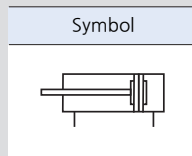
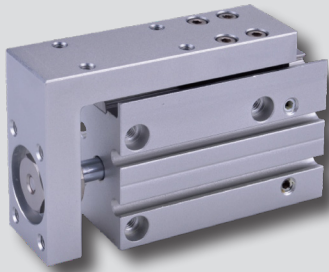


KTXH series



Features

- It is a miniature linear ball bearing integrated cylinder
- It has excellent straightness and anti-rotation, so it is suitable for precision assembly
- There is a slot for attaching an auto switch
- In a two-way, can attach the work
- In a three-way, can connect the pipes
- In a four-way, can attached the cylinders

How to order

KTXH 20 - 30 S AS

① ② ③ ④ ⑤ ⑥

① Series

KTXH	Compact table cylinder (Vertical type, linear ball bearing)
------	--

② Bore size

6	6mm	16	16mm
10	10mm	20	20mm

③ Stroke

Bore size	Standard stroke	Max. stroke
6	5 10 15 20 25 30	30
10	5 10 15 20 25 30 40 50	50
16	5 10 15 20 25 30 40 50 60	60
20	5 10 15 20 25 30 40 50 60	60

④ Magnet

S	Built-in magnet
---	-----------------

Specifications

Item / Bore size(mm)	6	10	16	20
Acting type	Double acting type			
Fluid	Compressed air			
Operation pressure	0.15~0.7MPa			
Proof pressure	1.2MPa			
Temperature	-20 ~ +70℃			
Allowable kinetic energy J	0.008	0.025	0.05	0.1
Operating piston speed	50~500mm/s			
Stroke length tolerance	100 Below $\begin{matrix} +1.0 \\ 0 \end{matrix}$			
Cushion type	Bumper			
Auto switch applied model	D-A93K, D-F9NK, D-F9PK, D-F9BK			
Port size	M5x0.8			

Compact table cylinder
(Vertical type, linear ball bearing)

Compendium of KTXH

Precise operation
It has excellent straightness and anti-rotation, so it is suitable for precision assembly

Integrated design
Miniature linear roller ball bearing integrated cylinder

In a two-way, can attach the work

Convenient auto switch connection
The cylinder body has a slot for an auto switch, so it can be easily attached.

In a three-way, can connect the pipes

In a four-way, can attached the cylinders

4 types bore sizes
Bore size : 6, 10, 16, 20

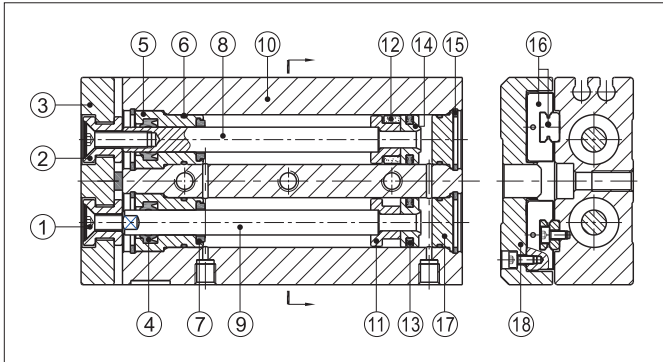
Labels in diagrams: Work attachment, Slide table, Side attachment, Back attachment, Attach the bottom, OUT Port, Side Port, Back Port, IN Port.

Theoretical output table

Unit:mm

Bore size (mm)	Rod size (mm)	Direction of operation	Projected net area (mm ²)	Operation pressure(MPa)					
				0.2	0.3	0.4	0.5	0.6	0.7
6	3	Forward	42	8	13	17	21	25	29
		Backward	57	11	17	23	29	34	40
8	4	Forward	75	15	23	30	38	45	53
		Backward	101	20	30	40	51	61	71
12	6	Forward	170	34	51	68	85	102	119
		Backward	226	45	68	90	113	136	158
16	8	Forward	302	60	91	121	151	181	211
		Backward	402	80	121	161	201	241	281
20	10	Forward	471	94	141	188	236	283	330
		Backward	628	126	188	251	314	377	440
25	12	Forward	756	151	227	302	378	454	529
		Backward	982	186	295	393	491	589	687

Structure

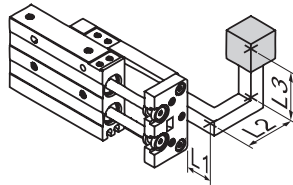


No.	Parts	Material	No.	Parts	Material
1	Screw	Carbon steel	11	Magnet holder	Brass
2	Floating joint	Carbon steel	12	Magnet	Sintered metal
3	Fixing plate	Aluminum alloy	13	Piston seal	NBR
4	Rod seal	NBR	14	Piston	Brass
5	Front cover	Aluminum alloy	15	C Clip	pring steel
6	O-ring	NBR	16	Linear guide combination	
7	Bumper	TPU			
8	Piston rod A	Stainless steel	17	Back cover	Brass
9	Piston rod B	Carbon steel	18	Slide table	Aluminum alloy
10	Body	Aluminum alloy			

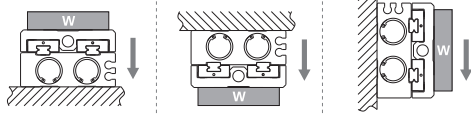
How to select a model

A. Check usage conditions

1. Model used (bore size, stroke)
2. Cushion type (Bumper, Shock absorber)
3. Work mounting position
4. Mounting position
5. Average speed V_a (mm/s)
6. Load mass W (N) **Pic1**
7. Amount of overhang L_1, L_2, L_3 (mm)



Pic1 Load mass



B. Kinetic energy

1. Calculate the kinetic energy of the load E (J)

$$E = \frac{1}{2} \times \frac{W}{g} \times \left(\frac{1.4 \times V_a}{1000} \right)^2$$
2. Allowable kinetic energy calculation E_a (J)

$$E_a = K \times E_{max}$$

K : Work installation coefficient **Pic2**
 E_{max} : Max. allowable kinetic energy **Table 1**
3. Check the kinetic energy of the load does not exceed the allowable kinetic energy: $E \leq E_a$

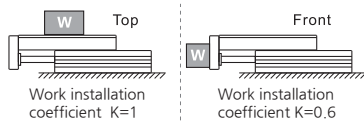
C. Load factor

1. Calculate allowable load mass W_a (N)

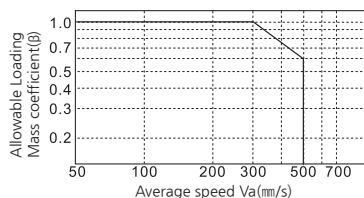
$$W_a = K \times \beta \times W_{max}$$

K : Work installation coefficient **Pic2**
 W_{max} : Max. permissible load mass **Table 1**
 β : Allowable loading mass factor **Pic3**
2. Make sure the mass does not exceed the permissible load mass. $W \leq W_a$

Pic2 Work installation coefficient K



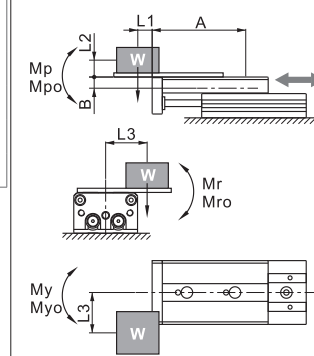
Pic3 Allowable loading mass coefficient β



D. Moment

Horizontal attachment

1. Moment calculation: $M_p, M_{po}, M_y, M_{yo}, M_r, M_{ro}$ (Nm)



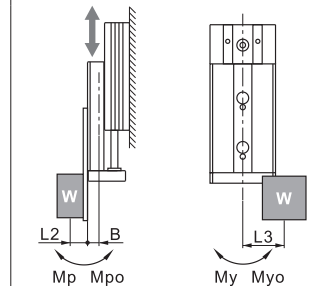
Dynamic moment: $M_p = W \times (L_1 + A) / 1000$
Static moment: $M_{po} = \frac{W \times (L_1 + A)}{1000} + \frac{W \times a \times (L_2 + B)}{1000 \times g}$
Dynamic moment: $M_r = W \times L_3 / 1000$
Static moment: $M_{ro} = (W \times a \times L_3) / 1000g$
Dynamic moment: $M_y = 0$
Static moment: $M_{yo} = (W \times a \times L_3) / 1000g$

2. Check

Dynamic moment:	$\frac{M_p}{M_{p_{max}}} + \frac{M_y}{M_{y_{max}}} + \frac{M_r}{M_{r_{max}}} \leq 1$
Static moment:	$\frac{M_{po}}{M_{po_{max}}} + \frac{M_{yo}}{M_{yo_{max}}} + \frac{M_{ro}}{M_{ro_{max}}} \leq 1$

Vertical attachment

1. Moment calculation: M_p, M_{po}, M_y, M_{yo} (Nm)



Dynamic moment: $M_p = W \times (L_2 + B) / 1000$
Static moment: $M_{po} = \frac{W \times (L_2 + B)}{1000} + \frac{W \times a \times (L_2 + B)}{1000 \times g}$
Dynamic moment: $M_y = W \times L_3 / 1000$
Static moment: $M_{yo} = \frac{W \times a \times L_3}{1000g} + \frac{W \times L_3}{1000}$

2. Check

Dynamic moment:	$\frac{M_p}{M_{p_{max}}} + \frac{M_y}{M_{y_{max}}} \leq 1$
Static moment:	$\frac{M_{po}}{M_{po_{max}}} + \frac{M_{yo}}{M_{yo_{max}}} \leq 1$

Compact table cylinder
(Vertical type, linear ball bearing)

Table1 Max. allowable kinetic energy(Emax)

Max. permissible load mass(Wmax)

Model	Max. allowable kinetic energy Emax(J)			Max.permissible load mass Wmax(N)
	Standard	Rubber stopper	shock absorber	
KTXH6	0.01	0.01	-	4
KTXH8	0.024	0.024	0.048	8
KTXH12	0.05	0.05	0.1	15
KTXH16	0.1	0.1	0.2	30
KTXH20	0.13	0.13	0.26	40
KTXH25	0.22	0.22	0.44	70

Symbol table

Symbol	Definition	Unit
A, B	Moment center position distance correction value	mm
a	Inertial acceleration	-
E	Kinetic energy	J
Ea	Allowable kinetic energy	J
Emax	Max. allowable kinetic energy	J
g	Gravitational acceleration g=9.81	m/s ²
K	Work installation coefficient	-
L1, L2, L3	Amount of overhang	mm
Mp, My, Mr	Dynamic moment(Pitch,Yaw,Roll)	Nm
Mp _{max} , My _{max} , Mr _{max}	Max. permissible dynamic moment(Pitch,Yaw,Roll)	Nm
Mpo, Myo, Mro	Static moment(Pitch,Yaw,Roll)	Nm
Mpo _{max} , Myo _{max} , Mro _{max}	Max. permissible static moment(Pitch,Yaw,Roll)	Nm
Va	Average speed	mm/s
W	Load mass	N
Wmax	Max. permissible load mass	N
β	Allowable loading mass coefficient	-

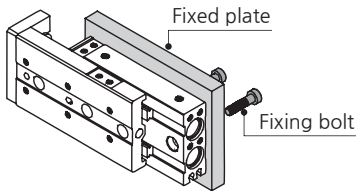
Table2 Max. allowable moment(Nm)

Moment center position distance correction value(mm)

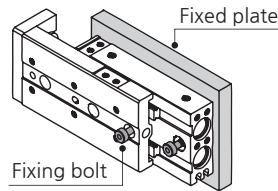
Bore size	Stroke	Static moment			Dynamic moment			Correction value	
		Mpo _{max}	Myo _{max}	Mro _{max}	Mp _{max}	My _{max}	Mr _{max}	A	B
6	10	3.3	3.8	2.6	0.7	0.7	0.6	30	7
	20	3.3	3.8	2.6	0.7	0.8	0.6	40	
	30	3.3	3.8	2.6	0.7	0.8	0.6	50	
	40	7.2	7.9	3.6	1.3	1.3	0.6	60	
	50	12.4	12.7	4.7	1.8	1.8	0.6	70	
8	10	10.1	9.1	8.8	2.5	2.5	2.0	30	7
	20	10.1	9.1	8.8	2.6	2.6	2.0	40	
	30	10.1	9.1	8.8	2.8	2.8	2.0	50	
	40	12.4	10.8	10.1	3.4	3.4	2.3	60	
	50	23.6	24.8	13.9	4.4	4.4	2.1	70	
12	10	8.5	8.5	13.6	2.5	2.5	4	32	11
	20	8.5	8.5	13.6	2.5	2.5	4	44	
	30	8.5	8.5	13.6	2.5	2.5	4	54	
	40	8.5	8.5	13.6	2.5	2.5	4	62	
	50	8.5	8.5	13.6	2.5	2.5	4	72	
16	10	52.3	52.3	85.6	18.9	18.9	13	115	12
	20	53.9	53.9	86.9	19.5	19.5	13	142	
	30	33.6	33.6	35.2	8.4	8.4	8.8	49	
	40	33.6	33.6	35.2	8.4	8.4	8.8	49	
	50	33.6	33.6	35.2	8.4	8.4	8.8	49	
20	10	33.6	33.6	35.2	8.4	8.4	8.8	59	12
	20	33.6	33.6	35.2	8.4	8.4	8.8	69	
	30	33.6	33.6	35.2	8.4	8.4	8.8	69	
	40	33.6	33.6	35.2	8.4	8.4	8.8	69	
	50	33.6	33.6	35.2	8.4	8.4	8.8	79	
25	10	70.2	70.2	62.5	28.1	28.1	25	120	14
	20	76.6	76.6	62.5	38.3	38.3	25	150	
	30	78	78	62.5	39	39	25	175	
	40	78	78	62.5	39	39	25	175	
	50	78	78	62.5	39	39	25	175	
30	10	34.8	34.8	36.8	8.7	8.7	9.2	53	14
	20	34.8	34.8	36.8	8.7	8.7	9.2	53	
	30	34.8	34.8	36.8	8.7	8.7	9.2	63	
	40	34.8	34.8	36.8	8.7	8.7	9.2	73	
	50	34.8	34.8	36.8	8.7	8.7	9.2	83	
40	10	70.2	70.2	74.5	28.1	28.1	29.7	123	14
	20	76.6	76.6	74.5	38.3	38.3	29.7	157	
	30	78	78	74.5	39	39	29.7	178	
	40	78	78	74.5	39	39	29.7	178	
	50	78	78	74.5	39	39	29.7	178	
50	10	98.4	98.4	74.5	49.2	49.2	29.7	210	14
	20	98.4	98.4	74.5	49.2	49.2	29.7	210	
	30	98.4	98.4	74.5	49.2	49.2	29.7	210	
	40	98.4	98.4	74.5	49.2	49.2	29.7	210	
	50	98.4	98.4	74.5	49.2	49.2	29.7	210	
63	10	56.7	56.7	51	16.2	16.2	17	60	17
	20	56.7	56.7	51	16.2	16.2	17	60	
	30	56.7	56.7	51	16.2	16.2	17	70	
	40	56.7	56.7	51	16.2	16.2	17	80	
	50	56.7	56.7	51	16.2	16.2	17	90	
80	10	122.5	122.5	138.5	49	49	55.4	130	17
	20	173.8	173.8	138.5	79	79	55.4	168	
	30	217	217	138.5	108.6	108.6	55.4	205	
	40	217	217	138.5	108.6	108.6	55.4	205	
	50	217	217	138.5	108.6	108.6	55.4	205	
100	10	221.8	221.8	138.5	110.9	110.9	55.4	230	17
	20	221.8	221.8	138.5	110.9	110.9	55.4	230	
	30	221.8	221.8	138.5	110.9	110.9	55.4	230	
	40	221.8	221.8	138.5	110.9	110.9	55.4	230	
	50	221.8	221.8	138.5	110.9	110.9	55.4	230	

Installation method and precautions

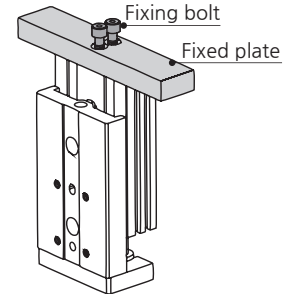
Vertical installation (body screw tap)



Vertical installation (body through hole)

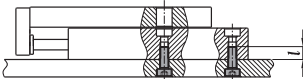


Axial installation (body screw tap)



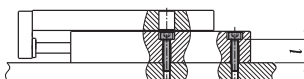
When attaching the cylinder, use a screw of an appropriate length and tighten it with less than the maximum torque. If it is not tightened sufficiently, it may fall or the position may be misaligned, and if it is tightened excessively, problems such as malfunction may occur.

Vertical installation
(body screw tap)



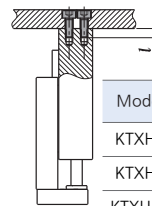
Model	Bolt	Max. tightening torque(N·m)	Max. threading depth (mm)
KTXH6	M4x0.7	2.1	8
KTXH8	M4x0.7	2.1	8
KTXH12	M5x0.8	4.4	10
KTXH16	M6x1.0	4.4	10
KTXH20	M6x1.0	7.4	12
KTXH25	M8x1.25	18.0	16

Vertical installation
(body through hole)



Model	Bolt	Max. tightening torque(N·m)	Max. threading depth (mm)
KTXH6	M3x0.5	1.2	8.0
KTXH8	M3x0.5	1.2	9.6
KTXH12	M4x0.7	2.8	13.4
KTXH16	M5x0.8	5.7	16.7
KTXH20	M5x0.8	5.7	22.0
KTXH25	M6x1.0	10.0	27.0

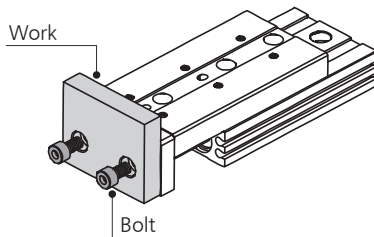
Axial installation
(body screw tap)



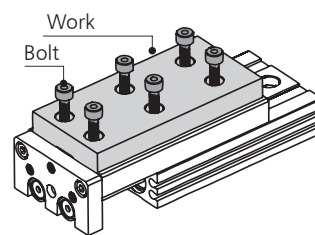
Model	Bolt	Max. tightening torque(N·m)	Max. threading depth (mm)
KTXH6	M2.5x0.45	0.5	3.5
KTXH8	M3x0.5	0.9	4.0
KTXH12	M4x0.7	2.1	6.0
KTXH16	M5x0.8	4.4	7.0
KTXH20	M5x0.8	4.4	8.0
KTXH25	M6x1.0	7.4	10.0

Work can be installed on both sides of the compact slide.

Front-mounted type

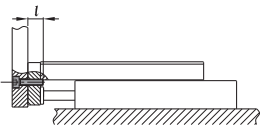


Top-mounted type



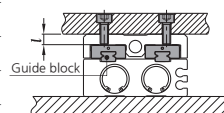
When mounting a work, install bolts appropriately with a tightening torque within the limit range. To prevent the bolt from touching the guide block, use a bolt that is at least 0.5 mm shorter than the maximum screw depth. If the bolt is too long, it may hit the guide block and cause damage.

Front-mounted type



Model	Bolt	Max. tightening torque(N·m)	Max. threading depth (mm)
KTXH6	M3x0.4	0.9	5
KTXH8	M4x0.7	2.1	6
KTXH12	M5x0.8	4.4	8
KTXH16	M6x1.0	7.4	10
KTXH20	M6x1.0	7.4	13
KTXH25	M8x1.25	18.0	15

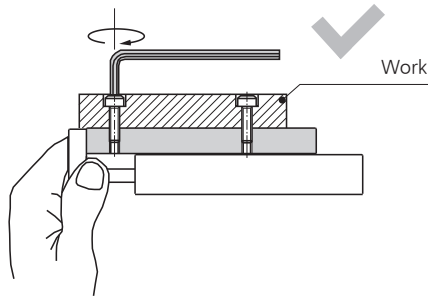
Top-mounted type



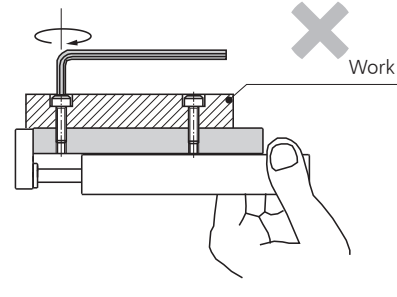
Model	Bolt	Max. tightening torque(N·m)	Max. threading depth (mm)
KTXH6	M3x0.5	0.9	4.7
KTXH8	M3x0.5	0.9	4.7
KTXH12	M4x0.7	2.1	5.0
KTXH16	M5x0.8	4.4	5.0
KTXH20	M5x0.8	4.4	8.0
KTXH25	M6x1.0	7.4	9.0

Compact table cylinder
(Vertical type, linear ball bearing)

The table is supported by the linear guide, so be careful not to apply a strong impact or large force to the guide part.
Hold the slide when bolting the work. If you hold the body when tightening the bolt, excessive force may damage the guide part.



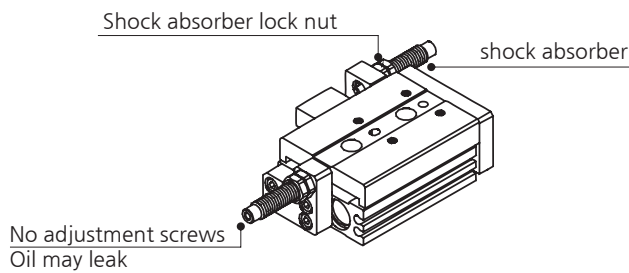
Grab the slide and secure it with bolts



Do not hold the body and secure it with bolts

With shock absorber

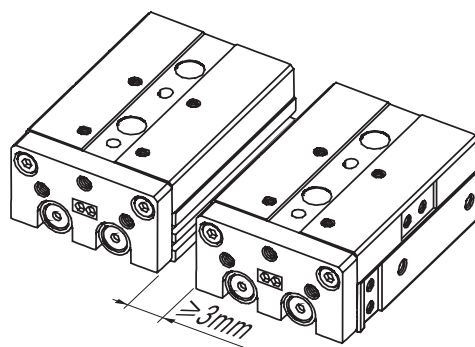
The shock absorber is a consumable item. If the shock absorption capacity decreases, it must be replaced immediately.
Do not turn or adjust the screws on the bottom of the shock absorber body. The screws are not for adjustment, and loosening the screws may cause oil to leak.
Install the shock absorber lock nut tightening torque according to the table below.



Model	Shock absorber	Max. tightening torque(N·m)
KTXH6	Can't attach	
KTXH8	ACA0806-1N	1.67
KTXH12	ACA0806-1N	1.67
KTXH16	ACA1007-1N	3.14
KTXH20	ACA1210-1N	3.14
KTXH25	ACA1412-1N	10.8

With auto switch

All KTXH series have built-in magnets.
When using two compact cylinders side by side to prevent malfunction, keep a minimum distance of 3 mm.



The cylinder must be connected through a meter-out speed controller, and the operating speed of the cylinder must be less than 500mm/s.
Do not apply a load that exceeds the operating limit. If it is exceeded, it may cause defects due to bending or sagging of the table.

Compact table cylinder
(Vertical type, linear ball bearing)

Table displacement(Reference value)

Table displacement according to pitching moment load

When a load is applied to the arrow area during full stroke operation of the table cylinder, the table displacement at the arrow area

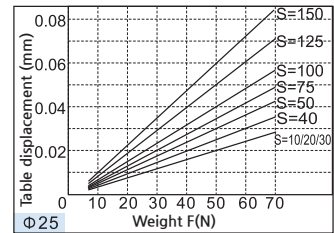
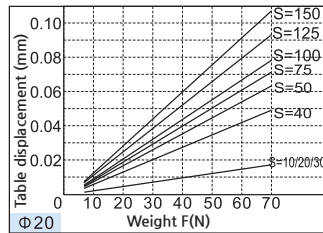
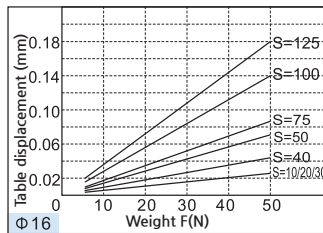
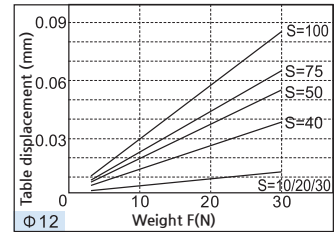
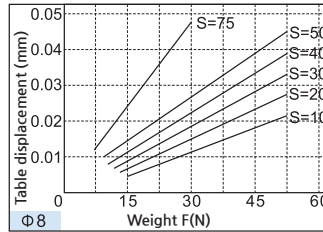
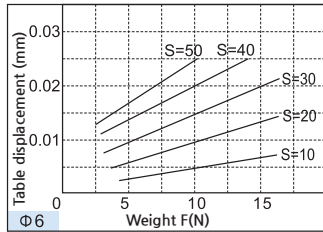


Table displacement according to yawing moment load

When a load is applied to the arrow area during full stroke operation of the table cylinder, the table displacement at the arrow area

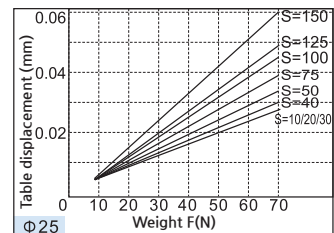
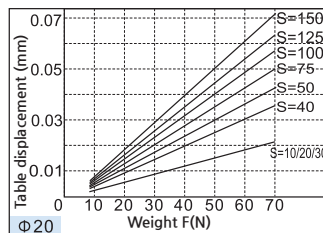
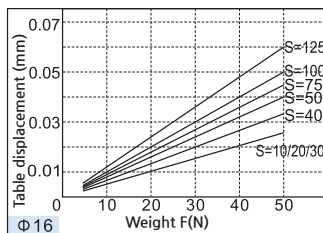
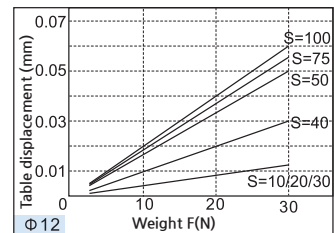
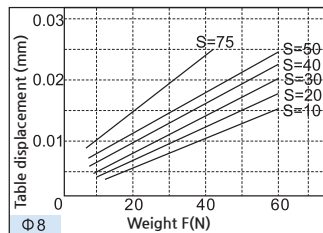
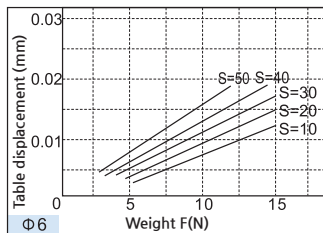
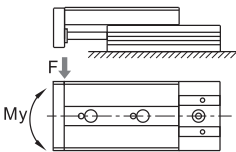
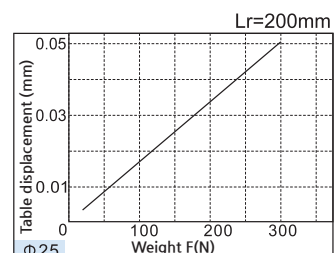
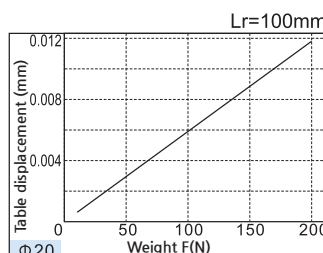
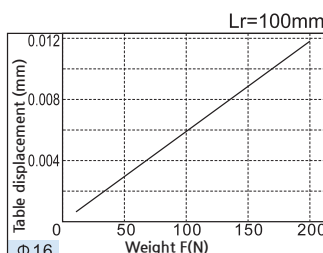
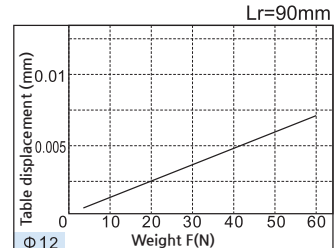
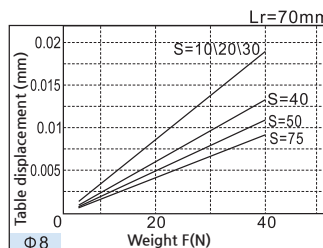
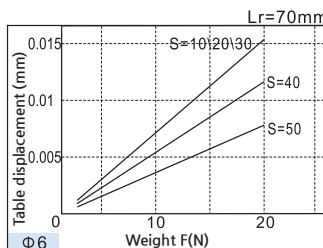
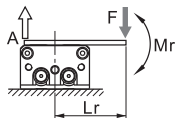


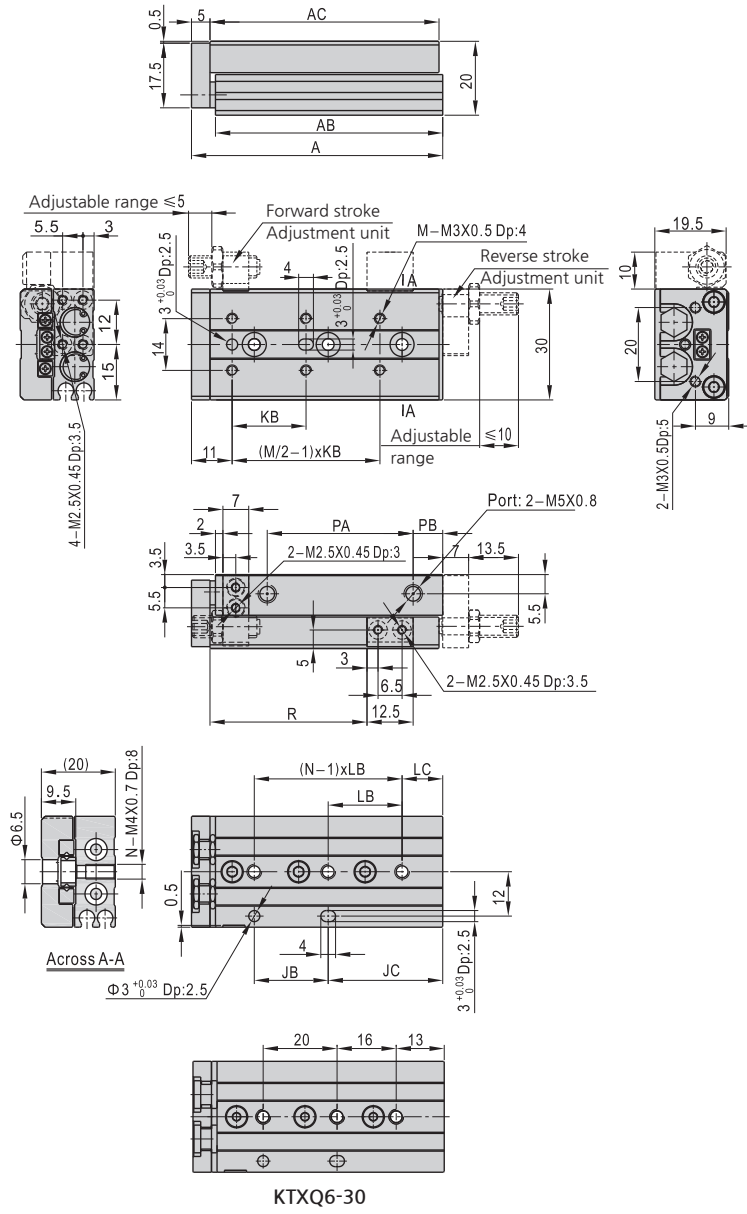
Table displacement according to rolling moment load

When a load is applied to the arrow area during full stroke operation of the table cylinder, the table displacement at the arrow area



Dimensions

KTXH6

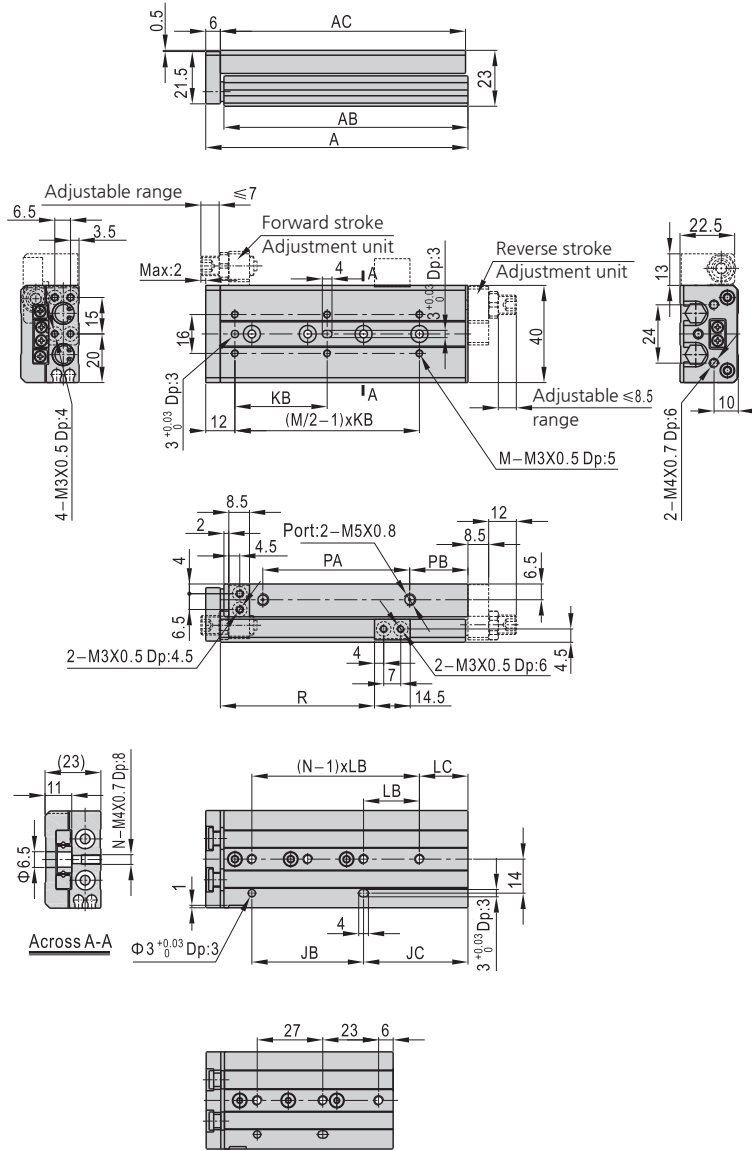


Unit:mm

Stroke	A	AB	AC	JB	JC	KB	LB	LC	M	N	PA	PB	R
10	48	41.5	42	16	13	22	23	6	4	2	16	9	21.5
20	58	51.5	52	26	13	25	26	13	4	2	26	9	31.5
30	68	61.5	62	20	29	21	-	-	6	3	36	9	41.5
40	86	79.5	80	28	39	26	28	11	6	3	47	16	51.5
50	96	89.5	90	28	49	27	28	21	6	3	64	9	61.5

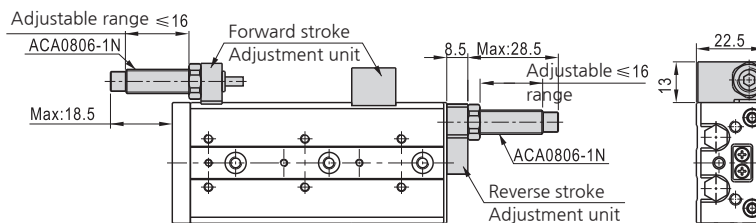
Dimensions

KTXH8



KTXQ8-30

With shock absorber

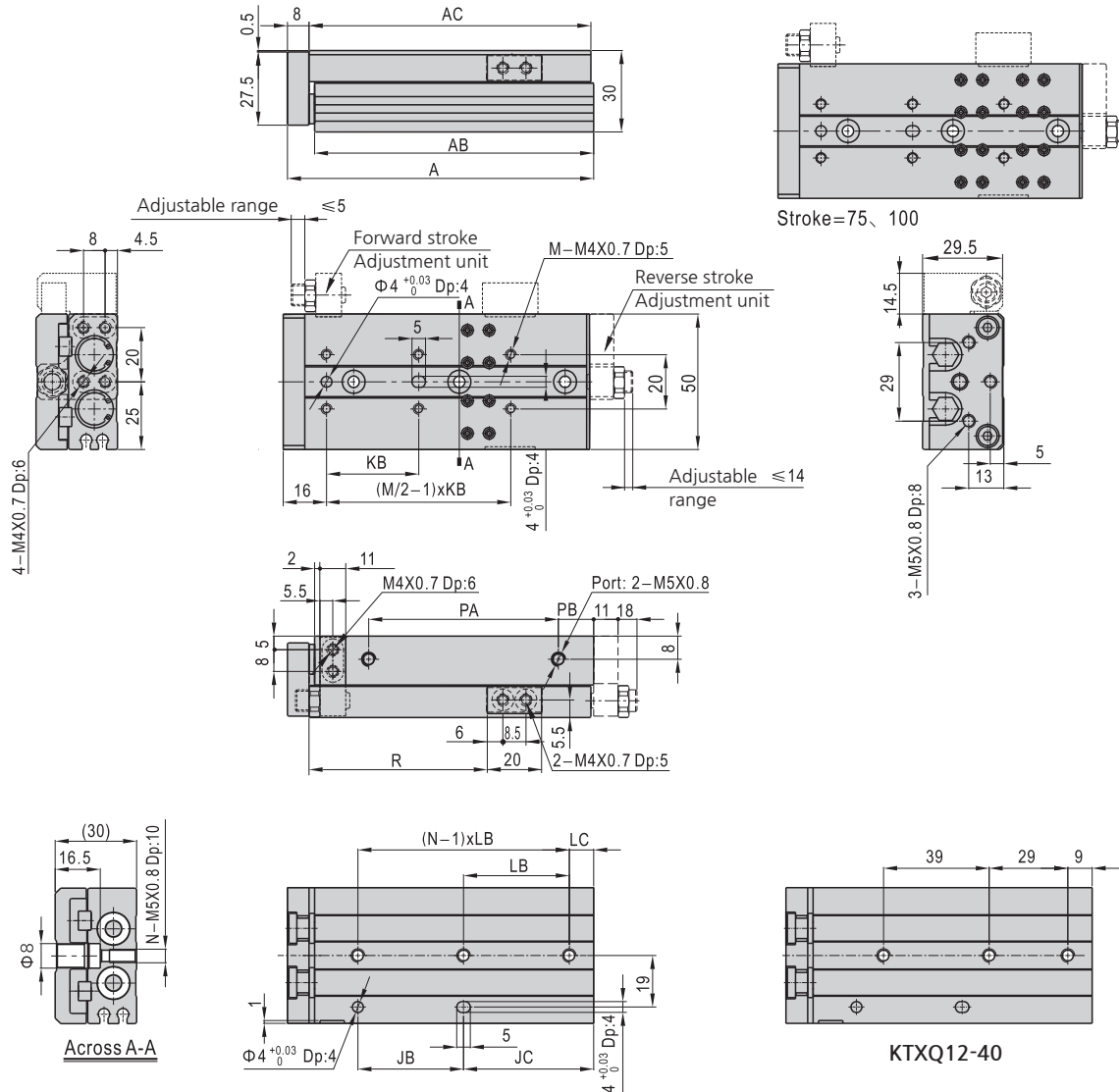


Unit:mm

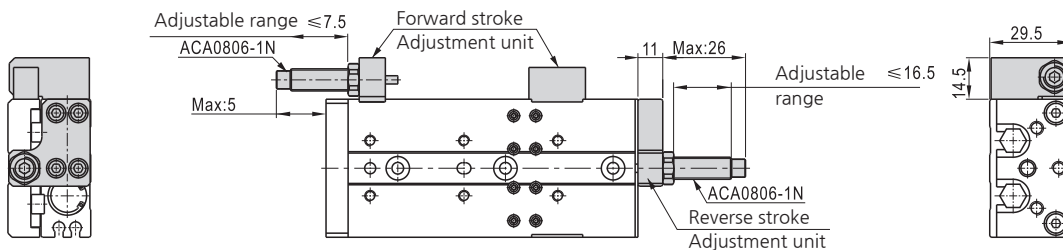
Stroke	A	AB	AC	JB	JC	KB	LB	LC	M	N	PA	PB	R
10	53	45.5	46	19	13	25	25	7	4	2	17.5	10.5	23.5
20	63	55.5	56	28	14	25	28	14	4	2	28	10	33.5
30	77	69.5	70	27	29	26	-	-	6	3	42	10	43.5
40	91	83.5	84	31	39	32	31	8	6	3	54	12	53.5
50	116	108.5	109	58	37	46	29	8	6	4	79	12	63.5
75	144	136.5	137	60	63	50	30	33	6	4	109	10	88.5

Dimensions

KTXH12



With shock absorber

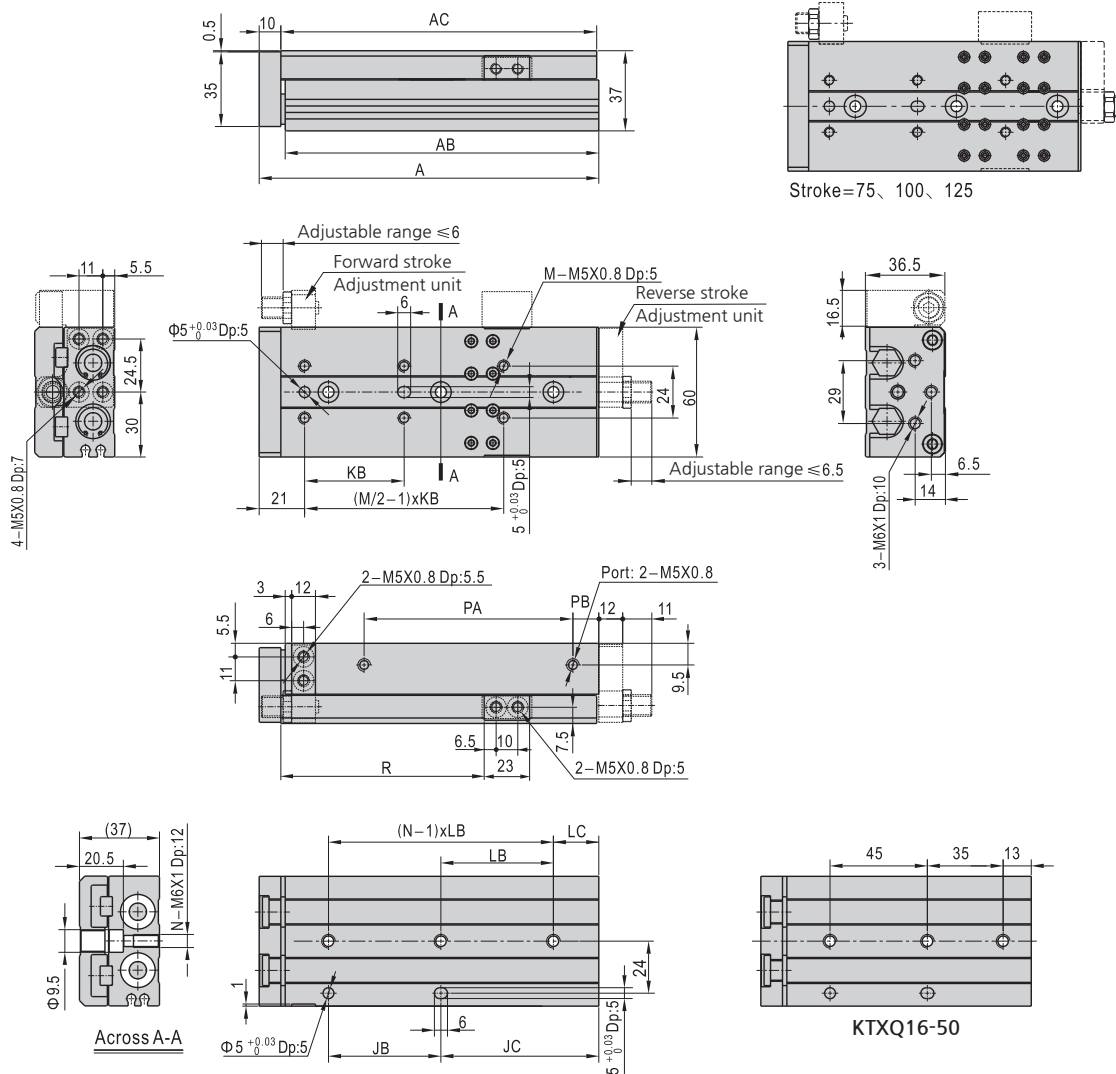


Unit:mm

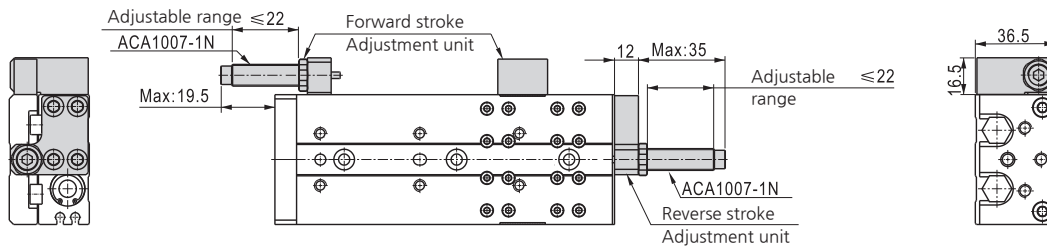
Stroke	A	AB	AC	JB	JC	KB	LB	LC	M	N	PA	PB	R
10	76	66	67	32	18	28	32	18	4	2	32.5	13	35
20	76	66	67	32	18	28	32	18	4	2	32.5	13	45
30	86	76	77	40	20	38	40	20	4	2	42.5	13	55
40	103	93	94	39	38	34	-	-	6	3	59.5	13	65
50	113	103	104	39	48	34	39	9	6	3	69.5	13	75
75	157	147	148	72	59	36	36	23	8	4	113.5	13	99
100	182	172	173	72	84	36	36	12	10	5	134.5	17	124

Dimensions

KTXH16



With shock absorber

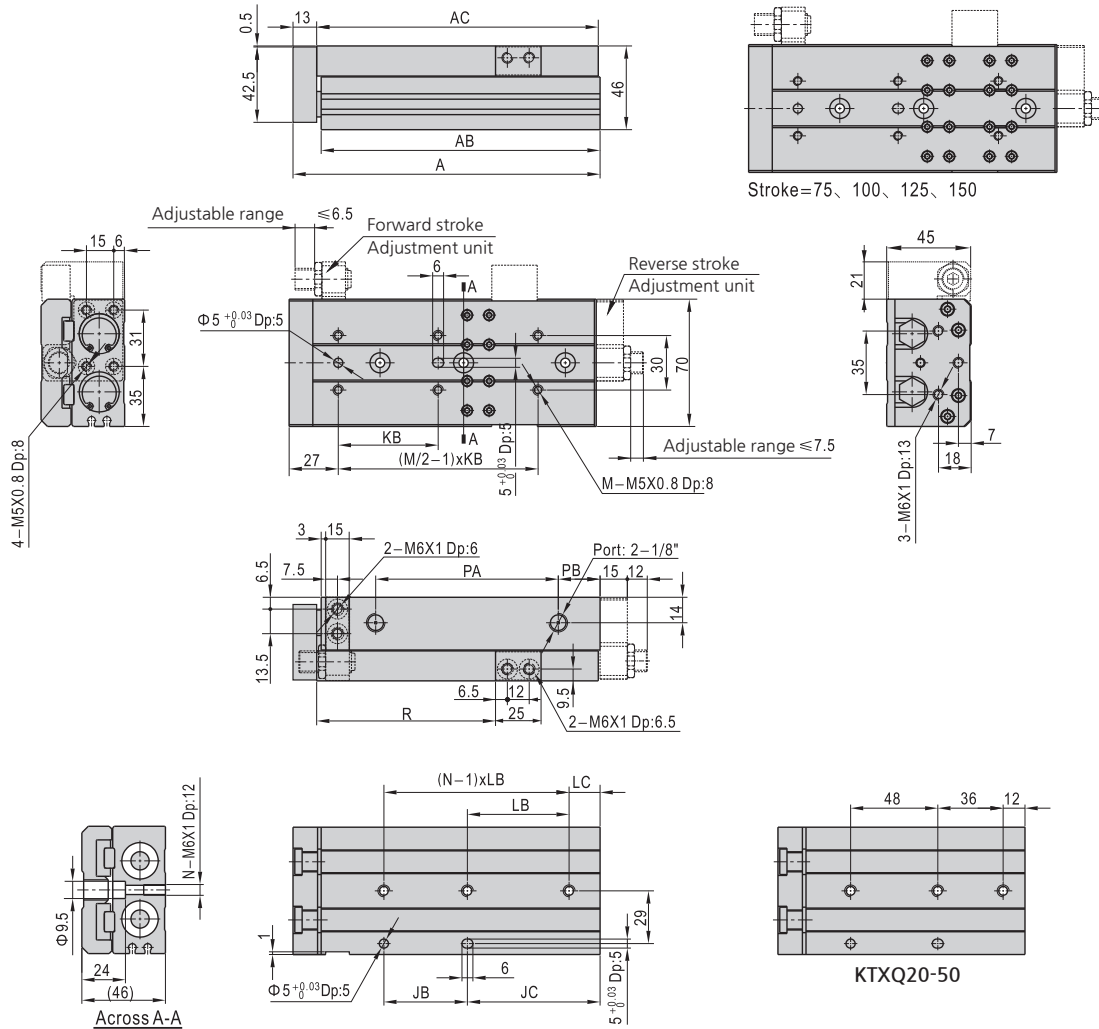


Unit:mm

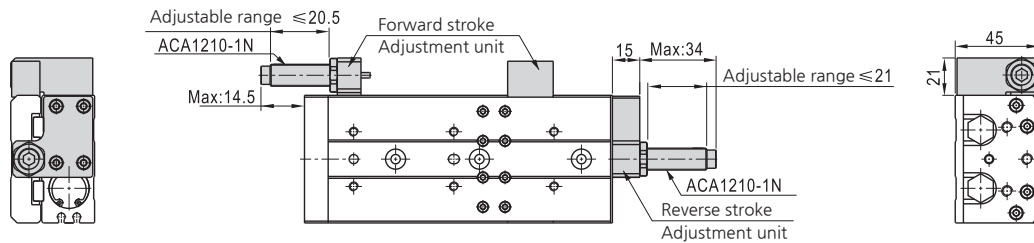
Stroke	A	AB	AC	JB	JC	KB	LB	LC	M	N	PA	PB	R
10	89	77	78	39	18	38	39	18	4	2	40.5	12	28.5
20	89	77	78	39	18	38	39	18	4	2	40.5	12	38.5
30	99	87	88	48	19	48	48	19	4	2	50.5	12	48.5
40	109	97	98	58	19	58	58	19	4	2	60.5	12	58.5
50	125	113	114	45	48	40	-	-	6	3	70.5	18	68.5
75	157	145	146	52	73	46	52	21	6	3	108.5	12	93.5
100	200	188	189	88	80	44	44	36	8	4	151.5	12	118.5
125	225	213	214	88	105	44	44	17	10	5	176.5	12	143.5

Dimensions

KTXH20



With shock absorber

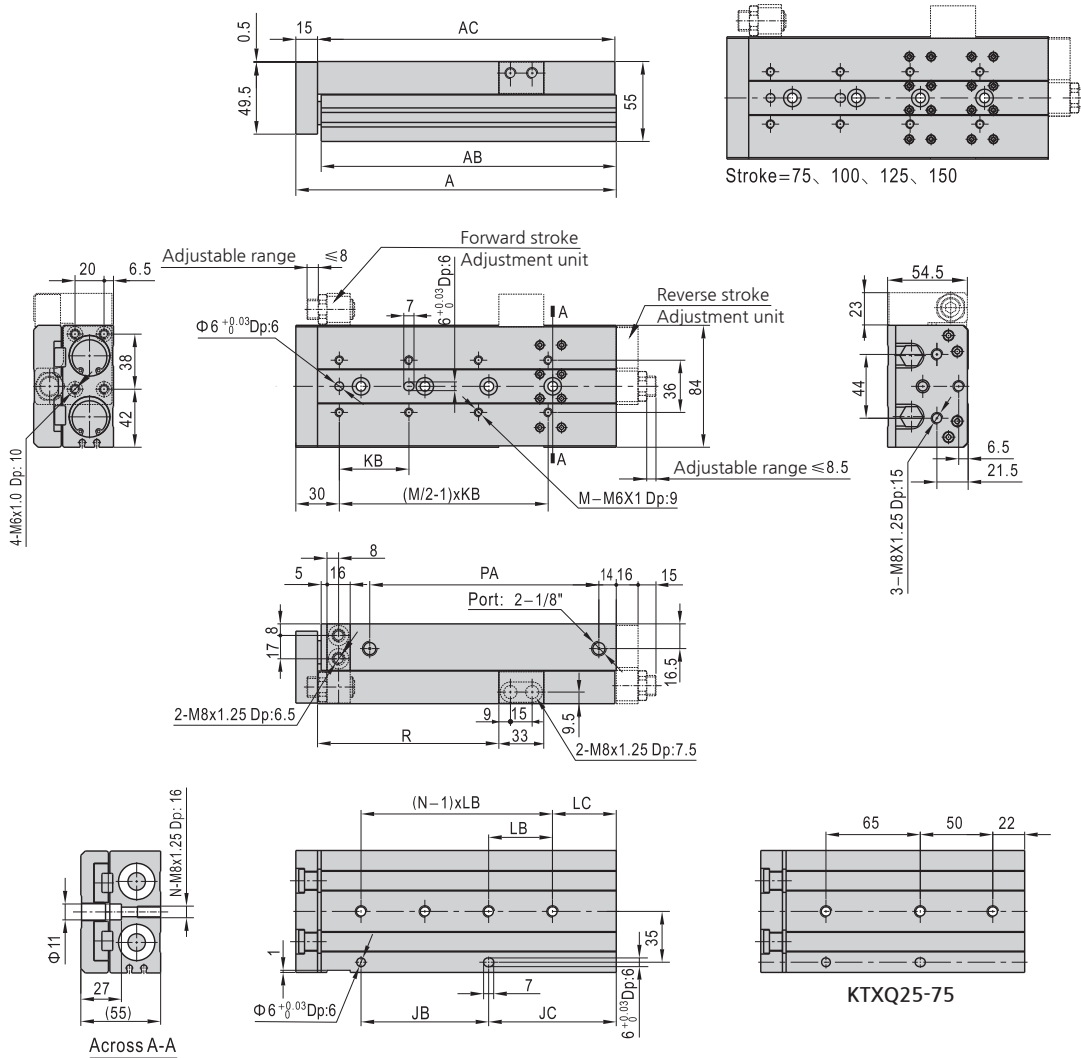


Unit:mm

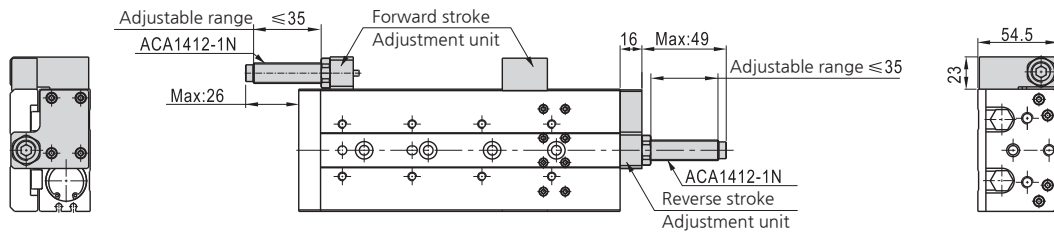
Stroke	A	AB	AC	JB	JC	KB	LB	LC	M	N	PA	PB	R
10	108	92.5	94	50	18	45	46	22	4	2	46.5	16	32.5
20	108	92.5	94	50	18	40	46	22	4	2	46.5	16	42.5
30	108	92.5	94	50	18	48	46	22	4	2	46.5	16	52.5
40	118	102.5	104	56	22	58	56	22	4	2	56.5	16	62.5
50	136	120.5	122	48	48	42	-	-	6	3	72.5	18	72.5
75	169	153.5	155	56	73	55	56	17	6	3	98.5	25	97.5
100	226	210.5	212	112	74	50	56	18	8	4	155.5	25	122.5
125	254	238.5	240	118	96	55	59	37	8	4	183.5	25	147.5
150	282	266.5	268	124	118	62	62	56	8	4	211.5	25	172.5

Dimensions

KTXH25



With shock absorber



Unit:mm

Stroke	A	AB	AC	JB	JC	KB	LB	LC	M	N	PA	PB
10	123	105.5	107	55	23	55	55	23	4	2	58	35
20	123	105.5	107	55	23	46	55	23	4	2	58	45
30	123	105.5	107	55	23	55	55	23	4	2	58	55
40	133	115.5	117	65	23	65	65	23	4	2	68	65
50	157	139.5	141	80	32	75	80	32	4	2	92	75
75	182	164.5	166	65	72	60	-	-	6	3	117	100
100	221	203.5	205	88	88	48	44	44	8	4	156	125
125	274	256.5	258	132	97	60	66	31	8	4	209	150
150	299	281.5	283	132	122	65	66	56	8	4	234	175

Accessory

F - KTXH 10 A
① ② ③ ④

① Accessory

F	Accessory
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② Model

KTXH	Model
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③ Bore size

6	6mm	16	16mm
8	8mm	20	20mm
12	12mm	25	25mm

④ Adjustment unit

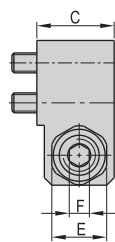
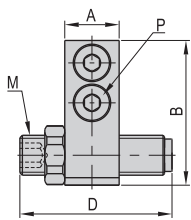
A	Adjustable rubber stoppers (both ends)
AS	Adjustable rubber stopper (forward end)
AF	Adjustable rubber stopper (backward end)
B	Shock absorbers (both ends)
BS	Shock absorber (forward end)
BF	Shock absorber (backward end)

Accessory / bore size		6	8	12	16	20	25
both ends	A(Adjustable rubber stopper)	F-KTXH6A	F-KTXH8A	F-KTXH12A	F-KTXH16A	F-KTXH20A	F-KTXH25A
	B(Shock absorber)	-	F-KTXH8B	F-KTXH12B	F-KTXH16B	F-KTXH20B	F-KTXH25B
Forward end	AS(Adjustable rubber stopper)	F-KTXH6AS	F-KTXH8AS	F-KTXH12AS	F-KTXH16AS	F-KTXH20AS	F-KTXH25AS
	BS(Shock absorber)	-	F-KTXH8BS	F-KTXH12BS	F-KTXH16BS	F-KTXH20BS	F-KTXH25BS
Reverse end	AF(Adjustable rubber stopper)	F-KTXH6AF	F-KTXH8AF	F-KTXH12AF	F-KTXH16AF	F-KTXH20AF	F-KTXH25AF
	BF(Shock absorber)	-	F-KTXH8BF	F-KTXH12BF	F-KTXH16BF	F-KTXH20BF	F-KTXH25BF

Dimensions - Accessories

Forward adjustable rubber stopper(AS)

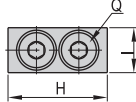
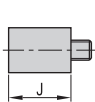
Body attachment



Unit:mm

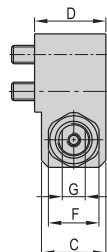
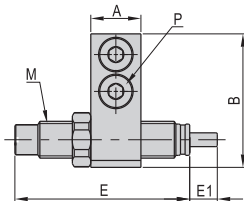
Bore size	Stroke adjustment range	A	B	C	D	E	F	M	P	H	I	J	Q
6	5	7	19	10.5	16.5	8	3	M6x1.0	M2.5 Length:10	12.5	6.5	10.5	M2.5 Length:10
8	5	8.5	21.5	14	21.5	11	4	M8x1.0	M3 Length:14	14.5	8	12	M3 Length:14
12	5	11	29	15.5	31.5	11	4	M8x1.0	M4 Length:16	20	9	13.5	M4 Length:16
16	5	12	36	17.5	24	14	5	M10x1.0	M5 Length:16	23	10.5	17	M5 Length:16
20	5	15	44.5	22	28	17	6	M12x1.0	M6 Length:20	25	12.5	21	M6 Length:20
25	5	16	53.5	24	32	19	6	M14x1.5	M8 Length:20	33	16.5	23	M8 Length:20

Table attachment



Forward shock absorber(BS)

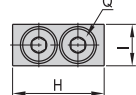
Body attachment



Unit:mm

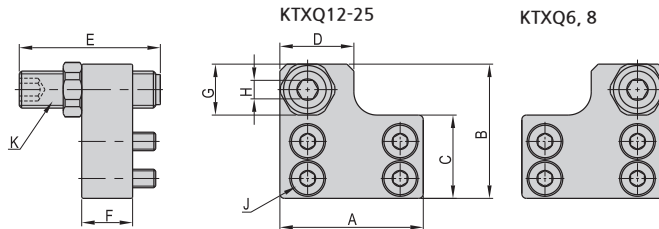
Bore size	A	B	C	D	E	E1	F	G	M	P	H	I	J	Q
8	8.5	21.5	12.5	14	40	6	11	7	M8x1.0	M3 Length:14	14.5	8	12	M3 Length:14
12	11	29	14	15.5	40	6	11	7	M8x1.0	M4 Length:16	20	9	13.5	M4 Length:16
16	12	36	16	17.5	49	7	14	9	M10x1.0	M5 Length:16	23	10.5	17	M5 Length:16
20	15	44.5	20	22	53.5	10	17	11	M12x1.0	M6 Length:20	25	12.5	21	M6 Length:20
25	16	53.5	22	24	68.5	12	19	12	M14x1.5	M8 Length:20	33	16.5	23	M8 Length:20

Table attachment



Dimensions - Accessories

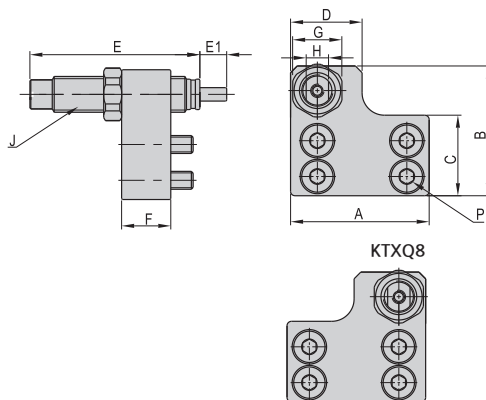
Reverse adjustable rubber stopper(AF)



Unit:mm

Bore size	Stroke adjustment range	A	B	C	D	E	F	G	H	J	K
6	5	18	19	11	8	21.5	7	8	3	M2.5 Length:6	M6x1.0
8	5	24	22.5	13	14	21.5	8.5	11	4	M3 Length:8	M8x1.0
12	5	31	29	18	16	21.5	8.5	11	4	M4 Length:12	M8x1.0
16	5	37	37.5	23	18	24	12	14	5	M5 Length:12	M10x1.0
20	5	45.5	47	28.5	23	28	15	17	6	M5 Length:16	M12x1.0
25	5	54	56	34	28	32	16	19	6	M6 Length:18	M14x1.5

Reverse shock absorber(BF)



Unit:mm

Bore size	A	B	C	D	E	E1	F	G	H	J	P
8	24	22.5	13	14	40	6	8.5	11	7	M8x1.0	M3 Length:8
12	31	29	18	16	40	6	11	11	7	M8x1.0	M4 Length:12
16	37	37.5	23	18	49	7	12	14	9	M10x1.0	M5 Length:12
20	45.5	47	28.5	23	53.5	10	15	17	11	M12x1.0	M5 Length:16
25	54	56	34	28	68.5	12	16	19	12	M14x1.5	M6 Length:18