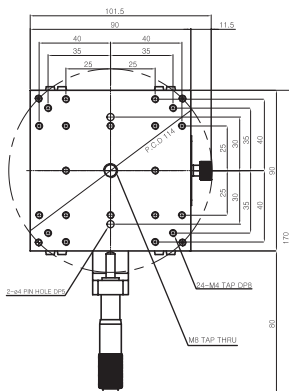
JCX-90L(24H)

JCX-90C(24H)

JCX-90R(24H)

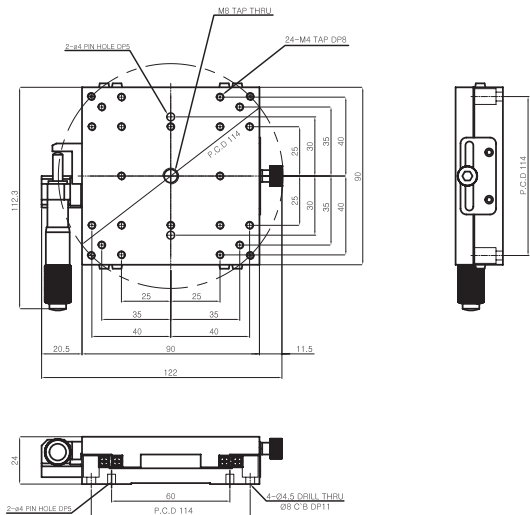


Model	JCX-90L(24H)	JCX-90R(24H)	JCX-90C(24H)
Surface Size	90 x 90mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 12.5\text{mm}$		
Minimum Reading of Micrometer	10 μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	15Kgf		
Parallelism	30 μm		
Driving Parallelism	10 μm		
Weight	0.7Kg	0.7Kg	0.7Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

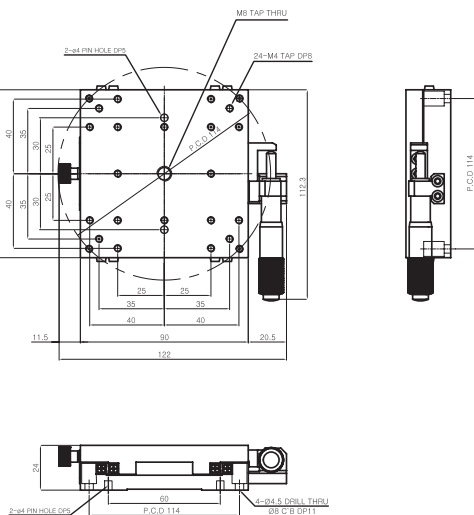


JCX-90C(24H)(MIR)

JCX-90C(24H)



JCX-90L(24H)



JCX-90R(24H)

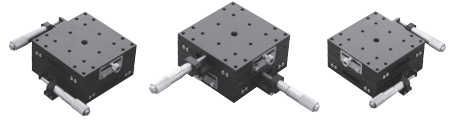
JCXY-Series(Aluminum Body)

JCXY-90(24H)

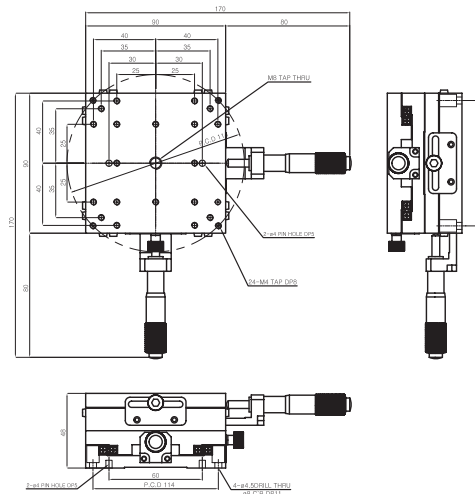
JCXY-90L-(24H)

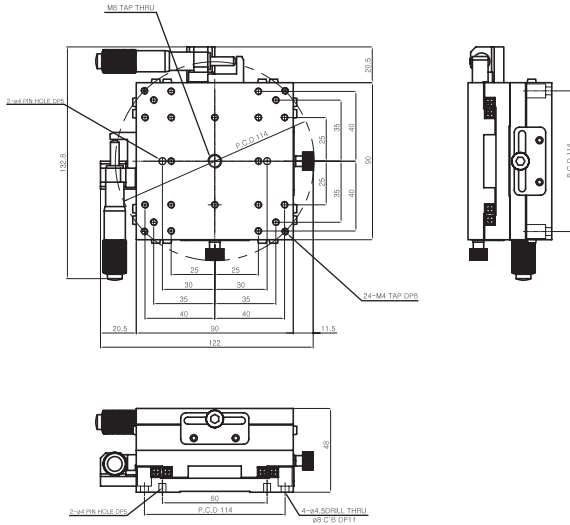
JCXY-90C(24H)

JCXY-90R(24H)

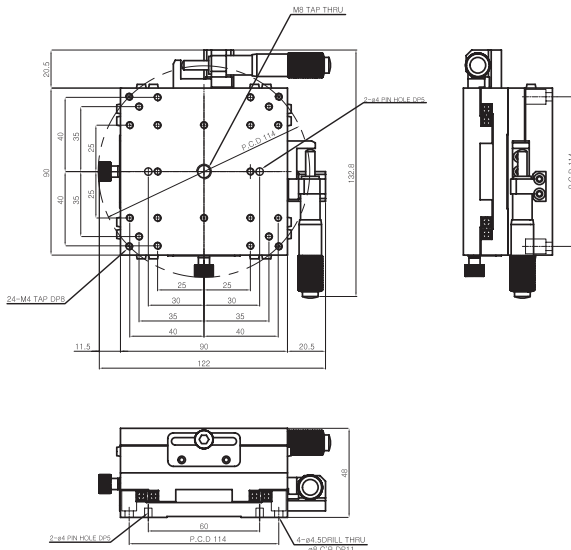


Model	JCXY-90L(24H)	JCXY-90R(24H)	JCXY-90C(24H)
Surface Size	90 x 90mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 12.5\text{mm}$		
Minimum Reading of Micrometer	10 μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	14.5Kgf		
Parallelism	60 μm		
Driving Parallelism	20 μm		
Weight	1.4Kg	1.4Kg	1.4Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

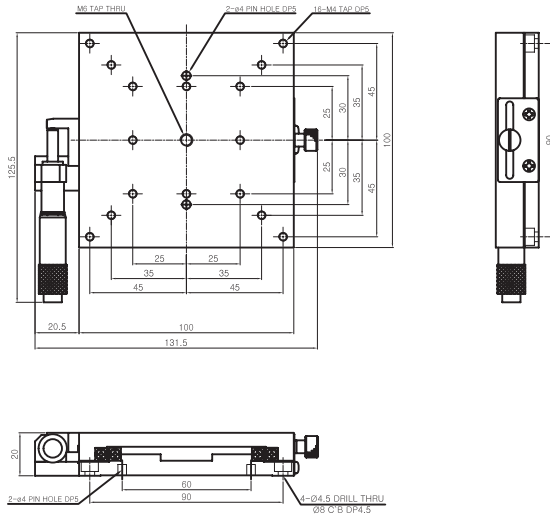




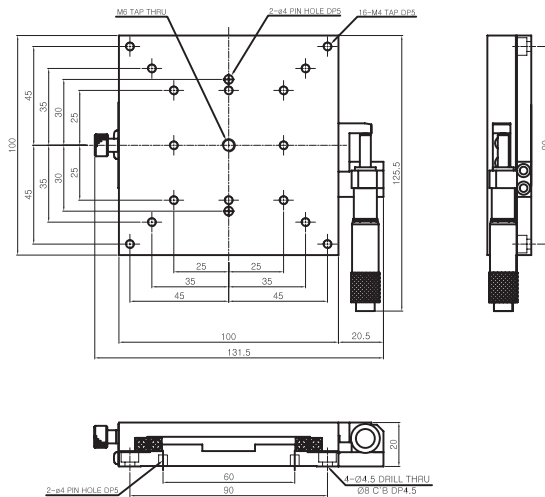
JCY-90L(24H)



JCY-90R(24H)



JCX-100L-25

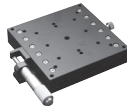


JCX-100R-25

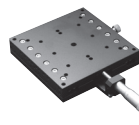
JCX-Series(Aluminum Body)

JCX-100-50

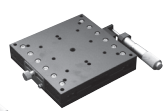
JCX-100L-50



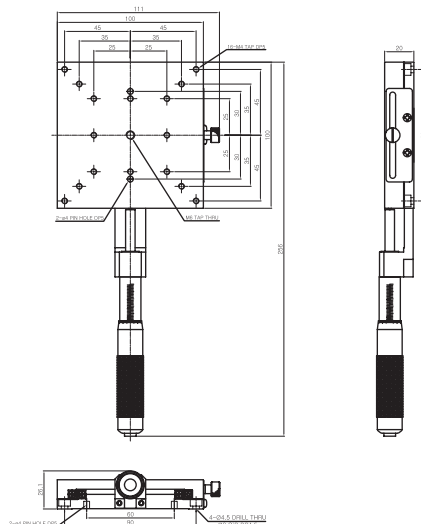
JCX-100C-50



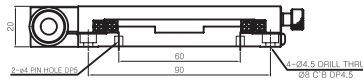
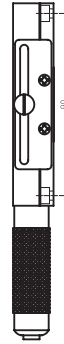
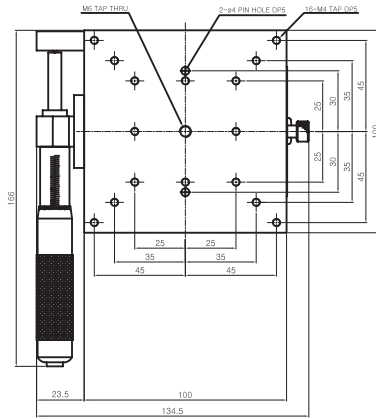
JCX-100R-50



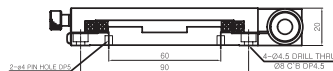
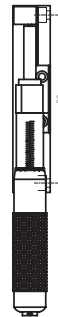
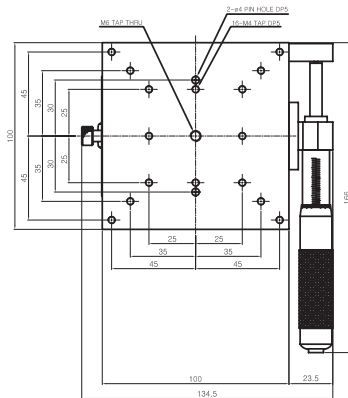
Model	JCX-100L-50	JCX-100R-50	JCX-100C-50
Surface Size	100 x 100mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 25\text{mm}$		
Minimum Reading of Micrometer	10 μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	15Kgf		
Parallelism	60 μm		
Driving Parallelism	20 μm		
Weight	1.2Kg	1.2Kg	1.15Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCX-100C-50



JCX-100L-50



JCX-100R-50

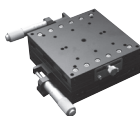
JCX-Series(Aluminum Body)

JCXY-100-25

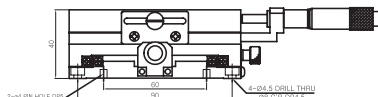
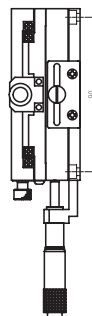
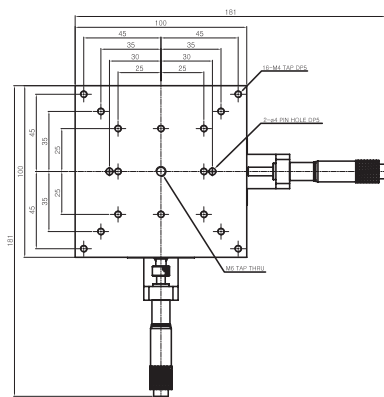
JCXY-100L-25

JCXY-100C-25

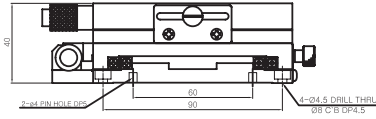
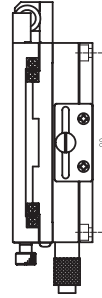
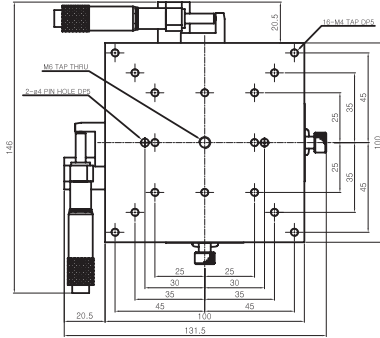
JCXY-100R-25



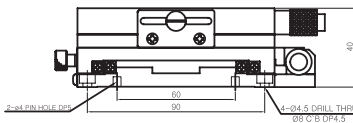
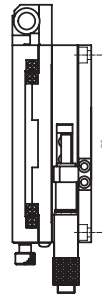
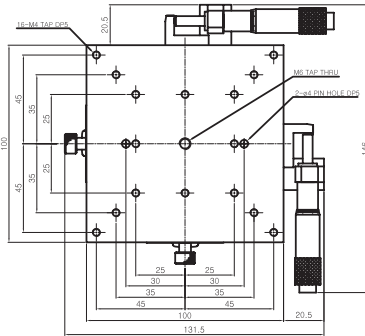
Model	JCXY-100L-25	JCXY-100R-25	JCXY-100C-25
Surface Size	100 x 100mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 12.5\text{mm}$		
Minimum Reading of Micrometer	10 μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	14Kgf		
Parallelism	60 μm		
Driving Parallelism	20 μm		
Weight	2.4Kg	2.4Kg	2.3Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



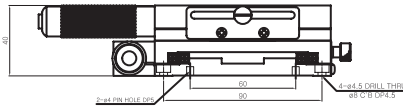
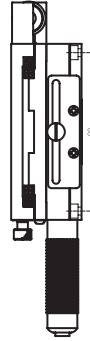
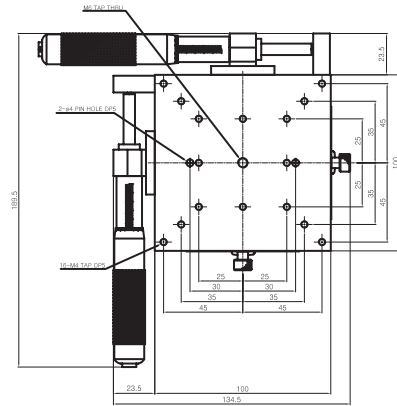
JCXY-100C-25



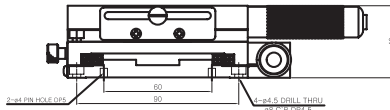
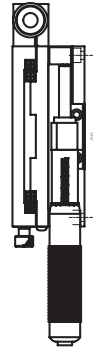
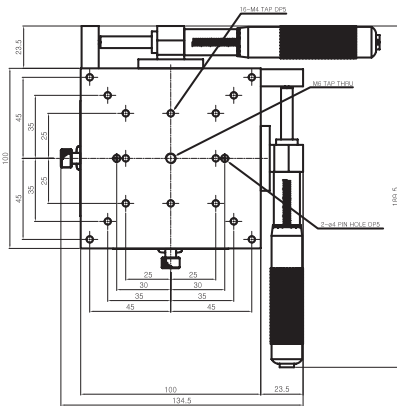
JCXY-100L-25



JCXY-100R-25



JCXY-100L-50



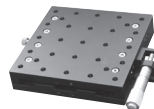
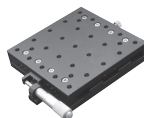
JCXY-100R-50

JCX-Series(Aluminum Body)

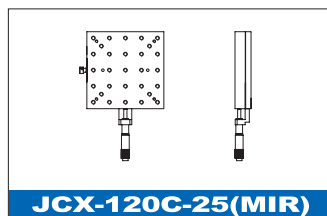
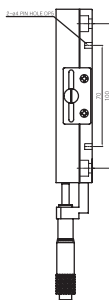
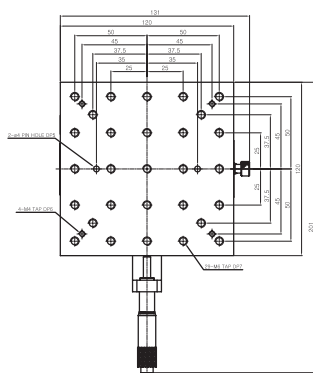
JCX-120-25

JCXY-120L-25

JCXY-120R-25



Model	JCX-120L-25	JCX-120R-25	JCX-120C-25
Surface Size	120 x 120mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	±12.5mm		
Minimum Reading of Micrometer	10 μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	20Kgf		
Parallelism	60 μm		
Driving Parallelism	20 μm		
Weight	1.30Kg	1.30Kg	1.26Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCX-120C-25(MIR)

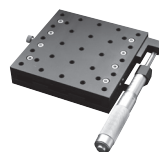
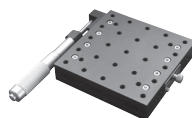
JCX-120C-25

JCX-Series(Aluminum Body)

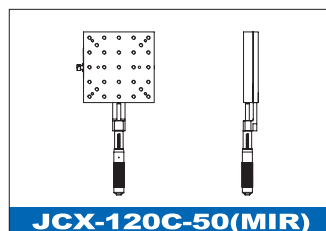
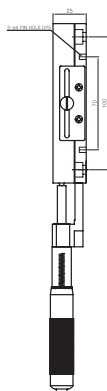
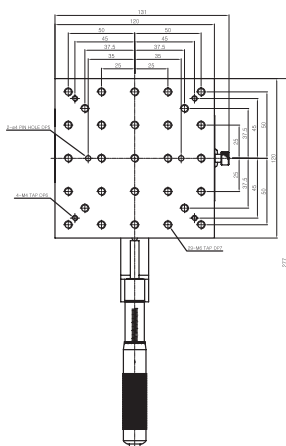
JCX-120-50

JCXY-120L-25

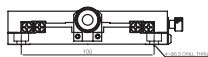
JCXY-120R-25



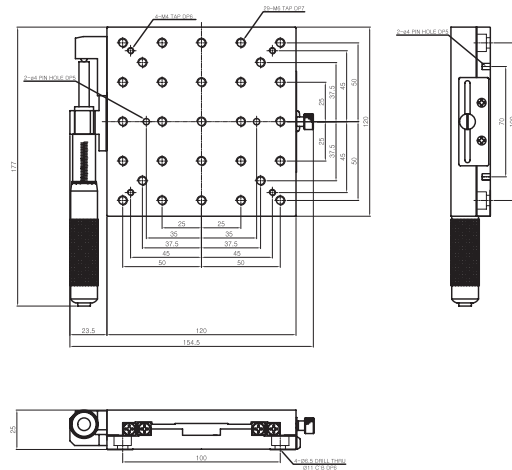
Model	JCX-120L-50	JCX-120R-50	JCX-120C-50
Surface Size	120 x 120mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 25\text{mm}$		
Minimum Reading of Micrometer	10 μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	20Kgf		
Parallelism	60 μm		
Driving Parallelism	20 μm		
Weight	1.5Kg	1.5Kg	1.45Kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



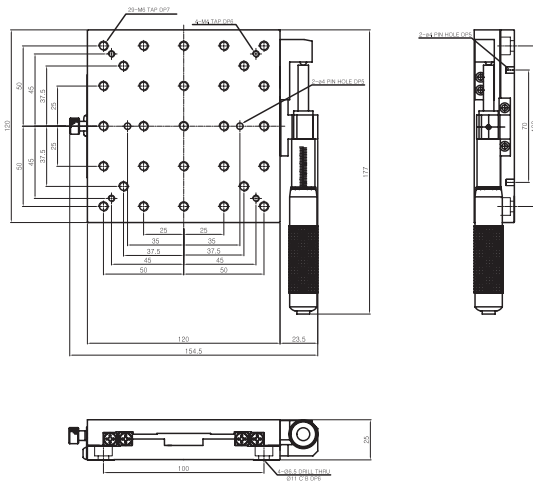
JCX-120C-50(MIR)



JCX-120C-50



JCX-120L-50



JCX-120R-50

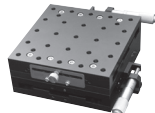
JCXY-Series(Aluminum Body)

JCXY-120-25

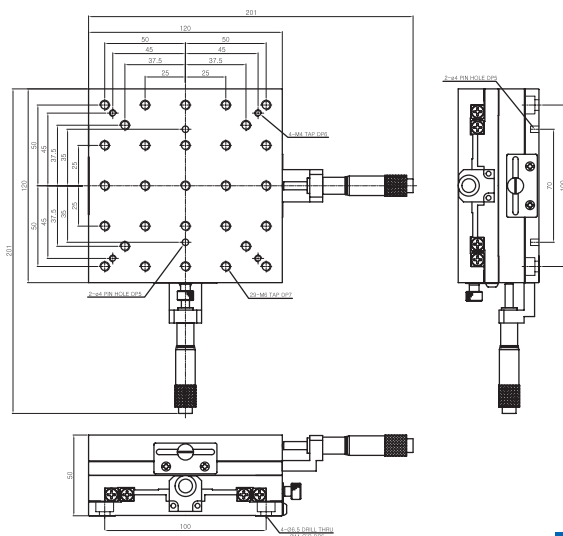
JCXY-120L-25



JCXY-120R-25

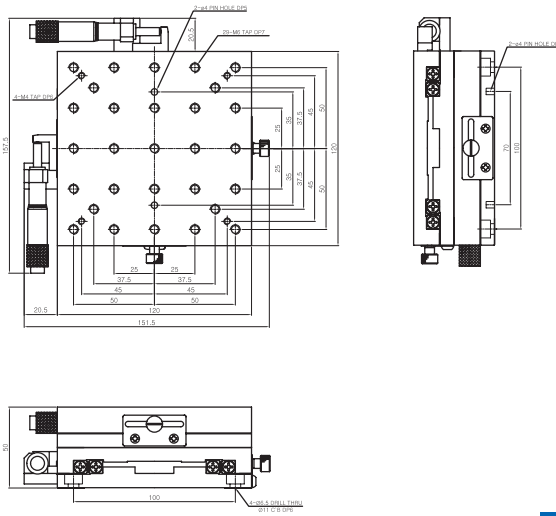


Model	JCXY-120L-25	JCXY-120R-25	JCXY-120C-25
Surface Size	120 x 120 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 12.5\text{mm}$		
Minimum Reading of Micrometer	$10\mu\text{m}$		
Guide Type	Crossed-Roller Guide		
Load Capacity	18.5kgf		
Parallelism	$100\mu\text{m}$		
Driving Parallelism	$40\mu\text{m}$		
Orthogonality	$10\mu\text{m}$		
Weight	2.60 kg	2.60 kg	2.52 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		

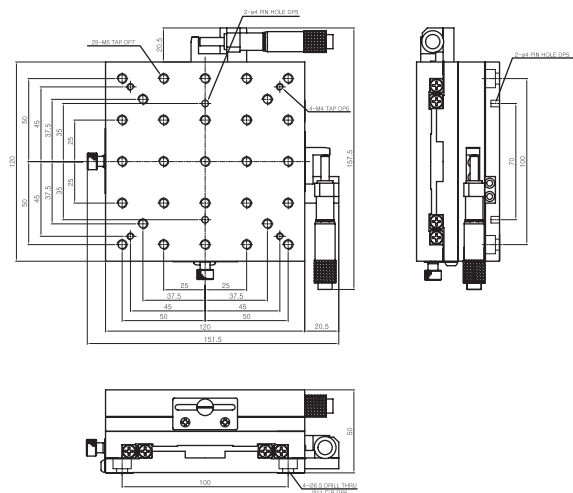


JCXY-120C-25

D



JCXY-120L-25

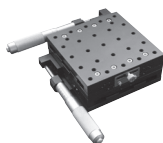


JCXY-120R-25

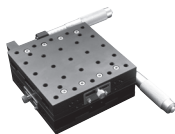
JCXY-Series(Aluminum Body)

JCXY-120-50

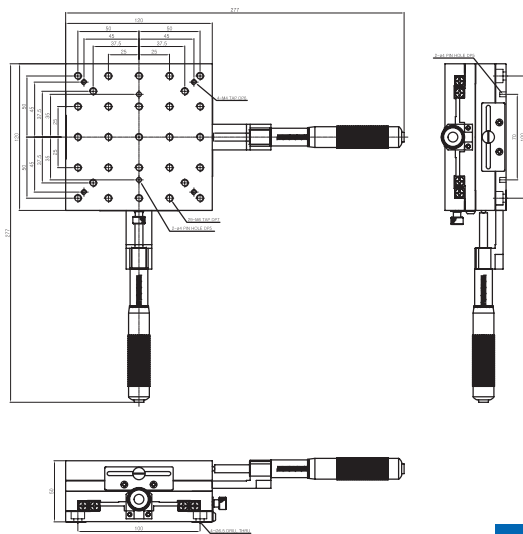
JCXY-120L-50



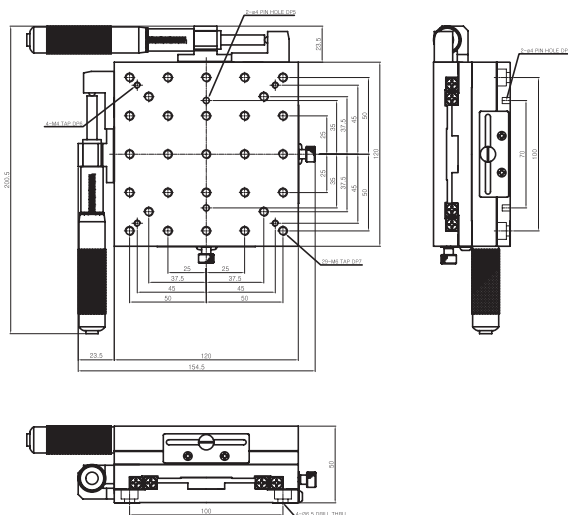
JCXY-120R-50



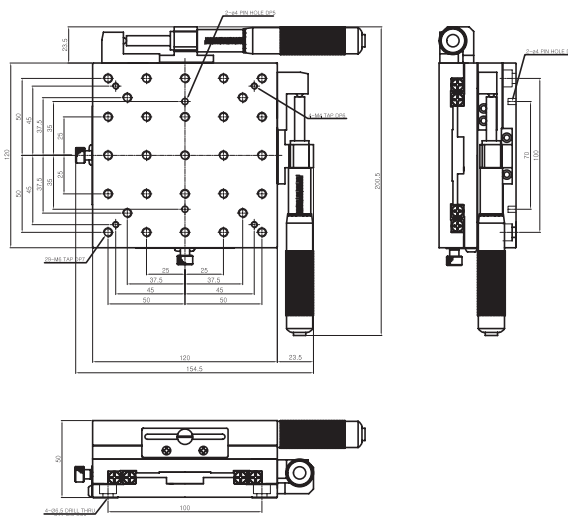
Model	JCXY-120L-50	JCXY-120R-50	JCXY-120C-50
Surface Size	120 x 120 mm		
Position of Micrometer Head	Left	Right	Center
Travel Range	$\pm 25\text{mm}$		
Minimum Reading of Micrometer	$10\mu\text{m}$		
Guide Type	Crossed-Roller Guide		
Load Capacity	18.5kgf		
Parallelism	$100\mu\text{m}$		
Driving Parallelism	$40\mu\text{m}$		
Orthogonality	$10\mu\text{m}$		
Weight	3.0 kg	3.0 kg	2.9 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCXY-120C-50



JCY-120C-50



JCY-120R-50

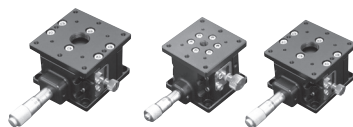
JCHZ-Series(Aluminum Body)

JCHZ- 40/60/80

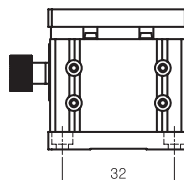
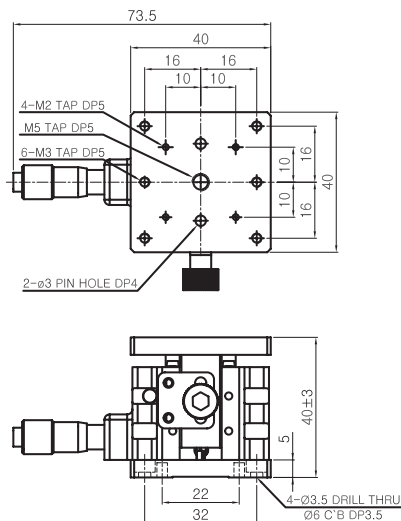
JCHZ-60

JCHZ-40

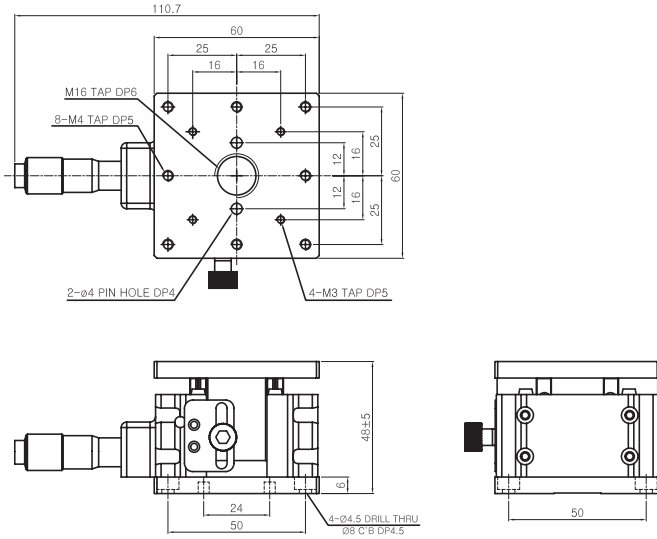
JCHZ-80



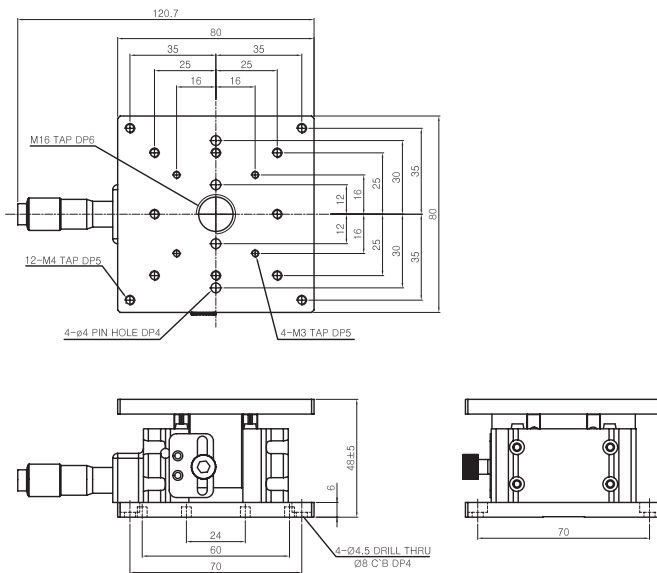
Model	JCHZ-40	JCHZ-60	JCHZ-80
Surface Size	40 x 40 mm	60 x 60 mm	80 x 80 mm
Position of Micrometer Head	Center		
Travel Range	± 3.0 mm	± 5.0 mm	± 5.0 mm
Minimum Reading of Micrometer	10μm		
Guide Type	Crossed-Roller Guide		
Load Capacity	3kgf	5kgf	5kgf
Parallelism	60μm	65μm	80μm
Driving Parallelism	25μm	25μm	30μm
Weight	0.15 kg	0.45 kg	0.55 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JCHZ-40



JCHZ-60

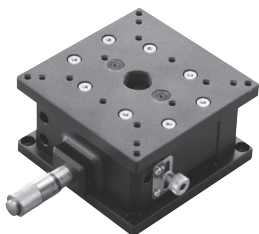


JCHZ-80

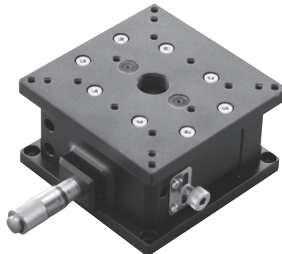
JCHZ-Series(Aluminum Body)

JCHZ-100 / 120

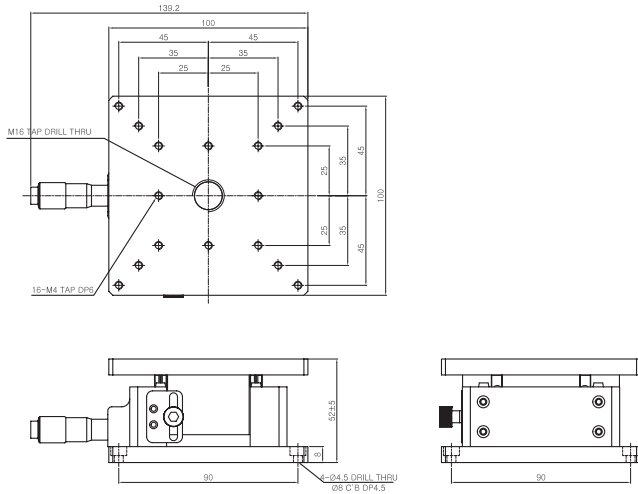
JCHZ-100



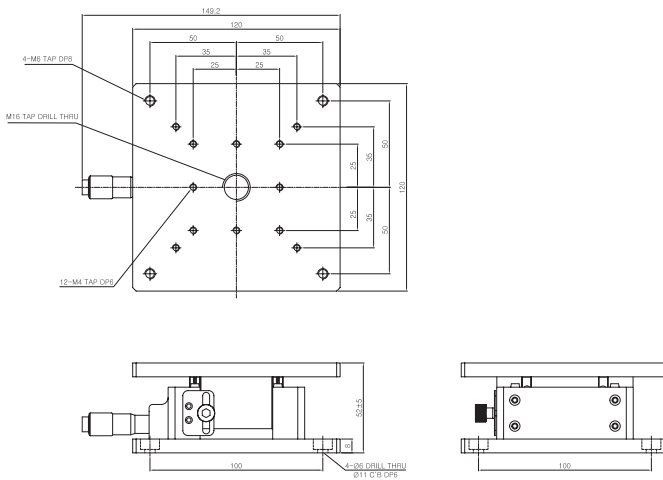
JCHZ-120



Model	JCHZ-100	JCHZ-120
Surface Size	100 x 100 mm	120 x 120 mm
Position of Micrometer Head	Center	
Travel Range	±5 mm	±5 mm
Minimum Reading of Micrometer	10μm	
Guide Type	Crossed-Roller Guide	
Load Capacity	8kgf	8kgf
Parallelism	100μm	100μm
Driving Parallelism	30μm	30μm
Weight	1 kg	1.2 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



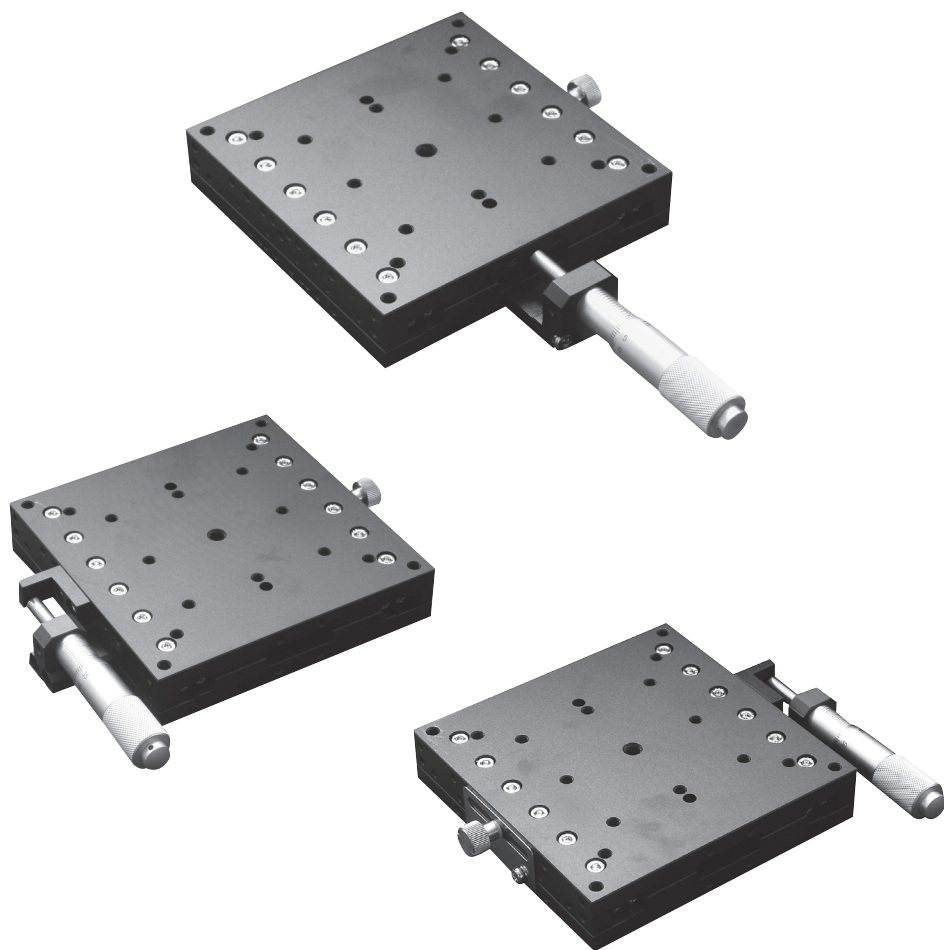
JCHZ-100



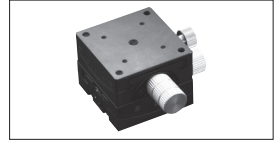
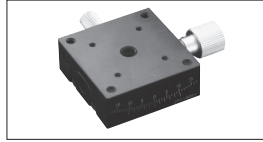
JCHZ-120

S_{tage}

D



Goniometer Stage



JT-Series

JT-40

JT-60

JT-8087

E

JT-Series(Aluminum)

JT-40

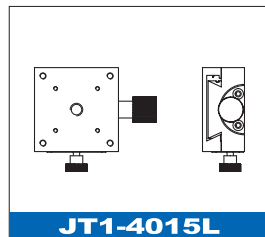
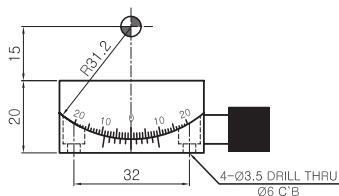
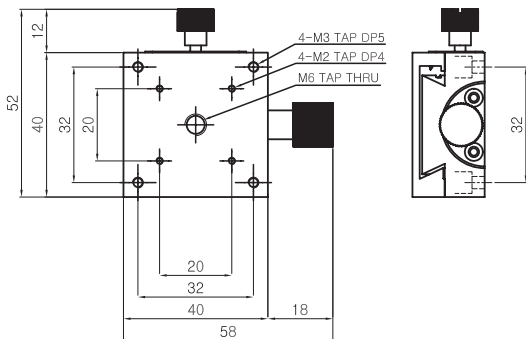
JT1-4015

JT1-4035

JT2-4015

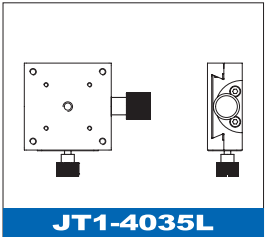
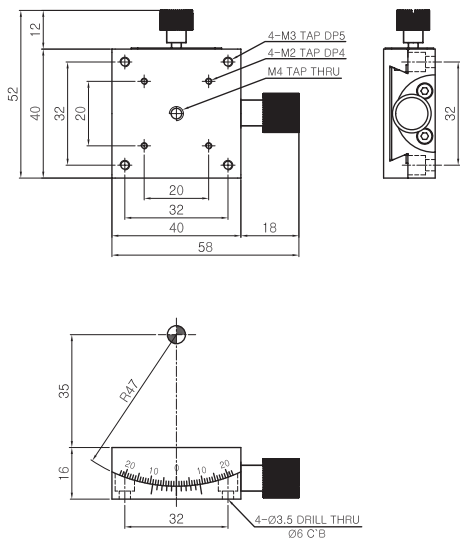


Model	JT1-4015	JT1-4035	JT2-4015
Surface Size	40 x 40 mm		
Rotation Center	15 mm	35 mm	15 mm
Travel Range	$\pm 20^\circ$	$\pm 20^\circ$	TX : $\pm 20^\circ$, Ty : $\pm 20^\circ$
Minimum Reading of Vernier	0.1° / Vernier		
Rotation Angle	$\approx 3.53^\circ$	$\approx 2.19^\circ$	TX : $\approx 3.53^\circ$, Ty : $\approx 2.19^\circ$
Travel Guide	Dovetail, Worm & Gear		
Load Capacity	3.0kgf		2.5kgf
Weight	0.25 kg	0.24 kg	0.5 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



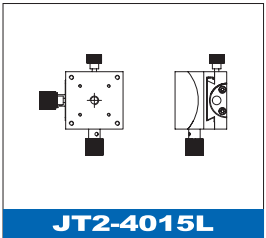
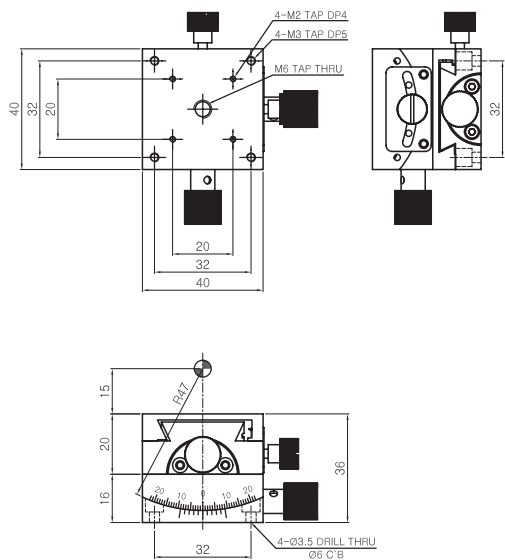
JT1-4015L

JT1-4015R



JT1-4035L

JT1-4035R



JT2-4015L

JT2-4015R

E

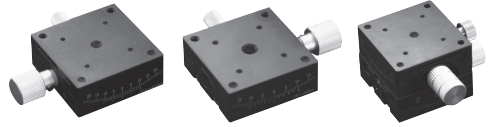
JT-Series(Aluminum)

JT-40

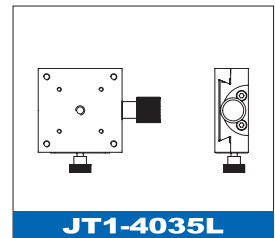
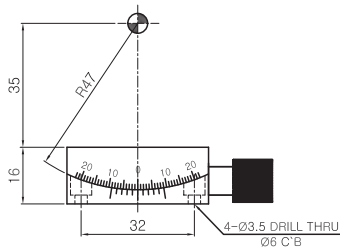
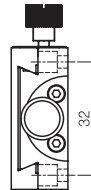
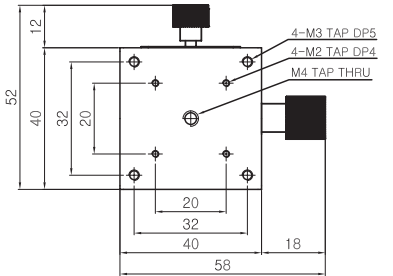
JT1-4035

JT1-4051

JT2-4035

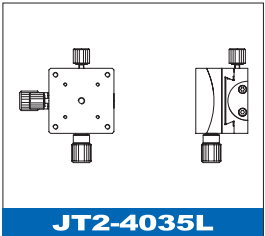
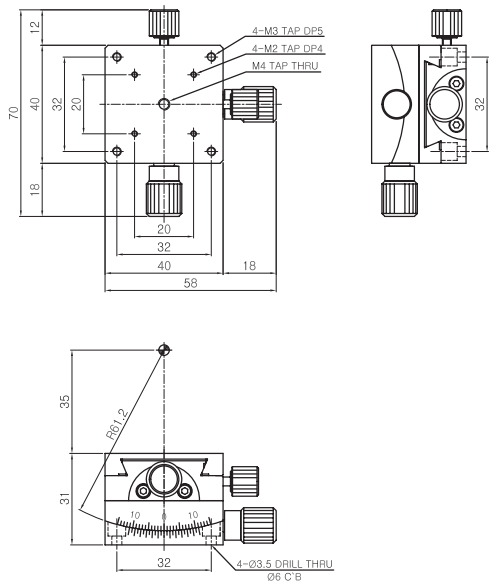
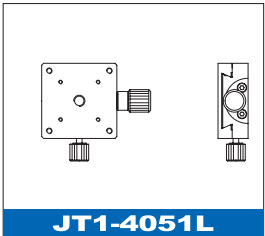
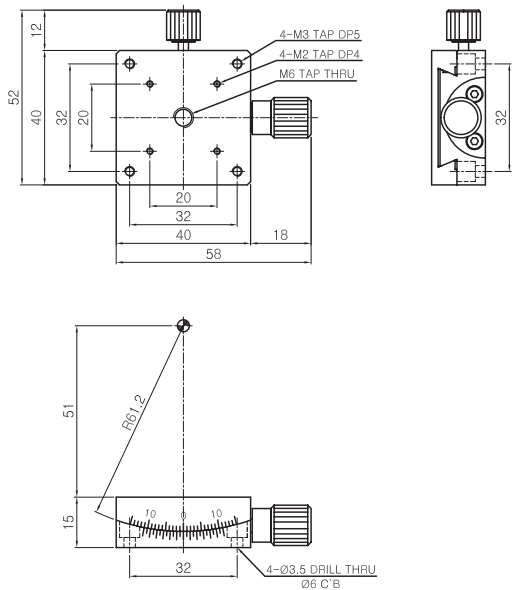


Model	JT1-4035	JT1-4051	JT2-4035
Surface Size	40 x 40 mm		
Rotation Center	35 mm	51 mm	35 mm
Travel Range	$\pm 20^\circ$	$\pm 15^\circ$	TX : $\pm 15^\circ$, Ty : $\pm 20^\circ$
Minimum Reading of Vernier	0.1° / Vernier		
Rotation Angle	$\approx 2.19^\circ$	$\approx 1.60^\circ$	TX : $\approx 1.60^\circ$, Ty : $\approx 2.19^\circ$
Travel Guide	Dovetail, Worm & Gear		
Load Capacity	3.0kgf		2.8kgf
Weight	0.24 kg	0.22 kg	0.46 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



JT1-4035L

JT1-4035R



E

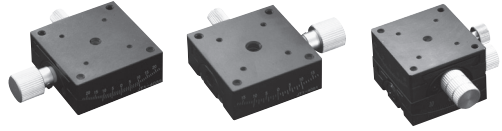
JT-Series(Aluminum)

JT-60

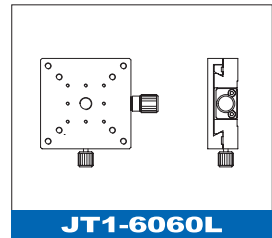
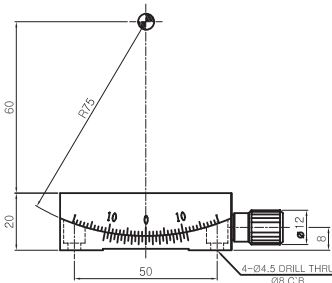
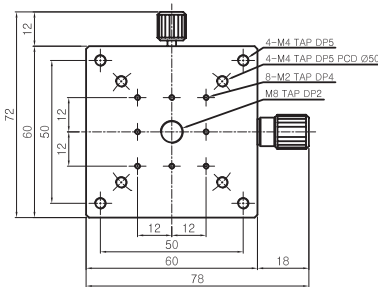
JT1-6060

JT1-6080

JT2-6060

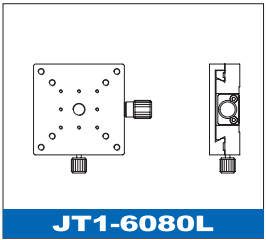
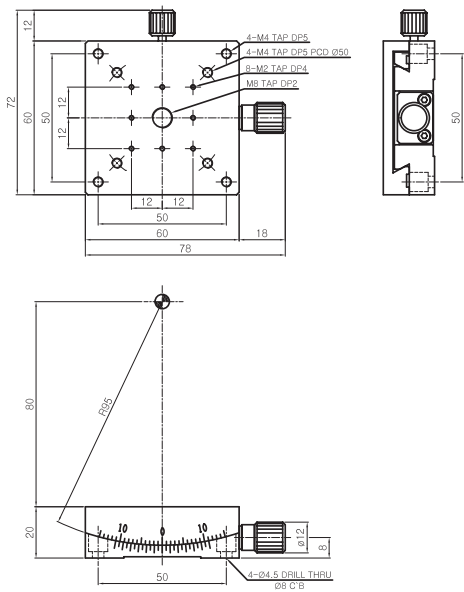


Model	JT1-6060	JT1-6080	JT2-6060
Surface Size	60 x 60 mm		
Rotation Center	60 mm	80 mm	60 mm
Travel Range	$\pm 15^\circ$	$\pm 10^\circ$	TX : $\pm 10^\circ$, Ty : $\pm 15^\circ$
Minimum Reading of Vernier	0.1° / Vernier		
Rotation Angle	$\approx 1.30^\circ$	$\approx 1.00^\circ$	TX : $\approx 1.00^\circ$, Ty : $\approx 1.30^\circ$
Travel Guide	Dovetail, Worm & Gear		
Load Capacity	5.0kgf		4.8 kgf
Weight	0.25 kg		0.50 kg
Material	Aluminum		
Finish Treatment	Black Anodizing		



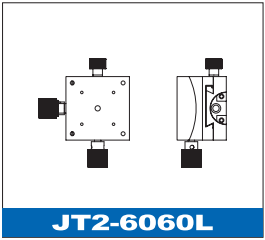
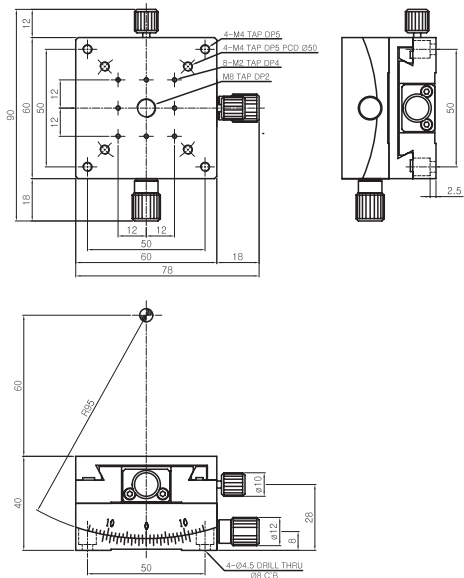
JT1-6060L

JT1-6060R



JT1-6080L

JT1-6080R



JT2-6060L

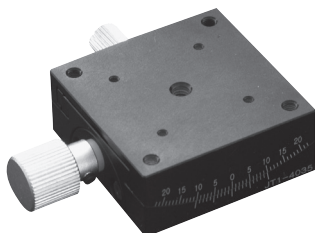
JT2-6060R

E

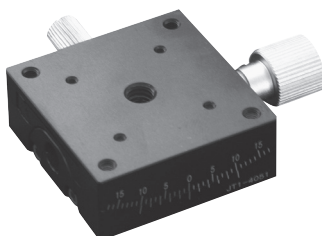
JT-Series(Aluminum)

JT-8087

JT-8087L

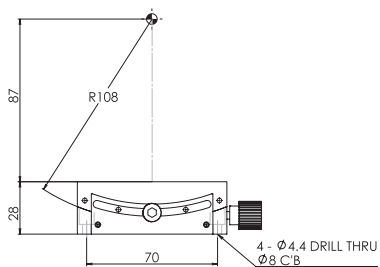
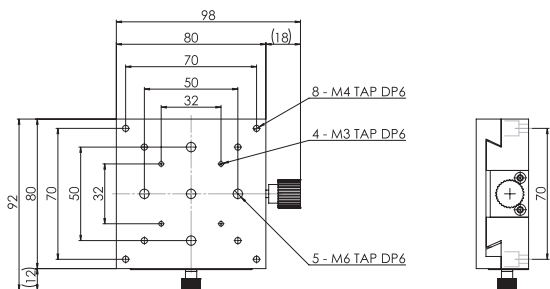


JT-8087R



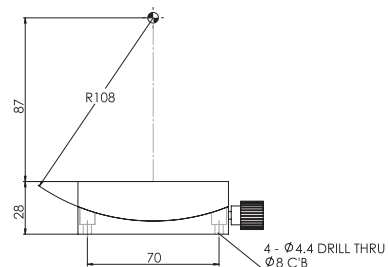
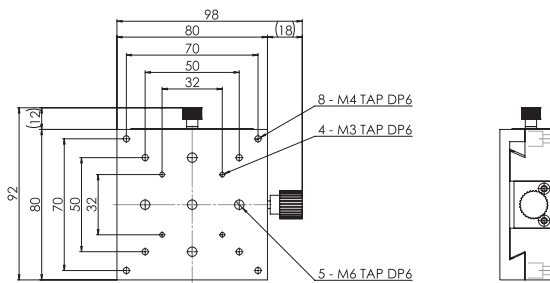
E

Model	JT-8087L	JT-8087R
Surface Size	80 x 80 mm	
Rotation Center	87 mm	
Travel Range	$\pm 15^{\circ}$	
Minimum Reading of Vernier	0.1° / Vernier	
Rotation Angle	$\approx 0.9^{\circ}$	
Travel Guide	Dovetail, Worm & Gear	
Load Capacity	8 kgf	
Weight	0.53 kg	
Material	Aluminum	
Finish Treatment	Black Anodizing	



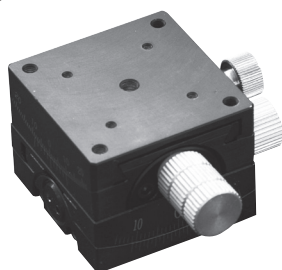
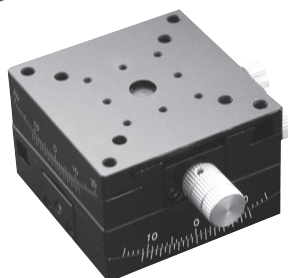
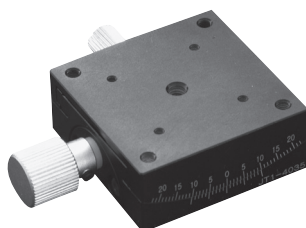
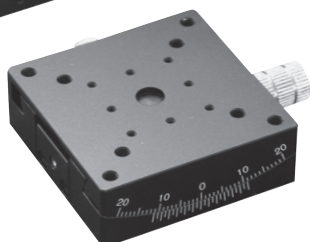
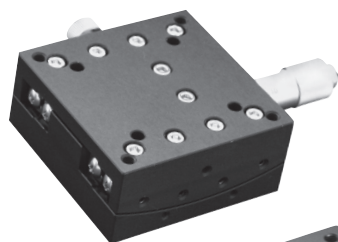
JT-8087L

E



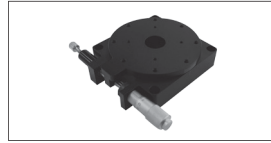
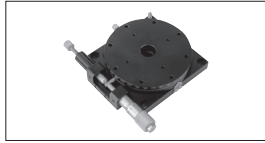
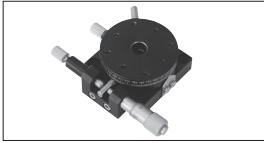
JT-8087R

S_{tage}



Goniometer

Rotary Stage



JCR Series

JCR-40

JCR-60

JCR-80

JCR-100

JCR-120

JCRF-80

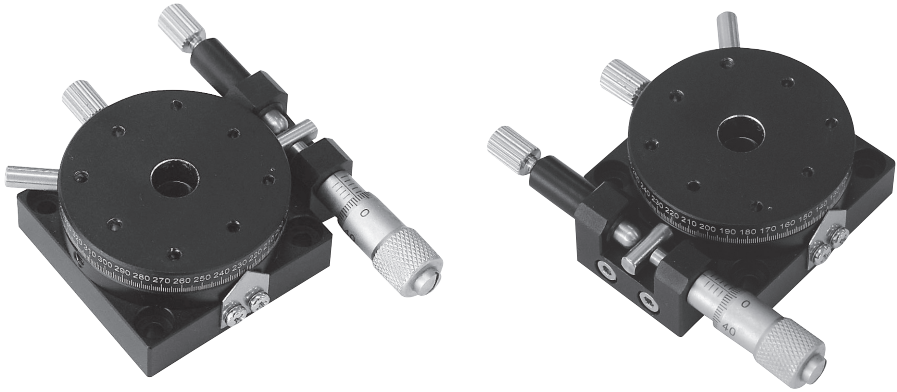
JCRT-60

JCRT-100

F

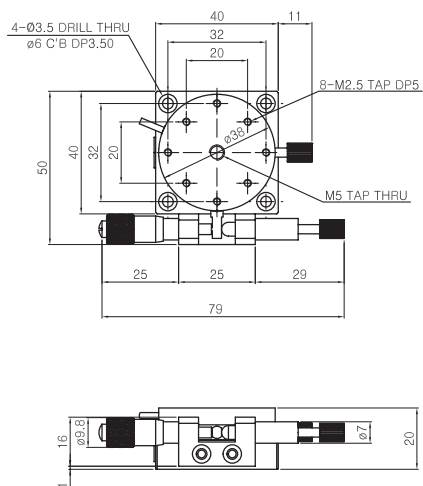
JCR-Series(Aluminum)

JCR-40



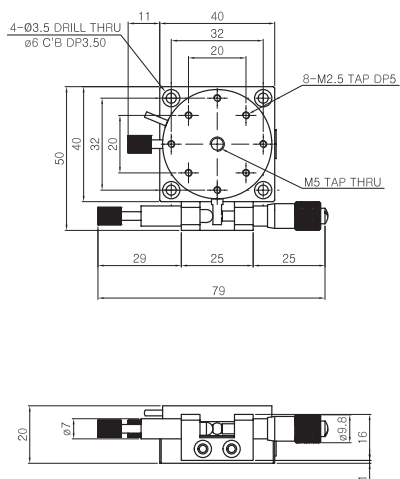
F

Model	JCR-40L	JCR-40R
Surface Size	ϕ 40	
Position of Micrometer Head	Left	Right
Travel Range	Coarse : ϕ 360° Fine : $\pm 5^\circ$	
Minimum Reading of Micrometer	10 μ m	
Readable Resolution	2°	
Load Capacity	1.0kgf	
Parallelism	30 μ m	
Rotational Concentricity	30 μ m	
Weight	0.09 kg	0.09 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



JCR-40L

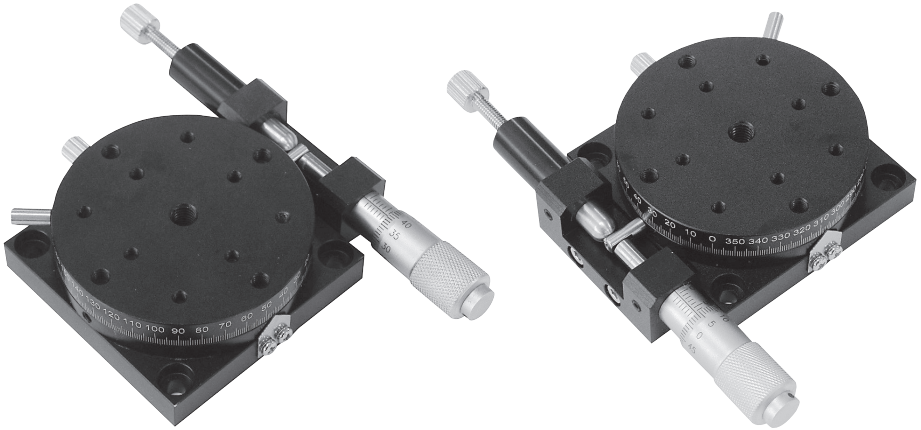
F



JCR-40R

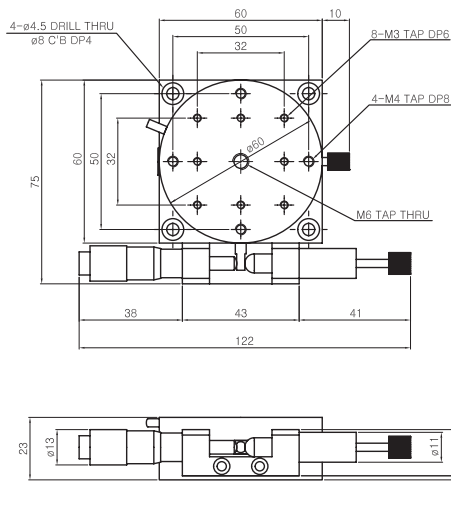
JCR-Series(Aluminum)

JCR-60



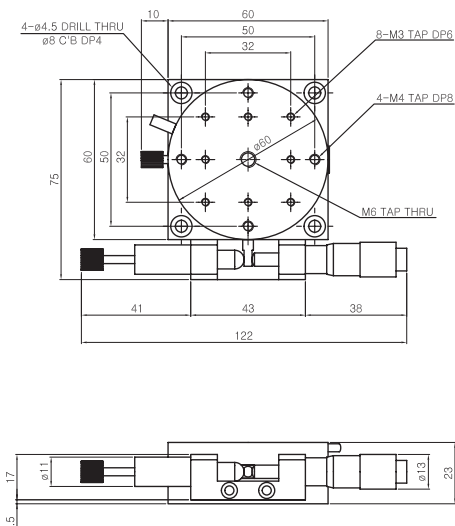
F

Model	JCR-60L	JCR-60R
Surface Size	ϕ 60	
Position of Micrometer Head	Left	Right
Travel Range	Coarse : ϕ 360° Fine : $\pm 5^\circ$	
Minimum Reading of Micrometer	10 μ m	
Readable Resolution	1°	
Load Capacity	3.0kgf	
Parallelism	50 μ m	
Rotational Concentricity	50 μ m	
Weight	0.28 kg	0.28 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



JCR-60L

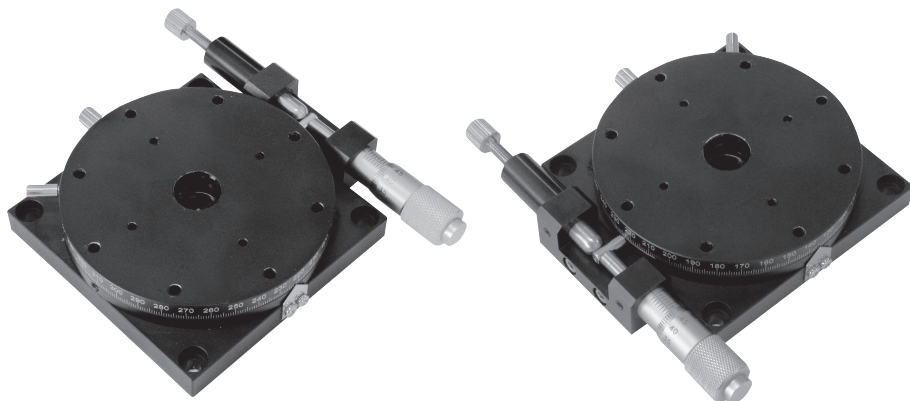
F



JCR-60R

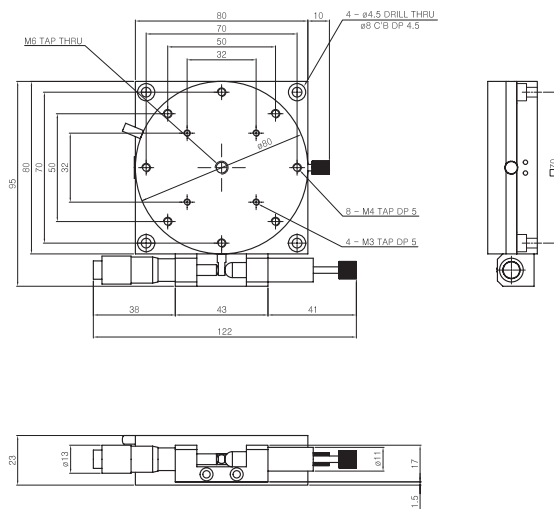
JCR-Series(Aluminum)

JCR-80



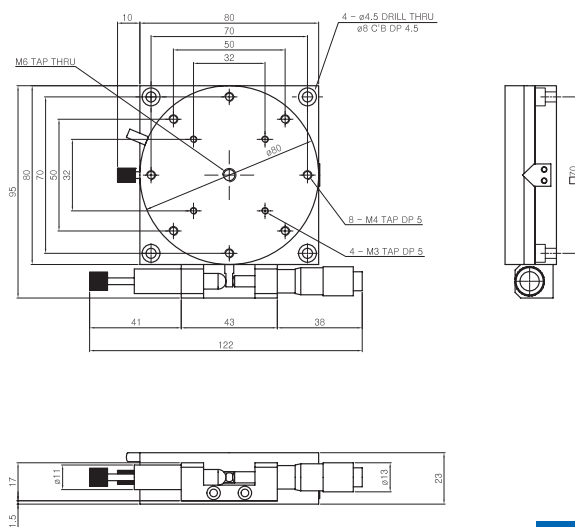
F

Model	JCR-80L	JCR-80R
Surface Size	ϕ 80	
Position of Micrometer Head	Left	Right
Travel Range	Coarse : ϕ 360° Fine : $\pm 5^\circ$	
Minimum Reading of Micrometer	10 μ m	
Readable Resolution	1°	
Load Capacity	4.0kgf	
Parallelism	50 μ m	
Rotational Concentricity	50 μ m	
Weight	0.45 kg	0.45 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



JCR-80L

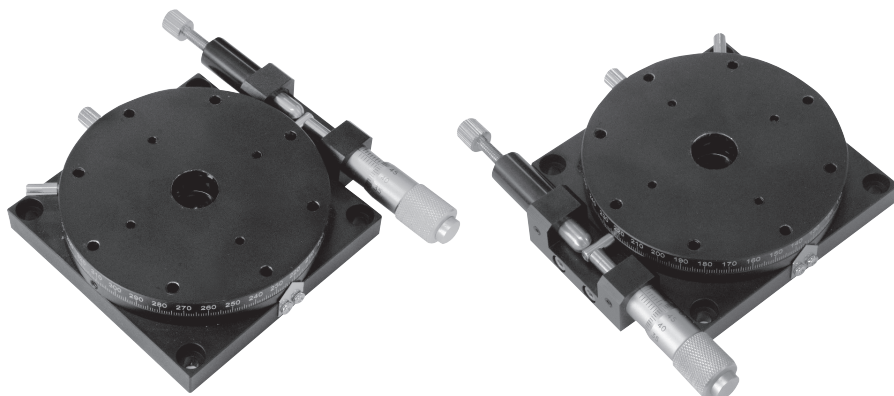
F



JCR-80R

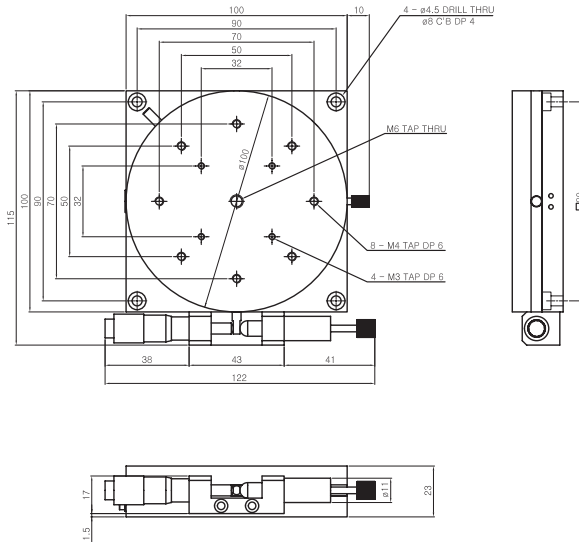
JCR-Series(Aluminum)

JCR-100

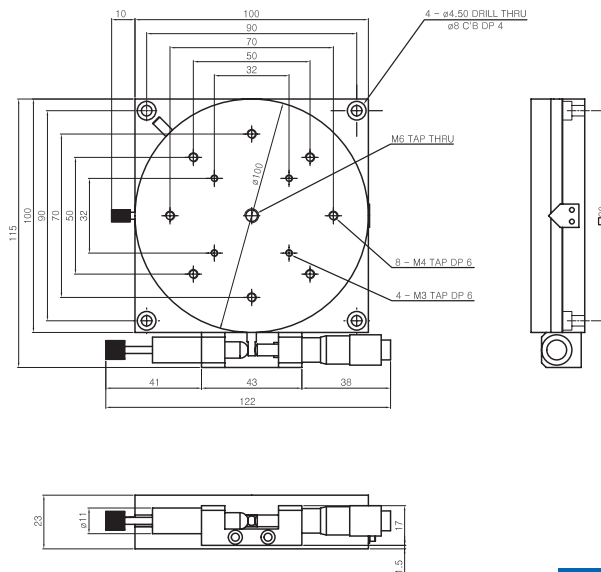


F

Model	JCR-100L	JCR-100R
Surface Size	ϕ 100	
Position of Micrometer Head	Left	Right
Travel Range	Coarse : ϕ 360° Fine : $\pm 5^\circ$	
Minimum Reading of Micrometer	10 μ m	
Readable Resolution	1°	
Load Capacity	5.0kgf	
Parallelism	60 μ m	
Rotational Concentricity	50 μ m	
Weight	0.8 kg	0.8 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



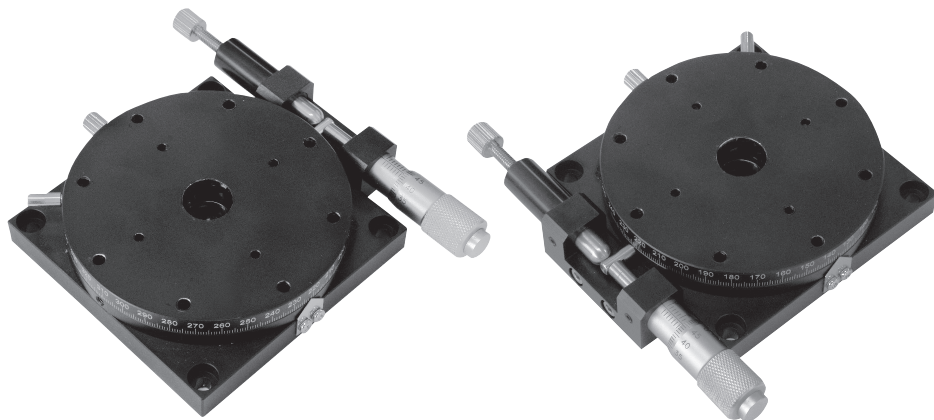
JCR-100L



JCR-100R

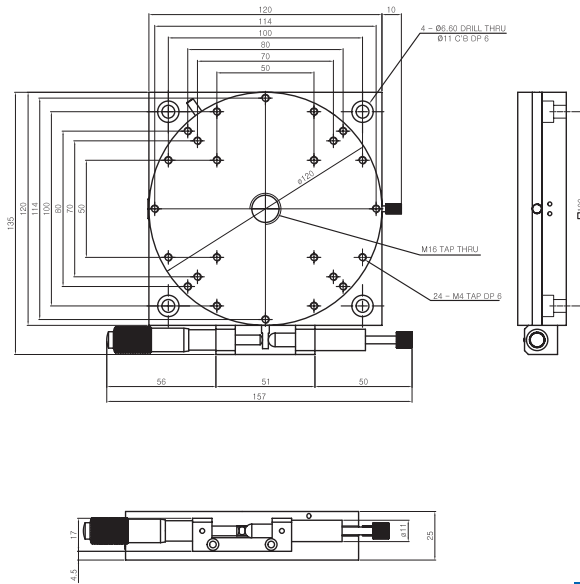
JCR-Series(Aluminum)

JCR-120

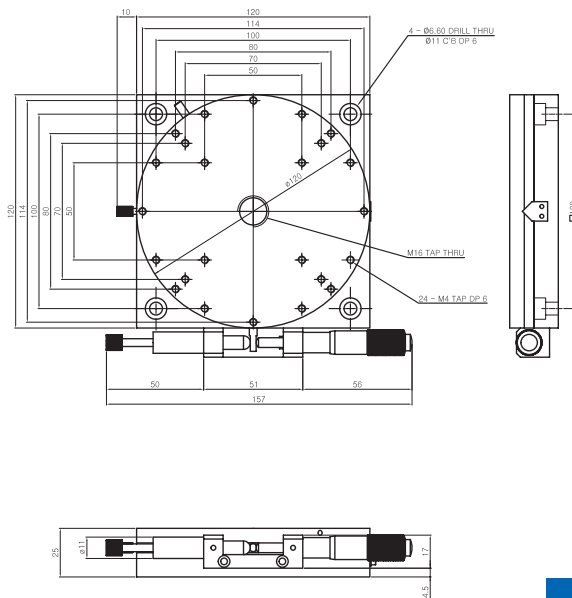


F

Model	JCR-120L	JCR-120R
Surface Size	ϕ 120	
Position of Micrometer Head	Left	Right
Travel Range	Coarse : ϕ 360° Fine : $\pm 5^\circ$	
Minimum Reading of Micrometer	10 μ m	
Readable Resolution	1°	
Load Capacity	6.0 kgf	
Parallelism	80 μ m	
Rotational Concentricity	60 μ m	
Weight	1 kg	1 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



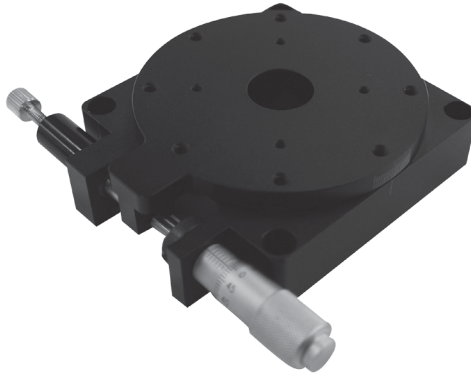
JCR-120L



JCR-120R

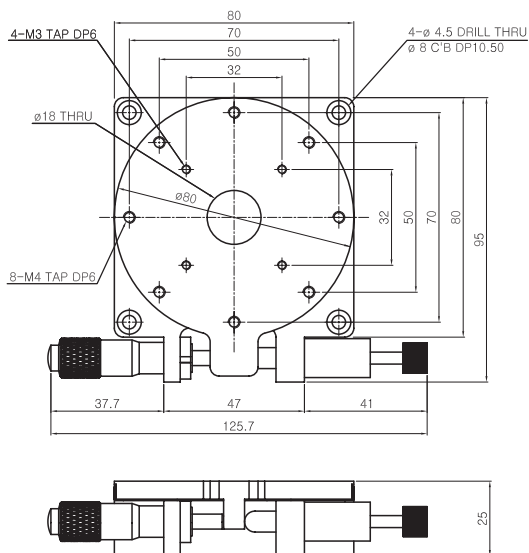
JCRF-Series(Aluminum)

JCRF - 80



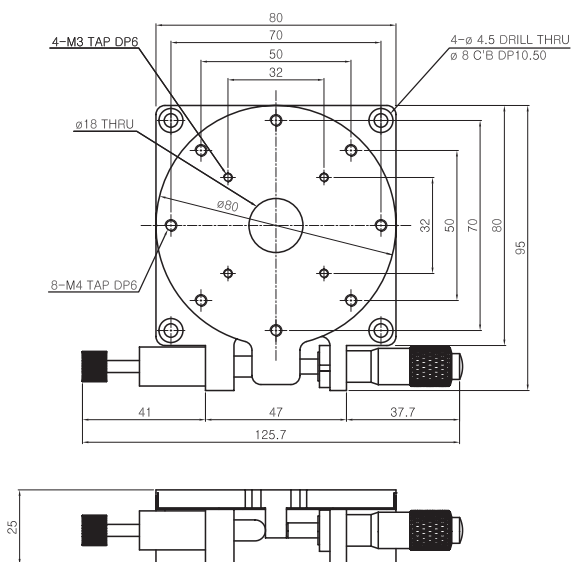
F

Model	JCRF-80L	JCRF-80R
Surface Size	ø 80	
Position of Micrometer Head	Left	Right
Travel Range	±5°	
Minimum Reading of Micrometer	10μm	
Readable Resolution	1°	
Load Capacity	10kgf	
Parallelism	50μm	
Rotational Concentricity	50μm	
Weight	0.5 kg	0.5 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



JCRF-80L

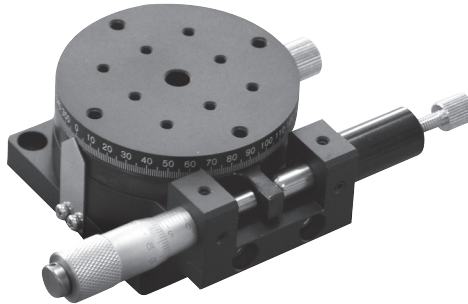
F



JCRF-80R

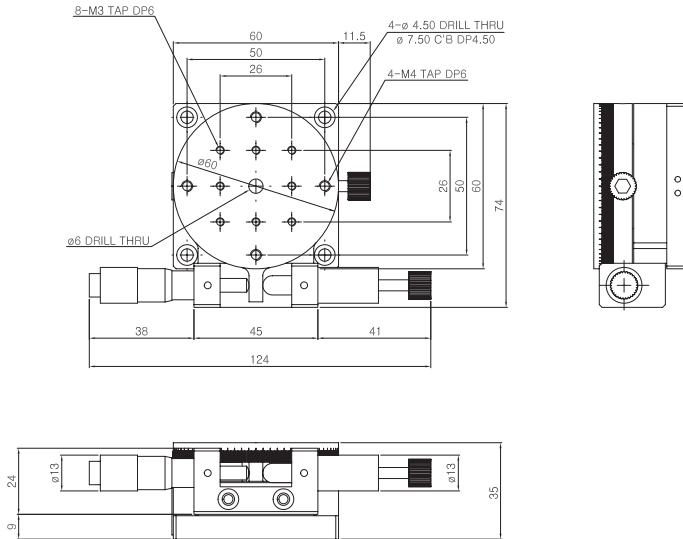
JCRT-Series(Aluminum)

JCRT - 60

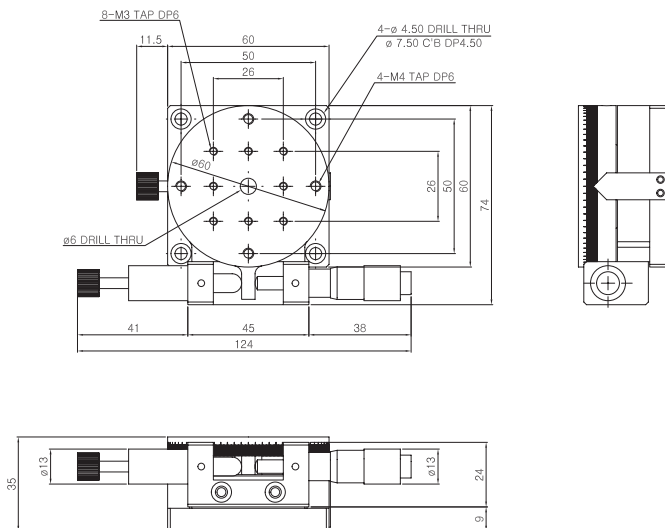


F

Model	JCRT-60L	JCRT-60R
Surface Size	ø 60	
Position of Micrometer Head	Left	Right
Travel Range	Coarse : ø 360° Fine : ±5°	
Minimum Reading of Micrometer	10μm	
Readable Resolution	1°	
Load Capacity	8.0kgf	
Parallelism	30μm	
Rotational Concentricity	30μm	
Weight	0.5 kg	0.5 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



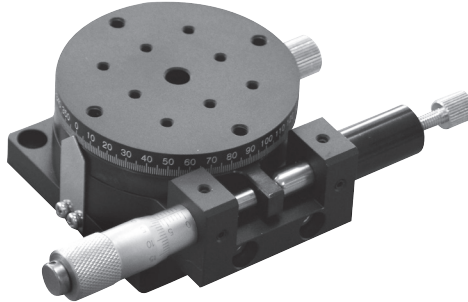
JCRT-60L



JCRT-60R

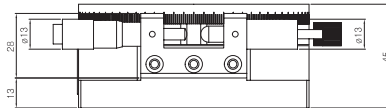
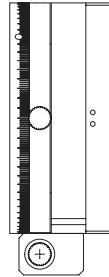
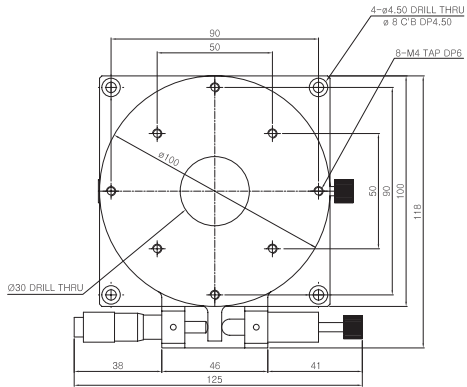
JCRT-Series(Aluminum)

JCRT - 100

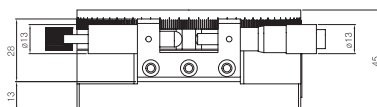
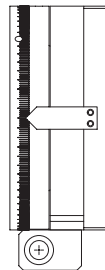
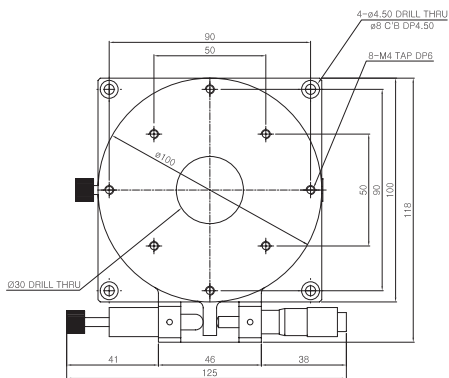


F

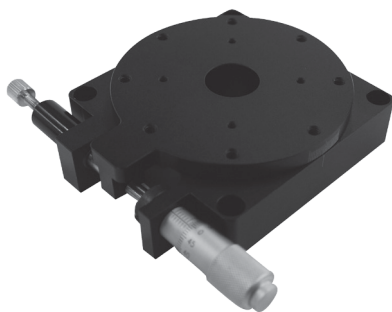
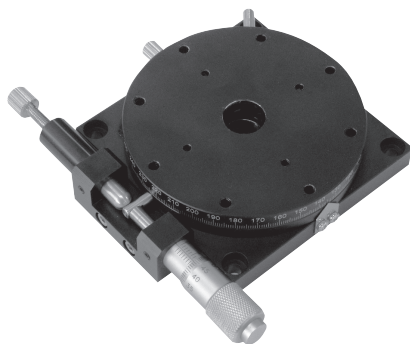
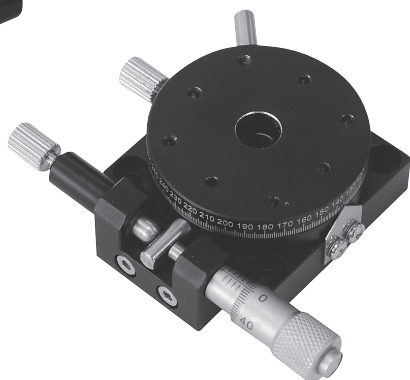
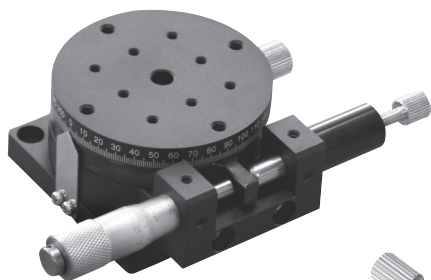
Model	JCRT-100L	JCRT-100R
Surface Size	ø 100	
Position of Micrometer Head	Left	Right
Travel Range	Coarse : ø 360° Fine : ±5°	
Minimum Reading of Micrometer	10μm	
Readable Resolution	1°	
Load Capacity	10.0kgf	
Parallelism	50μm	
Rotational Concentricity	50μm	
Weight	0.7 kg	0.7 kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



JCRT-100L



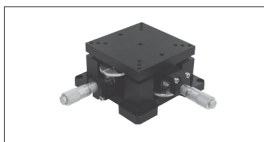
JCRT-100R



Rotary Stage

F

Multi Stage

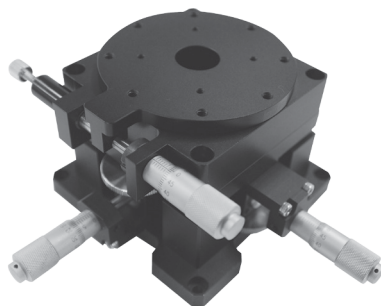
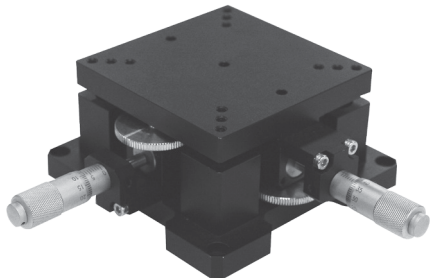


JA4-80 / JA5-80

G

Multi-Series

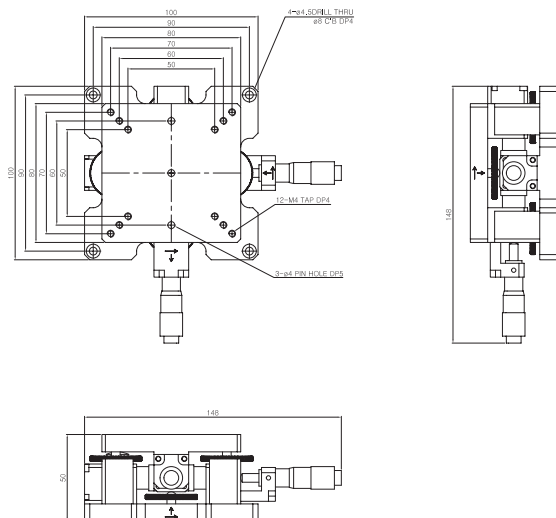
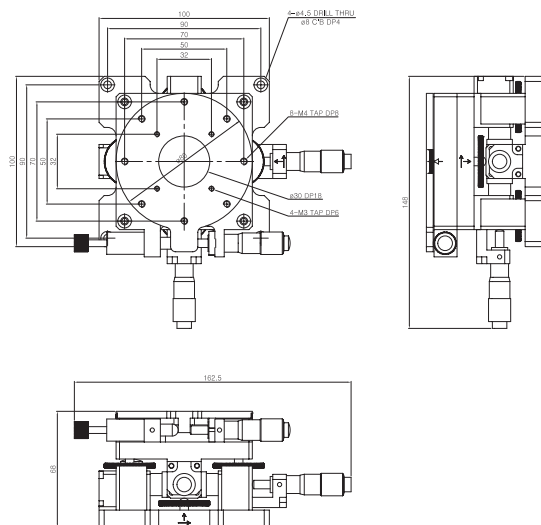
JA4-80 / JA5-80

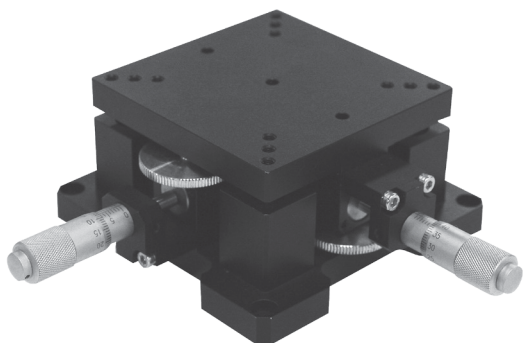


G

Model	JA4-80	JA5-80
Surface Size	80 x 80 mm	Ø80
Travel Range	X : $\pm 5\text{mm}$ TX: $\pm 3^\circ$ Y : $\pm 5\text{mm}$ TY: $\pm 3^\circ$	X : $\pm 5\text{mm}$ TX: $\pm 3^\circ$ Y : $\pm 5\text{mm}$ TY: $\pm 3^\circ$ R : $\pm 5^\circ$
Travel Guide	Guide Pin, Spring Interlock	Guide Pin, Spring Interlock
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	80 μm	100 μm
Driving Parallelism	30 μm	30 μm
Load Capacity	6 kgf	6 kgf
Weight	0.8kg	1.3kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing

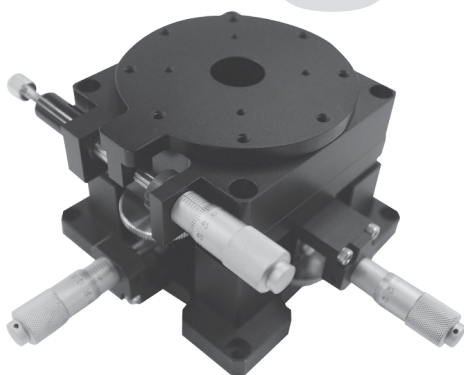
JD4-80 / JD5-80


JA4-80
G

JA5-80

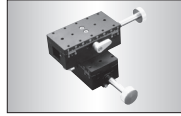
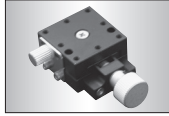


G

Multi Stage



Motorized Stage (Screw Type)



Screw Type

JLD

JD-25S

JD-243S

JD2-311S

JD2-317SS

JD1-312S

JD1-310S

JD-43S

JD-44S

JD-48S

JD-55S

JD-60S

JD-66S

Rack & Pinion Type

JD-246P

JD-249P

JD-2411P

JD3-255P

JD3-257P

JD-40P

JD-44P

JD-46P

JD-48P

JD-49P

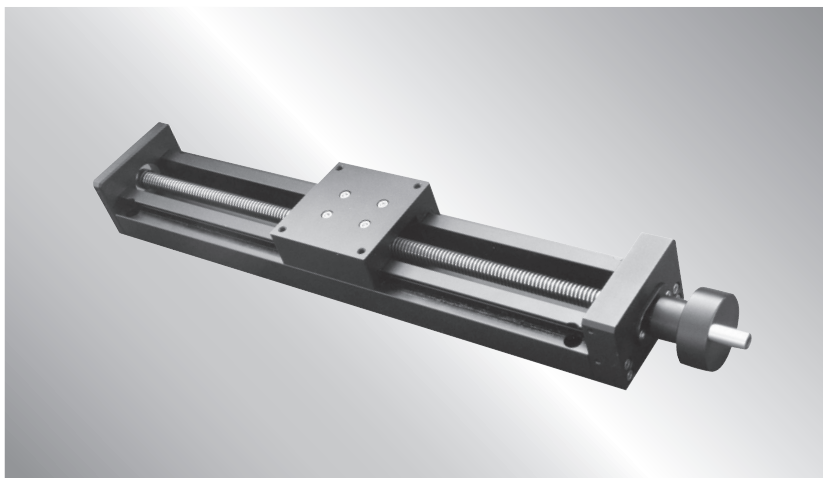
JD-414P

JD-419P

H

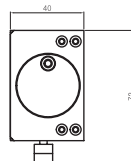
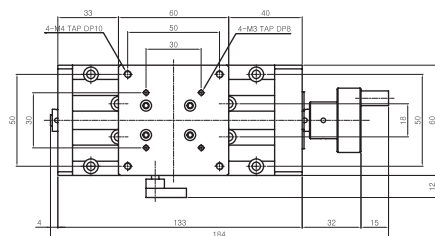
Dovetail Screw Series

JLD

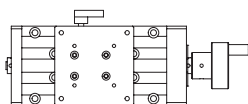


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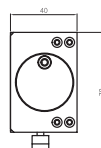
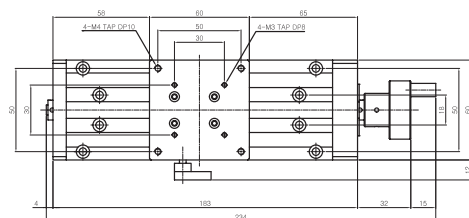
Model	JLD-ST50	JLD-ST100
Upper Surface Size	60 x 60mm	60 x 60mm
Travel Range	50mm	100mm
Travel Guide	Dovetail, Screw	
Lead Screw	Ø10, Lead 1.5	
Parallelism	50µm	
Driving Parallelism	60µm	100µm
Load capacity	2.5Kgf	2.5Kgf
Weight	0.74 Kg	0.89 Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	



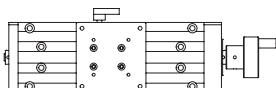
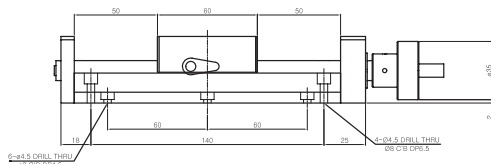
JLD-ST50



JLD-ST50(MIR)



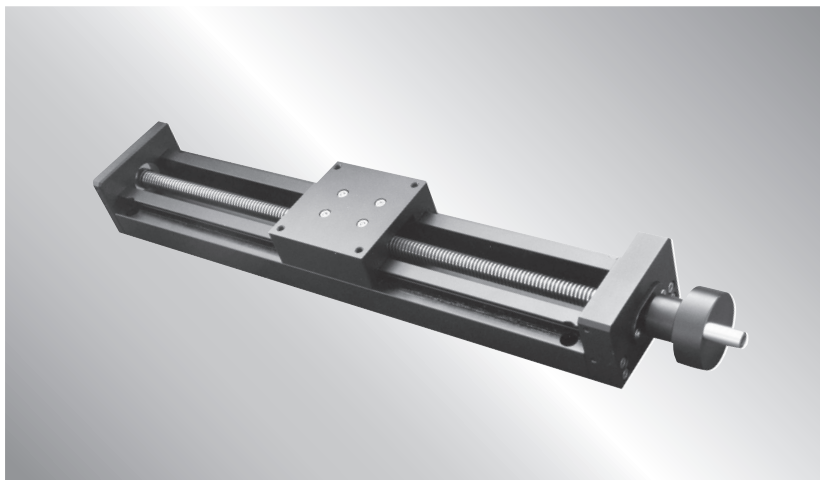
JLD-ST100



JLD-ST100(MIR)

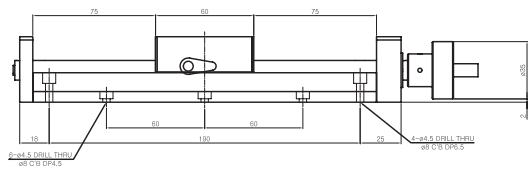
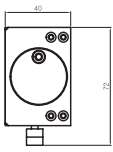
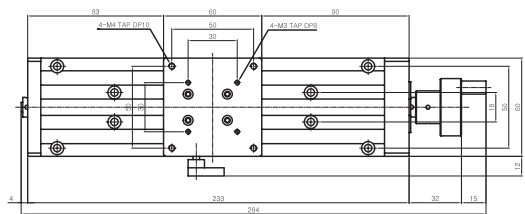
Dovetail Screw Series

JLD

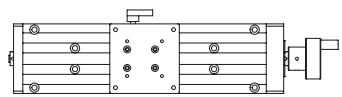


Model	JLD-ST150	JLD-ST200
Upper Surface Size	60 x 60mm	60 x 60mm
Travel Range	150mm	200mm
Travel Guide	Dovetail, Screw	
Lead Screw	Ø10, Lead 1.5	
Parallelism	50µm	
Driving Parallelism	100µm	100µm
Load capacity	2.5Kgf	2.5Kgf
Weight	1.04 Kg	1.19 Kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

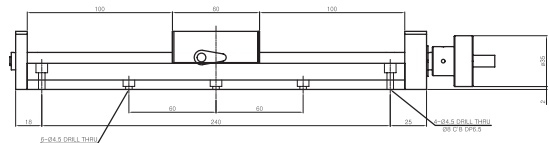
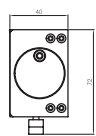
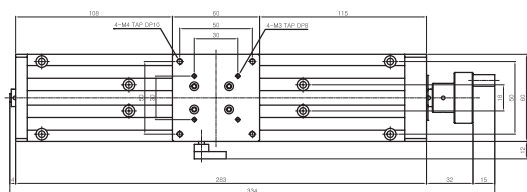
Dovetail Stage (screw type)



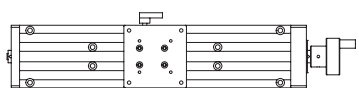
JLD-ST150



JLD-ST150(MIR)



JLD-ST200

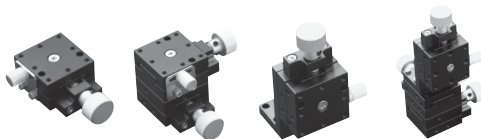


JLD-ST200(MIR)

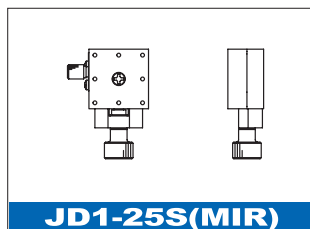
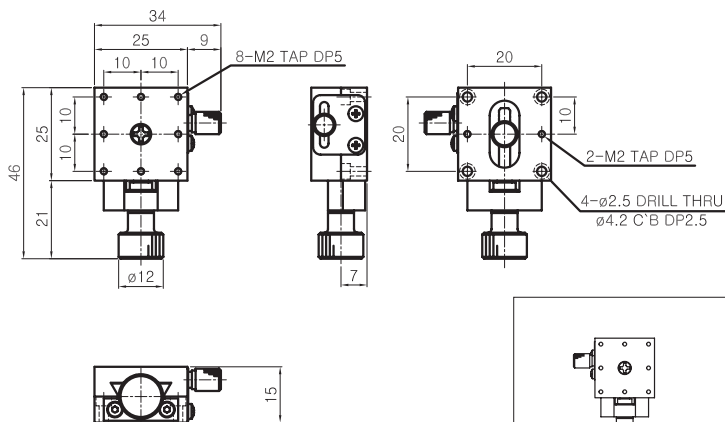


Dovetail Screw Series

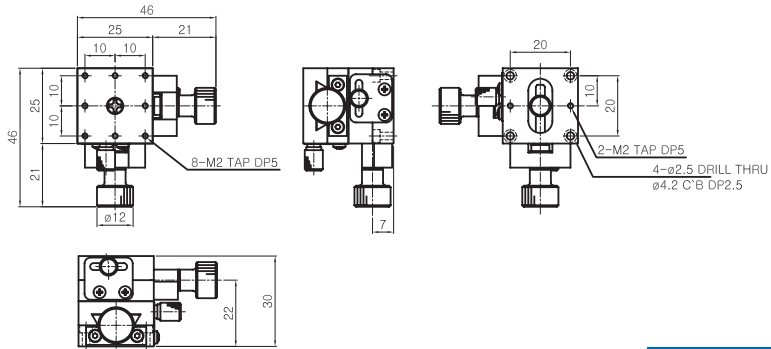
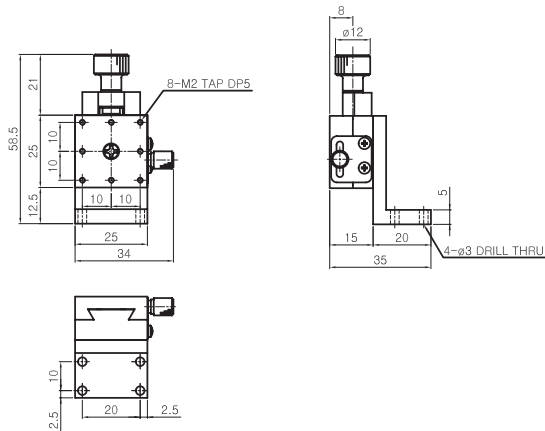
JD-25S



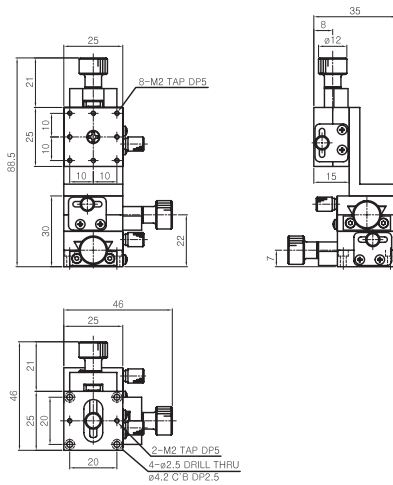
Model	JD1-25S	JD2-25S	JD3-25S	JD4-25S
Surface Size	25 x 25 mm	25 x 25 mm	25 x 25 mm	25 x 25 mm
Travel Range	± 4 mm	± 4 mm	± 4 mm	± 4 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier	0.1mm / Vernier	0.1mm / Vernier
Parallelism	30μm	50μm	40μm	50μm
Driving Parallelism	30μm	30μm	30μm	30μm
Load Capacity	1.0kgf	0.8kgf	0.5kgf	0.5kgf
Base Plate	X	X	X	X
Weight	0.1kg	0.2kg	0.12kg	0.32kg
Material	Aluminum	Aluminum	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing	Black Anodizing	Black Anodizing



JD1-25S

**JD2-25S**

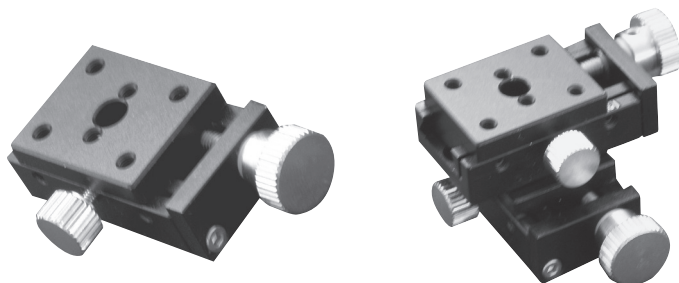
JD3-25S



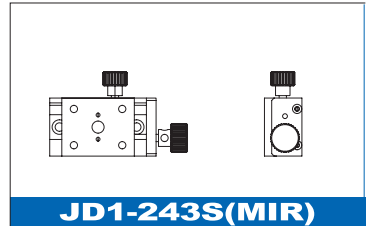
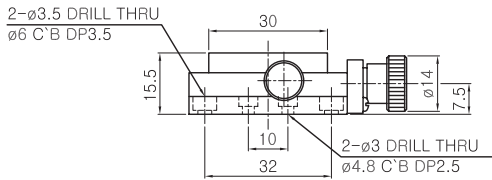
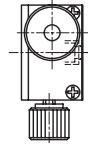
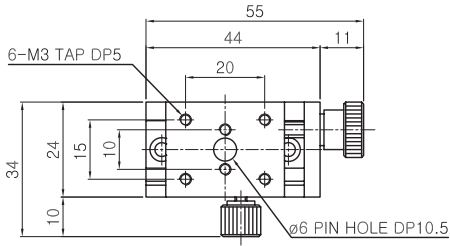
JD4-25S

Dovetail Screw Series

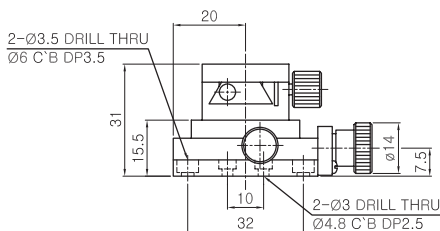
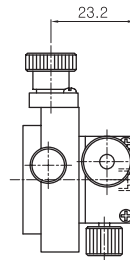
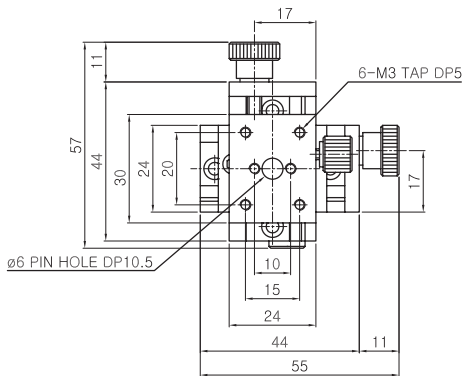
JD-243S



Model	JD1-243S	JD2-243S
Surface Size	24 x 30 mm	24 x 30 mm
Travel Range	±5 mm	±5 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	30μm	50μm
Driving Parallelism	30μm	30μm
Load Capacity	1.0kgf	0.8kgf
Base Plate	X	X
Weight	0.12kg	0.24kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



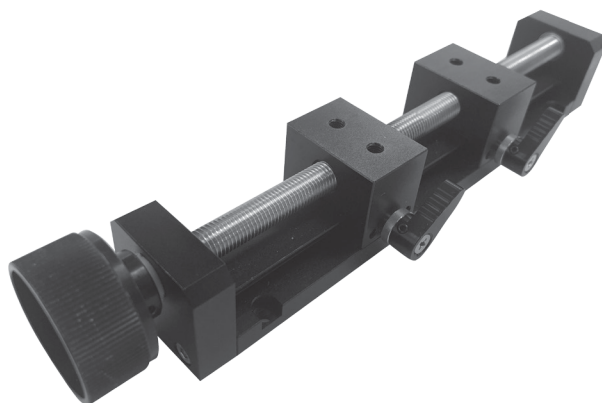
JD1-243S



JD2-243S

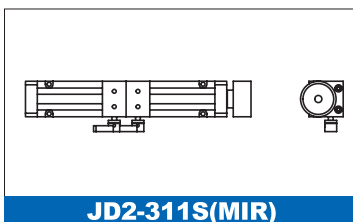
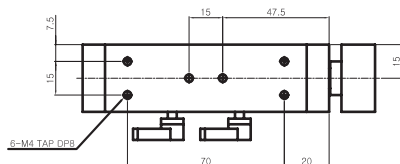
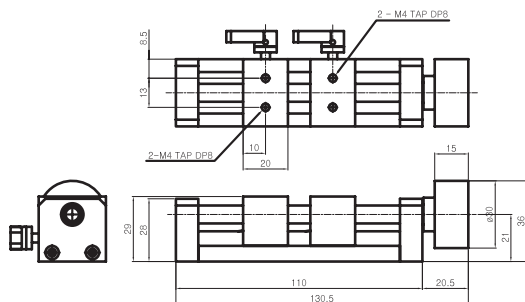
Dovetail Screw Series

JD2-311S / JD2-317SS



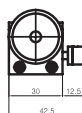
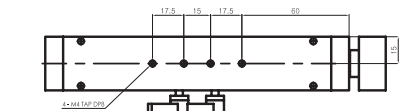
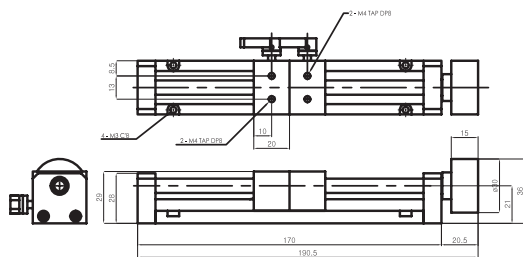
H

Model	JD2-311S(BI-Directional)	JD2-317SS(BI-Directional)
Upper Surface Size	20 x 30mm	20 x 30mm
Travel Range	L25mm, R25mm	L55mm, R55mm
Travel Guide	Dovetail, Screw	
Readable Resolution	0.1mm / Vernier	
Parallelism	40μm	
Driving Parallelism	30μm	
Load capacity	2Kgf	
Weight	0.3 Kg	
Material	Aluminum	
Finish Treatment	Black Anodizing	



JD2-311S(MIR)

JD2-311S

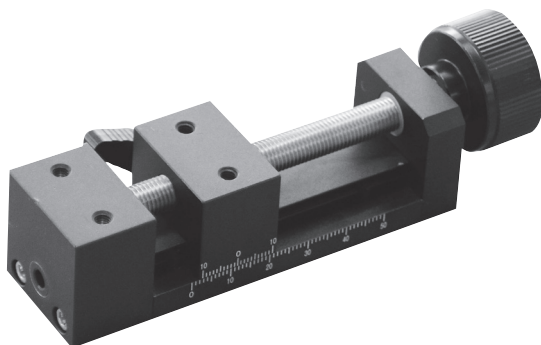


JD2-317SS(MIR)

JD2-317SS

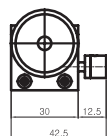
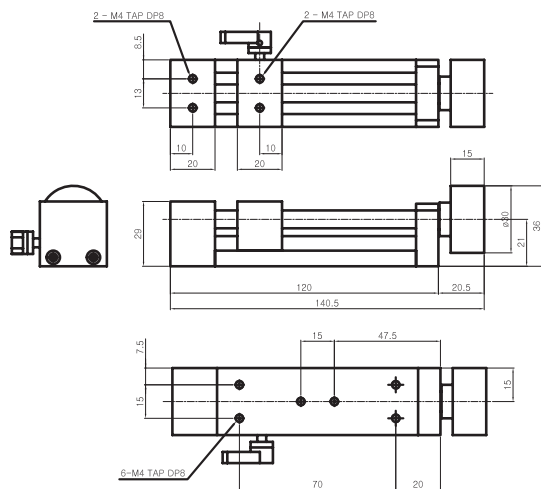
Dovetail Screw Series

JD1-312S/ JD1-310S



H

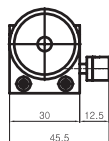
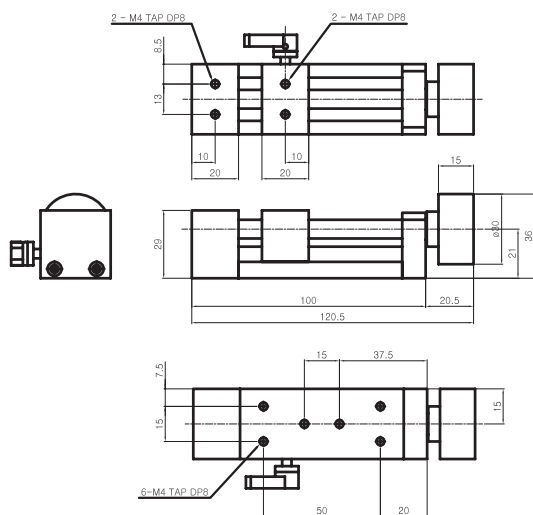
Model	JD1-312S	JD1-310S
Upper Surface Size	20 x 30mm	20 x 30mm
Travel Range	70mm	50mm
Travel Guide	Dovetail, Screw	
Readable Resolution	0.1mm / Vernier	
Parallelism	40μm	
Driving Parallelism	30μm	
Load capacity	2Kgf	
Weight	0.3 Kg	
Material	Aluminum	
Finish Treatment	Black Anodizing	



JD1-312S(MIR)

JD1-312S

H

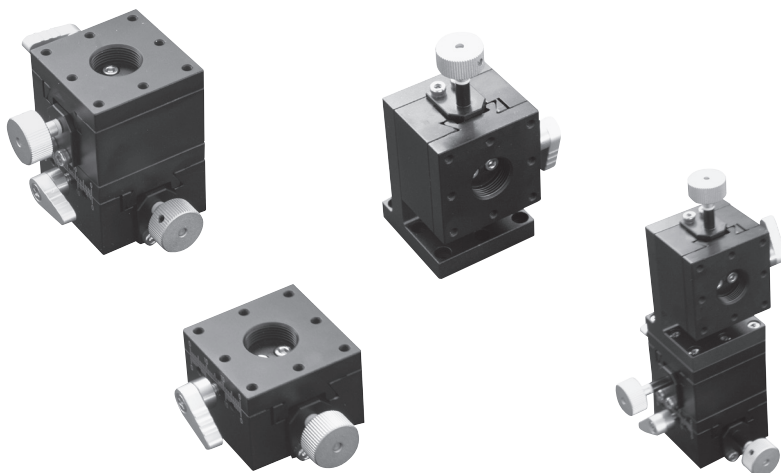


JD1-310S(MIR)

JD1-310S

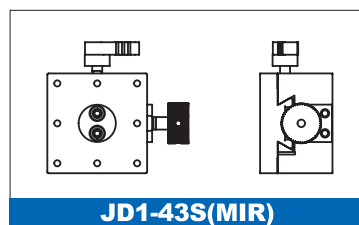
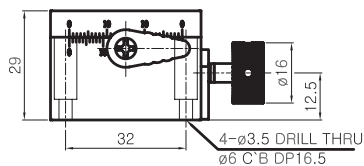
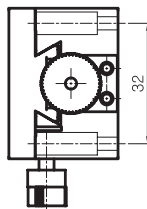
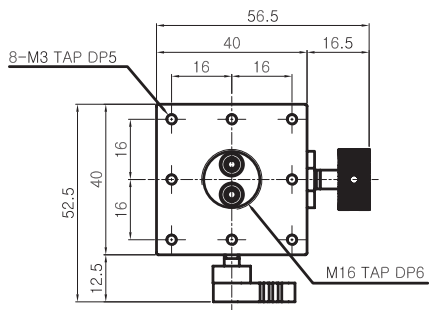
Dovetail Screw Series

JD-43S

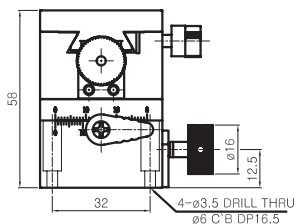
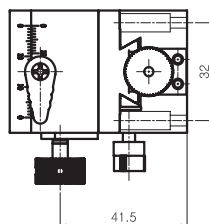
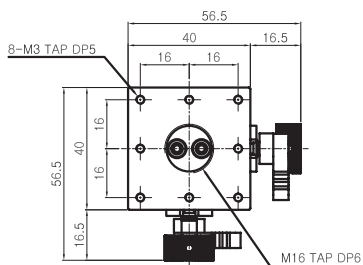


H

Model	JD1-43S	JD2-43S
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	±10 mm	±10 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	40μm	60μm
Driving Parallelism	30μm	30μm
Load Capacity	2.5kgf	2.2kgf
Base Plate	X	X
Weight	0.18kg	0.36kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



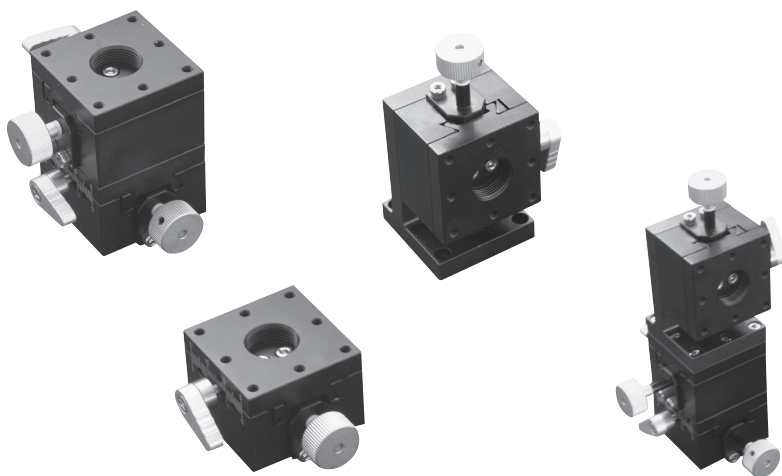
JD1-43S



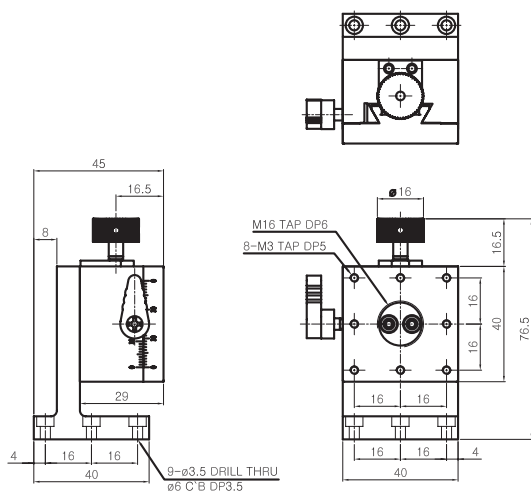
JD2-43S

Dovetail Screw Series

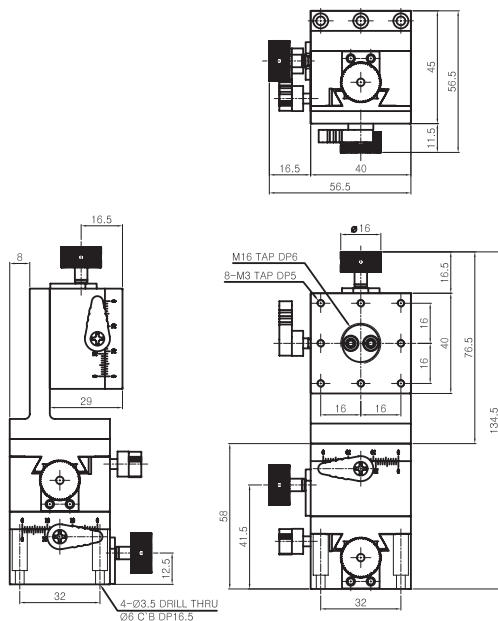
JD-43S



Model	JD3-43S	JD4-43S
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	±10 mm	±10 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	120μm
Driving Parallelism	30μm	30μm
Load Capacity	1.2kgf	1.2kgf
Base Plate	X	X
Weight	0.2kg	0.56kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



JD3-43S

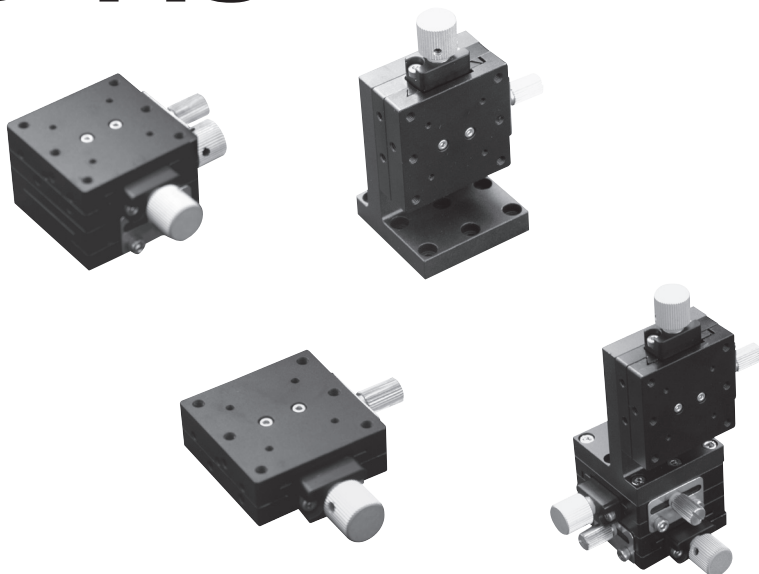


JD4-43S

H

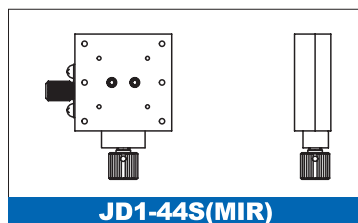
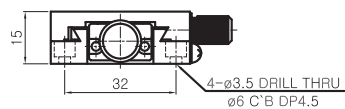
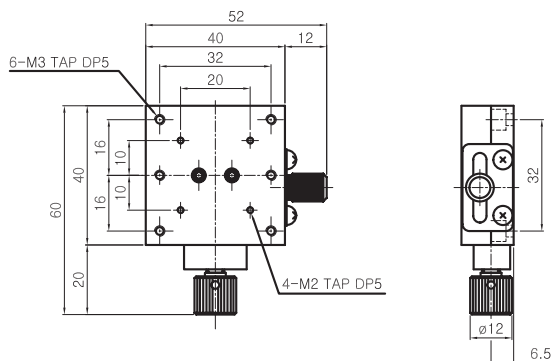
Dovetail Screw Series

JD-44S



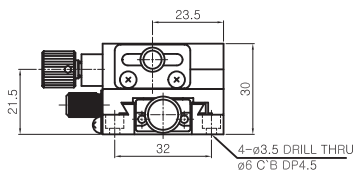
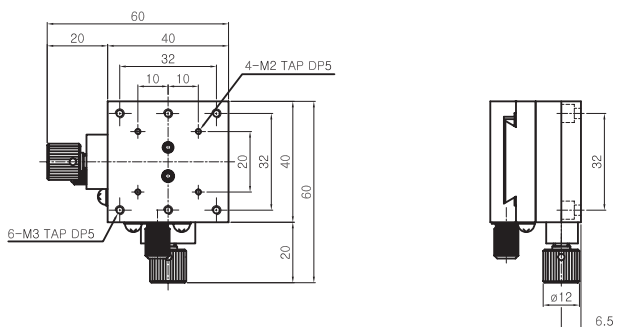
H

Model	JD1-44S	JD2-44S
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	±10 mm	±10 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	40μm	60μm
Driving Parallelism	30μm	30μm
Load Capacity	2.0kgf	1.8kgf
Base Plate	X	X
Weight	0.15kg	0.3kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



JD1-44S(MIR)

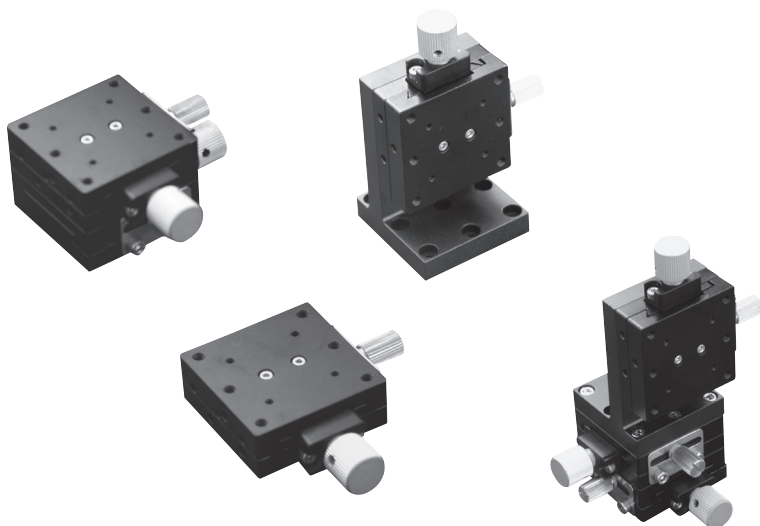
JD1-44S



JD2-44S

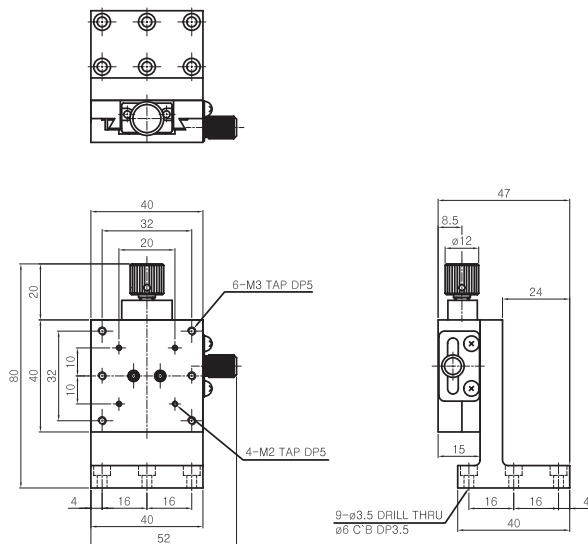
Dovetail Screw Series

JD-44S

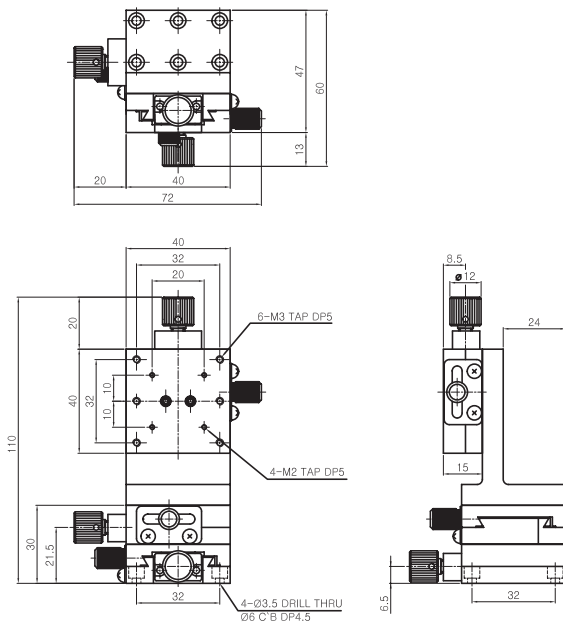


H

Model	JD3-44S	JD4-44S
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	±10 mm	±10 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	120μm
Driving Parallelism	30μm	30μm
Load Capacity	1.0kgf	1.0kgf
Base Plate	X	X
Weight	0.17kg	0.47kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



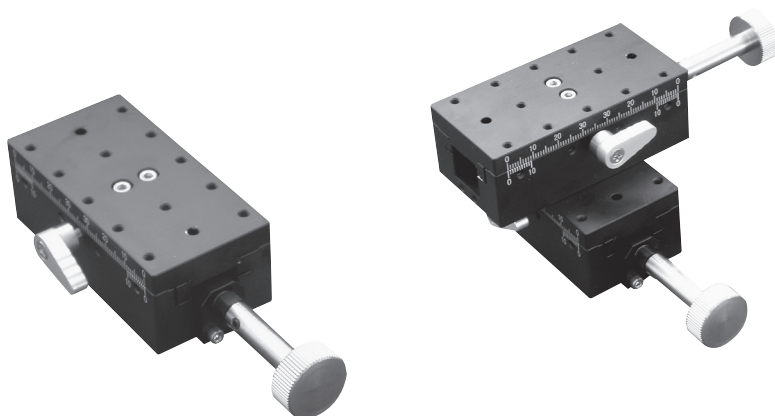
JD3-44S



JD4-44S

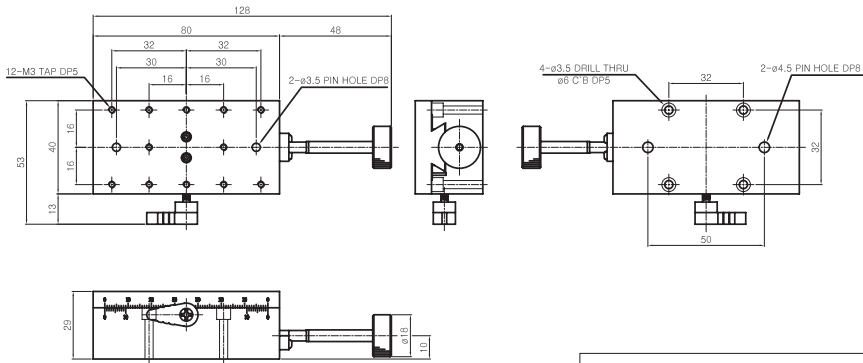
Dovetail Screw Series

JD-48S



H

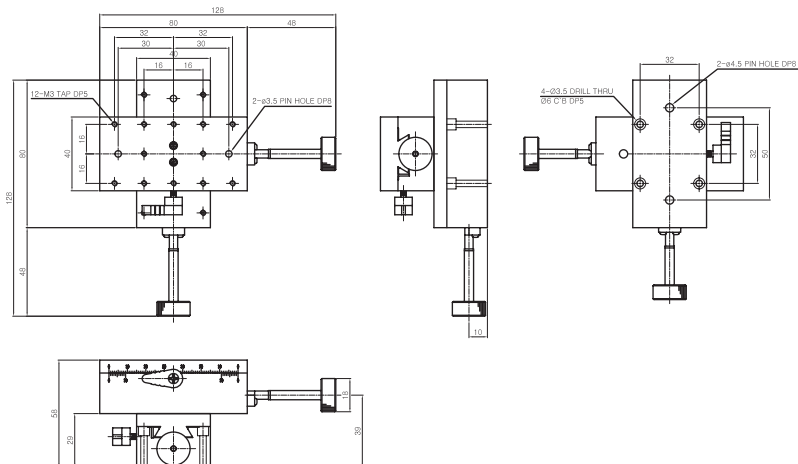
Model	JD1-48S	JD2-48S
Surface Size	40 x 80 mm	40 x 80 mm
Travel Range	±25 mm	±25 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	40μm	60μm
Driving Parallelism	30μm	30μm
Load Capacity	4.0kgf	3.7kgf
Base Plate	X	X
Weight	0.2kg	0.4kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



JD1-48S(MIR)

JD1-48S

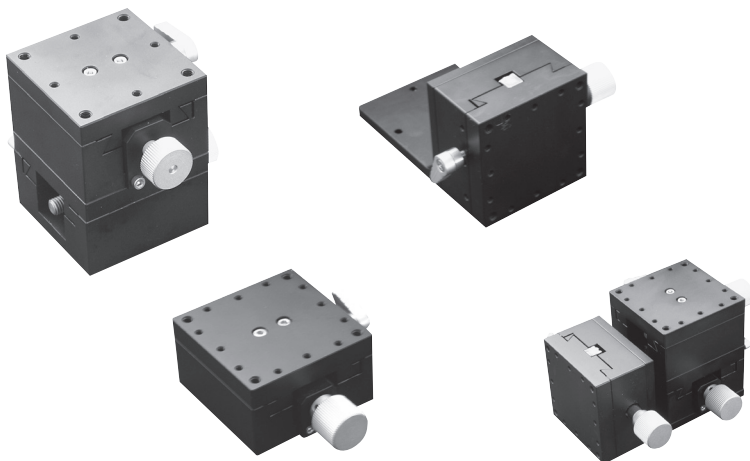
H



JD2-48S

Dovetail Screw Series

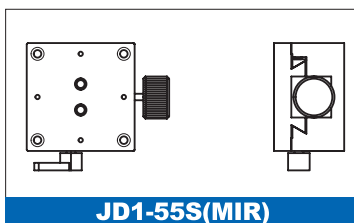
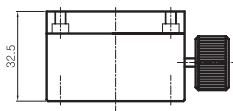
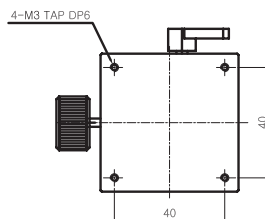
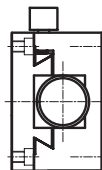
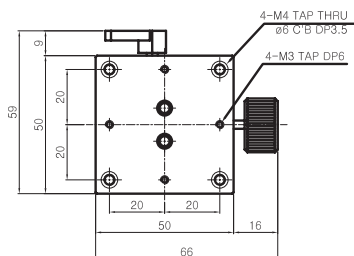
JD-55S



H

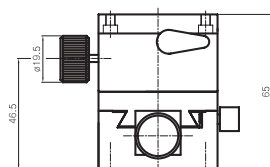
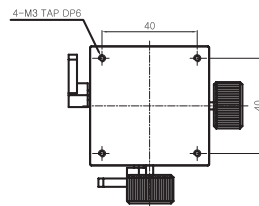
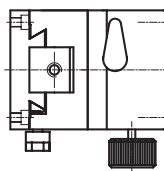
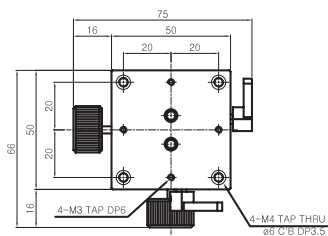
Model	JD1-55S	JD2-55S
Surface Size	50 x 50 mm	50 x 50 mm
Travel Range	± 10 mm	± 10 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	70μm
Driving Parallelism	30μm	30μm
Load Capacity	3.5kgf	3.2kgf
Base Plate	X	X
Weight	0.22kg	0.44kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing

Dovetail Stage (screw type)



JD1-55S(MIR)

JD1-55S

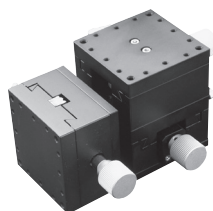
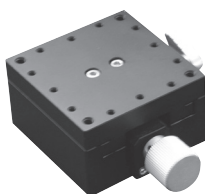
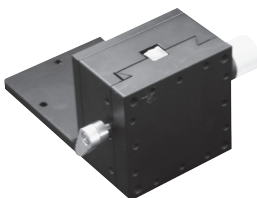


JD2-55S

H

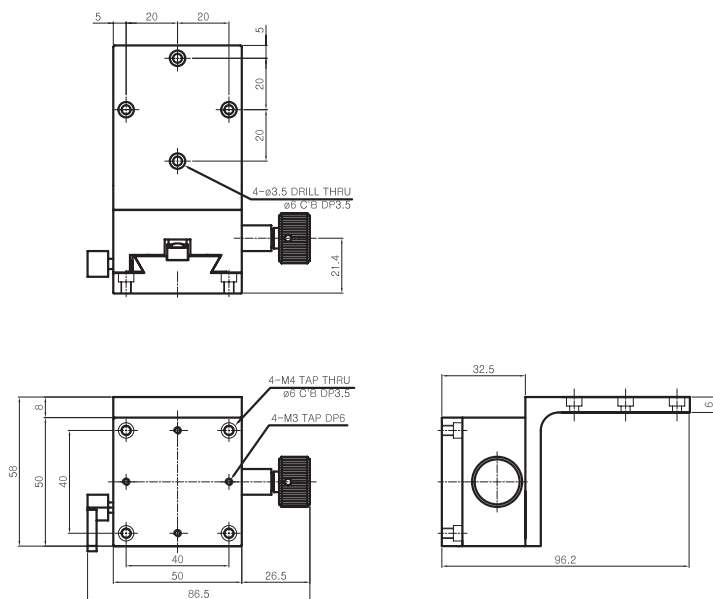
Dovetail Screw Series

JD-55S

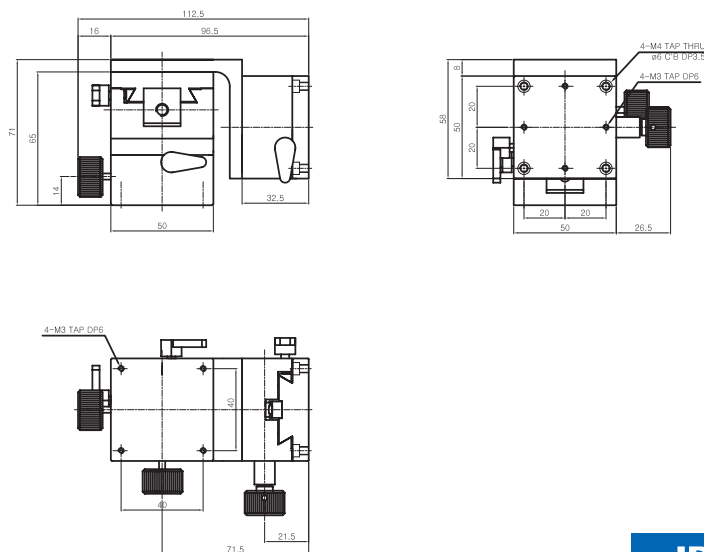


H

Model	JD3-55S	JD4-55S
Surface Size	50 x 50 mm	50 x 50 mm
Travel Range	±10 mm	±10 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Screw + Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	60μm	130μm
Driving Parallelism	30μm	30μm
Load Capacity	1.8kgf	1.8kgf
Base Plate	X	X
Weight	0.24kg	0.68kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



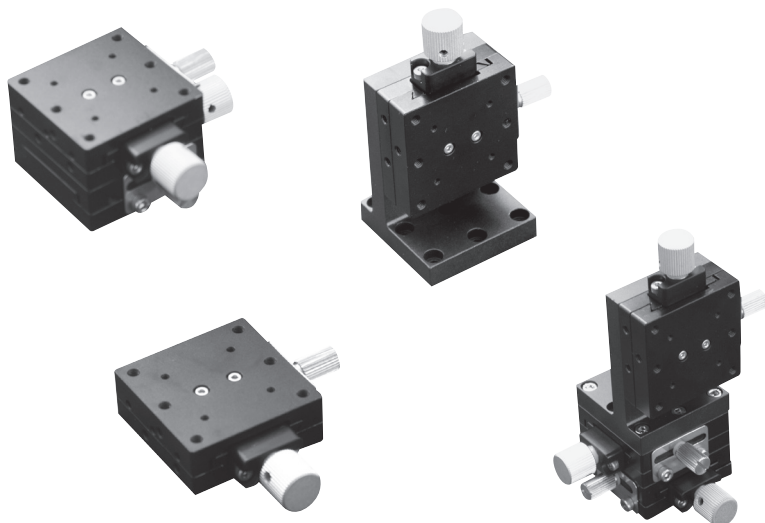
JD3-55S



JD4-55S

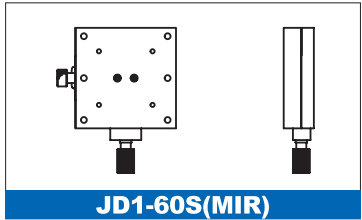
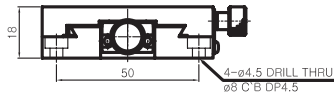
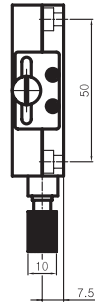
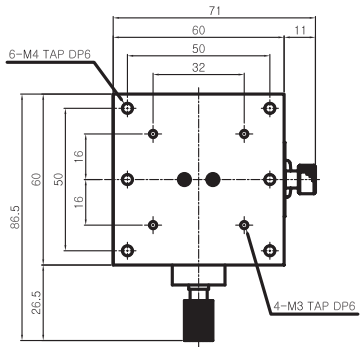
Dovetail Screw Series

JD-60S



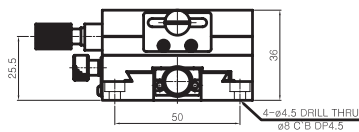
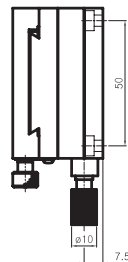
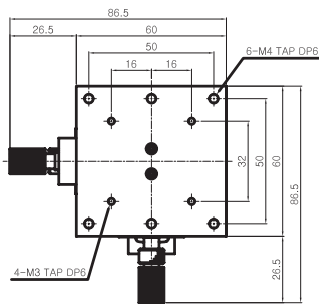
H

Model	JD1-60S	JD2-60S
Surface Size	60 x 60 mm	60 x 60 mm
Travel Range	± 15 mm	± 15 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	70μm
Driving Parallelism	30μm	30μm
Load Capacity	3.0kgf	2.8kgf
Base Plate	X	X
Weight	0.2kg	0.4kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



JD1-60S(MIR)

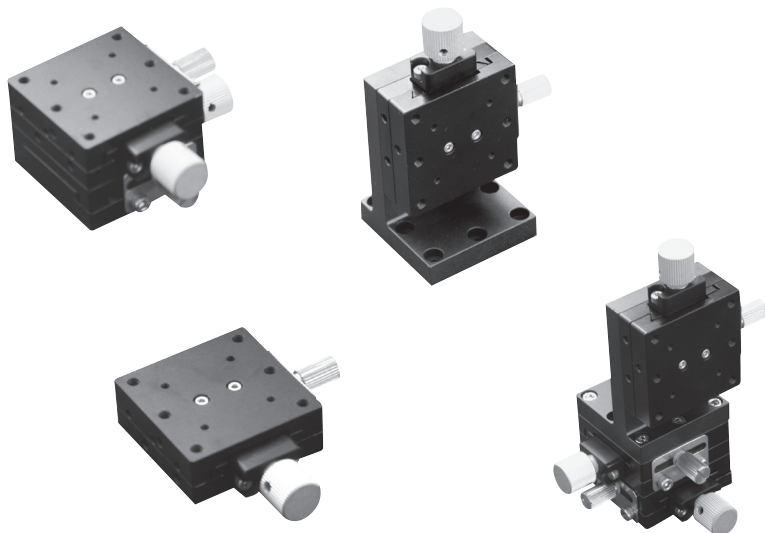
JD1-60S



JD2-60S

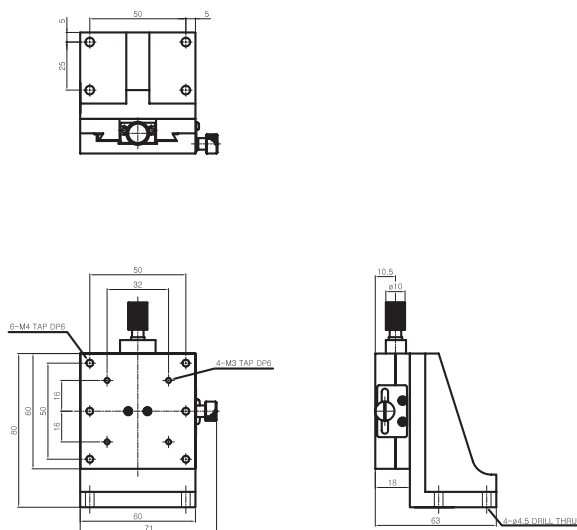
Dovetail Screw Series

JD-60S

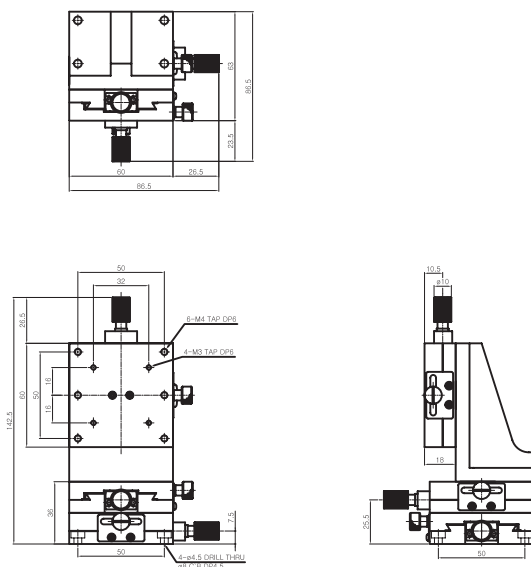


H

Model	JD3-60S	JD4-60S
Surface Size	60 x 60 mm	60 x 60 mm
Travel Range	±15 mm	±15 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	60μm	130μm
Driving Parallelism	30μm	30μm
Load Capacity	1.5kgf	1.5kgf
Base Plate	X	X
Weight	0.22kg	0.62kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



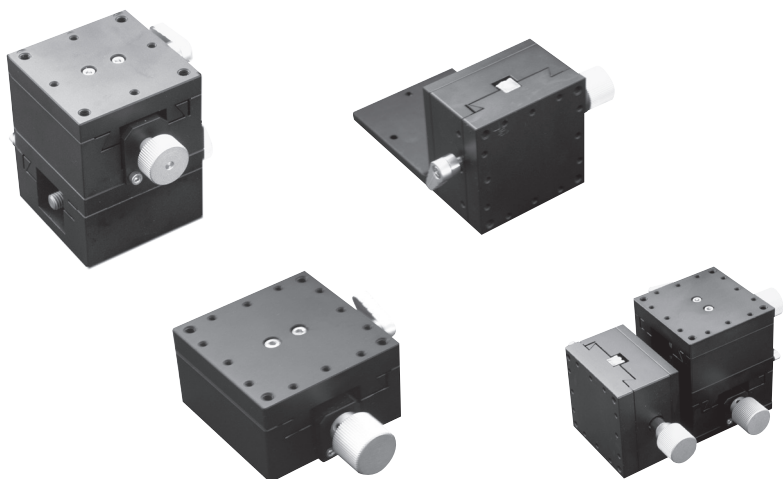
JD3-60S



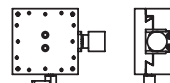
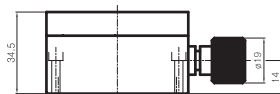
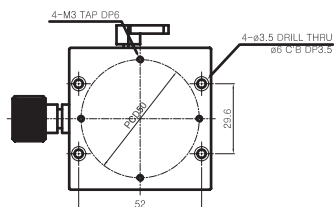
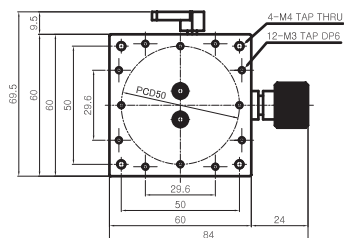
JD4-60S

Dovetail Screw Series

JD-66S

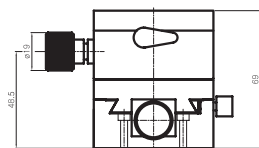
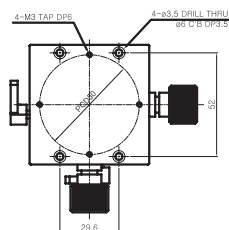
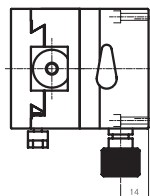
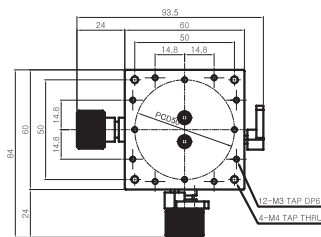


Model	JD1-66S	JD2-66S
Surface Size	60 x 60 mm	60 x 60 mm
Travel Range	±15 mm	±15 mm
Travel Guide	Dovetail , Screw	Dovetail , Screw
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	70μm
Driving Parallelism	30μm	30μm
Load Capacity	4.0kgf	3.7kgf
Base Plate	X	X
Weight	0.3kg	0.6kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



JD1-66S(MIR)

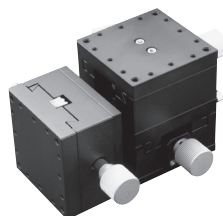
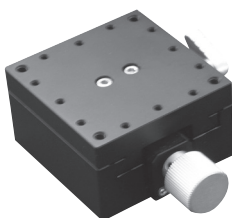
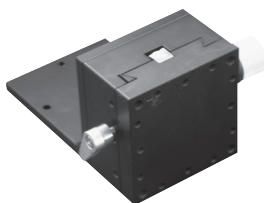
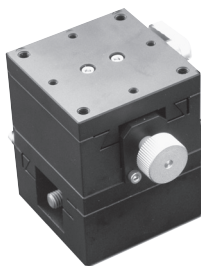
JD1-66S



JD2-66S

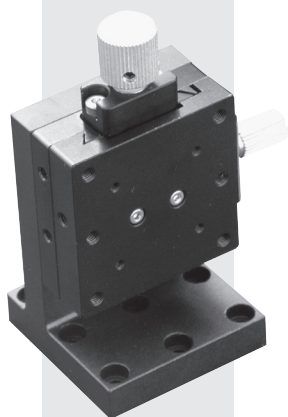
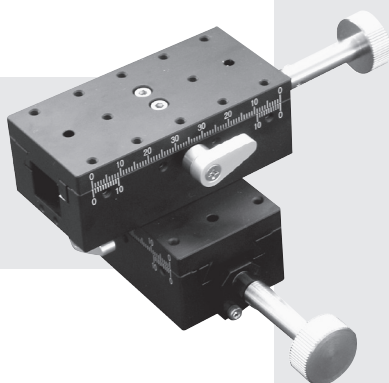
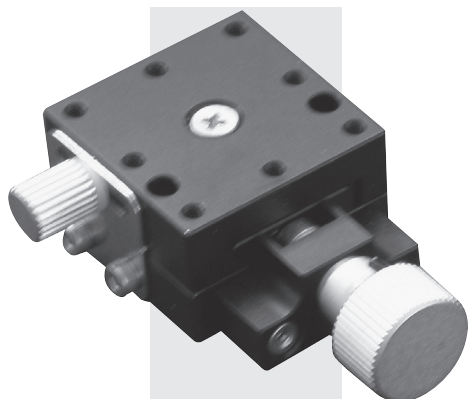
Dovetail Screw Series

JD-66S



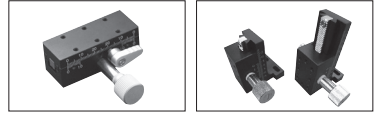
H

Model	JD3-66S	JD4-66S
Surface Size	60 x 60 mm	60 x 60 mm
Travel Range	± 15 mm	± 15 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Screw + Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	60μm	130μm
Driving Parallelism	30μm	30μm
Load Capacity	1.5kgf	1.5kgf
Base Plate	X	X
Weight	0.33kg	0.93kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



H

Motorized Stage (Rack & Pinion Type)



Dovetail Rack & Pinion_Series

JD-246P/ JD-249P/ JD-2411P

JD3-255P/ JD3-257P

JD-40P

JD-44P

JD-46P

JD-48P

JD-49P

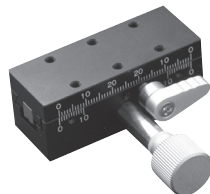
JD-414P

JD-419P

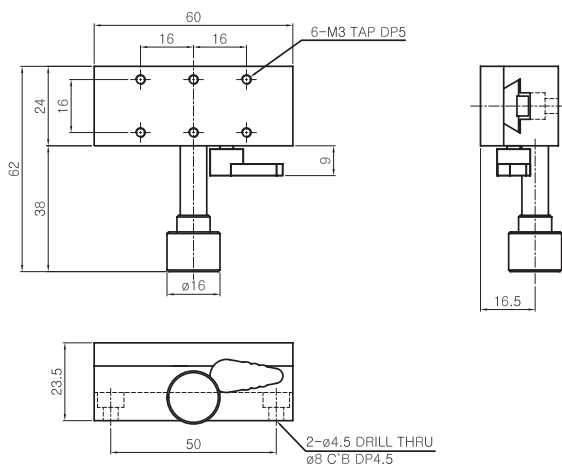
JDHZ-40/ JDHZ-60

Dovetail Rack & Pinion-Series

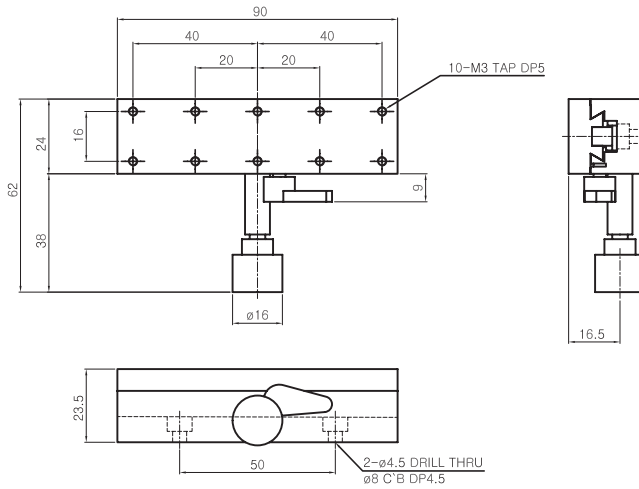
JD-246P, 249P, 2411P



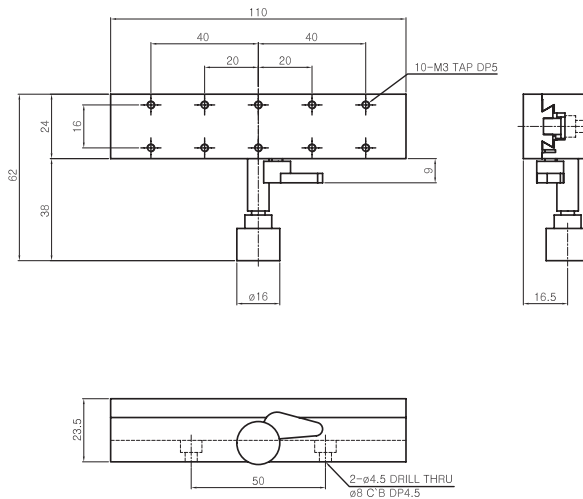
Model	JD1-246P	JD1-249P	JD1-2411P
Surface Size	24 x 60 mm	24 x 90 mm	24 x 110 mm
Travel Range	± 20 mm	± 30 mm	± 40 mm
Travel Guide	Dovetail , Rack & Pinion		
Readable Resolution	0.1mm / Vernier		
Parallelism	40μm		
Driving Parallelism	30μm		
Load Capacity	1.0kgf	1.5kgf	2.0kgf
Base Plate	X		
Weight	0.1kg	0.15kg	0.2kg
Material	Aluminum	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing	Black Anodizing



JD1-246P



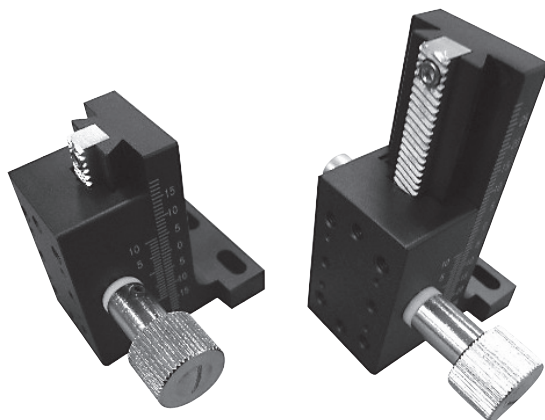
JD1-249P



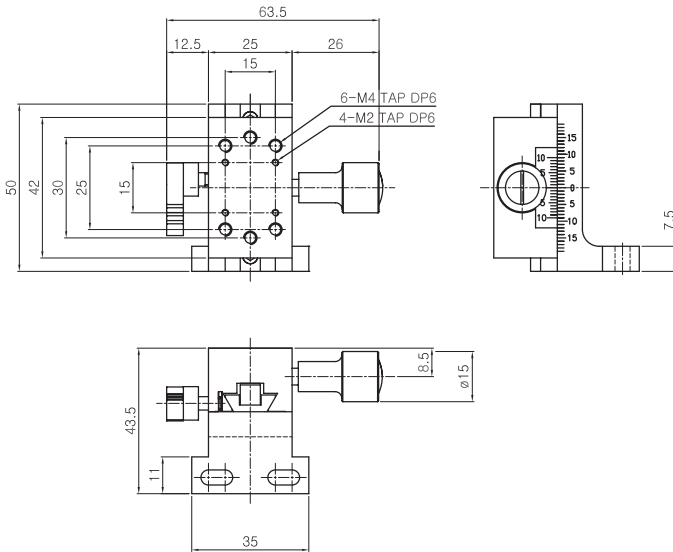
JD1-2411P

Dovetail Rack & Pinion-Series

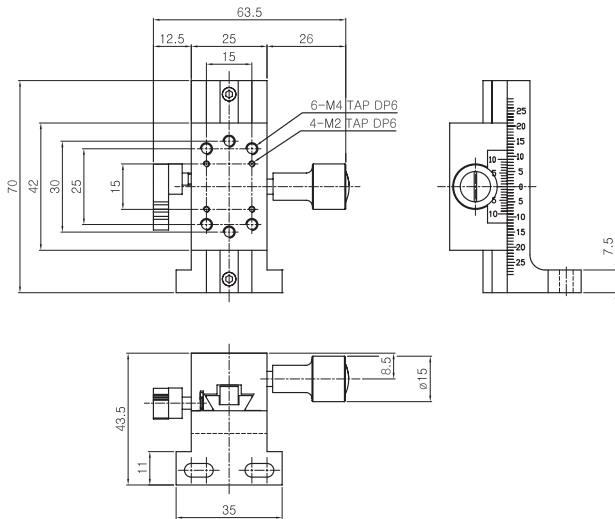
JD3-255P/ JD3-257P



Model	JD3-255P	JD3-257P
Surface Size	25 x 50 mm	25 x 70 mm
Travel Range	±15 mm	±25 mm
Travel Guide	Dovetail , Rack & Pinion	
Readable Resolution	0.1mm / Vernier	
Parallelism	40μm	
Driving Parallelism	30μm	
Load Capacity	0.120kgf	0.135kgf
Base Plate	X	
Weight	0.12kg	0.13kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



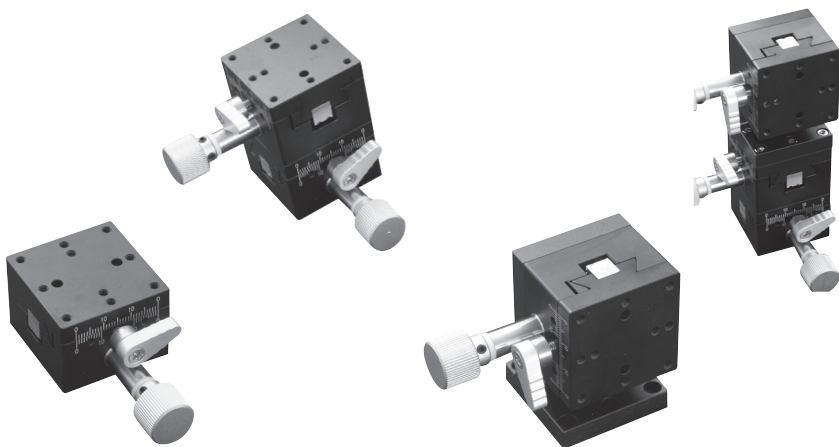
JD3-255P



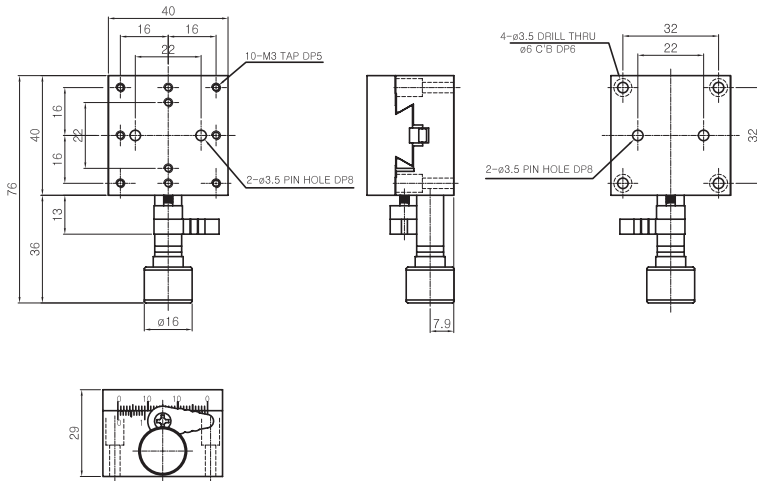
JD3-257P

Dovetail Rack & Pinion-Series

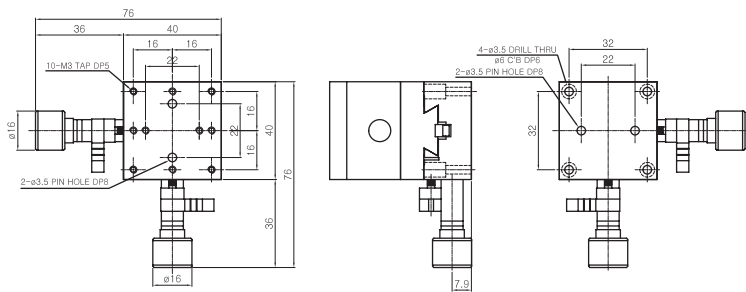
JD-40P



Model	JD1-40P	JD2-40P
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	± 10 mm	± 10 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	40μm	70μm
Driving Parallelism	30μm	30μm
Load Capacity	2.5kgf	2.3kgf
Base Plate	X	X
Weight	0.15kg	0.3kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



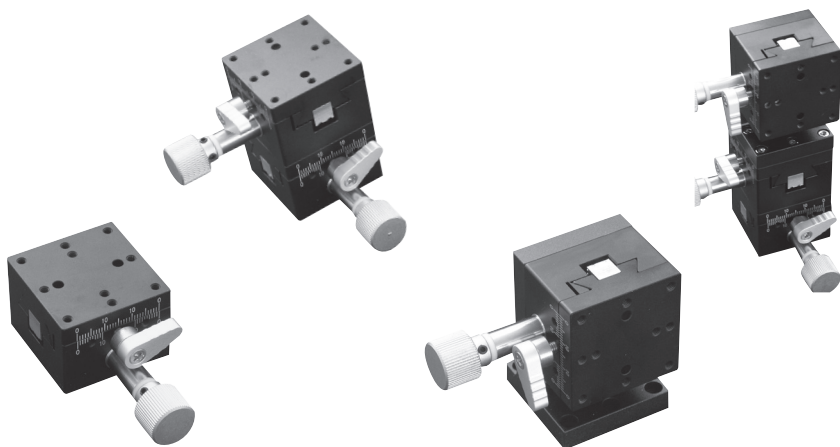
JD1-40P



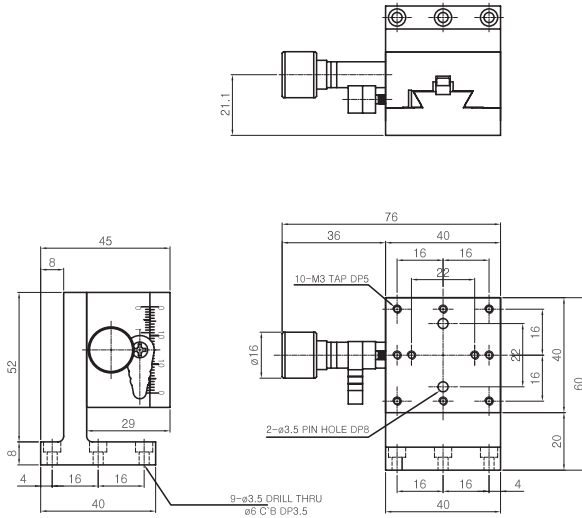
JD2-40P

Dovetail Rack & Pinion-Series

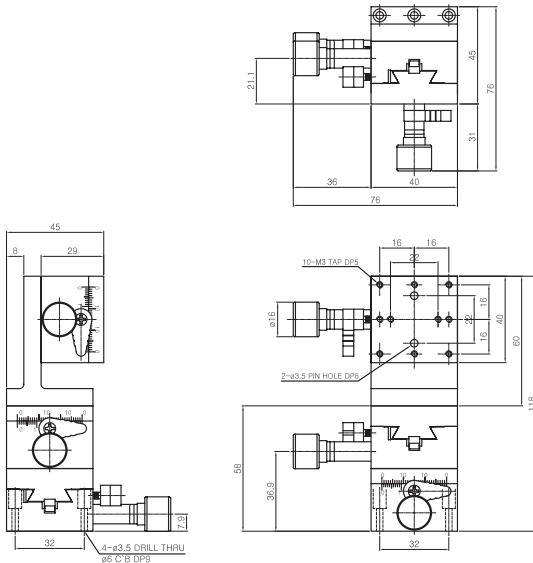
JD-40P



Model	JD3-40P	JD4-40P
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	±10 mm	±10 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail, Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	120μm
Driving Parallelism	30μm	30μm
Load Capacity	1.5kgf	1.5kgf
Base Plate	X	X
Weight	0.17kg	0.47kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



JD3-40P



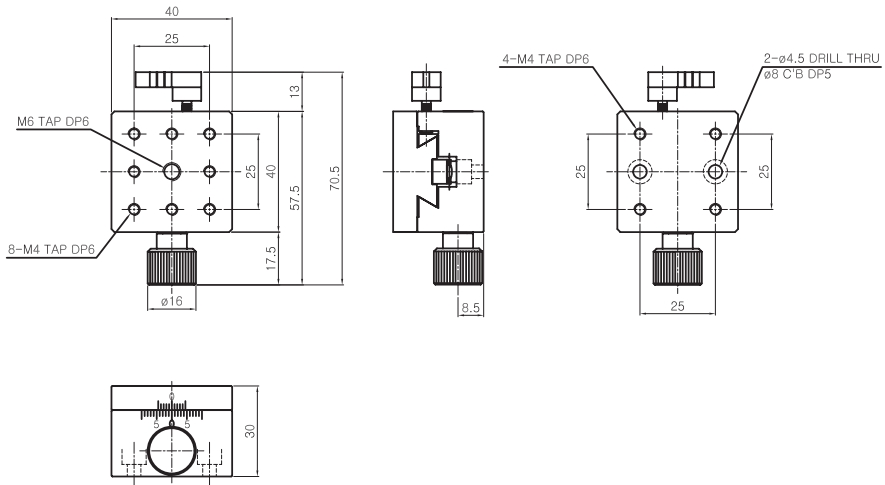
JD4-40P

Dovetail Rack & Pinion-Series

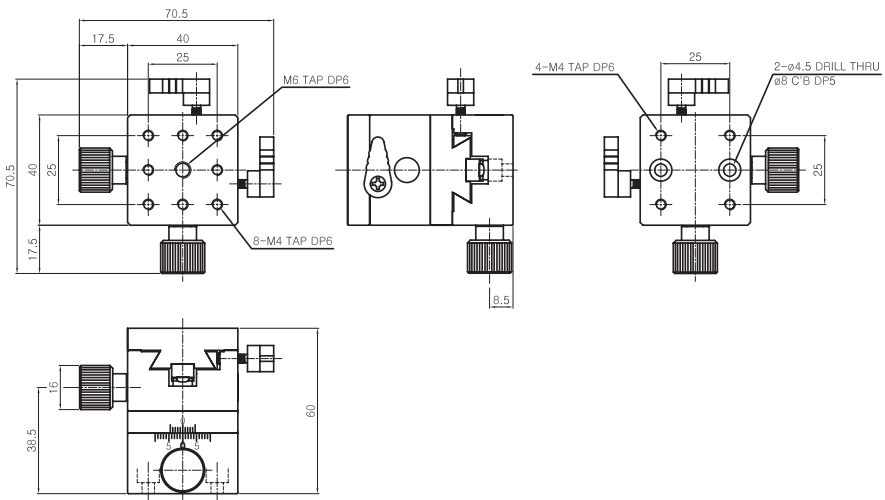
JD-44P



Model	JD1-44P	JD2-44P
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	± 10 mm	± 10 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	40 μ m	70 μ m
Driving Parallelism	30 μ m	30 μ m
Load Capacity	2.5kgf	2.3kgf
Base Plate	X	X
Weight	0.15kg	0.3kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



JD1-44P



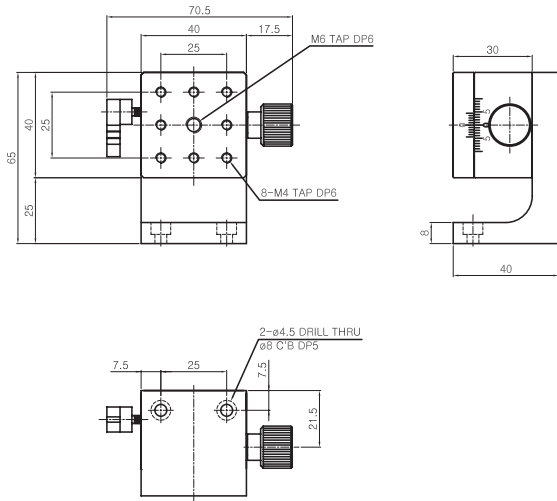
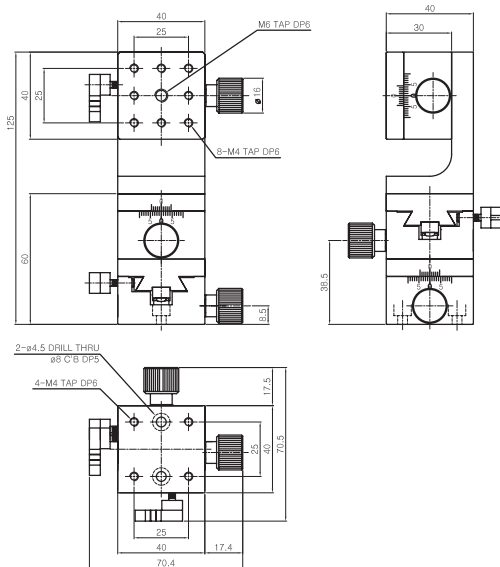
JD2-44P

Dovetail Rack & Pinion-Series

JD-44P

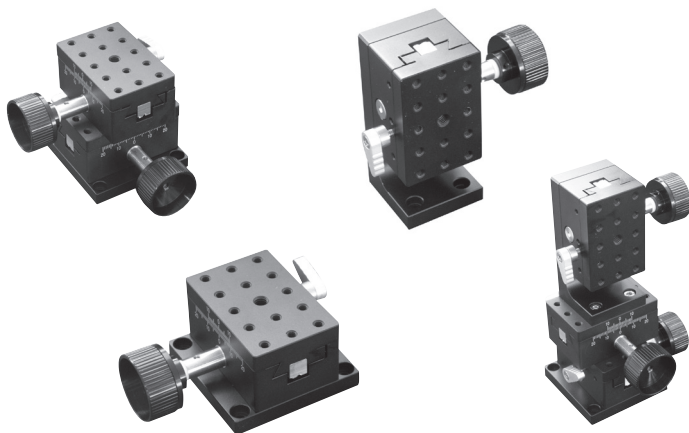


Model	JD3-44P	JD4-44P
Surface Size	40 x 40 mm	40 x 40 mm
Travel Range	±10 mm	±10 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail, Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	120μm
Driving Parallelism	30μm	30μm
Load Capacity	1.5kgf	1.5kgf
Base Plate	X	X
Weight	0.17kg	0.47kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing

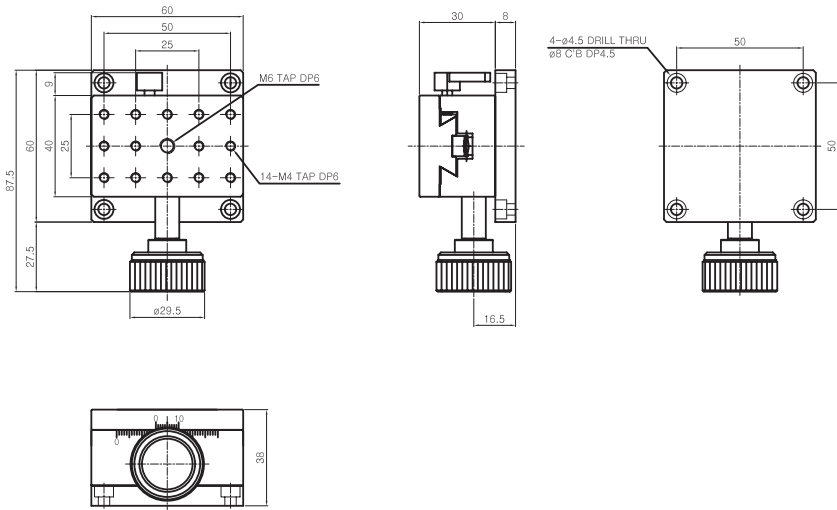
**JD3-44P****JD4-44P**

Dovetail Rack & Pinion-Series

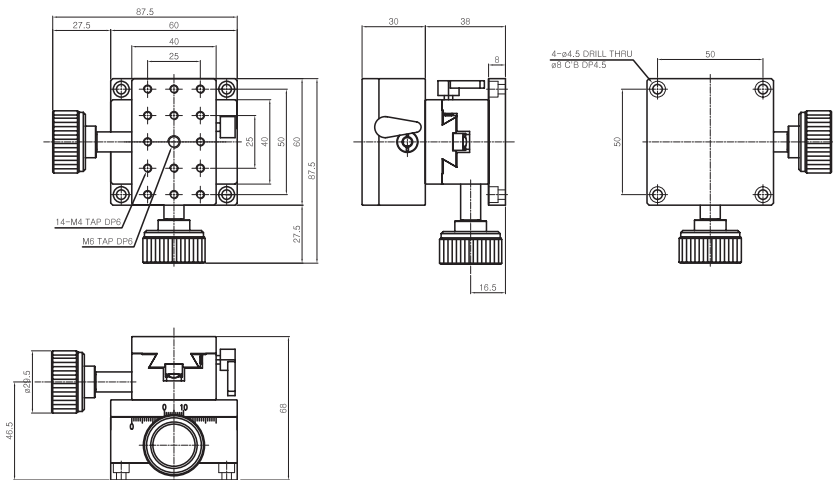
JD-46P



Model	JD1-46P	JD2-46P
Surface Size	40 x 60 mm	40 x 60 mm
Travel Range	± 20 mm	± 20 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	40 μ m	70 μ m
Driving Parallelism	30 μ m	30 μ m
Load Capacity	3kgf	2.7kgf
Base Plate	O	O
Weight	0.28kg	0.56kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



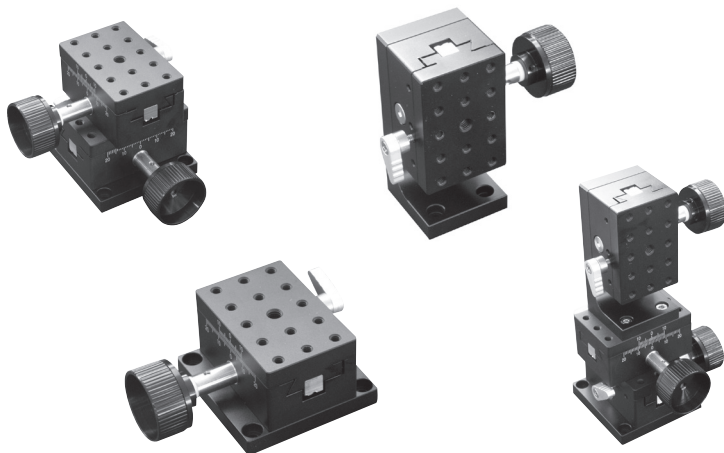
JD1-46P



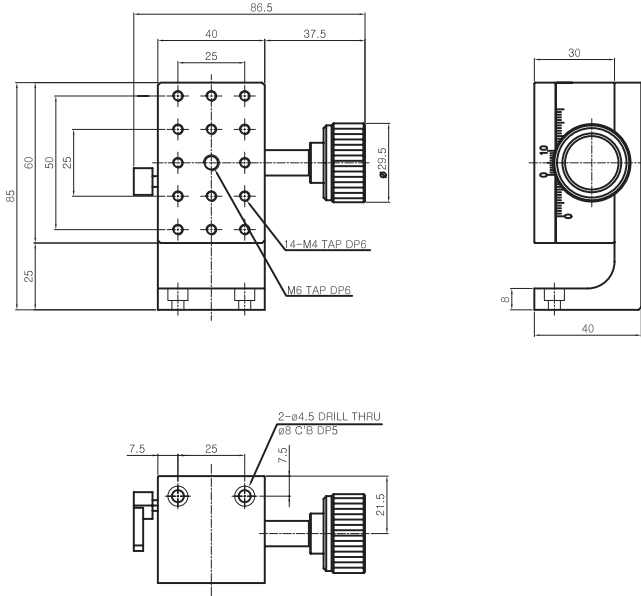
JD2-46P

Dovetail Rack & Pinion-Series

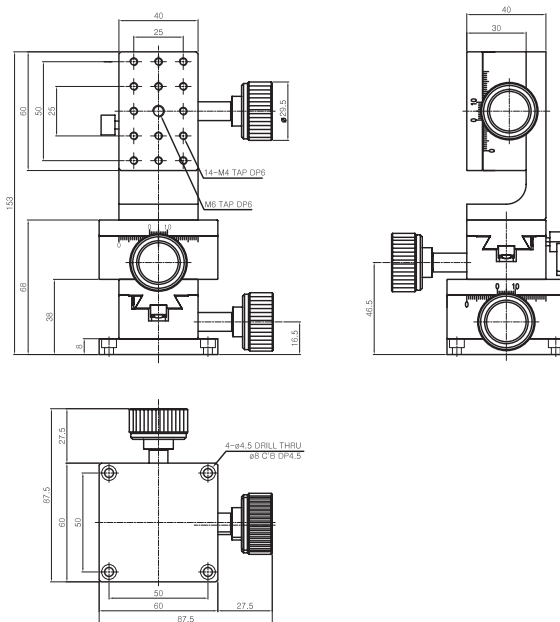
JD-46P



Model	JD3-46P	JD4-46P
Surface Size	40 x 60 mm	40 x 60 mm
Travel Range	±20 mm	±20 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail, Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	120μm
Driving Parallelism	30μm	30μm
Load Capacity	1.5kgf	1.5kgf
Base Plate	X	O
Weight	0.3kg	0.86kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



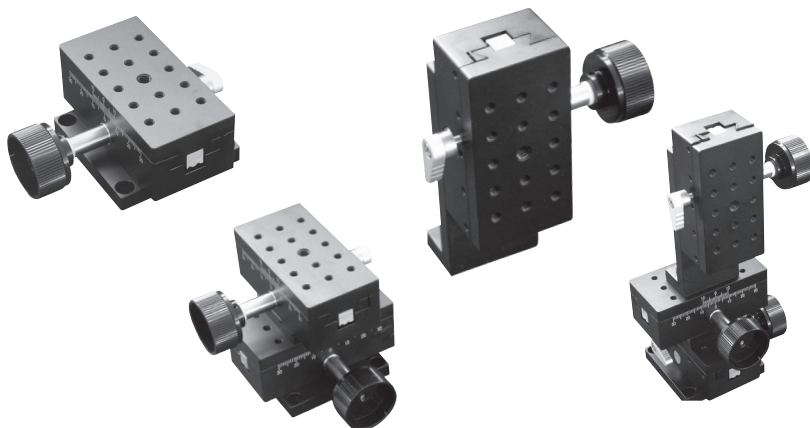
JD3-46P



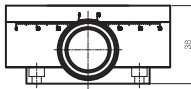
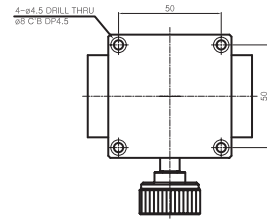
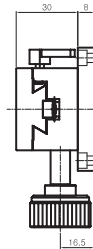
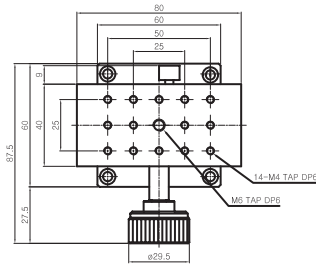
JD4-46P

Dovetail Rack & Pinion-Series

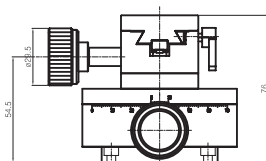
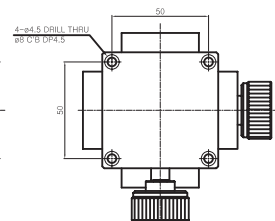
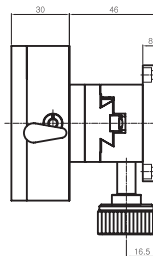
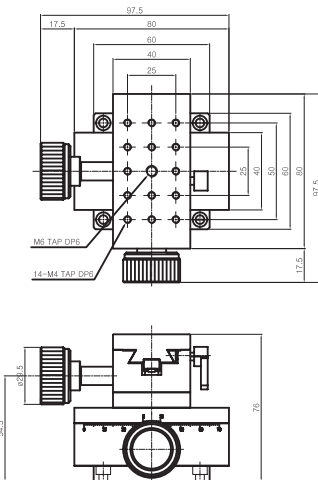
JD-48P



Model	JD1-48P	JD2-48P
Surface Size	40 x 80 mm	40 x 80 mm
Travel Range	± 25 mm	± 25 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	80μm
Driving Parallelism	30μm	30μm
Load Capacity	3.8kgf	3.5kgf
Base Plate	O	O
Weight	0.34kg	0.68kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



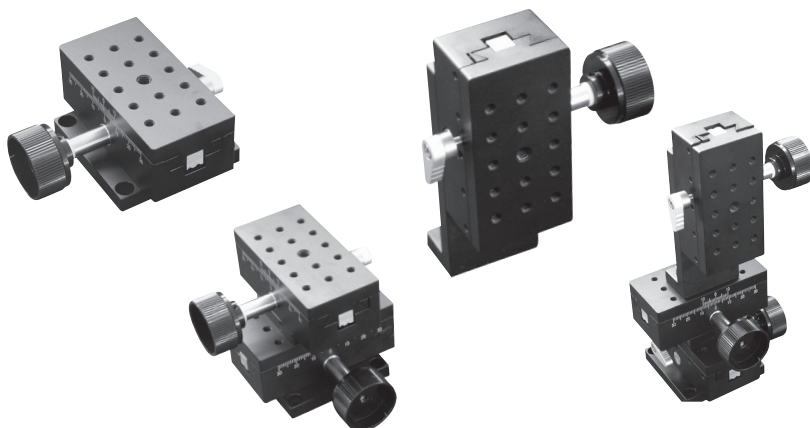
JD1-48P



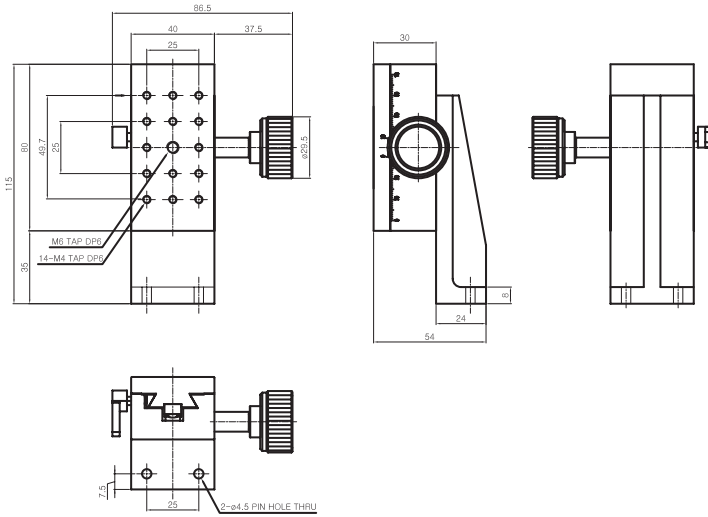
JD2-48P

Dovetail Rack & Pinion-Series

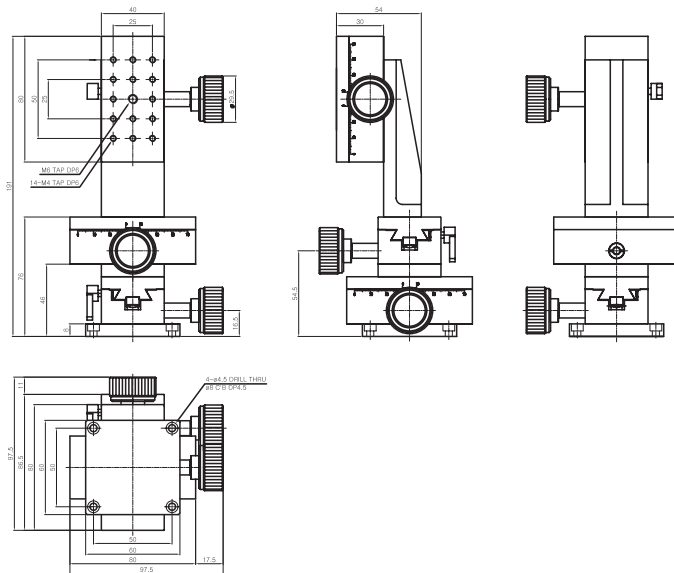
JD-48P



Model	JD3-48P	JD4-48P
Surface Size	40 x 80 mm	40 x 80 mm
Travel Range	± 25 mm	± 25 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail, Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	60μm	130μm
Driving Parallelism	30μm	30μm
Load Capacity	1.5kgf	1.5kgf
Base Plate	X	O
Weight	0.36kg	1.04kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



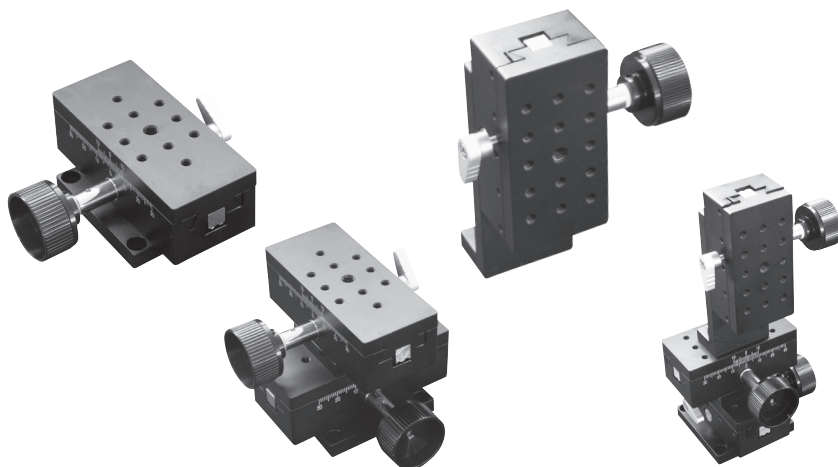
JD3-48P



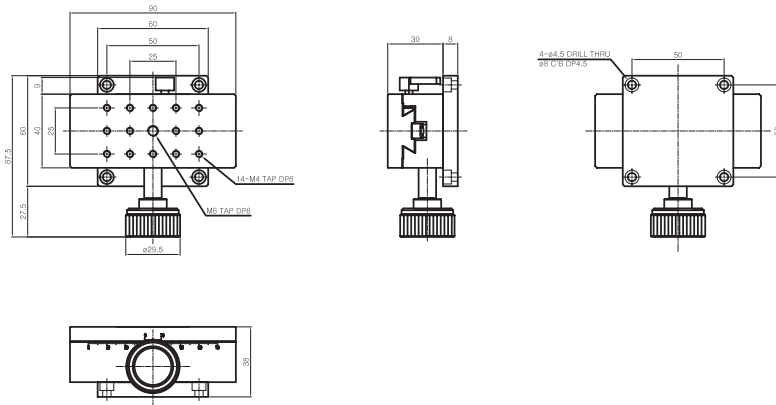
JD4-48P

Dovetail Rack & Pinion-Series

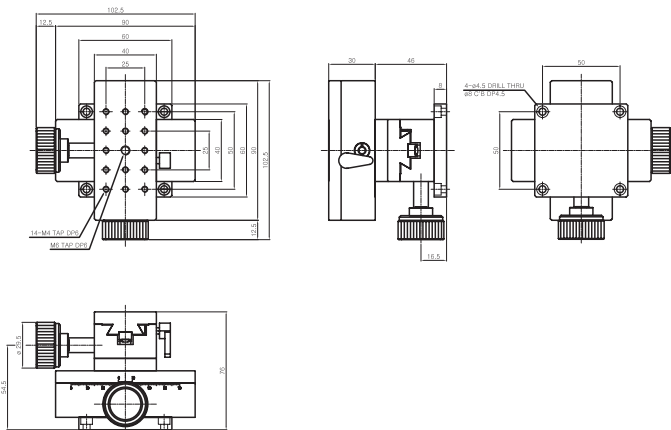
JD-49P



Model	JD1-49P	JD2-49P
Surface Size	40 x 90 mm	40 x 90 mm
Travel Range	±30 mm	±30 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	50μm	80μm
Driving Parallelism	30μm	30μm
Load Capacity	4kgf	3.7kgf
Base Plate	0	0
Weight	0.36kg	0.72kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



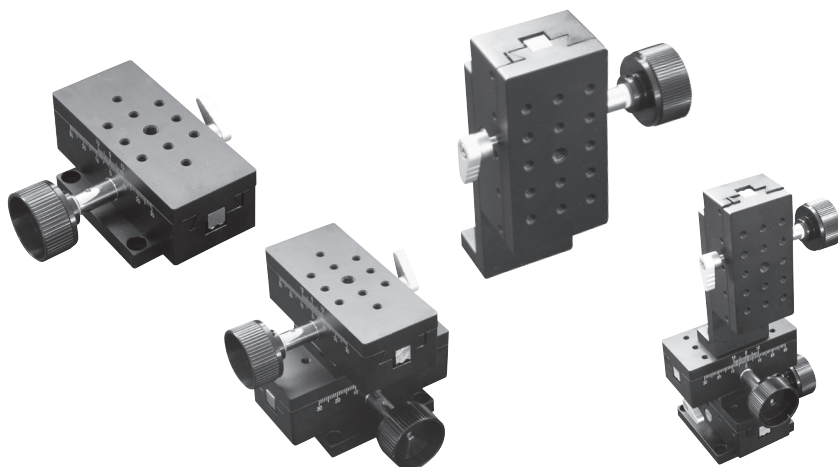
JD1-49P



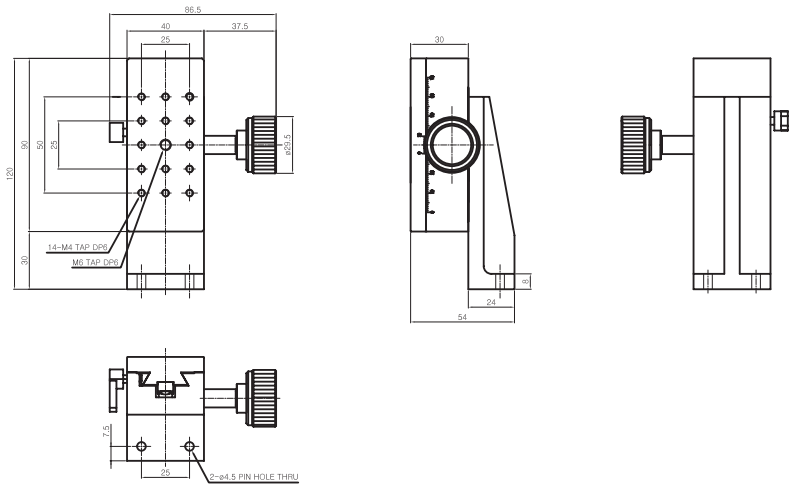
JD2-49P

Dovetail Rack & Pinion-Series

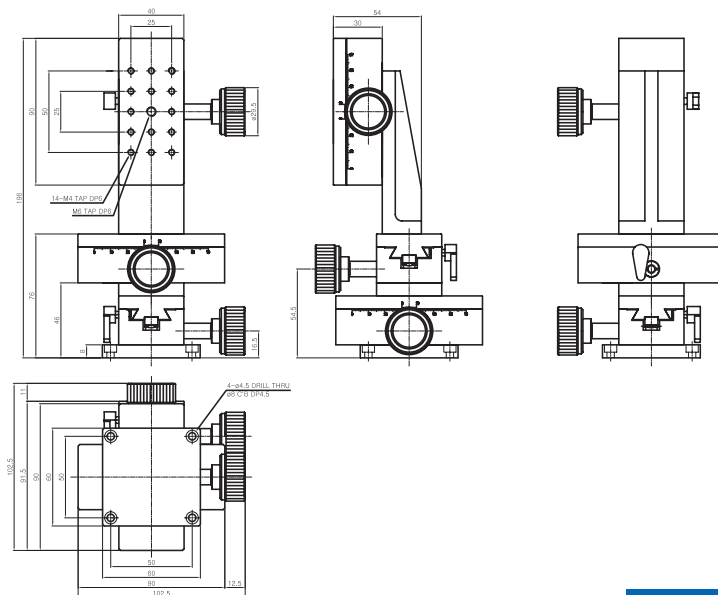
JD-49P



Model	JD3-49P	JD4-49P
Surface Size	40 x 90 mm	40 x 90 mm
Travel Range	± 30 mm	± 30 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail, Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	60μm	130μm
Driving Parallelism	30μm	30μm
Load Capacity	1.5kgf	1.5kgf
Base Plate	X	O
Weight	0.38kg	1.1kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



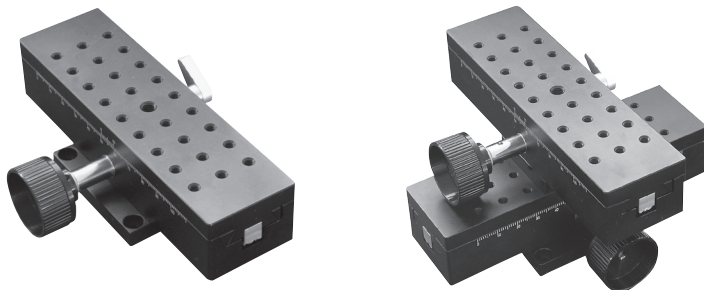
JD3-49P



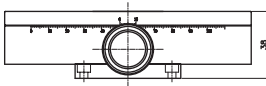
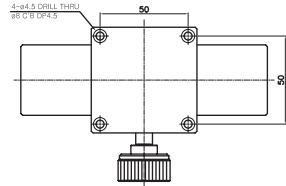
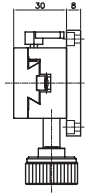
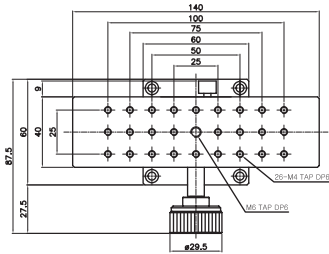
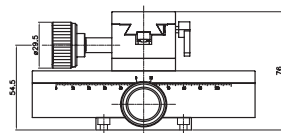
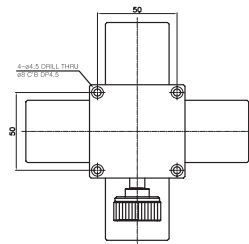
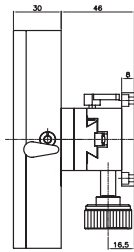
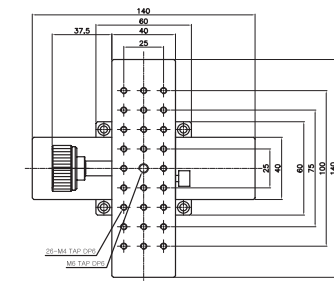
JD4-49P

Dovetail Rack & Pinion-Series

JD-414P



Model	JD1-414P	JD2-414P
Surface Size	40 x 140 mm	40 x 140 mm
Travel Range	±50 mm	±50 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	80μm	100μm
Driving Parallelism	30μm	30μm
Load Capacity	4.5kgf	4.3kgf
Base Plate	O	O
Weight	0.55kg	1.1kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing

**JD1-414P**

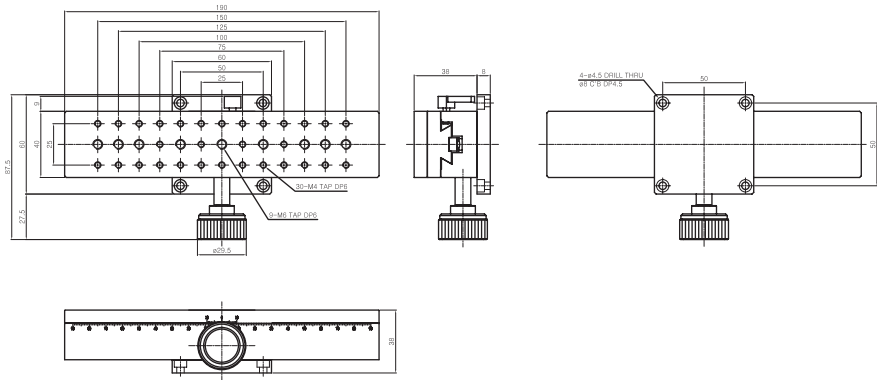
JD2-414P

Dovetail Rack & Pinion-Series

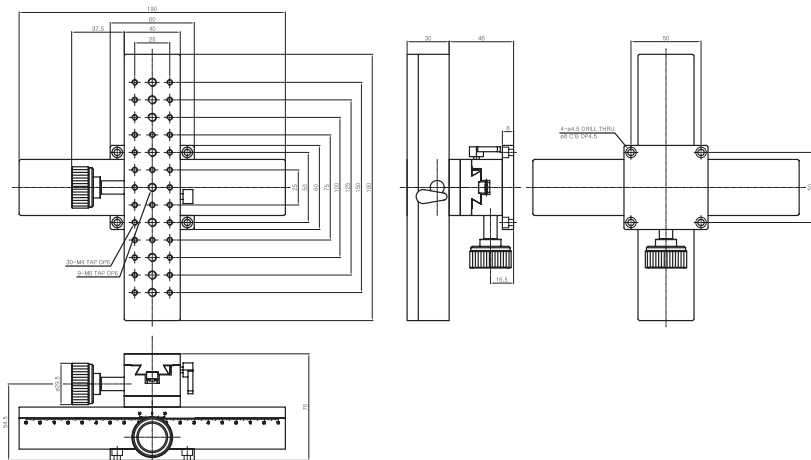
JD-419P



Model	JD1-419P	JD2-419P
Surface Size	40 x 190 mm	40 x 190 mm
Travel Range	± 80 mm	± 80 mm
Travel Guide	Dovetail , Rack & Pinion	Dovetail , Rack & Pinion
Readable Resolution	0.1mm / Vernier	0.1mm / Vernier
Parallelism	100μm	140μm
Driving Parallelism	30μm	30μm
Load Capacity	5kgf	4.7kgf
Base Plate	O	O
Weight	1kg	2kg
Material	Aluminum	Aluminum
Finish Treatment	Black Anodizing	Black Anodizing



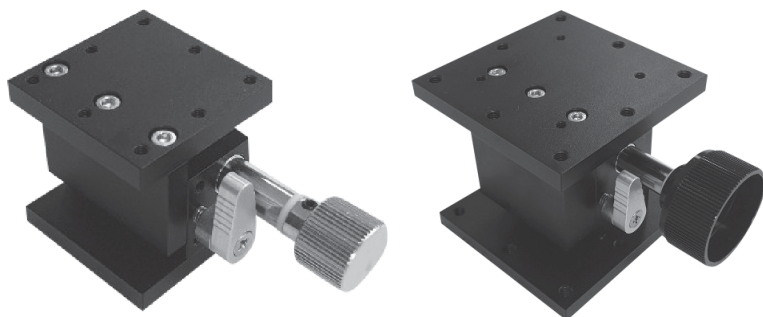
JD1-419P



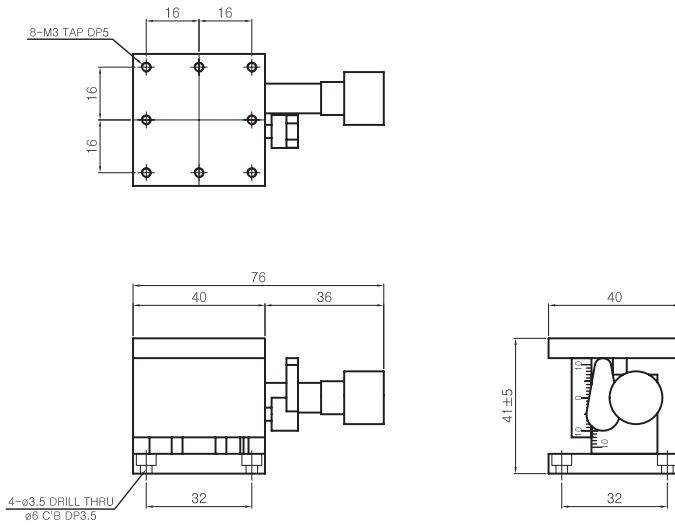
JD2-419P

Dovetail Rack & Pinion-Series

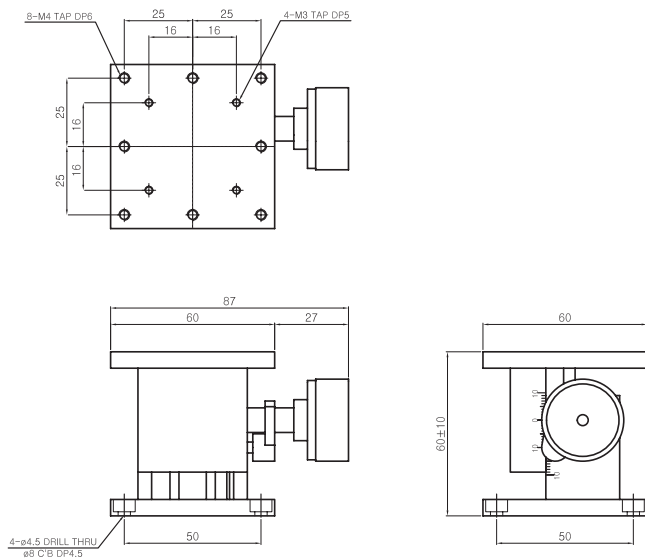
JDHZ-40 / 60



Model	JDHZ-40	JDHZ-60
Surface Size	40 x 40 mm	60 x 60 mm
Position of Micrometer Head	Center	
Travel Range	±5 mm	±10 mm
Travel Guide	Dovetail , Rack & Pinion	
Readable Resolution	0.1mm / Vernier	
Load Capacity	1.0 kgf	1.5 kgf
Parallelism	40μm	40μm
Driving Parallelism	30μm	30μm
Load Capacity	1.0kgf	1.5kgf
Weight	0.13kg	0.47kg
Material	Aluminum	
Finish Treatment	Black Anodizing	

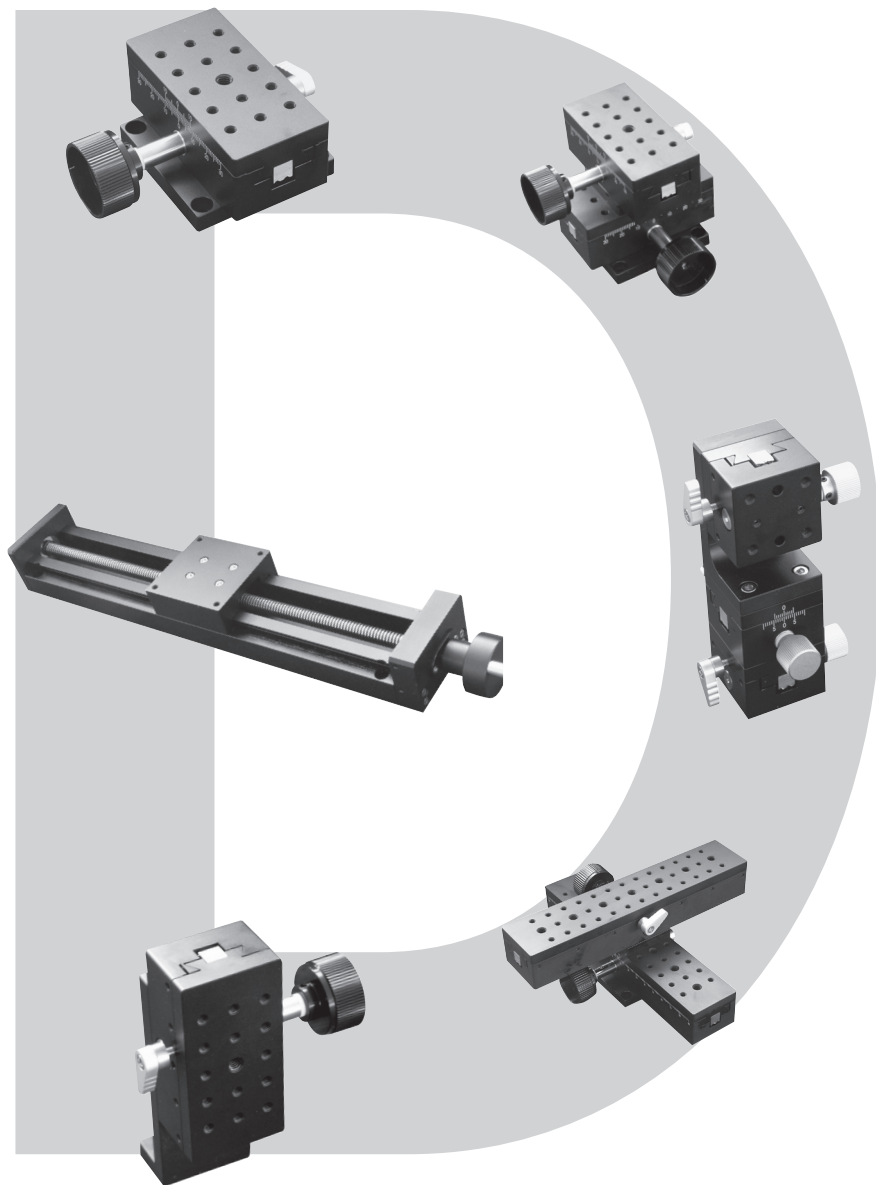


JDHZ-40

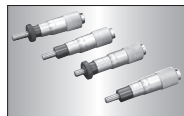


JDHZ-60

Dovetail Rack & Pinion-Series



Micrometer Head



JALB71 / JALB72

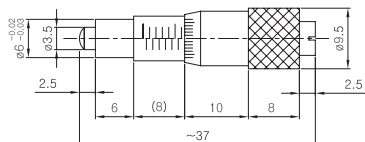
JALB73 / JALB74

JALB73-DIG

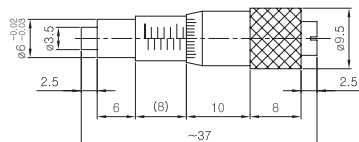
JALB-71



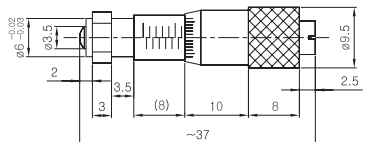
JALB-71-R	
유효피치 Stroke	±3.25mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	없음(Without)
단면형상 Edge Type	Round



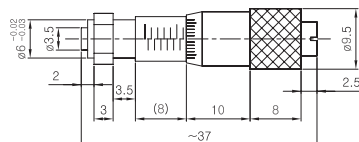
JALB-71-F	
유효피치 Stroke	±3.25mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	없음(Without)
단면형상 Edge Type	Flat



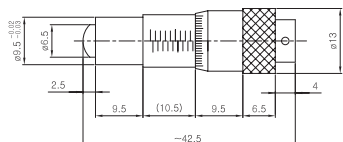
JALB-71-RC	
유효피치 Stroke	±3.25mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	있음(With)
단면형상 Edge Type	Round



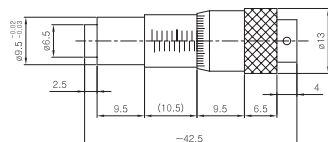
JALB-71-FC	
유효피치 Stroke	±3.25mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	있음(With)
단면형상 Edge Type	Flat



JALB-71-RS	
유효피치 Stroke	±3.25mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	없음(Without)
단면형상 Edge Type	Round



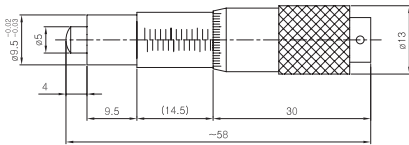
JALB-71-FS	
유효피치 Stroke	±3.25mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	없음(Without)
단면형상 Edge Type	Flat



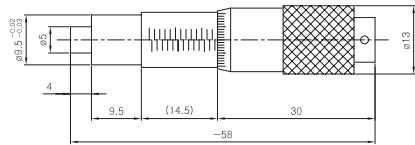
JALB-72



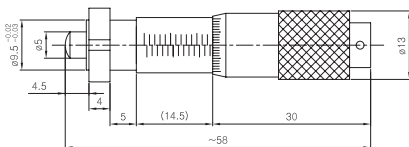
JALB-72-R	
유효피치 Stroke	$\pm 6.5\text{mm}$
눈금단위 Minimum Reading	$10\mu\text{m}$
클램프 Clamp	없음(Without)
단면형상 Edge Type	Round



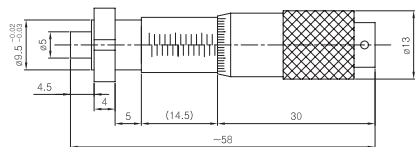
JALB-72-F	
유효피치 Stroke	$\pm 6.5\text{mm}$
눈금단위 Minimum Reading	$10\mu\text{m}$
클램프 Clamp	없음(Without)
단면형상 Edge Type	Flat



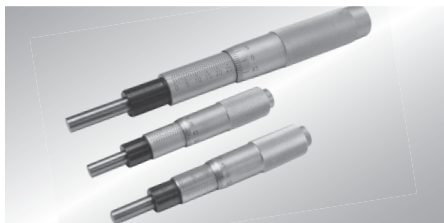
JALB-72-RC	
유효피치 Stroke	$\pm 6.5\text{mm}$
눈금단위 Minimum Reading	$10\mu\text{m}$
클램프 Clamp	있음(With)
단면형상 Edge Type	Round



JALB-72-FC	
유효피치 Stroke	$\pm 6.5\text{mm}$
눈금단위 Minimum Reading	$10\mu\text{m}$
클램프 Clamp	있음(With)
단면형상 Edge Type	Flat



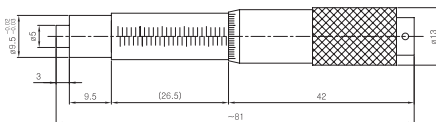
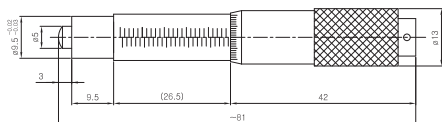
JALB-73 / 74



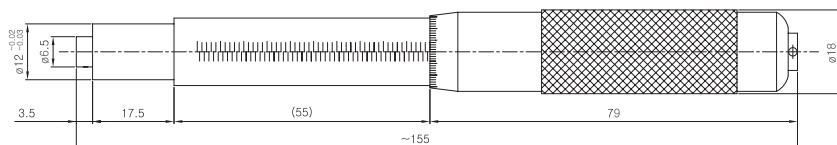
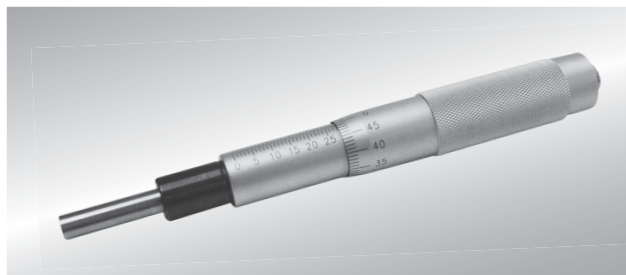
JALB-73-RS	
유효피치 Stroke	± 12.5mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	없음(Without)
단면형상 Edge Type	Round



JALB-73-FS	
유효피치 Stroke	± 12.5mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	없음(Without)
단면형상 Edge Type	Flat



JALB-74-F	
유효피치 Stroke	± 25mm
눈금단위 Minimum Reading	10μm
클램프 Clamp	없음(Without)
단면형상 Edge Type	Flat



JALB 73 - DIG

JALB-73-F-DIG	
유효피치 Stroke	$\pm 12.5\text{mm}$
눈금단위 Minimum Reading	$10\mu\text{m}$
클램프 Clamp	없음(Without)
단면형상 Edge Type	Flat

