Handling

⚠ Caution

❶ **Please control the cylinder within the allowable speed range**:

If the cylinder is not using the speed control valve, it may occur beyond the speed range of the piston. If it is used outside the allowable speed range, it will cause cylinder damage or reduce product life. Therefore, please install the speed control valve and adjust the speed within the allowable range. The product allowable speed is shown in Table 1.

❷ **Please note the speed control during vertical installation**:

When the cylinder is used vertically, if the load rate is large, it will cause the speed control valve to exceed the upper limit and could cause sudden unintended acceleration which will affect the product life. Therefore, it is recommended to use a dual speed controller.

❸ **The lateral load of the cylinder during the operation must be within the allowable range**:

Exceeding the allowable value will prevent the cylinder from operating properly and affect the life of the product.

❹ **Do not scratch the mounting surface of the cylinder body and end plate to avoid affecting the flatness**:

If the flatness of the mounting surface is poor, the cylinder will malfunction. The mounting surface of the cylinder body and the end plate should have a flatness of less than 0.05 mm.

❺ **Do not cause surface damage or impact marks on the operating parts of the piston rod and the guide rod**:

Damage to the appearance will result in damage to the seal ring which could cause leakage or malfunction of the cylinder.

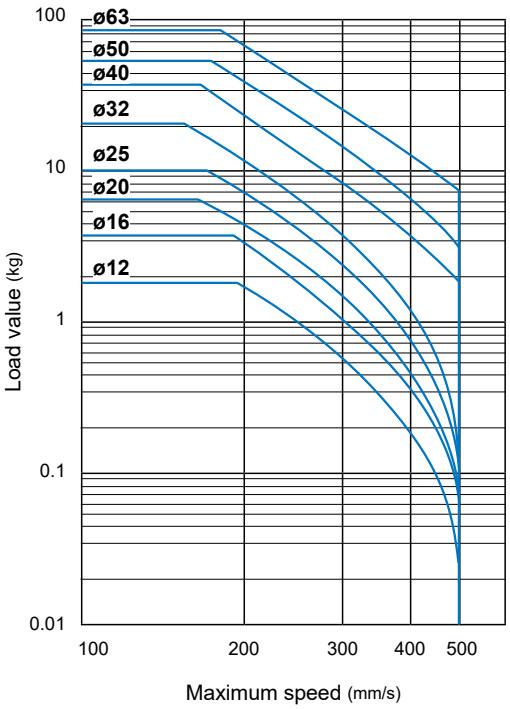


Table 1

MCGS series ø12~ø63

TWIN-GUIDE CYLINDER

ø6,ø10

Applications

Technical data

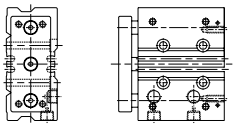
Caution for safety
(Read beforeinstalling)



Features

- Proven track record in manufacturing precision guided cylinders.
- Multi-Ports as standard enabling two direction mounting option.
- Flush fitting sensors.
- Magnetic as standard

Specification

Model	MCGS		
Model			
Acting type	Double acting		
Tube I.D. (mm)	12,16	20,25,32,40	50,63
Port size	M5×0.8	Rc1/8	Rc1/4
Medium	Air		
Operating perssure range	0.1~1 MPa		
Proof pressure	1.5 MPa		
Ambient temperature	–5~+60°C (No freezing)		
Cushion	With rubber cushion pad		
Available speed range	50~500 mm/sec		
Lubrication	Not required		
Sensor switch (*)	RCE, RCE1, RDEP		

* For precautions .

Order example

MCGS — 03 — 20 — 50 — 20 — G

- MODEL
- PURPOSE / TYPE OF BEARING
- TUBE I.D.
- STROKE
- ADJUST STROKE (for 07, 27 type)
- PORT THREAD
  Blank: M5×0.8 (for ø12, ø16)
  Blank: Rc thread
  G: G thread
  NPT: NPT thread (for ø20~ø63)

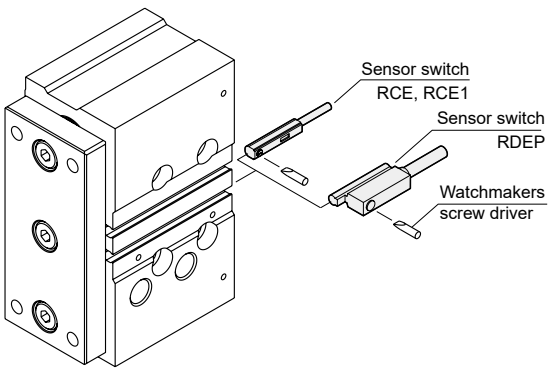
Code	Purpose / Type of bearing
03	Stop / Slide bush
07	Stop / Slide bush / Stroke adjustable
23	Push / Linear bearing (Could attach a table for the use as a lifter)
27	Push / Linear bearing / Stroke adjustable (Could attach a table for the use as a lifter)

Table for standard stroke

Series variety (Bearing type)	Tube I.D.	Stroke (mm) 10	20	25	30	40	50	75	100	125	150	175	200	250	300	350	400
MCGS-03 MCGS-07 (Slide bush)	ø12	■	■		■	■	■	■	■	■	■	■	■	■			
	ø16	■	■		■	■	■	■	■	■	■	■	■	■			
	ø20		■		■	■	■	■	■	■	■	■	■	■	■	■	■
	ø25		■		■	■	■	■	■	■	■	■	■	■	■	■	■
	ø32*			■			■	■	■	■	■	■	■	■	■	■	■
	ø40			■			■	■	■	■	■	■	■	■	■	■	■
	ø50			■			■	■	■	■	■	■	■	■	■	■	■
	ø63			■			■	■	■	■	■						
MCGS-23 MCGS-27 (Linear bearing)	ø12	■	■		■	■	■	■	■	■	■	■	■	■			
	ø16	■	■		■	■	■	■	■	■	■	■	■	■			
	ø20		■		■	■	■	■	■	■	■	■	■	■	■	■	■
	ø25		■		■	■	■	■	■	■	■	■	■	■	■	■	■
	ø32*			■			■	■	■	■	■	■	■	■	■	■	■
	ø40			■			■	■	■	■	■	■	■	■	■	■	■
	ø50			■			■	■	■	■	■	■	■	■	■	■	■
	ø63			■			■	■	■	■	■						

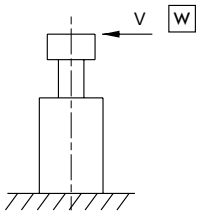
* Tube I.D. ø32: 25mm for the shortest standard stroke.
* Adjustable air cushion type, please contact us.

Installation of sensor switch



Capacity graph

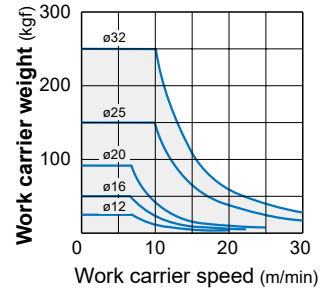
Capacity for the use as a stopper



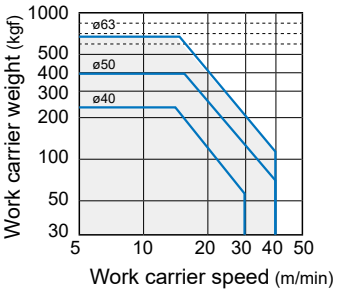
Linear bearing type is not available as a stopper.

Stop capacity

MCGS-03/07...30st ø12~ø32

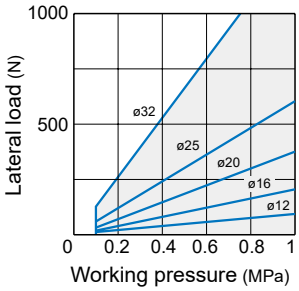


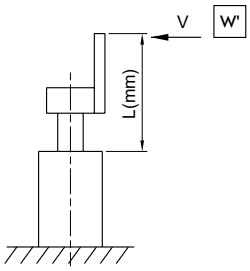
MCGS-03/07...25st ø40~ø63



Normal lateral load

MCGS-03/07...30st





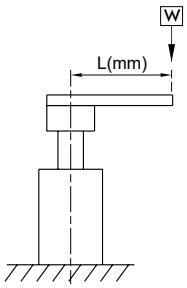
$$W = W' \times \frac{L}{\ell}$$

For the use of attaching a plate to the link bar, choose a bore size referring to the formula below.

W: The maximum weight of the work carrier in the above graph for the stopper's capacity.

Coefficients for conversion

Tube I.D.	ℓ
ø12	40
ø16	42
ø20	42
ø25	42
ø32	44
ø40	72
ø50	78
ø63	78



Capacity for the use as a lifter

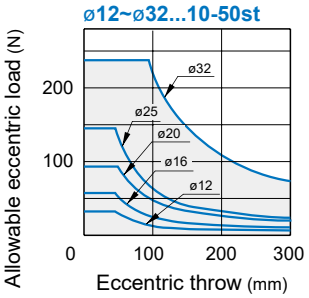
Allowable eccentricity load for the use as a lifter (at supply pressure 0.5 MPa)

Show the dynamic allowable value at L(mm) eccentricity from the center of the guide rod.

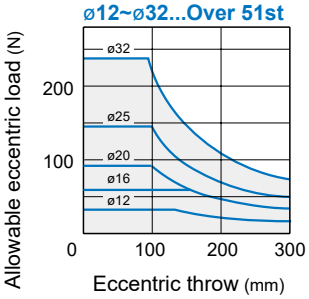
Slide bush

MCGS-03/07

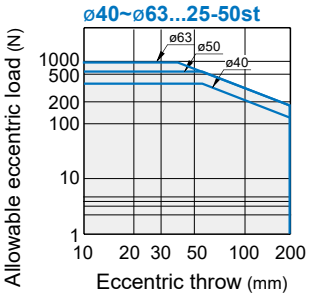
ø12~ø32...10-50st



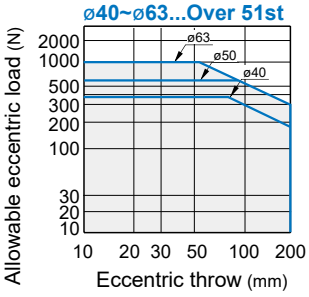
ø12~ø32...Over 51st



ø40~ø63...25-50st



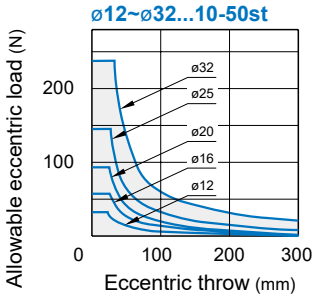
ø40~ø63...Over 51st



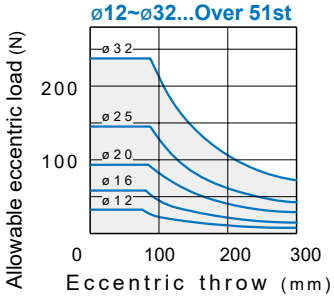
Linear bearing

MCGS-23/27

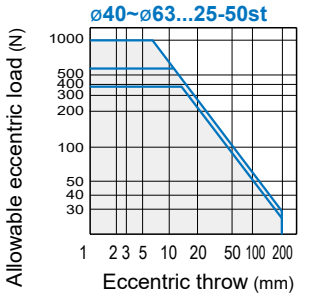
ø12~ø32...10-50st



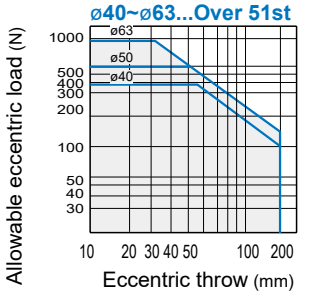
ø12~ø32...Over 51st



ø40~ø63...25-50st

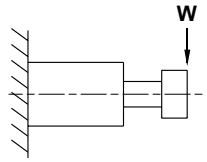


ø40~ø63...Over 51st



Capacity table

Allowable lateral load

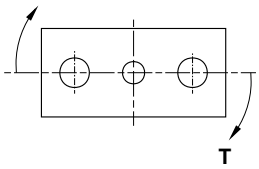


Shows the dynamic allowable value, when actuating the cylinder with lateral load W at the guide rods' top (vertical load against the guide rods).

Unit: N

Tube I.D.	Bearing type	Stroke (mm)															
		10	20	25	30	40	50	75	100	125	150	175	200	250	300	350	400
ø12	Slide bush	31	24	–	19	16	13	37	31	15	13	12	10	9	–	–	–
	Linear bearing	23	17	–	14	34	30	23	19	12	11	9	8	6	–	–	–
ø16	Slide bush	50	39	–	32	27	24	54	45	27	24	21	19	16	–	–	–
	Linear bearing	36	29	–	24	59	52	40	33	20	17	15	13	10	–	–	–
ø20	Slide bush	–	51	–	44	39	35	54	46	74	66	59	54	28	24	21	19
	Linear bearing	–	43	–	36	98	87	69	57	46	40	36	32	32	27	23	20
ø25	Slide bush	–	68	–	59	52	46	72	61	98	88	79	72	53	46	41	37
	Linear bearing	–	67	–	56	148	132	105	87	70	62	55	50	42	36	30	27
ø32	Slide bush	–	–	165	–	–	129	106	90	138	123	111	101	88	77	68	61
	Linear bearing	–	–	104	–	–	74	165	138	114	100	90	81	66	56	48	42
ø40	Slide bush	–	–	203	–	–	164	182	159	142	127	190	174	150	132	118	106
	Linear bearing	–	–	113	–	–	78	129	106	130	114	106	95	78	67	58	50
ø50	Slide bush	–	–	296	–	–	245	273	241	216	195	190	174	150	132	118	106
	Linear bearing	–	–	120	–	–	83	178	148	148	129	106	95	78	67	58	50
ø63	Slide bush	–	–	296	–	–	245	273	241	216	195	–	–	–	–	–	–
	Linear bearing	–	–	117	–	–	81	176	145	145	126	–	–	–	–	–	–

Allowable rotating torque

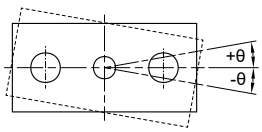


Shows the dynamic allowable value, when actuating the cylinder with a rotating torque T at the guide rods' top.

Unit: N.m

Tube I.D.	Bearing type	Stroke (mm)															
		10	20	25	30	40	50	75	100	125	150	175	200	250	300	350	400
ø12	Slide bush	0.64	0.48	–	0.39	0.32	0.28	0.75	0.63	0.15	0.13	0.12	0.11	0.09	–	–	–
	Linear bearing	0.47	0.35	–	0.29	0.71	0.62	0.40	0.38	0.13	0.11	0.09	0.08	0.07	–	–	–
ø16	Slide bush	1.14	0.90	–	0.74	0.63	0.55	1.23	1.04	0.31	0.27	0.24	0.22	0.18	–	–	–
	Linear bearing	0.84	0.66	–	0.54	1.35	1.19	0.93	1.76	0.23	0.19	0.17	0.15	0.12	–	–	–
ø20	Slide bush	–	1.14	–	1.21	1.07	0.95	1.49	1.25	2.03	1.81	1.63	1.48	0.37	0.32	0.29	0.26
	Linear bearing	–	1.19	–	0.99	2.69	2.40	1.89	1.56	1.26	1.10	0.98	0.88	0.43	0.36	0.31	0.27
ø25	Slide bush	–	2.19	–	1.88	1.65	1.47	2.31	1.94	3.15	2.80	2.52	2.30	0.85	0.74	0.66	0.59
	Linear bearing	–	2.14	–	1.79	4.74	4.22	3.36	2.78	2.25	1.98	1.76	1.59	0.68	0.57	0.49	0.42
ø32	Slide bush	–	–	6.61	–	–	5.16	4.23	3.59	5.52	4.93	4.45	4.06	1.72	1.50	1.33	1.20
	Linear bearing	–	–	4.17	–	–	2.95	6.60	5.52	4.56	4.02	3.59	3.24	1.29	1.09	0.94	0.82
ø40	Slide bush	–	–	7.00	–	–	5.66	6.27	5.48	4.87	4.38	5.21	4.79	4.13	3.63	3.23	2.92
	Linear bearing	–	–	5.24	–	–	4.25	7.19	6.33	7.81	7.11	2.93	2.61	2.16	1.83	1.58	1.39
ø50	Slide bush	–	–	13.0	–	–	10.8	12.0	10.6	9.50	8.60	5.88	5.41	4.66	4.09	3.65	3.29
	Linear bearing	–	–	7.02	–	–	5.76	12.3	10.9	11.2	10.2	3.30	2.94	2.43	2.06	1.78	1.57
ø63	Slide bush	–	–	14.7	–	–	12.1	13.5	12.0	10.7	9.69	–	–	–	–	–	–
	Linear bearing	–	–	7.77	–	–	3.35	13.7	12.2	12.5	11.4	–	–	–	–	–	–

Anti-roll accuracy



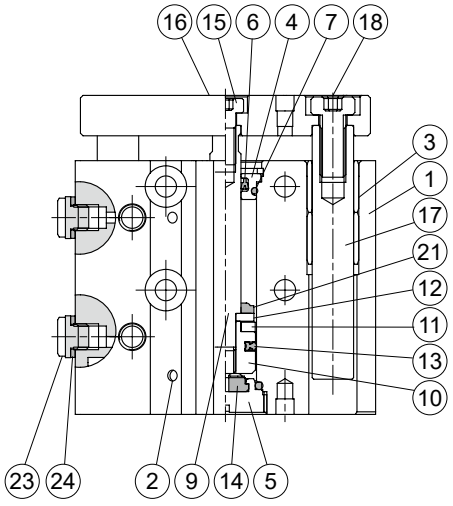
- The values are the deflection angle against the piston rod.
- Exclusive factor of the guide rods' deflection.

Tube I.D.	Bearing type	Anti-roll accuracy
		θ
ø12	Slide bush	±0.09°
	Linear bearing	±0.06°
ø16	Slide bush	±0.08°
	Linear bearing	±0.06°
ø20	Slide bush	±0.08°
	Linear bearing	±0.03°
ø25	Slide bush	±0.07°
	Linear bearing	±0.05°
ø32	Slide bush	±0.07°
	Linear bearing	±0.03°
ø40	Slide bush	±0.06°
	Linear bearing	±0.08°
ø50	Slide bush	±0.05°
	Linear bearing	±0.06°
ø63	Slide bush	±0.05°
	Linear bearing	±0.06°

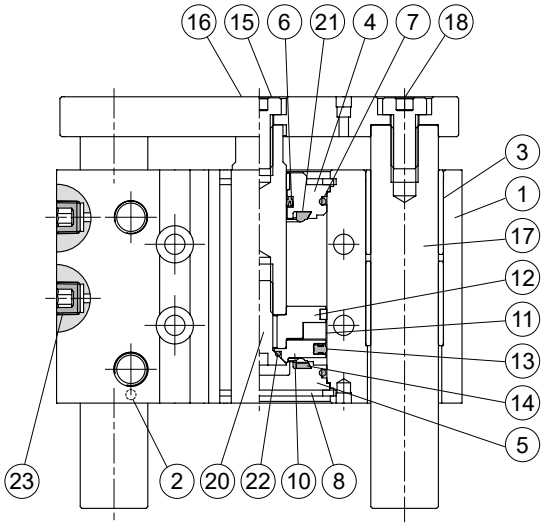
MCGS-03 Inside structure & Parts list

TWIN-GUIDE CYLINDER

ø12~ø16



ø20~ø63



Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy								1	
2	Ball	Stainless steel								1~3	
3	Slide bush	Bronze alloy						Bearing alloy		4	
4	Rod cover	Aluminum alloy								1	
5	Head cover	(*1)	Carbon steel				Aluminum alloy			1	
6	Rod packing	NBR								1	●
7	Cover ring	NBR								2	●
8	Snap ring	Spring steel								2	
9	Piston rod	Stainless steel			Carbon steel					1	
10	Piston	Aluminum alloy								1	
11	Magnet ring	Magnet material								1	
12	Magnet holder	Stainless steel					Aluminum alloy			1	
13	Piston packing	NBR								1	●
14	Head cushion	NBR								1	●
15	Bolt	SCM								1	
16	Plate	Carbon steel								1	
17	Guide rod	Carbon steel								2	
18	Screw	SCM								2	
19	Rod bush	—					Bearing alloy			1	
20	Piston bolt	—					SCM			1	
21	Rod cushion	NBR								1	●
22	Piston gasket	—					NBR			1	●
23	Screw	Bronze alloy		Carbon steel (*2)						2	
24	Washer	PET		—						2	

*1. Aluminum alloy *2. The material changes into bronze alloy when the part thread is BSPF. (JISPF)

Order example of repair kits

Tube I.D.	Repair kits
ø12	**PS-MCGS-12**
ø16	**PS-MCGS-16**
ø20	**PS-MCGS-20**
ø25	**PS-MCGS-25**
ø32	**PS-MCGS-32**
ø40	**PS-MCGS-40**
ø50	**PS-MCGS-50**
ø63	**PS-MCGS-63**

Cylinder weight

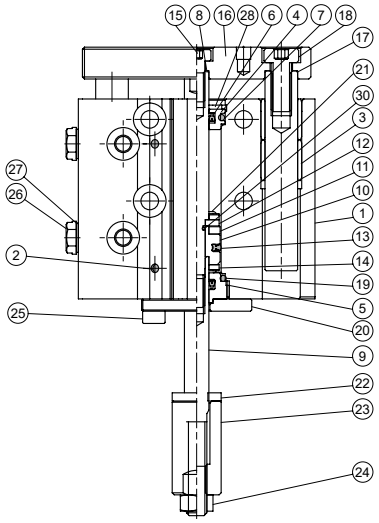
Unit: g

Model	Basic weight **MCGS-03**	Stroke 5mm **MCGS-03**
Tube I.D.		
ø12	191	21
ø16	283	28
ø20	450	45
ø25	670	63
ø32	1,210	90
ø40	1,474	88
ø50	2,540	140
ø63	3,295	151

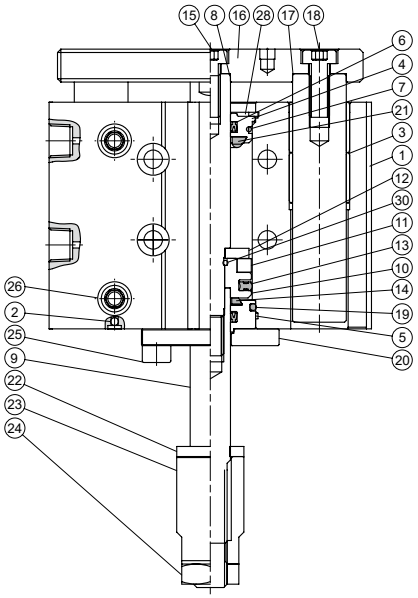
MCGS-07 Inside structure & Parts list

TWIN-GUIDE CYLINDER

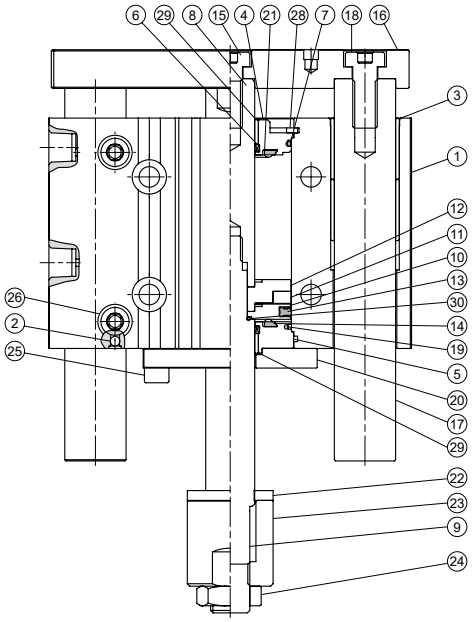
ø12~ø16



ø20~ø32



ø40~ø63



Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy								1	
2	Ball	Stainless steel								1~3	
3	Slide bush	Bronze alloy						Bearing alloy		4	
4	Rod cover #1	Aluminum alloy								1	
5	Rod cover #2	Aluminum alloy								1	
6	Rod packing	NBR								2	●
7	Cover ring #1	NBR								1	●
8	Piston rod #1	Stainless steel			Carbon steel					1	
9	Piston rod #2	Stainless steel			Carbon steel					1	
10	Piston	Aluminum alloy								1	
11	Magnet ring	Magnet material								1	
12	Magnet holder	Stainless steel					Aluminum alloy			1	
13	Piston packing	NBR								1	●
14	Head cushion	NBR								1	●
15	Bolt	SCM								1	
16	Plate	Carbon steel								1	
17	Guide rod	Carbon steel								2	
18	Bolt	SCM								2	
19	Cover ring #2	NBR								1	●
20	FBC board	Carbon steel								1	
21	Rod cushion	NBR								1	●
22	Gasket	PU								1	
23	Adjustable nut	Carbon steel								1	
24	Nut	Carbon steel								1	
25	Bolt	Stainless steel			SCM					2	
26	Screw	Bronze alloy			Carbon steel (*)					2	
27	Washer	PET			—					2	
28	Snap ring	Spring steel								1	
29	Bush	—					Bearing alloy			2	
30	Piston gasket	NBR								1	●

Order example of repair kits

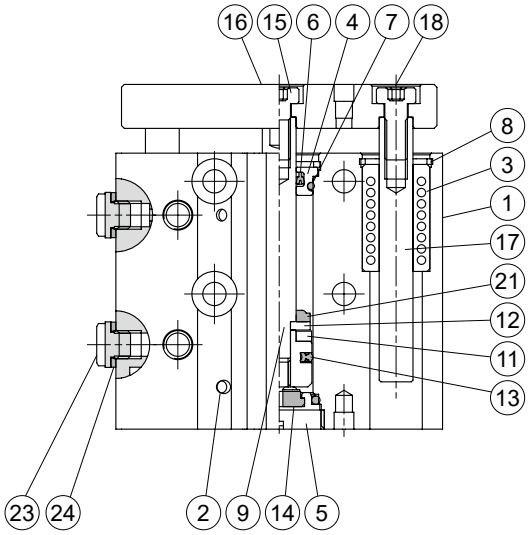
Tube I.D.	Repair kits
ø12	**PS-MCGS-2-12**
ø16	**PS-MCGS-2-16**
ø20	**PS-MCGS-2-20**
ø25	**PS-MCGS-2-25**
ø32	**PS-MCGS-2-32**
ø40	**PS-MCGS-2-40**
ø50	**PS-MCGS-2-50**
ø63	**PS-MCGS-2-63**

* The material changes into bronze alloy when the part thread is BSPF. (JISPF)

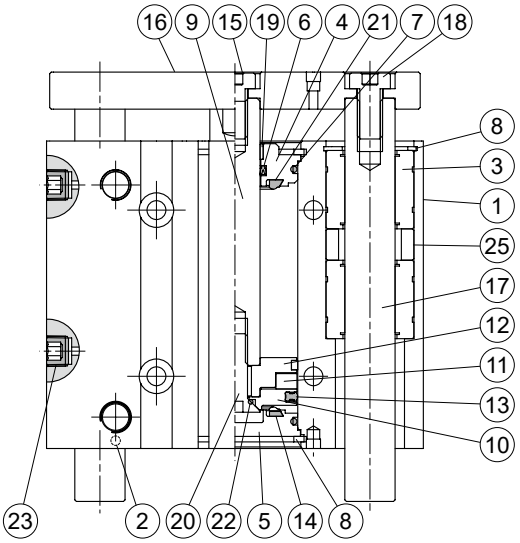
MCGS-23 Inside structure & Parts list

TWIN-GUIDE CYLINDER

ø12~ø16



ø20~ø63



Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy								1	
2	Ball	Stainless steel								1~3	
3	Linear bearing	—								2 or 4	
4	Rod cover	Aluminum alloy								1	
5	Head cover	(*1)	Carbon steel				Aluminum alloy			1	
6	Rod packing	NBR								1	●
7	Cover ring	NBR								2	●
8	Snap ring	Spring steel								2	
9	Piston rod	Stainless steel		Carbon steel						1	
10	Piston	Aluminum alloy								1	
11	Magnet ring	Magnet material								1	
12	Magnet holder	Stainless steel					Aluminum alloy			1	
13	Piston packing	NBR								1	●
14	Head cushion	NBR								1	●
15	Bolt	SCM								1	
16	Plate	Carbon steel								1	
17	Guide rod	Special steel								2	
18	Screw	SCM								2	
19	Rod bush	—					Bearing alloy			1	
20	Piston bolt	—					SCM			1	
21	Rod cushion	NBR								1	●
22	Piston gasket	—					NBR			1	●
23	Screw	Bronze alloy		Carbon steel (*2)						2	
24	Washer	PET		—						2	
25	Collar (*3)	Aluminum alloy		Carbon steel						2	

Order example of repair kits

Tube I.D.	Repair kits
ø12	**PS-MCGS-12**
ø16	**PS-MCGS-16**
ø20	**PS-MCGS-20**
ø25	**PS-MCGS-25**
ø32	**PS-MCGS-32**
ø40	**PS-MCGS-40**
ø50	**PS-MCGS-50**
ø63	**PS-MCGS-63**

Cylinder weight

Unit: g

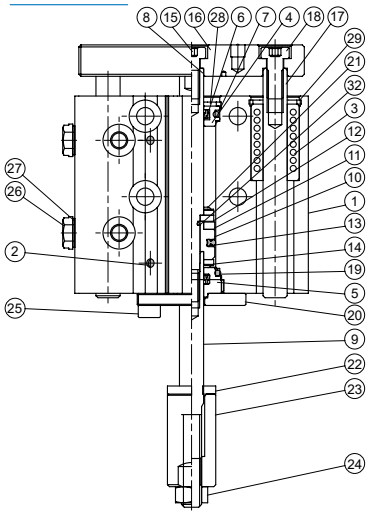
Model	Basic weight **MCGS-23**	Stroke 5mm **MCGS-23**
Tube I.D.		
ø12	211	18
ø16	260	30
ø20	470	45
ø25	740	60
ø32	1,170	85
ø40	1,300	98
ø50	2,360	150
ø63	3,010	168

*1. Aluminum alloy *2. The material changes into bronze alloy when the part thread is BSPF. (JISPF) *3. Use for stroke 101 or more.

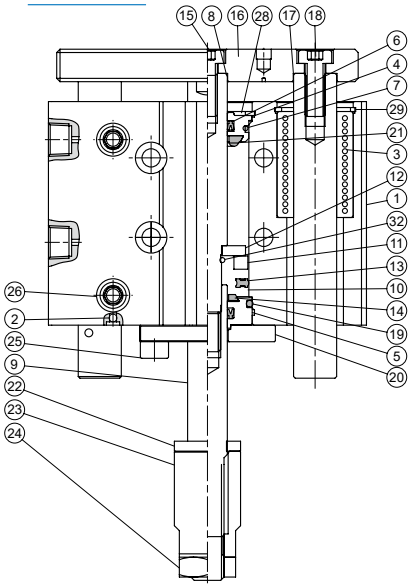
MCGS-27 Inside structure & Parts list

TWIN-GUIDE CYLINDER

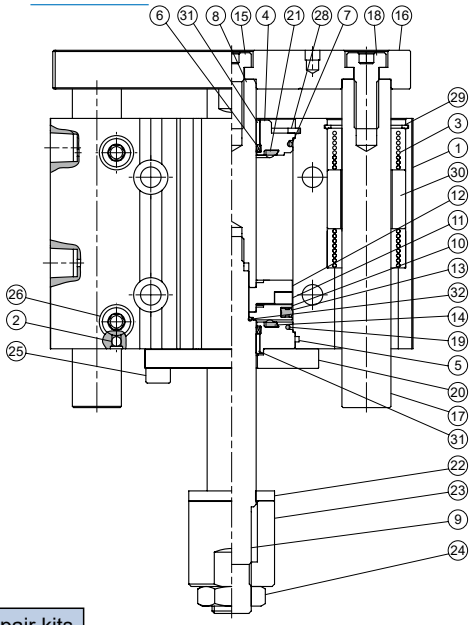
ø12~ø16



ø20~ø32



ø40~ø63



Material

No.	Tube I.D. / Part name	12	16	20	25	32	40	50	63	Q'y	Repair kits (inclusion)
1	Body	Aluminum alloy								1	
2	Ball	Stainless steel								1~3	
3	Linear bearing	—								2 or 4	
4	Rod cover #1	Aluminum alloy								1	
5	Rod cover #2	Aluminum alloy								1	
6	Rod packing	NBR								2	●
7	Cover ring #1	NBR								1	●
8	Piston rod #1	Stainless steel			Carbon steel					1	
9	Piston rod #2	Stainless steel			Carbon steel					1	
10	Piston	Aluminum alloy								1	
11	Magnet ring	Magnet material								1	
12	Magnet holder	Stainless steel					Aluminum alloy			1	
13	Piston packing	NBR								1	●
14	Head cushion	NBR								1	●
15	Bolt	SCM								1	
16	Plate	Carbon steel								1	
17	Guide rod	Special steel								2	
18	Bolt	SCM								2	
19	Cover ring #2	NBR								1	●
20	FBC board	Carbon steel								1	
21	Rod cushion	NBR								1	●
22	Gasket	PU								1	
23	Adjustable nut	Carbon steel								1	
24	Nut	Carbon steel								1	
25	Bolt	Stainless steel		SCM						2	
26	Screw	Bronze alloy		Carbon steel (*2)						2	
27	Washer	PET		—						2	
28	Snap ring #1	Spring steel								1	
29	Snap ring #2	Spring steel								2	
30	Collar (*1)	Aluminum alloy		Carbon steel						2	
31	Bush	—					Bearing alloy			2	
32	Piston gasket	NBR								1	●

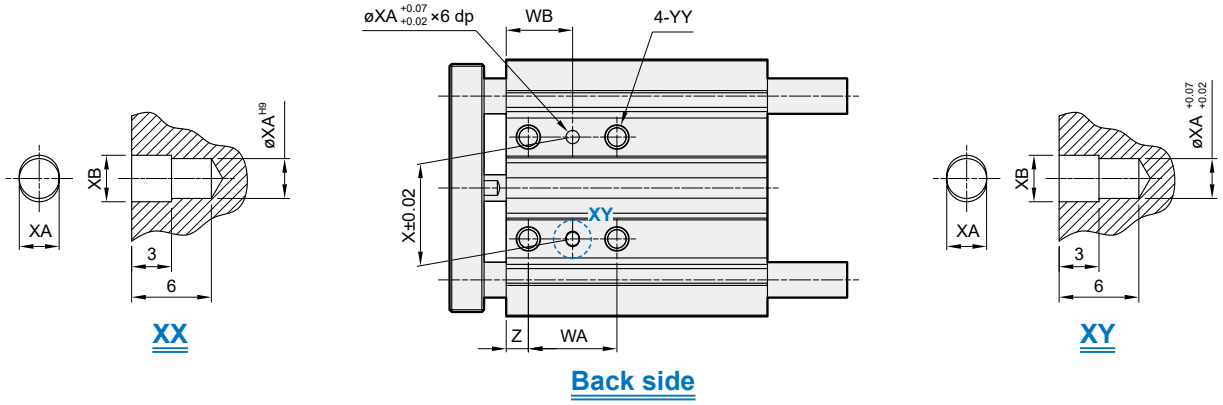
Order example of repair kits

Tube I.D.	Repair kits
ø12	**PS-MCGS-2-12**
ø16	**PS-MCGS-2-16**
ø20	**PS-MCGS-2-20**
ø25	**PS-MCGS-2-25**
ø32	**PS-MCGS-2-32**
ø40	**PS-MCGS-2-40**
ø50	**PS-MCGS-2-50**
ø63	**PS-MCGS-2-63**

*1. Use for stroke 101 or more.
*2. The material changes into bronze alloy when the part thread is BSPF. (JISPF)

MCGS-03/23 Dimensions ø12~ø32

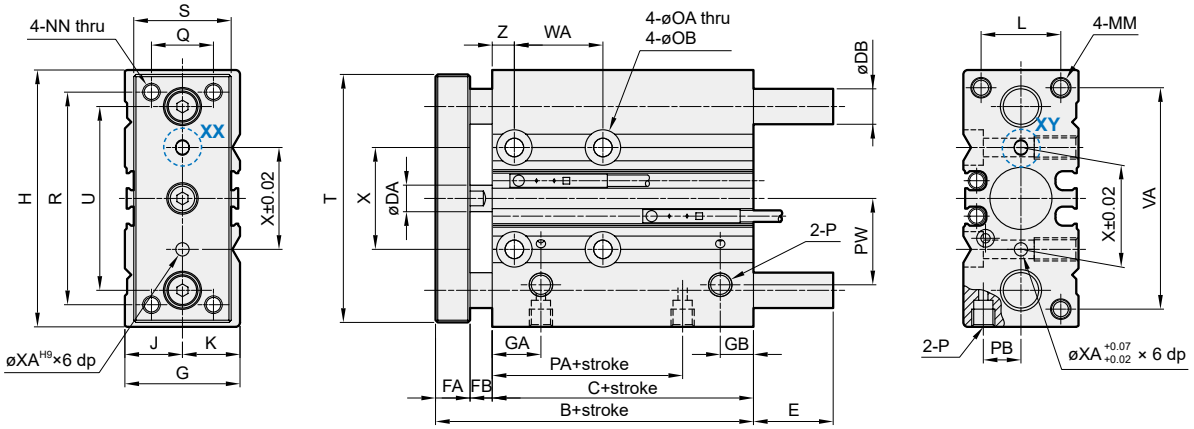
TWIN-GUIDE CYLINDER



XX

Back side

XY



MCGS-03 / MCGS-23

Code / Tube I.D.	B	C	DA	DB		FA	FB	G	GA	GB	H	J	K	L	MM	NN	OA	OB	P	PA	PB
				03 type	23 type																
12	42	29	6	8	6	8	5	26	11	15(*1)	58	13	13	18	M4×0.7×10dp	M4×0.7	4.3	8.0×4.5dp	M5×0.8	14	8.5
16	46	33	8	10	8	8	5	30	11	18(*2)	64	15	15	22	M5×0.8×12dp	M5×0.8	4.3	8.0×4.5dp	M5×0.8	15	10.0
20	53	37	10	12	10	10	6	36	10.5	8.5	85	17	19	24	M5×0.8×13dp	M5×0.8	5.2	9.5×5.5dp	Rc1/8	12.5	11.5
25	53.5	37.5	12	16	13	10	6	42	11.5	9	96	21	21	30	M6×1.0×15dp	M6×1.0	5.2	9.5×5.5dp	Rc1/8	12.5	13.5
32	59.5	37.5	16	20	16	12	10	51	12.5	9	116	26	25	34	M8×1.25×20dp	M8×1.25	6.6	11.0×7.5dp	Rc1/8	7	16.0

Code / Tube I.D.	PW	Q	R	S	T	U	VA	X	XA	XB	YY	Z
12	18	14	48	22	56	41.5	50	23	3	3.5	M5×0.8×10dp	5
16	19	16	54	25	62	46	56	24	3	3.5	M5×0.8×10dp	5
20	25	18	70	30	81	55	72	28	3	3.5	M6×1.0×12dp	17
25	28.5	26	78	38	91	65	82	34	4	4.5	M6×1.0×12dp	17
32	34	30	96	44	110	80	98	42	4	4.5	M8×1.25×16dp	21

Code / Tube I.D.	WA					WB				
	~39st	40~100st	125~200st	201st~300st	301st~	~39st	40~100st	125~200st	201st~300st	301st~
12	20	40	110	200	—	15	25	60	105	—
16	24	44	110	200	—	17	27	60	105	—
20	24	44	120	200	300	29	39	77	117	167
25	24	44	120	200	300	29	39	77	117	167

Code / Tube I.D.	WA					WB				
	25~49st	50~100st	125~200st	201st~300st	301st~	25~49st	50~100st	125~200st	201~300st	301st~
32	24	48	124	200	300	33	45	83	121	171

*1. When stroke length is equal to 19mm or less, GB=7.5 mm
*2. When stroke length is equal to 19mm or less, GB=9 mm

MCGS-03

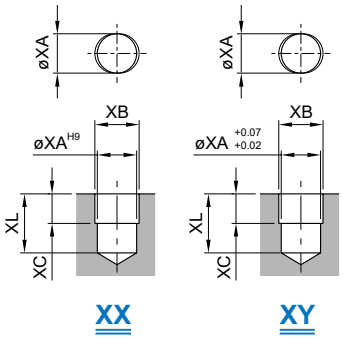
Code / Tube I.D.	E		
	10~50st	51~100st	101st~
12	—	18.5	43
16	—	18.5	49
	10~50st	51~200st	201st~
20	—	31.5	69
25	—	31.5	68.5
32	37.5	42.5	80.5

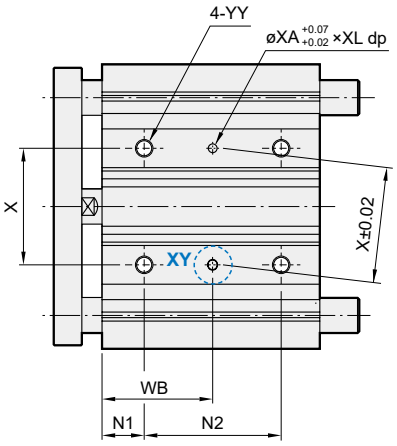
MCGS-23

Code / Tube I.D.	E			
	10~30st	31~100st	101st~	
12	1	13	43	
16	3	19	49	
	20~30st	31~100st	101~200st	201st~
20	10	27	51	69
25	16	32	51	68.5
32	21.5	38.5	58.5	80.5

MCGS-03/23 Dimensions ø40~ø63

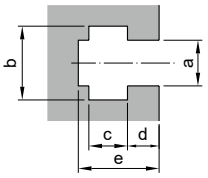
TWIN-GUIDE CYLINDER





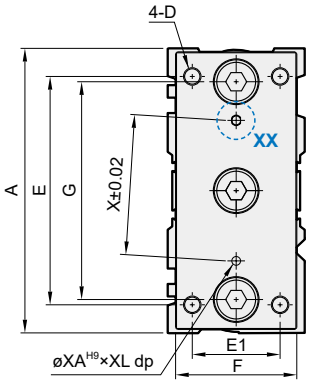
Back side

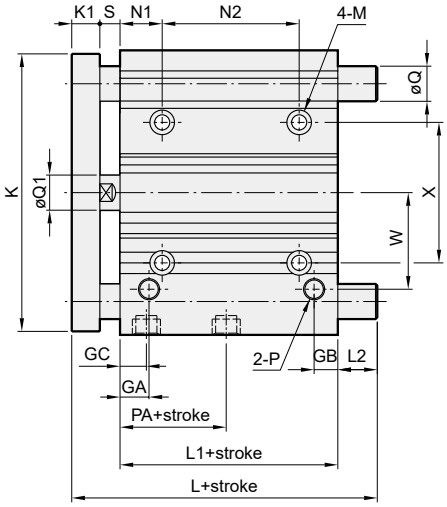
T slot for hexagon head bolt

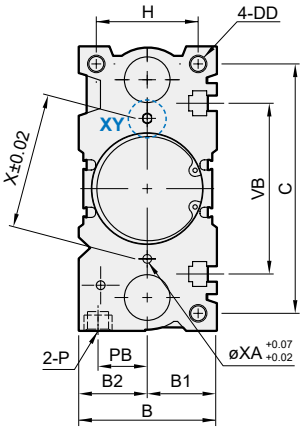


T slot for hexagon head bolt

Code / Tube I.D.	a	b	c	d	e
40	6.5	10.5	5.5	4	11
50	8.5	13.5	7.5	4.5	13.5
63	11	17.8	10	7	18.5







MCGS-03 / MCGS-23

Code / Tube I.D.	A	B	B1	B2	C	D	DD	E	E1	F	G	GA	GB	GC	H	K	K1	L1	M	N1	P
40	120	54	27	27	106	M8×1.25	M8×1.25×20 dp	104	30	44	86	14	10	14	40	118	12	44	ø6.8thru, ø11×7.5dp	22	Rc1/8
50	148	64	32	32	130	M10×1.5	M10×1.5×22 dp	130	40	60	110	14	11	12	46	146	16	44	ø8.6thru, ø14×9dp	24	Rc1/4
63	162	78	39	39	142	M10×1.5	M10×1.5×22 dp	130	50	70	124	16.5	13.5	16.5	58	158	16	49	ø8.6thru, ø14×9dp	24	Rc1/4

Code / Tube I.D.	PA	PB	Q1	S	VB	W	X	XA	XB	XC	XL	YY	N2					WB				
													25st	50,75,100st	101st~200st	201~300st	301~400st	25st	50,75,100st	101st~200st	201~300st	301~400st
40	13	18	16	10	72	38	50	ø4	4.5	3	6	M8×1.25×16 dp	24	48	124	200	300	34	46	84	122	172
50	9	21.5	20	12	92	47	66	ø5	6	4	8	M10×1.5×20 dp	24	48	124	200	300	36	48	86	124	174
63	14	28	20	12	110	55	80	ø5	6	4	8	M10×1.5×20 dp	28	52	128	–	–	38	50	88	–	–

MCGS-03

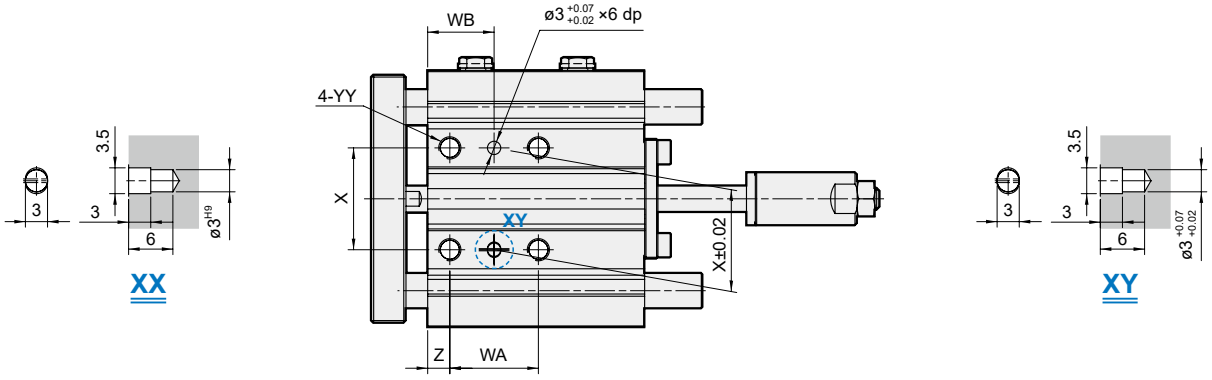
Code / Tube I.D.	L		L2			Q
	25,50st	51st~	25,50st	51~200st	201~400st	
40	97	102	31	36	63.5	ø20
50	106.5	118	34.5	46	78.5	ø25
63	106.5	118	29.5	41	–	ø25

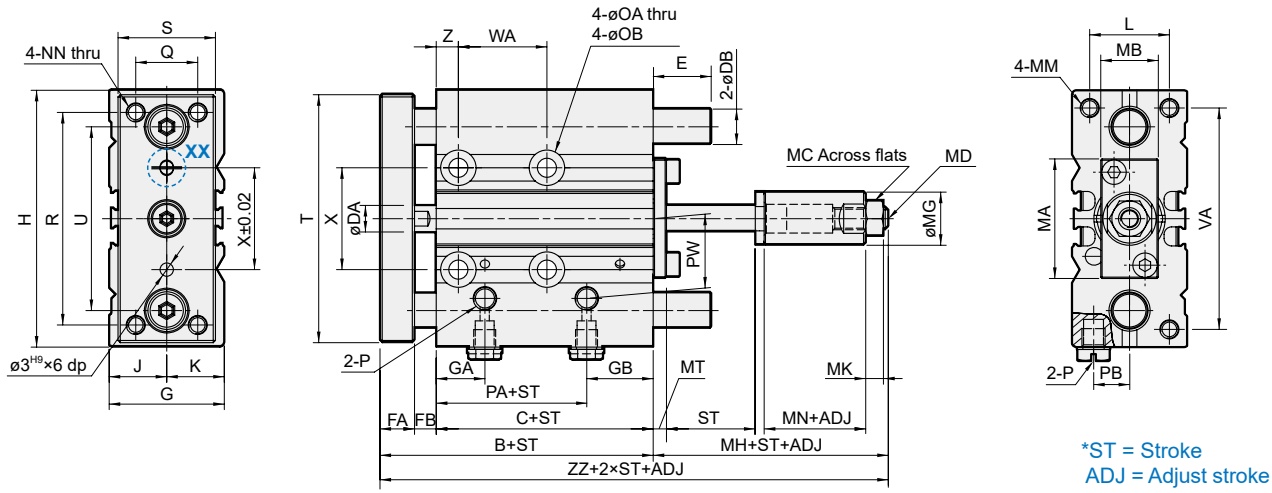
MCGS-23

Code / Tube I.D.	L			L2				Q
	25,50st	75,100st	101st~	25,50st	75,100st	101~200st	201~400st	
40	81	98	118	15	32	52	72.5	ø16
50	93	114	134	21	42	62	87.5	ø20
63	93	114	134	16	37	57	–	ø20

MCGS-07/27 Dimensions ø12~ø20

TWIN-GUIDE CYLINDER





*ST = Stroke
ADJ = Adjust stroke

MCGS-07 / MCGS-27

Code / Tube I.D.	B	C	DA	DB		FA	FB	G	GA	GB	H	J	K	L	MA	MB	MC	MD	MG	MH	MK	MN	MM	MT
				07 type	27 type																			
12	42	29	6	8	6	8	5	26	11	15(*1)	58	13	13	18	27	13	8	M5×0.8	12	23	4	13	M4×0.7×10dp	3
16	46	33	8	10	8	8	5	30	11	18(*2)	64	15	15	22	28	16	10	M6×1.0	15	26	5	15	M5×0.8×12dp	3
20	53	37	10	12	10	10	6	36	10.5	8.5	85	17	19	24	33	22	13	M8×1.25	20	26	5	12	M5×0.8×13dp	4

Code / Tube I.D.	NN	OA	OB	P	PA	PB	PW	Q	R	S	T	U	VA	X	YY	Z	ZZ
12	M4×0.7	4.3	8×4.5dp	M5×0.8	14	8.5	18	14	48	22	56	41.5	50	23	M5×0.8×10dp	5	65
16	M5×0.8	4.3	8×4.5dp	M5×0.8	15	10.0	19	16	54	25	62	46	56	24	M5×0.8×10dp	5	72
20	M5×0.8	5.2	9.5×5.5dp	Rc1/8	12.5	11.5	25	18	70	30	81	55	72	28	M6×1.0×12dp	17	79

Code / Tube I.D.	WA					WB				
	10~39st	40~100st	125~200st	201st~300st		10~39st	40~100st	125~200st	201~300st	
12	20	40	110	200		15	25	60	105	
	~39st	40~100st	125~200st	201st~300st		~39st	40~100st	125~200st	201st~300st	
16	24	44	110	200		17	27	60	105	
	~39st	40~100st	125~200st	201st~300st	301st~	~39st	40~100st	125~200st	201st~300st	301st~
20	24	44	120	200	300	29	39	77	117	167

MCGS-07

Code / Tube I.D.	E		
	~50st	51~100st	101st~
12	0	18.5	43
	10~50st	51~100st	101st~
16	0	18.5	49
	~50st	51~200st	201st~
20	0	31.5	69

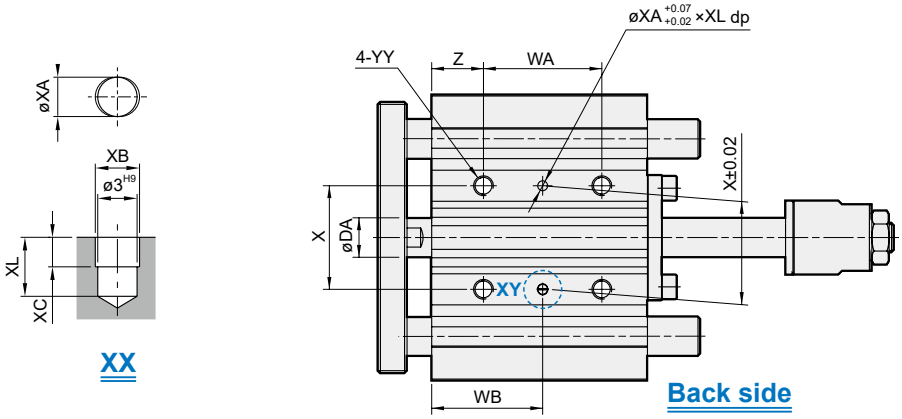
MCGS-27

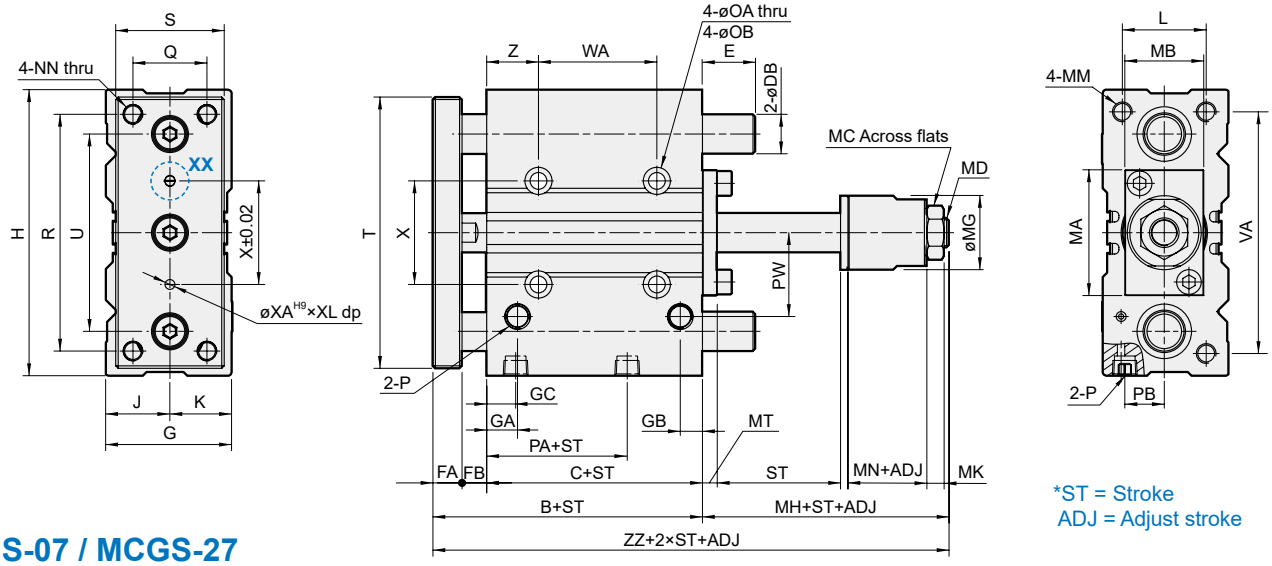
Code / Tube I.D.	E			
	~30st	31~100st	101st~	
12	1	13	43	
	10~30st	31~100st	101st~	
16	3	19	49	
	20~30st	31~100st	101~200st	201st~
20	10	27	51	69

*1. When stroke length is equal to 19mm or less, GB=7.5 mm
*2. When stroke length is equal to 19mm or less, GB=9 mm

MCGS-07/27 Dimensions ø25~ø63

TWIN-GUIDE CYLINDER





*ST = Stroke
ADJ = Adjust stroke

MCGS-07 / MCGS-27

Code / Tube I.D.	B	C	DA	DB		FA	FB	G	GA	GB	GC	H	J	K	L	MA	MB	MC	MD	MG	MH	MK	MN	MM	MT
				07 type	27 type																				
25	53.5	37.5	12	16	13	10	6	42	11.5	9	11.5	96	21	21	30	41	25	17	M10×1.25	20	27	6	12	M6×1.0×15dp	5
32	59.5	37.5	16	20	16	12	10	51	12.5	9	12.5	116	26	25	34	51	32	19	M12×1.25	30	30	7	12	M8×1.25×20dp	6
40	66	44	16	20	16	12	10	54	14	10	14	120	27	27	40	60	32	19	M12×1.25	30	30	7	12	M8×1.25×20dp	6
50	72	44	20	25	20	16	12	64	14	11	12	148	32	32	46	71	38	24	M16×1.5	35	38	8	15	M10×1.5×22dp	8
63	77	49	20	25	20	16	12	78	16.5	13.5	16.5	162	39	39	58	84	50	24	M16×1.5	35	38	8	15	M10×1.5×22dp	8

Code / Tube I.D.	NN	OA	OB	P	PA	PB	PW	Q	R	S	T	U	VA	X	XA	XB	XC	XL	YY	Z	ZZ
25	M6×1.0	5.2	9.5×5.5dp	Rc1/8	12.5	13.5	28.5	26	78	38	91	65	82	34	4	4.5	3	6	M6×1.0×12dp	17	80.5
32	M8×1.25	6.6	11×7.5dp	Rc1/8	7	16	34	30	96	44	110	80	98	42	4	4.5	3	6	M8×1.25×16dp	21	89.5
40	M8×1.25	6.8	11×7.5dp	Rc1/8	13	18	38	30	104	44	118	86	106	50	4	4.5	3	6	M8×1.25×16dp	22	96
50	M10×1.5	8.6	14×9dp	Rc1/4	9	21.5	47	40	130	60	146	110	130	66	5	6	4	8	M10×1.5×20dp	24	110
63	M10×1.5	8.6	14×9dp	Rc1/4	14	28	55	50	130	70	158	124	142	80	5	6	4	8	M10×1.5×20dp	24	115

Code / Tube I.D.	WA						WB					
	~39st	40~100st		125~200st	201st~300st	301st~	~39st	40~100st		125~200st	201~300st	301st~
25	24	44		120	200	300	29	39		77	117	167
32	~49st	50~100st		125~200st	201st~300st	301st~	~49st	50~100st		125~200st	201st~300st	301st~
	24	48		124	200	300	33	45		83	121	171
40	~49st	50~69st	70~100st	125~200st	201st~300st	301st~	~49st	50~69st	70~100st	125~200st	201st~300st	301st~
	24	48	48	124	200	300	34	46	46	84	122	172
50	~49st	50~69st	70~100st	125~200st	201st~300st	301st~	~49st	50~69st	70~100st	125~200st	201st~300st	301st~
	24	48	48	124	200	300	36	48	48	86	124	174
63	~49st	50~100st		125st~			~49st	50~100st		125st~		
	28	52		128			38	50		88		

MCGS-07

Code / Tube I.D.	E		
	~50st	51~200st	201st~
25	0	31.5	68.5
32	37.5	42.5	80.5
40	31	36	63.5
50	34.5	46	78.5
63	~50st	51st~	
	29.5	41	

MCGS-27

Code / Tube I.D.	E			
	20~30st	31~100st	101~200st	201st~
25	16	32	51	68.5
32	20~50st	51~100st	101~200st	201st~
	21.5	38.5	58.5	80.5
40	~69st	70~100st	101~200st	201st~
	15	32	52	72.5
50	21	42	62	87.5
63	~69st	70~100st	101st~	
	16	37	57	