Parallel Gripper (3-Finger)

Features

1. Compact design to ensure minimum interference while operating; robust T rail design, ensure accurate gripping.
2. Can reach maximum torque suitable for long jaws design.
3. Circular piston-driven design ensure maximum clamping force.
4. Hose-free direct connection: Air supply channel can connect directly without piping or through tread to assure the flexibility of supplying compressed air on any kind of automation system.

How to order

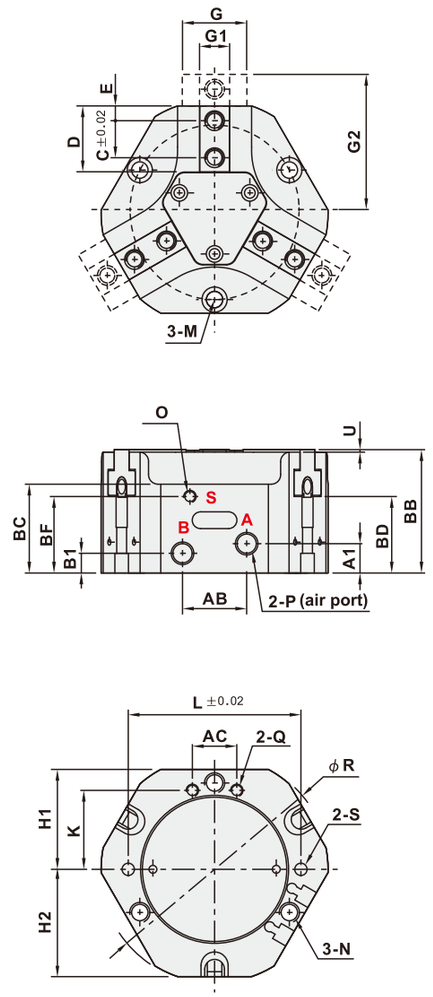
SRZN –	50
Parallel Gripper (3-Finger)	Body Specification
	50 125 66 160 80 100

Specifications

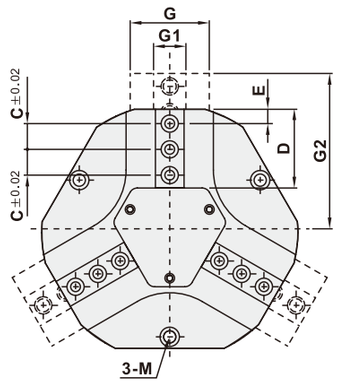
Model	SRZN					
Acting type	Double acting					
Body specification (mm)	50	66	80	100	125	160
Stroke per-jaw (mm)	4	6	8	10	12	16
Closing force (N)	450	750	1200	2000	3500	6500
Opening force (N)	500	800	1300	2100	3600	6600
Close/Open time (1/s)	0.025	0.03	0.05	0.1	0.2	0.25
Fluid	Air					
Operating pressure range	2 ~ 8 kgf/cm²					
Compressed air consumption (cm³)	9.2	21.5	47	100	195	485
Ambient temperature	+5° ~ +80°					
Lubrication	Not required					
Accessories	Mounting block, Centering sleeve					
Weight (kg)	0.22	0.5	0.85	1.6	2.8	5.2
Recom. workpiece weight (kg)	2.2	3.8	6.1	10.2	17.8	33.1

Dimensions

SRZN-50~100



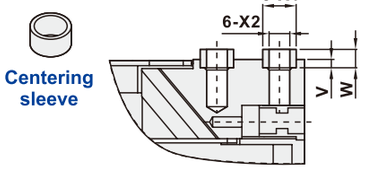
SRZN-125~160



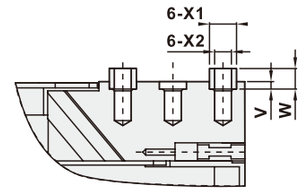
A hole: Gripper open
B hole: Gripper close
S hole: External vents

Centering sleeve

SRZN-50~100



SRZN-125~160

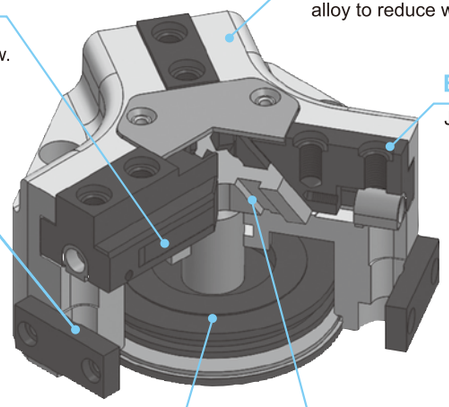


Model	A1	AB	AC	B1	BB	BC	BD	BF	C	D	E	G	G1	G2	H1	H2	K	L
SRZN-50	5	12	12	5	35	26	23	23	8	16	4	12	6.5	31	26	27	19	45
SRZN-66	11.5	12	18	5	43	32	27	27	12	22	5	17	10	41	33	35	25	56
SRZN-80	8	26	18	8	50	36	31	31	15	26.7	6	22	12	51.5	40.5	43.5	32	70
SRZN-100	13.5	24	24	10	60	41	38	34	18	34.5	10	26	14	64	51	54	42	90
SRZN-125	17	30	30	10	68	49	42.5	37	12.5	42.3	10	31	15.5	79	64	67	53	112
SRZN-160	20	44	38	10.5	80	55	48	43.8	18	54.8	10	39	20	102	81	86	67.5	146

Model	M	N	O	P	Q	R	S	T	U	V	W	X1	X2
SRZN-50	M4 DIN912	M5	M3	M5	M3	57	ϕ4H7	6-M3	1	2	3.9	ϕ5	ϕ3
SRZN-66	M5 DIN912	M6	M5	M5	M5	74	ϕ4H7	6-M4	1	2	3.9	ϕ6	ϕ4
SRZN-80	M6 DIN912	M8	M5	G1/8	M5	92	ϕ5H7	6-M6	1	2	3.9	ϕ8	ϕ6
SRZN-100	M6 DIN912	M8	M5	G1/8	M5	114	ϕ5H7	6-M6	1	2	3.9	ϕ10	ϕ6
SRZN-125	M8 DIN912	M10	M5	G1/8	M5	139	ϕ6H7	9-M6	1	2	3.9	ϕ10	ϕ6
SRZN-160	M8 DIN912	M10	M5	G1/8	M5	179	ϕ6H7	9-M8	1	2	3.9	ϕ12	ϕ8

Internal structure & Movement description

Compressed air will push or press the circular piston.



Material
Anodized high rigid aluminum alloy to reduce weight.

Rail
Bearing rails load the base jaw, which ensure the minimal vibration of long jaw.

Base jaw
Jaws connected to work piece.

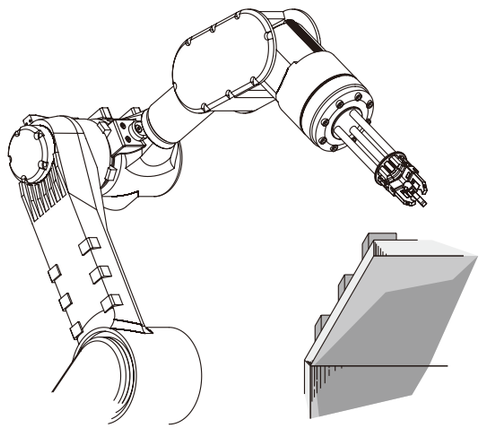
Sensor system
Sensor switch or proximity sensor are available.

Large oval piston
Generate larger structural strength.

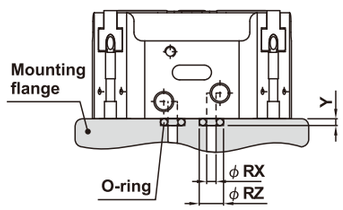
Wedge hook
High power transmission center jaws.

Application examples

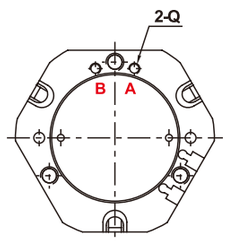
By tilting the working surface, the wedge hook will transfer movement to side movement, and initiate the action of the three base jaws simultaneously.



Hose-free direct connection

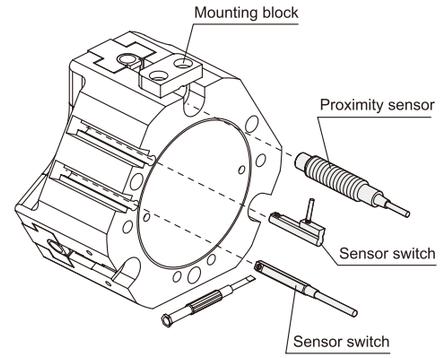


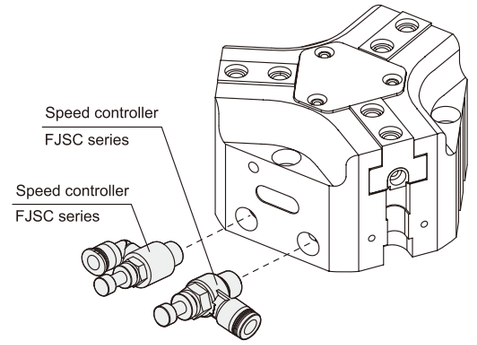
Model	Q	RX	RZ	Y
50	M3	3	5	0.7
66	M5	5	8	1.2
80	M5	5	8	1.2
100	M5	5	8	1.2
125	M5	5	8	1.2
160	M5	5	8	1.2



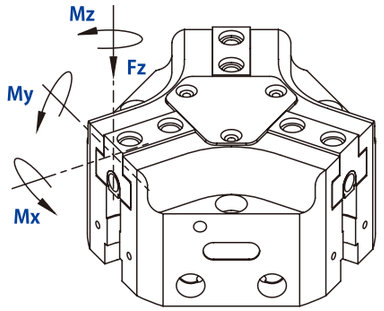
A : Gripper open
B : Gripper close

Installation of sensor switch & speed controller



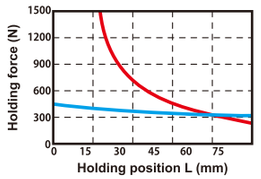


Holding force

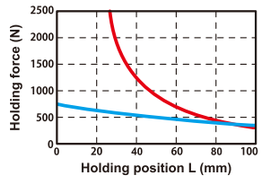


Model	Mx max. (Nm)	My max. (Nm)	Mz max. (Nm)	Fz max. (Nm)
SRZN-50	15	15	8	700
SRZN-66	50	45	35	1200
SRZN-80	80	60	50	1800
SRZN-100	100	90	75	2500
SRZN-125	120	120	100	3200
SRZN-160	160	180	140	5000

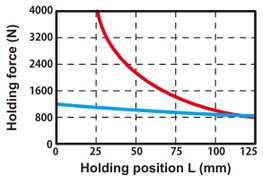
SRZN-50



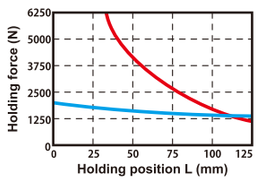
SRZN-66



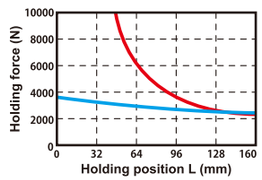
SRZN-80



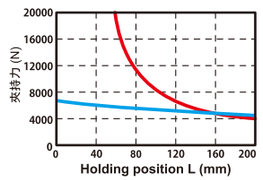
SRZN-100



SRZN-125



SRZN-160



* Blue area: Less durable performance can be expected.