Compendium of SC Series

Standard cylinder manufactured by our enterprise

Bore size:32, 40, 50, 63, 80, 100

Tie-rod cylinder

The cylinder barrel and front/rear cap is jointed by tie rods with high reliability.

Convenient and fast fix sensor switch

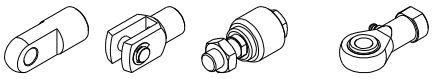
Sensor switch can be directly fixed on the cylinder, which is convenient and fast.
the counterpart sensor switch type is:
CMSG、DMSG、EMSG



Adjustable air buffer

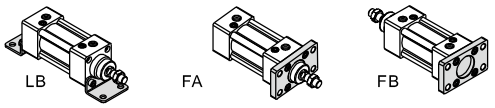
With adjustable air buffer on the front and back cover

Four kinds of cylinder joints

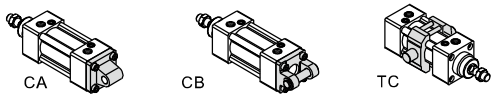


I Knuckle Y Knuckle Floating Joint Universal Joint

Multi-mounting accessories



LB FA FB



CA CB TC



TCM1

Multi-type cylinder



SC: Double acting type SCD: Double rod type SCJ: Adjustable stroke type



SCT: Multi-position type

Criteria for selection: Cylinder thrust

Unit : Newton(N)

Bore size	Rod size	Acting type		Pressure area(mm^2)	Operating pressure(MPa)								
					0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
32	12	Double acting	Push side	804	80.4	160.8	241.2	321.6	402.0	482.4	562.8	643.2	723.6
			Pull side	690	69.0	138.0	207.0	276.0	345.0	414.0	483.0	552.0	621.0
40	16	Double acting	Push side	1256	125.6	251.2	376.8	502.4	628.0	753.6	879.2	1004.8	1130.4
			Pull side	1055	105.5	211.0	316.5	422.0	527.5	633.0	738.5	844.0	949.5
50	20	Double acting	Push side	1963	196.3	392.6	588.9	785.2	981.5	1177.8	1374.1	1570.4	1766.7
			Pull side	1649	164.9	329.8	494.7	659.6	824.5	989.4	1154.3	1319.2	1484.1
63	20	Double acting	Push side	3117	311.7	623.4	935.1	1246.8	1558.5	1870.2	2181.9	2493.6	2805.3
			Pull side	2803	280.3	560.6	840.9	1121.2	1401.5	1681.8	1962.1	2242.4	2522.7
80	25	Double acting	Push side	5026	502.6	1005.2	1507.8	2010.4	2513.0	3015.6	3518.2	4020.8	4523.4
			Pull side	4536	453.6	907.2	1360.8	1814.4	2268.0	2721.6	3175.2	3628.8	4082.4
100	25	Double acting	Push side	7853	785.3	1570.6	2355.9	3141.2	3926.5	4711.8	5497.1	6282.4	7067.7
			Pull side	7362	736.2	1472.4	2208.6	2944.8	3681.0	4417.2	5153.4	5889.6	6625.8
125	32	Double acting	Push side	12272	1227.2	2454.4	3681.6	4908.8	6136.0	7363.2	8590.4	9817.6	11044.8
			Pull side	11468	1146.8	2293.6	3440.4	4587.2	5734.0	6880.8	8027.6	9174.4	10321.2
160	40	Double acting	Push side	20106	2010.6	4021.2	6031.8	8042.4	10053.0	12063.6	14074.2	16084.8	18095.4
			Pull side	18849	1884.9	3769.8	5654.7	7539.6	9424.5	11309.4	13194.3	15079.2	16964.1
200	40	Double acting	Push side	31416	3141.6	6283.2	9424.8	12566.4	15708.0	18849.6	21991.2	25132.8	28274.4
			Pull side	30159	3015.9	6031.8	9047.7	12063.6	15079.5	18095.4	21111.3	24127.2	27143.1
250	50	Double acting	Push side	49087	4908.7	9817.4	14726.1	19634.8	24543.5	29452.2	34360.9	39269.6	44178.3
			Pull side	47124	4712.4	9424.8	14137.2	18849.6	23562.0	28274.4	32986.8	37699.2	42411.6

Installation and application

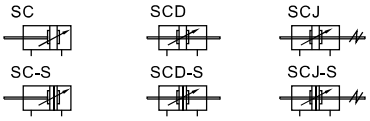
1. When load changes in the work, the cylinder with abundant output capacity shall be selected.
2. Relative cylinder with high temperature resistance or corrosion resistance shall be chosen under the condition of high temperature or corrosion.
3. Necessary protection measure shall be taken in the environment with higher humidity, much dust or water drops, oil dust and welding dregs.
4. Dirty substances in the pipe must be eliminated before cylinder is connected with pipeline to prevent the entrance of particles into the cylinder.
5. The medium used by cylinder shall be filtered to 40μm or below.
6. Anti-freezing measure shall be adopted under low temperature environment to prevent moisture freezing.
7. The cylinder shall be carried out test run without load before application. Prior to run, buffer shall be turned to the minimum and gradually released to avoid the damage on cylinder caused by excessive impact.
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 caps shall be added in air inlet and outlet ports.

Standard cylinder(Tie-rod)

SC Series



Symbol



Product feature

1. Standard cylinder manufactured by our enterprise.
2. The seal of piston adopts heterogeneous two way seal structure. It's dimension is tight and it has the function of grease reservation.
3. It is tie rod cylinder. The cylinder barrel and front/rear cap is jointed by tie rods with high reliability.
4. Compared with ISO15552 standard cylinder, SC series cylinder with the same bore size is shorter.
5. The buffer adjustment of cylinder is smooth and steady.
6. Cylinders and mounting accessories with several specifications are optional.
7. The seal material with high temperature resistance is adopted, operating temperature range is 0~150℃.

Specification

Bore size(mm)		32	40	50	63	80	100
Acting type		Double acting					
Fluid		Air(to be filtered by 40μm filter element)					
Mounting type	SC	Basic FA FB CA CB LB TC TCM1					
	SCD、SCJ	Basic FA LB TC TCM1					
Operating pressure		0.15~1.0MPa(22~145psi)(1.5~10.0bar)					
Proof pressure		1.5MPa(215psi)(15bar)					
Temperature ℃		-20~70					
Speed range mm/s		30~800					
Stroke tolerance		0~250 $^{+1.0}_{0}$	251~1000 $^{+1.5}_{0}$		1001~1500 $^{+2.0}_{0}$		
Cushion type		Variable cushion					
Adjustable cushion stroke		21				28	29
Port size [Note1]		1/8"	1/4"		3/8"		1/2"

[Note1] PT thread, G thread are available.
Add) Refer to P362 for detail of sensor switch.

Stroke

Bore size (mm)	Standard stroke (mm)	Max.std stroke	Max. stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

[Note] If the stroke is ≥1600mm within the maximum stroke scope, it is treated as non-standard one.
Please contact the company for other special strokes.

Ordering code

SC 50 × 50 S □ □ □
SCD 50 × 50 S □ □ □
SCJ 50 × 50-20 S □ □ □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Model	② Bore size	③ Stroke	④ Adjustable stroke	⑤ Magnet	⑥ Mounting type[Note1]	⑦ Seals Material	⑧ Thread type
SC: Double acting type	32 40 50 63 80 100	Refer to stroke table for details	No this code	Blank: Without magnet S: With magnet	Blank LB FA FB CA CB TC	Blank: TPU H: Viton N: NBR	Blank: PT G: G
SCD: Double rod type					Blank LB FA TC		
SCJ: Adjustable stroke type			10 20 30 40 50 75 100				

[Note1] The accessories are the same as SAU series, please refer to page 41~44 for details ;
TC is used with TCM1 and can't be ordered by separately, it must be ordered together with the cylinder.