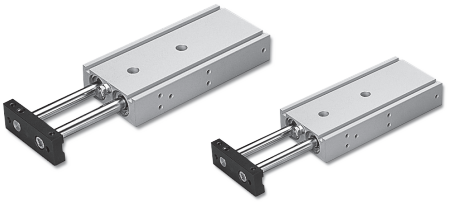
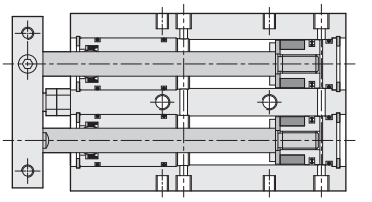
TDX series Dual Rod Cylinder

Product features

CHELIC



Internal structure



Theoretical force

Unit: kgf

Bore size (mm)	Piston rod dia (mm)	Piston action	Piston area (cm²)	Air pressure (kgf/cm²)						
				1	2	3	4	5	6	7
10	6	Push	1.5	–	3.1	4.7	6.2	7.8	9.3	10.9
		Pull	1.0	–	2.0	3.0	4.0	5.0	6.0	7.0
16	8	Push	4.0	4.0	8.0	12.0	16.0	20.1	24.1	28.1
		Pull	3.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0
20	10	Push	6.2	6.2	12.5	18.8	25.1	31.4	37.6	43.9
		Pull	4.7	4.7	9.4	14.1	18.8	23.5	28.2	32.9
25	12	Push	9.8	9.8	19.6	29.4	39.2	49.1	58.8	68.5
		Pull	7.5	7.5	15.1	22.6	30.2	37.7	45.3	52.8

Note: Above are theoretical date- please take into consideration the frictional resistance and the mechanical efficiency of value should be added calculation before using. (About 70%~80%)

Specification

Item \ Bore size (mm)	Ø10	Ø16	Ø20	Ø25
Action	Double acting			
Fluid	Air			
Pressure range kgf/cm²(kPa)	1 ~ 8.5 (100 ~ 850)			
Max. operating pressure kgf/cm²(kPa)	9 (900)			
Ambient and fluid temperature ℃	0 ~ 60			
Piston speed mm/s	50 ~ 700			
Stroke adjusting range	-5 ~ 0			
Port size	M5×0.8			PT 1/8
Sensing device	With magnet			

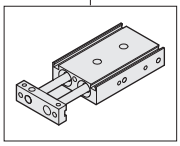
Standard stroke

Unit: mm

Bore size	Stroke
Ø10	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100
Ø16	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100, 125, 150
Ø20	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100, 125, 150
Ø25	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100, 125, 150

Code of order

TDX — Model



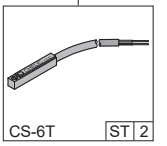
16 — Bore size

10 – Ø 10 mm
16 – Ø 16 mm
20 – Ø 20 mm
25 – Ø 25 mm

× 50 — Stroke

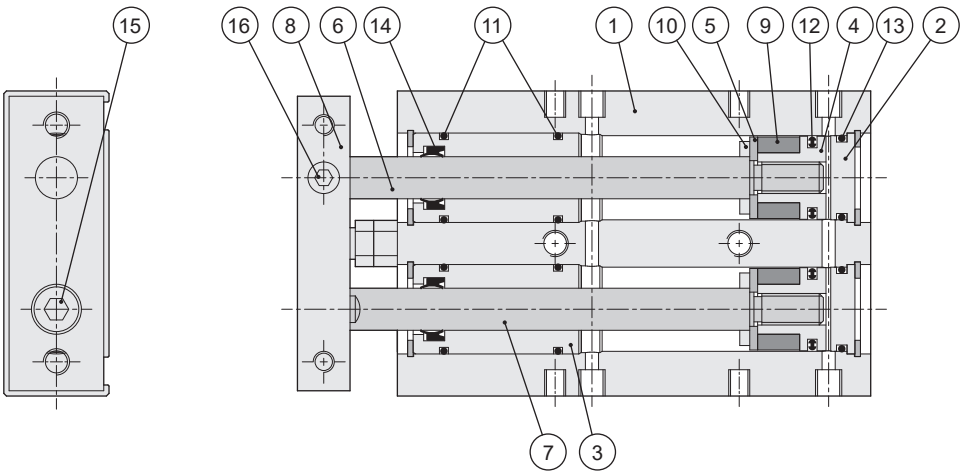
Ø10 – 10 ~ 100 mm
Ø16 – 10 ~ 150 mm
Ø20 – 10 ~ 150 mm
Ø25 – 10 ~ 150 mm

– ST 2 — Sensor switch



None: Without sensor switch
ST : Sensor switch mark (CS-6T)
2 : Quantity of sensor switch
1 = 1 PCS
2 = 2 PCS

Internal structure



Components and material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	11	Front cover O-Ring	NBR
02	Rear cover	Aluminum alloy	12	Piston packing	NBR
03	Front cover	Aluminum alloy	13	Rear cover O-ring	NBR
04	Piston	Copper alloy	14	Shaft packing	NBR
05	Magnet cover	Copper alloy	15	Screw	Alloy steel
06	Shaft	Carbon steel	16	Screw	Alloy steel
07	Guide rod	Carbon steel			
08	Slider	Aluminum alloy			
09	Magnet	Plastic			
10	Cushion gasket	Rubber			

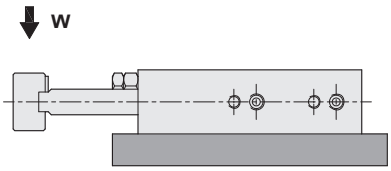
Note: The surface of body be treated with hard anodizing.

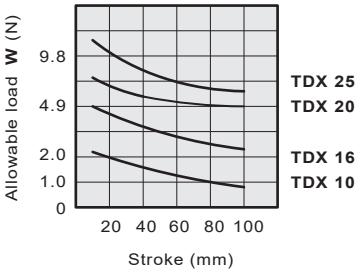
Packing and O-ring part list

Item	Piston packing	Shaft packing	Front cover O-ring	Rear cover O-ring
Quantity / Bore size	2	2	4	2
Ø10	COP-10	PDU-6	8 × 1.5	8 × 1.0
Ø16	COP-16	PDU-8	14.5 × 1.5	13.2 × 1.5
Ø20	COP-20	PDU-10	18 × 1.5	17.5 × 1.5
Ø25	COP-25	PDU-12	21.8 × 2.4	20.8 × 2.0

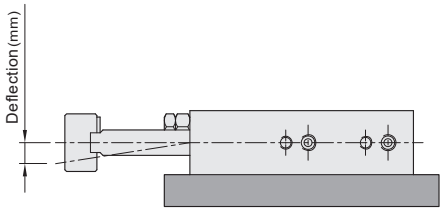
Note: Piston packing and rod packing all adopt imports. (Mitsubishi, Sakagami and same grade)

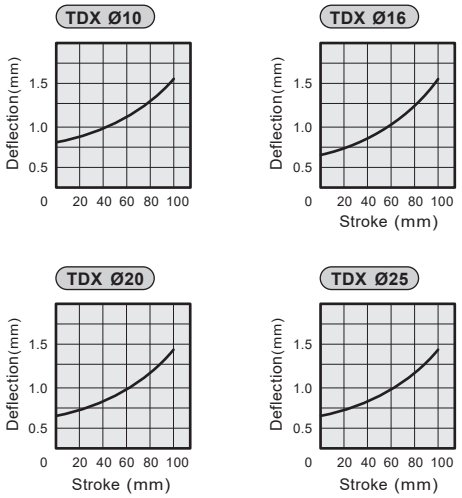
Allowable load



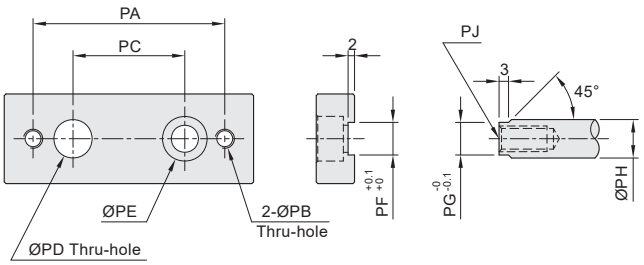


Allowable deflection





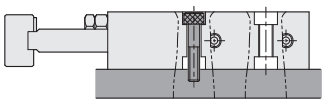
Dimension for end rod



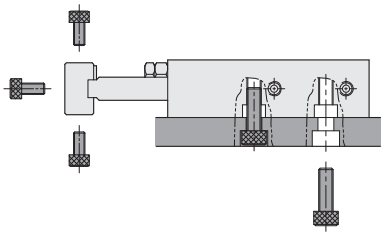
Mark / Bore size	PA	PB	PC	PD	PE	PF	PG	PH	PJ
Ø10	35	M4×0.7p	20	6	Ø4.5 Thru-hole, Hole Ø8×4.3 dp	5.2	5.2	6	M4×0.7p dp 10
Ø16	45	M5×0.8p	25	8	Ø5.5 Thru-hole, Hole Ø9×5.5 dp	6.2	6.2	8	M5×0.8p dp 12
Ø20	50	M5×0.8p	28	10	Ø6.5 Thru-hole, Hole Ø11×6.5 dp	8.2	8.2	10	M6×1.0p dp 15
Ø25	60	M6×1.0p	35	12	Ø8.5 Thru-hole, Hole Ø14×8.5 dp	10.2	10.2	12	M8×1.25p dp 15

Mounting type

- Top mounting type

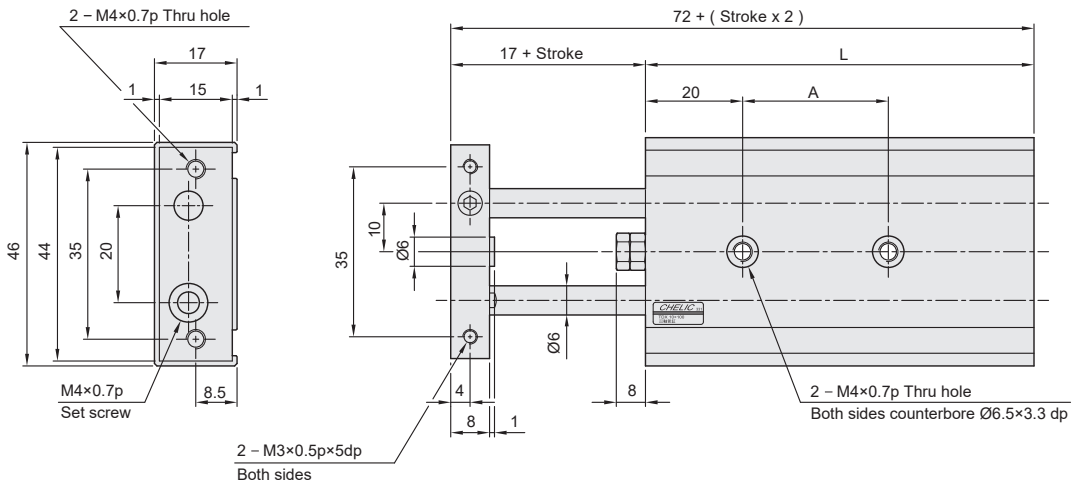


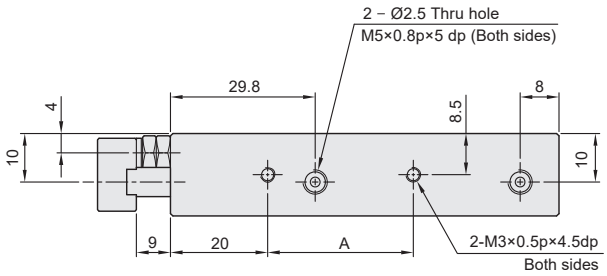
- Base and front plate mounting type



TDX Ø10 × □

TDX 10 × □ ST





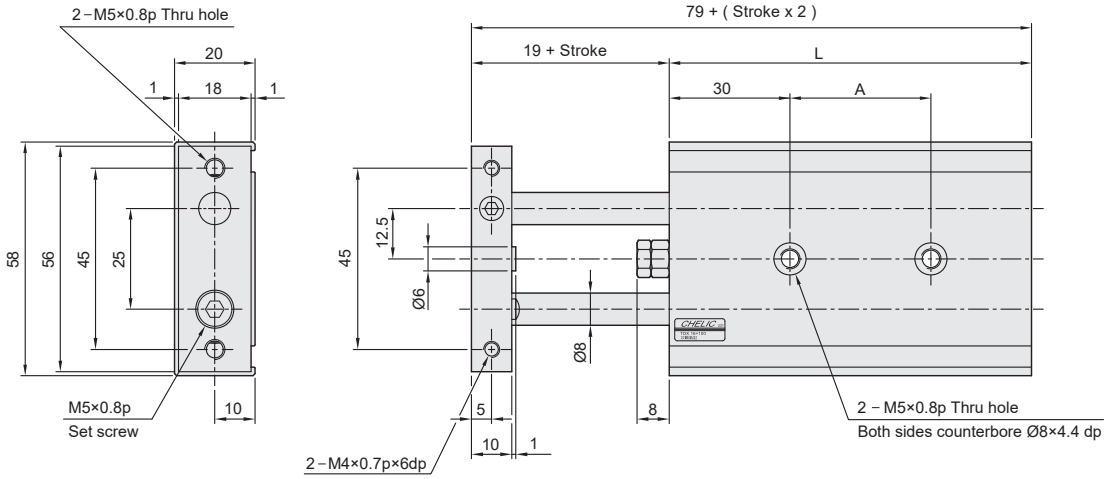
Dimension

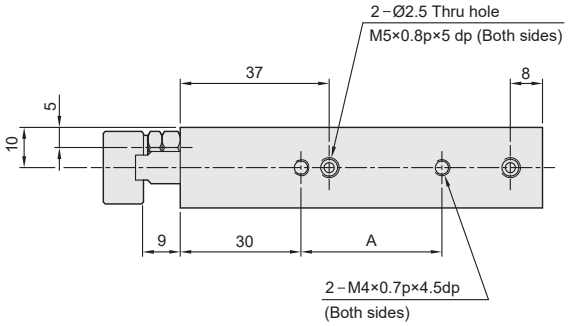
Unit: mm

Stroke / Mark	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100
A	30	30	30	30	40	40	40	40	40	50	50	50	50	50	60
L	65	70	75	80	85	90	95	100	105	115	125	130	135	145	155

TDX Ø16 × ▭

TDX 16 × ▭ ST





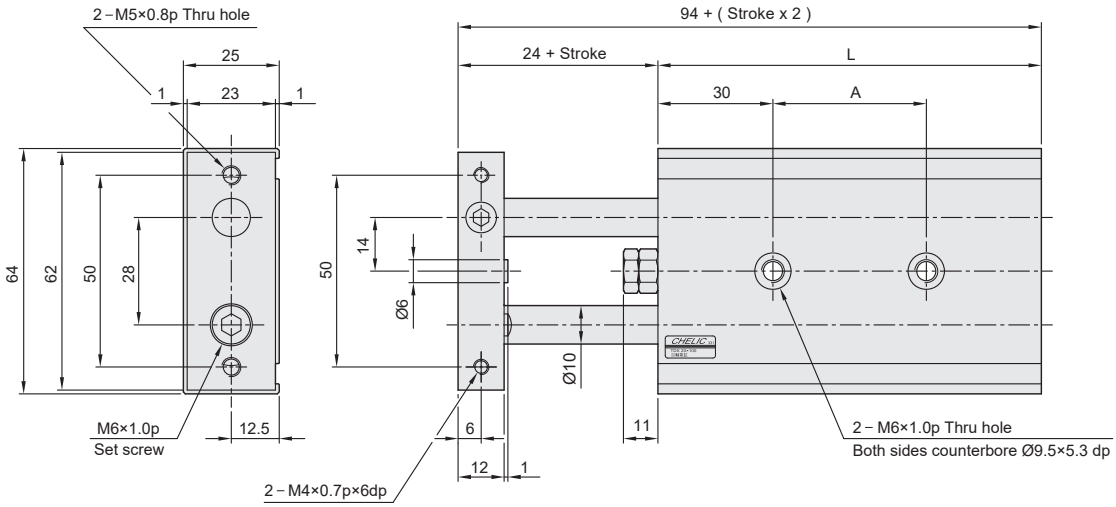
Dimension

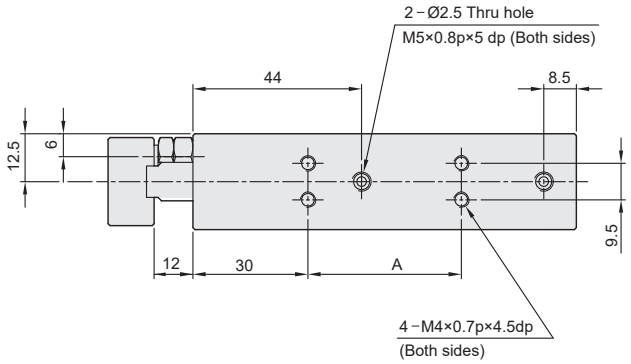
Unit: mm

Stroke / Mark	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	125	150
A	25	25	25	25	35	35	35	35	35	45	45	45	45	55	55	75	75
L	70	75	80	85	90	95	100	105	110	120	130	135	140	150	160	185	210

TDX Ø20 × ▭

TDX 20 × ▭ ST





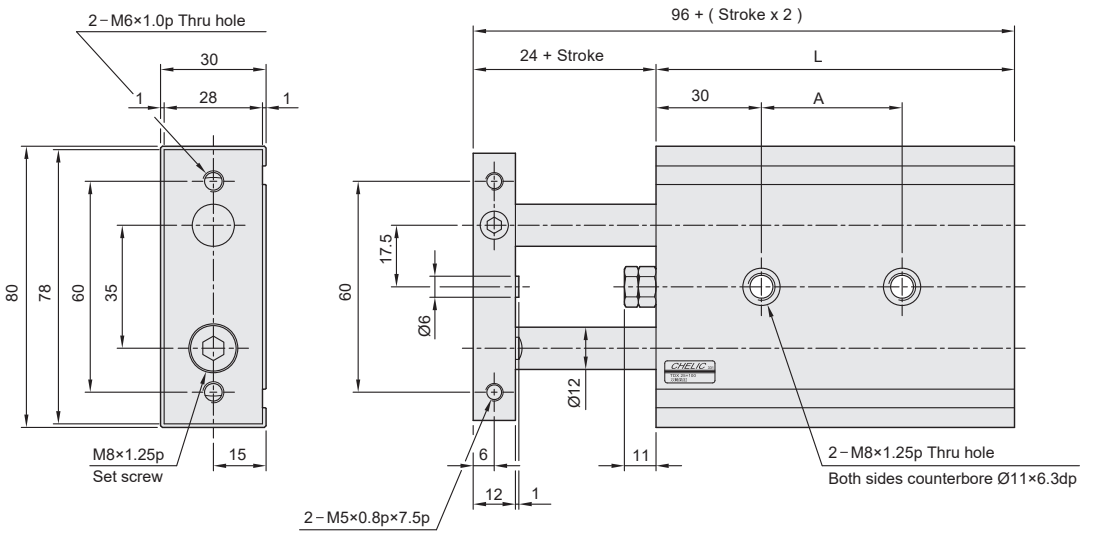
Dimension

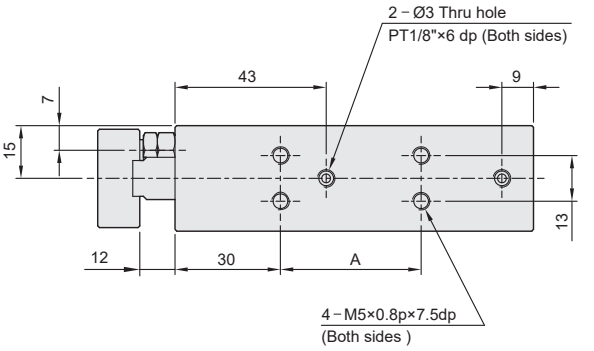
Unit: mm

Stroke / Mark	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	125	150
A	30	30	30	30	40	40	40	40	40	60	60	60	60	60	60	80	80
L	80	85	90	95	100	105	110	115	120	130	140	145	150	160	170	195	220

TDX Ø25 × ▭

TDX 25 × ▭ ST





Dimension

Unit: mm

Stroke / Mark	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	125	150
A	30	30	30	30	40	40	40	40	40	60	60	60	60	60	60	80	80
L	82	87	92	97	102	107	112	117	122	132	142	147	152	162	172	197	222