Installation and application

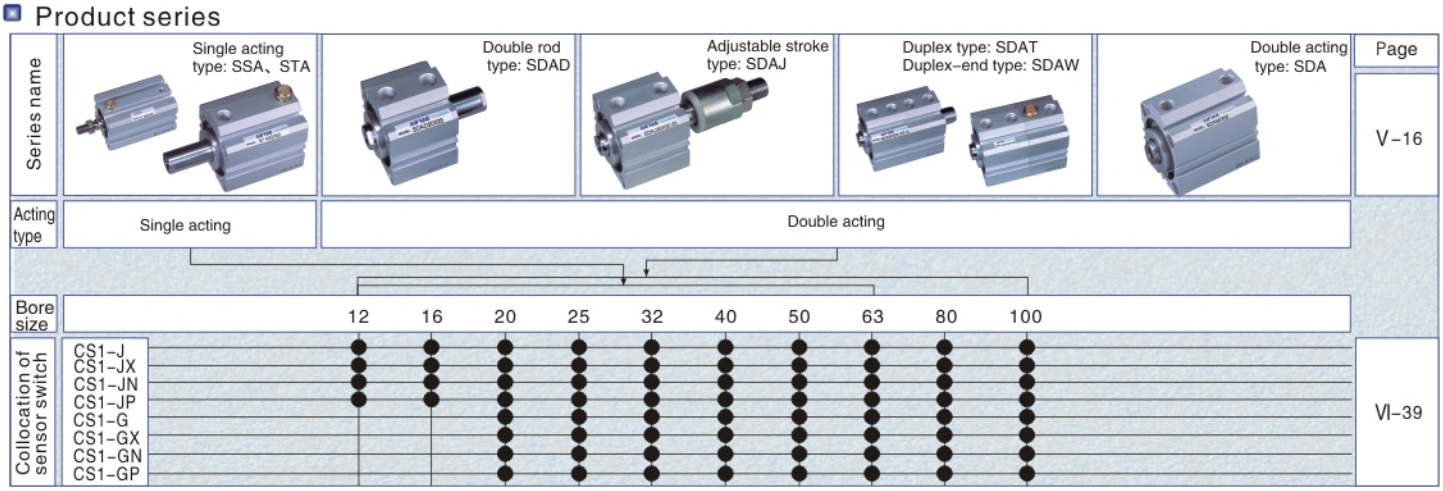
1、When load changes in the work, the cylinder with abundant output capacity shall be selected;
2、Relative cylinder with high temperature resistance or corrosion resistance shall be chosen under the condition of high temperature or corrosion;
3、Necessary protection measure shall be taken in the environment with larger humidity, much dust or water drops, oil dust and welding dregs;
4、Dirty substances in the pipe must be cleared away before cylinder is connected with pipeline to prevent the entrance of sundries into the cylinder;
5、The medium used by cylinder shall be filtered by the filter core of above 40um;
6、As both of the front cover and piston of the cylinder are short, typically too large stroke can not be selected;
7、Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing;
8、The cylinder shall avoid the influence of side load in operation to maintain the normal work of cylinder and extend the service life;
9、If the cylinder is dismantled and stored for a long time, please conduct anti-rust treatment to the surface. Anti-dust jam cap shall be added in air intake and outlet orifices. The front and back cover can not be dismantled, which shall be especially noticed.

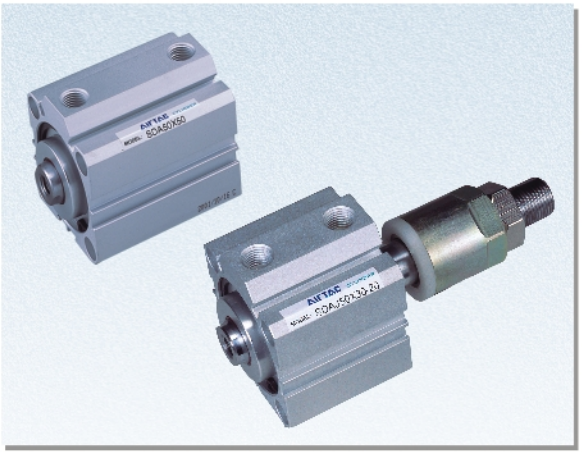
Criteria for selection: Cylinder thrust

Unit：Newton (N)

Bore size(mm)	Rod size (mm)	Acting type		Pressure area(mm^2)	Operating pressure MPa 0.1	0.2	0.3	0.4	0.5	0.6	0.7
12	6	Single acting-Push type		113.1	–	12.6	23.9	35.2	46.5	57.9	69.2
		Single acting-Pull type		84.8	–	7.0	15.4	23.9	32.4	40.9	49.4
		Double acting	Push side	113.1	–	22.6	33.9	45.2	56.5	67.9	79.2
			Pull side	84.8	–	17.0	25.4	33.9	42.4	50.9	59.4
16	6	Single acting-Push type		201.1	–	20.2	40.3	60.4	80.5	100.6	120.7
		Single acting-Pull type		172.8	–	14.6	31.8	49.1	66.4	83.7	101.0
		Double acting	Push side	201.1	–	40.2	60.3	80.4	100.5	120.6	140.7
			Pull side	172.8	–	34.6	51.8	69.1	86.4	103.7	121.0
20	8	Single acting-Push type		314.2	–	39.8	71.2	102.7	134.1	165.5	196.9
		Single acting-Pull type		263.9	–	29.8	56.2	82.6	108.9	135.3	161.7
		Double acting	Push side	314.2	–	62.8	94.2	125.7	157.1	188.5	219.9
			Pull side	263.9	–	52.8	79.2	105.6	131.9	158.3	184.7
25	10	Single acting-Push type		490.9	–	69.7	118.8	167.8	216.9	266.0	315.1
		Single acting-Pull type		412.3	–	54.0	95.2	136.4	177.7	218.9	260.1
		Double acting	Push side	490.9	–	98.2	147.3	196.3	245.4	294.5	343.6
			Pull side	412.3	–	82.5	123.7	164.9	206.2	247.4	288.6
32	12	Single acting-Push type		804.2	–	105.3	185.8	266.2	346.6	427.0	507.5
		Single acting-Pull type		691.2	–	82.7	151.8	221.0	290.1	359.2	428.3
		Double acting	Push side	804.2	–	160.8	241.3	321.7	402.1	482.5	563.0
			Pull side	691.2	–	138.2	207.3	276.5	345.6	414.7	483.8
40	16	Single acting-Push type		1256.6	–	168.6	294.3	420.0	545.6	671.3	796.9
		Single acting-Pull type		1055.6	–	128.4	234.0	339.5	445.1	550.6	656.2
		Double acting	Push side	1256.6	125.7	251.3	377.0	502.7	628.3	754.0	879.6
			Pull side	1055.6	105.6	211.1	316.7	422.2	527.8	633.3	738.9
50	20	Single acting-Push type		1963.5	89.3	285.7	482.0	678.4	874.7	1071.1	1267.4
		Single acting-Pull type		1649.3	57.9	222.9	387.8	552.7	717.7	882.6	1047.5
		Double acting	Push side	1963.5	196.3	392.7	589.0	785.4	981.7	1178.1	1374.4
			Pull side	1649.3	164.9	329.9	494.8	659.7	824.7	989.6	1154.5
63	20	Single acting-Push type		3117.2	135.7	447.4	759.2	1070.9	1382.6	1694.3	2006.1
		Single acting-Pull type		2803.1	104.3	384.6	664.9	945.2	1225.5	1505.9	1786.2
		Double acting	Push side	3117.2	311.7	623.4	935.2	1246.9	1558.6	1870.3	2182.1
			Pull side	2803.1	280.3	560.6	840.9	1121.2	1401.5	1681.9	1962.2
80	25	Double acting	Push side	5026.5	502.7	1005.3	1508.0	2010.6	2513.3	3015.9	3518.6
			Pull side	4535.7	453.6	907.1	1360.7	1814.3	2267.8	2721.4	3175.0
100	32	Double acting	Push side	7854.0	785.4	1570.8	2356.2	3141.6	3927.0	4712.4	5497.8
			Pull side	7049.7	705.0	1409.9	2114.9	2819.9	3524.9	4229.8	4934.8

Product series





Specification

Bore size (mm)		12	16	20	25	32	40	50	63	80	100
Acting type		Double acting type									
		Single acting–Push type、Single acting–Pull type								–	
Fluid		Air(to be filtered by 40um filter element)									
Operating pressure	Double acting	0.1~1.0MPa(14~145Psi)									
	Single acting	0.2~1.0MPa(28~145Psi)									
Proof pressure		1.5MPa(215Psi)									
Temperature ℃		–20~80									
Speed range mm/s		Double acting type：30~500 Single acting type：50~500									
Stroke tolerance		$^{+1.0}_{0}$									
Cushion type		Bumper									
Port size ①		M5 × 0.8				1/8"		1/4"		3/8"	

① PT thread、NPT thread and G thread are available;
Add：Refer to PVI–39~VI–50 for detail of sensor switch.

Stroke

Bore size (mm)			Standard stroke (mm)	Max. stroke	Available stroke
12 16	Double acting	With magnet	5 10 15 20 25 30 35 40 45 50 55	65	70
		Without magnet	5 10 15 20 25 30 35 40 45 50 55 60 65	65	80
	Single acting type		5 10 15 20 25 30	30	–
20	Double acting	With magnet	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90	100	130
		Without magnet	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100	100	130
	Single acting type		5 10 15 20 25 30	30	–
25 32 40 50	Double acting	With magnet	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120	130	150
		Without magnet	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 130	130	150
63	Single acting type		5 10 15 20 25 30	30	–
80 100	Double acting	With magnet	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120	130	150
		Without magnet	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 130	130	150

Note：1、Within allowable stroke scope, when the stroke is larger than the maximum value, it shall be treated as non–standard one. Please contact the company for other special strokes.
2、The non–standard stroke within the scope of maximum stroke is transformed according to the standard stroke of the upper grade and its shape and dimension are equal to that of standard stroke cylinder of the upper grade. For instance, the non–standard stroke cylinder whose stroke is 23 is transformed from the standard cylinder whose standard stroke is 25, and their shape and dimension are the same.

Symbol

SDA SSA STA SDAD SDAJ

SDA–S SSA–S STA–S SDAD–S SDAJ–S

SDAT SDAT–S

SDAW SDAW–S

Product feature

1、Manufactured by our enterprise;
2、Riveted structure is adopted to connect the cylinder body and back cover, and piston and piston rod to make it compact and reliable;
3、The inner diameter of the body is treated with rolling followed by the treatment of hard anodizing, forming an excellent abrasion resistance and durability;
4、The seal of piston adopts heterogeneous two–way seal structure. It has compact dimension and the function of oil reservation;
5、Compact structure can effectively save installation space;
6、There are magnetic switch slots around the cylinder body, which is convenient to install sensor switch;
7、Mounting accessories with various specifications are optional.

Ordering code

SDA S — 20 × 30 — B — P
SDAD S — 20 × 30 — B — P
SDAJ S — 20 × 30 — 30 — B — P

Model
SDA：Compact cylinder(Double acting type)
SSA：Compact cylinder(Single acting–Push type)
STA：Compact cylinder(Single acting–Pull type)
SDAD：Compact cylinder(Double rod type)
SDAJ：Compact cylinder(Adjustable stroke type)

Bore size
Stroke
Adjustable stroke
10：10mm
20：20mm
30：30mm
40：40mm
50：50mm

Magnet
S：With magnet
Blank：Without magnet

Rod type
Blank：Female thread
B：Male thread
N：No thread

① Thread type
P：PT
T：NPT
G：G

① When it is M5 thread, it is blank here.

SDAT S — 20 × 30 × 10 — B — P

Model
SDAT：Compact cylinder(Duplex type)
SDAW：Compact cylinder(Duplex–end type)

Bore size
Stroke 1
Stroke 2

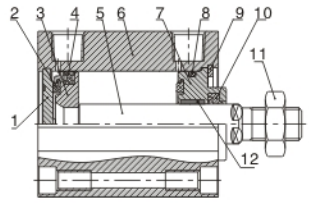
Magnet
S：With magnet
Blank：Without magnet

Rod type
Blank：Female thread
B：Male thread
N：No thread

① Thread type
P：PT
T：NPT
G：G

① When it is M5 thread, it is blank here.

Inner structure and material of major parts

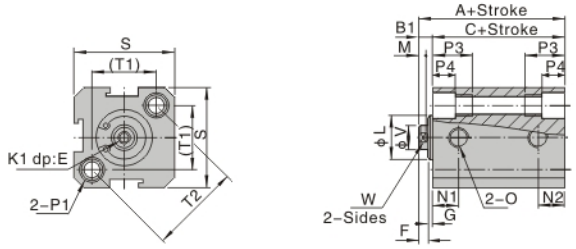


NO.	Item / Bore size	Material			
		12、16	20	25~40	50~100
1	Back cover	–	Aluminum alloy		
2	Bumper	NBR			
3	Piston	Brass	Aluminum alloy		
4	Piston O-ring	NBR			
5	Piston rod	Carbon steel (with 20um hard chrome plated)			
6	Body	Aluminum alloy			
7	Front cover	Brass	Aluminum alloy		
8	O-ring	NBR			
9	C clip	Spring steel			
10	Front cover packing	NBR			
11	Piston nut	Carbon steel			
12	Bushing	–			Wear resistant material

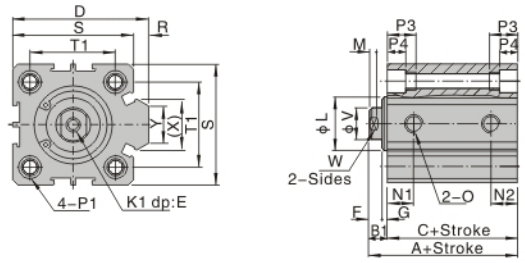
Dimensions

SDA

ϕ12 ϕ16



ϕ20~ϕ100

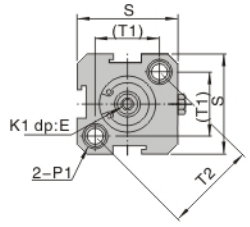


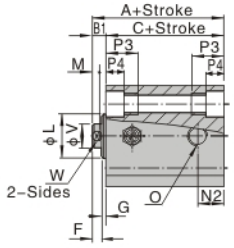
Model	Without magnet		With magnet		B1	D	E	F	G	K1	L	M	N1		N2	
Bore size\Item	A	C	A	C									S=5	S>5	S=5	S>5
12	22	17	32	27	5	–	6	4	1	M3×0.5	10.2	3	7.5		5	
16	24	18.5	34	28.5	5.5	–	6	4	1.5	M3×0.5	11	3	8		5.5	
20	25	19.5	35	29.5	5.5	36	8	4	1.5	M4×0.7	13	3	9		5.5	
25	27	21	37	31	6	42	10	4	2	M5×0.8	17	3	9.2		5.5	
32	31.5	24.5	41.5	34.5	7	50	12	4	2.4	M6×1	22	3	9		6.5	9
40	33	26	43	36	7	58.5	12	4	3	M8×1.25	28	3	9.5		7.5	
50	37	28	47	38	9	71.5	15	5	4	M10×1.5	38	3	8	10.5	8	10.5
63	41	32	51	42	9	84.5	15	5	4	M10×1.5	40	3	9.5	12	9.5	11
80	52	41	62	51	11	104	20	6	5	M14×1.5	45	4	11.5	14.5	11.5	14.5
100	63	51	73	61	12	124	20	7	5	M18×1.5	55	4	16	20.5	16	20.5

Bore size\Item	O	P1	P3	P4	R	S	T1	T2	V	W	X	Y
12	M5×0.8	2-Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2	12	4.5	–	25	16.3	23	6	5	–	–
16	M5×0.8	2-Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2	12	4.5	–	29	19.8	28	6	5	–	–
20	M5×0.8	2-Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2	14	4.5	2	34	24	–	8	6	11.3	10
25	M5×0.8	2-Sides: ϕ8.2Thread:M6×1.0Thru.hole: ϕ4.6	15	5.5	2	40	28	–	10	8	12	10
32	1/8"	2-Sides: ϕ8.2Thread:M6×1.0Thru.hole: ϕ4.6	16	5.5	6	44	34	–	12	10	18.3	15
40	1/8"	2-Sides: ϕ10Thread:M8×1.25Thru.hole: ϕ6.5	20	7.5	6.5	52	40	–	16	14	21.3	16
50	1/4"	2-Sides: ϕ11Thread:M8×1.25Thru.hole: ϕ6.5	25	8.5	9.5	62	48	–	20	17	30	20
63	1/4"	2-Sides: ϕ11Thread:M8×1.25Thru.hole: ϕ6.5	25	8.5	9.5	75	60	–	20	17	28.7	20
80	3/8"	2-Sides: ϕ14Thread:M12×1.75Thru.hole: ϕ9.2	25	10.5	10	94	74	–	25	22	36	26
100	3/8"	2-Sides: ϕ17.5Thread:M14×2Thru.hole: ϕ11.3	30	13	10	114	90	–	32	27	35	26

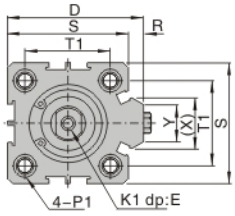
SSA

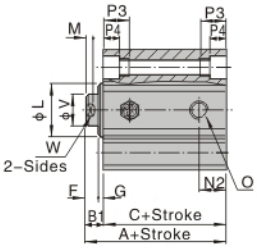
ϕ12 ϕ16





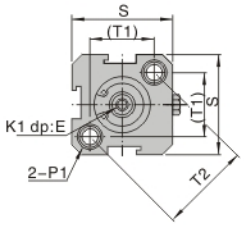
ϕ20~ϕ63

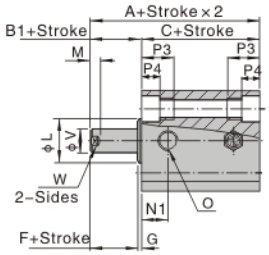




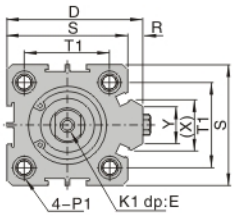
STA

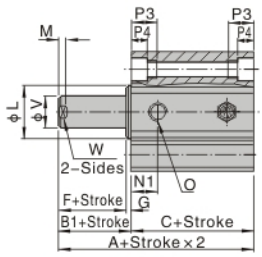
ϕ12 ϕ16





ϕ20~ϕ63





Model	Without magnet				With magnet			
Bore size\Item	A		C		A		C	
Stroke	≤10	>10	≤10	>10	≤10	>10	≤10	>10
12	32	42	27	37	42	52	37	47
16	34	44	28.5	38.5	44	54	38.5	48.5
20	35	45	29.5	39.5	45	55	39.5	49.5
25	37	47	31	41	47	57	41	51
32	41.5	51.5	34.5	44.5	51.5	61.5	44.5	54.5
40	43	53	36	46	53	63	46	56
50	47	57	38	48	57	67	48	58
63	51	61	42	52	61	71	52	62

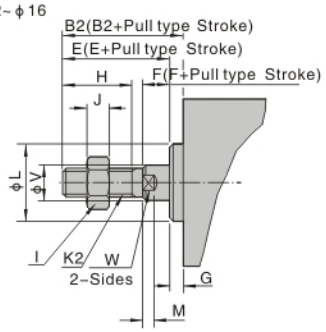
Bore size\Item	B1	D	E	F	G	K1	L	M	N1	N2
12	5	–	6	4	1	M3×0.5	10.2	3	7.5	5
16	5.5	–	6	4	1.5	M3×0.5	11	3	8	5.5
20	5.5	36	8	4	1.5	M4×0.7	13	3	9	5.5
25	6	42	10	4	2	M5×0.8	17	3	9.2	5.5
32	7	50	12	4	2.4	M6×1	22	3	9	9
40	7	58.5	12	4	3	M8×1.25	28	3	9.5	7.5
50	9	71.5	15	5	4	M10×1.5	38	3	10.5	10.5
63	9	84.5	15	5	4	M10×1.5	40	3	12	11

Bore size\Item	O	P1
12	M5×0.8	2–Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2
16	M5×0.8	2–Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2
20	M5×0.8	2–Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2
25	M5×0.8	2–Sides: ϕ8.2Thread:M6×1.0Thru.hole: ϕ4.6
32	1/8"	2–Sides: ϕ8.2Thread:M6×1.0Thru.hole: ϕ4.6
40	1/8"	2–Sides: ϕ10Thread:M8×1.25Thru.hole: ϕ6.5
50	1/4"	2–Sides: ϕ11Thread:M8×1.25Thru.hole: ϕ6.5
63	1/4"	2–Sides: ϕ11Thread:M8×1.25Thru.hole: ϕ6.5

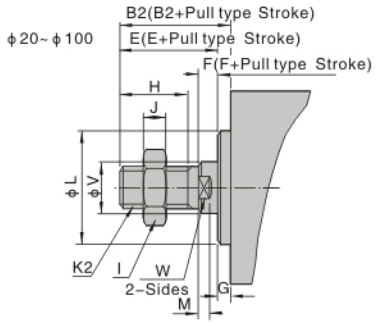
Bore size\Item	P3	P4	R	S	T1	T2	V	W	X	Y
12	12	4.5	–	25	16.2	23	6	5	–	–
16	12	4.5	–	29	19.8	28	6	5	–	–
20	14	4.5	2	34	24	–	8	6	11.3	10
25	15	5.5	2	40	28	–	10	8	12	10
32	16	5.5	6	44	34	–	12	10	18.3	15
40	20	7.5	6.5	52	40	–	16	14	21.3	16
50	25	8.5	9.5	62	48	–	20	17	30	20
63	25	8.5	9.5	75	60	–	20	17	28.7	20

Dimensions of male thread

ϕ12~ϕ16



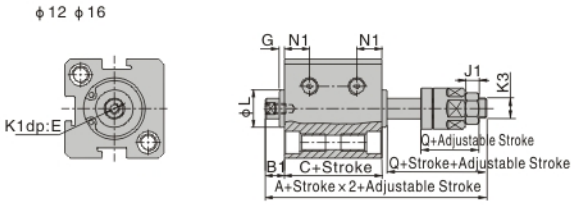
ϕ20~ϕ100



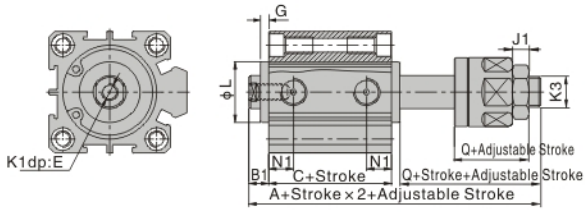
Item / Bore size	B2	E	F	G		H	I	J	K2	L	M	V	W
				Others	SDAD\SDAJ								
12	17	16	4	1		10	8	4	M5×0.8	10.2	3	6	5
16	17.5	16	4	1.5		10	8	4	M5×0.8	11	3	6	5
20	20.5	19	4	1.5		13	10	5	M6×1.0	13	3	8	6
25	23	21	4	2		15	12	6	M8×1.25	17	3	10	8
32	25	22	4	2.4	3	15	17	6	M10×1.25	22	3	12	10
40	35	32	4	3		25	19	8	M14×1.5	28	3	16	14
50	37	33	5	4		25	27	11	M18×1.5	38	3	20	17
63	37	33	5	4		25	27	11	M18×1.5	40	3	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

SDAJ

ϕ12 ϕ16

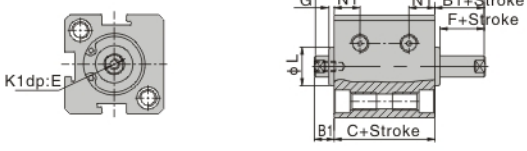


ϕ20~ϕ100

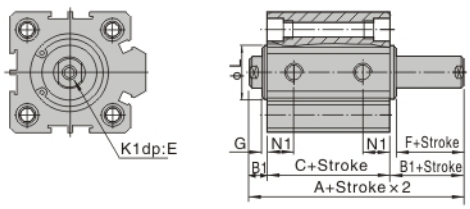


SDAD

ϕ12 ϕ16



ϕ20~ϕ100



Model	Without magnet		With magnet		B1	E		Q	J1
Bore size\Item	A	C	A	C		S≤10	S>10		
12	40	17	50	27	5	6		17	4
16	42.5	18.5	52.5	28.5	5.5	6		17	4
20	47.5	19.5	57.5	29.5	5.5	8(S=5 is 6.5)		21	5
25	54	21	64	31	6	10(S=5 is 7)		25	6
32	61.5	24.5	71.5	34.5	7	8	12	27	6
40	64	26	74	36	7	8	12	28	7
50	70	28	80	38	9	8	15	29	8
63	74	32	84	42	9	10	15	29	8
80	92.5	41	102.5	51	11	13	20	35.5	10
100	110.5	51	120.5	61	12	18	20	42.5	13.5

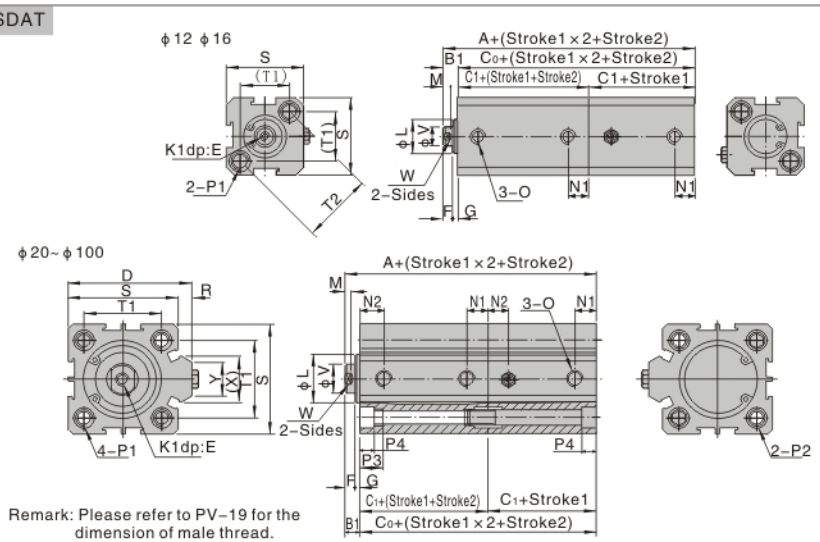
Bore size\Item / Stroke	G	K1	K3	L	N1	
					S=5	S>5
12	1	M3×0.5	M5X0.8	10.2	5.5	6.3
16	1.5	M3×0.5	M5X0.8	11	6.5	7.3
20	1.5	M4×0.7	M6X1.0	15	7.5	
25	2	M5×0.8	M8X1.25	17	8	
32	3	M6×1	M10X1.25	22	8	9
40	3	M8×1.25	M12X1.25	28	8	10
50	4	M10×1.5	M16X1.5	38	8	10.5
63	4	M10×1.5	M16X1.5	40	9.5	11.8
80	5	M14×1.5	M20X1.5	45	11.5	14.5
100	5	M18×1.5	M27X2.0	55	16	20.5

Remark: 1、The unmarked dimension is the same as SDA standard type;
2、Please refer to PV-19 for the dimension of male thread.

Model	Without magnet		With magnet		E		B1	F	G	K1	L	N1	
Bore size\Item	A	C	A	C	S≤10	S>10						S=5	S>5
12	27	17	37	27	6		5	4	1	M3×0.5	10.2	5.5	6.3
16	29.5	18.5	39.5	28.5	6		5.5	4	1.5	M3×0.5	11	6.5	7.3
20	30.5	19.5	40.5	29.5	8 (S=5 is 6.5)		5.5	4	1.5	M4×0.7	15	7.5	
25	33	21	43	31	10 (S=5 is 7)		6	4	2	M5×0.8	17	8	
32	38.5	24.5	48.5	34.5	8	12	7	4	3	M6×1	22	8	9
40	40	26	50	36	8	12	7	4	3	M8×1.25	28	8	10
50	46	28	56	38	8	15	9	5	4	M10×1.5	38	8	10.5
63	50	32	60	42	10	15	9	5	4	M10×1.5	40	9.5	11.8
80	63	41	73	51	13	20	11	6	5	M14×1.5	45	11.5	14.5
100	75	51	85	61	18	20	12	7	5	M18×1.5	55	16	20.5

Remark: 1、The unmarked dimension is the same as SDA standard type;
2、Please refer to PV-19 for the dimension of male thread.

SDAT



Remark: Please refer to PV–19 for the dimension of male thread.

Model	Without magnet			With magnet			B1
Bore size\Item	A	C_0	C1	A	C_0	C1	
12	44	34	17	64	54	27	5
16	48	37	18.5	68	57	28.5	5.5
20	50	39	19.5	70	59	29.5	5.5
25	54	42	21	74	62	31	6
32	63	49	24.5	83	69	34.5	7
40	66	52	26	86	72	36	7
50	74	56	28	94	76	38	9
63	82	64	32	102	84	42	9
80	104	82	41	124	102	51	11
100	126	102	51	146	122	61	12

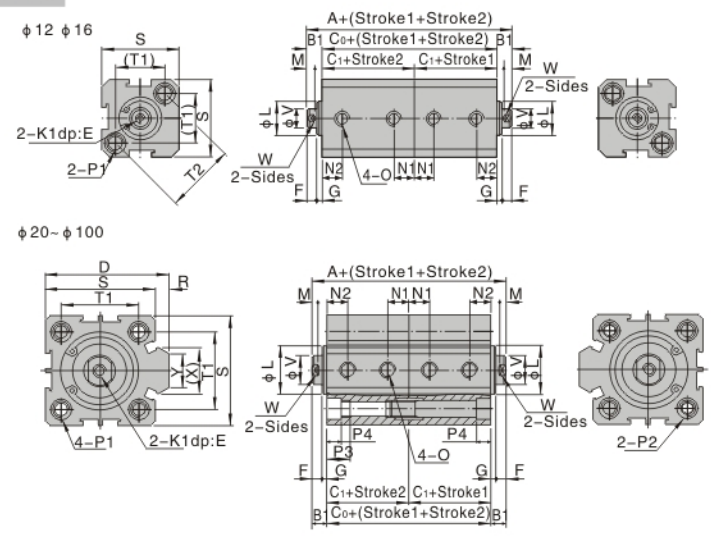
Bore size\Item	D	E	F	G	K1	L	M
12	–	6	4	1	M3×0.5	10.2	3
16	–	6	4	1.5	M3×0.5	11	3
20	36	8	4	1.5	M4×0.7	13	3
25	42	10	4	2	M5×0.8	17	3
32	50	12	4	2.4	M6×1	22	3
40	58.5	12	4	3	M8×1.25	28	3
50	71.5	15	5	4	M10×1.5	38	3
63	84.5	15	5	4	M10×1.5	40	3
80	104	20	6	5	M14×1.5	45	4
100	124	20	7	5	M18×1.5	55	4

Model	Without magnet			With magnet			B1	D	E	F	G	K1	L	M	N1		N2		O
Bore size\Item	A	C_0	C1	A	C_0	C1									S=5	S>5	S=5	S>5	
12	39	34	17	59	54	27	5	–	6	4	1	M3×0.5	10.2	3	5		7.5		M5×0.8
16	42.5	37	18.5	62.5	57	28.5	5.5	–	6	4	1.5	M3×0.5	11	3	5.5		8		M5×0.8
20	44.5	39	19.5	64.5	59	29.5	5.5	36	8	4	1.5	M4×0.7	13	3	5.5		9		M5×0.8
25	48	42	21	68	62	31	6	42	10	4	2	M5×0.8	17	3	5.5		9.2		M5×0.8
32	56	49	24.5	76	69	34.5	7	50	12	4	2.4	M6×1	22	3	6.5	9	9		1/8"
40	59	52	26	79	72	36	7	58.5	12	4	3	M8×1.25	28	3	7.5		9.5		1/8"
50	65	56	28	85	76	38	9	71.5	15	5	4	M10×1.5	38	3	8	10.5	8	10.5	1/4"
63	73	64	32	93	84	42	9	84.5	15	5	4	M10×1.5	40	3	9.5	11	9.5	12	1/4"
80	93	82	41	113	102	51	11	104	20	6	5	M14×1.5	45	4	11.5	14.5	11.5	14.5	3/8"
100	114	102	51	134	122	61	12	124	20	7	5	M18×1.5	55	4	16	20.5	16	20.5	3/8"

Item / Bore size	X	Y	W	P1	P2	P3	P4	R	S	T1	T2	V
12			5	2–Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2	–	12	4.5	–	25	16.2	23	6
16	–	–	5	2–Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2	–	12	4.5	–	29	19.8	28	6
20	11.3	10	6	2–Sides: ϕ6.5Thread:M5×0.8Thru.hole: ϕ4.2	2–Sides: ϕ6.5 Thru.hole: ϕ5.2	14	4.5	2	34	24	–	8
25	12	10	8	2–Sides: ϕ8.2 Thread:M6×1.0 Thru.hole: ϕ4.6	2–Sides: ϕ8.2 Thru.hole: ϕ6.2	15	5.5	2	40	28	–	10
32	18.3	15	10	2–Sides: ϕ8.2 Thread:M6×1.0 Thru.hole: ϕ4.6	2–Sides: ϕ8.2 Thru.hole: ϕ6.2	16	5.5	6	44	34	–	12
40	21.8	16	14	2–Sides: ϕ10 Thread:M8×1.25 Thru.hole: ϕ6.5	2–Sides: ϕ10 Thru.hole ϕ8.2	20	7.5	6.5	52	40	–	16
50	30	20	17	2–Sides: ϕ11 Thread:M8×1.25 Thru.hole ϕ6.5	2–Sides: ϕ11 Thru.hole: ϕ8.5	25	8.5	9.5	62	48	–	20
63	28.7	20	17	2–Sides: ϕ11 Thread:M8×1.25 Thru.hole ϕ6.5	2–Sides: ϕ11 Thru.hole ϕ8.5	25	8.5	9.5	75	60	–	20
80	36	26	22	2–Sides ϕ14 Thread:M12×1.75 Thru.hole: ϕ9.2	2–Sides: ϕ14 Thru.hole ϕ12.3	25	10.5	10	94	74	–	25
100	35	26	27	2–Sides ϕ17.5 Thread:M14×2 Thru.hole: ϕ11.3	2–Sides: ϕ17.5 Thru.hole ϕ14.2	30	13	10	114	90	–	32

Bore size\Item	N2		N1		O	X	Y
Stroke	S=5	S>5	S=5	S>5			
12	7.5		5		M5×0.8	–	–
16	8		5.5		M5×0.8	–	–
20	9		5.5		M5×0.8	11.3	10
25	9.2		5.5		M5×0.8	12	10
32	9		6.5	9	1/8"	18.3	15
40	9.5		7.5		1/8"	21.3	16
50	8	10.5	8	10.5	1/4"	30	20
63	9.5	12	9.5	11	1/4"	28.7	20
80	11.5	14.5	11.5	14.5	3/8"	36	26
100	16	20.5	16	20.5	3/8"	35	26

SDAW



Remark: Please refer to PV–19 for the dimension of male thread.

Bore size\Item	P1	P2
12	2–Sides: ϕ6.5Thread:M5×0.8 Thru.hold: ϕ4.2	–
16	2–Sides: ϕ6.5Thread:M5×0.8 Thru.hold: ϕ4.2	–
20	2–Sides: ϕ6.5Thread:M5×0.8 Thru.hold: ϕ4.2	2–Sides:: ϕ6.5 Thru.hold: ϕ5.2
25	2–Sides: ϕ8.2 Thread:M6×1.0 Thru.hold: ϕ4.6	2–Sides:: ϕ8.2 Thru.hold: ϕ6.2
32	2–Sides: ϕ8.2 Thread:M6×1.0 Thru.hold: ϕ4.6	2–Sides:: ϕ8.2 Thru.hold: ϕ6.2
40	2–Sides: ϕ10 Thread:M8×1.25 Thru.hold: ϕ6.5	2–Sides:: ϕ10 Thru.hold: ϕ8.2
50	2–Sides: ϕ11 Thread:M8×1.25 Thru.hold: ϕ6.5	2–Sides:: ϕ11 Thru.hold: ϕ8.5
63	2–Sides: ϕ11 Thread:M8×1.25 Thru.hold: ϕ6.5	2–Sides:: ϕ11 Thru.hold: ϕ8.5
80	2–Sides: ϕ14 Thread:M12×1.75 Thru.hold: ϕ9.2	2–Sides:: ϕ14 Thru.hold: ϕ12.3
100	2–Sides: ϕ17.5 Thread:M14×2 Thru.hold: ϕ11.3	2–Sides:: ϕ17.5 Thru.hold: ϕ14.2

Bore size\Item	W	P3	P4	R	S	T1	T2	V
12	5	12	4.5	–	25	16.2	23	6
16	5	12	4.5	–	29	19.8	28	6
20	6	14	4.5	2	34	24	–	8
25	8	15	5.5	2	40	28	–	10
32	10	16	5.5	6	44	34	–	12
40	14	20	7.5	6.5	52	40	–	16
50	17	25	8.5	9.5	62	48	–	20
63	17	25	8.5	9.5	75	60	–	20
80	22	25	10.5	10	94	74	–	25
100	27	30	13	10	114	90	–	32