

### Features

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

### Specification

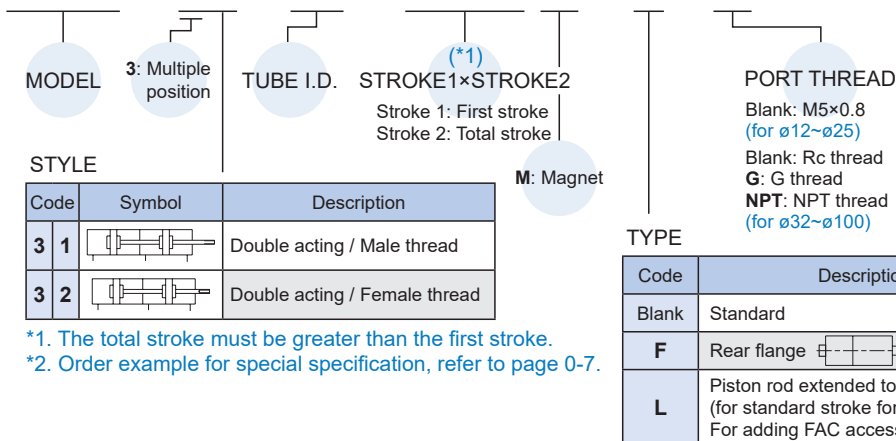
Model	MCJQ-3*									
Acting type	Double acting									
Tube I.D. (mm)	12	16	20	25	32	40	50	63	80	100
Port size	M5×0.8			Rc1/8		Rc1/4		Rc3/8		
Medium	Air									
Operating pressure range (MPa)	0.07~1		0.05~1							
Proof pressure	1.5 MPa									
Ambient temperature	-5°C~+60°C (No freezing)						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

### Order example

**MCJQ — 32 — 20 — 10×25 M — F — G**



\*1. The total stroke must be greater than the first stroke.

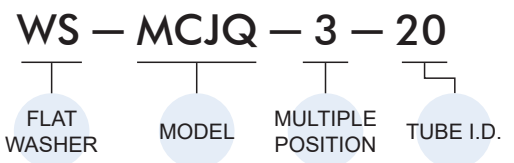
\*2. Order example for special specification, refer to page 0-7.

### Double acting – Table for standard stroke

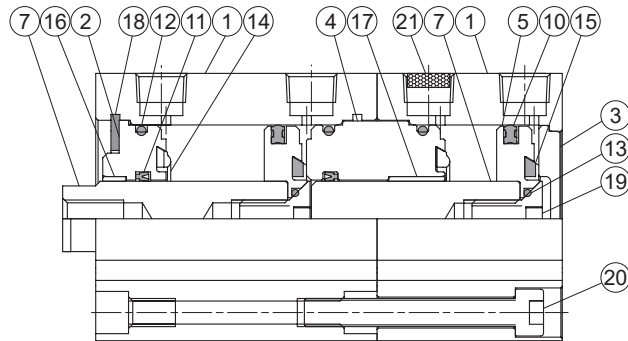
Tube I.D.	Stroke 1		Stroke2	
	Standard stroke	Standard stroke	Long stroke (mm)	
ø12,16	5,10,15,20,25,30	5,10,15,20,25,30	35,40,45,50,75,100	
ø20	5,10,15,20,25,30,35,40,45,50	5,10,15,20,25,30,35,40,45,50	75,100,125,150,175,200	
			75,100,125,150,175,200,250,300	
ø32~80	5,10,15,20,25,30,35,40,45,50,75,100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

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

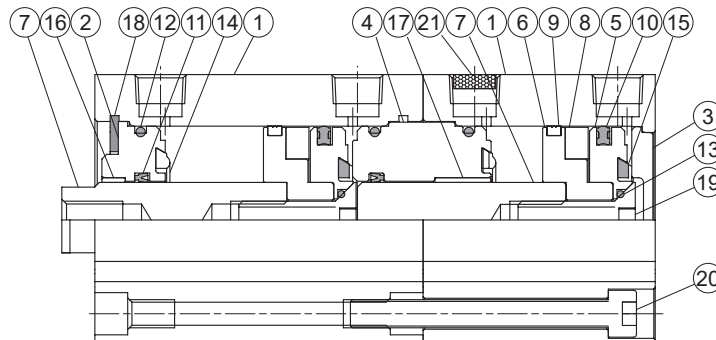
### Flat washer kits



### 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	Stainless steel				Carbor steel						1		
		SUS				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

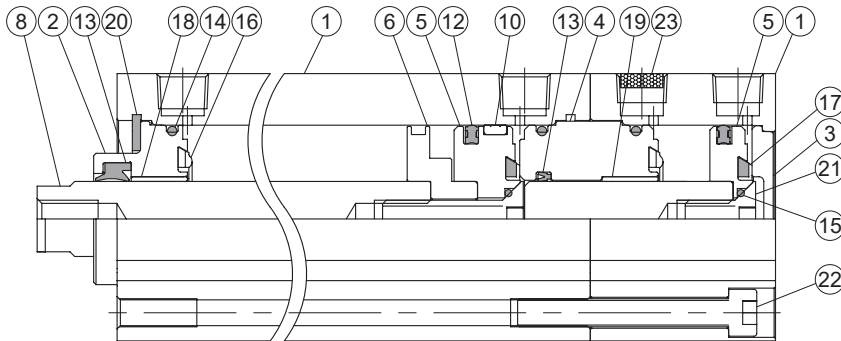
Tube I.D.	Component parts
ø12	CP-MCJQ-3-12(M)
ø16	CP-MCJQ-3-16(M)
ø20	CP-MCJQ-3-20(M)
ø25	CP-MCJQ-3-25(M)
ø32	CP-MCJQ-3-32(M)
ø40	CP-MCJQ-3-40(M)
ø50	CP-MCJQ-3-50(M)
ø63	CP-MCJQ-3-63(M)
ø80	CP-MCJQ-3-80(M)
ø100	CP-MCJQ-3-100(M)

M: With magnet

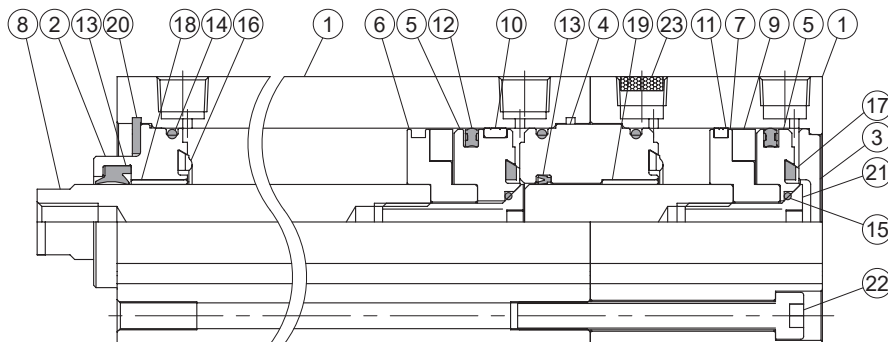
### Repair kits

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

### Double acting



### Double acting (with magnet)



### 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	With magnet Stainless steel	Without magnet SUS	Carbor steel							1		
9	Magnet ring	Magnet									2	●	
10	Wear ring #1	Resin									1	●	
11	Wear ring #2	Resin									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	—			Bearing alloy						1	●	
19	Bush #2	—			Bearing alloy						1	●	
20	Snap ring	Stainless steel				Spring steel					1	●	
21	Piston bolt	Stainless steel				SCM					2	●	
22	Bolt	SUS			SCM						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)

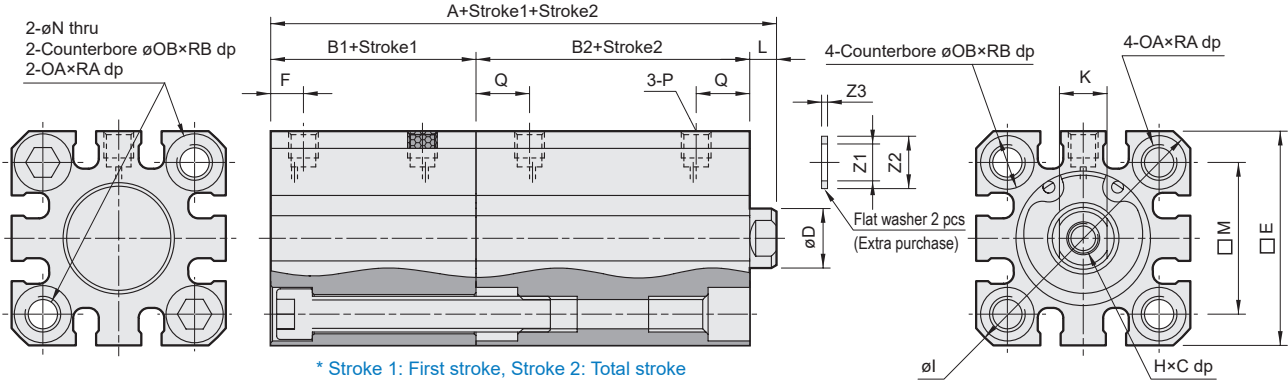
M: With magnet

#### 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

$\phi 20, \phi 25$

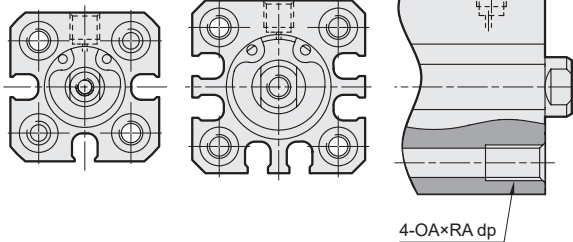
Total stroke 5~100



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 Tube I.D.	First stroke				Total stroke									
	Standard stroke		Standard stroke						Long stroke					
	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.

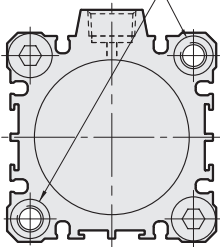
# MCJQ Dimensions – Double acting $\phi 32 \sim \phi 100$

## COMPACT CYLINDER

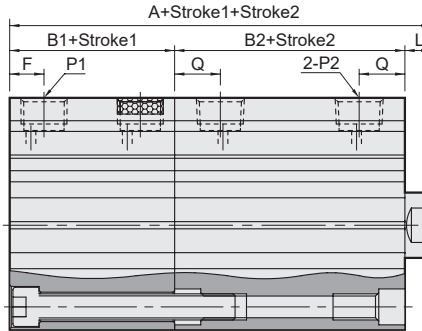


$\phi 50 \sim \phi 100$

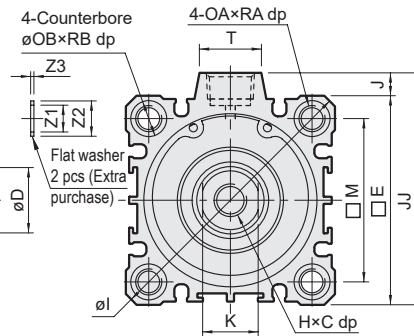
2- $\phi N$  thru  
2-Counterbore  $\phi OB \times RB$  dp  
2-OA $\times$ RA dp



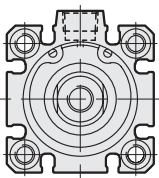
Total stroke 5~100



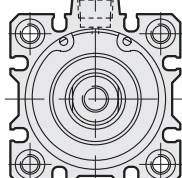
\* Stroke 1: First stroke, Stroke 2: Total stroke



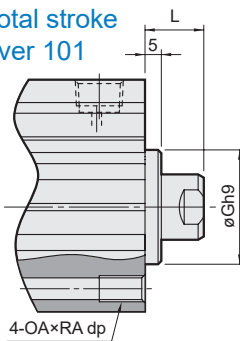
$\phi 32$



$\phi 40$

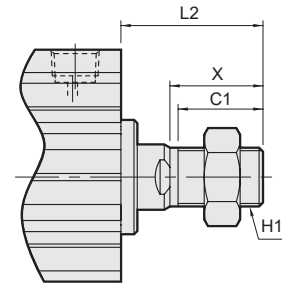
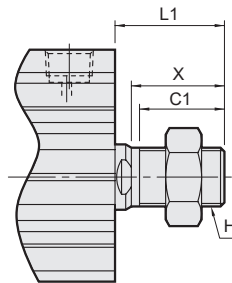


for total stroke over 101



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

Code Tube I.D.	C1	H1	L1 <sup>*1,2</sup>	L2 <sup>*1</sup>	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 <sup>h9</sup>	H	I	J	JJ	K	M	N	OA	OB	P1	P2	RA	RB	T	Z1	Z2	Z3
32	13	16	45	7.5 <sup>*1</sup>	22 <sup>+0 -0.052</sup>	M8 $\times$ 1.25	60	4.5	49.5	14	34	5.5	M6 $\times$ 1.0	9	Rc1/8 <sup>*1</sup>	Rc1/8 <sup>*1</sup>	10	7	14	6.2	8.8	1
40	13	16	52	8	28 <sup>+0 -0.052</sup>	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 <sup>*2</sup>	35 <sup>+0 -0.062</sup>	M10 $\times$ 1.5	86	7	71	17	50	6.6	M8 $\times$ 1.25	11	Rc1/4 <sup>*2</sup>	Rc1/4	14	8	19	8.2	10.8	1
63	15	20	77	10.5	35 <sup>+0 -0.062</sup>	M10 $\times$ 1.5	103	7	84	17	60	9	M10 $\times$ 1.5	14	Rc1/4 <sup>*3</sup>	Rc1/4 <sup>*3</sup>	18	10.5	19	10.2	13.8	1
80	21	25	98	12.5	43 <sup>+0 -0.062</sup>	M16 $\times$ 2.0	132	6	104	22	77	11	M12 $\times$ 1.75	17.5	Rc3/8 <sup>*4</sup>	Rc3/8 <sup>*4</sup>	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 <sup>*4</sup>	Rc3/8 <sup>*4</sup>	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.