

SDA Series Compact Cylinder:



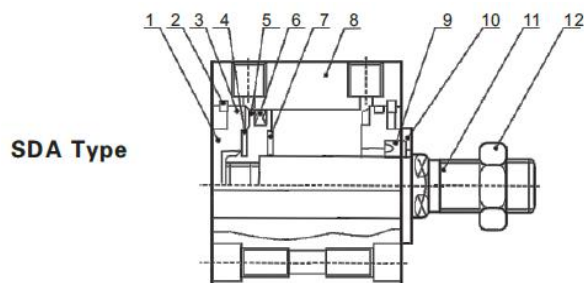
1.Ordering Code :

SDA	-	20	X	30	-	5	S	-	B
↑		↑		↑		↑	↑		↑
Model		Bore size		Stroke		Adjust stroke	S:with magnet		Cog type
SDA: Double action type		12mm~100mm				5: 5mm	Blank:		Blank: Inner thread
SSA: Single action type						15:15mm	without		B:outer thread
STA: Single action drawing-in type						25:25mm	magnet		N: no thread
SDAD: Two axis double action type									
SDAJ: Two axis double action type with stroke adjustable									

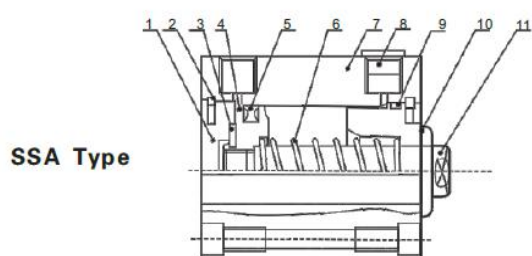
2.Characteristics:

- 1) This series of cylinder conforms to: Airtac standard
- 2) There is an adjustable buffers at the terminals of the cylinder except for mounted cushion.
- 3) Different thread type can be offered according to customers' requirements, e.g.:BSP, NPT etc.
- 4) Needn't lubricate on piston rod by oil

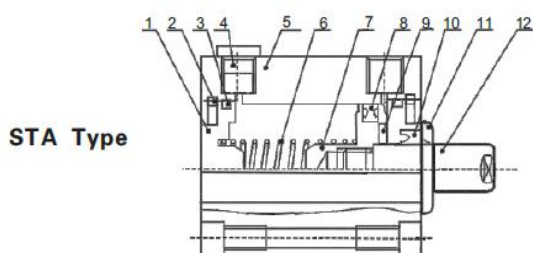
3.Internal Structure:



NO.	Designation	NO.	Designation
1	Back cover	2	Type C buckle ring
3	O-ring	4	Anti-crash cushion
5	Piston	6	Piston O-ring
7	Anti-crash cushion	8	Barrel
9	Front cover seal ring	10	Front cover
11	Piston rod	12	Piston Rod Nut



NO.	Designation	NO.	Designation
1	Back cover	2	Type C buckle ring
3	Anti-crash cushion	4	Piston
5	Piston O-ring	6	Compressed spring
7	Barrel	8	Silencer
9	Cover O-ring	10	Front cover
11	Piston rod		



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1	Back cover	2	Type C buckle ring
3	Cover O-ring	4	Silencer
5	Barrel	6	Compressed spring
7	Piston	8	Piston O-ring
9	Anti-crash cushion	10	Front cover seal ring
11	Front cover	12	Piston rod

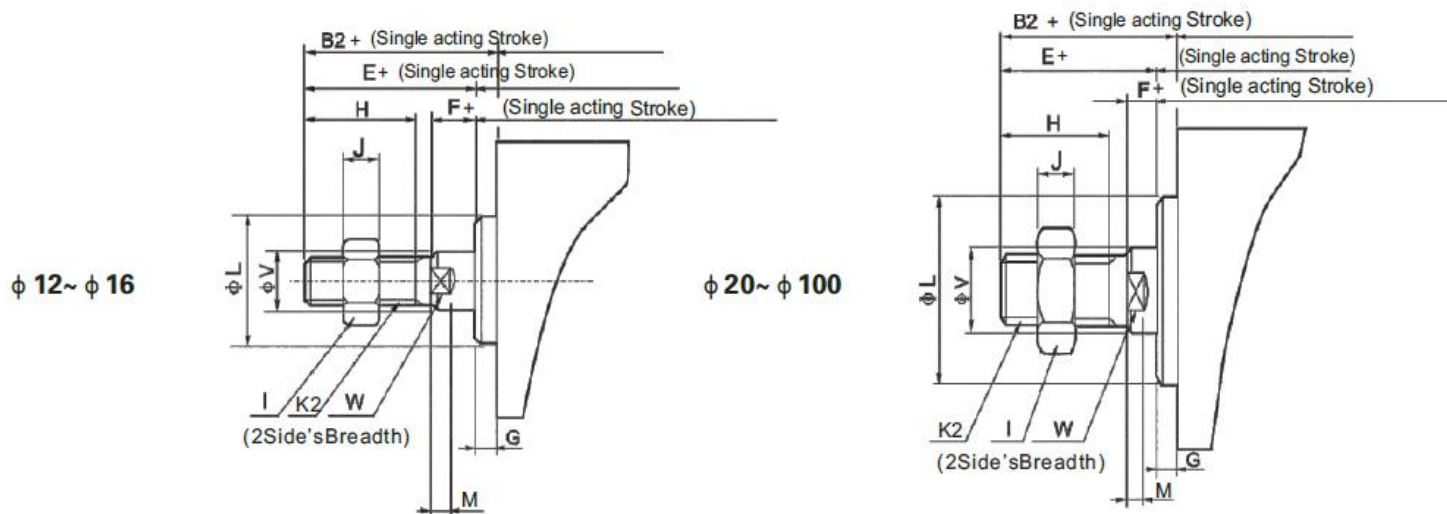
4.Specification:

Bore(mm)		12	16	20	25	32	40	50	63	80	100	
Motion Pattern		Double Acting										
		Single Action Extrusion type Single Action Drawing-in Type							-			
Working Medium		Air										
Operating Pressure Range	Double Action	0.1~0.9MPa										
	Single Action	0.2~0.9MPa							-			
Ensured Pressure Resistance		1.35MPa										
Operating Temperature Range		-5~70℃										
Operating Speed Range	Double Action	30~500mm/s							30~350mm/s		30~250mm/s	
	Single Action	100~500mm/s							-			
Buffer Type		Fixed Type Buffer										
Port Size		M5×0.8				G1/8"		G1/4"		G3/8"		

5.Stroke:

Bore(mm)		12	16	20	25	32	40	50	63	80	100
Double Action	Not attach magnet	5~60 mm Every 5mm is grouped as one grade	5~85 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~110 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade			
	Attach magnet	5~50 mm Every 5mm is grouped as one grade	5~75 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100mm	5~90 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~120 mm Every 5mm is grouped as one grade			
Single Action	Not attach magnet	5~30 mm Every 5mm is grouped as one grade					5~30 mm Every 5mm is grouped as one grade			-	
	Attach magnet	5~30 mm Every 5mm is grouped as one grade					5~30 mm Every 5mm is grouped as one grade			-	
Max.Stroke		60mm		100mm		120mm			130mm		

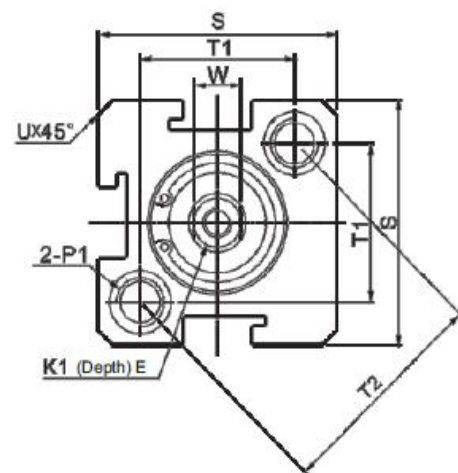
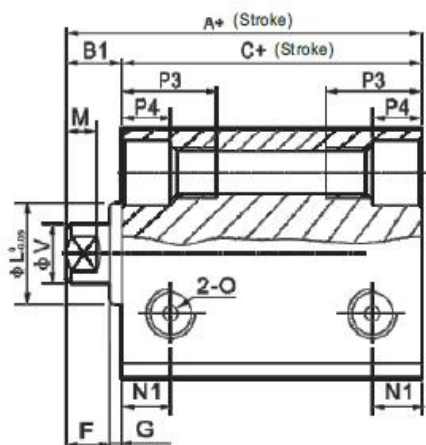
6.Outer thread dimension:



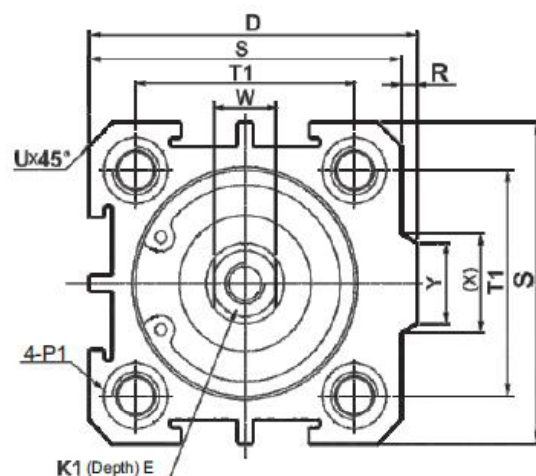
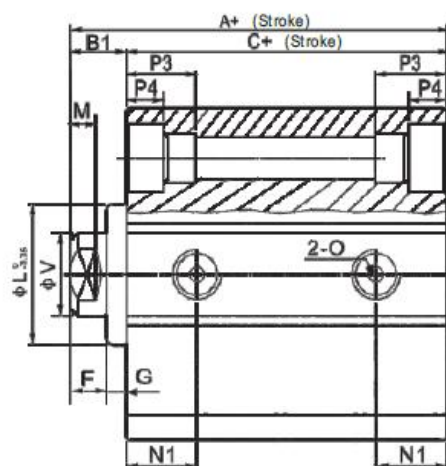
Bore/Symbol	B2	E	F	G	H	I	J	K2	L	M	V	W
12	17	16	4	1	10	8	4	M5×0.8	10.2	2.8	6	5
16	17.5	16	4	1.5	10	8	4	M5×0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	10	5	M6×1.0	16	2.8	8	6
25	23	21	4	2	15	12	6	M8×1.25	17	2.8	10	8
32	25	22	4	3	15	17	6	M10×1.25	22	2.8	12	10
40	35	32	4	3	25	19	8	M14×1.5	28	2.8	16	14
50	37	33	5	4	25	27	11	M18×1.5	38	2.8	20	17
63	37	33	5	4	25	27	11	M18×1.5	40	2.8	20	17
80	44	39	6	5	30	32	13	M22×1.5	45	4	25	22
100	50	45	7	5	35	36	13	M26×1.5	55	4	32	27

7. Overall and Dimension Sheet:

SDA Type
φ 12- φ 16



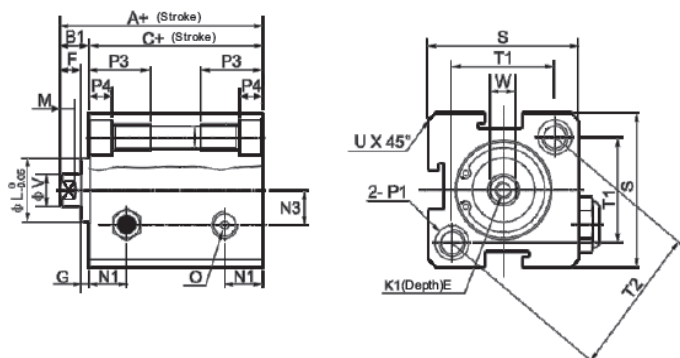
SDA Type
φ 20- φ 100



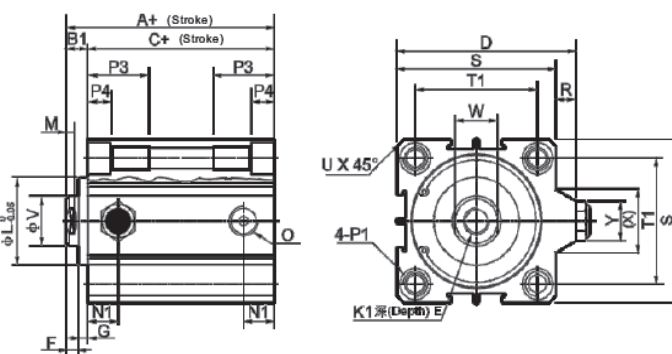
Type	Standard type			Attach Magnet			D	E		F	G	K1	L	M	N1
	A	B1	C	A	B1	C		Stroke≤10	Stroke>10						
12	22	5	17	32	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3
16	24	5.5	18.5	34	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3
20	25	5.5	19.5	35	5.5	29.5	36	8		4	1.5	M4×0.7	15	2.8	7.5
25	27	6	21	37	6	31	42	10		4	2	M5×0.8	17	2.8	8
32	31.5	7	24.5	41.5	7	34.5	50	12		4	3	M6×1	22	2.8	9
40	33	7	28	43	7	36	58.5	12		4	3	M8×1.25	28	2.8	10
50	37	9	28	47	9	38	71.5	15		5	4	M10×1.5	38	2.8	10.5
63	41	9	32	51	9	42	84.5	15		5	4	M10×1.5	40	2.8	11.8
80	52	11	41	62	11	51	104	15	20	6	5	M14×1.5	45	4	14.5
100	63	12	51	73	12	61	124	18	20	7	5	M18×1.5	55	4	20.5

Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	(Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	(Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	(Double Sides):φ6.5/ (Thread):M5×0.8/ (Through ports):φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	(Double Sides):φ8.2/ (Thread):M6×1.0/ (Through ports):φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	(Double Sides):φ8.2/ (Thread):M6×1.0/ (Through ports):φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	(Double Sides):φ10/ (Thread):M8×1.25/ (Through ports):φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	(Double Sides):φ11/ (Thread):M8×1.25/ (Through ports):φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	-	G1/4"	(Double Sides):φ11/ (Thread):M8×1.25/ (Through ports):φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	(Double Sides):φ14/ (Thread):M12×1.75/ (Through ports):φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	(Double Sides):φ17.5/ (Thread):M14×2/ (Through ports):φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

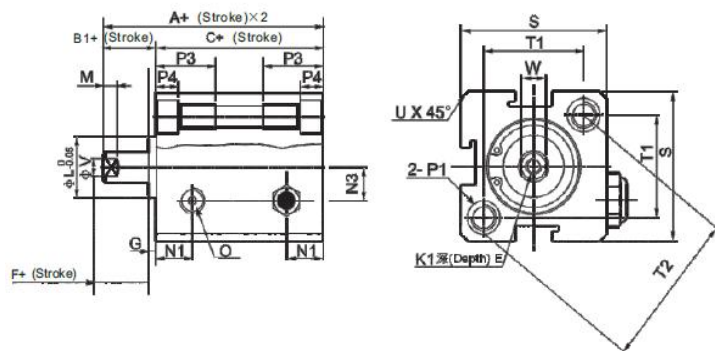
SSA Type $\phi 12$ – $\phi 16$



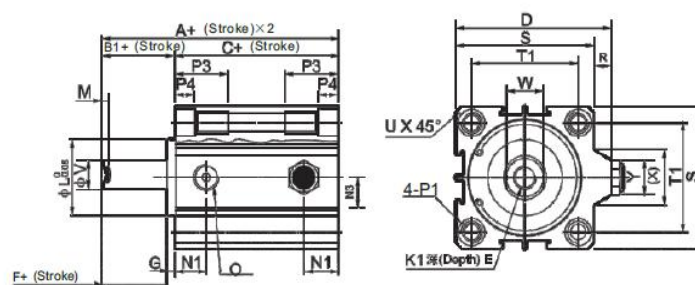
SSA Type $\phi 20$ – $\phi 40$



STA Type $\phi 12$ – $\phi 16$



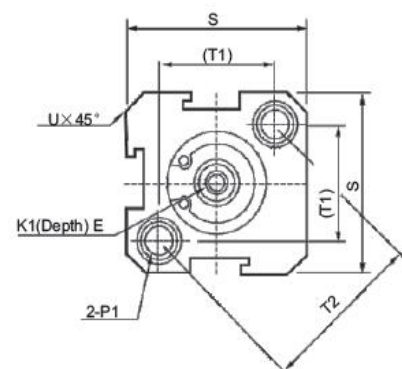
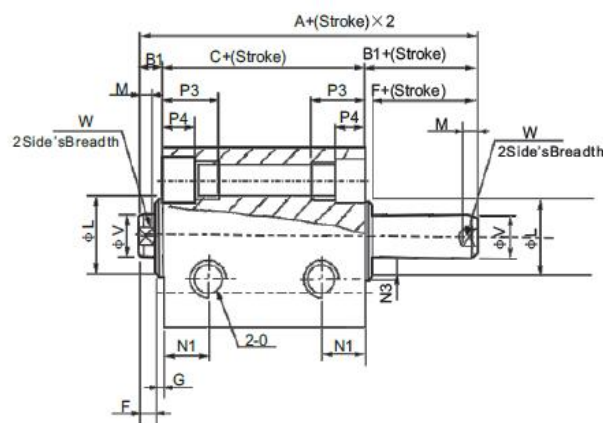
STA Type $\phi 20$ – $\phi 40$



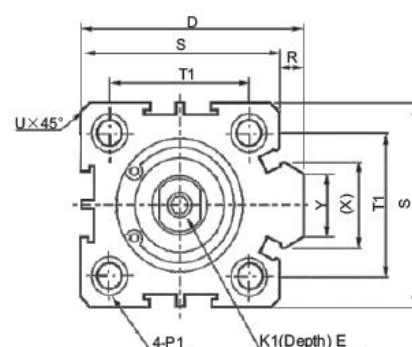
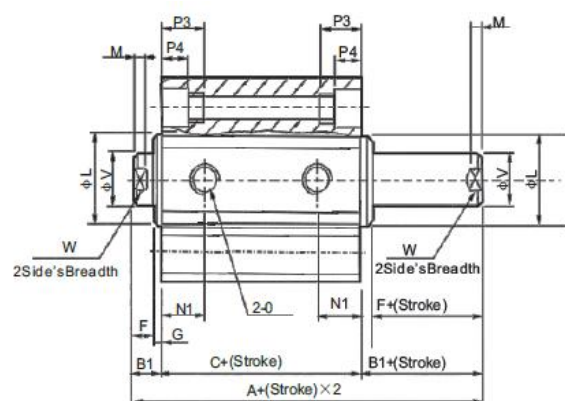
Type	Standard Type			Attach magnet							D	E	F	G	K1	L	M	N1
Stroke	A		B1	C		A		B1	C									
	≤10	>10		≤10	>10	≤10	>10		≤10	>10								
12	32	42	5	27	37	42	52	5	37	47	-	6	4	1	M3×0.5	10.2	2.8	6.3
16	34	44	5.5	28.5	38.5	44	54	5.5	38.5	48.5	-	6	4	1.5	M3×0.5	11	2.8	7.3
20	35	45	5.5	29.5	39.5	45	55	5.5	39.5	49.5	36	8	4	1.5	M4×0.7	16	2.8	7.5
25	37	47	6	34	41	47	57	6	41	51	42	10	4	2	M5×0.8	17	2.8	8
32	41.5	51.5	7	34.5	44.5	51.5	61.5	7	44.5	54.5	50	12	4	3	M6×1	22	2.8	9
40	43	53	7	36	46	53	63	7	46	56	58.5	12	4	3	M8×1.25	28	2.8	10

Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	(Double Sides): $\phi 6.5$ /(Thread): M5×0.8/(Through ports): $\phi 4.2$	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	(Double Sides): $\phi 6.5$ /(Thread): M5×0.8/(Through ports): $\phi 4.2$	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	(Double Sides): $\phi 6.5$ /(Thread): M5×0.8/(Through ports): $\phi 4.2$	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	(Double Sides): $\phi 8.2$ /(Thread): M6×1.0/(Through ports): $\phi 4.6$	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	(Double Sides): $\phi 8.2$ /(Thread): M6×1.0/(Through ports): $\phi 4.6$	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	(Double Sides): $\phi 10$ /(Thread): M8×1.25/(Through ports): $\phi 6.5$	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16

SDAD Type φ 12~φ 16



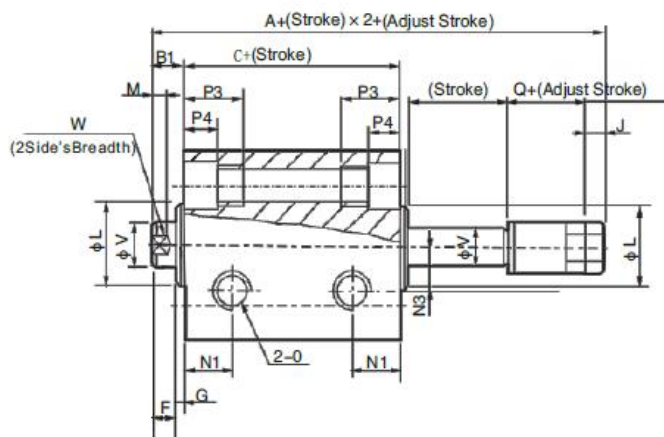
SDAD Type φ 20~φ 100



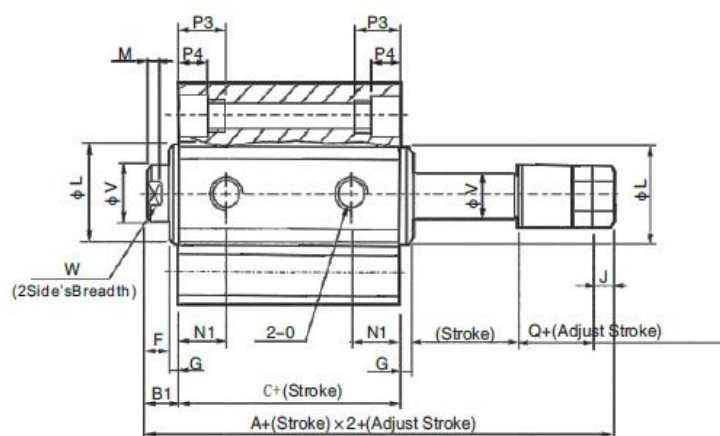
Type	Standard type			Attach Magnet			D	E		F	G	K1	L	M	N1
Bore Size/Symbol	A	B1	C	A	B1	C		Stroke≤10	Stroke>10						
12	27	5	17	37	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3
16	29.5	5.5	18.5	39.5	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3
20	30.5	5.5	19.5	40.5	5.5	29.5	36	8 (Stroke)=5 (itis)6.5		4	1.5	M4×0.7	15	2.8	7.5
25	33	6	21	43	6	31	42	10 (Stroke)=5 (itis)7		4	2	M5×0.8	17	2.8	8
32	38.5	7	24.5	48.5	7	34.5	50	8	12	4	3	M6×1	22	2.8	9
40	40	7	28	50	7	36	58.5	9	12	4	3	M8×1.25	28	2.8	10
50	46	9	28	56	9	38	71.5	11	15	5	4	M10×1.5	38	2.8	10.5
63	50	9	32	60	9	42	84.5	11	15	5	4	M10×1.5	40	2.8	11.8
80	63	11	41	73	11	51	104	14	20	6	5	M14×1.5	45	4	14.5
100	75	12	51	85	12	61	124	18	20	7	5	M18×1.5	55	4	20.5

Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	(Double Sides): φ6.5/(Thread): M5×0.8/(Through ports): φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	(Double Sides): φ6.5/(Thread): M5×0.8/(Through ports): φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	(Double Sides): φ6.5/(Thread): M5×0.8/(Through ports): φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	(Double Sides): φ8.2/(Thread): M6×1.0/(Through ports): φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	(Double Sides): φ8.2/(Thread): M6×1.0/(Through ports): φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	(Double Sides): φ10/(Thread): M8×1.25/(Through ports): φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	(Double Sides): φ11/(Thread): M8×1.25/(Through ports): φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	-	G1/4"	(Double Sides): φ11/(Thread): M8×1.25/(Through ports): φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	(Double Sides): φ14/(Thread): M12×1.75/(Through ports): φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	(Double Sides): φ17.5/(Thread): M14×2/(Through ports): φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

SDAJ Type φ 12~φ 16



SDAJ Type φ S20~φ 100



Type	Standard type			Attach Magnet			D	E		F	G	K1	L	M	N1
Bore Size/Symbol	A	B1	C	A	B1	C		Stroke ≤ 10	Stroke > 10						
12	22	5	17	32	5	27	-	6		4	1	M3×0.5	10.2	2.8	6.3
16	24	5.5	18.5	34	5.5	28.5	-	6		4	1.5	M3×0.5	11	2.8	7.3
20	25	5.5	19.5	35	5.5	29.5	36	8		4	1.5	M4×0.7	15	2.8	7.5
25	27	6	21	37	6	31	42	10		4	2	M5×0.8	17	2.8	8
32	31.5	7	24.5	41.5	7	34.5	50	12		4	3	M6×1	22	2.8	9
40	33	7	26	43	7	36	58.5	12		4	3	M8×1.25	28	2.8	10
50	37	9	28	47	9	38	71.5	15		5	4	M10×1.5	38	2.8	10.5
63	41	9	32	51	9	42	84.5	15		5	4	M10×1.5	40	2.8	11.8
80	52	11	41	62	11	51	104	15	20	6	5	M14×1.5	45	4	14.5
100	63	12	51	73	12	61	124	18	20	7	5	M18×1.5	55	4	20.5

Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	(Double Sides): φ 6.5/(Thread): M5×0.8/(Through ports): φ 4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	(Double Sides): φ 6.5/(Thread): M5×0.8/(Through ports): φ 4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	(Double Sides): φ 6.5/(Thread): M5×0.8/(Through ports): φ 4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	(Double Sides): φ 6.5/(Thread): M6×1.0/(Through ports): φ 4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	(Double Sides): φ 6.5/(Thread): M6×1.0/(Through ports): φ 4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	(Double Sides): φ 6.5/(Thread): M8×1.25/(Through ports): φ 6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	(Double Sides): φ 6.5/(Thread): M8×1.25/(Through ports): φ 6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	-	G1/4"	(Double Sides): φ 6.5/(Thread): M8×1.25/(Through ports): φ 6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	(Double Sides): φ 6.5/(Thread): M12×1.75/(Through ports): φ 9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	(Double Sides): φ 6.5/(Thread): M12×1.75/(Through ports): φ 11.3	30	13	10	114	90	-	3.65	32	27	35	26