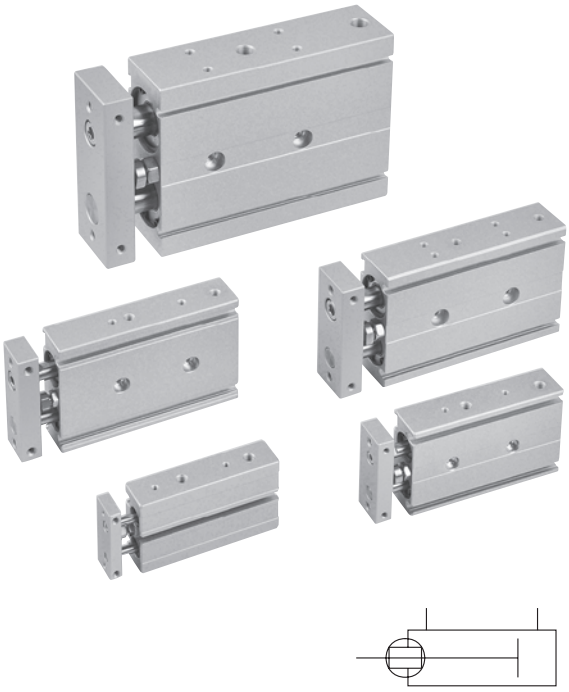
MCDA series

DUAL-ROD CYLINDER



Features

- Compact in width and length with precision guidance.
- High lateral loads can be applied on both slide and linear bearing unit.
- Magnetic as standard.

Specification

Model		MCDA					
Acting type		Double acting					
Tube I.D.(mm)		6	12	16	20	25	32
Port size		M5×0.8				Rc1/8	
Medium		Air					
Operating pressure range (MPa)	Max.	0.7					
	Min.	0.15	0.1		0.05		
Proof pressure		1 MPa					
Ambient temperature		-5~+60°C (No freezing)					
Cushion		With rubber cushion pad (both side)					
Available speed range		50~300	50~500 mm/sec				
Lubrication		Not required (If lubrication is used, apply turbine oil NO1 ISO VG32)					
Sensor switch (*1)		RCE, RCE1, RDEP					

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

Order example

MCDA — 03 — 12 — 50 — □

- MODEL: MCDA
- TYPE OF BEARING:
  - 03: Slide bush
  - 23: Linear bearing
- TUBE I.D.: 12
- STROKE: 50
- PORT THREAD:
  - Blank: M5×0.8 (for ø6~ø20)
  - Blank: Rc thread
  - **G**: G thread
  - **NPT**: NPT thread (for ø25, ø32)

Table for standard stroke

Tube I.D.	Stroke (mm)
ø6	10,20,30,40,50
ø12	10,15,20,25,30,35,40,45,50,60,70,75,80,90,100, 110,120,125,150
ø16	10,15,20,25,30,35,40,45,50,60,70,75,80,90,100, 110,120,125,150
ø20	10,15,20,25,30,35,40,45,50,60,70, 75,80,90,100,110,120,125,150,175,200
ø25	
ø32	

- Please contact us if the stroke is out of specification.
- It is possible to adjust length of basic stroke by 0~5mm.

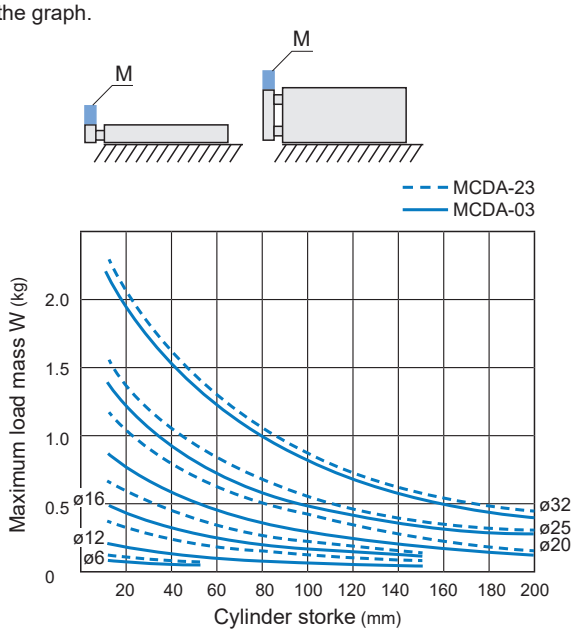
Cylinder weight

Unit: g

Model	Basic weight **MCDA**	Stroke 5mm **MCDA**
Tube I.D.		
ø6	85.8	7.5
ø12	150	8
ø16	222	13
ø20	376	18
ø25	557	27
ø32	1105	42

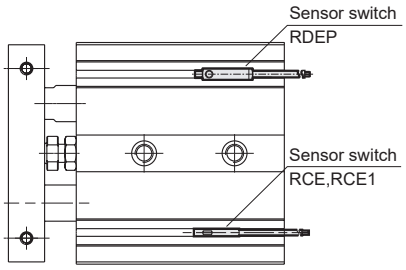
Maximum load mass

When the cylinder mounted as shown in the diagrams below, the maximum load mass W should not exceed the values illustrated in the graph.



Installation of sensor switch

Sensor switch: RCE, RCE1, RDEP

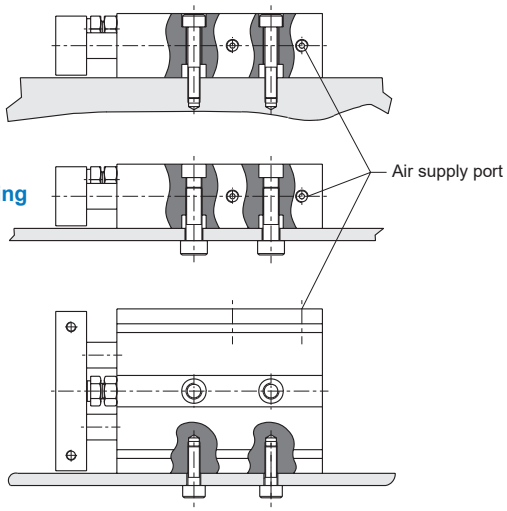


Mounting methods

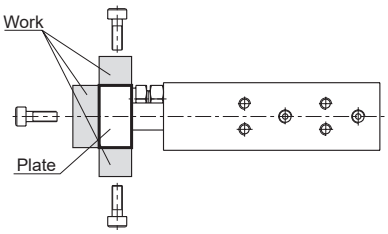
Top mounting

Bottom mounting

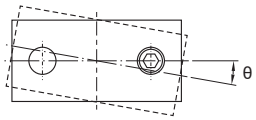
Side mounting



Work can be mounted on three faces of the rod square plate.



Anti-roll accuracy

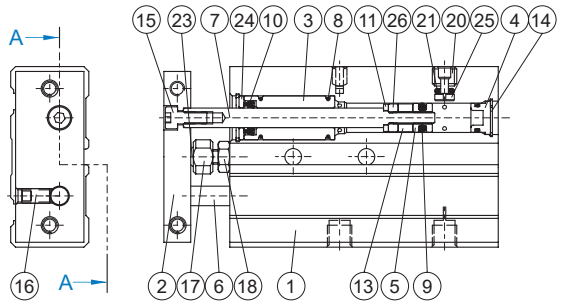


Code / Type	θ				
	ø6	ø12	ø16	ø20	ø25, ø32
MCDA-03	±0.3°	±0.45°	±0.35°	±0.3°	±0.25°
MCDA-23	±0.25°		±0.2°		±0.15°

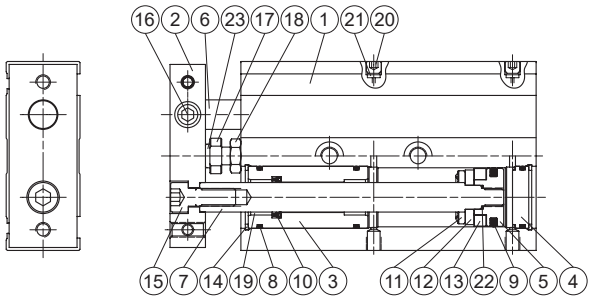
MCDA-03 Inside structure & Parts list

DUAL-ROD CYLINDER

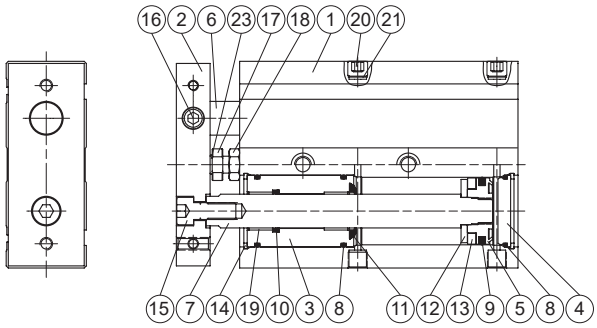
ø6



ø12~ø20



ø25, ø32



Material

No.	Tube I.D. / Part name	6	12	16	20	25	32	Note	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy							1	
2	Plate	Aluminum alloy							1	
3	Rod cover	Aluminum alloy							2	
4	End cover	Aluminum alloy							2	
5	Piston	Aluminum alloy							2	
6	Piston rod #1	Stainless steel				(*)			1	
7	Piston rod #2	Stainless steel				(*)			1	
8	Cover ring	NBR							6	●
9	Piston packing	NBR							2	●
10	Rod packing	NBR							2	●
11	Rod cushion	NBR							2	●
12	Magnet holder	Stainless steel							2	
13	Magnet ring	Magnet material							2	
14	Snap ring	Spring steel							4	
15	Screw	Stainless steel							1	
16	Set screw	Stainless steel							1	
17	Cushion screw	Stainless steel							1	
18	Nut	Carbon steel							1	
19	Rod bush	Bearing alloy							4	
20	Plug (set screw)	Carbon steel							2	
21	Plug ring	NBR							2	●
22	O-ring	NBR						only ø20	2	●
23	Bumper	PU							1	
24	Rod cover washer	Stainless steel						only ø6	2	
25	Plug gasket	Stainless steel						only ø6	1	
26	Spaced ring	Aluminium						only ø6	2	

* Carbon steel

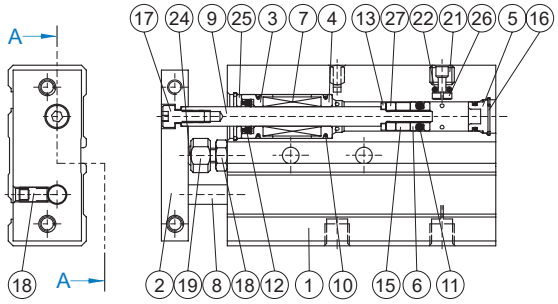
Order example of repair kits

Tube I.D.	Repair kits
ø6	**PS-MCDA-6**
ø12	**PS-MCDA-12**
ø16	**PS-MCDA-16**
ø20	**PS-MCDA-20**
ø25	**PS-MCDA-25**
ø32	**PS-MCDA-32**

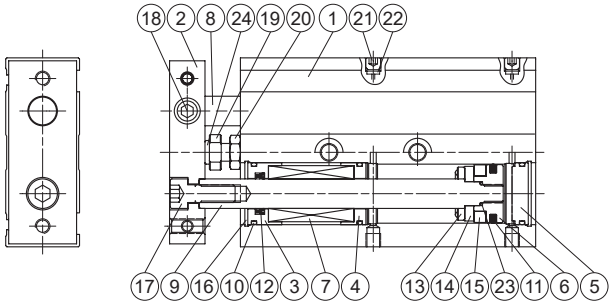
MCDA-23 Inside structure & Parts list

DUAL-ROD CYLINDER

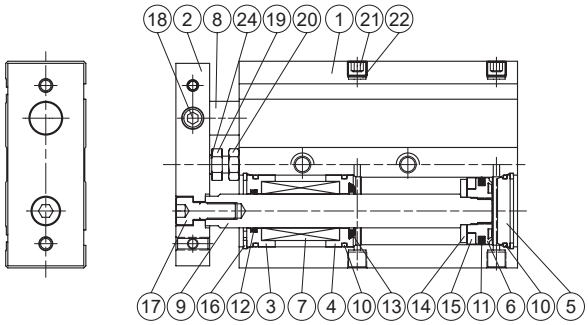
ø6



ø12~ø20



ø25, ø32

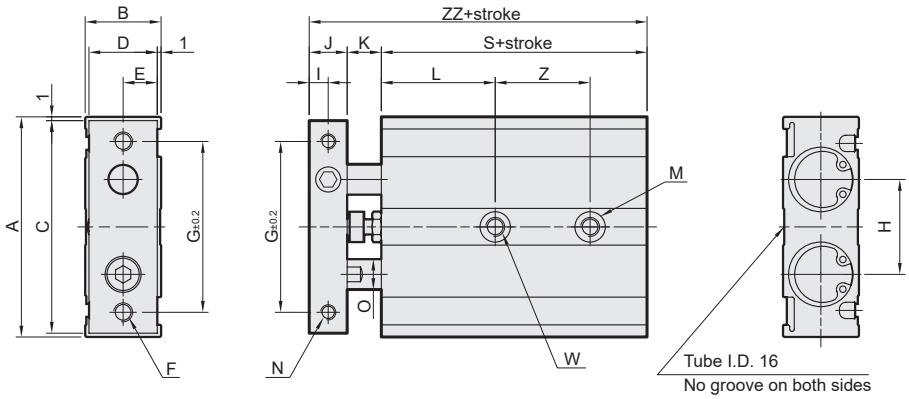


Material

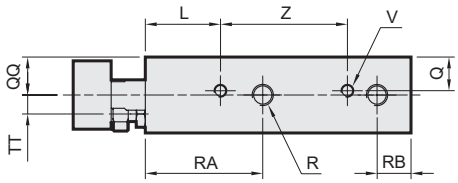
No.	Tube I.D. / Part name	6	12	16	20	25	32	Note	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy							1	
2	Plate	Aluminum alloy							1	
3	Rod cover #1	Aluminum alloy							2	
4	Rod cover #2	Aluminum alloy							2	
5	End cover	Aluminum alloy							2	
6	Piston	Aluminum alloy							2	
7	Slide bush	–							2	
8	Piston rod #1	Special steel							1	
9	Piston rod #2	Special steel							1	
10	Cover ring	NBR							6	●
11	Piston packing	NBR							2	●
12	Rod packing	NBR							2	●
13	Rod cushion	NBR							2	●
14	Magnet holder	Stainless steel							2	
15	Magnet ring	Magnet material							2	
16	Snap ring	Spring steel							4	
17	Screw	Stainless steel							1	
18	Set screw	Stainless steel							1	
19	Cushion screw	Stainless steel							1	
20	Nut	Carbon steel							1	
21	Plug(set screw)	Carbon steel							2	
22	Plug ring	NBR							2	●
23	O-ring	NBR						only ø20	2	●
24	Bumper	PU							1	
25	Rod cover washer	Stainless steel						only ø6	2	
26	Plug gasket	Stainless steel						only ø6	1	
27	Spaced ring	Aluminum						only ø6	2	

Order example of repair kits

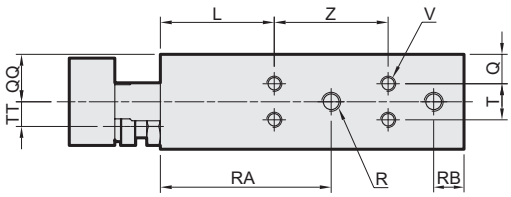
Tube I.D.	Repair kits
ø6	**PS-MCDA-6**
ø12	**PS-MCDA-12**
ø16	**PS-MCDA-16**
ø20	**PS-MCDA-20**
ø25	**PS-MCDA-25**
ø32	**PS-MCDA-32**



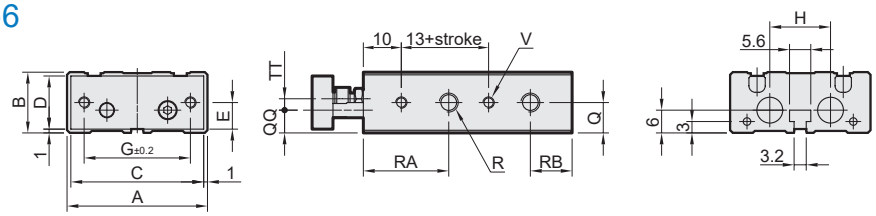
ø12, ø16



ø20~ø32



ø6



MCDA-03 / 23

Code / Tube I.D.	A	B	C	D	E	F (Thru)	G	H	I	J	K	L	M (Both side)	N (Both side)	O	Q	QQ	R (Both side)	RA	RB	S	T
6	37	16	35	14	7	2-M3×0.5	28	16	2.75	5.5	8	13	2-ø6.5×3.3dp *1	2-M3×0.5 thru	4	8	6	4-M5×0.8	22.5	11	45	–
12	46	18	44	16	8	2-M4×0.7	35	19	4	8	9	20	4-ø6.5×3.3dp	4-M3×0.5×5dp	6	9	10	4-M5×0.8	30	8	55	–
16	58	20	56	18	9	2-M5×0.8	45	25	5	10	9	30	4-ø8×4.4dp	4-M4×0.7×6dp	8	10	10	4-M5×0.8	38.5	8	60	–
20	64	25	62	23	11.5	2-M5×0.8	50	28	6	12	12	30	4-ø9.5×5.3dp	4-M4×0.7×6dp	10	7.75	12.5	4-M5×0.8	45	8	70	9.5
25	80	30	78	28	14	2-M6×1.0	60	35	6	12	12	30	4-ø11×6.3dp	4-M5×0.8×8dp	12	8.5	15	4-Rc1/8	46	9	72	13
32	98	38	96	36	18	2-M6×1.0	75	44	8	16	14	30	4-ø11×6.3dp	4-M5×0.8×8dp	16	9	19	4-Rc1/8	56	10	82	20

Code / Tube I.D.	TT	V (Both side)	W (Thru)	Z (Stroke)							ZZ
				10,15,20,25	30,35,40,45,50	60,70,75,80	90,100	110,120,125	150	175,200	
6	3	4-M3×0.5×4.5dp	2-ø3.4	10+1/2 stroke *2							58.5
12	3.5	4-M3×0.5×4.5dp	2-M4×0.7	30	40	50	60	70	80	–	72
16	5	4-M4×0.7×5dp	2-M5×0.8	25	35	45	55	65	75	–	79
20	6.5	8-M4×0.7×5.5dp	2-M6×1.0	30	40	60		80		100	94
25	9	8-M5×0.8×7.5dp	2-M8×1.25	30	40	60		80		100	96
32	11.5	8-M5×0.8×7.5dp	2-M8×1.25	40	50	70		90		110	112

*1. ø6- single side.
*2. ø6- stroke (10, 20, 30, 40, 50)