

MHCB-M series

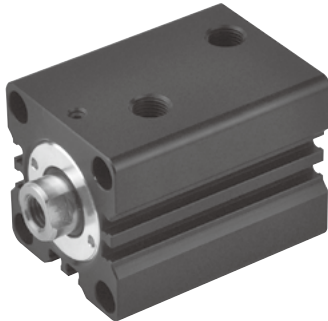
COMPACT HYDRAULIC WITH PISTON SENSING CYLINDER



mindman

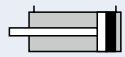


Caution for safety
(Read before installing)



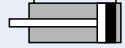
MHCB..M

Front mounting



MHCB..MZ

Front mounting
(Male thread type)



Order example

MHCB — 50 M — 30 — Z

MODEL

TUBE I.D.

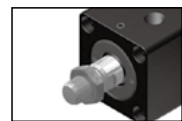
STROKE

ROD END TYPE

M: Magnet



Blank: Female thread



Z: Male thread

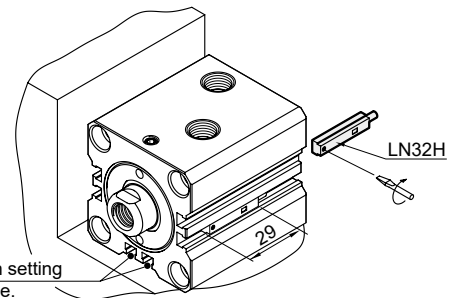
Features

- Compact body design keeps overall length to a minimum.
- Cylinder barrel internally honed to ensure smooth and consistent piston movement.
- High quality materials are used throughout construction.
- Magnetic as standard.

Specification

Model	MHCB-M
Tube I.D. (mm)	32, 40, 50, 63, 80
The range of stroke (mm)	50
Medium	Filtered oil
Material	Anodised aluminum alloy
Max. operating pressure	7 MPa
Ambient temperature	-10~+60°C (No freezing)
Sensor switch	LN32H

Installation of sensor switch



The sensor switch setting here is not suitable.

- © When setting the sensor switch, it can't be near with magnet materials (carbon steel, cast iron). The distance must be over 10mm. If it is quite near, the sensor switch will be inactive easily.

Weight * N: Female thread, Z: Male thread

Unit: kg

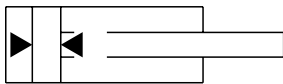
Stroke Tube I.D.		5	10	15	20	25	30	35	40	45	50
ø32	N	0.86	0.85	0.96	0.95	1.05	1.04	1.15	1.14	1.26	1.25
	Z	0.91	0.90	1.01	1.00	1.10	1.09	1.20	1.19	1.31	1.30
ø40	N	1.21	1.19	1.35	1.33	1.47	1.45	1.60	1.58	1.73	1.71
	Z	1.33	1.31	1.47	1.45	1.59	1.57	1.72	1.70	1.85	1.83
ø50	N	1.67	1.64	1.84	1.81	2.01	1.98	2.17	2.14	2.32	2.29
	Z	1.87	1.84	2.04	2.01	2.21	2.18	2.37	2.34	2.52	2.49
ø63	N	2.65	2.59	2.86	2.80	3.07	3.01	3.30	3.24	3.49	3.43
	Z	3.00	2.94	3.21	3.15	3.42	3.36	3.65	3.59	3.84	3.78
ø80	N	4.72	4.63	5.03	4.94	5.37	5.28	5.69	5.60	6.01	5.92
	Z	5.33	5.24	5.94	5.55	5.98	5.89	6.30	6.21	6.62	6.53

Theoretic force

Unit: N

Tube I.D. (mm)	Rod (mm)	Area (mm ²)	Operating pressure (MPa)						
			2	3	4	5	6	7	
$\phi 32$	$\phi 20$	A	804	1608	2413	3217	4021	4825	5630
		B	490	980	1470	1960	2450	2941	3431
$\phi 40$	$\phi 25$	A	1257	2513	3770	5027	6283	7540	8796
		B	766	1532	2297	3063	3829	4595	5360
$\phi 50$	$\phi 30$	A	1963	3927	5890	7854	9817	11781	13744
		B	1256	2513	3770	5027	6283	7540	8796
$\phi 63$	$\phi 35$	A	3117	6234	9352	12469	15586	18703	21821
		B	2155	4310	6465	8621	10776	12931	15086
$\phi 80$	$\phi 45$	A	5027	10053	15080	20106	25133	30159	35186
		B	3436	6872	10308	13744	17181	20617	24053

The method of calculation (Hydraulic cylinders' force)



$$F = P \times A - f$$

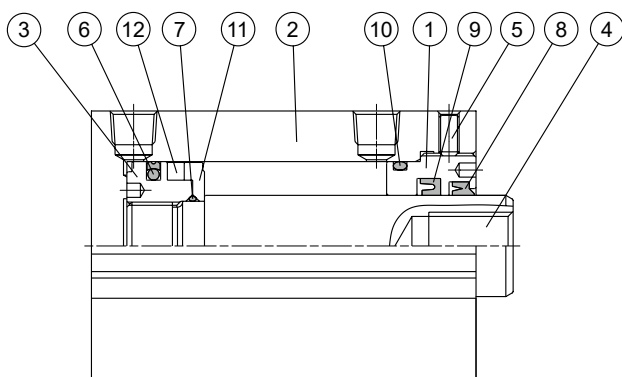
F :	Cylinders' force	(N)
P :	Operating pressure	(MPa)
A :	Piston area	(mm ²)
f :	Friction drag	(N)

How to order the seal kit

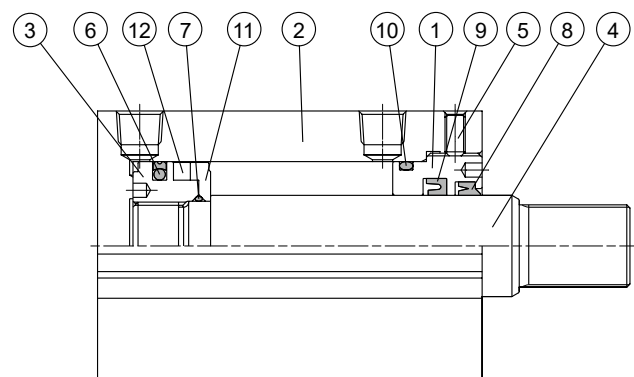
 MHCB-MSK

Tube I.D.	Seal kit
32	MHCB-MSK32 - Including No.6,7,8,9,10
40	MHCB-MSK40 - Including No.6,7,8,9,10
50	MHCB-MSK50 - Including No.6,7,8,9,10
63	MHCB-MSK63 - Including No.6,7,8,9,10
80	MHCB-MSK80 - Including No.6,7,8,9,10

MHCB-M



MHCB-MZ



Parts list

No.	Part name	Q'y	No.	Part name	Q'y	No.	Part name	Q'y
1	Rod cover	1	5	Set screw	1	9	Rod packing	1
2	Cylinder tube	1	6	Piston packing	1	10	Cylinder gasket	1
3	Piston	1	7	Piston gasket	1	11	Washer	1
4	Piston rod	1	8	Dust wiper	1	12	Magnet	1

MHCB-M Dimensions $\phi 32 \sim \phi 80$

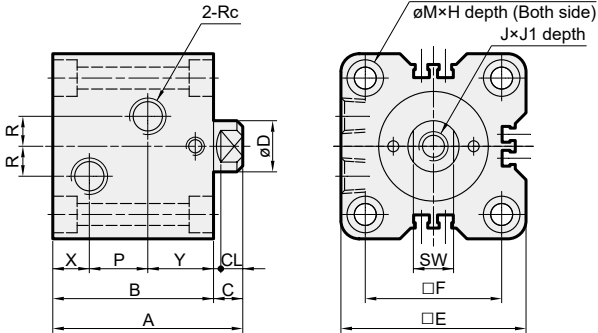


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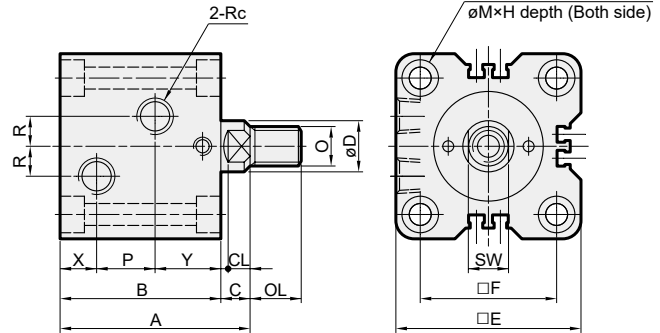
MHCB-M

$\phi 32$

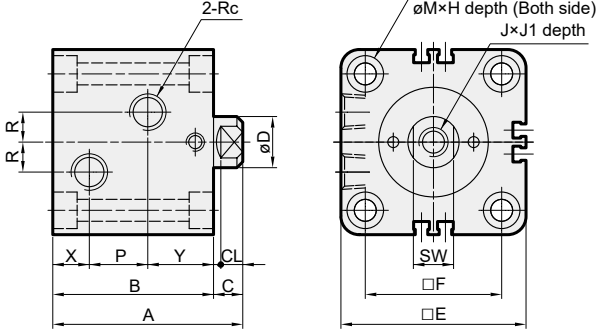


MHCB-MZ

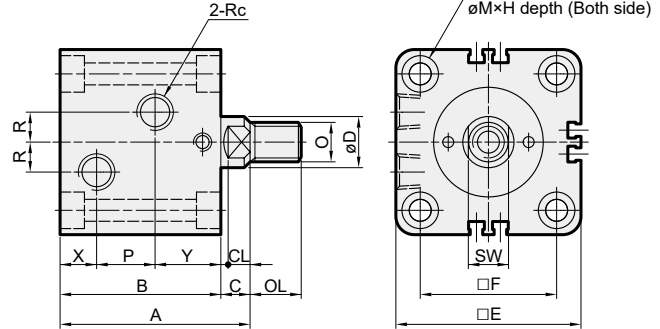
$\phi 32$



$\phi 40 \sim \phi 80$



$\phi 40 \sim \phi 80$



Code Tube I.D.	C	CL	D	E	F	H	J	J1	K	M	O	OL	Rc	R	SW	X	Y
$\phi 32$	10	7	20	62	47	6.5	M12 \times 1.75	15	6.6	11	M16 \times 1.5	25	Rc1/4	10	17	12	28
$\phi 40$	10	7	25	70	52	9	M16 \times 2.0	20	9	14	M22 \times 1.5	30	Rc1/4	10	22	12	28
$\phi 50$	11	8	30	80	58	11	M20 \times 2.5	25	11	18	M26 \times 1.5	35	Rc1/4	10	27	12.5	29.5
$\phi 63$	13	10	35	94	69	13	M27 \times 3.0	35	13	20	M30 \times 1.5	40	Rc3/8	10	32	16	31
$\phi 80$	17	14	45	114	86	15	M30 \times 3.5	35	15	22	M39 \times 1.5	45	Rc3/8	15	41	18	33

Stroke Tube I.D.	5	10	15	20	25	30	35	40	45	50
$\phi 32$	A	74		84		94		104		114
	B	64		74		84		94		104
	P	24		34		44		54		64
$\phi 40$	A	75		85		95		105		115
	B	65		75		85		95		105
	P	25		35		45		55		65
$\phi 50$	A	81		91		101		111		121
	B	70		80		90		100		110
	P	28		38		48		58		68
$\phi 63$	A	90		100		110		120		130
	B	77		87		97		107		117
	P	30		40		50		60		70
$\phi 80$	A	105		115		125		135		145
	B	88		98		108		118		128
	P	37		47		57		67		77