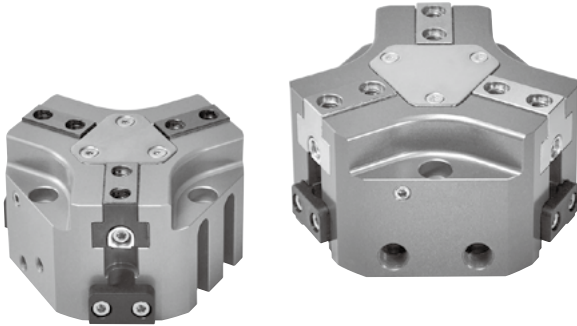


# SGSJ series

## PARALLEL GRIPPER (3-Finger)



### 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 tread to assure the flexibility of supplying compressed air on any kind of automation system.

### Order example

## SGSJ – 50

MODEL

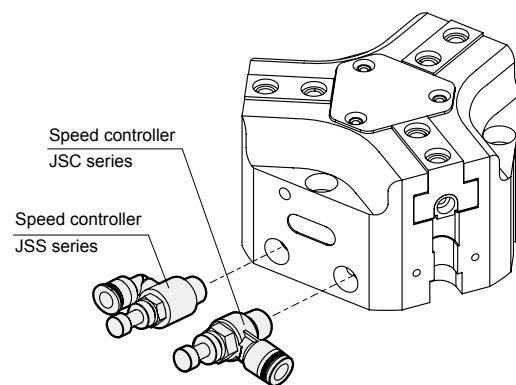
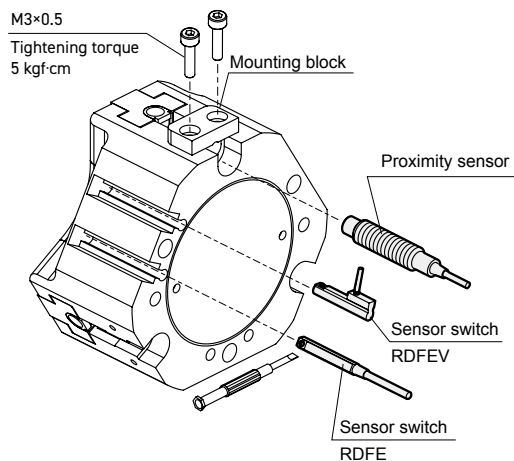
BODY SPECIFICATION  
50, 66, 80, 100, 125,  
160, 200, 300

### Specification

Model	SGSJ							
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
Closing force(N)	450	750	1200	2000	3500	6500	8200	15300
Opening force(N)	500	800	1300	2100	3600	6600	8450	15550
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 <sup>3</sup> )	9.2	21.5	47	100	195	485	850	2300
Ambient temperature	+5°C~ +80°C							
Lubrication	Not required							
Sensor switch	2 wire	*1	RDVE(V): Non-contact					
	3 wire	*1	RNFE(V): NPN, RPFE(V): PNP					
Accessories	Mounting block, Centering sleeve							
Weight (kg)	0.22	0.5	0.85	1.6	2.8	5.2	10.8	26.5
Recom. work piece weight (kg)	2.2	3.8	6.1	10.2	17.8	33.1	41.8	78

\*1. Body specification 50 use RDGV sensor switch

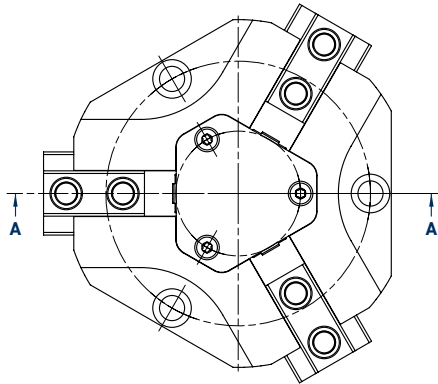
### Installation of sensor switch & speed controller



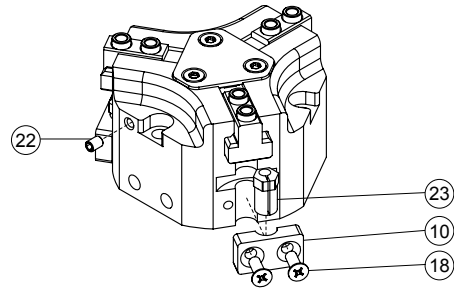
\* Each gripper needs at least two speed control valves to control speed.

# SGSJ Inside structure & Parts list

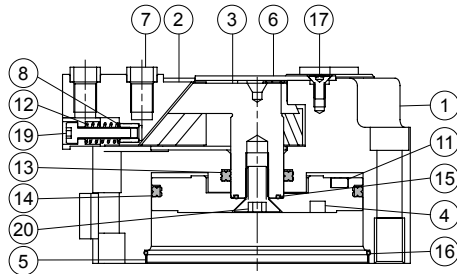
## PARALLEL GRIPPER (3-Finger)



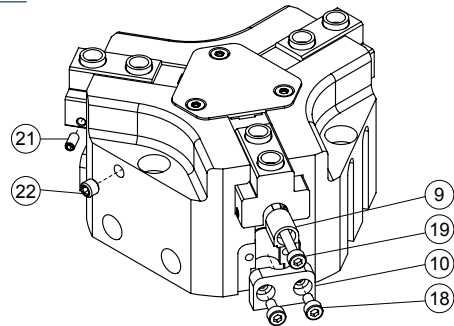
50



66~160



A-A



### Material

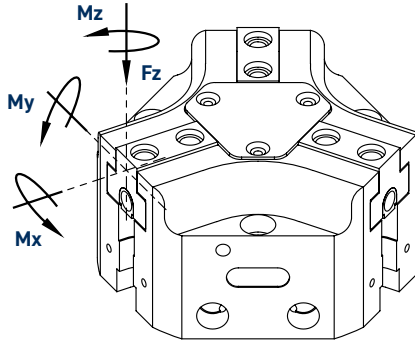
No.	Body spec Part name	50	66	80	100	125	160	Q'y
1	Body	Aluminum alloy						1
2	Finger	Mid carbon steel						3
3	Rod	Mid carbon steel						1
4	Piston	Aluminum alloy						1
5	End cover	Stainless steel						1
6	Plate cover	Stainless steel						1
7	Centering sleeve	Stainless steel						6
8	Thread insert	-	Brass					3
9	Sensor adj block	-	Aluminum alloy					2
10	Magnet holder	PBT+30%GF						2
11	Magnet	Magnet material						1*
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

\* Body spec 125 Q'y: 2 pcs

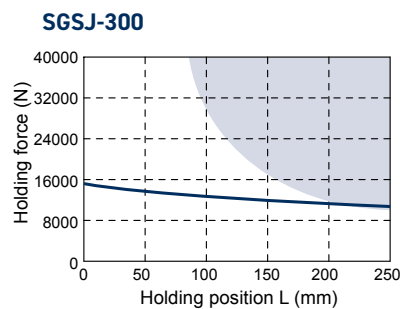
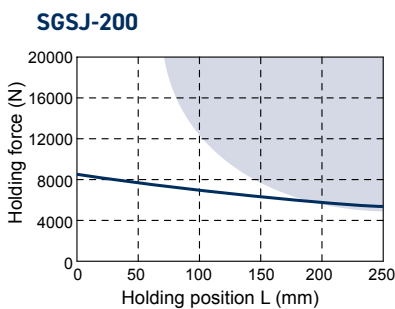
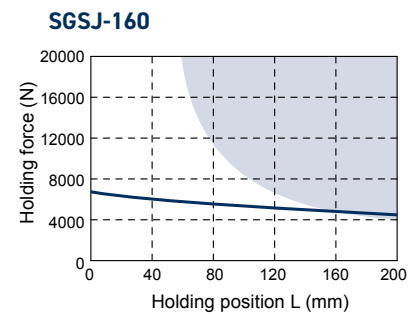
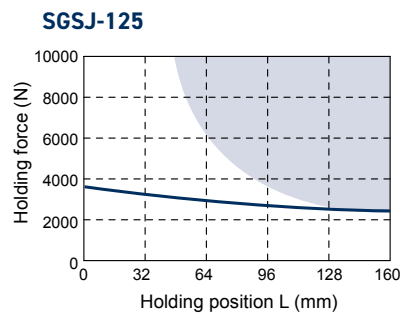
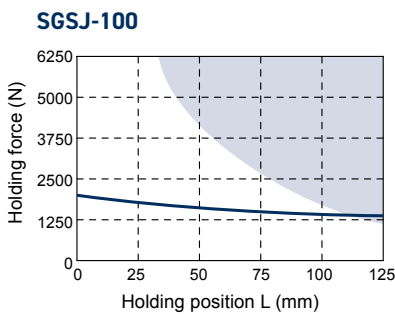
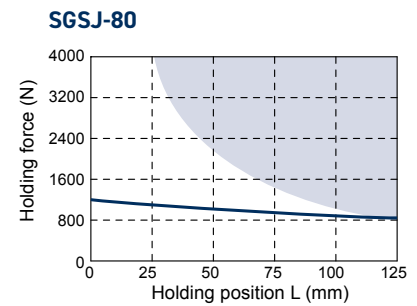
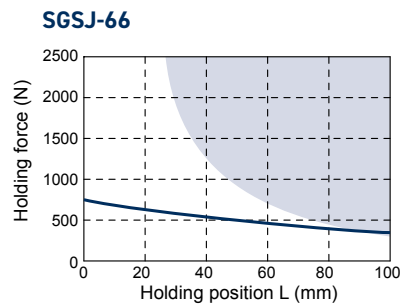
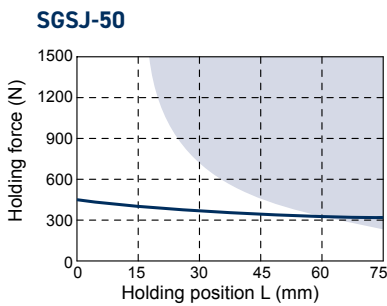
# SGSJ Capacity 50~300

## PARALLEL GRIPPER (3-Finger)

### Holding force



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



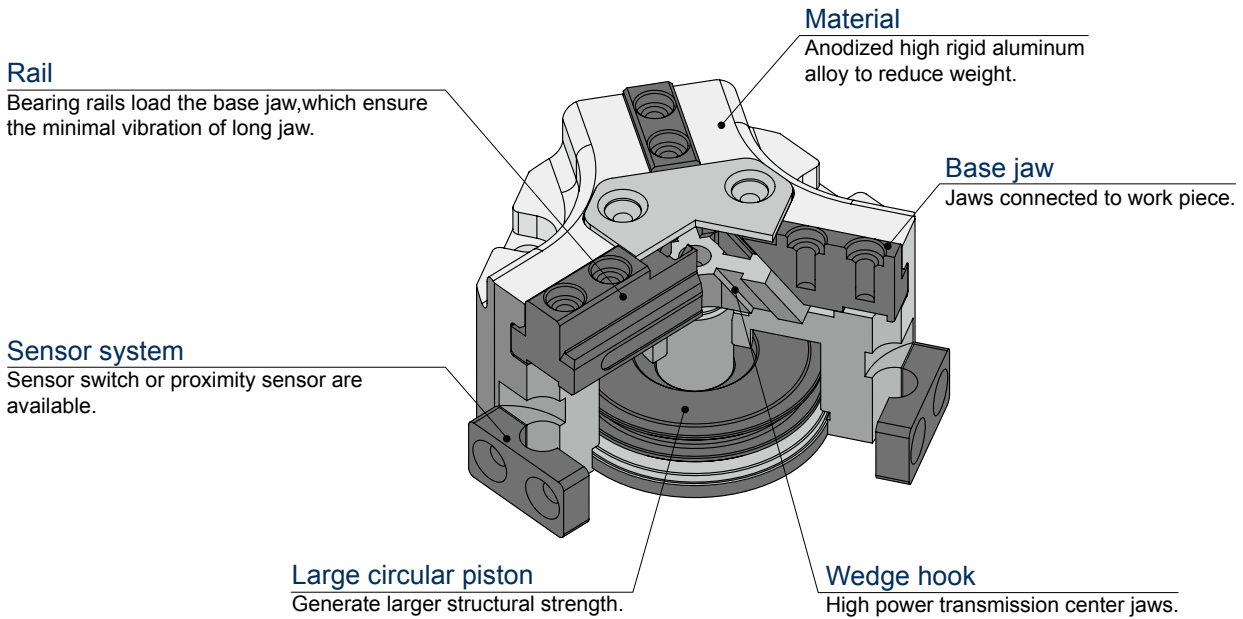
\* Blue area: Less durable performance can be expected.

# SGSJ Internal structure & Application examples

## 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.



### Application examples

### Hose-free direct connection

Mounting flange

O-ring

$\phi RX$

$\phi RZ$

Y

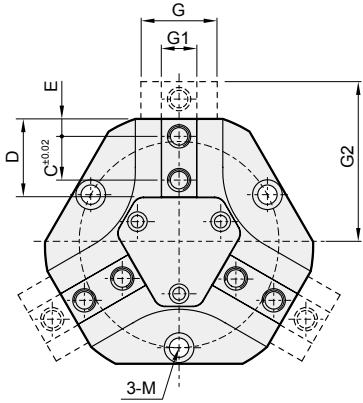
2-Q

**A** hole: Gripper open  
**B** hole: Gripper close

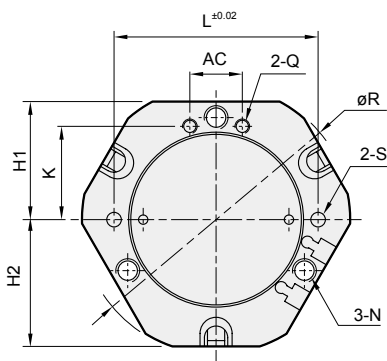
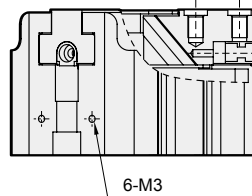
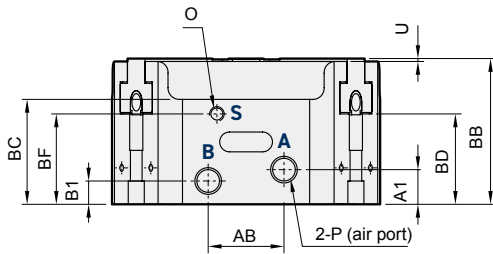
Code Model	Q	RX	RZ	Y
SGSJ-50	M3	3	5	0.7
SGSJ-66	M5	5	8	1.2
SGSJ-80	M5	5	8	1.2
SGSJ-100	M5	5	8	1.2
SGSJ-125	M5	5	8	1.2
SGSJ-160	M5	5	8	1.2
SGSJ-200	M6	6	9	1.2
SGSJ-300	G1/8	8.5	12.1	1.8

# SGSJ Dimensions 50~300

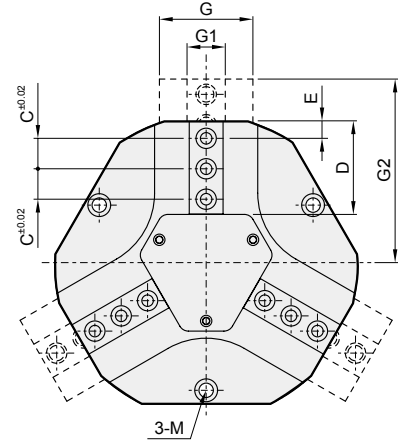
## PARALLEL GRIPPER (3-Finger)



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

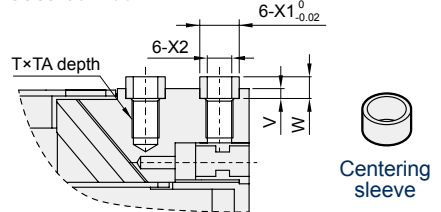


**SGSJ-125~300**

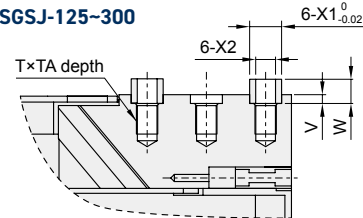


### Centering sleeve

**SGSJ-50~100**



**SGSJ-125~300**



Code Model	A1	AB	AC	B1	BB	BC	BD	BF	C	D	E	G	G1	G2	H1	H2	K	L	M
SGSJ-50	5	12	12	5	35	26	23	23	8	16	4	12	6.5	31	26	27	19	45	M4 DIN912
SGSJ-66	11.5	12	18	5	43	32	27	27	12	22	5	17	10	41	33	35	25	56	M5 DIN912
SGSJ-80	8	26	18	8	50	36	31	31	15	26.7	6	22	12	51.5	40.5	43.5	32	70	M6 DIN912
SGSJ-100	13.5	24	24	10	60	41	38	34	18	34.2	10	26	14	64	51	54	42	90	M6 DIN912
SGSJ-125	17	30	30	10	68	49	42.5	37	12.5	42.3	10	31	15.5	79	64	67	53	112	M8 DIN912
SGSJ-160	20	44	38	10.5	80	55	48	43.8	18	54.8	10	39	20	102	81	86	67.5	146	M8 DIN912
SGSJ-200	22	54	54	12.5	100	75	61	57	22	67.5	12	42	22	126	100	106	75	180	M10 DIN912
SGSJ-300	21	80	80	14	138	90	86	72	30	91	15	66	32	172	132.5	142	105	240	M12 DIN912

Code Model	N	O	P	Q	R	S	T	TA	U	V	W	X1	X2
SGSJ-50	M5×8	M3	M5	M3	57	ø4H7×5	6-M3×0.5	7	1	2	3.9	ø5	ø3
SGSJ-66	M6×10	M5	M5	M5	74	ø4H7×8	6-M4×0.7	8	1	2	3.9	ø6	ø4
SGSJ-80	M8×12	M5	G1/8	M5	92	ø5H7×8	6-M6×1.0	10	1	2	3.9	ø8	ø6
SGSJ-100	M8×12	M5	G1/8	M5	114	ø5H7×8	6-M6×1.0	12	1	2	3.9	ø10	ø6
SGSJ-125	M10×15	M5	G1/8	M5	139	ø6H7×10	9-M6×1.0	14	1	2	3.9	ø10	ø6
SGSJ-160	M10×24	M5	G1/8	M5	179	ø6H7×10	9-M8	17	1	1.9	3.9	ø12	ø8
SGSJ-200	M12×25	M5	G1/4	M6	218	ø10H7×12	9-M10	20	1	2.4	4.9	ø14	ø10
SGSJ-300	M16×39.1	M5	G1/4	G1/8	292	ø10H7×12	9-M12	20	2	2.4	4.9	ø18	ø12