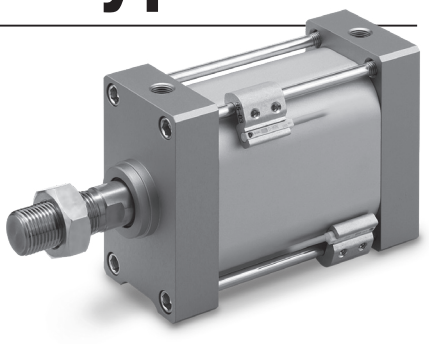
Air Cylinder/Double Force Type

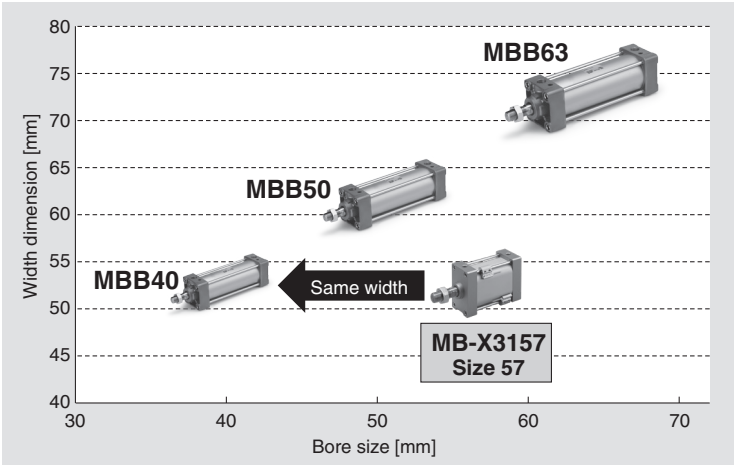
RoHS

Size: 57



This product is capable of providing double the force of the MB series, without changing the width, due to the adoption of a rectangular piston.

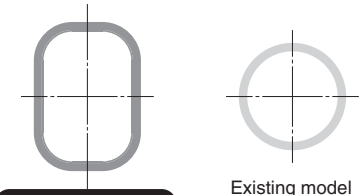
* Comparison with tandem cylinders satisfying the following conditions: a cylinder of the same width with double the theoretical output.
* The width of the MB standard model and the MB tandem cylinder are the same.



Size | Ø 40 | Ø 50 | **57** | Ø 63

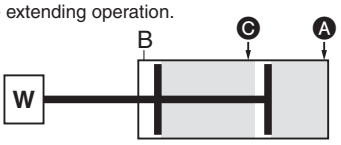
Rectangular piston
Equiv. Ø 40 x 2 piston area

Cylinder cross-section shape



Tandem cylinder (-XC12)/Double force

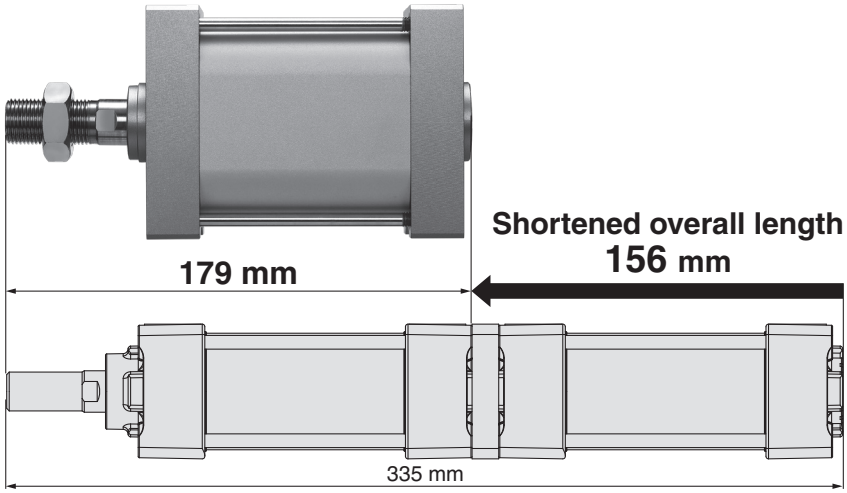
When air pressure is supplied to the A and C ports at the same time, double the force can be obtained for the extending operation.

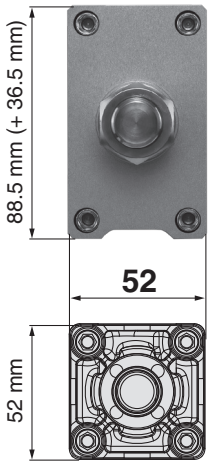


Overall length 47 *1 % reduction
335 mm ➡ 179 mm

Weight 20 *1 % reduction
1500 g ➡ 1200 g

*1 Compared with the existing tandem type cylinder -XC12 (double force), Ø 40, 50 mm stroke



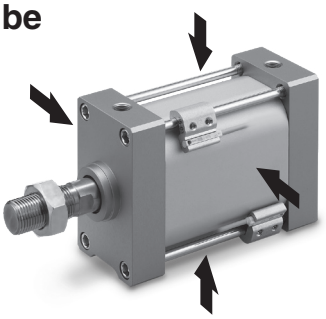


Double force type
Size 57 (Ø 40 x 2), 50 mm stroke

Same width
Existing model
Tandem cylinder
-XC12
(Double force)
Ø 40, 50 mm stroke

■ Small auto switches can be mounted on 4 surfaces. (Tie-rod mounting)

Applicable auto switch: D-M9□



■ Air cushion adjustment is not required due to the non-adjustable air cushion.

The built-in rubber bumper reduces the metal noise that occurs when the piston stops.

■ Cover shape that prevents foreign matter accumulation

MB-X3157

SMC

MB-X3157

Specifications

Size	**57** (Equiv. Ø 40 x 2 piston area)
Action	Double acting, Single rod
Proof pressure	1.0 MPa
Max. operating pressure	0.7 MPa*1
Min. operating pressure	0.05 MPa
Ambient and fluid temperatures	5 to 60 °C
Lubrication	Not required (Non-lube)
Piston speed	50 to 500 mm/s*1
Stroke length tolerance	$^{+2.0}_{0}$ mm
Cushion	Non-adjustable air cushion + rubber bumper
Port size	Rc1/8
Stroke	50 to 250 mm (25 mm increments)
Mounting	None (Basic type only)
Allowable kinetic energy	2.0 J

Depending on the system configuration selected, the specified speed may not be satisfied.

*1 Maximum operating pressure and piston speed are different from the existing product (MB series).

Standard Strokes

[mm]

Size	Standard stroke
57	50, 75, 100, 125, 150, 175, 200, 225, 250

Theoretical Output

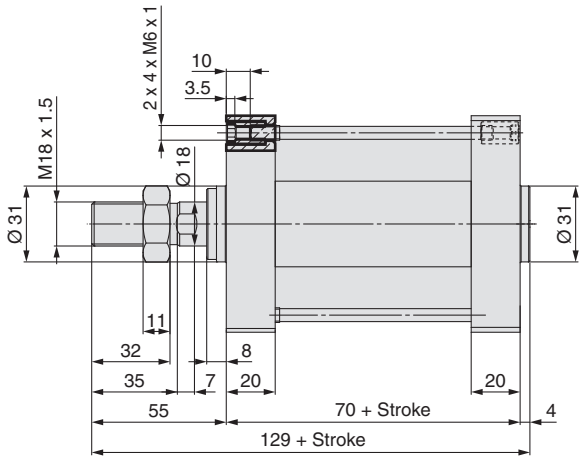
OUT IN

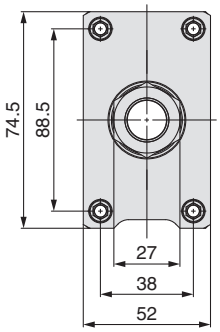
[N]

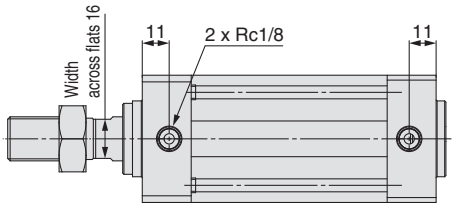
Size	Rod operating direction	Piston area [mm²]	Operating air pressure [MPa]					
			0.2	0.3	0.4	0.5	0.6	0.7
57	IN	2262	452	678	905	1131	1357	1583
	OUT	2516	503	755	1006	1258	1510	1761

* Theoretical output [N] = Pressure [MPa] x Piston area [mm²]

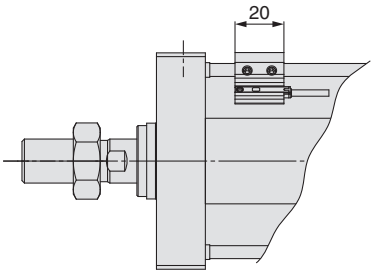
Dimensions

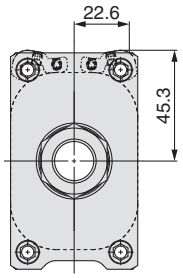




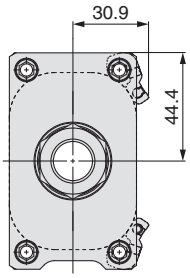


Auto switch bracket dimensions





Auto switch mounting position: Port surface



Auto switch mounting position: Side surface

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