



FUJIKURA COMPOSITES

Thin diaphragm type cylinder "TC" series

Quite thin cylinder that can be controlled even in space saving.

■ Features

- Super thin-type for installing in small space.
- Extremely little air-leakage by BF diaphragms.
- Excellent responsibility to minute pressure variations.
- Smooth Starting even after long intervals.



TS (Single action)



TD (Double action)



■ Application

TC series find its best applications in such cases where air leakage is not allowed and/or sensitive response to minute pressure variations are required.

- High sensitivity actuator for automatic controlling equipment, pressure rollers and dancer rollers.
- Air fine equipment in the clean factories without oil mist contamination.
- Polishing equipment for lenses or jewels.
- Precision actuator, etc. in case of requiring a certain output pressure (e.g. spot welding machines, etc.).
- Actuators for emergency uses.

TC series

Thin Type

TS (Single action)

■ Specification

	12-3-S1	20-3-S1	30-5-S1	40-5-S1
Operating style	Single action type			
Cylinder diameter mm[in.]	12[0.47]	20[0.79]	30[1.18]	40[1.57]
Stroke mm[in.]	3[0.12]		5[0.20]	
Valid pressure area mm ² [in. ²]	80 [0.12]	250 [0.39]	570 [0.88]	1050 [1.63]
Spring reacting Force (N[lbf])	At zero stroke	0.39 [0.09]	0.98 [0.22]	1.77 [0.40]
	At full stroke	0.59 [0.13]	1.76 [0.40]	3.77 [0.85]
Rod-spin stopper	Attached		None※2	
Working fluid	Clean compressed air			
Working pressure range MPa[psi]	0.07~0.5 [10.2~73]	0.02~0.5 [2.9~73]		
Proof pressure MPa[psi]	0.75 [109]			
Working temperature °C[°F]	0 ~ 60 [32~140] (no freezing)			
Pipe port	M5×0.8 (internal thread) [M5×0.03]			
Weight g[pound]	35 [0.077]	65 [0.143]	110 [0.243]	160 [0.352]

※1 : Valid pressure area: at the time of middle position of stroke.

※2 : Please fix the rod with a wrench when you install it

■ Features

- Slim Design for Small Space
- Excellent Responsibility
- Extremely Little Air-Leakage
- Custom Orders Available

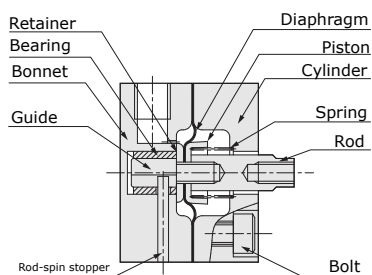
■ Model

TS — 12-3 — S1

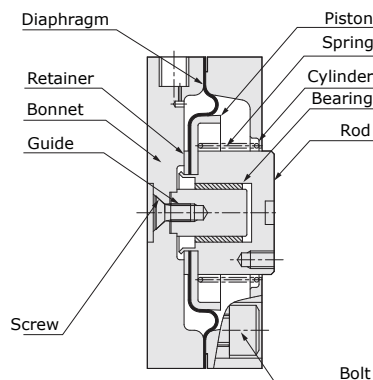
Diameter - Stroke
12 - 3
20 - 3
30 - 5
40 - 5

Internal structure

TS-12-3-S1, TS-20-3-S1

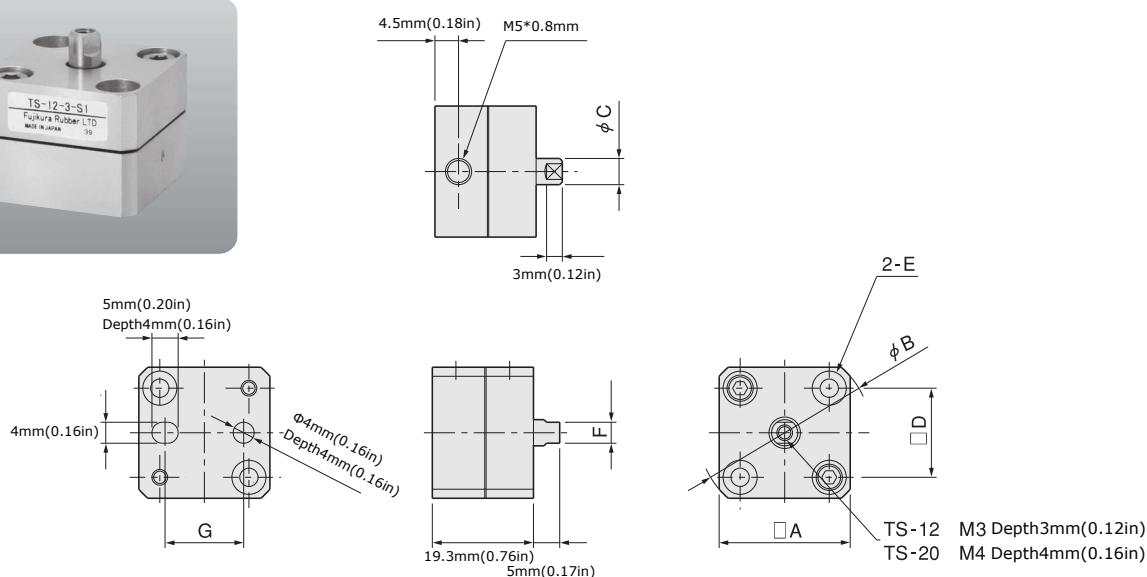


TS-30-5-S1, TS-40-5-S1

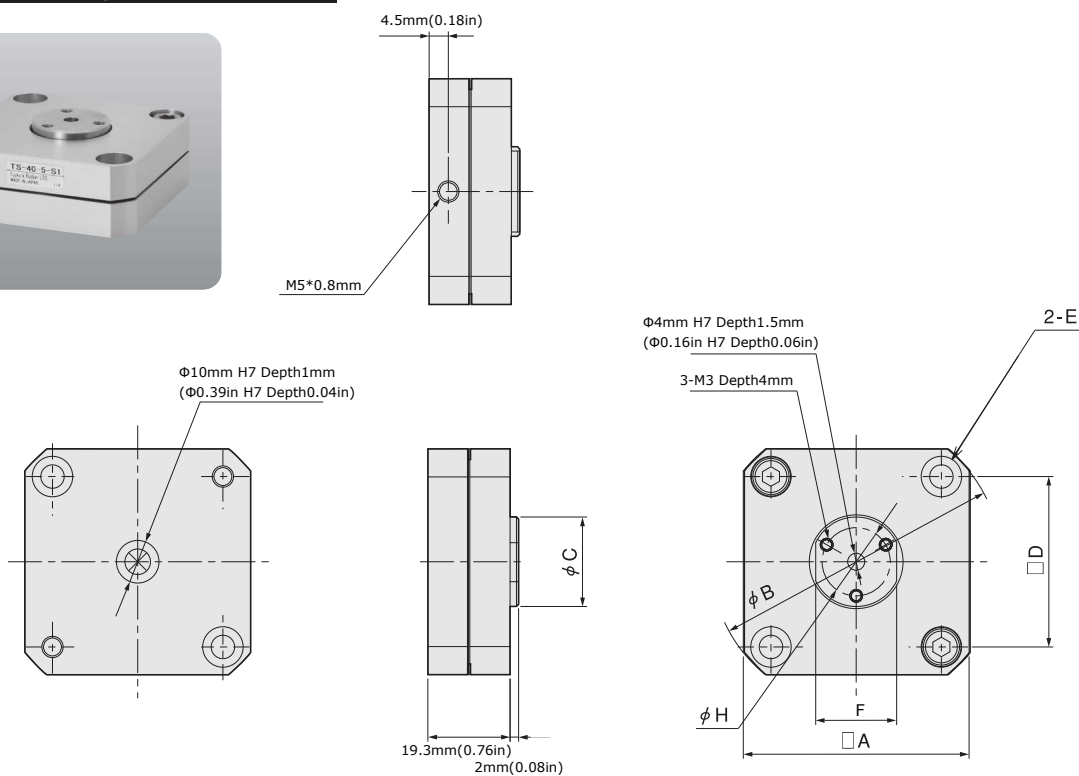


Dimensions

TS-12-3-S1 , TS-20-3-S1



TS-30-5-S1 , TS-40-5-S1



TS dimensions

Model	A	B	C	D	E	F	G	H
12-3-S1	25mm (0.98in)	33mm (1.30in)	5mm (0.20in)	17mm (0.67in)	$\phi 3.5\text{mm Through hole}$ $\phi 6.5\text{mm Spot facing Depth } 3.5\text{mm(both sides)}$	4mm (0.16in)	15mm (0.59in)	-
20-3-S1	33mm (1.30in)	42mm (1.65in)	10mm (0.39in)	24mm (0.94in)	$\phi 3.5\text{mm Through hole}$ $\phi 6.5\text{mm Spot facing Depth } 3.5\text{mm(both sides)}$	8mm (0.31in)	17mm (0.67in)	-
30-5-S1	43mm (1.69in)	57mm (2.24in)	16mm (0.63in)	32mm (1.26in)	$\phi 4.5\text{mm Through hole}$ $\phi 8.0\text{mm Spot facing Depth } 5.5\text{mm(both sides)}$	14mm (0.55in)	-	11mm (0.43in)
40-5-S1	53mm (2.09in)	68mm (2.68in)	21mm (0.83in)	40mm (1.57in)	$\phi 5.5\text{mm Through hole}$ $\phi 9.5\text{mm Spot facing depth } 5.5\text{mm(both sides)}$	19mm (0.75in)	-	16mm (0.63in)

TD series

Thin Type

TD(Double action)

■ Specification

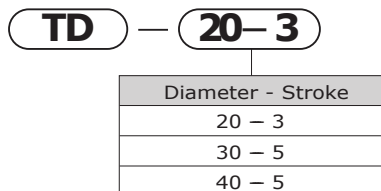
	20-3	30-5	40-5
Operating style	Double action type		
Cylinder diameter	20 [0.79]	30 [1.18]	40 [1.57]
Stroke mm[in.]	3 [0.12]	5 [0.20]	
Valid pressure area ^{※1} mm[in.] ²	250 [0.39]	570 [0.88]	1050 [1.63]
Working fluid	Clean compressed air		
Working pressure range MPa[psi]	0.02~0.5 [2.9~73]		
Proof pressure MPa[psi]	0.75 [109]		
Working temperature °C[F]	0 ~ 60 [32~140] (no freezing)		
Pipe port	M5×0.8mm (internal thread)		
Weight g[pound]	55 [0.12]	113 [0.25]	172 [0.38]

※1 : Valid pressure area: at the time of middle position of stroke

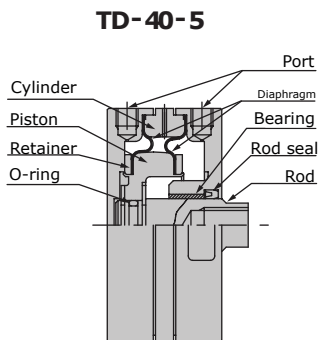
■ Features

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- Excellent Responsibility
- Extremely Little Air-Leakage
- Custom Orders Available

■ Model

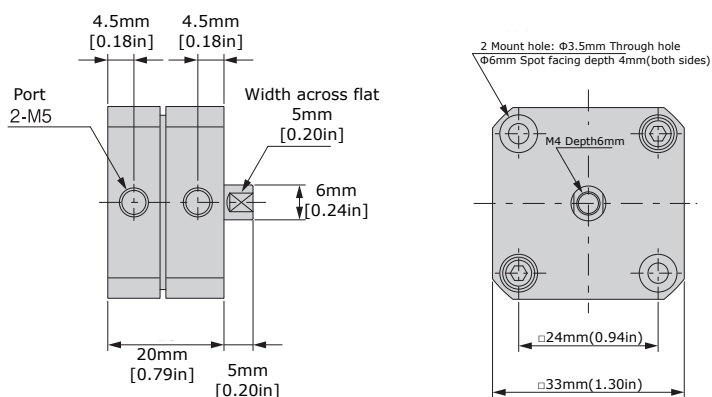


Internal structure

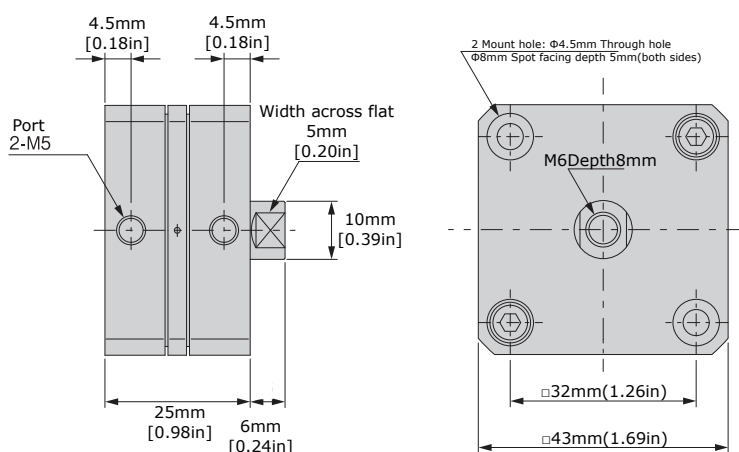


Dimension

TD-20-3



TD-30-5



TD-40-5

