

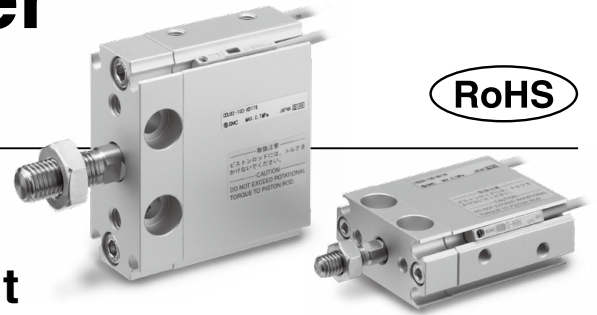
Free Mount Cylinder

Compact Type

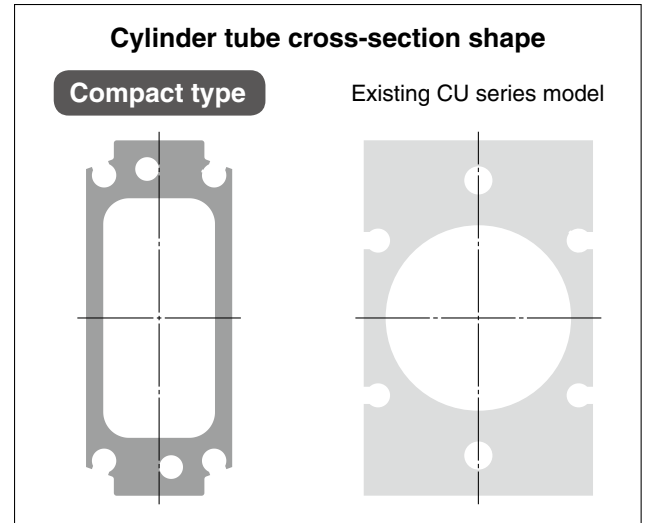


Size: 20, 32

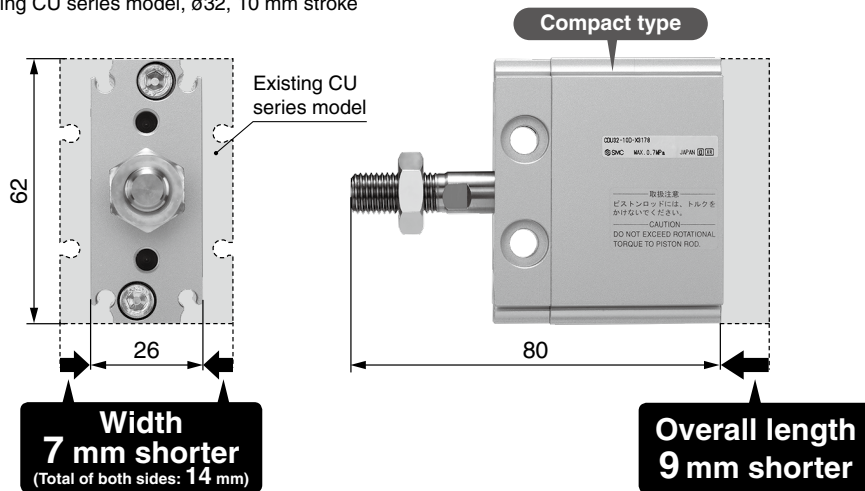
Now, more compact and lightweight due to the adoption of a rectangular shape piston!



Weight	49% reduction 389 g → 197 g
Width	35% reduction 40 mm → 26 mm
Overall length	10% reduction 89 mm → 80 mm

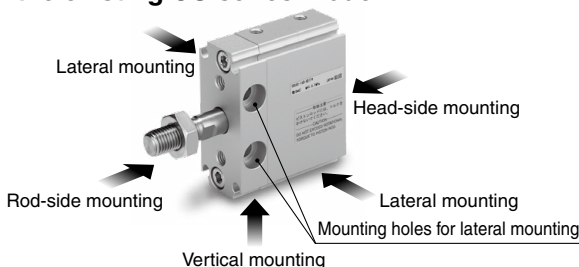


* Compared with the existing CU series model, ø32, 10 mm stroke



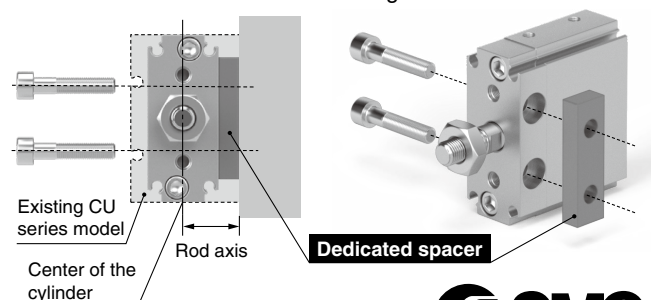
■ Mounting is possible from 5 directions.
(The same as the existing CU series model)

The pitch and diameter of the mounting holes for lateral mounting are the same as those of the existing CU series model.



■ The dedicated spacer allows for interchangeable height when laterally mounted.

When the dedicated spacer is used, the distance to the rod axis is the same as that on the existing model.



CDU-X3178

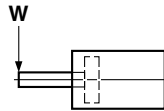


CDU-X3178

Specifications

Size	20 (Equiv. $\phi 20$ piston area)	32 (Equiv. $\phi 32$ piston area)
Fluid	Air	
Proof pressure	1.05 MPa	
Max. operating pressure	0.7 MPa	
Min. operating pressure	0.05 MPa	
Ambient and fluid temperatures	-10 to 60°C (No freezing)	
Lubrication	Non-lube	
Piston speed	50 to 500 mm/s	
Cushion	Rubber bumper	
Rod end thread	Male thread	
Stroke length tolerance	$^{+1.0}_0$ mm	
Rod non-rotating accuracy	$\pm 1^\circ$	$\pm 0.8^\circ$

* This is a non-rotating rod type cylinder.

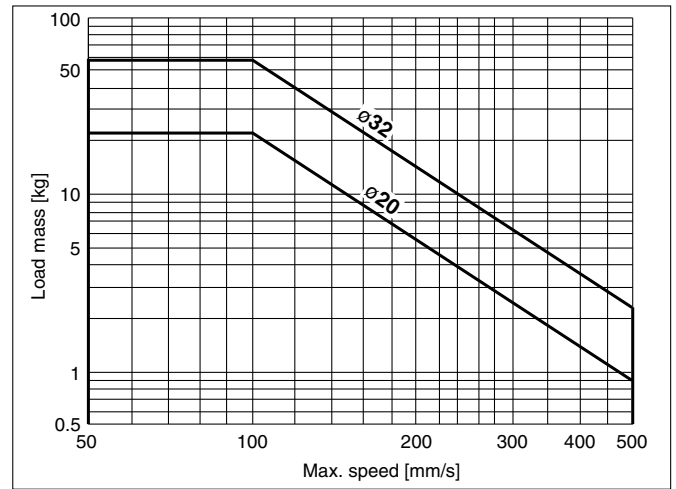


Allowable Lateral Load at Rod End

Size	Stroke [mm]							
	5	10	15	20	25	30	40	50
20	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.6
32	7.1	6.6	6.1	5.7	5.4	5.1	4.6	4.1

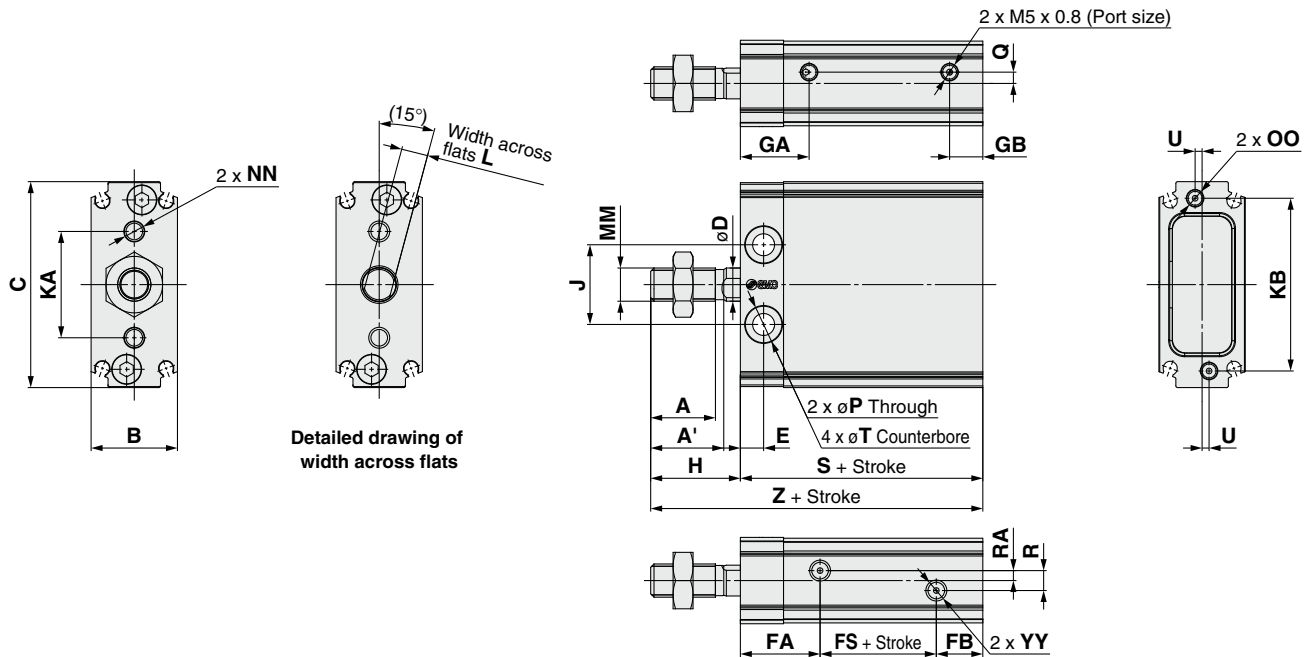
[N]

Operating Speed



Be sure to connect a speed controller to the cylinder and adjust its speed to 500 mm/s or less. If a load is to be attached to the end of the rod, adjust the speed to the max. speed shown in the graph above or less, in accordance with the load mass.

Dimensions



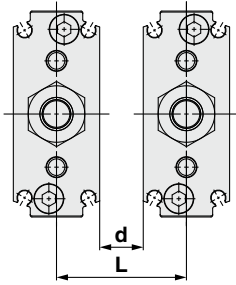
Size	A	A'	B	C	D	E	FA	FB	FS	GA	GB	H	J	KA	KB	L	MM
20	12	14	19	40	6	5.3	18.6	10.5	9	18	9.8	19	16	20.2	32.5	5	M6 x 1.0
32	19.5	22	26	62	10	7	24	14	5	20.7	10	27	24	32	52	8	M10 x 1.25

Size	NN	OO	P	Q	R	RA	T	U	YY	S	Z
20	M4 x 0.7 Depth 8	M4 x 0.7 Depth 5	5.5	1	3	1.5	9.3 Depth 5.4	1.3	M4 x 0.7 Depth 5	38	57
32	M6 x 1.0 Depth 12.5	M5 x 0.8 Depth 8	6.6	3.4	6	3	11 Depth 6.5	2.1	M6 x 1 Depth 6	43	70

Precautions

⚠ Caution

1. When securing a workpiece to the end of the piston rod, ensure that the piston rod is fully retracted, and place a wrench on the portion of the rod that protrudes. Then, tighten without applying tightening torque to the piston rod.
2. If multiple cylinders are operated adjacent to each other, the magnets that are enclosed in the adjacent cylinders could affect the operation of the auto switches, causing the switches to malfunction. Therefore, make sure that the mounting pitch of the cylinders is at least that indicated in the table below.



[mm]

Size	d	L
20	10	29
30	10	36

⚠ Safety Instructions Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and the "CU Series Specific Product Precautions" before use.

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