

MCJQ Multiple position series

COMPACT CYLINDER



Special spec



Rod end shape



Technical data



Caution for safety
(Read before installing)



Features

Two-stage stroke: Two compact cylinders with same I.D. but different strokes length are connected to achieve two-stage stroke.

Specification

Model	MCJQ-3*									
Acting type	Double acting									
Tube I.D. (mm)	12	16	20	25	32	40	50	63	80	100
Port size	M5×0.8				Rc1/8		Rc1/4		Rc3/8	
Medium	Air									
Operating perssure range (MPa)	0.07~1		0.05~1							
Proof pressure	1.5 MPa									
Ambient temperature	-5°C~+60°C (No freezing)									
Available speed range	50~500 mm/sec									
Sensor RCE, RCE1	(*)	●	●	●	●	●	●	●	●	●
switch (*) RDEP	●	●	—	●	—	●	●	●	●	●

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

*2. RCE , RCE1 , RDEP  specification.

Order example

MCJQ — 32 — 20 — 10×25 M — F — G

MODEL

3: Multiple position

TUBE I.D.

STROKE1×STROKE2

Stroke 1: First stroke
Stroke 2: Total stroke

M: Magnet

PORT THREAD

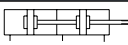
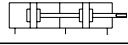
Blank: M5×0.8
(for ø12~ø25)

Blank: Rc thread

G: G thread

NPT: NPT thread
(for ø32~ø100)

STYLE

Code	Symbol	Description
3 1		Double acting / Male thread
3 2		Double acting / Female thread

* The total stroke must be greater than the first stroke.

TYPE

Code	Description
Blank	Standard
F	Rear flange 
L	Piston rod extended to 10 mm (for standard stroke for STROKE2). For adding FAC accessories

Double acting – Table for standard stroke

Tube I.D.	Stroke 1	Stroke2	
	Standard stroke	Standard stroke	Long stroke (mm)
ø12, 16	5, 10, 15, 20, 25, 30	5, 10, 15, 20, 25, 30	35, 40, 45, 50, 75, 100
ø20	5, 10, 15, 20, 25, 30, 35, 40, 45, 50	5, 10, 15, 20, 25, 30, 35, 40, 45, 50	75, 100, 125, 150, 175, 200
ø25			75, 100, 125, 150, 175, 200, 250, 300
ø32~80	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 75, 100	125, 150, 175, 200, 250, 300
ø100			—

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

Flat washer kits

WS — MCJQ — 3 — 20

FLAT WASHER

MODEL

MULTIPLE POSITION

TUBE I.D.

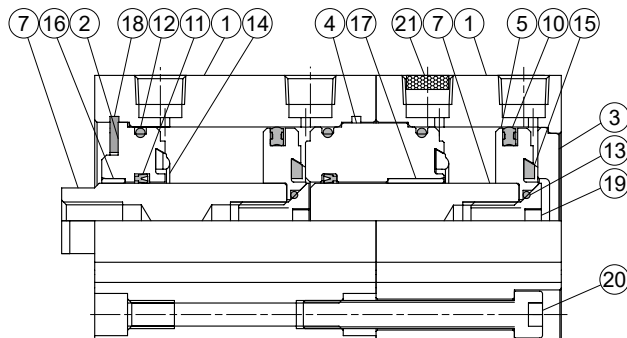
MCJQ Inside structure & Parts list – Multiple position

COMPACT CYLINDER

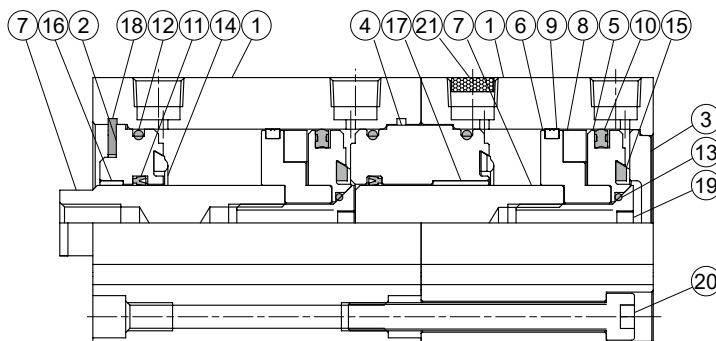
(Total stroke: **Standard stroke**)



Double acting



Double acting (with magnet)



Material

No.	Tube I.D. Part name	12	16	20	25	32	40	50	63	80	100	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body #1, #2	Aluminum alloy										1		
2	Rod cover	Aluminum alloy										1	●	
3	End cover	Aluminum alloy										1	●	
4	Center cover	Aluminum alloy										1	●	
5	Piston	Aluminum alloy										2	●	
6		Aluminum alloy										2	●	
7	Piston rod #1, #2	Carbor steel										1		
8	Magnet ring	Magnet										2	●	
9	Wear ring	Resin										2	●	
10	Piston packing	NBR										2	●	●
11	Rod packing	NBR										2	●	●
12	Cover ring	NBR										3	●	●
13	Piston gasket	NBR										2	●	●
14	Cushion packing	NBR										2	●	●
15	Cushion packing	NBR										2	●	●
16	Bush #1	Bearing alloy										1	●	
17	Bush #2	Bearing alloy										1	●	
18	Snap ring	Stainless steel Spring steel										1	●	
19	Piston bolt	Stainless steel SCM										2	●	
20	Bolt	SUS SCM										2		
21	Silencer	Brass										1	●	

Order example Component parts

Tube I.D.	Component parts
ø12	CP-MCJQ-3-12(M)
ø16	CP-MCJQ-3-16(M)
ø20	CP-MCJQ-3-20(M)
ø25	CP-MCJQ-3-25(M)
ø32	CP-MCJQ-3-32(M)
ø40	CP-MCJQ-3-40(M)
ø50	CP-MCJQ-3-50(M)
ø63	CP-MCJQ-3-63(M)
ø80	CP-MCJQ-3-80(M)
ø100	CP-MCJQ-3-100(M)

M: With magnet

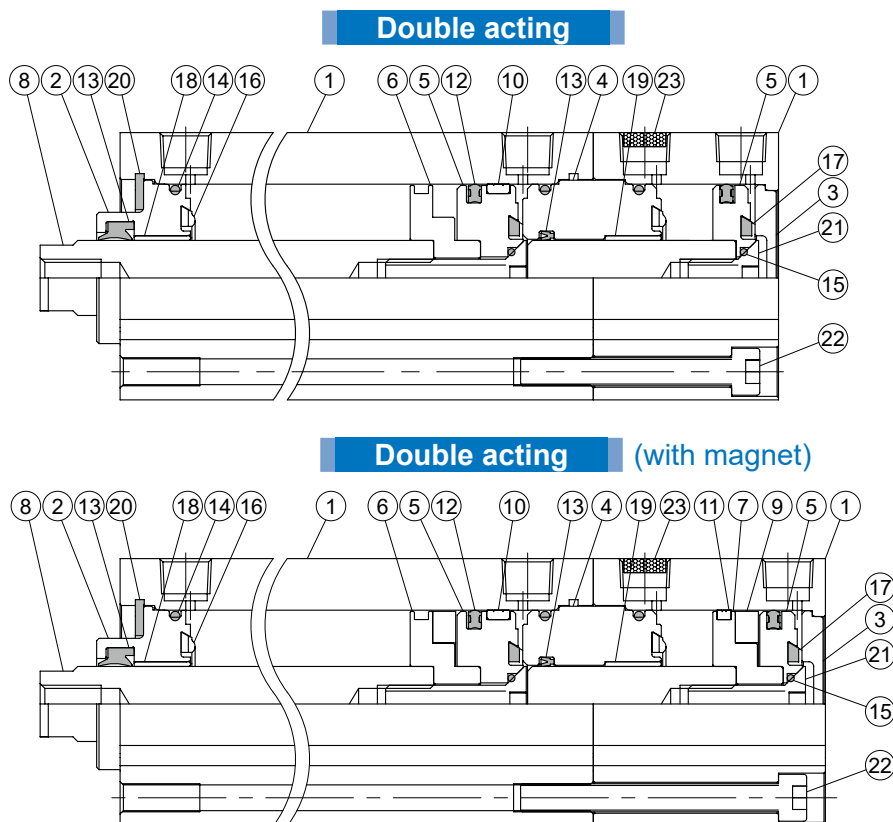
Repair kits

Tube I.D.	Repair kits
ø12	PS-MCJQ-3-12
ø16	PS-MCJQ-3-16
ø20	PS-MCJQ-3-20
ø25	PS-MCJQ-3-25
ø32	PS-MCJQ-3-32
ø40	PS-MCJQ-3-40
ø50	PS-MCJQ-3-50
ø63	PS-MCJQ-3-63
ø80	PS-MCJQ-3-80
ø100	PS-MCJQ-3-100

MCJQ Inside structure & Parts list – Multiple position

COMPACT CYLINDER

(Total stroke: Long stroke)



Material

No.	Tube I.D. Part name	12	16	20	25	32	40	50	63	80	Q'y	Component parts (inclusion)	Repair kits (inclusion)
1	Body #1, #2	Aluminum alloy									1		
2	Rod cover	Aluminum alloy									1	●	
3	End cover	Aluminum alloy									1	●	
4	Center cover	Aluminum alloy									1	●	
5	Piston #1, #2	Aluminum alloy									1	●	
6	Piston #1 With magnet	Aluminum alloy									1	●	
7	Piston #2 With magnet	Aluminum alloy									1	●	
8	Piston rod #1, #2	Carbor steel									1		
9	Magnet ring	Magnet									2	●	
10	Wear ring #1	Resin									1	●	
11	Wear ring #2	—									1	●	
12	Piston packing	NBR									2	●	●
13	Rod packing #1, #2	NBR									1	●	●
14	Cover ring	NBR									3	●	●
15	Piston gasket	NBR									2	●	●
16	Cushion packing	NBR									2	●	●
17	Cushion packing	NBR									2	●	●
18	Bush #1	—									1	●	
19	Bush #2	—									1	●	
20	Snap ring	Stainless steel									1	●	
21	Piston bolt	Stainless steel									2	●	
22	Bolt	SUS									2		
23	Silencer	Brass									1	●	

Order example

Component parts

Tube I.D.	Component parts
ø12	CPL-MCJQ-3-12(M)
ø16	CPL-MCJQ-3-16(M)
ø20	CPL-MCJQ-3-20(M)
ø25	CPL-MCJQ-3-25(M)
ø32	CPL-MCJQ-3-32(M)
ø40	CPL-MCJQ-3-40(M)
ø50	CPL-MCJQ-3-50(M)
ø63	CPL-MCJQ-3-63(M)
ø80	CPL-MCJQ-3-80(M)

M: With magnet

Repair kits

Tube I.D.	Repair kits
ø12	PSL-MCJQ-3-12
ø16	PSL-MCJQ-3-16
ø20	PSL-MCJQ-3-20
ø25	PSL-MCJQ-3-25
ø32	PSL-MCJQ-3-32
ø40	PSL-MCJQ-3-40
ø50	PSL-MCJQ-3-50
ø63	PSL-MCJQ-3-63
ø80	PSL-MCJQ-3-80

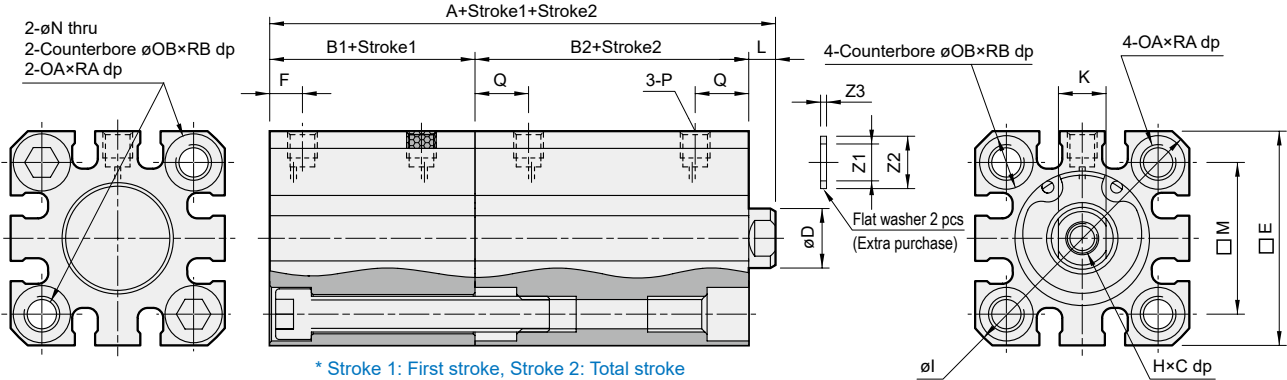
MCJQ Dimensions – Double acting $\phi 12 \sim \phi 25$

COMPACT CYLINDER



$\phi 20, \phi 25$

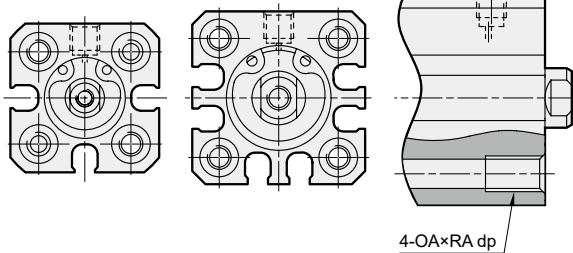
Total stroke 5~100



for total stroke
over 101

$\phi 12$

$\phi 16$



MCJQ-31 male thread size

Code Tube I.D.	C1	H1	L1*1,2	L2*1	X
12	9	M5×0.8	14 (24)	24	10.5
16	10	M6×1.0	15.5 (25.5)	25.5	12
20	12	M8×1.25	18.5 (28.5)	28.5	14
25	15	M10×1.25	22.5 (32.5)	32.5	17.5

*1. L1: Total stroke (Standard stroke)
L2: Total stroke (Long stroke)
*2. () Dimensions for piston rod extended "L" type.

Code	First stroke			Total stroke										
	Standard stroke			Standard stroke						Long stroke				
Tube I.D.	Stroke range	Without	Magnet	Stroke range	Without magnet		Magnet		L *	Stroke range	Without	Magnet	B2	L
		B1	B1		A	B2	A	B2			A	A		
12	5~30	17	22	5~30	42.5	22	52.5	27	3.5 (13.5)	31~100	62.5	67.5	32	13.5
16	5~30	17	22	5~30	42.5	22	52.5	27	3.5 (13.5)	31~100	62.5	67.5	32	13.5
20	5~50	19.5	29.5	5~50	50	26	70	36	4.5 (14.5)	51~200	75	85	41	14.5
25	5~50	22.5	32.5	5~50	56.5	29	76.5	39	5 (15)	51~300	81.5	91.5	44	15

Code Tube I.D.	C	D	E	F	H	I	K	M	N	OA	OB	P	Q	RA	RB	Z1	Z2	Z3
12	6	6	25	5	M3×0.5	32	5	15.5	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	4.2	6.3	0.5
16	8	8	29	5	M4×0.7	38	6	20	3.5	M4×0.7	6.5	M5×0.8	7.5	7	4	4.2	6.3	0.5
20	7	10	36	5.5	M5×0.8	47	8	25.5	5.4	M6×1.0	9	M5×0.8	9	10	7	6.2	8.8	1
25	12	12	40	5.5	M6×1.0	52	10	28	5.4	M6×1.0	9	M5×0.8	11	10	7	6.2	8.8	1

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

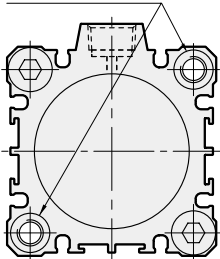
MCJQ Dimensions – Double acting $\phi 32 \sim \phi 100$

COMPACT CYLINDER

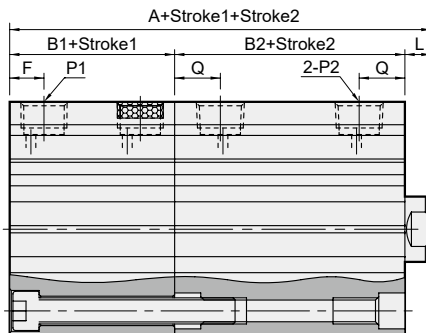


$\phi 50 \sim \phi 100$

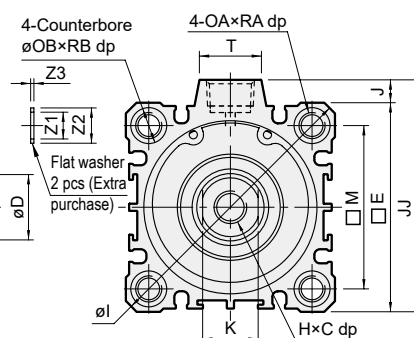
2- ϕN thru
2-Counterbore $\phi OB \times RB$ dp
2-OA $\times$ RA dp



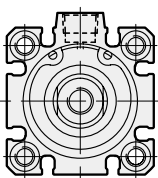
Total stroke 5~100



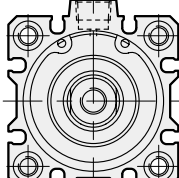
* Stroke 1: First stroke, Stroke 2: Total stroke



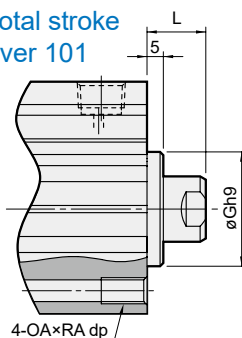
$\phi 32$



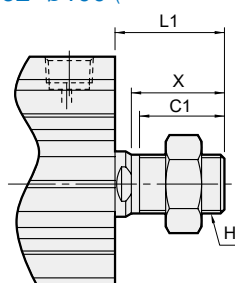
$\phi 40$



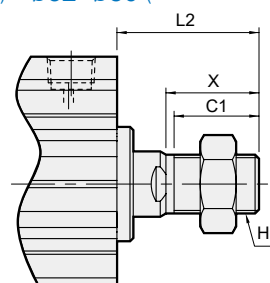
for total stroke
over 101



$\phi 32 \sim \phi 100$ (Total stroke 5~100)



$\phi 32 \sim \phi 80$ (Total stroke over 101)



MCJQ-31 male thread size

Code	First stroke			Total stroke												
	Standard stroke			Standard stroke							Long stroke					
	Stroke range	Without	Magnet	Stroke range	Without magnet		Magnet		L *5	Q	Stroke range	Without	Magnet	B2	L	Q
B1		B1	A		B2	A	B2	A				A				
32	5~50	23	33	5~50	60.5	30.5	80.5	40.5	7 (17)	12.5	101~300	85.5	95.5	45.5	17	12.5
	51~100	33		51~100	70.5	40.5						95.5				
	51~100			51~100	80.5	40.5										
40	5~50	29.5	39.5	5~50	76.5	40	96.5	50	7 (17)	14		101.5	111.5	55	17	14
	51~100	39.5		51~100	86.5	50						111.5				
	51~100			51~100	96.5	50										
50	5~50	30.5	40.5	5~50	79	40.5	99	50.5	8 (18)	14		104	114	55.5	18	14
	51~100	40.5		51~100	89	50.5						114				
	51~100			51~100	99	50.5										
63	5~50	36	46	5~50	86	42	106	52	8 (18)	15.5		111	121	57	18	16.5
	51~100	46		51~100	96	52						121				
	51~100			51~100	106	52										
80	5~50	43.5	53.5	5~50	104.5	51	124.5	61	10 (20)	18	129.5	139.5	66	20	19	
	51~100	53.5		51~100	114.5	61					139.5					
	51~100			51~100	124.5	61										
100	5~50	53	63	5~50	125.5	60.5	145.5	70.5	12 (22)	22	—					
	51~100			51~100	135.5	70.5										
	51~100	63		51~100	145.5	70.5										

Code Tube I.D.	C1	H1	L1 ^{*1,2}	L2 ^{*1}	X
32	20.5	M14 $\times$ 1.5	28.5 (38.5)	38.5	23.5
40	20.5	M14 $\times$ 1.5	28.5 (38.5)	38.5	23.5
50	26	M18 $\times$ 1.5	33.5 (43.5)	43.5	28.5
63	26	M18 $\times$ 1.5	33.5 (43.5)	43.5	28.5
80	32.5	M22 $\times$ 1.5	43.5 (53.5)	53.5	35.5
100	32.5	M26 $\times$ 1.5	43.5 (53.5)	-	35.5

*1. L1: Total stroke (Standard stroke)

L2: Total stroke (Long stroke)

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

Code Tube I.D.	C	D	E	F	G ^{h9}	H	I	J	JJ	K	M	N	OA	OB	P1	P2	RA	RB	T	Z1	Z2	Z3
32	13	16	45	7.5 ^{*1}	22 ^{+0 -0.052}	M8 $\times$ 1.25	60	4.5	49.5	14	34	5.5	M6 $\times$ 1.0	9	Rc1/8 ^{*1}	Rc1/8 ^{*1}	10	7	14	6.2	8.8	1
40	13	16	52	8	28 ^{+0 -0.052}	M8 $\times$ 1.25	70	5	57	14	40	5.5	M6 $\times$ 1.0	9	Rc1/8	Rc1/8	10	7	14	6.2	8.8	1
50	15	20	64	10.5 ^{*2}	35 ^{+0 -0.062}	M10 $\times$ 1.5	86	7	71	17	50	6.6	M8 $\times$ 1.25	11	Rc1/4 ^{*2}	Rc1/4	14	8	19	8.2	10.8	1
63	15	20	77	10.5	35 ^{+0 -0.062}	M10 $\times$ 1.5	103	7	84	17	60	9	M10 $\times$ 1.5	14	Rc1/4 ^{*3}	Rc1/4 ^{*3}	18	10.5	19	10.2	13.8	1
80	21	25	98	12.5	43 ^{+0 -0.062}	M16 $\times$ 2.0	132	6	104	22	77	11	M12 $\times$ 1.75	17.5	Rc3/8 ^{*4}	Rc3/8 ^{*4}	22	13.5	26	12.2	17.3	2
100	27	30	117	13	-	M20 $\times$ 2.5	156	6.5	123.5	27	94	11	M12 $\times$ 1.75	17.5	Rc3/8 ^{*4}	Rc3/8 ^{*4}	22	13.5	26	12.2	17.3	2

*1. First stroke without magnet=5mm, P1=M5 $\times$ 0.8, F=5.5,

Total stroke without magnet=5mm, P1=P2=M5 $\times$ 0.8, F=5.5

*2. First stroke or total stroke without magnet=5mm, P1=Rc1/8, F=8

*3. First stroke without magnet=5mm, P1=Rc1/8, Total stroke without magnet=5mm, P1=P2=Rc1/8

*4. First stroke without magnet=5mm, P1=Rc1/4, Total stroke without magnet=5mm, P1=P2=Rc1/4

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