

Table for stroke

Tube I.D.	Standard stroke	Long stroke
ø12, 16	5,10,15,20,25,30	—
ø20, 25 (*1)	5,10,15,20,25,30,35,40,45,50	75,100
ø32, 40	↑ 75, 100	—

*1. Using long stroke type body when the cylinder stroke is longer than 51 mm.

*2. Please contact us if the stroke is out of specification.

Tightening torque

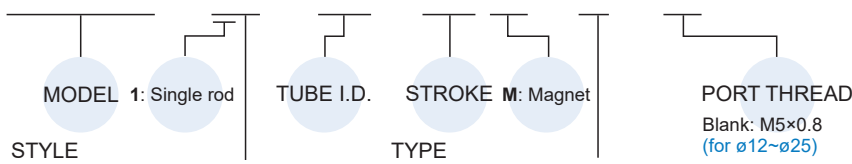
Tube I.D.	Rod thread	Tightening torque (kgf·cm)
ø12	M5×0.8	22.8
ø16	M6×1.0	41
ø20	M8×1.25	100
ø25	M10×1.25	190
ø32,40	M14×1.5	540



* Make sure the tightening torque of rod thread does not exceed the value above.


* The tolerance of tightening torque is ±5%.

Order example

MCKJQ — 12 — 20 — 25 M — F — G



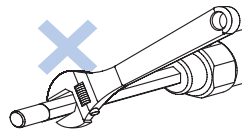
Code	Symbol	Description
1 1		Double acting / Male thread
1 2		Double acting / Female thread

Code	Description
Blank	Standard
F	Rear flange 
L	Piston rod extended to 10 mm (for tube I.D. ø40 standard stroke). For adding LB and FAC accessories

PORT THREAD
 Blank: M5×0.8 (for ø12~ø25)
 Blank: Rc thread
G: G thread
NPT: NPT thread (for ø32, ø40)

Caution

Please don't attempt to rotate the piston rod.



Features

- The profile designs are based on MCJQ.
- Hexagonal rods for non-rotating feature.
- Anodised aluminum tubes provide better corrosion and abrasion resistance.
- Stainless Steel rods for better corrosion resistance.

Specification

Model	MCKJQ					
Acting type	Double acting					
Tube I.D. (mm)	12	16	20	25	32	40
Port size	M5×0.8			Rc1/8		
Medium	Air					
Operating pressure range	0.1~1 MPa		0.8~1 MPa		0.6~1 MPa	
Proof pressure	1.5 MPa					
Ambient temperature	-5°C~+60°C (No freezing)					
Available speed range	50~500 mm/sec					
Rod non-rotating accuracy	±1°	±0.7°		±0.5°		
Allowable rotational torque (kgf·cm)	0.4	2	2.5		4.5	
Sensor switch (*2)	RCE, RCE1	(*1)		●	●	●
	RDEP	●	●	—	●	—

*1. ø12, ø16: only applicable to RDE and RDE1E.

*2. RCE, RCE1, RDEP specification, please refer to page 8-12, 13, 18.

*3. The cylinder is allowed little leakage. Before delivery, it has passed the standard of leakage test.

* Order example for special specification, refer to page 0-7.

* Please confirm the mounting method before purchase and contact us if it is **A** mounting method. (refer to page 2-48 "Plate mounting methods").

Accessories

Accessories				
Code	LB *1 (Purchase 2 pcs)	CB	FAC *1	FBC
Mounting				
Tube I.D.				
ø40	LB-J1-40	CB-J1-40	FAC-J1-40	

*1. LB and FAC **cannot** be assembled with the standard cylinder.
If the accessories are required, the piston rod needs to be extended by 10 mm.
See previous page for stroke range.

*2. The mounting accessories only for tube I.D. ø40.

*3. Refer to MCJQ dimension.

Pin

Applicable	CB accessories
Code	PIN-CB-P (With snap ring)
Fig	
Tube I.D.	
ø40	PIN-J1-32-1-P

Order example of self-assembled

The tube I.D. ø40 of LB accessories with stroke 25mm.

No.	Order number	Qty
1	LB-J1-40	2
2	MCKJQ-12-40-25-L	1

* To order accessories/cylinder, please place orders separately according to the order codes in the above table.
Please refer to the previous page for the cylinder ordering method.

Rod nut

Code	NUT
Fig	
Tube I.D.	
ø12	NUT-M5x0.8x4Hx8B
ø16	NUT-M6x1.0x5Hx10B
ø20	NUT-M8x1.25x5Hx13B
ø25	NUT-M10x1.25x6Hx17B
ø32	NUT-M14x1.5x8Hx22B
ø40	

Cylinder weight

Standard stroke

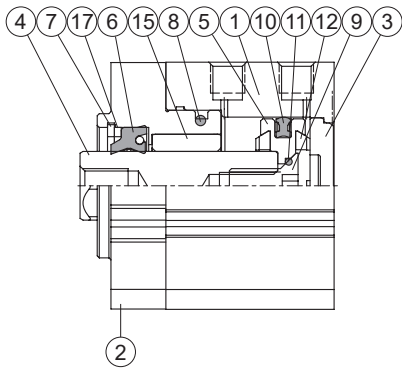
Model				Unit: g			
		Basic weight MCKJQ-11	Basic weight (magnet) MCKJQ-11	Stroke 5mm MCKJQ-11	Basic weight MCKJQ-12	Basic weight (magnet) MCKJQ-12	Stroke 5mm MCKJQ-12
Tube I.D.	Stroke range (mm)						
ø12	5~30	38	46	7	36	44	7
ø16		55	66	9	50	61	9
ø20	5~50	100	130	14	93	123	14
ø25		150	189	18	137	176	18
ø32	5~100	231	283	22	200	252	22
ø40		250	315	23	219	284	23

Long stroke

Model				Unit: g			
		Basic weight MCKJQ-11	Basic weight (magnet) MCKJQ-11	Stroke 5mm MCKJQ-11	Basic weight MCKJQ-12	Basic weight (magnet) MCKJQ-12	Stroke 5mm MCKJQ-12
Tube I.D.	Stroke range (mm)						
ø20	51 or more	308	312	14	301	305	14
ø25		398	407	16	390	399	16

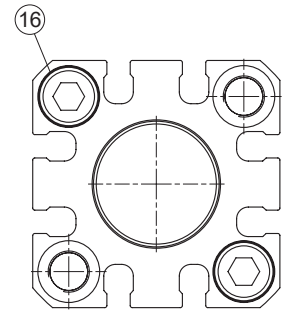
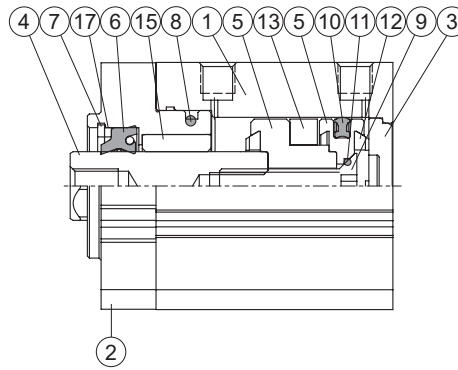
* The weight is based on 51 mm stroke.

Standard stroke $\phi 12\sim\phi 32$

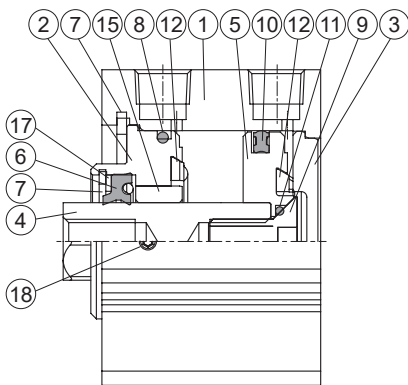


Standard stroke $\phi 12\sim\phi 32$

(with magnet)

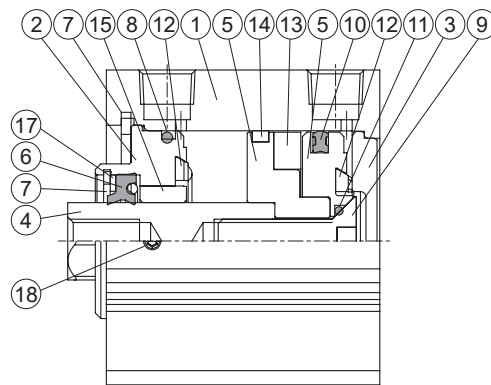


Standard stroke $\phi 40$



Standard stroke $\phi 40$

(with magnet)



Standard stroke – Material

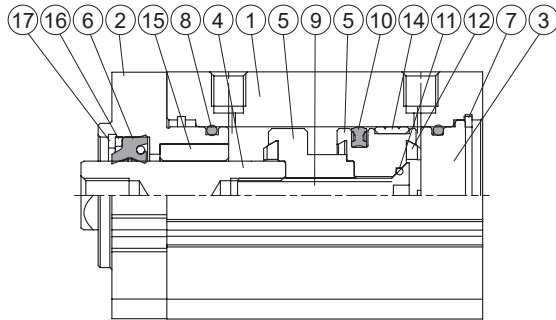
No.	Tube I.D. Part name	12	16	20	25	32	40	Note	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy						Hard anodized	1	
2	Rod cover	Aluminum alloy						Anodized	1	
3	End cover	Aluminum alloy						Anodized	1	
4	Piston rod	Stainless steel							1	
5	Piston	Aluminum alloy						$\phi 12\sim 32$ Anodized	1	
6	Rod packing	NBR							1	●
7	Snap ring	Spring steel							1	
8	Cover ring	NBR							1	●
9	Piston bolt	Stainless steel			SCM				1	
10	Piston packing	NBR							1	●
11	Piston gasket	NBR							1	●
12	Cushion packing	NBR							2	●
13	Magnet ring	Magnet							1	
14	Wear ring	-			Resin				1	
15	Bush	Bearing alloy							1	
16	Bolt	Carbon steel			-				2	
17	Washer	Carbon steel							1	
18	Set screw	-			*1				1	

*1. Carbon steel

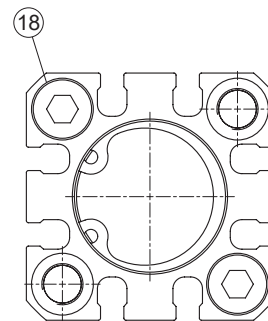
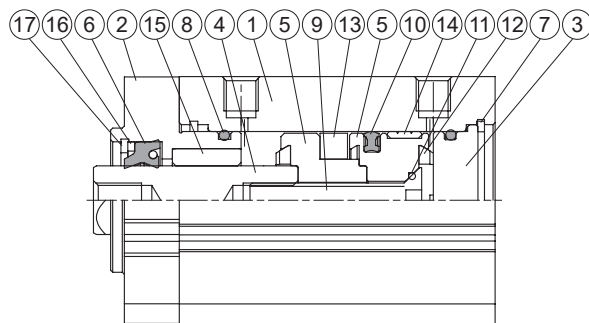
Order example Repair kits

Tube I.D.	Repair kits
$\phi 12$	PS-MCKJQ-12
$\phi 16$	PS-MCKJQ-16
$\phi 20$	PS-MCKJQ-20
$\phi 25$	PS-MCKJQ-25
$\phi 32$	PS-MCKJQ-32
$\phi 40$	PS-MCKJQ-40

Long stroke $\phi 20, \phi 25$



Long stroke $\phi 20, \phi 25$ (with magnet)



Long stroke – Material

No.	Tube I.D. Part name	Material	Note	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body	Aluminum alloy	Hard anodized	1		
2	Rod cover	Aluminum alloy	Anodized	1	●	
3	End cover	Aluminum alloy	Anodized	1	●	
4	Piston rod	Stainless steel		1		
5	Piston	Aluminum alloy	Anodized	1	●	
6	Rod packing	NBR		1	●	●
7	Snap ring	Stainless steel		1	●	
8	Cover ring	NBR		2	●	●
9	Piston bolt	Stainless steel		1	●	
10	Piston packing	NBR		1	●	●
11	Piston gasket	NBR		1	●	●
12	Cushion packing	NBR		2	●	●
13	Magnet ring	Magnet		1	●	
14	Wear ring	Resin		1	●	
15	Bush	Bearing alloy		1	●	
16	Washer	Carbon steel		1	●	
17	Snap ring	Spring steel		1	●	
18	Bolt	Carbon steel		2		

Order example Component parts

Tube I.D.	Component parts
$\phi 20$	CPL-MCKJQ-20(M)
$\phi 25$	CPL-MCKJQ-25(M)

M: With magnet

Repair kits

Tube I.D.	Repair kits
$\phi 20$	PSL-MCKJQ-20
$\phi 25$	PSL-MCKJQ-25

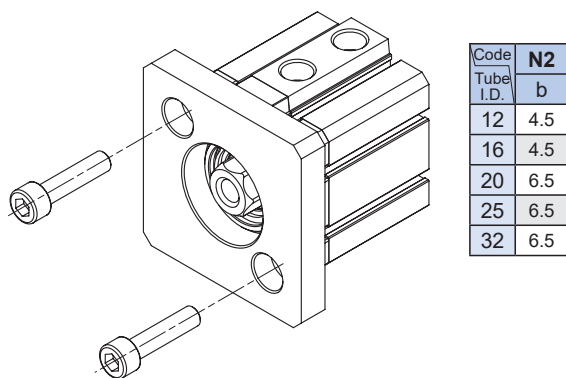
Caution

Different mounting methods match different bolts and plate.
Please confirm the mounting method before purchase.

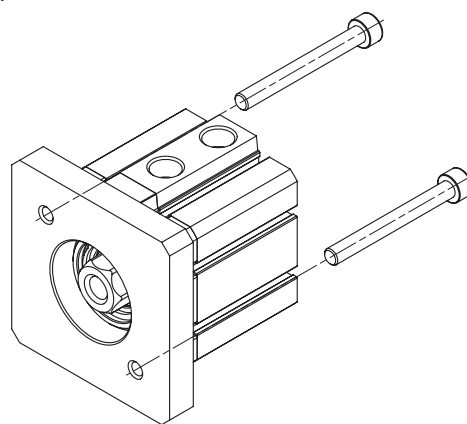
A The plate is in front and the bolt is mounted from the front.

When mounting method 'A' is selected for $\phi 12\sim\phi 32$, the body requires special dimension, see dimension N2-b.

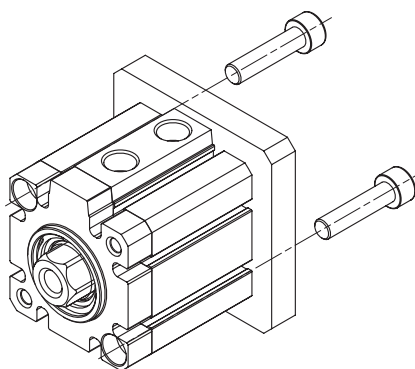
Order example: **MCKJQ-12-20-25M, N2=6.5**



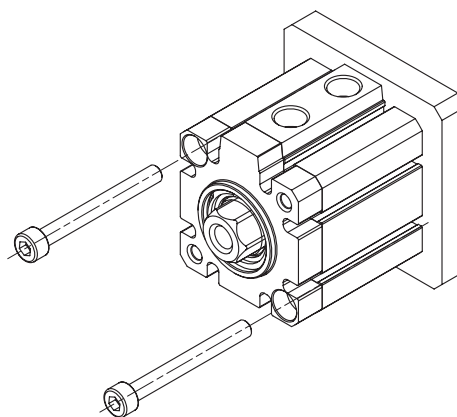
B The plate is in front and the bolt is mounted from the back.



C The plate is in back and the bolt is mounted from the back.



D The plate is in back and the bolt is mounted from the front.

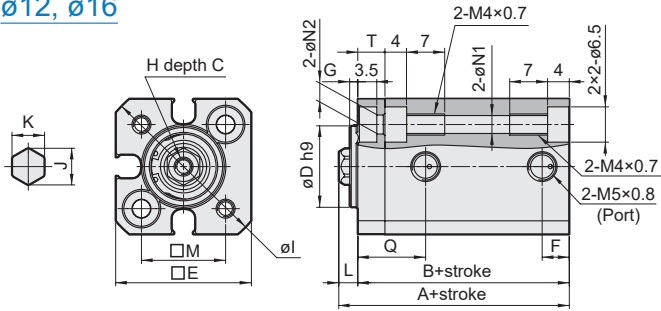


Bolt specification

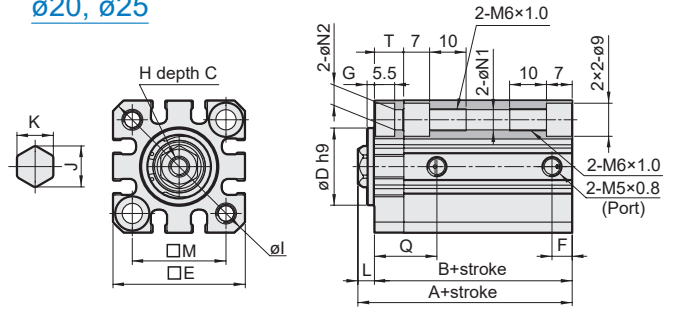
Tube I.D. Mounting	$\phi 12$	$\phi 16$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$
A	M4×0.7	M4×0.7	M6×1.0	M6×1.0	M6×1.0	M6×1.0
B	M3×0.5	M3×0.5	M5×0.8	M5×0.8	M5×0.8	M5×0.8
C	M4×0.7	M4×0.7	M6×1.0	M6×1.0	M6×1.0	M6×1.0
D	M3×0.5	M3×0.5	M5×0.8	M5×0.8	M5×0.8	M5×0.8

12

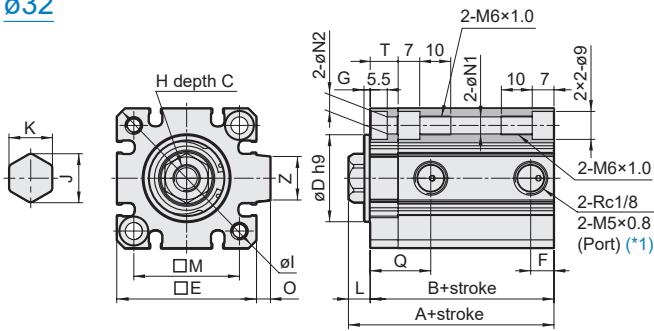
$\phi 12, \phi 16$



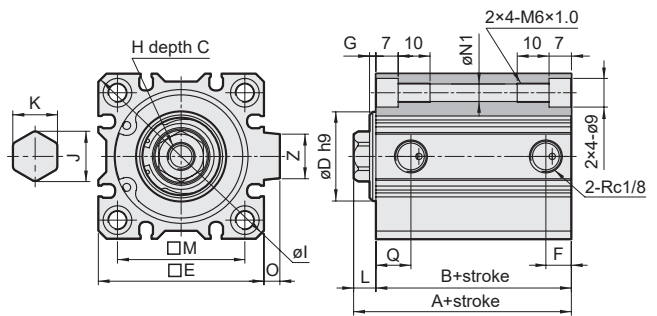
$\phi 20, \phi 25$



$\phi 32$



$\phi 40$

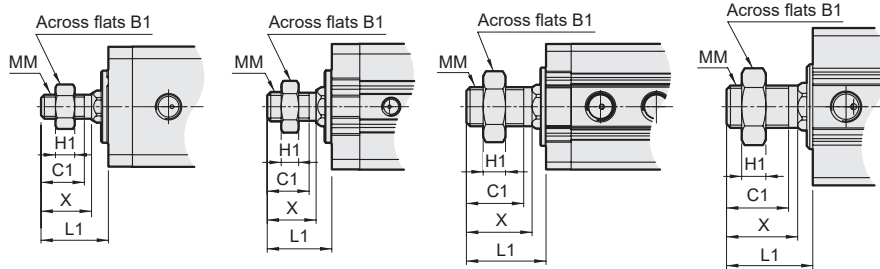


$\phi 12, \phi 16$

$\phi 20, \phi 25$

$\phi 32$

$\phi 40$



11 Male thread

Code Tube I.D.	B1	C1	H1	L1*	MM	X
12	8	9	4	14	M5x0.8	10.5
16	10	10	5	15.5	M6x1.0	12
20	13	12	5	18.5	M8x1.25	14
25	17	15	6	22.5	M10x1.25	17.5
32	22	20.5	8	28.5	M14x1.5	23.5
40	22	20.5	8	28.5 (38.5)	M14x1.5	23.5

* () Dimensions for piston rod extended "L" type.

Code Tube I.D.	Standard stroke						Long stroke						C	D	E	F	G	H	I	J	K	L ^{*2}	M	N1	N2 ^{*3}		O	Q	T	Z
	Stroke range	Without magnet		Magnet		Stroke range	A	B	F	A	B	F													a	b				
		A	B	F	A																									
12	5-30	25.5	22	-	30.5	27	-	-	-	-	-	6	15 ⁰ _{-0.043}	25	5	1.5	M3x0.5	32	6.74	6	3.5	15.5	3.5	3.5	4.5	-	12.5	5	-	
16	5-30	27	23.5	-	32	28.5	-	-	-	-	-	8	19 ⁰ _{-0.052}	29	5	1.5	M4x0.7	38	8.96	8	3.5	20	3.5	3.5	4.5	-	14	6.5	-	
20	5-50	32	27.5	5.5	42	37.5	5.5	51-100	53.5	49	9	7	21 ⁰ _{-0.052}	36	-	2	M5x0.8	47	11.24	10	4.5	25.5	5.5	5.5	6.5	-	17	8	-	
25	5-50	35.5	30.5	5.5	45.5	40.5	5.5	51-100	57	52	11	12	22 ⁰ _{-0.052}	40	-	2	M6x1.0	52	13.52	12	5	28	5.5	5.5	6.5	-	19	8	-	
32	5-50	39	32	-	49	42	-	-	-	-	-	13	28 ⁰ _{-0.052}	45	7.5 ^{*1}	2	M8x1.25	60	15.76	14	7	34	5.5	5.5	6.5	4.5	19.5 ^{*1}	9	14	
	51-100	49	42	-	49	42	-	-	-	-	-	13	28 ⁰ _{-0.052}	45	7.5 ^{*1}	2	M8x1.25	60	15.76	14	7	34	5.5	5.5	6.5	4.5	19.5 ^{*1}	9	14	
40	5-50	36.5	29.5	-	46.5	39.5	-	-	-	-	-	13	28 ⁰ _{-0.052}	52	8	2	M8x1.25	70	15.76	14	7(17)	40	5.5	-	-	5	11	-	14	
	51-100	46.5	39.5	-	46.5	39.5	-	-	-	-	-	13	28 ⁰ _{-0.052}	52	8	2	M8x1.25	70	15.76	14	7(17)	40	5.5	-	-	5	11	-	14	

*1. Without magnet with stroke=5mm, Port size = M5x0.8, Q=20.5, F=5.5

*2. () Dimensions for piston rod extended "L" type.

*3. a: Standard type, b: Special type for mounting method A.