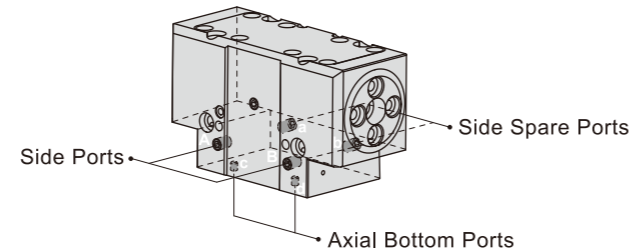


Port Connection

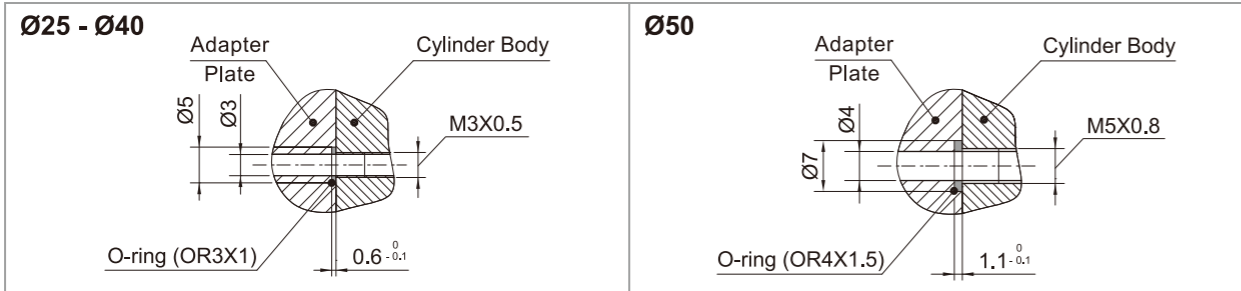
• Side Ported

1. A,B: side port.
2. a,b: side spare port with plug; c, d: axial bottom port with plug.
3. A,B port can be directly mouted with quick couplers.
4. When use a, b port, remove its plugs to Port A, B, and mount directly with quick couplers .

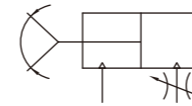


• Axial Bottom Ported

1. c, d: axial bottom port;
2. Port A, B: side port with plug; Port a, b: side spare port with plug.
3. When use the ports, it should be work together with O-ring and adapter plate, see the above diagram.



Symbol / Features



1. Small open and close angle, suitable for use when space is limited.
2. Build in throttle make sure the performance more stable.
3. Built-in Magnet.

Specifications

Bore Size	mm	10	16	20	25
Open/Close angle		-10° ~ 30°			
Action		Double Acting			
Fluid		Air			
Operating Pressure Range	MPa (kgf/cm ²)	0.1 ~ 0.6 (1.0 ~ 6.1)			
Operating Temperature Range	°C	-10 ~ 60 (No Freezing)			
Lubrication ^①		Not Required			
Cushion		Rubber Bumper			
Repeatability	mm	± 0.2			
Max Operating Frequency	c.p.m	60			
Port		M3X0.5		M5X0.8	
Mass	kg	0.05	0.10	0.20	0.35

Note: ① Use only Turbine Oil ISO VG32 for lubricant, if required.

Order Code

MHX Series ^①	10 Bore Size mm
	10 Ø10
	16 Ø16
	20 Ø20
	25 Ø25

Note: ① Auto switch needs to be ordered separately, please refer to the Auto Switch Selection Table.

Order Example

Bore Size = 16mm , with Auto Switch (Refer to 4.03 TD series, Model: TDX , length 2 meters) , MHXSeries.
Order Code: MHX10
Auto Switch Order Code: TDX-2000 (Normally, each cylinder will installed 2 Auto switches)

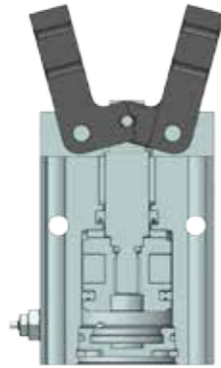
• Auto Switch

Bore Size (mm)	2-wire		3-wire
	Contact	Solid State	Solid State
10, 16 20, 25	—	TDLMX	TDLMN TDLMP

Gripper - Angular Type MHX 10 - 25 Series

Gripper - Angular Type MHX 10 - 25 Series

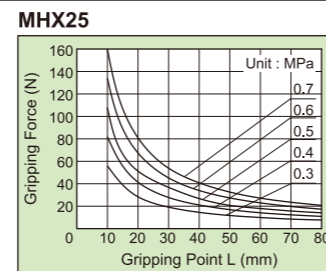
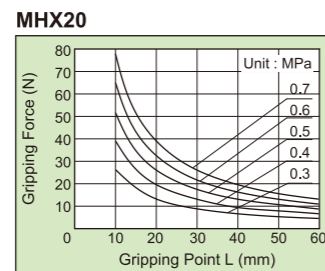
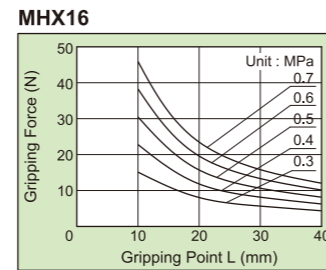
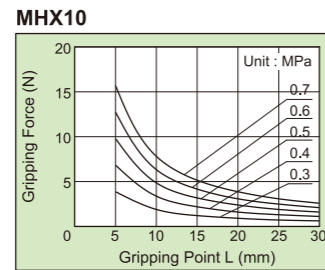
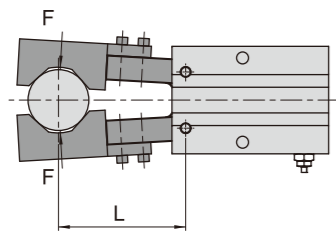
Constructions



Bore Size (mm)	Compression Area (mm ²)		Piston Force Arm (mm)
	Finger Close	Finger Open	
10	50.3	78.5	10
16	150.8	201.1	16
20	235.6	314.2	20
25	377.8	490.9	25

Effective Gripping Force

External Clamp Gripping Force

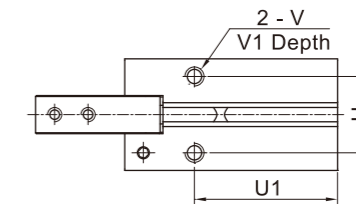
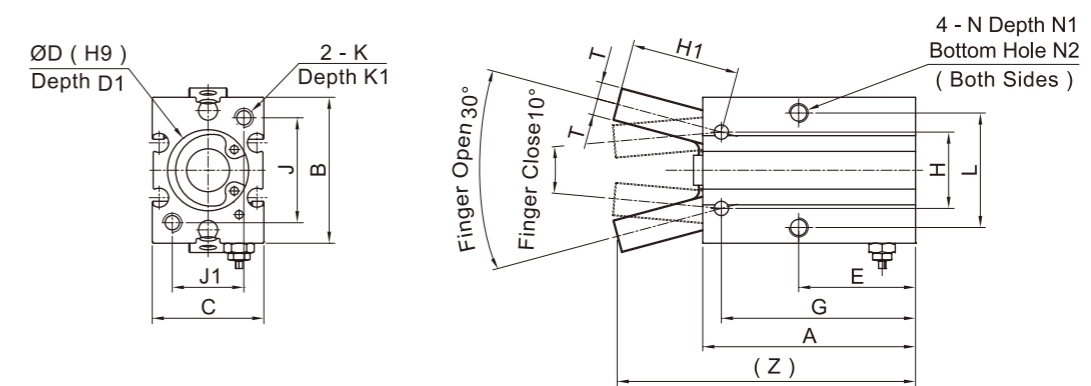
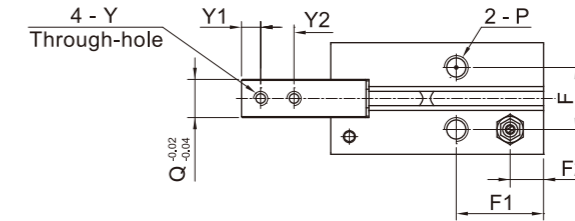


Gripping Moment (N·m)

Bore Size (mm)	Action State	Operating Pressure (MPa)					
		0.1	0.2	0.3	0.4	0.5	0.6
10	Finger Close	0.025	0.05	0.075	0.1	0.125	0.15
	Finger Open	0.039	0.078	0.117	0.156	0.195	0.234
16	Finger Close	0.12	0.24	0.36	0.48	0.6	0.72
	Finger Open	0.16	0.32	0.48	0.64	0.8	0.96
20	Finger Close	0.24	0.48	0.72	0.96	1.2	1.44
	Finger Open	0.31	0.62	0.93	1.24	1.55	1.86
25	Finger Close	0.47	0.94	1.41	1.88	2.35	2.82
	Finger Open	0.61	1.22	1.83	2.44	3.05	3.66

Note: The data above for reference only. Frictional losses are not accounted for.

Ext. Dimensions (mm)



Bore Size	A	B	C	D	D1	E	F	F1	F2	G	H	H1	J	J1	K	K1
10	38.6	23	16.4	11	1.5	23	10.4	18.8	7.2	35.8	10	17.2	18	12	M3X0.5	6
16	44.6	30.6	23.4	17	1.5	24.5	13	18.3	7	40.7	16	22.6	22	15	M4X0.7	8
20	55.2	42	27.6	21	1.5	29	15	22.2	7.5	50.7	20	28	32	18	M5X0.8	10
25	60.4	52	33.6	26	1.5	30	20	23.5	7.7	55.8	25	37.5	40	22	M6X1.0	12

Bore Size	L	N	N1	N2	P	Q	T	U	U1	V	V1	Y	Y1	Y2	Z
10	16	M3X0.5	5	2.6	M3X0.5	6.4	2	11.4	27	M3X0.5	6	M2.5X0.45	3	5.7	52.4
16	24	M4X0.7	8	3.4	M5X0.8	8	3.5	16	30	M4X0.7	6.5	M3X0.5	4	7	62.5
20	30	M5X0.8	10	4.3	M5X0.8	10	4	18.6	35	M5X0.8	8	M4X0.7	5.2	9	77.8
25	36	M6X1.0	12	5.1	M5X0.8	12	5	22	36.5	M6X1.0	10	M5X0.8	8	12	92