



Standard cylinder——SE Series

— In accordance with ISO15552 and VDMA24562 standard

■ 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、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 jam cap shall be added in air intake and outlet orifices.

■ 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	0.8	0.9	
32	12	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	Push side	1256	125.6	251.2	376.8	502.4	628.0	753.6	879.2	1002.4	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	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	1399.2	1484.1	
63	20	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	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	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	2948.8	3681.0	4417.2	5153.4	5889.6	6625.8	
125	32	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	



■ Product series

Series name	Mounting type									Acting type	Bore size	Collocation of sensor switch			
	Basic	LB	FA	FB	CA	CB	CR	TC	FTC			CS1-E	CS1-EX	CS1-EN	CS1-EP
Double acting type: SE 	●	●	●	●	●	●	●	●	●	Double acting	32	●	●	●	●
Double rod type: SED 	●	●	●	●	●	●	●	●	●		40	●	●	●	●
Adjustable stroke type: SEJ 	●	●	●	●	●	●	●	●	●		50	●	●	●	●
	●	●	●	●	●	●	●	●	●		63	●	●	●	●
	●	●	●	●	●	●	●	●	●		80	●	●	●	●
	●	●	●	●	●	●	●	●	●	100	●	●	●	●	
	●	●	●	●	●	●	●	●	●	125	●	●	●	●	
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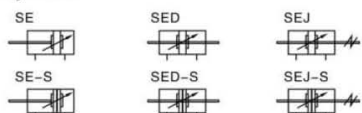
ISO15552 Standard cylinder

SE Series

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Symbol



Product feature

1. ISO15552 and VDMA24562 standard cylinder;
2. The piston seal is composed of two Y-shape one-way seal structure, which has compensation function, long service life and low start-up pressure;
3. The square aluminum pipe without tie rod has good corrosion resistance;
4. The buffer adjustment of cylinder is smooth and steady;
5. Cylinders and accessories for installation with several specifications are optional.

Specification

Bore size		mm	32	40	50	63	80	100	125
Acting type			Double acting						
Fluid			Air(to be filtered by 40um filter element)						
Mounting type	SE	Basic FA FB CA CB CR LB FTC TF TM							
	SED	Basic FA LB FTC TF TM							
	SEJ								
Operating pressure			0.1~1.0MPa(14~145Psi)						
Proof pressure			1.5MPa(215Psi)						
Temperature ℃			-20~80						
Speed range mm/s			30~800						30~500
Stroke Tolerance			0~250 ^{+1.0} ₀		251~1000 ^{+1.4} ₀		1001~1500 ^{+1.8} ₀		
Cushion type			Variable cushion						
Adjustable cushion stroke mm			27		30		36		40
Port size (1)			1/8"		1/4"		3/8"		1/2"

① PT thread, G thread are available;
Add: Refer to PVI-35-VI-44 for detail of sensor switch.

Stroke

Unit: mm

Bore size (mm)	Standard stroke																Max. Stroke	Available stroke
32	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	1000	1800
40	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	1200	1800
50																	1200	1800
63	25	50	75	80	100	125	150	160	175	200	250	300	350	400			1500	1800
80	450	500	600	700	800	900	1000										1500	1800
100																	1500	1800
125																	1500	1800

Remark: Consult us for non-standard stroke.

Ordering code

SE—80□ × 50—S—□—LB—G									
SED—80□ × 50—S—□—LB—G									
SEJ—80□ × 50—20—S—□—LB—G									
Model		Bore size		Adjustable stroke		Stroke		Seals Material	
SE: Double acting type		10: 10mm		Blank: TPU		Thread type		Mounting type	
SED: Double rod type		20: 20mm		H: Viton					
SEJ: Adjustable stroke type		30: 30mm		N: NBR					
Rod Material		Blank: Medium carbon steel		40: 40mm		Magnet		Available series	
				50: 50mm					
				75: 75mm					
A: Ordinary steel		B: High-quality stainless steel		100: 100mm		S: With magnet		SE	
B: High-quality stainless steel									
						Blank: Without magnet		SEJ	
								Be used with CE	
								SE	
								SEJ	
								TF, TM	

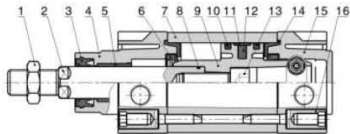
ISO15552 Standard cylinder

SE Series

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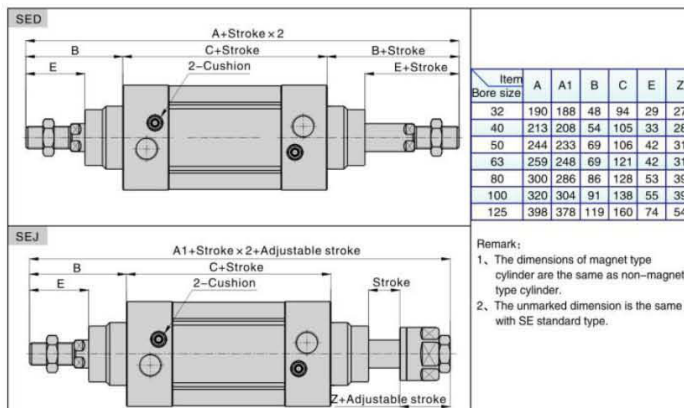
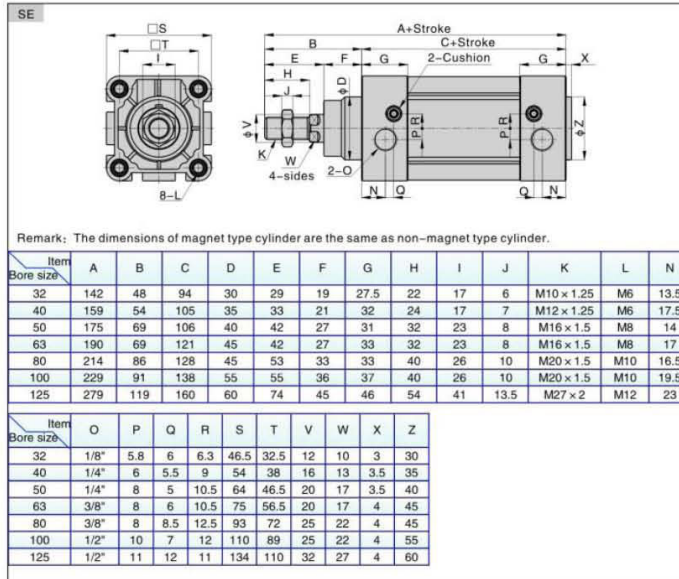
Inner structure and material of major parts

SE-S



NO.	Item	Material
1	Rod nut	Carbon steel /Stainless steel
2	Piston rod	Carbon steel with 20um chrome plated Stainless steel
3	Front cover packing	TPU
4	Front cover	Aluminum alloy
5	Bushing	Wear resistant material
6	Cushion O-ring	TPU
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston	Aluminum alloy
10	Piston O-ring	TPU
11	Wear ring	Wear resistant material
12	Magnet	Plastic / Rubber (ϕ 125)
13	Bolt	Carbon steel
14	Buffer gasket	TPU
15	Back cover	Aluminum alloy
16	Screw	Carbon steel /Stainless steel

■ Dimensions



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Accessories

Ordering code

Accessory	F	SE	50	CA
				(1)
				Accessory type
				CA CA type
				CB ² CB type
				TC TC type

- ① The listed accessories are for SE cylinder. Accessories that are adaptable to other cylinders are not shown. Please refer to accessory list on PIII-06 for selection and ordering information.
② CB is attached with relevant PIN.

Accessory selection

Cylinder model	Accessories	SE		SED		SEJ	
		Standard	With magnet	Standard	With magnet	Standard	With magnet
Mounting accessory	LB	●	●	●	●	●	●
	FA	●	●	●	●	●	●
	FB	●	●	×	×	×	×
	CA	●	●	×	×	×	×
	CB	●	●	×	×	×	×
	CR	●	●	×	×	×	×
	TC	●	●	●	●	●	●
	FTC	●	●	●	●	●	●
	TF	●	●	●	●	●	●
	TM	●	●	●	●	●	●
Knuckle	I	●	●	●	●	●	●
	Y	●	●	●	●	●	●
	U	●	●	●	●	●	●
	F	●	●	●	●	●	●
	CS1-E	×	●	×	●	×	●
Sensor switch	CS1-EX	×	●	×	●	×	●
	CS1-EN	×	●	×	●	×	●
	CS1-EP	×	●	×	●	×	●

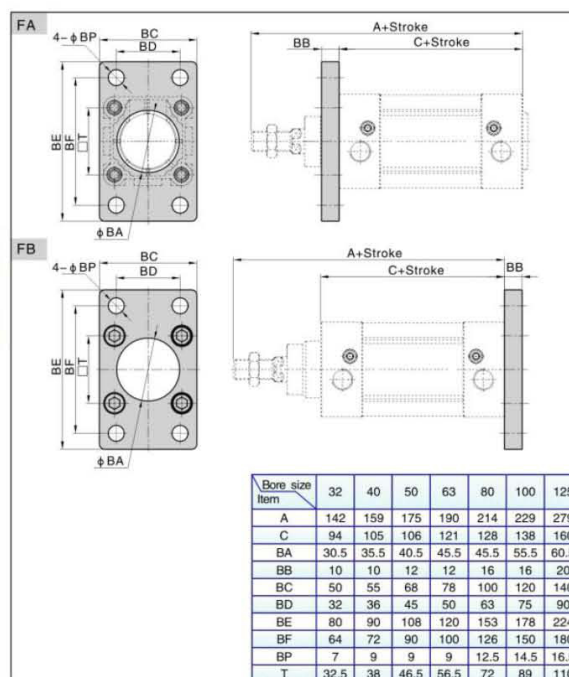
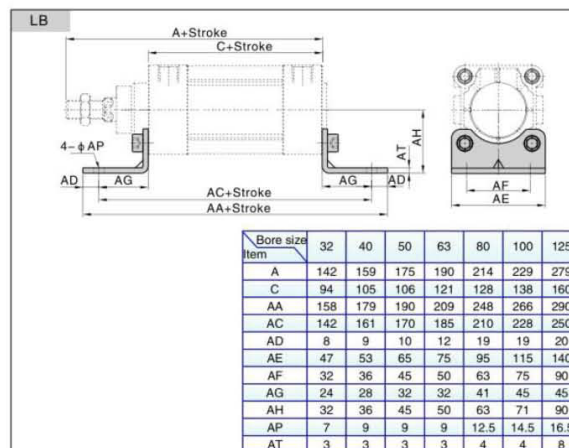
- ①: Please refer to PVI-31-VI-34 for knuckle detail;
②: Please refer to PVI-35-VI-44 for detail of sensor switch.

Material of accessories

Accessories	Mounting accessories								Joint accessories		
	Bore size	LB	FA	FB	TM	CR	CA	CB	FTC	TF	I, Y, F, U
	32-100	Low carbon steel	Aluminum alloy			Nodular cast iron			Cast steel		Carbon steel
	125					Cast steel					

Item	Bore size	32	40	50	63	80	100	125
		A	142	159	175	190	214	229
	C	94	105	106	121	128	138	160
	S	46.5	54	64	75	93	110	134
	T	32.5	38	46.5	56.5	72	89	110
	DC	22	25	27	32	36	41	50
	DD	10.5	12	12	15	15.5	20	24
	DE	10	12	12	16	16	20	25
	DJ	13	16	17	22	22	27	33
	DQ	25.8	27.8	31.7	39.7	49.7	59.7	69.7

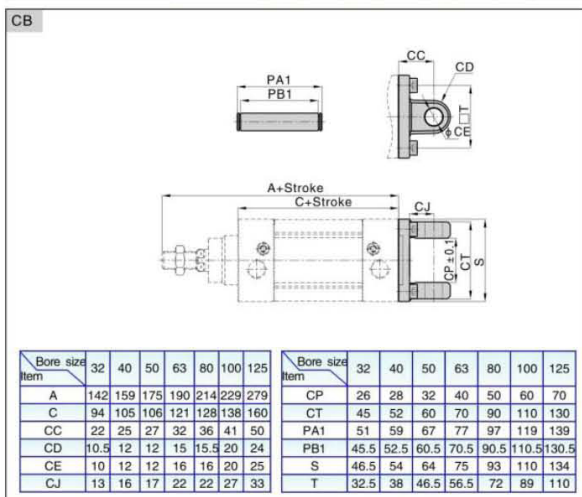
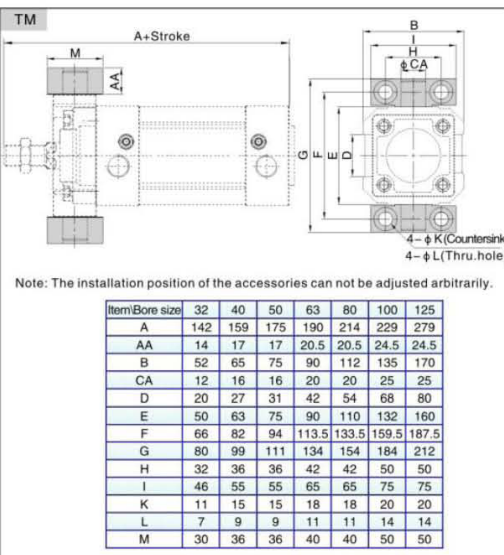
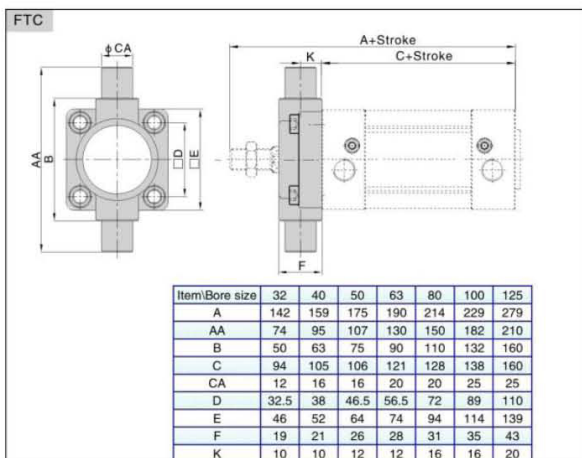
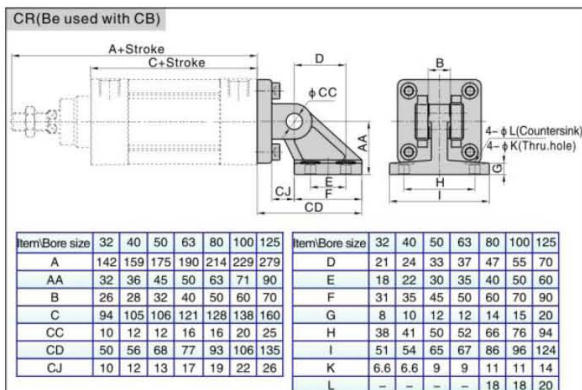
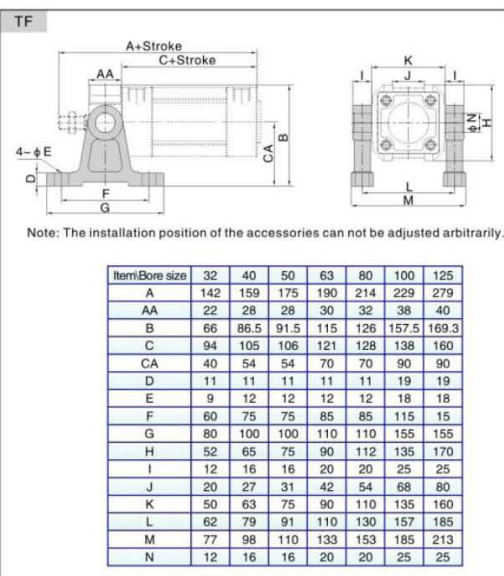
Dimensions



ISO15552 Standard cylinder

AIRTAKE

Accessories



ISO15552 Standard cylinder

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Accessories

List for ordering code of accessories

Cylinder model	32	40	50	63	80	100	125
Accessories							
LB	F-SI32LB	F-SI40LB	F-SI50LB	F-SI63LB	F-SI80LB	F-SI100LB	F-SI125LB
FA	F-SI32FA	F-SI40FA	F-SI50FA	F-SI63FA	F-SI80FA	F-SI100FA	F-SI125FA
FB							
CA	F-SE32CA	F-SE40CA	F-SE50CA	F-SE63CA	F-SE80CA	F-SE100CA	F-SE125CA
CB	F-SE32CB	F-SE40CB	F-SE50CB	F-SE63CB	F-SE80CB	F-SE100CB	F-SE125CB
CR	F-SI32CR	F-SI40CR	F-SI50CR	F-SI63CR	F-SI80CR	F-SI100CR	F-SI125CR
TC ①	F-SE32TC	F-SE40TC	F-SE50TC	F-SE63TC	F-SE80TC	F-SE100TC	F-SE125TC
FTC	F-SI32FTC	F-SI40FTC	F-SI50FTC	F-SI63FTC	F-SI80FTC	F-SI100FTC	F-SI125FTC
TF	F-SI32TF	F-SI40TF		F-SI63TF		F-SI125TF	
TM	F-SI32TM	F-SI40TM		F-SI63TM		F-SI125TM	
Knuckle							
I: I Knuckle	F-M10125II	F-M12125II	F-M16150II		F-M20150II		F-M27200II
Y:Y Knuckle	F-M10125YI	F-M12125YI	F-M16150YI		F-M20150YI		F-M27200YI
U:U Knuckle	F-M10125U	F-M12125U	F-M16150U		F-M20150U		F-M27200U
F:F Knuckle	F-M10125F	F-M12125F	F-M16150F		F-M20150F		-
Sensor switch							
CS1-E				CS1-E			
CS1-EX				CS1-EX			
CS1-EN				CS1-EN			
CS1-EP				CS1-EP			

①: TC accessories are under development.



SE