



Order example

MCHG – 50 M – OS

MODEL

BODY DIAMETER
50, 64, 80
100, 125, 160

M: Magnet

Mechanical gripping force safety device for O.D. gripping even with a drop pressure

Features

- Compact, yet rugged design enables high clamping force from the jaws.
- Body manufactured from high tensile, anodised aluminum giving good resistance to corrosion.
- Available with sensors.
- Available with sprung loaded sensor plate.
- Low overall height with long stroke on jaws.

Specification

Model	MCHG					
Acting type	Double acting					
Body diameter (mm)	50	64	80	100	125	160
Stroke (mm)	8	12	16	20	26	32
Medium	Air					
Operating pressure range	0.1~0.6 MPa					
Ambient temperature	- 10°C ~ + 60°C (No freezing)					
Repeatability	± 0.05 mm					
Lubrication	Not required					
Sensor switch (※1)	RH: Reed switch, RHN: NPN, RHP: PNP					
Weight (kg)	0.23	0.41	0.8	1.4	2.4	4.7

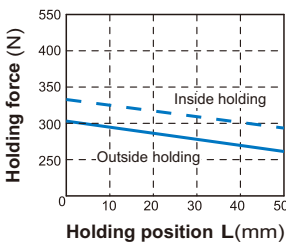
※1. RH specification, please refer to page 5-12.

※2. Maintenance: Re-Lubrication after appr. 1.5 million cycles recommended.

Gripping force in relation to the holding position "L" at 0.6 MPa

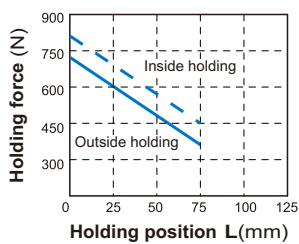
MCHG-50

Work piece weight 1.3 kg (recom.) L=20mm



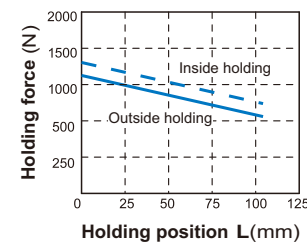
MCHG-64

Work piece weight 3 kg (recom.) L=25mm



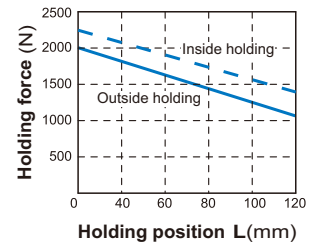
MCHG-80

Work piece weight 5.3 kg (recom.) L=25mm



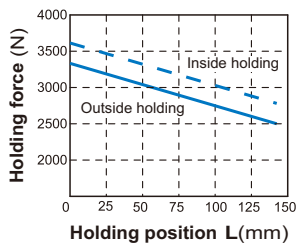
MCHG-100

Work piece weight 9 kg (recom.) L=32mm



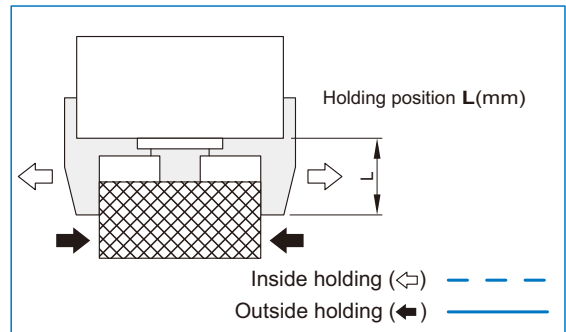
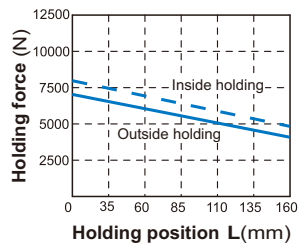
MCHG-125

Work piece weigh 15.5 kg (recom.) L=32mm



MCHG-160

Work piece weigh 25 kg (recom.) L=40mm

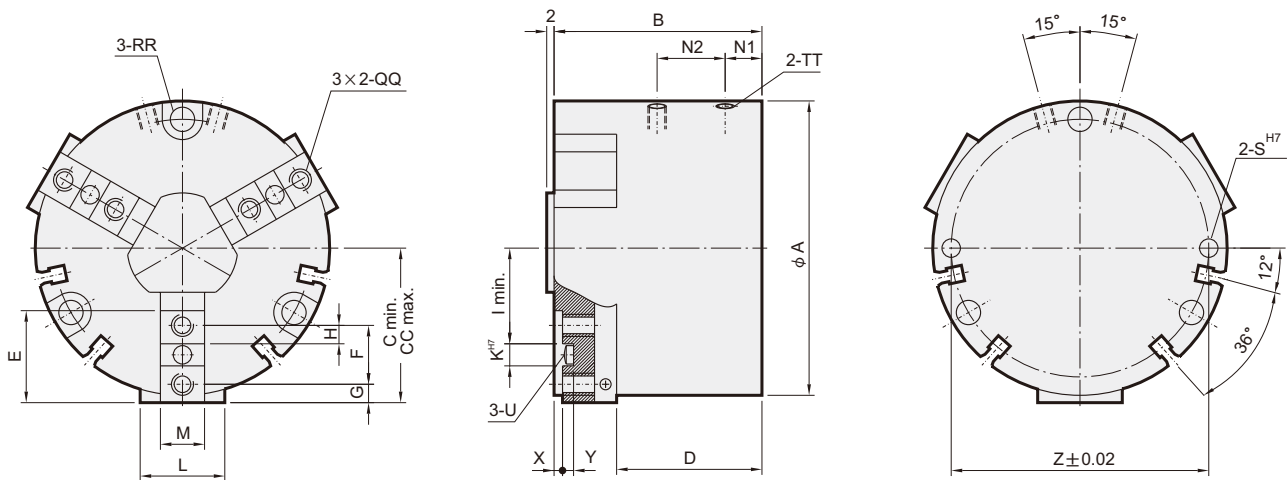


※ With reference to the holding force, under the condition must be considered.

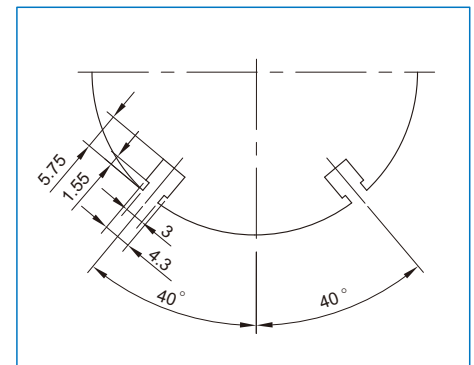
Condition: friction coefficient, great acceleration impact is expected during work piece rotate.

※ Recommend: Select a type of arithmetic holding force that can produce 10 to 20 times for work piece weight.

LOWER HEIGHT OF THREE JAW GRIPPER



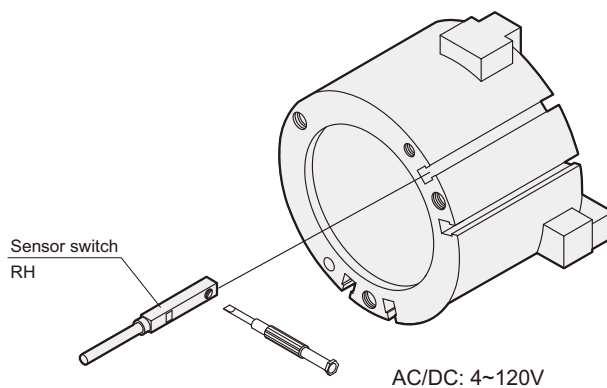
MCHG-50 auto switch mounting groove position



Code Model	A	B	C	CC	D	E	F	G	H	I	K
MCHG-50	50	39	26.5	30.5	28	18	12	3	3.5	15	5
MCHG-64	64	47.6	32	38	32	20	13	4	4	19	5
MCHG-80	80	56.5	42	50	39.5	25	16	5	5	26	6
MCHG-100	100	65	52	62	46	32	20	6	6	32	8
MCHG-125	125	76	65.5	78.5	53.5	40	24	8.5	8	41	8
MCHG-160	160	95	85	101	67	50	32	9	11	55	10

Code Model	L	M	N1	N2	RR	QQ	S	TT	U	X	Y	Z
MCHG-50	14	8.2	8.1	14.8	$\phi 3.4$ thru, 7C/B \times 5dp P.C.D44	M3 \times 0.5 \times 7dp	$\phi 3 \times 8$ dp	M5	$\phi 4$	-	2	45
MCHG-64	17	10.2	10	16.5	$\phi 5.5$ thru, 10C/B \times 6dp P.C.D56	M4 \times 0.7 \times 8dp	$\phi 4 \times 10$ dp	M5	$\phi 4$	3	2.5	56
MCHG-80	23	12.2	10	22	$\phi 6.4$ thru, 11C/B \times 7dp P.C.D70	M5 \times 0.8 \times 9dp	$\phi 5 \times 10$ dp	M5	$\phi 5$	3	3	70
MCHG-100	27	14.2	12	24	$\phi 6.6$ thru, 11C/B \times 7dp P.C.D90	M6 \times 1.0 \times 12dp	$\phi 5 \times 12$ dp	Rc1/8	$\phi 6$	3	3	90
MCHG-125	30	16.2	13.5	28.5	$\phi 8.5$ thru, 15C/B \times 9dp P.C.D112	M6 \times 1.0 \times 12dp	$\phi 6 \times 16$ dp	Rc1/8	$\phi 6$	3	3.5	112
MCHG-160	40	20.2	15.5	32.5	$\phi 9$ thru, 15C/B \times 9dp P.C.D146	M8 \times 1.25 \times 20dp	$\phi 6 \times 20$ dp	Rc1/8	$\phi 8$	4	4	146

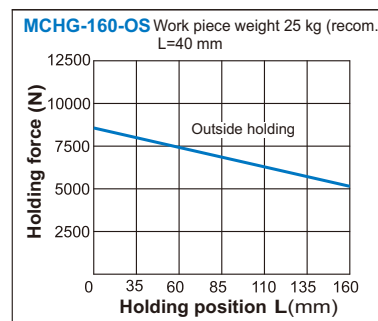
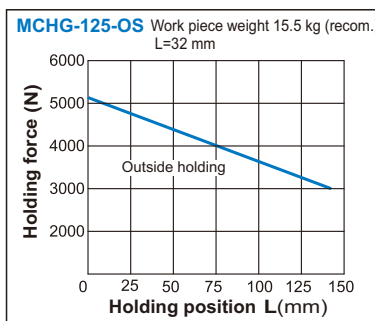
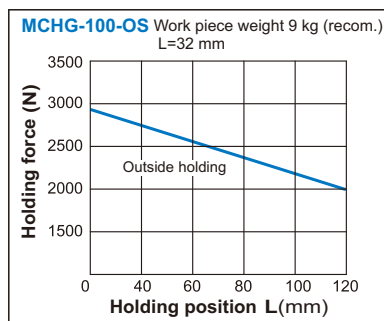
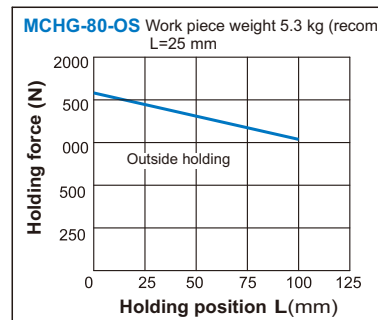
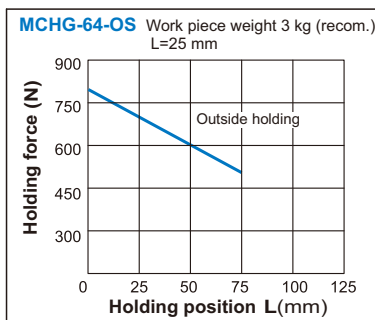
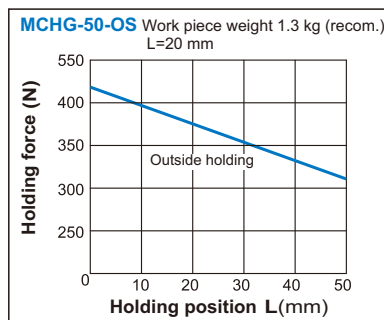
Installation of sensor switch



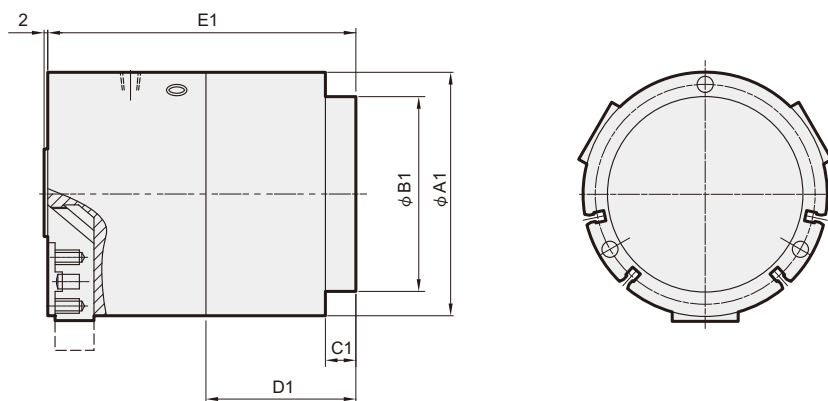
Gripping force safety device

Operating pressure min.5 bars, max. 6.5 bars
 Gripping force = pneum. gripping force + spring force.

Gripping force in relation to the holding position "L" at 0.6 MPa

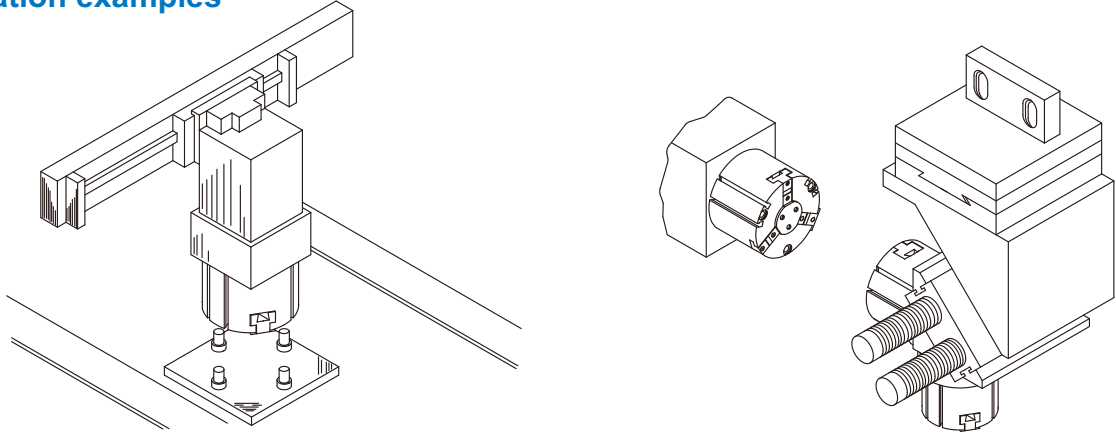


Gripping force safety device for O.D gripping, even with a drop in pressure.

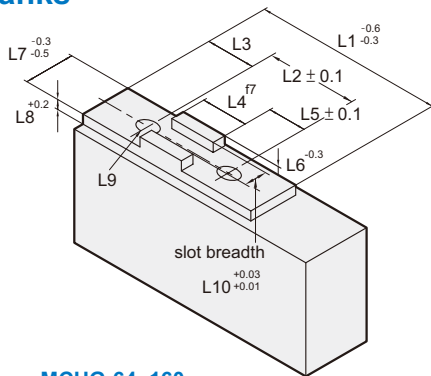


Code Model	A1	B1	C1	D1	E1
MCHG-50-OS	50	—	—	19.2	58.2
MCHG-64-OS	64	45	5	25	72.6
MCHG-80-OS	80	58	5	30.5	87
MCHG-100-OS	100	77	5	32.5	97.5
MCHG-125-OS	125	97	5	37	113
MCHG-160-OS	160	128	5	46	141

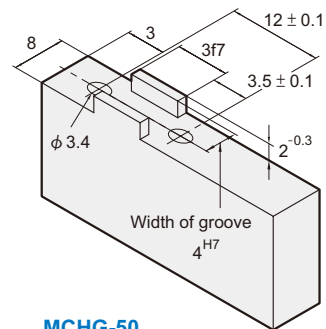
Application examples



Finger blanks

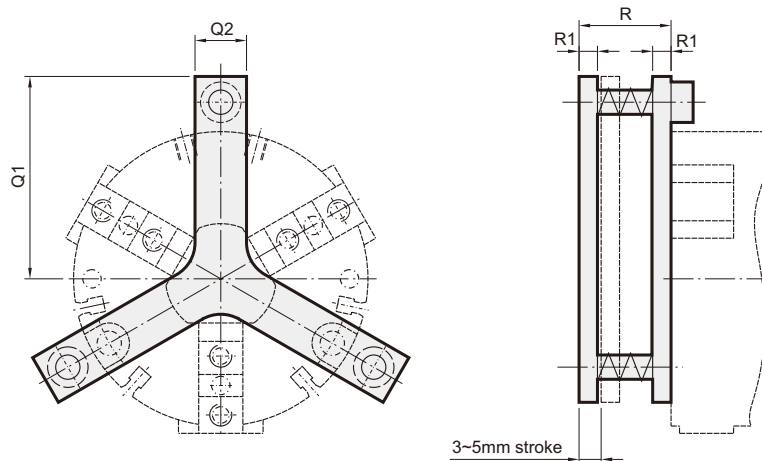


MCHG-64~160



MCHG-50

Spring-packaged Pressure Plate



Code Model	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	Q1	Q2	R	R1
MCHG-50	—	12	3	5	3.5	2	8	—	φ 3.4	4	38	12	25	5
MCHG-64	20	13	4	5	4	2.5	10.2	4.5	φ 4.5	4	44	14	25	5
MCHG-80	25	16	5	6	5	3	12.2	5.5	φ 5.5	5	55	14	25	5
MCHG-100	32	20	6	8	6	3	14.2	5.5	φ 6.6	6	70	20	25	6
MCHG-125	40	24	8.5	8	8	3.5	16.2	5.5	φ 6.6	6	85	20	25	6
MCHG-160	50	32	9	10	11	4	20.2	6.5	φ 9	8	100	25	25	6