



Technical data



Caution for safety
(Read before installing)



Order example

MCKB — 32 — 25 M — □

MODEL TUBE I.D. STROKE M: Magnet PORT THREAD

Blank: M8×0.5
(Only for ø25)

Blank: Rc thread
G: G thread
NPT: NPT thread
(Only for ø32~ø63)

Features

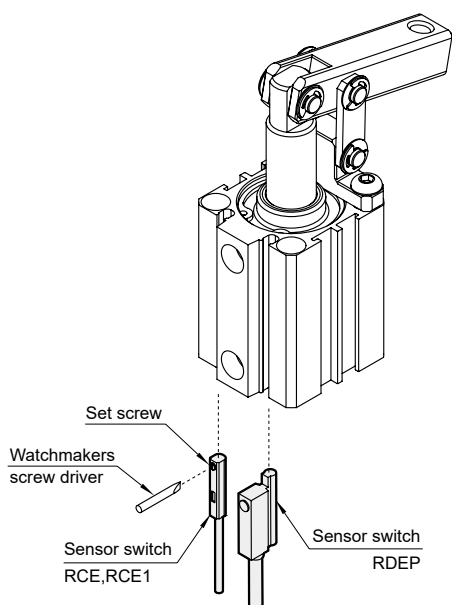
- Lever type clamp cylinder gives high clamping force.
- Simple mounting of sensors on all four sides of body.
- Hard anodised body gives smooth lines and high corrosion resistance.

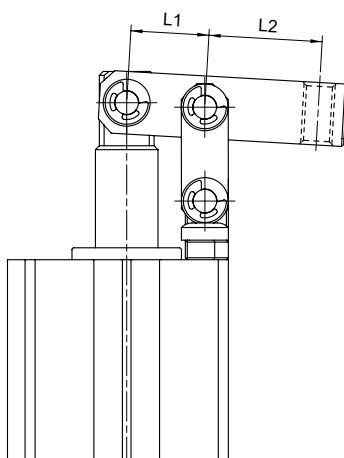
Specification

Model		MCKB				
Acting type		Double acting				
Tube I.D. (mm)		25	32	40	50	63
Stroke (mm)		20	25	25	30	35
Port size		M5×0.8	Rc1/8		Rc1/4	
Operating fluid		Air				
Operating pressure range		0.1~1 MPa				
Proof pressure		1.5 MPa				
Ambient temperature		-5~+60℃ (No freezing)				
Lubrication	Cylinder	Not required				
	Lever	Grease				
Available speed range		50~500 mm/sec				
Sensor switch (*)		RCE  , RCE1  , RDEP 				
Weight (g)	Without	233	411	466	832	1111
	Magnet	270	456	578	915	1242

* RDEP is not suitable for ø63.

Installation of sensor switch



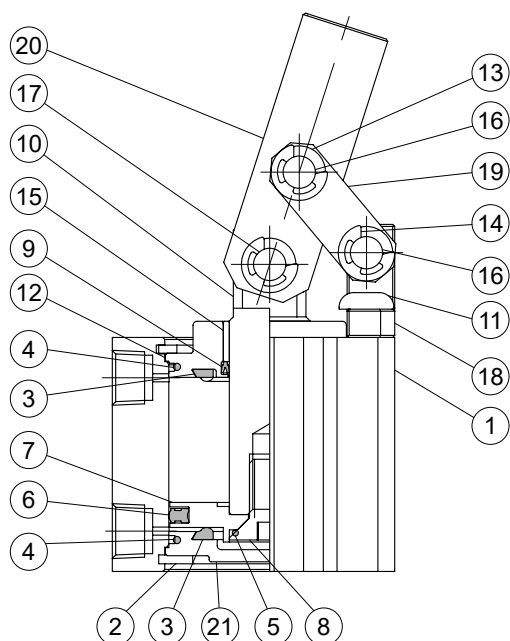


$$T = \frac{F \times L1}{L2}$$

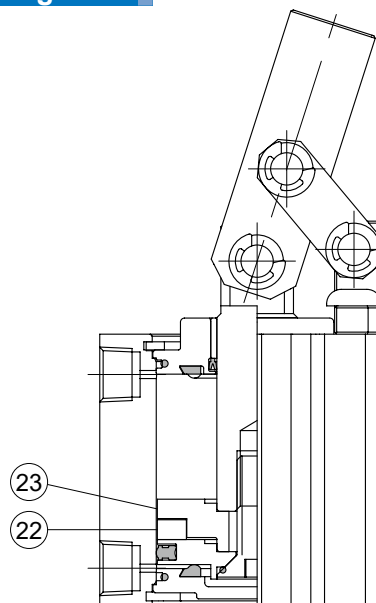
T:	Theoretical clamping force of the lever	(N)
F:	Theoretical output of cylinder	(N)
L1:	Distance from output point to fulcrum	(mm)
L2:	Distance from clamping point to fulcrum	(mm)

Tube I.D. (mm)	Piston area when the lever is down (mm ²)	Operating pressure (MPa)						Operating pressure (MPa)					
		0.3	0.4	0.5	0.6	0.7	0.8	0.3	0.4	0.5	0.6	0.7	0.8
		Theoretical output (N)						Theoretical clamping force of lever (N)					
25	490.9	147.3	196.3	245.4	294.5	343.6	392.7	61.5	82.1	102.6	123.1	143.6	164.1
32	804.2	241.3	321.7	402.1	482.5	563.0	643.4	108.6	144.8	181.0	217.1	253.3	289.5
40	1256.6	377.0	502.7	628.3	754.0	879.6	1005.3	260.0	346.7	433.3	520.0	606.7	693.3
50	1963.5	589.0	785.4	981.7	1178.1	1374.4	1570.8	471.2	628.3	785.4	942.5	1099.6	1256.6
63	3117.2	935.2	1246.9	1558.6	1870.3	2182.1	2493.8	1169.0	1558.6	1948.3	2337.9	2727.6	3117.2

Without magnet



Magnet

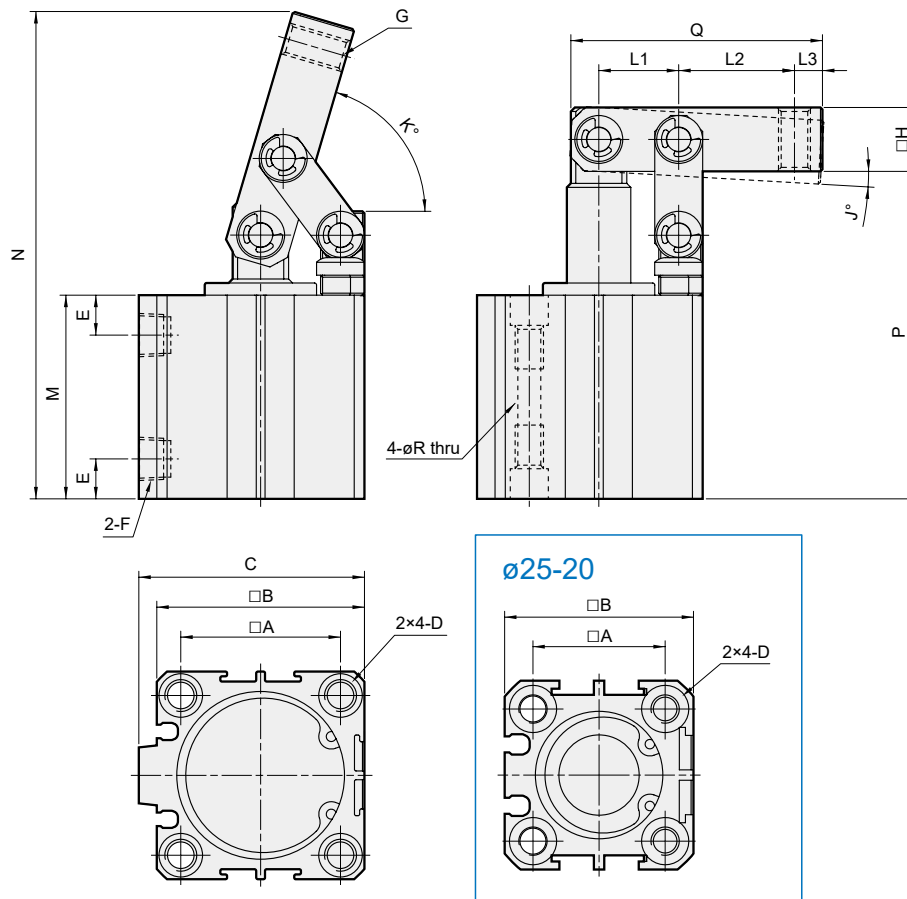


Material

No.	Part name	Material	Q'ty	Repair kits (inclusion)	Note
1	Body	Aluminum alloy	1		
2	Snap ring	Spring steel	2		
3	Cushion	NBR	2	●	
4	Cover gasket	NBR	2	●	
5	Piston gasket	NBR	1	●	
6	Piston packing	NBR	1	●	
7	Piston	Aluminum alloy	1		
8	Piston bolt	SCM	1		
9	Rod packing	NBR	1	●	
10	Piston rod	Carbon steel	1		
11	Screw	SCM	2		
12	Rod cover	Aluminum alloy	1		
13	Washer	Carbon steel	6		
14	Snap ring	Spring steel	6		
15	Rod bush	Bearing alloy	1		ø25 without No.15
16	Connecting pin	Stainless steel	2		
17	Lever pin	Stainless steel	1		
18	Holder	Carbon steel	1		
19	Connecting plate	Carbon steel	2		
20	Lever	Carbon steel	1		
21	Head cover	Aluminum alloy	1		
22	Magnet ring	Magnet material	1		for magnet type only
23	Piston	Aluminum alloy	1		for magnet type only

Order example of repair kits

Tube I.D.	Repair kits
ø25	PS-MCKB-25
ø32	PS-MCKB-32
ø40	PS-MCKB-40
ø50	PS-MCKB-50
ø63	PS-MCKB-63



Code Tube I.D.	A	B	C	D	E	F	G	H	J	K	L1	L2	L3
25	28	40	—	$\varnothing 9 \times 7$ depth, M6 $\times 1.0 \times 10$ depth	8	M5 $\times 0.8$	M6 $\times 1.0$	13	4.5	81.2	14	33.5	5
32	34	44	48.5	$\varnothing 9 \times 7$ depth, M6 $\times 1.0 \times 10$ depth	9	Rc1/8	M8 $\times 1.25$	16	11.9	77.4	18	40	7
40	40	52	56.5	$\varnothing 10.5 \times 8$ depth, M8 $\times 1.25 \times 12$ depth	10	Rc1/8	M8 $\times 1.25$	16	3.3	73.6	20	29	7
50	48	62	70	$\varnothing 11 \times 8.5$ depth, M8 $\times 1.25 \times 16.5$ depth	10	Rc1/4	M10 $\times 1.5$	22	2.6	72.2	24	30	8
63	60	75	83	$\varnothing 11 \times 8.5$ depth, M8 $\times 1.25 \times 16.5$ depth	12	Rc1/4	M10 $\times 1.5$	22	2.1	67.1	30	24	8

Code Tube I.D.	Without magnet			Magnet			Q	R
	M	N	P	M	N	P		
25	41	103.8	63.5	51	113.8	73.5	57	5.1
32	49.5	132.7	80.9	59.5	142.7	90.9	70	5.1
40	51	122	82	61	132	92	63	6.9
50	58	138.5	94	68	148.5	104	70	6.9
63	67	147.5	109	77	157.5	119	70	6.9