

TDX , TDXU series

Dual rod cylinder

CHELIC PNEUMATIC



TDX , TDXU series
Provide CAD external dimension.

TD
Dual Rod
Cylinder

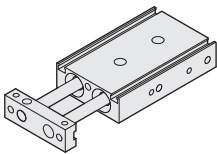
TDX
Dual Rod
Cylinder

TDXU
Dual Rod
Cylinder

STU
Dual Rod
Cylinder

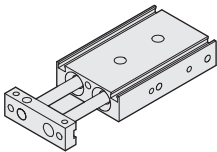
STM
Dual Rod
Cylinder

STX
Dual Rod
Cylinder



TDX Series ----- Dual rod cylinder --- $\varnothing 10 \sim \varnothing 25$ ----- P.3-8.13

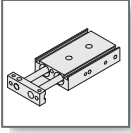
Dual Rod cylinder, suitable for adjustable stroke and able to finely adjust.



TDXU Series --- Dual rod cylinder --- $\varnothing 16 \sim \varnothing 25$ ----- P.3-8.21

TDXU is with linear bearing and its rod is bearing steel; suitable for moving fast and load lightly.



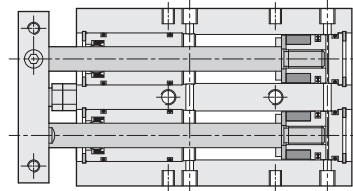


TDX series - Dual rod cylinder

Operating specification and Ordering expression

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Internal structure



TD
Dual Rod
Cylinder

TDX
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TDXU
Dual Rod
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STU
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STM
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Cylinder

STX
Dual Rod
Cylinder

Theoretical force

Unit : kgf

Bore size (mm)	Piston rod dia (mm)	Action	Piston area cm ²	Air pressure (kgf/cm ²)						
				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

Unit : mm

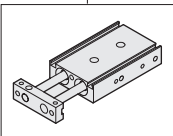
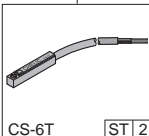
Model	Bore size	Ø10	Ø16	Ø20	Ø25
Operation		Double acting			
Fluid		Air			
Pressure range	kgf / cm ² (kpa)	1 ~ 8.5 (100 ~ 850)			
Max. service pressure	kgf / cm ² (kpa)	9 (900)			
Operating ambient temperature range	°C	0 ~ 60			
Range of service speed	mm/sec	50 ~ 700			
Stroke adjusting range		-5 ~ 0			
Port size		M5x0.8		Rc 1/8"	
Sensor device		With magnet			

Standard stroke

Unit : mm

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

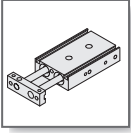
How to order

TDX	16	×	50	-	ST	2
Model	Bore size		Stroke		Sensor switch	
	10 - Ø 10 mm 16 - Ø 16 mm 20 - Ø 20 mm 25 - Ø 25 mm		Ø10 - 10 ~ 100 mm Ø16 - 10 ~ 150 mm Ø20 - 10 ~ 150 mm Ø25 - 10 ~ 150 mm			CS-6T ST 2

None : Without sensor switch

[ST] : Sensor switch code (CS-6T)

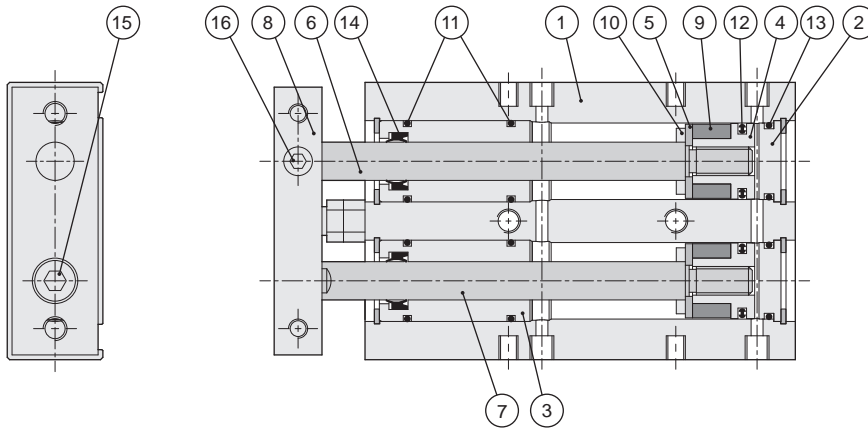
[2] : Number of sensor switch
1 = 1 PCS
2 = 2 PCS



TDX series - Dual rod cylinder

Components and Material list

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Components and Material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	11	Front cover O-Ring	NBR
02	End cover	Aluminum alloy	12	Piston packing	NBR
03	Front cover	Aluminum alloy	13	End cover O-Ring	NBR
04	Piston	Copper	14	Rod packing	NBR
05	Magnet cover	Copper	15	Screw	Alloy steel
06	Rod	Medium carbon steel	16	Screw	Alloy steel
07	Minor rod	Medium carbon steel			
08	Plate	Aluminum alloy			
09	Magnet	Plastic			
10	Cushion rubber lining	Rubber			

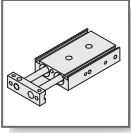
Note : The surface of body be treated with hard anodizing.

Packing and O-Ring

Unit : mm

Item	Piston packing	Rod packing	Front cover O-ring	End cover O-ring
Bore size	No.	2	2	4
Ø10	COP-10	PDU-6	8 x 1.5	8 x 1.0
Ø16	COP-16	PDU-8	14.5 x 1.5	13.2 x 1.5
Ø20	COP-20	PDU-10	18 x 1.5	17.5 x 1.5
Ø25	COP-25	PDU-12	21.8 x 2.4	20.8 x 2.0

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

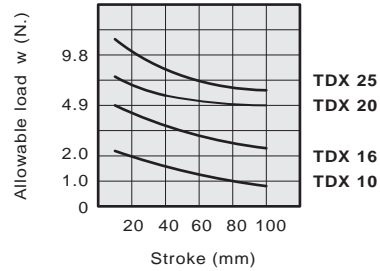
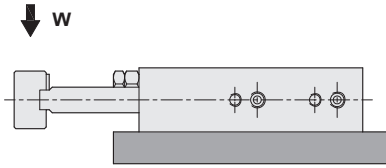


TDX series - Dual rod cylinder

Design and Installation reference

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Allowable load

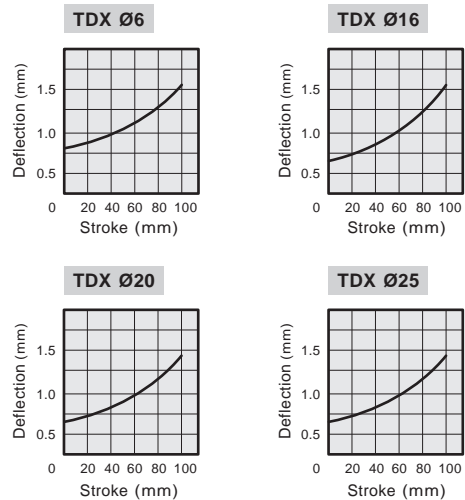
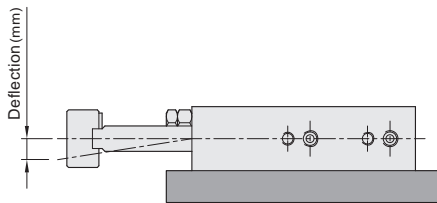


TD
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Allowable deflection

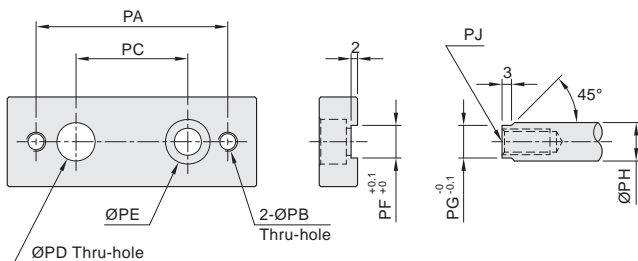


STU
Dual Rod
Cylinder

STM
Dual Rod
Cylinder

STX
Dual Rod
Cylinder

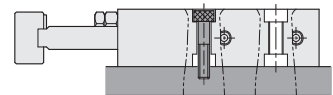
Dimension for end rod



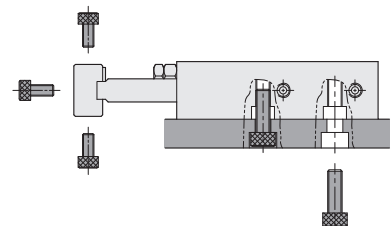
Code Bore size	PA	PB	PC	PD	PE	PF	PG	PH	PJ
Ø10	35	M4x0.7p	20	6	Ø4.5 Thru-hole, Hole Ø8x4.3 dp	5.2	5.2	6	M4x0.7p dp 10
Ø16	45	M5x0.8p	25	8	Ø5.5 Thru-hole, Hole Ø9x5.5 dp	6.2	6.2	8	M5x0.8p dp 12
Ø20	50	M5x0.8p	28	10	Ø6.5 Thru-hole, Hole Ø11x6.5 dp	8.2	8.2	10	M6x1.0p dp 15
Ø25	60	M6x1.0p	35	12	Ø8.5 Thru-hole, Hole Ø14x8.5 dp	10.2	10.2	12	M8x1.25p dp 15

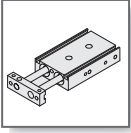
Mounting type

- Top mounting type



- Base and Plate mounting type



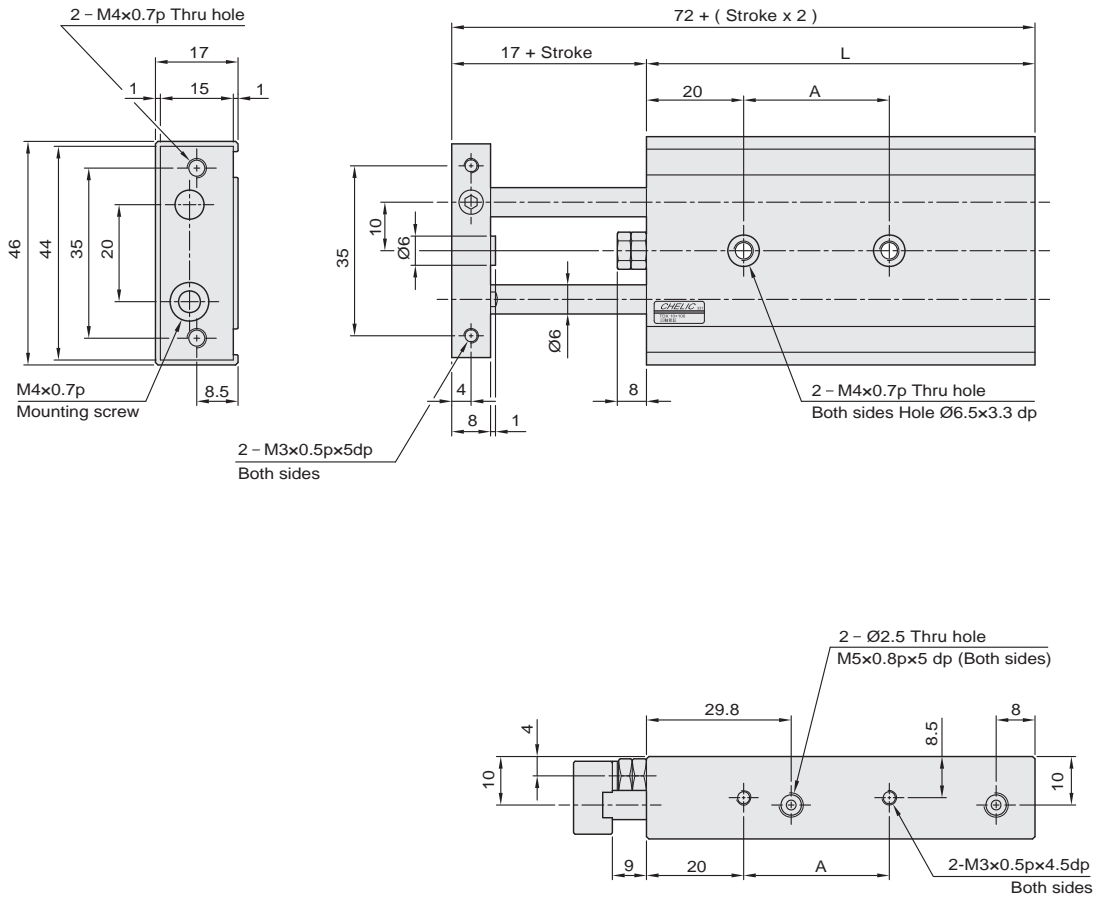


TDX series - Dual rod cylinder

External dimension - Ø10

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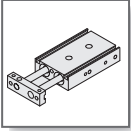
☉ TDX Ø10 x



☉ Dimension

Unit : mm

Stroke Code	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



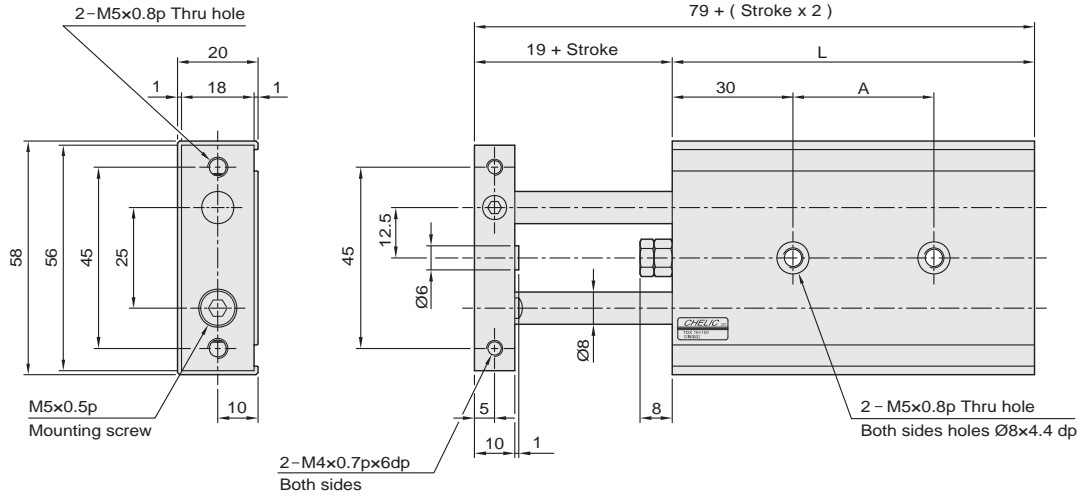
TDX series - Dual rod cylinder

External dimension - Ø16

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☉ TDX Ø16 x

TDX 16 x ST



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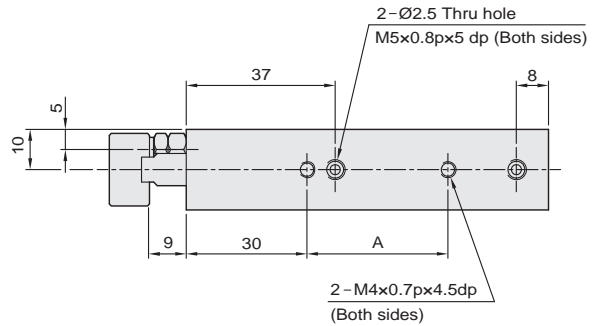
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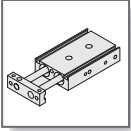
STX
Dual Rod
Cylinder



☉ Dimension

Unit : mm

Stroke Code	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



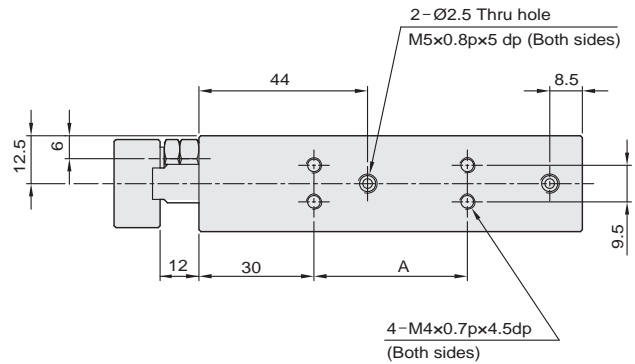
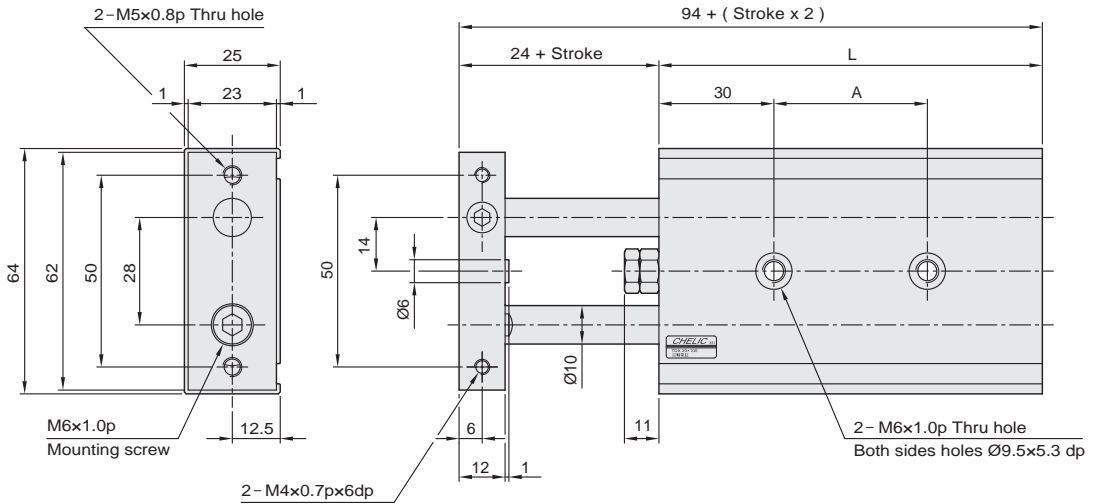
TDX series - Dual rod cylinder

External dimension - Ø20

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☉ TDX Ø20 x

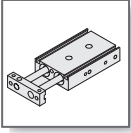
 TDX 20 x ST



☉ Dimension

Unit : mm

Stroke Code	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



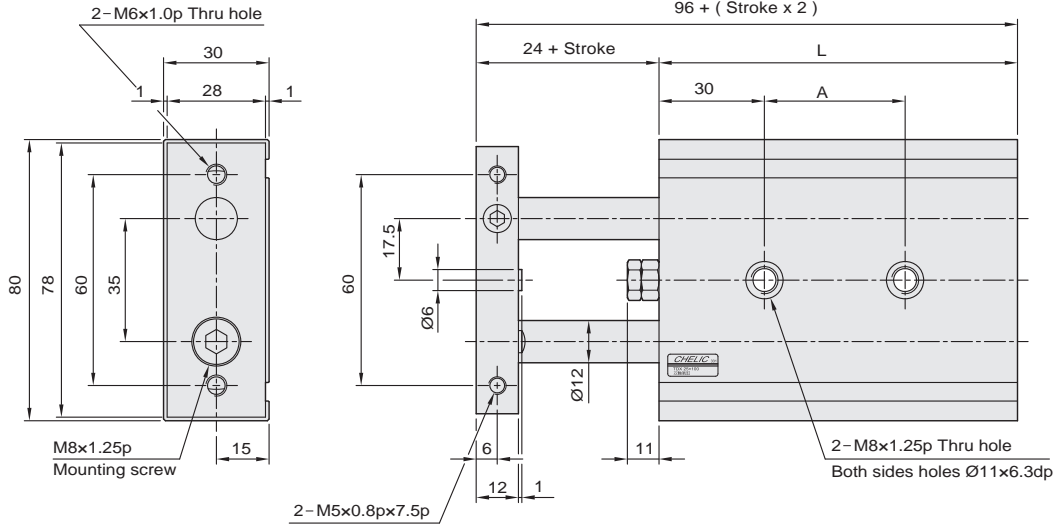
TDX series - Dual rod cylinder

External dimension - Ø25

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☉ TDX Ø25 x

 TDX 25 x ST



TD
Dual Rod
Cylinder

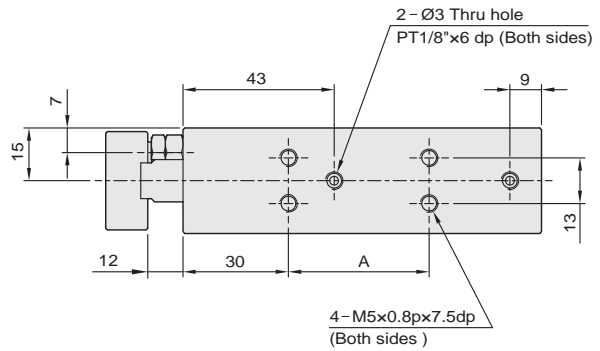
TDX
Dual Rod
Cylinder

TDXU
Dual Rod
Cylinder

STU
Dual Rod
Cylinder

STM
Dual Rod
Cylinder

STX
Dual Rod
Cylinder



☉ Dimension

Unit : mm

Stroke Code	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

A large grid area for writing a memo, consisting of 28 columns and 38 rows of small squares.