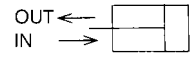


Plate Cylinder/Double Acting Single Rod *Series MU*



Specifications

Action	Double acting single rod
Fluid	Air
Proof pressure	1.05MPa
Max. operating pressure	0.7MPa
Min. operating pressure	0.05MPa
Ambient and fluid temperature	-10 to 60°C
Lubrication	Not required (Non-lube)
Piston speed	50 to 500mm/S
Stroke length tolerance	$+1.4$ 0
Cushion	Rubber bumper
Thread tolerance	JIS Class 2
Equivalent tube bore (mm)	ø25, ø32, ø40, ø50, ø63
Mounting	Axial foot, Front flange, Rear flange, Single clevis, Double clevis
Rod end shape	Rod end male thread, Rod end female thread

Rod Non-rotating Accuracy

Model	MU25	MU32	MU40	MU50	MU63
Non-rotating accuracy	±1°	±0.8°	±0.5°	±0.5°	±0.5°

Standard Stroke

Size	Standard stroke	Allowable max. stroke
25, 32, 40 50, 63	5, 10, 15, 20, 25, 30, 35, 40, 45, 50 75, 100, 125, 150, 175, 200, 250, 300	300



* Contact SMC for any intermediate strokes that are not indicated above, as they will be produced upon receipt of order.

** Strokes longer than 300mm are not available.

Minimum Stroke for Auto Switch Mounting

Number of auto switches	D-F7□V D-J79C	D-A7□ D-A80 D-A73C D-A80C	D-F7□WV	D-A7□H, A80H D-F7□W, J79W D-A79W D-F7□, J79 D-F7BA, F7NT D-F7□F
2	5	10	15	15
1	5	5	10	15

Theoretical Force

Unit: N

Size	Rod dia. (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)					
				0.2	0.3	0.4	0.5	0.6	0.7
25	12	OUT	491	98	147	196	246	295	344
		IN	378	76	113	151	189	227	265
32	14	OUT	804	161	241	322	402	482	563
		IN	650	130	195	260	325	390	455
40	16	OUT	1257	251	377	503	629	754	880
		IN	1056	211	317	422	528	634	739
50	20	OUT	1963	393	589	785	982	1178	1374
		IN	1649	330	495	660	824	989	1154
63	20	OUT	3117	623	935	1247	1559	1870	2182
		IN	2803	561	841	1121	1402	1682	1962

Note) Theoretical force (N) = Pressure (MPa) X Piston area (mm²)

Weight

Unit: kg

Size		25	32	40	50	63
Basic weight	Basic	0.18	0.28	0.42	0.80	1.20
	Axial foot	0.25	0.42	0.63	1.14	1.83
	Flange/ Front/Rear side	0.28	0.42	0.65	1.26	2.03
	Single clevis	0.24	0.40	0.64	1.20	1.88
	Double clevis (with pin)	0.25	0.44	0.68	1.27	1.96
Additional weight per 50mm stroke		0.12	0.16	0.22	0.34	0.47
Accessories	Single clevis (Pivot bracket for double clevis)	0.06	0.12	0.22	0.40	0.68
	Double clevis (with pin) (Pivot bracket for single clevis)	0.07	0.16	0.26	0.47	0.76
	Single knuckle joint	0.03	0.04	0.07	0.16	0.16
	Double knuckle joint (with pin)	0.05	0.09	0.14	0.29	0.29

Note) The weight of the single and double clevis bracket includes the weight of the 2 bolts for mounting the bracket.

Calculation:

Example: MUL32-100

- Basic weight: 0.42 (Foot style ø32 equiv.)
- Added weight: 0.16/50 stroke
- Stroke: 100mm stroke

$$0.42 + 100 / 50 \times 0.16 = 0.74 \text{ kg}$$

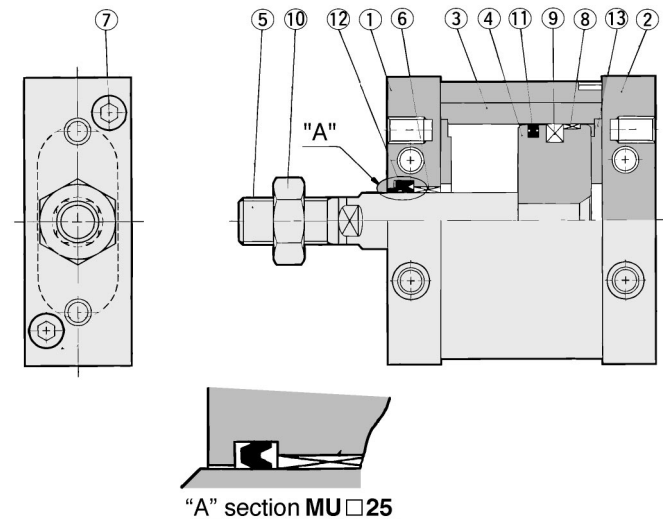
CU

CQS

CQ2

MU

Construction



Component Parts

No.	Description	Material	Note
①	Rod cover	Aluminum alloy	Anodized
②	Head cover	Aluminum alloy	Anodized
③	Cylinder tube	Aluminum alloy	Hard anodized
④	Piston	Aluminum alloy	Chromated
⑤	Piston rod	Carbon steel	Hard chromated
⑥	Bushing	Oil impregnated sintered alloy	
⑦	Hex. socket head cap screw	Stainless steel	
⑧	Wearing	Resin	
⑨	Magnet	Magnet material	Only built-in magnet style
⑩	Rod end nut	Rolled steel	Only male thread rod end
⑪	Piston seal	NBR	
⑫	Rod seal	NBR	
⑬	Bumper	Urethane	

Replacement Parts: Seal Kits

Bore size (mm)	Kit No.	Contents
25	MUB25-PS	A set of above numbers ⑪, ⑫ and ⑬.
32	MUB32-PS	
40	MUB40-PS	
50	MUB50-PS	
63	MUB63-PS	

* Seal kits consist of items ⑪, ⑫ and ⑬, contained in one kit, and can be ordered using the order number for each cylinder bore size.