



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

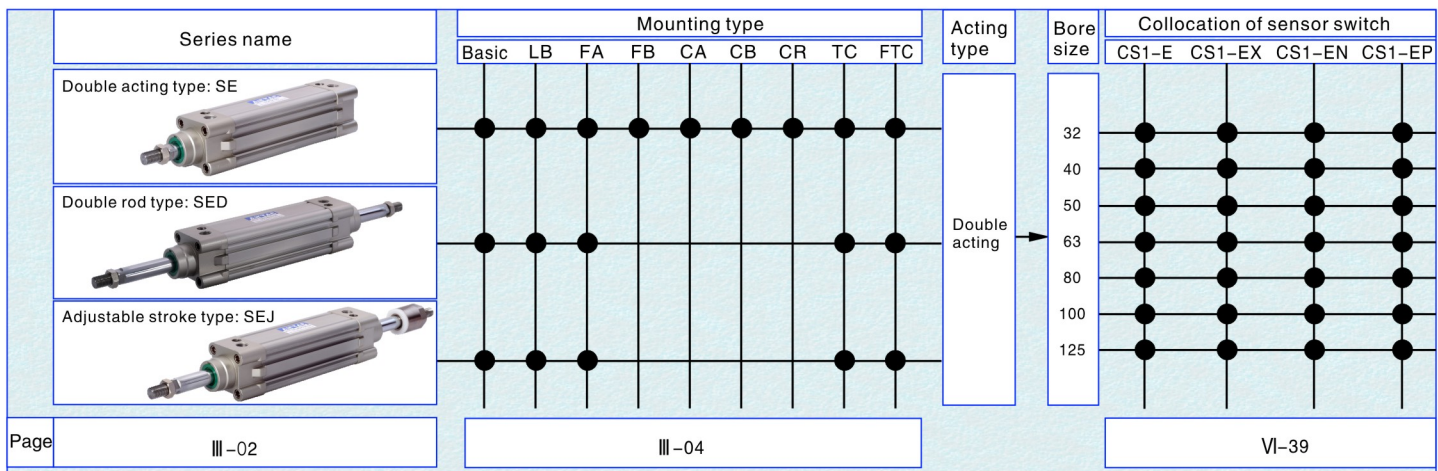
Unit: Newton (N)

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	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	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	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	1399.2	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	2948.6	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



SE

Product series



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III-04

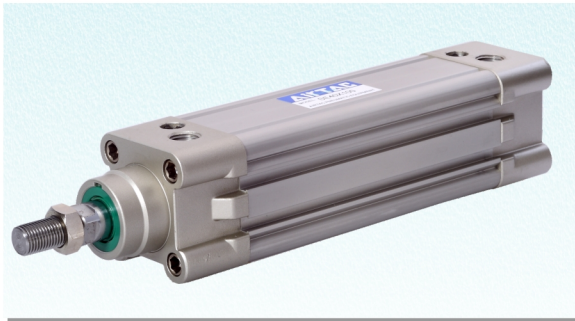
VI-39



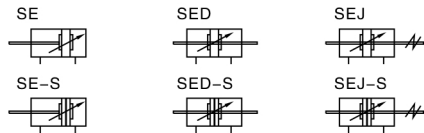
ISO15552 Standard cylinder



SE Series



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	Basic FA LB FTC TF TM						
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, NPT thread and G thread are available;
Add: Refer to PVI-39-VI-50 for detail of sensor switch.

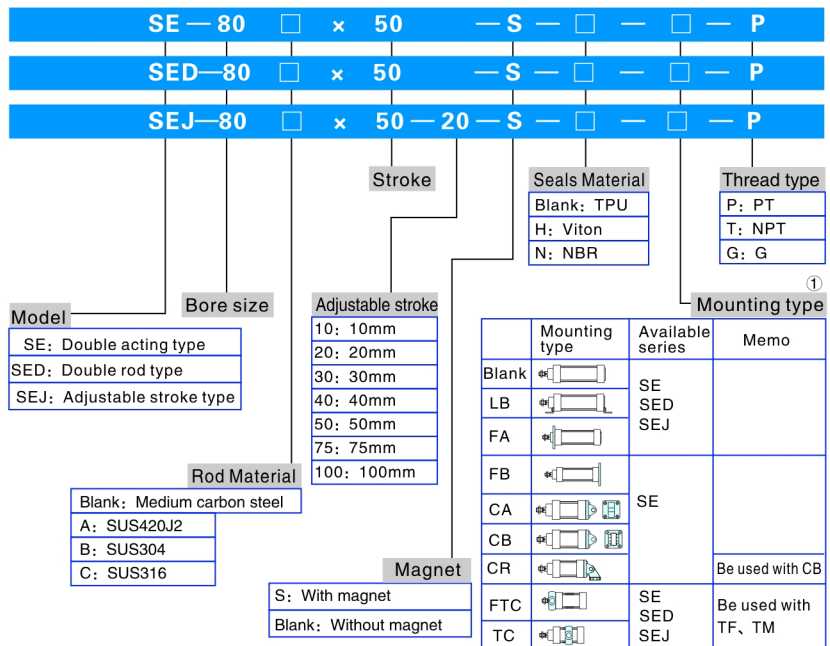
Stroke

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 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1200	1800
50		1200	1800
63		1500	1800
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400	1500	1800
100	450 500 600 700 800 900 1000	1500	1800
125		1500	1800

Remark: Consult us for non-standard stroke.

Ordering code

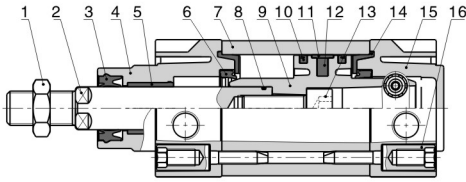


① Please refer to page III-04-III-06 for accessory parts.



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

SE

Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

Item	A	B	C	D	E	F	G	H	I	J	K	L	N
Bore size													
32	142	48	94	30	29	19	27.5	22	17	6	M10 × 1.25	M6	13.5
40	159	54	105	35	33	21	32	24	17	7	M12 × 1.25	M6	17.5
50	175	69	106	40	42	27	31	32	23	8	M16 × 1.5	M8	14
63	190	69	121	45	42	27	33	32	23	8	M16 × 1.5	M8	17
80	214	86	128	45	53	33	33	40	26	10	M20 × 1.5	M10	16.5
100	229	91	138	55	55	36	37	40	26	10	M20 × 1.5	M10	19.5
125	279	119	160	60	74	45	46	54	41	13.5	M27 × 2	M12	23

Item	O	P	Q	R	S	T	V	W	X	Z
Bore size										
32	1/8"	5.8	6	6.3	46.5	32.5	12	10	3	30
40	1/4"	6	5.5	9	54	38	16	13	3.5	35
50	1/4"	8	5	10.5	64	46.5	20	17	3.5	40
63	3/8"	8	6	10.5	75	56.5	20	17	4	45
80	3/8"	8	8.5	12.5	93	72	25	22	4	45
100	1/2"	10	7	12	110	89	25	22	4	55
125	1/2"	11	12	11	134	110	32	27	4	60



SE

SED

Item	A	A1	B	C	E	Z
Bore size						
32	190	188	48	94	29	27
40	213	208	54	105	33	28
50	244	233	69	106	42	31
63	259	248	69	121	42	31
80	300	286	86	128	53	39
100	320	304	91	138	55	39
125	398	378	119	160	74	54

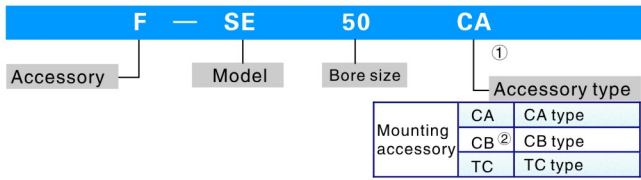
SEJ

Remark:

- The dimensions of magnet type cylinder are the same as non-magnet type cylinder.
- The unmarked dimension is the same as SE standard type.

Accessories

Ordering code



- 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

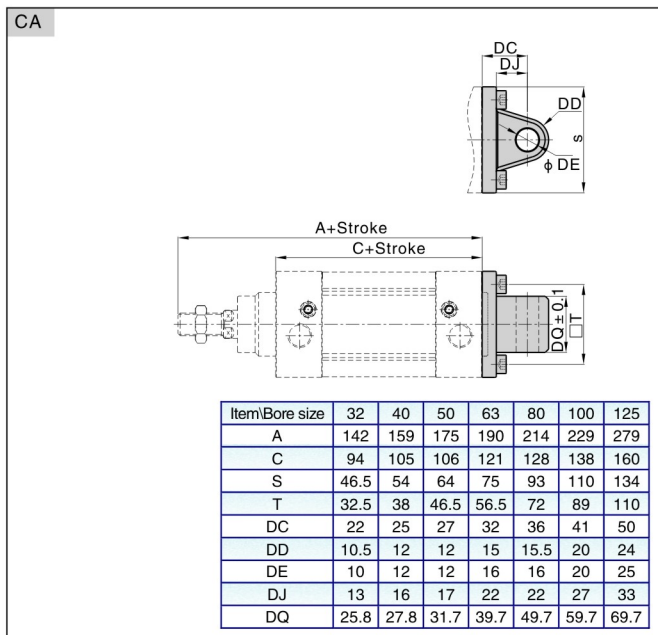
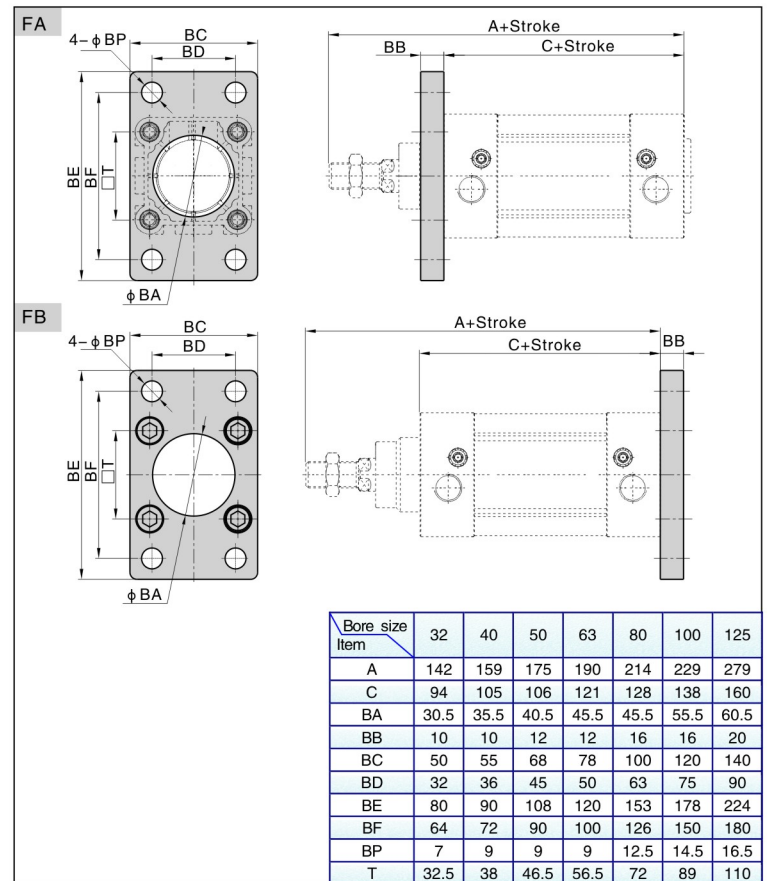
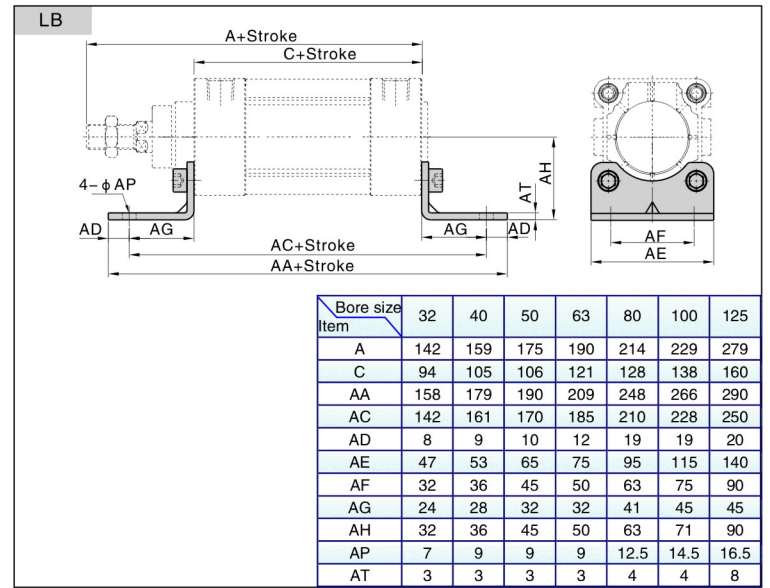
Cylinder model	SE		SED		SEJ		
	Standard	With magnet	Standard	With magnet	Standard	With magnet	
Accessories							
Mounting accessory	LB	●	●	●	●	●	
	FA	●	●	●	●	●	
	FB	●	●	×	×	×	×
	CA	●	●	×	×	×	×
	CB	●	●	×	×	×	×
	CR	●	●	×	×	×	×
	TC	●	●	●	●	●	●
	FTC	●	●	●	●	●	●
	TF	●	●	●	●	●	●
	TM	●	●	●	●	●	●
	Knuckle	I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

- ①: Please refer to PVI-33-VI-38 for knuckle detail;
- ②: Please refer to PVI-39-VI-50 for detail of sensor switch.

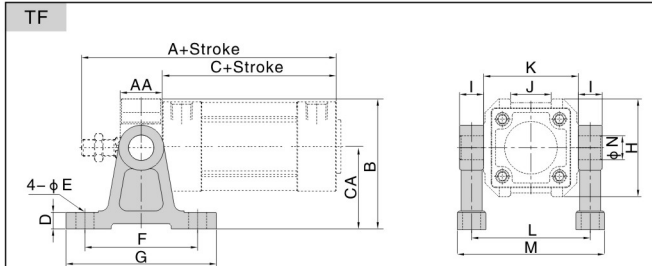
Material of accessories

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											

Dimensions

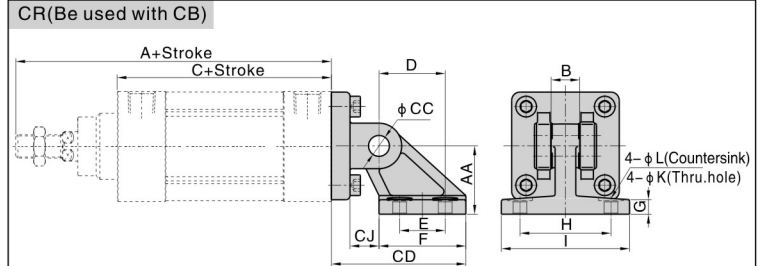


Accessories



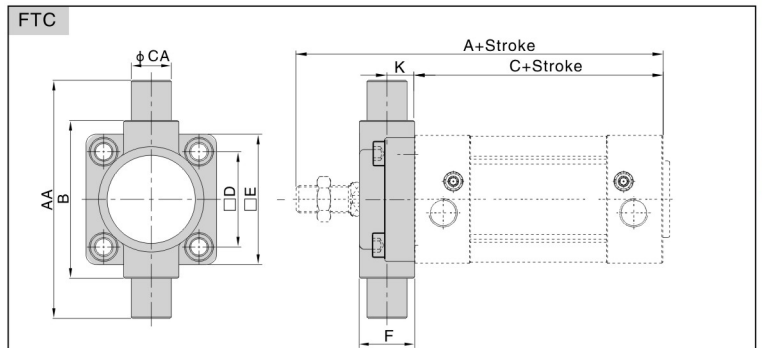
Note: The installation position of the accessories can not be adjusted arbitrarily.

Item/Bore size	32	40	50	63	80	100	125
A	142	159	175	190	214	229	279
AA	22	28	28	30	32	38	40
B	66	86.5	91.5	115	126	157.5	169.3
C	94	105	106	121	128	138	160
CA	40	54	54	70	70	90	90
D	11	11	11	11	11	19	19
E	9	12	12	12	12	18	18
F	60	75	75	85	85	115	15
G	80	100	100	110	110	155	155
H	52	65	75	90	112	135	170
I	12	16	16	20	20	25	25
J	20	27	31	42	54	68	80
K	50	63	75	90	110	135	160
L	62	79	91	110	130	157	185
M	77	98	110	133	153	185	213
N	12	16	16	20	20	25	25

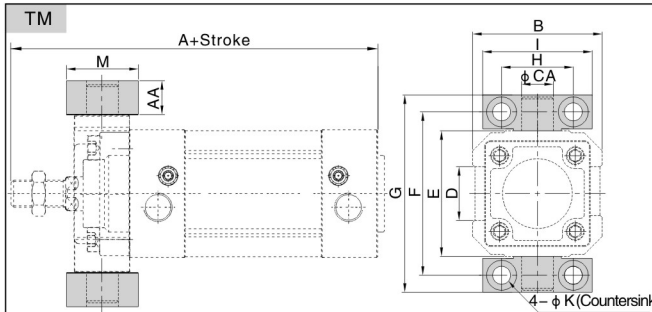


Item/Bore size	32	40	50	63	80	100	125
A	142	159	175	190	214	229	279
AA	32	36	45	50	63	71	90
B	26	28	32	40	50	60	70
C	94	105	106	121	128	138	160
CC	10	12	12	16	16	20	25
CD	50	56	68	77	93	106	135
CJ	10	12	13	17	19	22	26

Item/Bore size	32	40	50	63	80	100	125
D	21	24	33	37	47	55	70
E	18	22	30	35	40	50	60
F	31	35	45	50	60	70	90
G	8	10	12	12	14	15	20
H	38	41	50	52	66	76	94
I	51	54	65	67	86	96	124
K	6.6	6.6	9	9	11	11	14
L	-	-	-	-	18	18	20

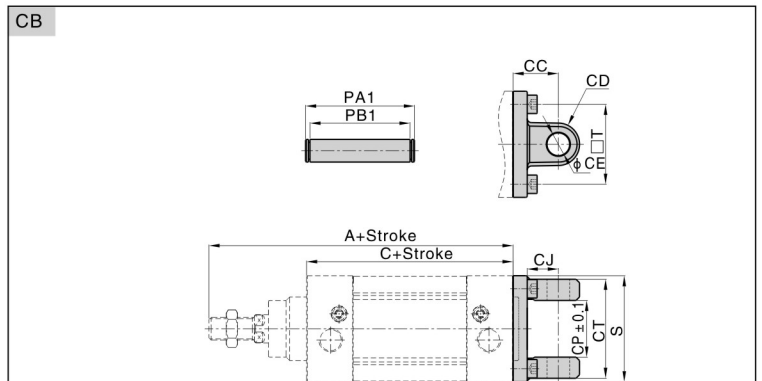


Item/Bore size	32	40	50	63	80	100	125
A	142	159	175	190	214	229	279
AA	74	95	107	130	150	182	210
B	50	63	75	90	110	132	160
C	94	105	106	121	128	138	160
CA	12	16	16	20	20	25	25
D	32.5	38	46.5	56.5	72	89	110
E	46	52	64	74	94	114	139
F	19	21	26	28	31	35	43
K	10	10	12	12	16	16	20



Note: The installation position of the accessories can not be adjusted arbitrarily.

Item/Bore size	32	40	50	63	80	100	125
A	142	159	175	190	214	229	279
AA	14	17	17	20.5	20.5	24.5	24.5
B	52	65	75	90	112	135	170
CA	12	16	16	20	20	25	25
D	20	27	31	42	54	68	80
E	50	63	75	90	110	132	160
F	66	82	94	113.5	133.5	159.5	187.5
G	80	99	111	134	154	184	212
H	32	36	36	42	42	50	50
I	46	55	55	65	65	75	75
K	11	15	15	18	18	20	20
L	7	9	9	11	11	14	14
M	30	36	36	40	40	50	50



Bore size/Item	32	40	50	63	80	100	125
A	142	159	175	190	214	229	279
C	94	105	106	121	128	138	160
CC	22	25	27	32	36	41	50
CD	10.5	12	12	15	15.5	20	24
CE	10	12	12	16	16	20	25
CJ	13	16	17	22	22	27	33

Bore size/Item	32	40	50	63	80	100	125
CP	26	28	32	40	50	60	70
CT	45	52	60	70	90	110	130
PA1	51	59	67	77	97	119	139
PB1	45.5	52.5	60.5	70.5	90.5	110.5	130.5
S	46.5	54	64	75	93	110	134
T	32.5	38	46.5	56.5	72	89	110



SE

Accessories

List for ordering code of accessories

Cylinder model	32	40	50	63	80	100	125	
Accessories								
Mounting accessory	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

