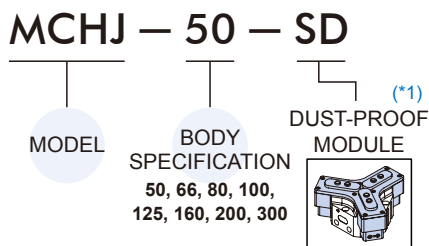




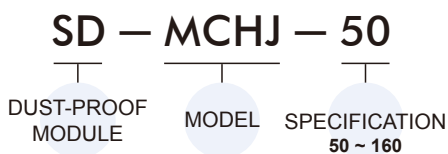
Order example



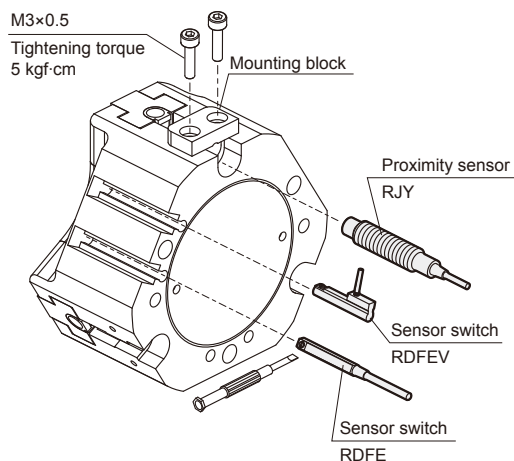
*1. When the spec 50 is assembled with the dust-proof module, the proximity sensor (RJY) cannot be used.

*2. The body specification 50~160 with pressure piece is also available, please contact us.

Dust-proof module



Installation of sensor switch & speed controller



Features

- Compact design to ensure minimum interference while operating; robust T rail design, ensure accurate gripping.
- Can reach maximum torque suitable for long jaws design.
- Circular piston-driven design ensure maximum clamping force.
- Hose-free direct connection: Air supply channel can connect directly without piping or through thread to assure the flexibility of supplying compressed air on any kind of automation system.
- Assembling with a dust-proof module can prevent foreign matters (>0.5mm) entering the gripper.
- Magnetic as standard.

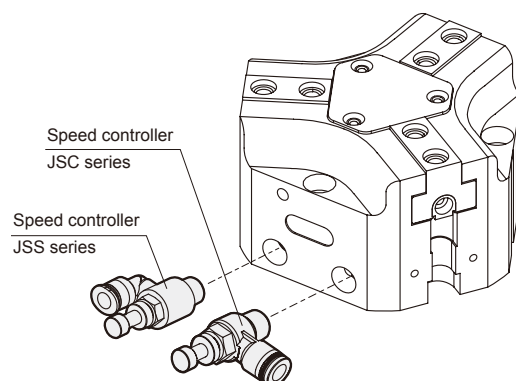
Specification

Model	MCHJ							
Acting type	Double acting							
Body specification	50	66	80	100	125	160	200	300
Stroke per-jaw (mm)	4	6	8	10	12	16	20	30
Effective external gripping force (N) (*1)	113	188	292	483	906	1747	2851	5247
Close/Open time (1/s)	0.025	0.03	0.05	0.1	0.2	0.25	0.35	0.8
Medium	Air							
Operating pressure range	0.2~0.8 MPa							
Compressed air consumption (cm ³)	9.2	21.5	47	100	195	485	850	2300
Ambient temperature	+5°C~ +80°C							
Lubrication	Not required							
Sensor switch (*3)	2 wire	*2	RDVE(V): Non-contact					
	3 wire	*2	RNVE(V): NPN, RPVE(V): PNP					
Proximity sensor	RJY (Please refer to page 5-14)							
Accessories	Mounting block, Accessory kits							
Weight (kg)	0.22	0.5	0.85	1.6	2.8	5.2	10.8	26.5

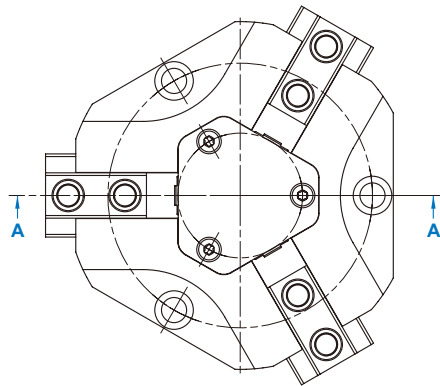
*1. Under the condition of clamping length 40mm and operation pressure 0.6 MPa.

*2. Body specification 50 uses RDGV sensor switch.

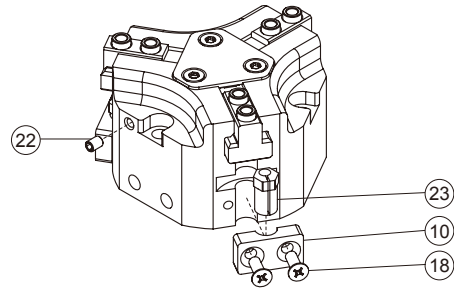
*3. R*VE(V), RDGV specification, please refer to page 5-11, 12.



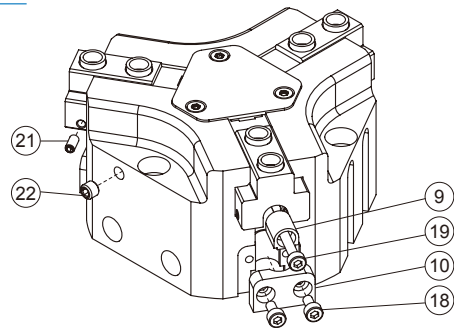
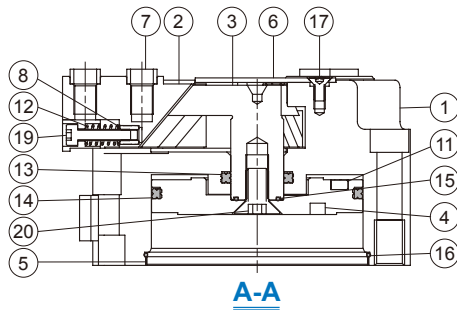
* Each gripper needs at least two speed control valves to control speed.
* Speed controller specification, please refer to page 8-15~17 (Vol.1).



50



66~160



Material

No.	Body spec Part name	50	66	80	100	125	160	Q'y	Repair kits (inclusion)	
1	Body	Aluminum alloy						1		
2	Finger	Mid carbon steel						3		
3	Rod	Mid carbon steel						1		
4	Piston	Aluminum alloy						1		
5	End cover	Stainless steel						1		
6	Plate cover	Stainless steel						1		
7	Centering sleeve	Stainless steel						6		
8	Thread insert	-	Brass						3	
9	Sensor adj block	-	Aluminum alloy						2	
10	Magnet holder	*1	PBT+30%GF						2	
11	Magnet	Magnet material						1*2		
12	Spring	-	SWP						2	
13	Rod packing	NBR						1	●	
14	Piston packing	NBR						1	●	
15	O-ring	NBR						1	●	
16	O-ring	NBR						1	●	
17	Screw	Carbon steel						3		
18	Bolt	Stainless steel						4		
19	Hex bolt	-	Stainless steel						2	
20	Bolt	Stainless steel						1		
21	Hex screw	-	Stainless steel						4	
22	Hex screw	Stainless steel						3		
23	Adjust socket	SUS	-						2	

*1. Aluminum alloy *2. Body spec 125 Q'y: 2 pcs

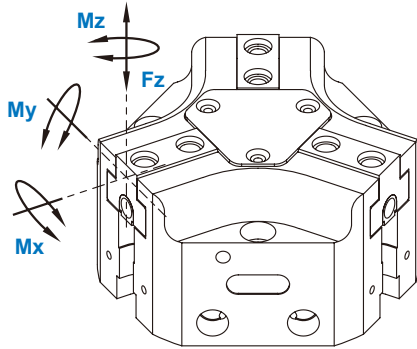
Order example of repair kits

Model	Repair kits
MCHJ-50	PS-MCHJ-50
MCHJ-66	PS-MCHJ-66
MCHJ-80	PS-MCHJ-80
MCHJ-100	PS-MCHJ-100
MCHJ-125	PS-MCHJ-125
MCHJ-160	PS-MCHJ-160

Order example of accessory kits

Model	Accessory kits
MCHJ-50	AK-MCHJ-50
MCHJ-66	AK-MCHJ-66
MCHJ-80	AK-MCHJ-80
MCHJ-100	AK-MCHJ-100
MCHJ-125	AK-MCHJ-125
MCHJ-160	AK-MCHJ-160

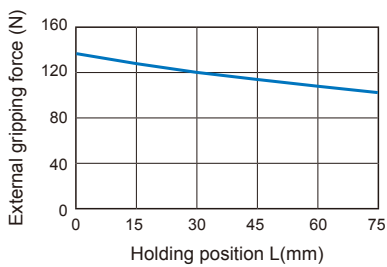
O-ring (x2)	Iron plug (x2)
PIN (x2)	Centering sleeve (x6)



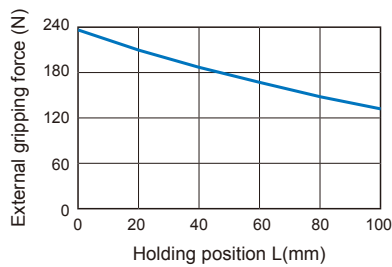
Code Model	Mx max. (Nm)	My max. (Nm)	Mz max. (Nm)	Fz max. (N)
MCHJ-50	15	15	8	700
MCHJ-66	50	45	35	1200
MCHJ-80	80	60	50	1800
MCHJ-100	100	90	75	2500
MCHJ-125	120	120	100	3200
MCHJ-160	160	180	140	5000
MCHJ-200	180	220	170	7000
MCHJ-300	275	300	200	9000

Holding force

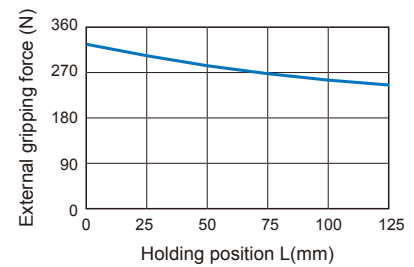
MCHJ-50



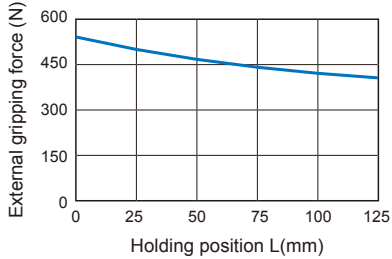
MCHJ-66



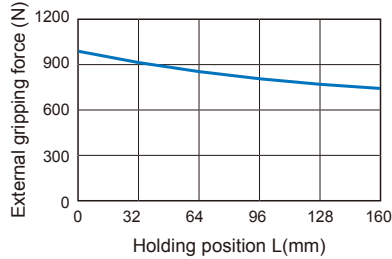
MCHJ-80



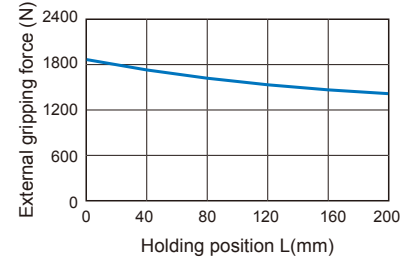
MCHJ-100



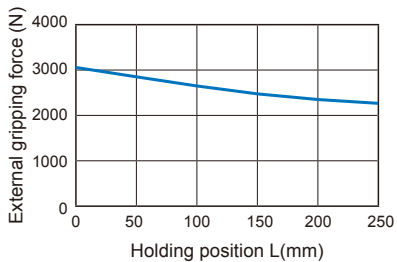
MCHJ-125



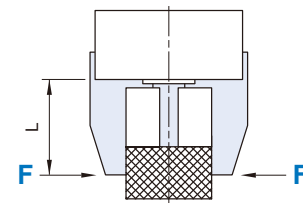
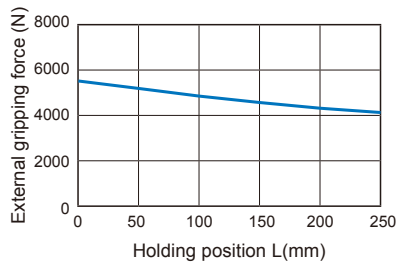
MCHJ-160



MCHJ-200



MCHJ-300

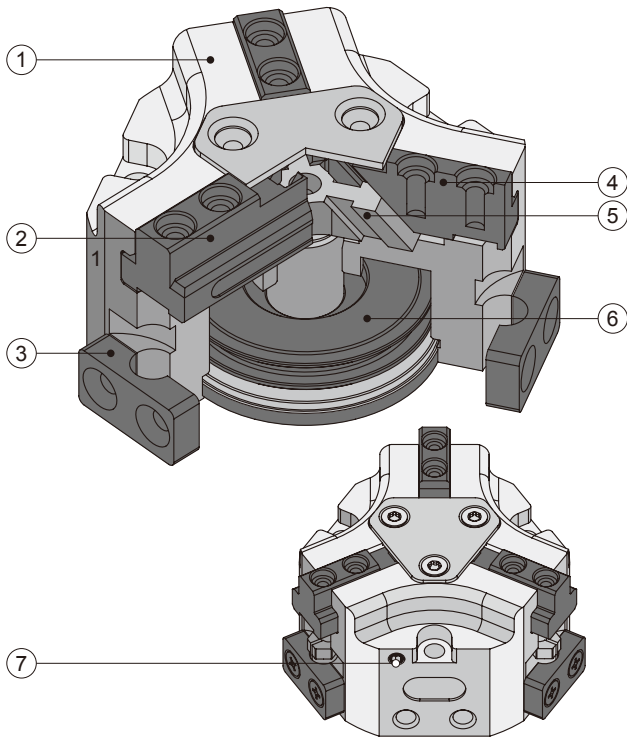


* Operating pressure 0.6 MPa.

PARALLEL GRIPPER (3-Finger)

Internal structure & Movement description

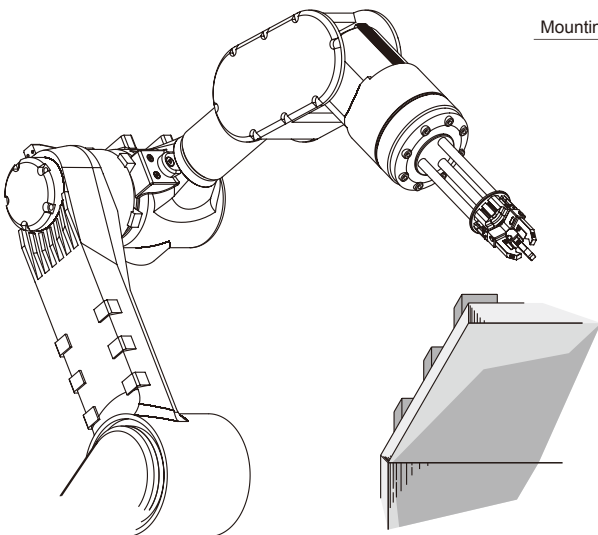
Compressed air will push or press the circular piston.
By tilting the working surface, the wedge hook will transfer the movement to side movement, and initiate the action of the three base jaws simultaneously.



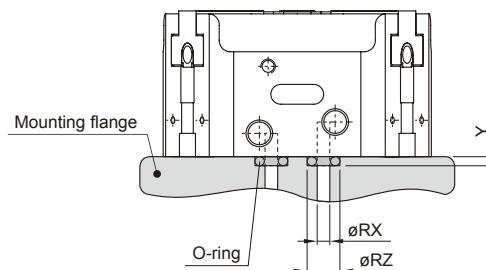
- ① **Material**
Anodized high rigid aluminum alloy to reduce weight.
- ② **Rail**
Bearing rails load the base jaw, which ensure the minimal vibration of long jaw.
- ③ **Sensor system**
Sensor switch or proximity sensor are available.
- ④ **Base jaw**
Jaws connected to work piece.
- ⑤ **Wedge hook**
High power transmission center jaws.
- ⑥ **Large circular piston**
Generate larger structural strength.
- ⑦ **Air purge connection (External vents)**
The air purge is used in order to make it more difficult for dirt and dust to penetrate into the product and the guiding areas.
* The air purge is effective only when the gripper is opened.
* Install a valve to control the air purge.

Application examples

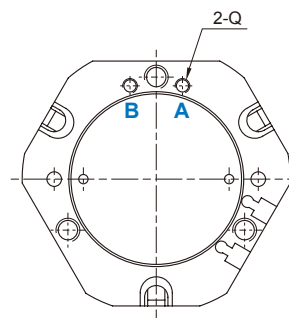
The wedge hook can pass through the inclined working surface, change the action to sideways and simultaneously actuate the three-jaw clamping movement. It can be used in the robot arm system environment when matched with various accessory.



Hose-free direct connection

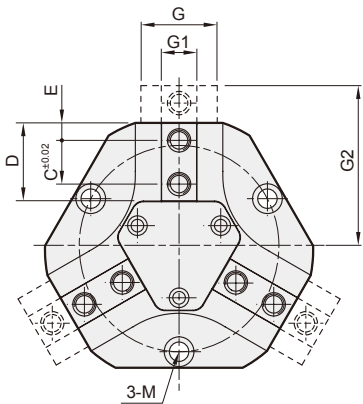


Code Spec.	Q	RX	RZ	Y
50	M3	3	5	0.7
66	M5	5	8	1.2
80	M5	5	8	1.2
100	M5	5	8	1.2
125	M5	5	8	1.2
160	M5	5	8	1.2
200	M6	6	9	1.2
300	G1/8	8.5	12.1	1.8

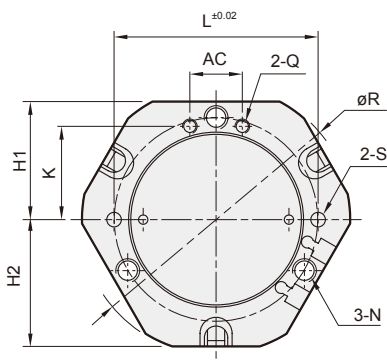
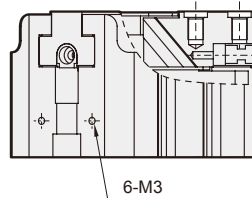
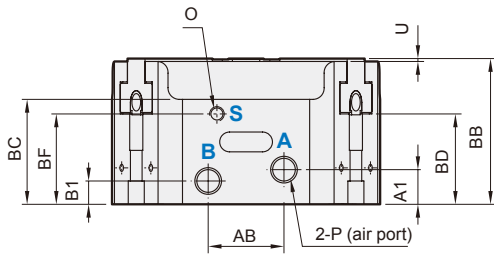


A hole: Gripper close
B hole: Gripper open

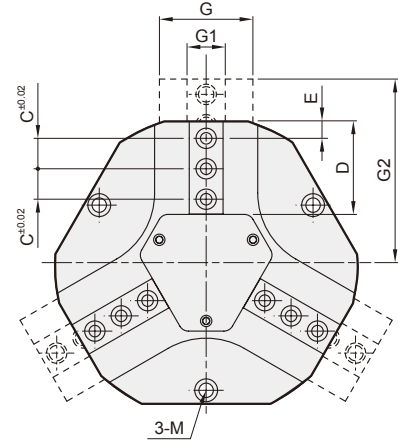
PARALLEL GRIPPER (3-Finger)



A hole: Gripper close
B hole: Gripper open
S hole: External vents

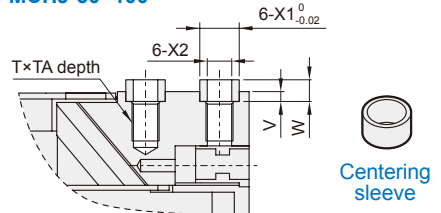


MCHJ-125~300

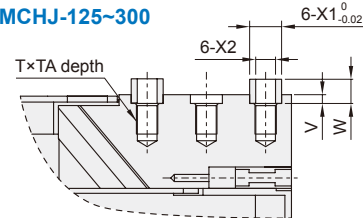


Centering sleeve

MCHJ-50~100



MCHJ-125~300

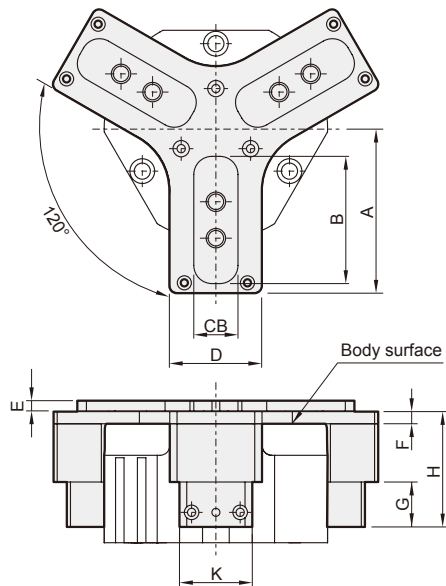


Code Spec.	A1	AB	AC	B1	BB	BC	BD	BF	C	D	E	G	G1	G2	H1	H2	K	L
50	5	12	12	5	35	26	23	23	8	16	4	12	6.5	31	26	27	19	45
66	11.5	12	18	5	43	32	27	27	12	22	5	17	10	41	33	35	25	56
80	8	26	18	8	50	36	31	31	15	26.7	6	22	12	51.5	40.5	43.5	32	70
100	13.5	24	24	10	60	41	38	34	18	34.2	10	26	14	64	51	54	42	90
125	17	30	30	10	68	49	42.5	37	12.5	42.3	10	31	15.5	79	64	67	53	112
160	20	44	38	10.5	80	55	48	45	18	54.8	10	39	20	102	81	86	67.5	146
200	29	54	54	19.5	107	82	68	64	22	67.5	12	42	22	126	100	106	75	180
300	36.1	80	80	29.1	153.1	105.1	101.1	87.1	30	91	15	66	32	172	132.5	142	105	240

Code Spec.	M	N	O	P	Q	R	S	T	TA	U	V	W	X1	X2
50	ø7.3×4.1dp, ø4.3 thru, P.C.D.ø45	M5×0.8×8dp	M3	M5×0.8	M3	57	ø4H7×5	6-M3×0.5	7	1	2	3.9	ø5	ø3
66	ø9×5.1dp, ø5.1 thru, P.C.D.ø56	M6×1.0×10dp	M5	M5×0.8	M5	74	ø4H7×8	6-M4×0.7	8	1	2	3.9	ø6	ø4
80	ø10.2×6.1dp, ø6.8 thru, P.C.D.ø70	M8×1.25×12dp	M5	G1/8	M5	92	ø5H7×8	6-M6×1.0	10	1	2	3.9	ø8	ø6
100	ø10.5×6.5dp, ø6.8 thru, P.C.D.ø90	M8×1.25×12dp	M5	G1/8	M5	114	ø5H7×8	6-M6×1.0	12	1	2	3.9	ø10	ø6
125	ø13.5×8.1dp, ø8.6 thru, P.C.D.ø112	M10×1.5×15dp	M5	G1/8	M5	139	ø6H7×10	9-M6×1.0	14	1	2	3.9	ø10	ø6
160	ø13.5×8.1dp, ø8.6 thru, P.C.D.ø146	M10×1.5×24dp	M5	G1/8	M5	179	ø6H7×10	9-M8×1.25	14	1	2	3.9	ø12	ø8
200	ø17×10.5dp, ø10.3 thru, P.C.D.ø180	M12×1.75×25dp	M5	G1/4	M5	218	ø10H7×19	9-M10×1.5	20	1	2.5	4.9	ø14	ø10
300	ø18.5×12.2dp, ø12.5 thru, P.C.D.ø240	M16×2.0×39.1dp	M5	G1/4	G1/8	292	ø10H7×19	9-M12×1.75	20	2	2.5	4.9	ø18	ø12

PARALLEL GRIPPER (3-Finger)

- For dusty environment usage.
- When installing soft-jaws, the length of jaws are measured from the the body surface.
- Heat resistance type of modules are also available. Please contact our sales department.



Code Spec.	A	B	CB	D	E	F	G	H	K
50	43	30	13	17	4.5	5	16	35.5	17
66	51	41	16.2	24	4.5	5	19.5	45.5	24
80	67.5	52.4	18.1	38	4.5	5	19	48	30
100	80	61	22	37	4.5	5	11.5	41	37
125	95	72	22	50	4.5	5	14.5	47.5	37
160	121	93	25	60	4.5	6	13	55	50