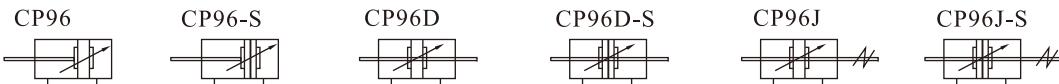


Standard cylinder——CP96 Series

■ Product feature

1. ISO15552 and VDMA24562 standard cylinder and is a cross-shaped aluminum barrel 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.

■ Symbol



■ Specification

Bore size(mm)	32	40	50	63	80	100	125
Acting type	Double acting						
Fluid	Air(to be filtered by 40μm filter element)						
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)						
Proof pressure	1.5MPa(215psi)(15bar)						
Temperature	-20~70°C						
Speed range	30~800 mm/s						
Stroke tolerance	0 ~ 1000 ^{+1.0} ₀ 1001 ~ 2000 ^{+1.8} ₀						
Cushion type	Variable cushion						
Port size [Note1]	G1/8	G1/4	G3/8		G1/2		

[Note1] The standard thread type is G thread, Please control us for other thread type.

■ Standard Stroke

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

[Note] Consult us for non-standard stroke.

Standard cylinder——CP96 Series

■ Ordering code

CP96 - 32 B × 50	-S - FA - H - □
CP96D - 32 B × 50	-S - FA - H - □
CP96J - 32 B × 50 -20-S - FA - H - □	

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

⑦ Mounting style	
Mounting style	Adaptable series
Blank: No accessories	
LB: LB type	CP96
FA: FA type	CP96D
FTC: FTC type	CP96J
TC: TC type	
FB: FB type	
CA: CA type	Cp96
CB: CB type	
CR: CR type	

⑥ Magnet	
Blank: Without magnet	
S: With magnet	

⑧ Seals material	
Blank: NBR	
H: Viton	
T: TPU	

⑨ Thread type	
Blank: G thread	
PT: PT thread	

[Note1] CR is used with CB, FTC. TC are used with TCM1,TCM2.

The accessories are the same as DNC series's accessories, please refer to P21~26 for details.

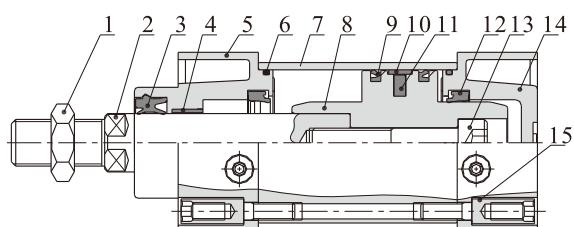
① Model	
CP96: Double acting type	② Bore size
CP96D: Double rod type	32 40 50 63 80
CP96J: Adjustable stroke type	100 125

③ Rod material	
Blank: Medium carbon steel	
A: SUS420J2	
B: SUS304	
C: SUS316	

④ Stroke	
Refer to stroke table for details	

⑤ Adjustable stroke	
Series	Adjustable stroke
	10: 10mm
	20: 20mm
	30: 30mm
CP96J series	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

■ Inner structure and material of major parts

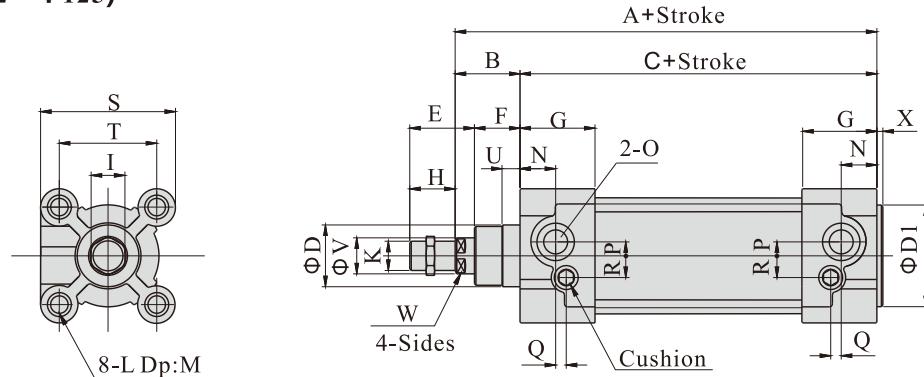


NO.	Item	Material
1	Rod nut	Carbon steel\Stainless steel
2	Piston rod	Carbon steel\Stainless steel
3	Front cover packing	TPU
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	Cushion O-ring	NBR
7	Barrel	Aluminum alloy
8	Piston	Aluminum alloy
9	O-ring	TPU\NBR
10	Wear ring	Wear resistant material
11	Magnet	Plastic
12	Buffer gasket	TPU\NBR
13	Bolt	Carbon steel
14	Back cover	Aluminum alloy
15	Screw	Carbon steel

Standard cylinder—CP96 Series

Dimensions

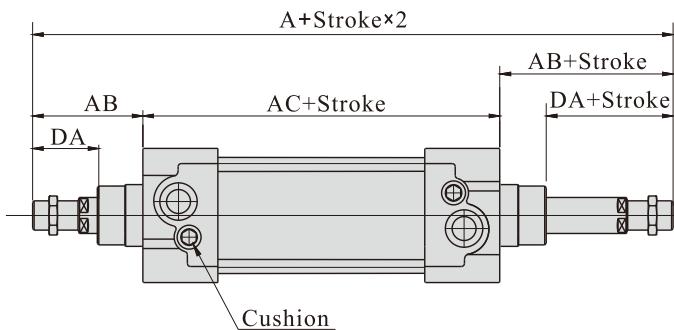
CP96 Series($\Phi 32 \sim \Phi 125$)



Bore size\Item	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
32	120	26	94	30	30	18	25	22	17	M10×1.25	M6	9.5	12.6	G1/8	5.5	5.5	7.1	45	32.5	10	12	10	4
40	135	30	105	35	32.5	21.5	29.5	24	17	M12×1.25	M6	9.5	14.6	G1/4	6	7	7.5	54	38	10	16	13	4
50	143	37	106	40	41	28	29.5	32	23	M16×1.5	M8	9.5	14.6	G1/4	8.5	4.5	8.5	64	46.5	11.5	20	17	4
63	158	37	121	45	40.5	28.5	35.5	32	23	M16×1.5	M8	9.5	18.1	G3/8	10	2	12	75	56.5	15	20	17	4
80	174	46	128	45	51.3	34.7	36	40	26	M20×1.5	M10	11.5	17.9	G3/8	12.7	1	8	93	72	15.7	25	22	4
100	189	51	138	55	52.8	38.2	38.8	40	26	M20×1.5	M10	11.5	19.8	G1/2	11.8	4	10	110	89	19.2	25	22	4
125	225	65	160	60	73	46	45	54	41	M27×2.0	M12	11.5	18	G1/2	8	14	13	134	110	20.5	32	27	6

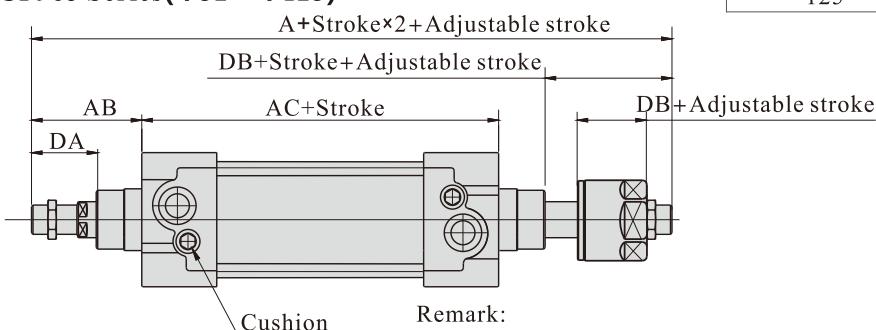
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

CP96D Series($\Phi 32 \sim \Phi 125$)



Bore size\Item Model	A		AB	AC	DA	DB
	CP95D	CP95J				
32	190	188	48	94	29	27
40	213	208	54	105	33	28
50	244	231	69	106	42	29
63	259	246	69	121	42	29
80	300	282.5	86	128	53	35.5
100	320	300.5	91	138	55	35.5
125	398	366.5	119	160	74	42.5

CP96J Series($\Phi 32 \sim \Phi 125$)



- Remark:
- The dimensions of magnet type cylinder are the same as non-magnet type cylinder.
 - The unmarked dimension is the same as CP96 standard type.

Standard cylinder—CP96 Series

■ List for ordering code of accessories

Accessories Bore size	Mounting accessories								
	LB	FA/FB	CA	CB	CR	TC	FTC	TCM1	TCM2
32	F-CP9632LB	F-CP9632FA	F-CP9632CA	F-CP9632CB	F-CP9632CR	F-CP9632TC	F-CP9632FTC	F-CP9632TCM1	F-CP9632TCM2
40	F-CP9640LB	F-CP9640FA	F-CP9640CA	F-CP9640CB	F-CP9640CR	F-CP9640TC	F-CP9640FTC	F-CP9640TCM1	F-CP9640TCM2
50	F-CP9650LB	F-CP9650FA	F-CP9650CA	F-CP9650CB	F-CP9650CR	F-CP9650TC	F-CP9650FTC	F-CP9640TCM1	F-CP9640TCM2
63	F-CP9663LB	F-CP9663FA	F-CP9663CA	F-CP9663CB	F-CP9663CR	F-CP9663TC	F-CP9663FTC	F-CP9663TCM1	F-CP9663TCM2
80	F-CP9680LB	F-CP9680FA	F-CP9680CA	F-CP9680CB	F-CP9680CR	F-CP9680TC	F-CP9680FTC	F-CP9663TCM1	F-CP9663TCM2
100	F-CP96100LB	F-CP96100FA	F-CP96100CA	F-CP96100CB	F-CP96100CR	F-CP96100TC	F-CP96100FTC	F-CP96125TCM1	F-CP96125TCM2
125	F-CP96125LB	F-CP96125FA	F-CP96125CA	F-CP96125CB	F-CP96125CR	F-CP96125TC	F-CP96125FTC	F-CP96125TCM1	F-CP96125TCM2

Accessories Bore size	Knuckle				Sensor switch	
	I: I Knuckle	Y: Y Knuckle	F: F Knuckle	U: U Knuckle	CS1-E	DS1-E
32	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U		
40	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U		
50	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
63	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
80	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
100	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
125	F-M27X200I	F-M27X200Y	F-M27X200F	F-M27X200U		

■ Accessory selection

Cylinder model	Accessories	Mounting accessories									Knuckle				Sensor switch		
		LB	FA	FB	CA	CB	CR	TC	FTC	TCM1	TCM2	I	Y	U	F	CMSE	DMSE
CP96	Standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
CP96D	Standard	●	●	×	×	×	×	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	×	×	×	×	●	●	●	●	●	●	●	●	●	●
CP96J	Standard	●	●	×	×	×	×	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	×	×	×	×	●	●	●	●	●	●	●	●	●	●

■ Material of accessories

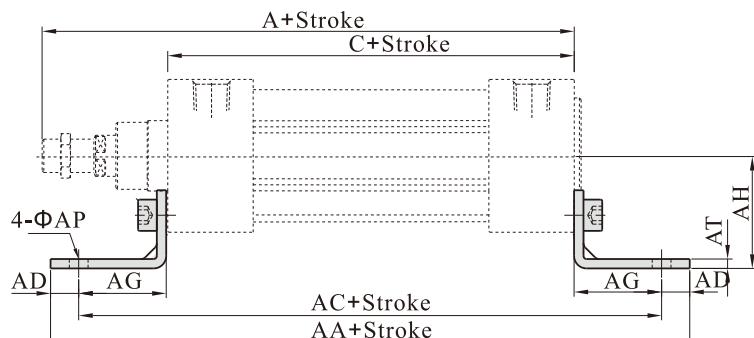
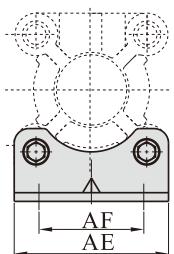
Bore size	Accessories	Mounting accessories									Knuckle			
		LB	FA	FB	CA	CB	CR	FTC	TCM1	TCM2	I	Y	F	U
32~100	●	●	●	◇	◇	◇	■	■	●	□	□	□	□	□
125	■	■	■	●	●	●	■	■	■	□	□	□	□	□

●—Aluminum alloy, ▲—S45C, ■—Cast steel, ○—Low carbon steel, ◇—Nodular cast iron, □—Carbon steel.

Standard cylinder——CP96 Series

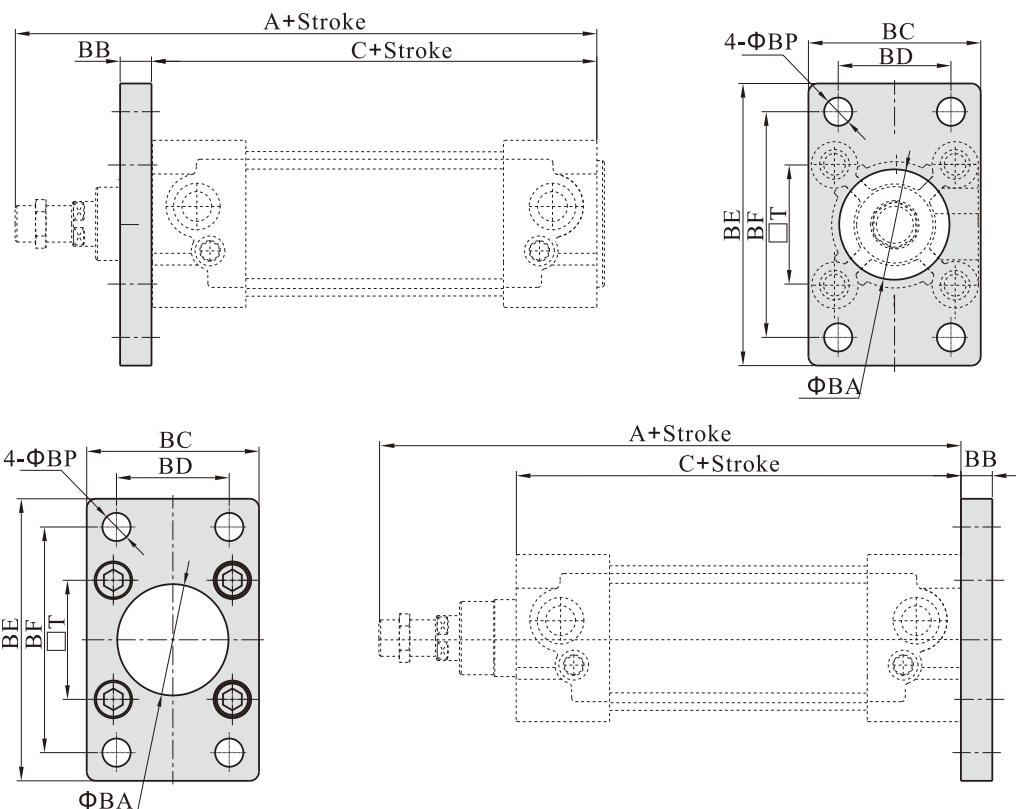
Accessories Dimensions

LB type



Bore size\Item	A	C	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	144	94	158	142	8	47	32	24	32	7	3
40	159	105	179	161	9	53	36	28	36	9	3
50	175	106	190	170	10	65	45	32	45	9	3
63	190	121	209	185	12	75	50	32	50	9	3
80	214	128	248	210	19	95	63	41	63	12.5	4
100	229	138	258	220	19	115	75	41	71	14.5	4
125	279	160	290	250	20	140	90	45	90	16.5	8

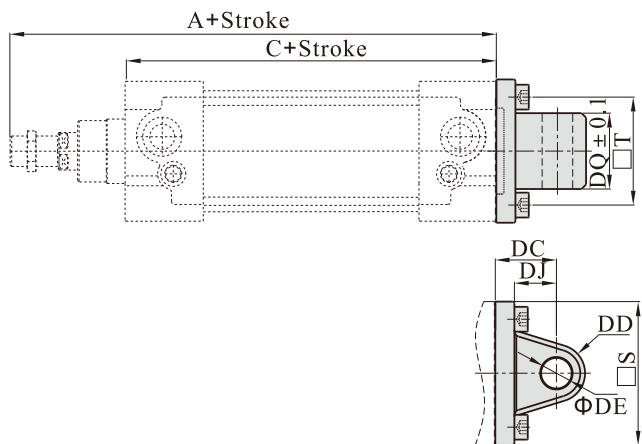
FA\FB type



Bore size\Item	A	C	BA	BB	BC	BD	BE	BF	BP	T
32	144	94	30.5	10	47	32	80	64	7	32.5
40	159	105	35.5	10	53	36	90	72	9	38
50	175	106	40.5	12	65	45	108	90	9	46.5
63	190	121	45.5	12	75	50	118	100	9	56.5
80	214	128	45.5	16	95	63	150	126	12.5	72
100	229	138	55.5	16	115	75	176	150	14.5	89
125	279	160	60.5	20	139	90	218	180	16.5	110

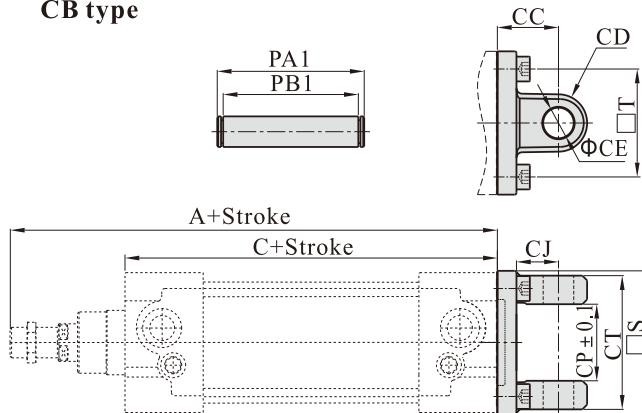
Standard cylinder——CP96 Series

CA type



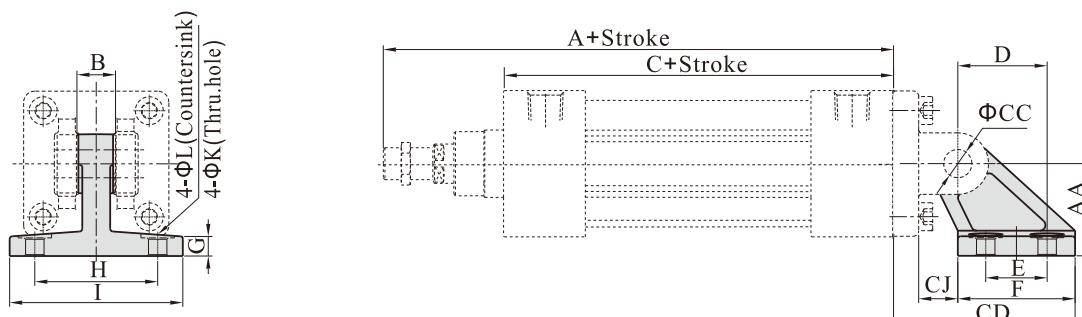
Bore size\Item	A	C	S	T	DC	DD	DE	DJ	DQ
32	144	94	46.5	32.5	22	10.5	10	13	25.8
40	159	105	54	38	25	12	12	16	27.8
50	175	106	64	46.5	27	12	12	17	31.7
63	190	121	75	56.5	32	15	16	22	39.7
80	214	128	93	72	36	15.5	16	22	49.7
100	229	138	110	89	41	20	20	27	59.7
125	279	160	134	110	50	24	25	33	69.7

CB type



Bore size\Item	A	C	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T
32	144	94	22	10.5	10	13	26	45	51	45.5	46.5	32.5
40	159	105	25	12	12	16	28	52	59	52.5	54	38
50	175	106	27	12	12	17	32	60	67	60.5	64	46.5
63	190	121	32	15	16	22	40	70	77	70.5	75	56.5
80	214	128	36	15.5	16	22	50	90	97	90.5	93	72
100	229	138	41	20	20	27	60	110	119	110.5	110	89
125	279	160	50	24	25	33	70	130	139	130.5	134	110

CR type

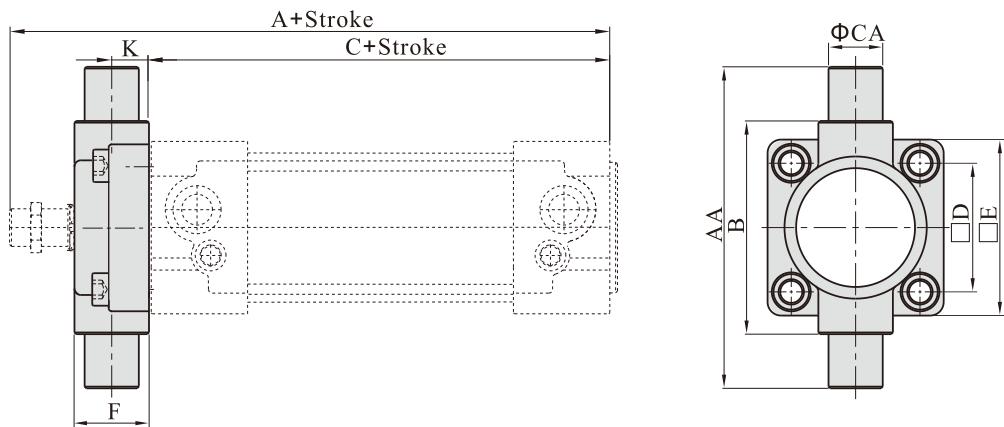


Bore size\Item	A	AA	B	C	CC	CD	CJ	D	E	F	G	H	I	K	L
32	144	32	26	94	10	49	10	21	18	30	8	38	50	6.5	10.5
40	159	36	28	105	12	55	12	24	22	34	10	41	53	6.5	10.5
50	175	45	32	106	12	67	13	33	30	44	12	50	64	9	14
63	190	50	40	121	16	76	17	37	35	49	12	52	66	9	14
80	214	63	50	128	16	92.5	19.5	47	40	59	14	66	85	11	17
100	229	71	60	138	20	105.5	22.5	55	50	69	15	76	95	11	17
125	279	90	70	160	25	134	29	70	60	88	20	94	122	13.5	20

[Note] CR can't be used alone, it must be used with CB.

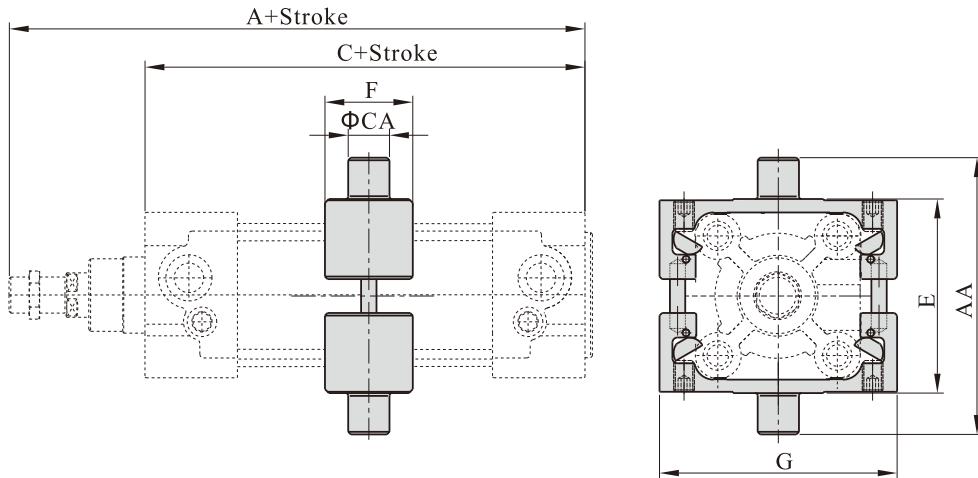
Standard cylinder——CP96 Series

FTC type



Bore size\Item	A	C	AA	B	CA	D	E	F	K
32	144	94	74	50	12	32.5	46	19	10
40	159	105	95	63	16	38	52	21	10
50	175	106	107	75	16	46.5	64	26	12
63	190	121	130	90	20	56.5	74	28	12
80	214	128	150	110	20	72	94	31	16
100	229	138	182	132	25	89	114	35	16
125	279	160	210	160	25	110	139	43	20

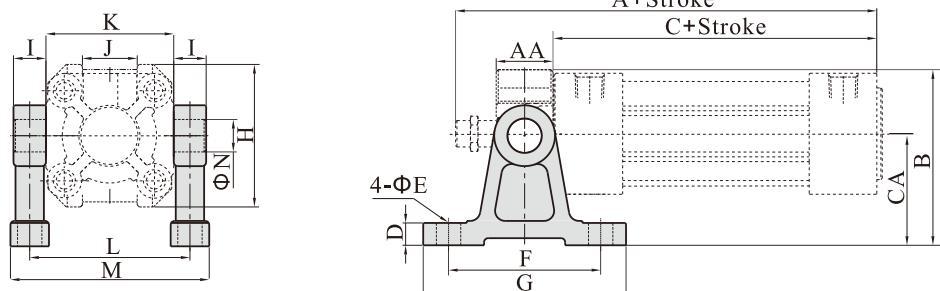
TC type



Bore size\Item	A	AA	C	CA	E	F	G
32	144	74	94	12	52	31	68
40	159	95	105	16	63	33	78
50	175	107	106	16	75	35	95
63	190	130	121	20	90	37	108
80	214	150	128	20	110	41	130
100	229	182	138	25	132	47	148
125	279	210	160	25	160	51	173

Standard cylinder—CP96 Series

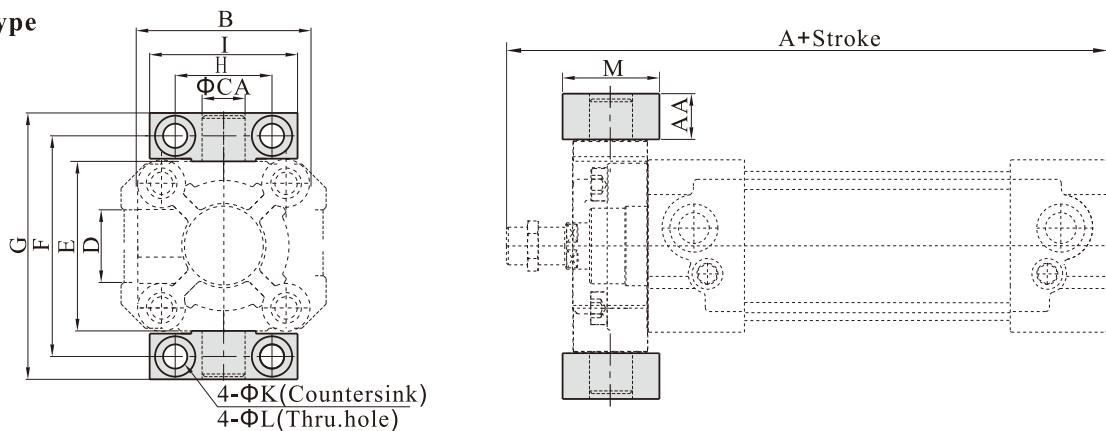
TCM1 type



Bore size\Item	A	C	AA	B	CA	D	E	F	G	H	I	J	K	L	M	N
32	144	94	19	66	40	11	9	60	80	52	12	20	50	62	77	12
40	159	105	21	86.5	54	11	12	75	100	65	16	27	63	79	98	16
50	175	106	26	91.5	54	11	12	75	100	75	16	31	75	91	110	16
63	190	121	28	115	70	11	12	85	110	90	20	42	90	110	133	20
80	214	128	31	126	70	11	12	85	110	112	20	54	110	130	153	20
100	229	138	35	157.5	90	19	18	115	155	135	25	68	135	157	185	25
125	279	160	43	169.3	90	19	18	115	155	170	25	80	160	185	213	25

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

TCM2 type



Bore size\Item	A	AA	B	CA	D	E	F	G	H	I	K	L	M
32	144	14	52	12	20	50	66	80	32	46	11	7	30
40	159	17	65	16	27	63	82	99	36	55	15	9	36
50	175	17	75	16	31	75	94	111	36	55	15	9	36
63	190	20.5	90	20	42	90	113.5	134	42	65	18	11	40
80	214	20.5	112	20	54	110	133.5	154	42	65	18	11	40
100	229	24.5	135	25	68	132	159.5	184	50	75	20	14	50
125	279	24.5	170	25	80	160	187.5	212	50	75	20	14	50

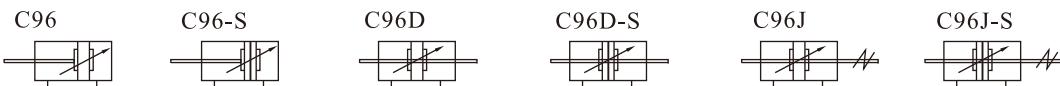
[Note] The installation position of the accessories can not be adjusted arbitrarily.

Standard cylinder——C96 Series

■ Product feature

1. ISO15552 and VDMA24562 standard cylinder is a cylindrical aluminum barrel 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.

■ Symbol



■ Specification

Bore size(mm)	32	40	50	63	80	100	125
Acting type	Double acting						
Fluid	Air(to be filtered by 40μm filter element)						
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)						
Proof pressure	1.5MPa(215psi)(15bar)						
Temperature	-20~70°C						
Speed range	30~800 mm/s						
Stroke tolerance	0 ~ 1000 ^{+1.0} ₀ 1001 ~ 2000 ^{+1.8} ₀						
Cushion type	Variable cushion						
Port size [Note1]	G1/8	G1/4	G3/8		G1/2		

[Note1] The standard thread type is G thread, Please control us for other thread type.

■ Standard Stroke

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

[Note] Consult us for non-standard stroke.

Standard cylinder——C96 Series

■ Ordering code

C96 - 32 B × 50	-S - FA - H - □
C96D - 32 B × 50	-S - FA - H - □
C96J - 32 B × 50 -20 -S - FA - H - □	

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

⑦ Mounting style	
Mounting style	Adaptable series
Blank: No accessories	
LB: LB type	C96
FA: FA type	C96D
FTC: FTC type	C96J
TC: TC type	
FB: FB type	
CA: CA type	C96
CB: CB type	
CR: CR type	

⑥ Magnet	
Blank: Without magnet	
S: With magnet	

⑧ Seals material	
Blank: NBR	
H: Viton	
T: TPU	

⑨ Thread type	
Blank: G thread	
PT: PT thread	

[Note1] CR is used with CB, FTC. TC are used with TCM1,TCM2.

The accessories are the same as DNC series's accessories, please refer to P21~26 for details.

① Model	
C96: Double acting type	32 40 50 63 80
C96D: Double rod type	100 125
C96J: Adjustable stroke type	

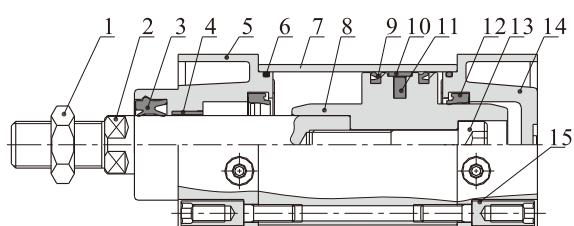
② Bore size	
Blank: Medium carbon steel	

③ Rod material	
Blank: Medium carbon steel	
A: SUS420J2	
B: SUS304	
C: SUS316	

④ Stroke	
Refer to stroke table for details	

⑤ Adjustable stroke	
Series	Adjustable stroke
	10: 10mm
	20: 20mm
	30: 30mm
C96J series	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

■ Inner structure and material of major parts

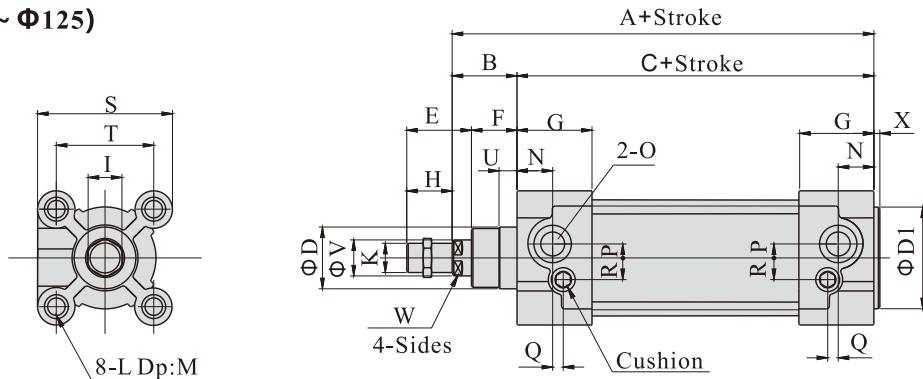


NO.	Item	Material
1	Rod nut	Carbon steel\Stainless steel
2	Piston rod	Carbon steel\Stainless steel
3	Front cover packing	TPU
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	Cushion O-ring	NBR
7	Barrel	Aluminum alloy
8	Piston	Aluminum alloy
9	O-ring	TPU\NBR
10	Wear ring	Wear resistant material
11	Magnet	Plastic
12	Buffer gasket	TPU\NBR
13	Bolt	Carbon steel
14	Back cover	Aluminum alloy
15	Screw	Carbon steel

Standard cylinder——C96 Series

Dimensions

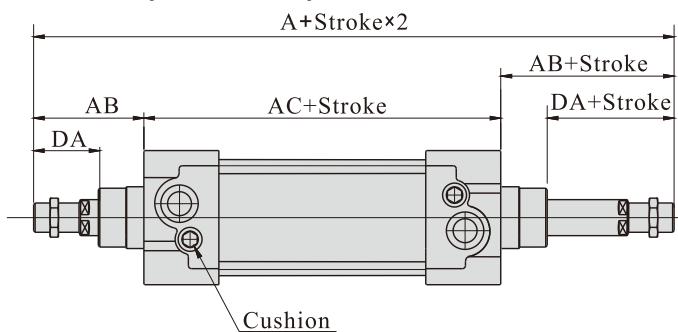
C96 Series($\Phi 32 \sim \Phi 125$)



Bore size\Item	A	B	C	D	E	F	G	H	I	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
32	120	26	94	30	30	18	25	22	17	M10×1.25	M6	9.5	12.6	G1/8	5.5	5.5	7.1	45	32.5	10	12	10	4
40	135	30	105	35	32.5	21.5	29.5	24	17	M12×1.25	M6	9.5	14.6	G1/4	6	7	7.5	54	38	10	16	13	4
50	143	37	106	40	41	28	29.5	32	23	M16×1.5	M8	9.5	14.6	G1/4	8.5	4.5	8.5	64	46.5	11.5	20	17	4
63	158	37	121	45	40.5	28.5	35.5	32	23	M16×1.5	M8	9.5	18.1	G3/8	10	2	12	75	56.5	15	20	17	4
80	174	46	128	45	51.3	34.7	36	40	26	M20×1.5	M10	11.5	17.9	G3/8	12.7	1	8	93	72	15.7	25	22	4
100	189	51	138	55	52.8	38.2	38.8	40	26	M20×1.5	M10	11.5	19.8	G1/2	11.8	4	10	110	89	19.2	25	22	4
125	225	65	160	60	73	46	45	54	41	M27×2.0	M12	11.5	18	G1/2	8	14	13	134	110	20.5	32	27	6

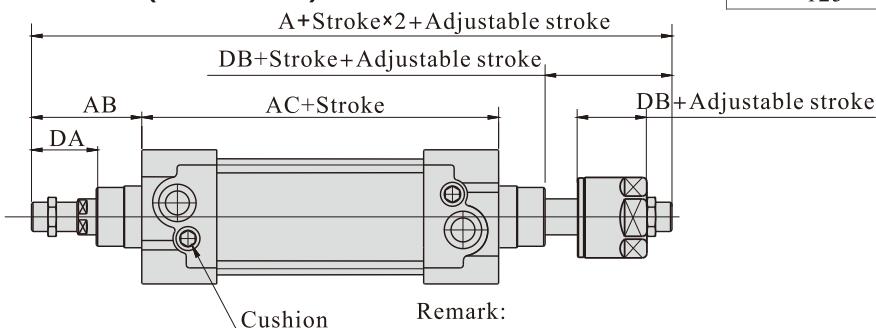
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

C96D Series($\Phi 32 \sim \Phi 125$)



Bore size\Item Model	A		AB	AC	DA	DB
	CP95D	CP95J				
32	190	188	48	94	29	27
40	213	208	54	105	33	28
50	244	231	69	106	42	29
63	259	246	69	121	42	29
80	300	282.5	86	128	53	35.5
100	320	300.5	91	138	55	35.5
125	398	366.5	119	160	74	42.5

C96J Series($\Phi 32 \sim \Phi 125$)



Remark:

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

Accessories

C96 series's accessories are all with CP96 series, please refer to page 4~8 for details.

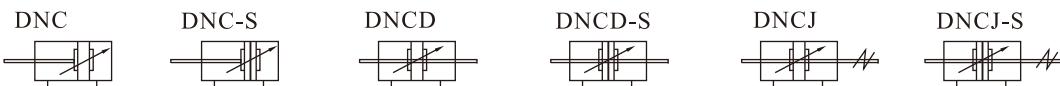
Standard cylinder——DNC Series



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.

Symbol



Specification

Bore size(mm)	32	40	50	63	80	100	125
Acting type	Double acting						
Fluid	Air(to be filtered by 40μm filter element)						
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)						
Proof pressure	1.5MPa(215psi)(15bar)						
Temperature	-20~70°C						
Speed range	30~800 mm/s						
Stroke tolerance	0 ~ 1000 ^{+1.0} ₀ 1001 ~ 2000 ^{+1.8} ₀						
Cushion type	Variable cushion						
Port size [Note1]	G1/8	G1/4	G3/8		G1/2		

[Note1] The standard thread type is G thread, Please control us for other thread type.

Standard Stroke

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

[Note] Consult us for non-standard stroke.

Standard cylinder——DNC Series

■ Ordering code

DNC - 32 B × 50	-S - FA - H - □
DNCD - 32 B × 50	-S - FA - H - □
DNCJ - 32 B × 50 - 20 - S - FA - H - □	

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

⑦ Mounting style	
Mounting style	Adaptable series
Blank: No accessories	
LB: LB type	DNC
FA: FA type	DNCD
FTC: FTC type	DNCJ
TC: TC type	
FB: FB type	
CA: CA type	DNC
CB: CB type	
CR: CR type	

⑥ Magnet	
Blank:	Without magnet
S:	With magnet

⑧ Seals material	
Blank:	NBR
H:	Viton
T:	TPU

⑨ Thread type	
Blank:	G thread
PT:	PT thread

① Model	
DNC:	Double acting type
DNCD:	Double rod type
DNCJ:	Adjustable stroke type

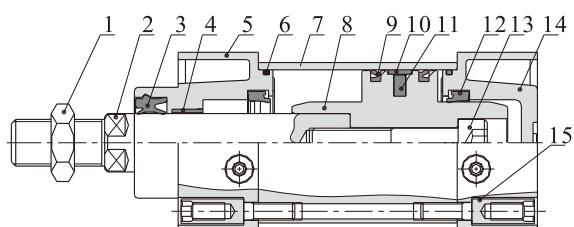
② Bore size	
32	40 50 63 80
100	125

③ Rod material	
Blank:	Medium carbon steel
A:	SUS420J2
B:	SUS304
C:	SUS316

④ Stroke	
Refer to stroke table for details	

⑤ Adjustable stroke	
Series	Adjustable stroke
	10: 10mm
	20: 20mm
	30: 30mm
DNCJ series	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

[Note1] CR is used with CB, FTC. TC are used with TCM1, TCM2.

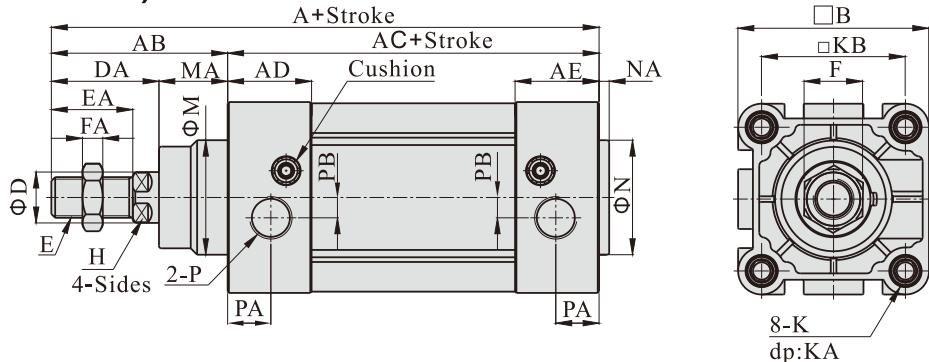


NO.	Item	Material
1	Rod nut	Carbon steel\Stainless steel
2	Piston rod	Carbon steel\Stainless steel
3	Front cover packing	TPU
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	Cushing O-ring	NBR
7	Barrel	Aluminum alloy
8	Piston	Aluminum alloy
9	O-ring	TPU\NBR
10	Wear ring	Wear resistant material
11	Magnet	Plastic
12	Buffer gasket	TPU\NBR
13	Bolt	Carbon steel
14	Back cover	Aluminum alloy
15	Screw	Carbon steel

Standard cylinder——DNC Series

Dimensions

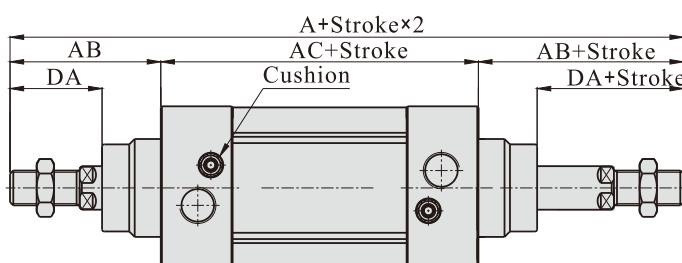
DNC Series($\Phi 32 \sim \Phi 125$)



Bore size\Item	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	K	KA	KB	M	MA	NA	N	P	PA	PB
32	142	48	94	27.5	27.5	46.5	12	29	M10×1.25	22	17	6	10	M6	16	32.5	30	19	3	30	G1/8	13.5	6
40	159	54	105	32	32	54	16	33	M12×1.25	24	17	7	13	M6	17	38	35	21	3.5	35	G1/4	17.5	6
50	175	69	106	31	31	64	20	42	M16×1.5	32	23	8	17	M8	17	46.5	40	27	3.5	40	G1/4	14	8
63	190	69	121	33	33	75	20	42	M16×1.5	32	23	8	17	M8	17	56.5	45	27	4	45	G3/8	17	8
80	214	86	128	33	33	93	25	53	M20×1.5	40	26	10	22	M10	19	72	45	33	4	45	G3/8	16.5	8
100	229	91	138	37	37	110	25	55	M20×1.5	40	26	10	22	M10	19	89	55	36	4	55	G1/2	19.5	10
125	279	119	160	46	46	134	32	74	M27×2	54	41	13.5	27	M12	22	110	60	45	4	60	G1/2	23	11

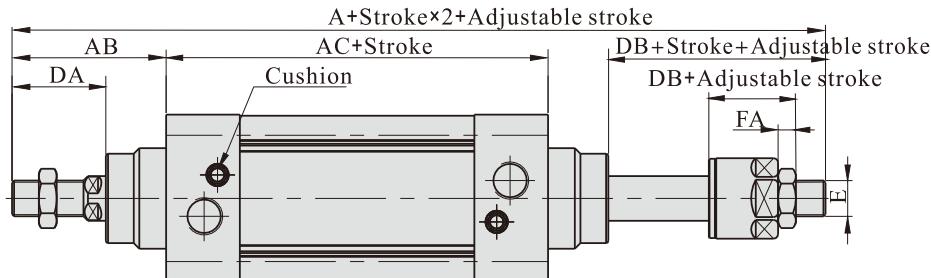
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

DNCD Series($\Phi 32 \sim \Phi 125$)



Bore size\Item Model	A		AB	AC	DA
	DNCD	DNCJ			
32	190	188	48	94	29
40	213	208	54	105	33
50	244	231	69	106	42
63	259	246	69	121	42
80	300	282.5	86	128	53
100	320	300.5	91	138	55
125	398	366.5	119	160	74

DNCJ Series($\Phi 32 \sim \Phi 125$)



Bore size\Item Model	DB	E		FA
			FA	
32	27	M10X1.25		6
40	28	M12X1.25		7
50	29	M16X1.5		8
63	29	M16X1.5		8
80	35.5	M20X1.5		10
100	35.5	M20X1.5		10
125	42.5	M27X2.0		13.5

Remark:

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

Standard cylinder——DNC Series

■ List for ordering code of accessories

Accessories		Mounting accessories								
Bore size		LB	FA/FB	CA	CB	CR	TC	FTC	TCM1	TCM2
32	F-DNC32LB	F-DNC32FA	F-DNC32CA	F-DNC32CB	F-DNC32CR	F-DNC32TC	F-DNC32FTC	F-DNC32TCM1	F-DNC32TCM2	
40	F-DNC40LB	F-DNC40FA	F-DNC40CA	F-DNC40CB	F-DNC40CR	F-DNC40TC	F-DNC40FTC	F-DNC40TCM1	F-DNC40TCM2	
50	F-DNC50LB	F-DNC50FA	F-DNC50CA	F-SNC50CB	F-DNC50CR	F-DNC50TC	F-DNC50FTC	F-DNC40TCM1	F-DNC40TCM2	
63	F-DNC63LB	F-DNC63FA	F-DNC63CA	F-DNC63CB	F-DNC63CR	F-DNC63TC	F-DNC63FTC	F-DNC63TCM1	F-DNC63TCM2	
80	F-DNC80LB	F-DNC80FA	F-DNC80CA	F-DNC80CB	F-DNC80CR	F-DNC80TC	F-DNC80FTC	F-DNC63TCM1	F-DNC63TCM2	
100	F-DNC100LB	F-DNC100FA	F-DNC100CA	F-DNC100CB	F-DNC100CR	F-DNC100TC	F-DNC100FTC	F-DNC125TCM1	F-DNC125TCM2	
125	F-DNC125LB	F-DNC125FA	F-DNC125CA	F-DNC125CB	F-DNC125CR	F-DNC125TC	F-DNC125FTC	F-DNC125TCM1	F-DNC125TCM2	

Accessories		Knuckle				Sensor switch			
Bore size		I: I Knuckle	Y: Y Knuckle	F: F Knuckle	U: U Knuckle	CS1-E	DS1-E	CS1-E	DS1-E
32	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U					
40	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U					
50	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U					
63	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U					
80	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U					
100	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U					
125	F-M27X200I	F-M27X200Y	F-M27X200F	F-M27X200U					

■ Accessory selection

Cylinder model	Accessories	Mounting accessories									Knuckle				Sensor switch		
		LB	FA	FB	CA	CB	CR	TC	FTC	TCM1	TCM2	I	Y	U	F	CMSE	DMSE
DNC	Standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DNCD	Standard	●	●	×	×	×	×	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	×	×	×	×	●	●	●	●	●	●	●	●	●	●
DNCJ	Standard	●	●	×	×	×	×	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	×	×	×	×	●	●	●	●	●	●	●	●	●	●

■ Material of accessories

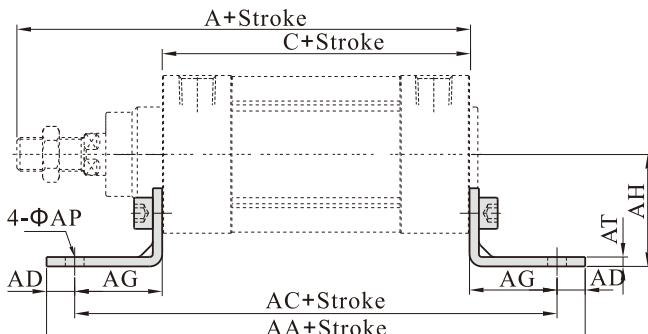
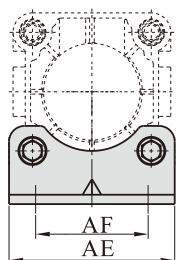
Bore size	Accessories	Mounting accessories									Knuckle			
		LB	FA	FB	CA	CB	CR	FTC	TCM1	TCM2	I	Y	F	U
32~100	○	●	●	◇	◇	◇	■	■	●	□	□	□	□	□
125	■	■	■	●	●	●	■	■	■	□	□	□	□	□

●—Aluminum alloy, ▲—S45C, ■—Cast steel, ○—Low carbon steel, ◇—Nodular cast iron, □—Carbon steel.

Standard cylinder——DNC Series

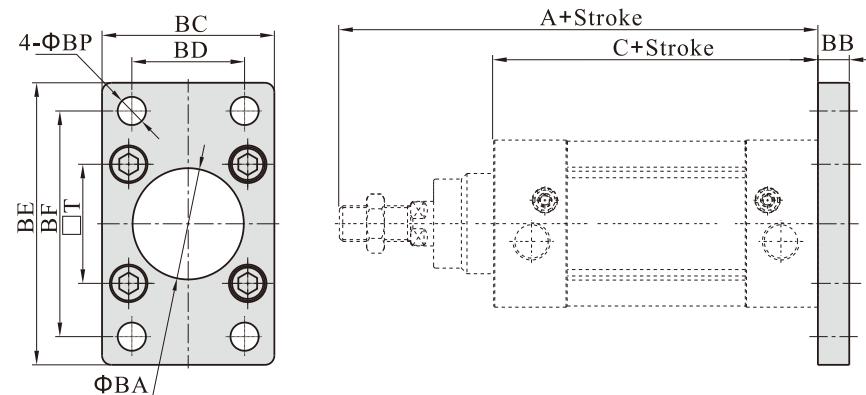
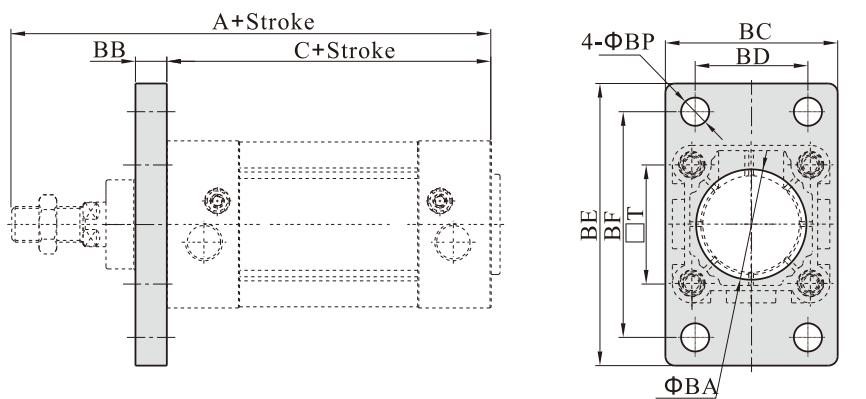
Accessories Dimensions

LB type



Bore size\Item	A	C	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	142	94	158	142	8	47	32	24	32	7	3
40	159	105	179	161	9	53	36	28	36	9	3
50	175	106	190	170	10	65	45	32	45	9	3
63	190	121	209	185	12	75	50	32	50	9	3
80	214	128	248	210	19	95	63	41	63	12.5	4
100	229	138	258	220	19	115	75	41	71	14.5	4
125	279	160	290	250	20	140	90	45	90	16.5	8

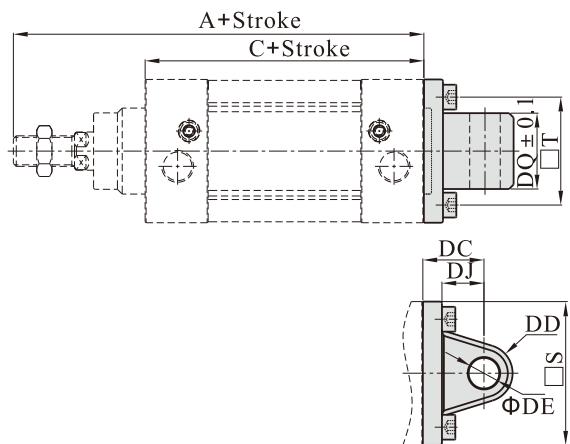
FA\FB type



Bore size\Item	A	C	BA	BB	BC	BD	BE	BF	BP	T
32	142	94	30.5	10	47	32	80	64	7	32.5
40	159	105	35.5	10	53	36	90	72	9	38
50	175	106	40.5	12	65	45	108	90	9	46.5
63	190	121	45.5	12	75	50	118	100	9	56.5
80	214	128	45.5	16	95	63	150	126	12.5	72
100	229	138	55.5	16	115	75	176	150	14.5	89
125	279	160	60.5	20	139	90	218	180	16.5	110

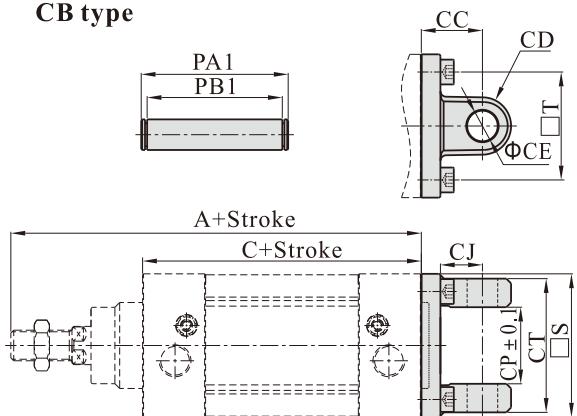
Standard cylinder——DNC Series

CA type



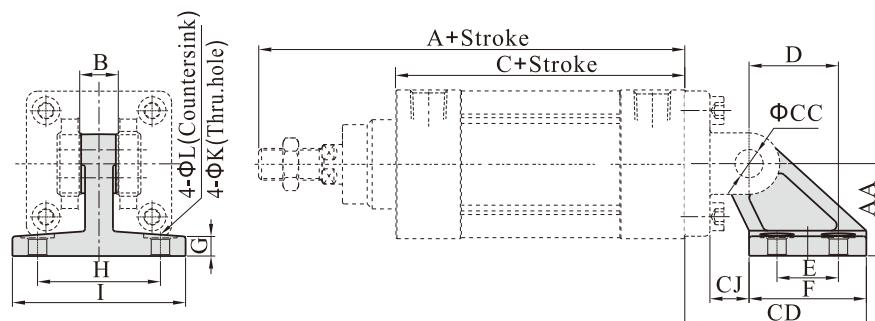
Bore size\Item	A	C	S	T	DC	DD	DE	DJ	DQ
32	142	94	46.5	32.5	22	10.5	10	13	25.8
40	159	105	54	38	25	12	12	16	27.8
50	175	106	64	46.5	27	12	12	17	31.7
63	190	121	75	56.5	32	15	16	22	39.7
80	214	128	93	72	36	15.5	16	22	49.7
100	229	138	110	89	41	20	20	27	59.7
125	279	160	134	110	50	24	25	33	69.7

CB type



Bore size\Item	A	C	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T
32	142	94	22	10.5	10	13	26	45	51	45.5	46.5	32.5
40	159	105	25	12	12	16	28	52	59	52.5	54	38
50	175	106	27	12	12	17	32	60	67	60.5	64	46.5
63	190	121	32	15	16	22	40	70	77	70.5	75	56.5
80	214	128	36	15.5	16	22	50	90	97	90.5	93	72
100	229	138	41	20	20	27	60	110	119	110.5	110	89
125	279	160	50	24	25	33	70	130	139	130.5	134	110

CR type

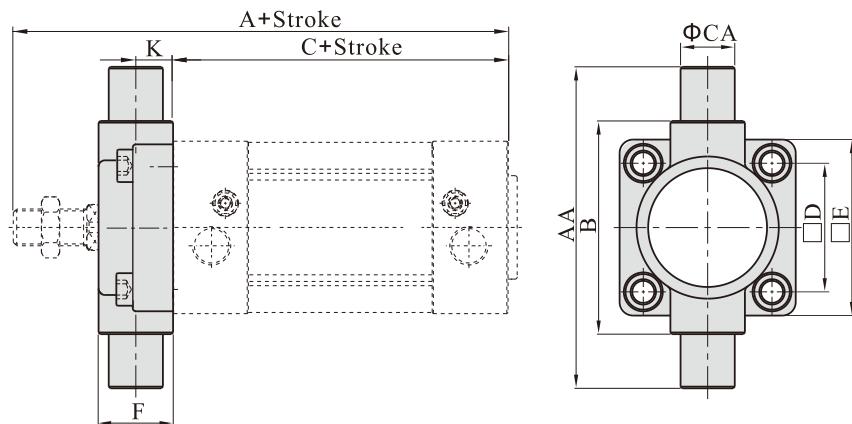


Bore size\Item	A	AA	B	C	CC	CD	CJ	D	E	F	G	H	I	K	L
32	142	32	26	94	10	49	10	21	18	30	8	38	50	6.5	10.5
40	159	36	28	105	12	55	12	24	22	34	10	41	53	6.5	10.5
50	175	45	32	106	12	67	13	33	30	44	12	50	64	9	14
63	190	50	40	121	16	76	17	37	35	49	12	52	66	9	14
80	214	63	50	128	16	92.5	19.5	47	40	59	14	66	85	11	17
100	229	71	60	138	20	105.5	22.5	55	50	69	15	76	95	11	17
125	279	90	70	160	25	134	29	70	60	88	20	94	122	13.5	20

[Note] CR can't be used alone, it must be used with CB.

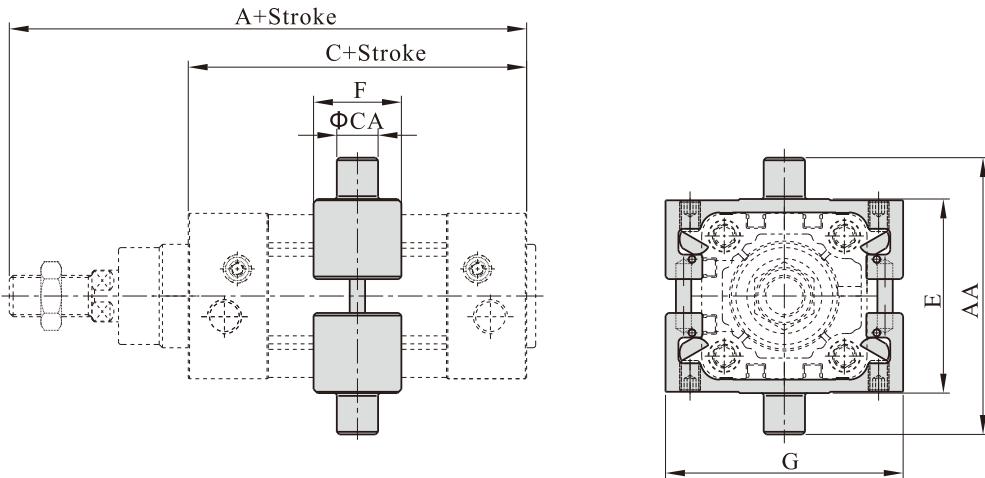
Standard cylinder——DNC Series

FTC type



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

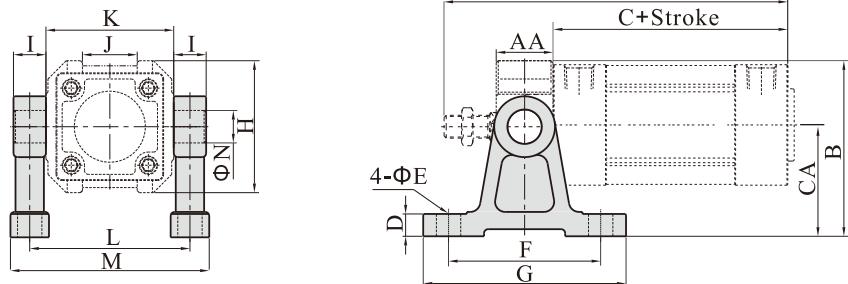
TC type



Bore size\Item	A	AA	C	CA	E	F	G
32	142	74	94	12	52	31	68
40	159	95	105	16	63	33	78
50	175	107	106	16	75	35	95
63	190	130	121	20	90	37	108
80	214	150	128	20	110	41	130
100	229	182	138	25	132	47	148
125	279	210	160	25	160	51	173

Standard cylinder——DNC Series

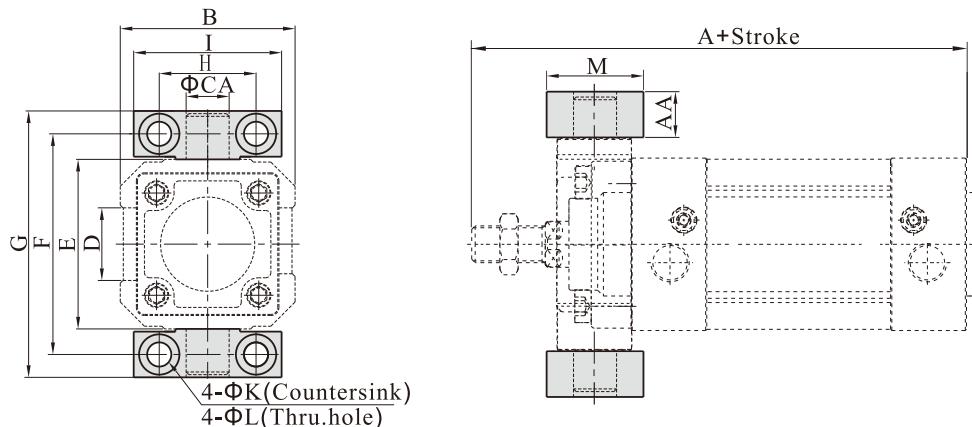
TCM1 type



Bore size\Item	A	C	AA	B	CA	D	E	F	G	H	I	J	K	L	M	N
32	142	94	19	66	40	11	9	60	80	52	12	20	50	62	77	12
40	159	105	21	86.5	54	11	12	75	100	65	16	27	63	79	98	16
50	175	106	26	91.5	54	11	12	75	100	75	16	31	75	91	110	16
63	190	121	28	115	70	11	12	85	110	90	20	42	90	110	133	20
80	214	128	31	126	70	11	12	85	110	112	20	54	110	130	153	20
100	229	138	35	157.5	90	19	18	115	155	135	25	68	135	157	185	25
125	279	160	43	169.3	90	19	18	115	155	170	25	80	160	185	213	25

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

TCM2 type



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

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

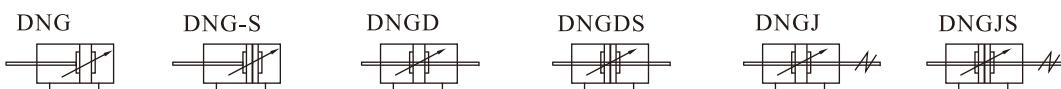
Standard cylinder——DNG Series



■ Product feature

1. ISO15552 (original ISO6431) standard cylinder.
2. The piston seal is composed of two Y-shape seals of single direction structure, which has compensation function, long service life and low start-up pressure.
3. DNG series cylinders are made of aluminum pipe.
4. The buffer adjustment of cylinder is smooth and steady.
5. Cylinders and accessories for installation with several specifications are optional.
6. The seal material with high temperature resistance is adopted to guarantee the normal operation of cylinder at 150°C.

■ Symbol



■ Specification

Bore size(mm)	32	40	50	63	80	100	125	160	200	250	320
Acting type	Double acting										
Fluid	Air(to be filtered by 40μm filter element)										
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)										
Proof pressure	1.5MPa(215psi)(15bar)										
Temperature	-20~70°C										
Speed range	30~800 mm/s										
Stroke tolerance	0 ~ 1000 ^{+1.0} ₀ 1001 ~ 2000 ^{+1.8} ₀										
Cushion type	Variable cushion										
Cushion stroke	20	25	30	32	40	50					
Port size [Note1]	G1/8	G1/4	G3/8	G1/2	G3/4	G1					

[Note1] The standard thread type is G thread, Please control us for other thread type.

■ Standard Stroke

Bore size(mm)	Standard stroke	Max.std stroke	Max. stroke
32	25 50 75 100 125 150 175 200 250 300 350 400 450 500	1000	1500
40	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800	1200	1500
50	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	1500
63	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
80	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
100	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
125	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
160	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
250	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
320	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

[Note] Consult us for non-standard stroke.

Standard cylinder——DNG Series

■ Ordering code

DNG - 32 R × 50	-S - FA - H - □
DNGD - 32 R × 50	-S - FA - H - □
DNGJ - 32 R × 50 - 20 - S - FA - H - □	

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

⑦ Mounting style	
Mounting style	Adaptable series
Blank: No accessories	
LB: LB type	DNG
FA: FA type	DNGD
FTC: FTC type	DNGJ
TC: TC type	
FB: FB type	
CA: CA type	DNG
CB: CB type	
CR: CR type	

⑥ Magnet	
Blank:	Without magnet
S:	With magnet

⑧ Seals material	
Blank:	NBR
H:	Viton
T:	TPU

⑨ Thread type	
Blank:	G thread
PT:	PT thread

[Note1] CR is used with CB, FTC. TC are used with TCM1,TCM2.

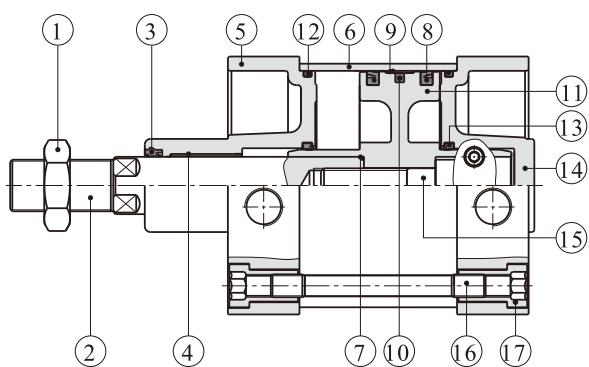
① Model	
DNG:	Double acting type 32 40 50 63 80
DNGD:	Double rod type 100 125 160
DNGJ:	Adjustable stroke type 200 250 320

③ Rod material	
Blank:	EU
R:	DPR

④ Stroke	
Series	Refer to stroke table for details

⑤ Adjustable stroke	
Series	Adjustable stroke
	10: 10mm
	20: 20mm
	30: 30mm
DNGJ series	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

■ Inner structure and material of major parts

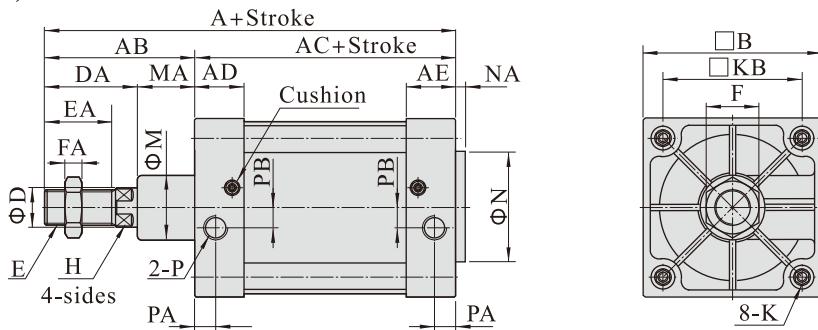


NO.	Item	Material
1	Rod nut	Carbon steel
2	Piston rod	Carbon steel with 20μm chrome plated
3	Front cover packing	NBR(SGC250)\TPU(Other)
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	Aluminum pipe	Aluminum alloy
7	O-ring	NBR
8	Piston Seal	NBR
9	Wear ring	Wear resistant material
10	Magnet	Rubber
11	Piston	Aluminum alloy
12	O-ring	NBR
13	Buffer gasket	NBR(SGC250)\TPU(Other)
14	Back cover	Aluminum alloy
15	Screw	Carbon steel
16	Tie-rod	Carbon steel
17	Tie-rod nut	Carbon steel

Standard cylinder——DNG Series

Dimensions

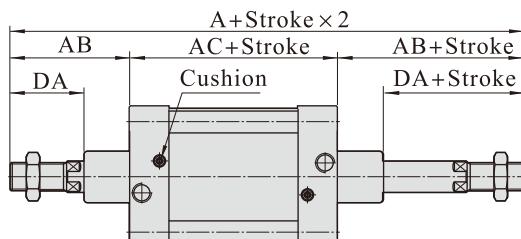
DNG Series($\Phi 32 \sim \Phi 320$)



Bore size\Item	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	K	KB	M	MA	N	NA	P	PA	PB
32	142	48	94	27	27	47	12	29	M10×1.25	22	17	6	10	M6	32.5	30	19	30	3	G1/8	12	5.5
40	159	54	105	31	31	53	16	33	M12×1.25	24	17	7	13	M6	38	35	21	35	3.5	G1/4	15	6
50	175	69	106	31	31	65	20	42	M16×1.5	32	23	8	17	M8	46.5	40	27	40	3.5	G1/4	15.5	7.5
63	190	69	121	33	33	75	20	42	M16×1.5	32	23	8	17	M8	56.5	45	27	45	4	G3/8	16.5	7.5
80	214	86	128	36	36	95	25	53	M20×1.5	40	26	10	22	M10	72	45	33	45	4	G3/8	19	8.5
100	229	91	138	37	37	115	25	55	M20×1.5	40	26	10	22	M10	89	55	36	55	4	G1/2	18	9.5
125	279	119	160	45	45	140	32	79	M27×2.0	54	41	13.5	27	M12	110	60	40	60	4	G1/2	23	10
160	332	152	180	50	50	180	40	94	M36×2.0	72	55	18	36	M16	140	65	55	65	4	G3/4	25	15
200	347	167	180	50	50	220	40	100	M36×2.0	72	55	18	36	M16	175	75	67	75	5	G3/4	25	15
250	389	189	200	60	60	270	50	114	M42×2.0	84	64	20	46	M20	220	90	75	90	8	G1	30	20
320	436	216	220	65	65	350	63	126	M48×2.0	96	72	20	55	M24	270	110	90	110	10	G1	30	30

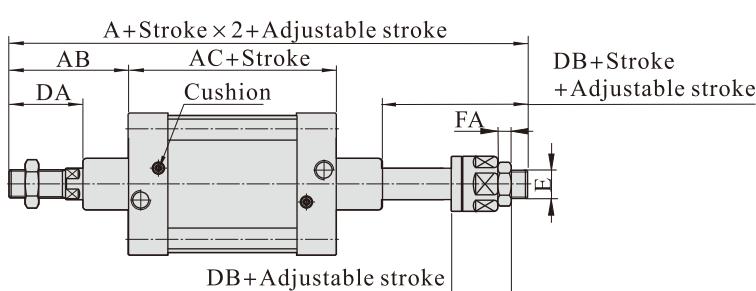
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

DNGD Series($\Phi 32 \sim \Phi 320$)



Bore size\Item Model	A		AB	AC	DA
	DNGD	DNGJ			
32	190	188	48	94	29
40	213	208	54	105	33
50	244	231	69	106	42
63	259	246	69	121	42
80	300	282.5	86	128	53
100	320	300.5	91	138	55
125	398	366.5	119	160	74
160	484	458	152	180	94
200	514	482	167	180	100
250	578	547	189	200	114
320	652		216	220	126

DNGJ Series($\Phi 32 \sim \Phi 320$)



Bore size\Item	DB	E	FA
32	27	M10X1.25	6
40	28	M12X1.25	7
50	29	M16X1.5	8
63	29	M16X1.5	8
80	35.5	M20X1.5	10
100	35.5	M20X1.5	10
125	42.5	M27X2.0	13.5
160	68	M36X2.0	18
200	68	M36X2.0	18
250	80	M42X2.0	21
320	80	M42X2.0	21

Remark:

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

Standard cylinder——DNG Series

■ List for ordering code of accessories

Accessories Bore size	Mounting accessories							
	LB	FA/FB	CA	CB	CR	TC	FTC	TCM1
32	F-DNG32LB	F-DNG32FA	F-DNG32CA	F-DNG32CB	F-DNG32CR	F-DNG32TC	F-DNG32FTC	F-DNG32TCM1
40	F-DNG40LB	F-DNG40FA	F-DNG40CA	F-DNG40CB	F-DNG40CR	F-DNG40TC	F-DNG40FTC	F-DNG40TCM1
50	F-DNG50LB	F-DNG50FA	F-DNG50CA	F-DNG50CB	F-DNG50CR	F-DNG50TC	F-DNG50FTC	F-DNG50TCM1
63	F-DNG63LB	F-DNG63FA	F-DNG63CA	F-DNG63CB	F-DNG63CR	F-DNG63TC	F-DNG63FTC	F-DNG63TCM1
80	F-DNG80LB	F-DNG80FA	F-DNG80CA	F-DNG80CB	F-DNG80CR	F-DNG80TC	F-DNG80FTC	F-DNG80TCM1
100	F-DNG100LB	F-DNG100FA	F-DNG100CA	F-DNG100CB	F-DNG100CR	F-DNG100TC	F-DNG100FTC	F-DNG100TCM1
125	F-DNG125LB	F-DNG125FA	F-DNG125CA	F-DNG125CB	F-DNG125CR	F-DNG125TC	F-DNG125FTC	F-DNG125TCM1
160	F-DNG160LB	F-DNG160FA	-	F-DNG160CB	-	F-DNG160TC	F-DNG160FTC	F-DNG160TCM1
200	F-DNG200LB	F-DNG200FA	-	F-DNG200CB	-	F-DNG200TC	F-DNG200FTC	F-DNG200TCM1
250	F-DNG250LB	F-DNG250FA	-	F-DNG250CB	-	-	-	-
320	F-DNG320LB	F-DNG320FA	-	F-DNG320CB	-	-	-	-

Accessories Bore size	Knuckle				Sensor switch	
	I: I Knuckle	Y: Y Knuckle	F: F Knuckle	U: U Knuckle	CS1-G	DS1-G
32	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U		
40	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U		
50	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
63	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
80	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
100	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
125	F-M27X200I	F-M27X200Y	F-M27X200F	F-M27X200U		
160	F-M36X200I	F-M36X200Y	F-M36X200F	F-M36X200U		
200	F-M36X200I	F-M36X200Y	F-M36X200F	F-M36X200U		
250	F-M42X200I	F-M42X200Y	F-M42X200F	F-M42X200U		
320	F-M42X200I	F-M42X200Y	F-M42X200F	F-M42X200U		

■ Accessory selection

Accessories Cylinder model	Mounting accessories								Knuckle				Sensor switch		
	LB	FA	FB	CA	CB	CR	TC	FTC	TCM1	I	Y	U	F	CMSE	DMSE
DNG	Standard	●	●	●	●	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DNGD	Standard	●	●	×	×	×	●	●	●	●	●	●	●	×	×
	With magnet	●	●	×	×	×	●	●	●	●	●	●	●	●	●

■ Material of accessories

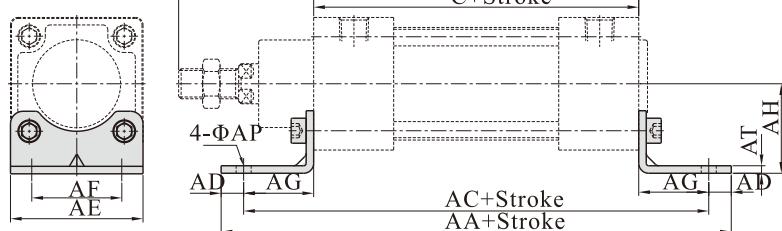
Accessories Bore size	Mounting accessories								Knuckle			
	LB	FA	FB	CA	CB	CR	FTC	TCM1	I	Y	F	U
32~100	○	●	●	●	●	●	■	■	□	□	□	□
125~320	□	□	□	□	□	□	□	□	□	□	□	□

●—Aluminum alloy, ■—Cast steel, ○—Low carbon steel, □—Carbon steel.

Standard cylinder——DNG Series

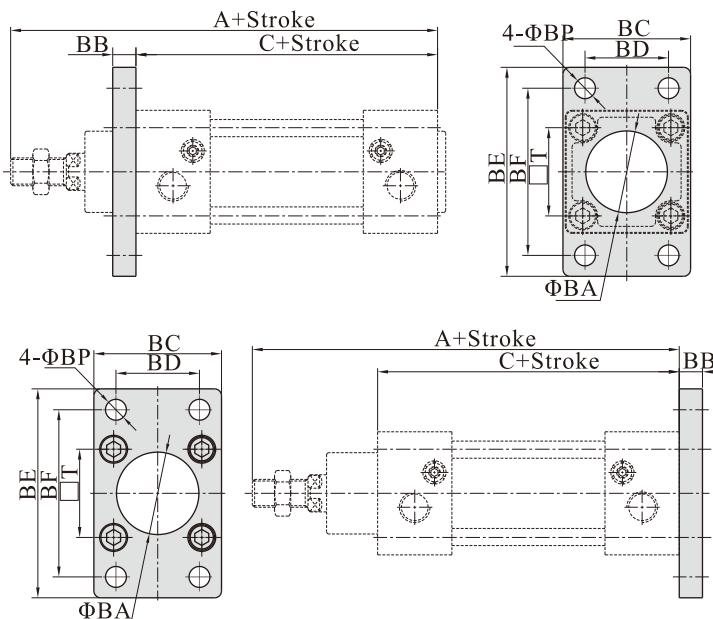
Accessories Dimensions

LB type



Bore size\Item	A	C	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	142	94	158	142	8	47	32	24	32	7	3
40	159	105	179	161	9	53	36	28	36	9	3
50	175	106	190	170	10	65	45	32	45	9	3
63	190	121	209	185	12	75	50	32	50	9	3
80	214	128	248	210	19	95	63	41	63	12.5	4
100	229	138	258	220	19	115	75	41	71	14.5	4
125	279	160	290	250	20	140	90	45	90	16.5	8
160	332	180	340	300	20	180	115	60	115	18.5	8
200	347	180	380	320	30	220	135	70	135	24	9
250	389	200	410	350	30	275	165	75	165	28	19
320	436	220	470	390	40	350	200	85	185	35	23

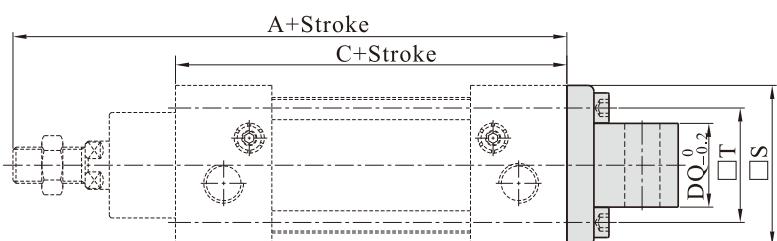
FA\FB type



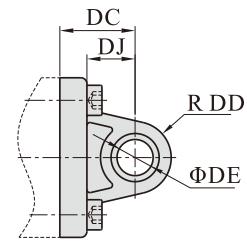
Bore size\Item	A	C	BA	BB	BC	BD	BE	BF	BP	T
32	142	94	30.5	10	47	32	80	64	7	32.5
40	159	105	35.5	10	53	36	90	72	9	38
50	175	106	40.5	12	65	45	108	90	9	46.5
63	190	121	45.5	12	75	50	118	100	9	56.5
80	214	128	45.5	16	95	63	150	126	12.5	72
100	229	138	55.5	16	115	75	176	150	14.5	89
125	279	160	60.5	20	139	90	218	180	16.5	110
160	332	180	65.5	20	180	115	280	230	18.5	140
200	347	180	75.5	25	220	135	320	270	24	175
250	389	200	90.5	25	270	165	390	330	26	220
320	436	220	110	30	349	200	470	400	33	270

Standard cylinder——DNG Series

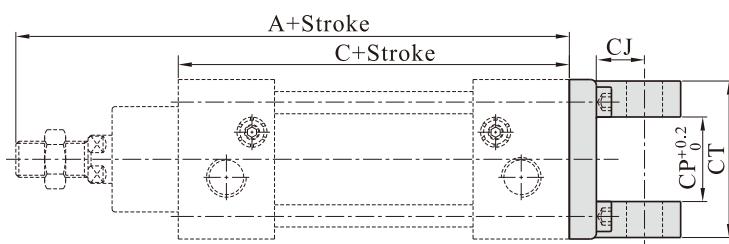
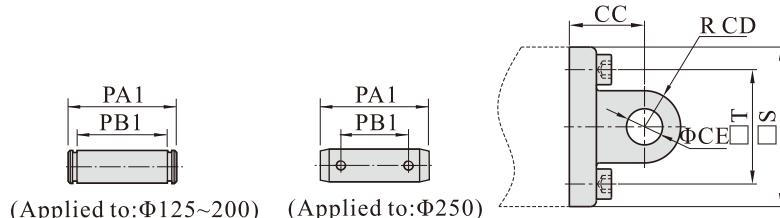
CA type



Bore size\Item	A	C	S	T	DC	DD	DE	DJ	DQ
32	142	94	46.5	32.5	22	10.5	10	13	25.8
40	159	105	54	38	25	12	12	16	27.8
50	175	106	64	46.5	27	12	12	17	31.7
63	190	121	75	56.5	32	15	16	22	39.7
80	214	128	93	72	36	15.5	16	22	49.7
100	229	138	110	89	41	20	20	27	59.7
125	279	160	134	110	50	24	25	33	69.7
160	332	180	180	140	55	30	30	35.5	89.7
200	347	180	220	175	60	30	30	37	89.7
250	389	200	270	220	70	35	40	46	110
320	436	220	350	270	80	45	45	52	120



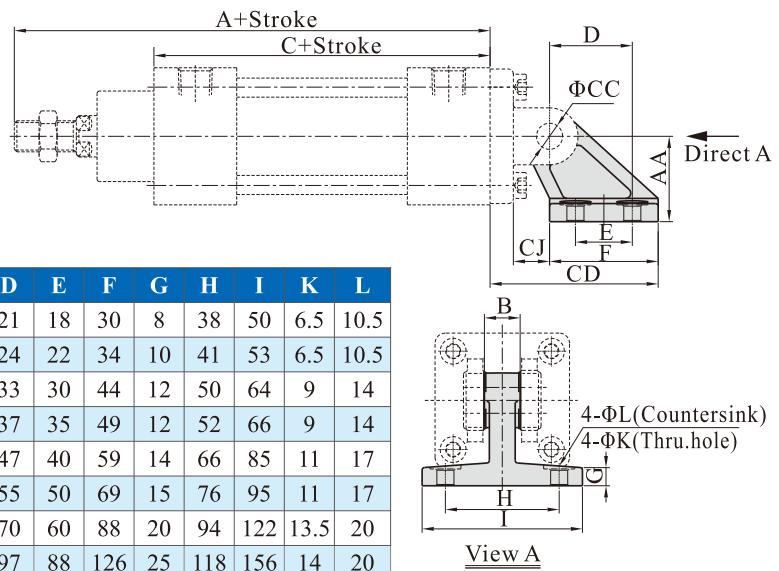
CB type



Bore size\Item	A	C	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T
32	142	94	22	10.5	10	13	26	45	51	45.5	46.5	32.5
40	159	105	25	12	12	16	28	52	59	52.5	54	38
50	175	106	27	12	12	17	32	60	67	60.5	64	46.5
63	190	121	32	15	16	22	40	70	77	70.5	75	56.5
80	214	128	36	15.5	16	22	50	90	97	90.5	93	72
100	229	138	41	20	20	27	60	110	119	110.5	110	89
125	279	160	50	24	25	33	70	130	139	130.5	134	110
160	332	180	55	30	30	35.5	90	170	181	170.5	180	140
200	347	180	60	30	30	36	90	170	181	170.5	220	175
250	389	200	70	35	40	46	110	200	230	208	270	220
320	436	220	80	45	45	52	120	220	240	222	350	270

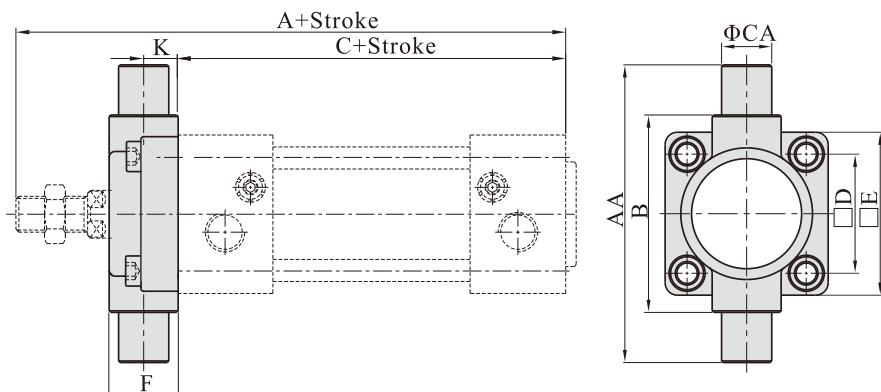
Standard cylinder——DNG Series

CR type



[Note] CR can't be used alone, it must be used with CB.

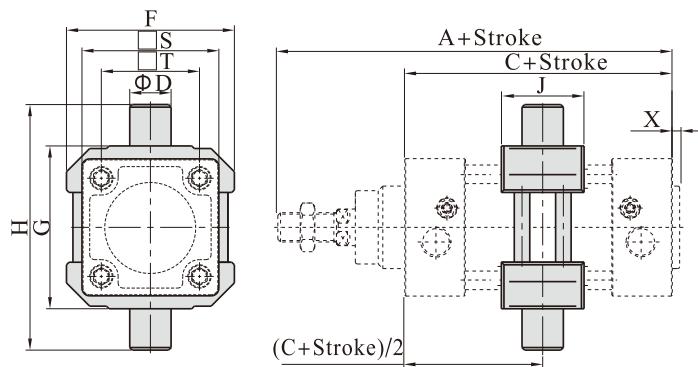
FTC type



Bore size\Item	A	C	AA	B	CA	D	E	F	K
32	142	94	74	50	12	32.5	46	19	10
40	159	105	95	63	16	38	52	21	10
50	175	106	107	75	16	46.5	64	26	12
63	190	121	130	90	20	56.5	74	28	12
80	214	128	150	110	20	72	94	31	16
100	229	138	182	132	25	89	114	35	16
125	279	160	210	160	25	110	139	43	20
160	332	180	264	200	32	140	179	56	20
200	347	180	314	250	32	175	218	64	20

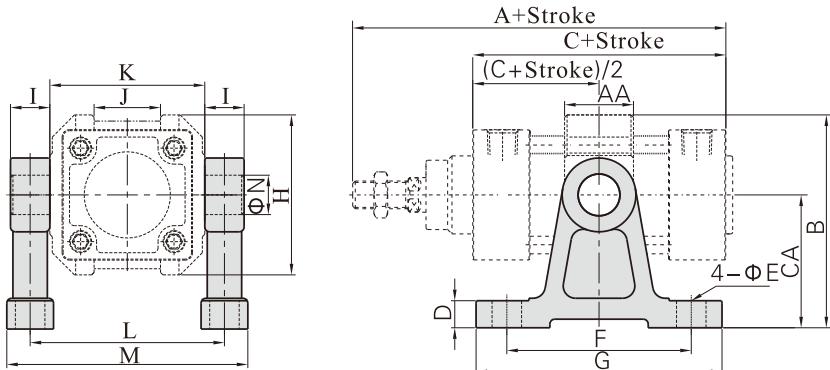
Standard cylinder——DNG Series

TC type



Bore size\Item	A	C	D	F	G	H	J	S	X	T
32	142	94	12	52	50	74	22	47	3	32.5
40	159	105	16	63	63	95	28	53	3.5	38
50	175	106	16	75	75	107	28	65	3.5	46.5
63	190	121	20	90	90	130	30	75	4	56.5
80	214	128	20	110	110	150	32	95	4	72
100	229	138	25	132	132	182	38	115	4	89
125	279	160	25	160	160	210	40	140	4	110
160	332	180	32	210	200	264	50	180	4	140
200	347	180	32	255	250	314	50	220	5	175
250										
320										

TCM1 type



Bore size\Item	A	AA	B	C	CA	D	E	F	G	H	I	J	K	L	M	N
32	142	22	66	94	40	11	9	60	80	52	12	20	50	62	77	12
40	159	28	86.5	105	54	11	12	75	100	65	16	27	63	79	98	16
50	175	28	91.5	106	54	11	12	75	100	75	16	31	75	91	110	16
63	190	30	115	121	70	11	12	85	110	90	20	42	90	110	133	20
80	214	32	126	128	70	11	12	85	110	112	20	54	110	130	153	20
100	229	38	157.5	138	90	19	18	115	155	135	25	68	132	157	185	25
125	279	40	175	160	90	19	18	115	155	170	25	80	160	185	213	25
160	332	50	215	180	110	24	22	140	190	210	32	100	200	232	267	32
200	347	50	262.5	180	135	27	22	150	200	255	32	125	250	282	317	32
250																
320																

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

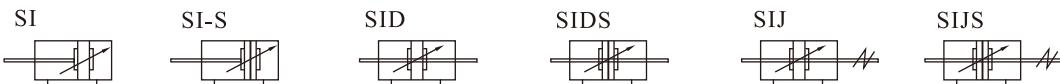
Standard cylinder——SI Series



■ Product feature

1. ISO15552 (original ISO6431) 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 aluminum profile without tie rod has good corrosion resistance. With sensor switch groove on the two sides of body;
4. The buffer adjustment of cylinder is smooth and steady;
5. Cylinders and accessories for installation with several specifications are optional.

■ Symbol



■ Specification

Bore size(mm)	32	40	50	63	80	100	125	160	200
Acting type	Double acting								
Fluid	Air(to be filtered by 40μm filter element)								
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)								
Proof pressure	1.5MPa(215psi)(15bar)								
Temperature	-20~70°C								
Speed range	30~800 mm/s						30~500 mm/s		
Stroke tolerance	0 ~ 250 ^{+1.0} ₀			251 ~ 1000 ^{+1.5} ₀			1001 ~ 2000 ^{+2.0} ₀		
Cushion type	Variable cushion								
Cushion stroke	27		30		36		40		50
Port size [Note1]	G1/8		G1/4		G3/8		G1/2		G3/4

[Note1] The standard thread type is G thread, Please control us for other thread type.

■ Standard Stroke

Bore size(mm)	Standard stroke	Max.std stroke	Max. stroke
32	25 50 75 100 125 150 175 200 250 300 350 400 450 500	1000	1500
40	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800	1200	1500
50	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	1500
63	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
80	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
100	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
125	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
160	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 100 125 150 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

[Note] Consult us for non-standard stroke.

Standard cylinder——SI Series

■ Ordering code

SI - 63 B × 50	-S - FA - H - □
SID - 63 B × 50	-S - FA - H - □
SIJ - 63 B × 50 -20-S - FA - H - □	

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

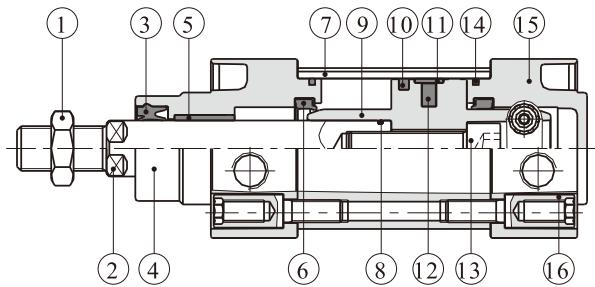
⑦ Mounting style	
Mounting style	Adaptable series
Blank: No accessories	
LB: LB type	SI
FA: FA type	SID
FTC: FTC type	SIJ
TC: TC type	
FB: FB type	
CA: CA type	SI
CB: CB type	
CR: CR type	

⑥ Magnet	
Blank:	Without magnet
S:	With magnet
⑧ Seals material	
Blank:	NBR
H:	Viton
T:	TPU
⑨ Thread type	
Blank:	G thread
PT:	PT thread

[Note1] CR is used with CB, FTC. TC are used with TCM1, TCM2.

① Model	
SI:	Double acting type 32 40 50 63 80
SID:	Double rod type 100 125 160
SIJ:	Adjustable stroke type 200
② Bore size	
③ Rod material	
Blank:	Medium carbon steel
A:	SUS420J2
B:	SUS304
④ Stroke	
Refer to stroke table for details	
⑤ Adjustable stroke	
Series	Adjustable stroke
	10: 10mm
	20: 20mm
	30: 30mm
SIJ series	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

■ Inner structure and material of major parts

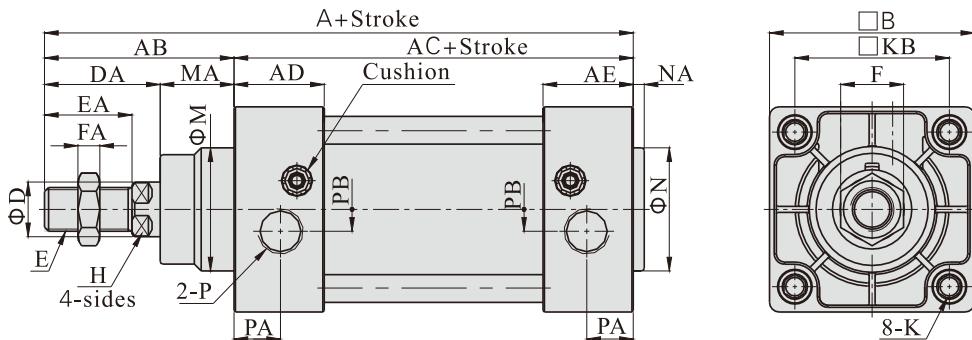


NO.	Item	Material
1	Rod nut	Carbon steel\Stainless steel
2	Piston rod	Carbon steel with 20μm chrome plated
3	Front cover packing	TPU
4	Front cover	Aluminum alloy
5	Bushing	Wear resistant material
6	Cushing O-ring	TPU
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston	Aluminum alloy
10	Piston Seal	NBR
11	Wear ring	Wear resistant material
12	Magnet	Plastic
13	Bolt	Carbon steel
14	O-ring	NBR
15	Back cover	Aluminum alloy
16	Screw	Carbon steel\Stainless steel

Standard cylinder——SI Series

Dimensions

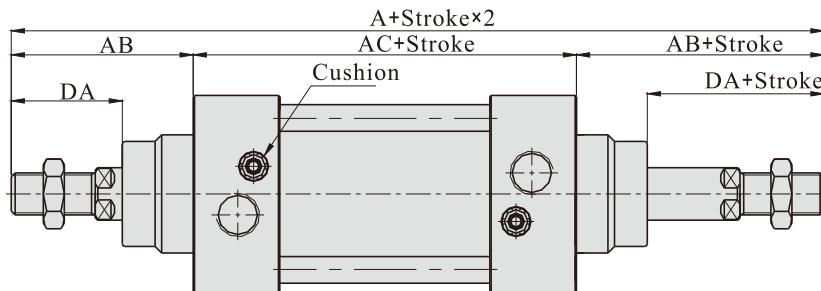
SI Series($\Phi 32 \sim \Phi 200$)



Bore size\Item	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	M	MA	H	K	KB	N	NA	P	PA	PB
32	142	48	94	27	27	47	12	29	M10×1.25	22	17	6	30	19	10	M6	32.5	30	3	G1/8	13	5.5
40	159	54	105	31	31	53	16	33	M12×1.25	24	17	7	35	21	13	M6	38	35	3.5	G1/4	17	6
50	175	69	106	31	31	65	20	42	M16×1.5	32	23	8	40	27	17	M8	46.5	40	3.5	G1/4	15.5	7.5
63	190	69	121	33	33	75	20	42	M16×1.5	32	23	8	45	27	17	M8	56.5	45	4	G3/8	16.5	7.5
80	214	86	128	33	33	95	25	53	M20×1.5	40	26	10	45	33	22	M10	72	45	4	G3/8	16.5	9
100	229	91	138	37	37	115	25	55	M20×1.5	40	26	10	55	36	22	M10	89	55	4	G1/2	18.5	9.5
125	279	119	160	46	45	140	32	74	M27×2.0	54	41	13.5	60	40	27	M12	110	60	4	G1/2	23	14
160	332	152	180	50	50	180	40	94	M36×2.0	72	55	18	65	55	36	M16	140	65	4	G3/4	25	15
200	347	167	180	50	50	220	40	100	M36×2.0	72	55	18	75	67	36	M16	175	75	5	G3/4	25	15

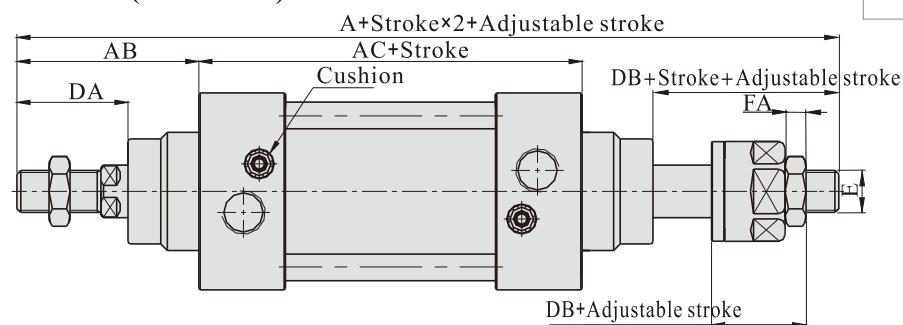
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

SID Series($\Phi 32 \sim \Phi 200$)



Bore size\Item	A		AB		AC		DA	
Model	SAID	SAIJ	AB	AC	DA			
32	190	188	48	94	29			
40	213	208	54	105	33			
50	244	231	69	106	42			
63	259	246	69	121	42			
80	300	282.5	86	128	53			
100	320	300.5	91	138	55			
125	398	366.5	119	160	74			
160	484	458	152	180	94			
200	514	482	167	180	100			

SIJ Series($\Phi 32 \sim \Phi 200$)



Bore size\Item	DB	E	FA
32	27	M10X1.25	6
40	28	M12X1.25	7
50	29	M16X1.5	8
63	29	M16X1.5	8
80	35.5	M20X1.5	10
100	35.5	M20X1.5	10
125	42.5	M27X2.0	13.5
160	68	M36X2.0	18
200	68	M36X2.0	18

Remark:

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

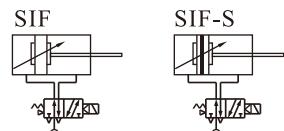
Standard cylinder——SIF Series



■ Product feature

1. For Standard Cylinders: use 4M210 valve for bore size 32, 40 & 50; 4M310 valve for bore size 63, 80 & 100mm.
2. Individually control, no need for extra solenoid valves.
3. Installation time & space saving; suitable for decentralize installation in large system.
4. Options of mounting accessories & easy installation.

■ Symbol



■ Specification

Cylinder 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	Basic	FA	FB	CA	CB	CR					
Operating pressure	0.1~1.0MPa(15~145psi)(1.0~10.0bar)										
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 cushionstroke	27		30		36						
Port size	G1/8		G1/4		G3/8						
PU tube size(ODXID)	Φ8 × Φ5			Φ10 × Φ6.5							
Solenoid valve specification											
Model	4M210-06 & 4M210-08			4M310-08 & 4M310-10							
Fluid	Air(to be filtered by 40μm filter element)										
Acting type	Internal piloted										
Port size [Note1]	In=Exhaust=1/8" & In=1/4" Exhaust=1/8"		In=Exhaust=1/4" & In=PT3/8 Exhaust=1/4"								
Orifice size	4M210-06: 14.0mm ² (Cv=0.78) 4M210-08: 16.0mm ² (Cv=0.89)		4M310-08: 25.0mm ² (Cv=1.40) 4M310-10: 30.0mm ² (Cv=1.68)								
Valve type	5 port 2 position										
Operating pressure	0.15~0.8MPa(21~114psi)										
Proof pressure	1.5MPa(215psi)										
Temperature °C	-20~70										
Body material	Aluminum alloy										
Lubrication	Not required										
Max. frequency	5 cycle/sec			4 cycle/sec							
Coil specification											
Standard voltage	AC220V、AC110V、AC24V、DC24V、DC12V										
Scope voltage	AC: ± 15% DC: ± 10%										
Power consumption	AC: 3.5VA DC: 3.0W										
Protection	IP65(DIN40050)										
Temperature classification	B Class										
Electrical entry	Terminal, Grommet										
Activating time	0.05 sec and below										

Standard cylinder——SIF Series

■ Standard Stroke

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

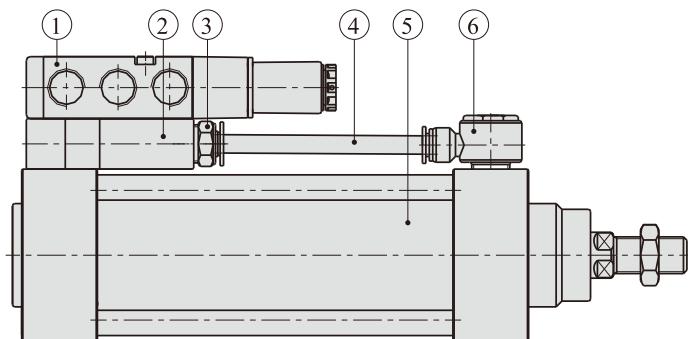
[Note] Consult us for non-standard stroke.

■ Ordering code

SIF 63 × 1000 S LB-06 A I □								
①	②	③	④	⑤	⑥	⑦	⑧	⑨
⑤ Mounting style	⑥ Port size	⑦ Voltage	⑧ Electrical entry	⑨ Thread type				
Blank: No accessories	06: 1/8"	A: AC220V	Blank: Terminal	Blank: G thread				
LB: LB type	08: 1/4"	B: DC24V	I: Grommet	PT: PT thread				
FA: FA type	10: 3/8"	C: AC110V						
FB: FB type		E: AC24V						
CA: CA type		F: DC12V						
CB: CB type								
CR: CR type								
FTC: FTC type								
TC: TC type								

[Note1] CR is used with CB, FTC. TC are used with TCM1, TCM2.

■ Inner structure and material of major parts

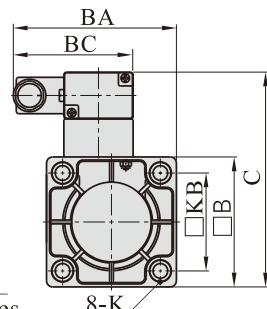
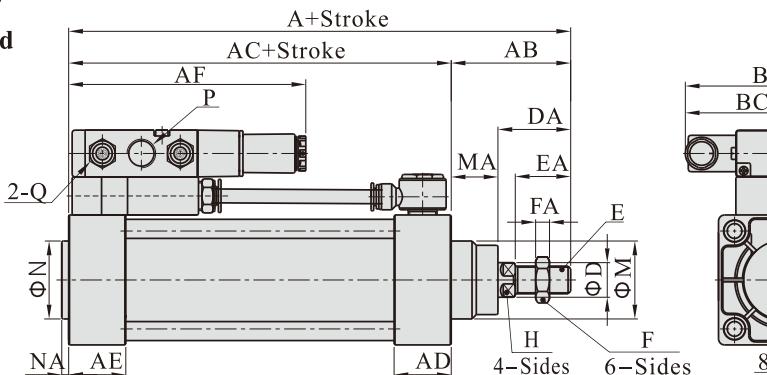


NO.	Item
1	4M series solenoid valve
2	Unite block
3	APC series tube connector
4	PU tube
5	SI series cylinder
6	APH series tube connector

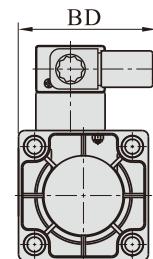
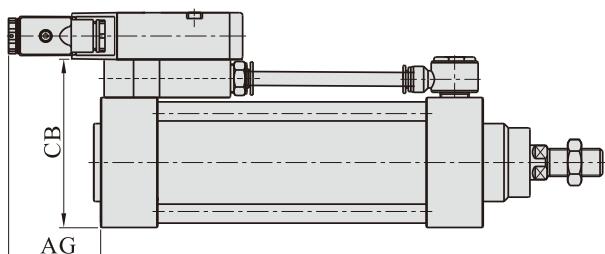
Standard cylinder——SIF Series

Dimensions

Pull when energized



Push when energized



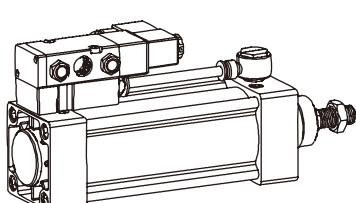
Bore size\Item	A	AB	AC	AD	AE	AF	AG	B	BA	BC	BD	C	CB
32	142	48	94	27.5	27.5	117.5	53.5	47	78.5	67	67.5	91	69
40	159	54	105	32	32	120	51	53	82	67	70	97	75
50	175	69	106	31	31	118.5	52.5	65	89.5	67	74.5	109	87
63	190	69	121	33	33	137	53	75	94.5	69.5	79.5	124	97
80	214	86	128	33	33	137	53	95	105.	69.5	88	144	117
100	229	91	138	37	37	137.5	52.5	115	118	69.5	96	164	137

Bore size\Item	valve's type	P	K
32	4M210-06	1/8"	M6
	4M210-08	1/4"	
40	4M210-06	1/8"	M6
	4M210-08	1/4"	
50	4M210-06	1/8"	M8
	4M210-08	1/4"	
63	4M310-08	1/4"	M8
	4M310-10	3/8"	
80	4M310-08	1/4"	M10
	4M310-10	3/8"	
100	4M310-08	1/4"	M10
	4M310-10	3/8"	

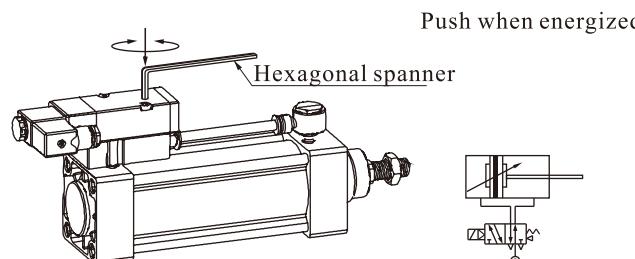
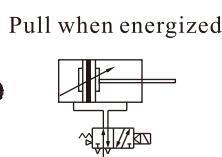
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

How to use

- Options for piston rod to retract or extend when solenoid coil is energized.
- Default factory setting will be piston rod to retract when energized(see Drawing one). Should you require piston rod to extend when energized, reposition the solenoid valve as shown in Drawing two.



Drawing one



Drawing two

Attention Ensure that the seals between the mounting block & valve are placed correctly when repositioning the valve.

Standard cylinder——SI Series

■ List for ordering code of accessories

Accessories Bore size	Mounting accessories								
	LB	FA/FB	CA	CB	CR	TC	FTC	TCM1	TCM2
32	F-SI32LB	F-SI32FA	F-SI32CA	F-SI32CB	F-SI32CR	F-SI32TC	F-SI32FTC	F-SI32TCM1	F-SI32TCM2
40	F-SI40LB	F-SI40FA	F-SI40CA	F-SI40CB	F-SI40CR	F-SI40TC	F-SI40FTC	F-SI40TCM1	F-SI40TCM2
50	F-SI50LB	F-SI50FA	F-SI50CA	F-SI50CB	F-SI50CR	F-SI50TC	F-SI50FTC	F-SI40TCM1	F-SI40TCM2
63	F-SI63LB	F-SI63FA	F-SI63CA	F-SI63CB	F-SI63CR	F-SI63TC	F-SI63FTC	F-SI63TCM1	F-SI63TCM2
80	F-SI80LB	F-SI80FA	F-SI80CA	F-SI80CB	F-SI80CR	F-SI80TC	F-SI80FTC	F-SI63TCM1	F-SI63TCM2
100	F-SI100LB	F-SI100FA	F-SI100CA	F-SI100CB	F-SI100CR	F-SI100TC	F-SI100FTC	F-SI125TCM1	F-SI125TCM2
125	F-SI125LB	F-SI125FA	F-SI125CA	F-SI125CB	F-SI125CR	F-SI125TC	F-SI125FTC	F-SI125TCM1	F-SI125TCM2
160	F-SI160LB	F-SI160FA	F-SI160CA	F-SI160CB	F-SI160CR	F-SI160TC	F-SI160FTC	F-SI160TCM1	F-SI160TCM2
200	F-SI200LB	F-SI200FA	F-SI200CA	F-SI200CB	F-SI200CR	F-SI200TC	F-SI200FTC	F-SI200TCM1	F-SI160TCM2

Accessories Bore size	Knuckle				Sensor switch	
	I	Y	F	U	CS1-E	DS1-E
32	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U		
40	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U		
50	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
63	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
80	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
100	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
125	F-M27X200I	F-M27X200Y	F-M27X200F	F-M27X200U		
160	F-M36X200I	F-M36X200Y	F-M36X200F	F-M36X200U		
200	F-M36X200I	F-M36X200Y	F-M36X200F	F-M36X200U		

■ Accessory selection

Cylinder model	Accessories	Mounting accessories									Knuckle				Sensor switch		
		LB	FA	FB	CA	CB	CR	TC	FTC	TCM1	TCM2	I	Y	U	F	CS1-E	DS1-E
SI	Standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SIF	Standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SID	Standard	●	●	●	×	×	×	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	×	×	×	●	●	●	●	●	●	●	●	●	●
SIJ	Standard	●	●	●	×	×	×	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	×	×	×	●	●	●	●	●	●	●	●	●	●

■ Material of accessories

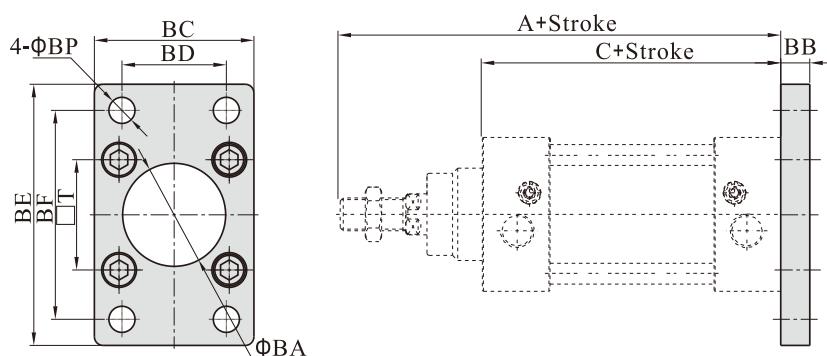
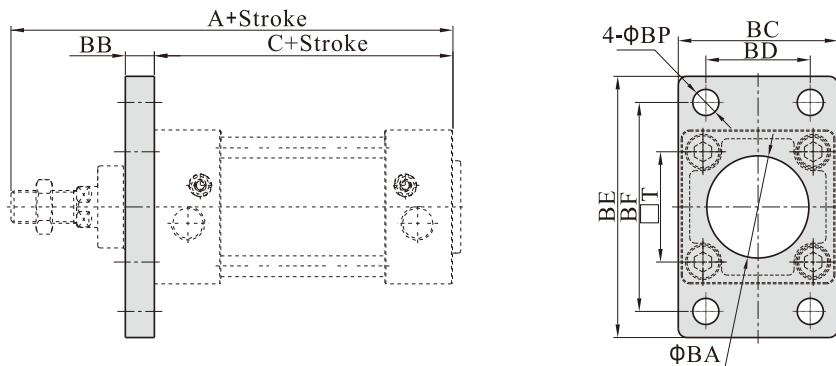
Accessories Bore size	Mounting accessories									Knuckle					
	LB	FA	FB	CA	CB	CR	TC	FTC	TCM1	TCM2	I	Y	F	U	
32~100	○	●	●	◇	◇	◇	◇	■	■	●	□	□	□	□	
125~200	□	□	□	□	□	□	□	□	□	●	□	□	□	□	

●—Aluminum alloy, ■—Cast steel, ○—Low carbon steel, ◇—Nodular cast iron, □—Carbon steel.

Standard cylinder——SI Series

■ Accessories Dimensions

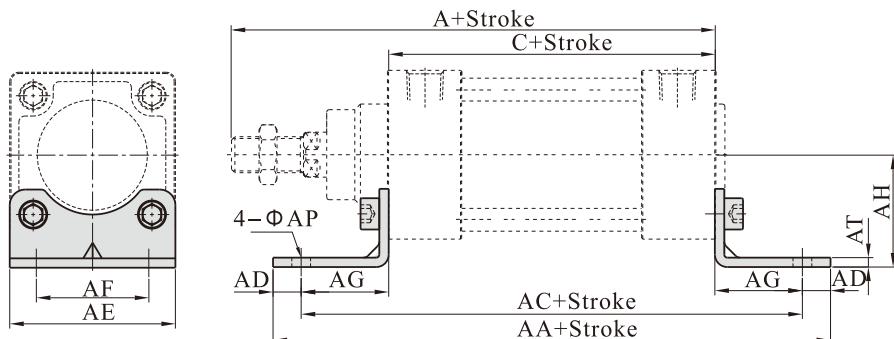
FA\FB type



Bore size\Item	A	C	BA	BB	BC	BD	BE	BF	BP	T
32	142	94	30.5	10	47	32	80	64	7	32.5
40	159	105	35.5	10	53	36	90	72	9	38
50	175	106	40.5	12	65	45	108	90	9	46.5
63	190	121	45.5	12	75	50	118	100	9	56.5
80	214	128	45.5	16	95	63	150	126	12.5	72
100	229	138	55.5	16	115	75	176	150	14.5	89
125	279	160	60.5	20	139	90	218	180	16.5	110
160	332	180	65.5	20	180	115	280	230	18.5	140
200	347	180	75.5	25	220	135	320	270	24	175

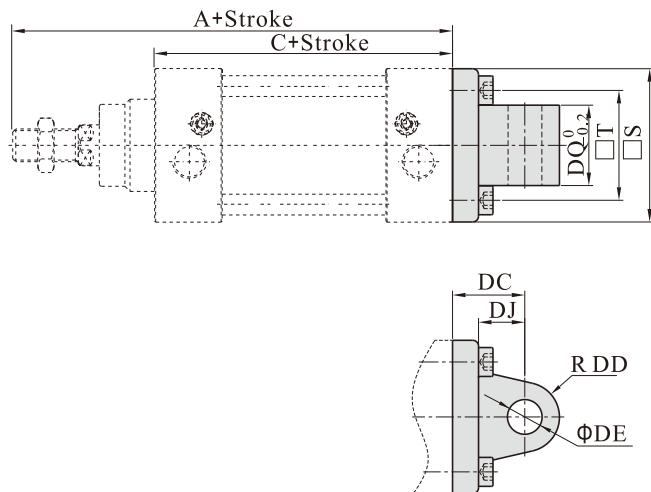
Standard cylinder——SI Series

LB type



Bore size\Item	A	C	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	142	94	158	142	8	47	32	24	32	7	3
40	159	105	179	161	9	53	36	28	36	9	3
50	175	106	190	170	10	65	45	32	45	9	3
63	190	121	209	185	12	75	50	32	50	9	3
80	214	128	248	210	19	95	63	41	63	12.5	4
100	229	138	266	220	19	115	75	41	71	14.5	4
125	279	160	290	250	20	140	90	45	90	16.5	8
160	332	180	340	300	20	180	115	60	115	18.5	8
200	347	180	380	320	30	220	135	70	135	24	9

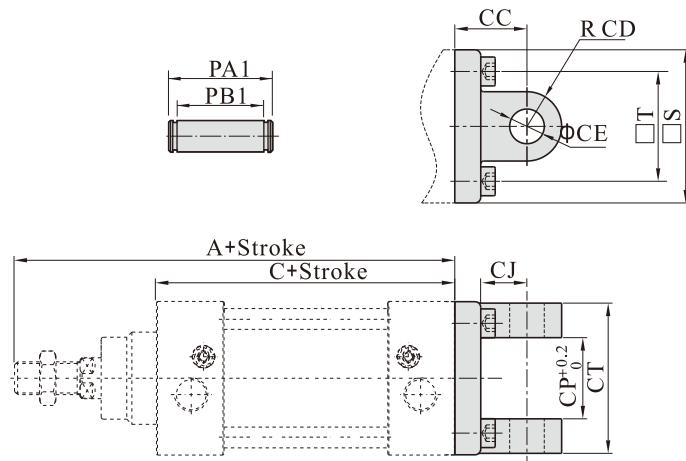
CA type



Bore size\Item	A	C	S	T	DC	DD	DE	DJ	DQ
32	142	94	47	32.5	22	9	10	13	25.8
40	159	105	52	38	25	10.5	12	16	27.8
50	175	106	64	46.5	27	11	12	17	31.7
63	190	121	74	56.5	32	13.5	16	22	39.7
80	214	128	94	72	36	14.5	16	22	49.7
100	229	138	113	89	41	17	20	27	59.7
125	279	160	139	110	50	22	25	33	69.7
160	332	180	180	140	55	30	30	35.5	89.7
200	347	180	220	175	60	30	30	37	89.7

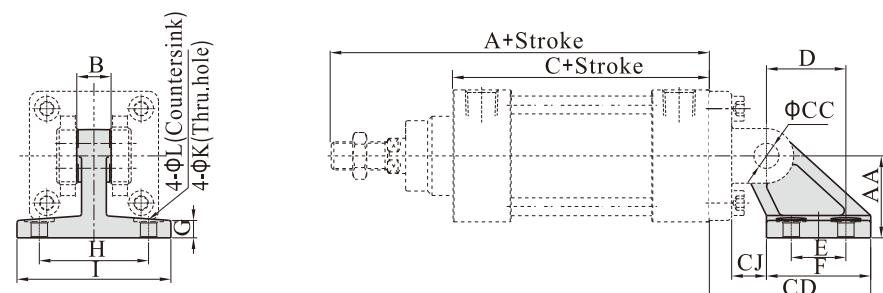
Standard cylinder——SI Series

CB type



Bore size\Item	A	C	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T
32	142	94	22	9	10	13	26	45	51	45.5	47	32.5
40	159	105	25	10.5	12	16	28	52	59	52.5	52	38
50	175	106	27	11	12	17	32	60	67	60.5	64	46.5
63	190	121	32	13	16	22	40	70	77	70.5	74	56.5
80	214	128	36	14	16	22	50	90	97	90.5	94	72
100	229	138	41	17.5	20	27	60	110	119	110.5	113	89
125	279	160	50	21.5	25	33	70	130	139	130.5	139	110
160	332	180	55	30	30	35.5	90	170	181	170.5	180	140
200	347	180	60	30	30	36	90	170	181	170.5	220	175

CR type

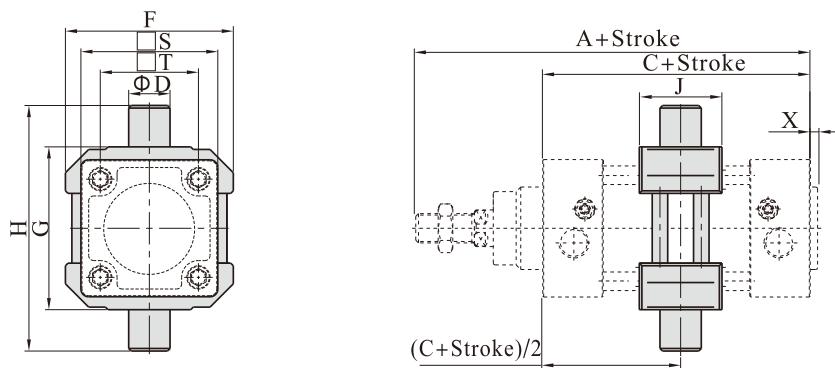


Bore size\Item	A	AA	B	C	CC	CD	CJ	D	E	F	G	H	I	K	L
32	142	32	26	94	10	49	10	21	18	30	8	38	50	6.5	10.5
40	159	36	28	105	12	55	12	24	22	34	10	41	53	6.5	10.5
50	175	45	32	106	12	67	13	33	30	44	12	50	64	9	14
63	190	50	40	121	16	76	17	37	35	49	12	52	66	9	14
80	214	63	50	128	16	92.5	19.5	47	40	59	14	66	85	11	17
100	229	71	60	138	20	105.5	22.5	55	50	69	15	76	95	11	17
125	279	90	70	160	25	134	29	70	60	88	20	94	122	13.5	20
160	332	115	90	180	30	171	25.5	97	88	126	25	118	156	13.5	20
200	347	135	90	180	30	185	31	105	90	130	30	122	162	18	26

[Note] CR can't be used alone, it must be used with CB.

Standard cylinder——SI Series

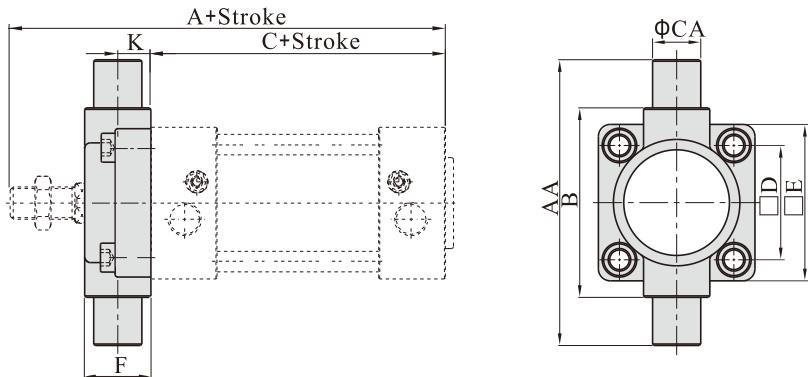
TC type



Bore size\Item	A	C	D	F	G	H	J	S	X	T
32	142	94	12	65	52	76	31	47	3	32.5
40	159	105	16	75	63	95	31	53	3.5	38
50	175	106	16	91	75	107	35	65	3.5	46.5
63	190	121	20	103	90	130	35	75	4	56.5
80	214	128	20	126	110	150	45	95	4	72
100	229	138	25	145	132	182	45	115	4	89
125	279	160	25	175	160	210	51	140	4	110
160	332	180	32	210	200	264	50	180	4	140
200	347	180	32	255	250	314	50	220	5	175

[Note] 160 and 200 TC accessory has been installed on the barrel of cylinder before it worked off, and the position of the accessories can not be adjusted arbitrarily. If consumer orders the TC solely, he will not install it on the barrel of standard cylinder directly.

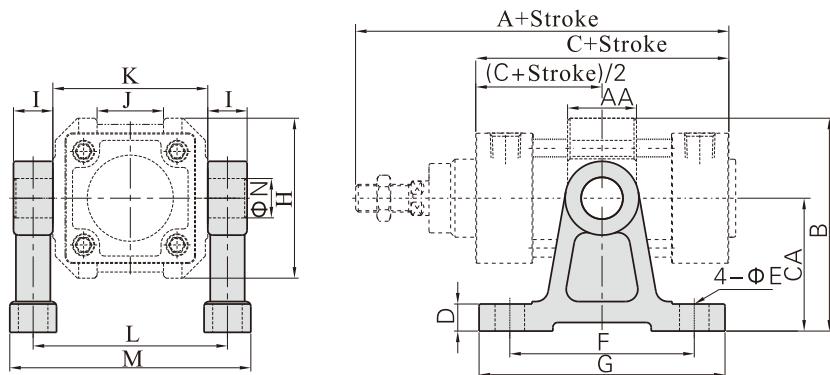
FTC type



Bore size\Item	A	C	AA	B	CA	D	E	F	K
32	142	94	74	50	12	32.5	46	19	10
40	159	105	95	63	16	38	52	21	10
50	175	106	107	75	16	46.5	64	26	12
63	190	121	130	90	20	56.5	74	28	12
80	214	128	150	110	20	72	94	31	16
100	229	138	182	132	25	89	114	35	16
125	279	160	210	160	25	110	139	43	20
160	332	180	264	200	32	140	179	56	20
200	347	180	314	250	32	175	218	64	20

Standard cylinder——SI Series

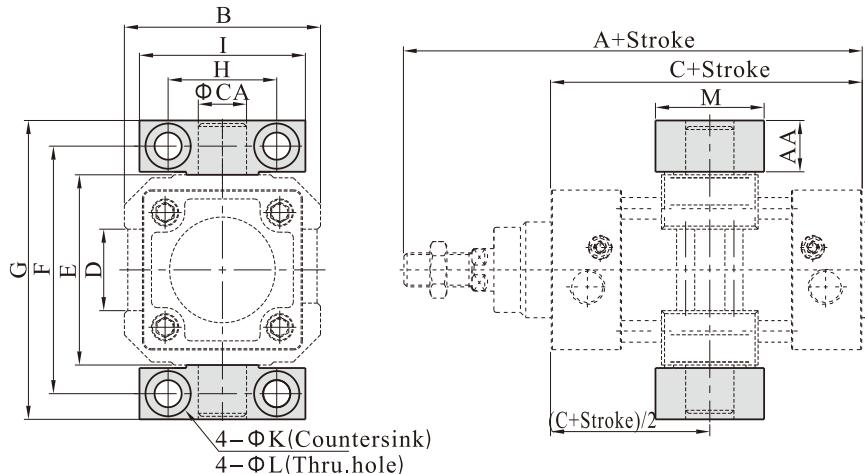
TCM1 type



Bore size\Item	A	C	AA	B	CA	D	E	F	G	H	I	J	K	L	M	N
32	142	94	31	72.5	40	11	9	60	80	65	12	5	52	64	79	12
40	159	105	31	91.5	54	11	12	75	100	75	16	8	63	79	98	16
50	175	106	35	99.5	54	11	12	75	100	91	16	10	75	91	110	16
63	190	121	35	121.5	70	11	12	85	110	103	20	16	90	110	133	20
80	214	128	45	133	70	11	12	85	110	126	20	20	110	130	153	20
100	229	138	45	162.5	90	19	18	115	155	145	25	28	132	157	185	25
125	279	160	51	177.5	90	19	18	115	155	175	25	40	160	185	213	25
160	332	180	50	215	110	24	22	140	190	210	32	100	200	232	267	32
200	347	180	50	262.5	135	27	22	150	200	255	32	125	250	282	317	32

[Note] Installation position of the accessories can not be adjusted arbitrarily.

TCM2 type



Bore size\Item	A	AA	B	C	CA	D	E	F	G	H	I	K	L	M
32	142	14	65	94	12	5	52	68	82	32	46	11	7	30
40	159	17	75	105	16	8	63	82	99	36	55	15	9	36
50	175	17	91	106	16	10	75	94	111	36	55	15	9	36
63	190	20.5	103	121	20	16	90	113.5	134	42	65	18	11	40
80	214	20.5	126	128	20	20	110	133.5	154	42	65	18	11	40
100	229	24.5	145	138	25	28	132	159.5	184	50	75	20	14	50
125	279	24.5	175	160	25	40	160	187.5	212	50	75	20	14	50
160	332	30	210	180	32	100	200	234	264	60	92	26	18	60
200	347	30	255	180	32	125	250	284	314	60	92	26	18	60

[Note] Installation position of the accessories can not be adjusted arbitrarily.

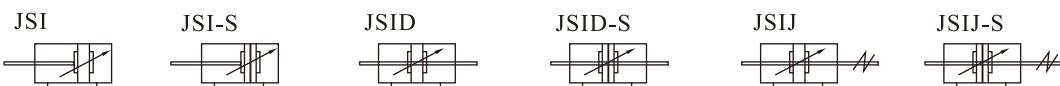
Standard cylinder——JSI Series



■ Product feature

1. JIS standard cylinder and is a cross-shaped aluminum barrel cylinder.
2. The seal of piston adopts heterogeneous two way seal structure. It's dimension is tight and it has the function of greasel reservation.
3. The cylinder barrel is aluminum profile with hard anodizing treatment.
4. Compared with ISO15552 standard cylinder, the cylinder of JSI series with the same cylinder diameter is shorter.
5. The buffer adjustment of cylinder is smooth and steady.
6. Cylinders and mounting accessories for installation with several specifications are optional.

■ Symbol



■ Specification

Bore size(mm)	32	40	50	63	80	100	125		
Acting type	Double acting								
Fluid	Air(to be filtered by 40μm filter element)								
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					30~500			
Stroke tolerance	0~250 ^{+1.0} ₀ 251~1000 ^{+1.5} ₀ 1001~1500 ^{+2.0} ₀								
Cushion type	Variable cushion								
Adjustable cushion stroke	24			32		37.5	40		
Port size [Note1]	G1/8	G1/4	G3/8			G1/2			

[Note1] The standard thread type is G thread, Please control us for other thread type.

■ Standard Stroke

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

[Note] Consult us for non-standard stroke.

Standard cylinder——JSI Series

■ Ordering code

JS - 63×50	-S - FA - □					
JSID - 63×50	-S - FA - □					
JSIJ - 63×50 -20 -S - FA - □						
①	②	③	④	⑤	⑥	⑦

⑥ Mounting style

Mounting style	Adaptable series
Blank: No accessories	JSI
LB: LB type	JSID
FA: FA type	JSIJ
TC: TC type	
FB: FB type	
CA: CA type	JSI
CB: CB type	
CR: CR type	

⑤ Magnet

Blank: Without magnet
S: With magnet

⑦ Thread type

Blank: G thread
PT: PT thread

① Model

JSI: Double acting type

JSID: Double rod type

JSIJ: Adjustable stroke type

② Bore size

32 40 50 63
80 100 125

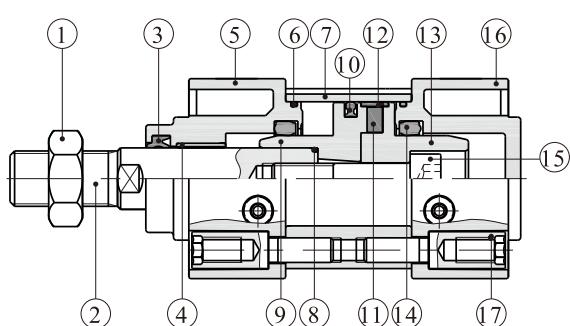
③ Stroke

Refer to stroke
table for details

④ Adjustable stroke

Series	Adjustable stroke
JSIJ series	10: 10mm
	20: 20mm
	30: 30mm
	40: 40mm
	50: 50mm
	75: 75mm
Others series	100: 100mm
	No this code

■ Inner structure and material of major parts

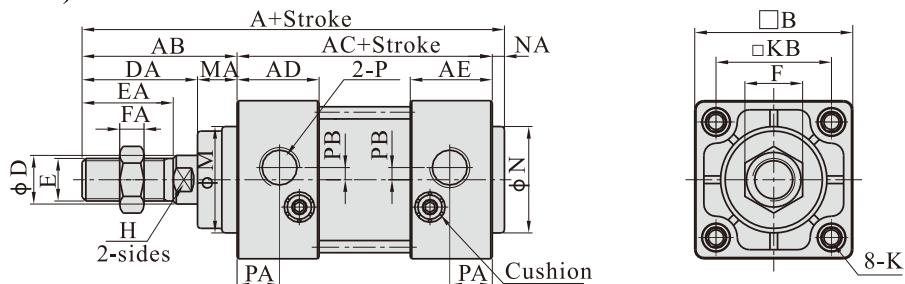


NO.	Item	Material
1	Rod nut	Carbon steel\Stainless steel
2	Piston rod	Carbon steel with 20μm chrome plated
3	Front cover packing	NBR
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	O-ring	NBR
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston	Aluminum alloy
10	Piston seal	NBR
11	Magnet	Plastic
12	Wear ring	Wear resistant material
13	Magnet holder	Aluminum alloy
14	Buffer gasket	NBR
15	Screw	Carbon steel
16	Back cover	Aluminum alloy
17	Tie-rod nut	Carbon steel

Standard cylinder——JSI Series

Dimensions

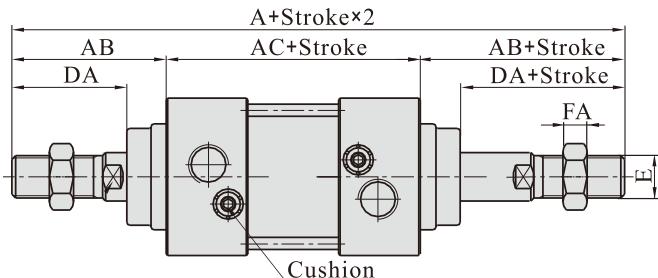
JSI Series($\Phi 32 \sim \Phi 125$)



Item Bore size	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	M	MA	K		K		KB	N	NA	P	PA	PB
																(No TC)	(With TC)	KB	N	NA	P	PA	PB		
32	135	47	84	27	27	46	12	34	M10×1.25	22	17	6	10	30	13	M6	M5	32.5	30	4	G1/8	13	4		
40	139	51	84	27	27	52	16	38	M14×1.5	30	19	7	14	35	13	M6	M5	38	35	4	G1/4	14	4		
50	156	58	94	31.5	31	65	20	44	M18×1.5	35	24	8	17	40	14	M8	M6	46.5	40	4	G1/4	15.5	5		
63	156	58	94	30.5	31	75	20	44	M18×1.5	35	24	8	17	45	14	M8	M6	56.5	45	4	G3/8	16.5	9		
80	190	72	114	38	38	95	25	52	M22×1.5	40	30	10	22	45	20	M10	M8	72	45	4	G3/8	19	11.5		
100	190	72	114	38	38	114	30	52	M26×1.5	40	30	10	26	55	20	M10	M8	89	55	4	G1/2	19	17		
125	223	97	120	38	40	140	32	70	M27×2.0	54	41	13.5	27	60	27	M12	M12	110	60	6	G1/2	23	14		

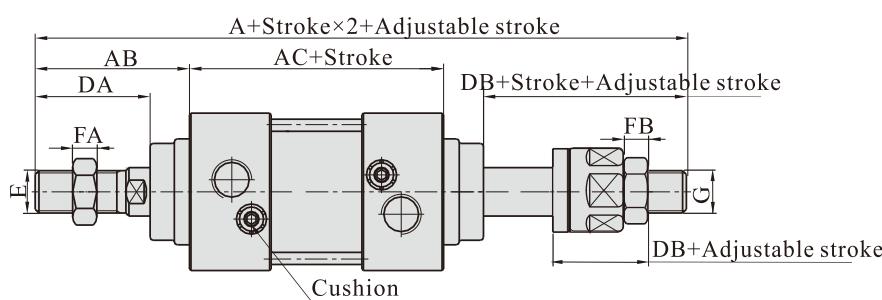
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

JSID Series($\Phi 32 \sim \Phi 125$)



Bore size\Item	A(JSID)	A(JSIJ)	AB	AC	DA	DB
32	178	171	47	84	34	27
40	186	176	51	84	38	28
50	210	195	58	94	44	29
63	210	195	58	94	44	29
80	258	241.5	72	114	52	35.5
100	258	248.5	72	114	52	42.5
125	314	286.5	97	120	70	42.5

JSIJ Series($\Phi 32 \sim \Phi 125$)



Bore size\Item	E	FA	FB	G
32	M10X1.25	6	6	M10X1.25
40	M14X1.5	8	7	M12X1.25
50	M18X1.5	11	8	M16X1.5
63	M18X1.5	11	8	M16X1.5
80	M22X1.5	13	10	M20X1.5
100	M26X1.5	13	13.5	M27X2.0
125	M27X2.0	13.5	13.5	M27X2.0

Remark:

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

Standard cylinder——JSI Series

■ List for ordering code of accessories

Accessories Bore size	Mounting accessories							
	LB	FA\FB	CA	CB	CR	TC	TCM1	TCM2
32	F-JSI32LB	F-SI32FA	F-JSI32CA	F-JSI32CB	F-JSI32CR	F-SI32TC	F-SI32TCM1	F-SI32TCM2
40	F-JSI40LB	F-SI40FA	F-JSI40CA	F-JSI40CB	F-JSI32CR	F-SI40TC	F-SI40TCM1	F-SI40TCM2
50	F-JSI50LB	F-SI50FA	F-JSI50CA	F-JSI50CB	F-JSI50CR	F-SI50TC	F-SI40TCM1	F-SI40TCM2
63	F-JSI63LB	F-SI63FA	F-JSI63CA	F-JSI63CB	F-JSI50CR	F-SI63TC	F-SI63TCM1	F-SI63TCM2
80	F-JSI80LB	F-SI80FA	F-JSI80CA	F-JSI80CB	F-JSI80CR	F-SI80TC	F-SI63TCM1	F-SI63TCM2
100	F-JSI100LB	F-SI100FA	F-JSI100CA	F-JSI100CB	F-JSI80CR	F-SI100TC	F-SI125TCM1	F-SI125TCM2
125	F-JSI125LB	F-SI125FA	F-JSI125CA	F-JSI125CB	F-JSI125CR	F-SI125TC	F-SI125TCM1	F-SI125TCM2

Accessories Bore size	Knuckle			
	I: I Knuckle	Y: Y Knuckle	F: F Knuckle	U: U Knuckle
32	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U
40	F-M14X150I	F-M14X150Y	F-M14X150F	F-M14X150U
50	F-M18X150I	F-M18X150Y	F-M18X150F	F-M18X150U
63	F-M18X150I	F-M18X150Y	F-M18X150F	F-M18X150U
80	F-M22X150I	F-M22X150Y	F-M22X150F	-
100	F-M26X150I	F-M26X150Y	F-M26X150F	F-M26X150U
125	F-M27X200I	F-M27X200Y	F-M27X200F	F-M27X200U

■ Accessory selection

Accessories Cylinder model	Mounting accessories										Knuckle			
	LB	FA	FB	CA	CB	CR	TC	TCM1	TCM2	I	Y	U	F	
JSI Standard	●	●	●	●	●	●	●	●	●	●	●	●	●	●
MB With magnet	●	●	●	●	●	●	●	●	●	●	●	●	●	●
JSID Standard	●	●	×	×	×	×	●	●	●	●	●	●	●	●
MBD With magnet	●	●	×	×	×	×	●	●	●	●	●	●	●	●
JSIJ Standard	●	●	×	×	×	×	●	●	●	●	●	●	●	●
MBJ With magnet	●	●	×	×	×	×	●	●	●	●	●	●	●	●

■ Material of accessories

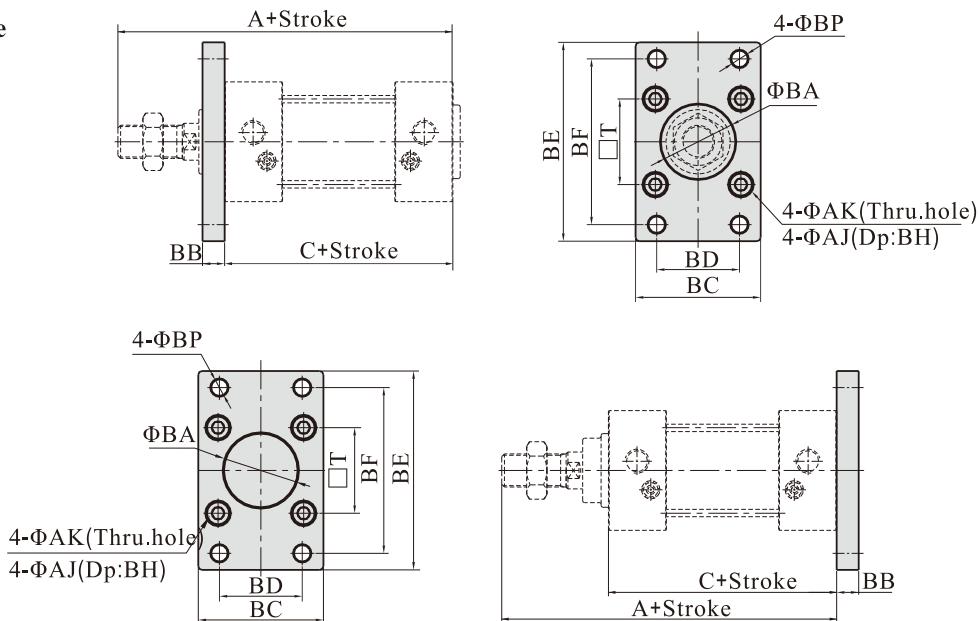
Accessories Bore size	Mounting accessories										Knuckle			
	LB	FA	FB	CA	CB	CR	TC	TCM1	TCM2	I	Y	F	U	
32~63	□	●	●	△	△	◇	◇	□	●	□	□	□	□	□
80、100	□	●	●	△	△	◇	◇	□	●	□	□	□	□	□
125	□	■	■	□	□	◇	◇	□	●	□	□	□	□	□

●—Aluminum alloy, ■—Cast steel, □—Nodular cast iron, △—FC25, □—Carbon steel.

Standard cylinder——JSI Series

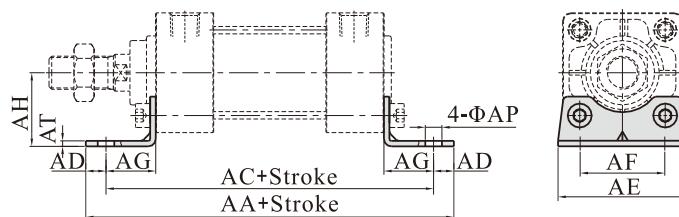
■ Accessories Dimensions

FA\FB type



Bore size\Item	A	C	AJ	AK	BA	BB	BC	BD	BE	BF	BH	BP	T
32	131	84	11	6.5	30.5	10	47	32	80	64	6.5	7	32.5
40	135	84	11	6.5	35.5	10	53	36	90	72	6.5	9	38
50	152	94	14	9	40.5	12	65	45	108	90	8.5	9	46.5
63	152	94	14	9	45.5	12	75	50	118	100	8.5	9	56.5
80	186	114	17	11	45.5	16	95	63	150	126	10.5	12.5	72
100	186	114	17	11	55.5	16	115	75	176	150	10.5	14.5	89
125	217	120	19	13	60.5	20	138	102	216	180	12.5	14	110

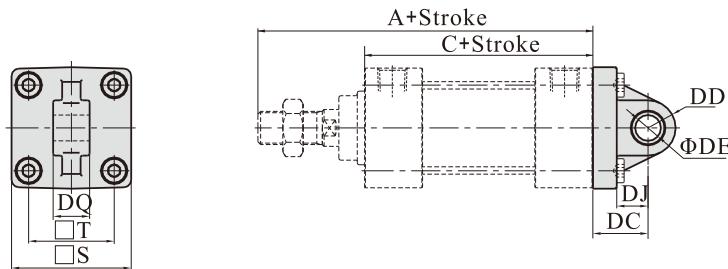
LB type



Bore size\Item	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	146	128	9	50	32	22	30	7	3
40	154	132	11	55	38	24	33	9	3
50	170	148	11	70	46	27	40	9	3
63	176	148	14	80	56	27	45	12	4
80	202	174	14	100	72	30	55	12	5
100	210	178	16	120	89	32	65	14	5
125	250	210	20	136	90	45	81	14	8

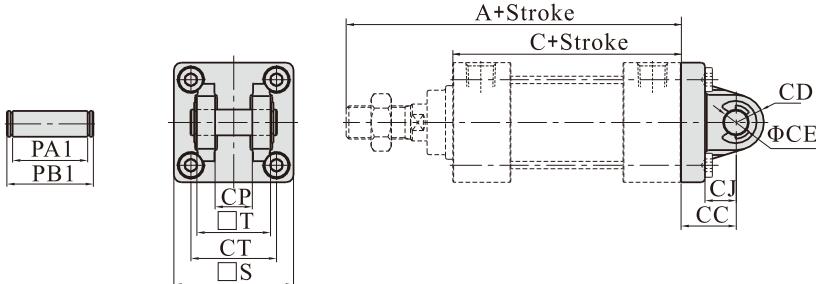
Standard cylinder——JSI Series

CA type



Bore size\Item	A	C	S	T	DC	DD	DE	DJ	DQ
32	131	84	46	32.5	23	10.5	10	13	13.8
40	135	84	52	38	23	11	10	13	13.8
50	152	94	65	46.5	30	15	14	17	19.8
63	152	94	75	56.5	30	15	14	17	19.8
80	186	114	95	72	42	17.5	22	27	29.8
100	186	114	114	89	42	17.5	22	27	29.8
125	217	120	136	110	50	28	25	28	31.8

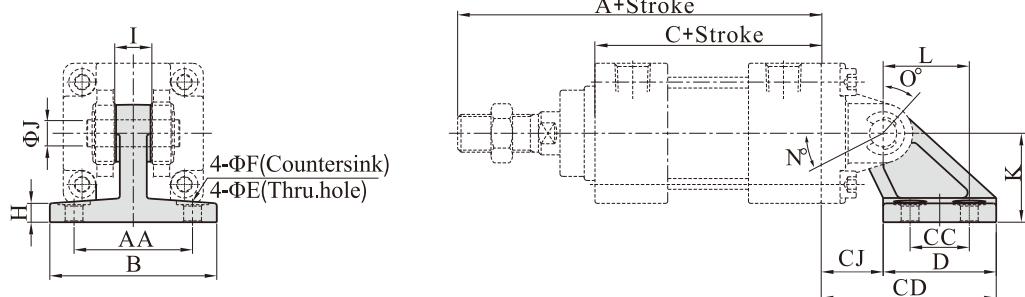
CB type



Bore size\Item	A	C	CC	CD	CE	CJ	CP	CT	PA1	PB1	S	T
32	131	84	23	10.5	10	14	14.2	32.5	28.8	34.6	46	28
40	135	84	23	11	10	14	14.2	38	28.8	34.6	52	28
50	152	94	30	15	14	18	20.2	46.5	40.8	47	65	40
63	152	94	30	15	14	18	20.2	56.5	40.8	47	75	40
80	186	114	42	20	22	27	30.2	72	60.8	69.2	95	60
100	186	114	42	20	22	27	30.2	89	60.8	69.2	114	60
125	217	120	50	25	25	32	32.2	110	64.8	73.2	136	64

Standard cylinder——JSI Series

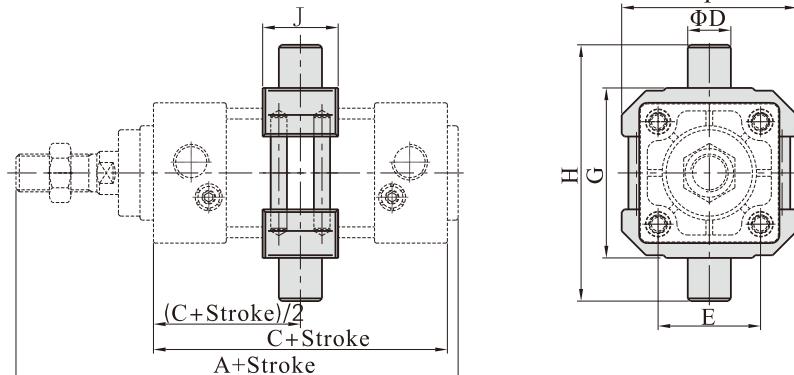
CR type



Bore size\Item	A	AA	B	C	CC	CD	CJ	D	E	F	H	I	J	K	L	N	O	N+O+90°
32	131	44	62	84	22	65	23	42	6.6	12	7	13.8	10	33	32	25	45	160
40	135	44	62	84	22	65	23	42	6.6	12	7	13.8	10	33	32	25	45	160
50	152	60	81	94	30	84.5	31.5	53	9	15	8	19.8	14	45	43	40	60	190
63	152	60	81	94	30	84.5	31.5	53	9	15	8	19.8	14	45	43	40	60	190
80	186	86	111	114	45	120	47	73	11	18	10	29.8	22	65	64	30	55	175
100	186	86	111	114	45	120	47	73	11	18	10	29.8	22	65	64	30	55	175
125	217	110	136	120	60	143	53	90	13.5	20	14	31.8	25	75	78	30	50	170

[Note] CR can't be used alone, it must be used with CB.

TC type



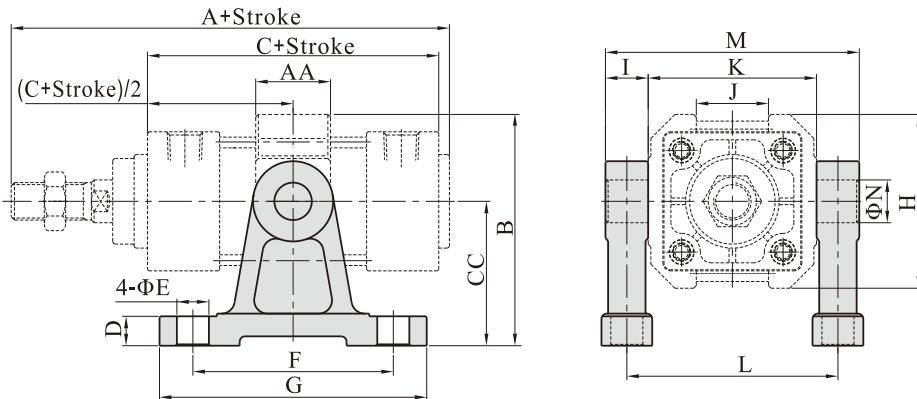
Bore size\Item	A	C	D	E	F	G	H	J
32	135	84	12	32.5	52	50	74	22
40	139	84	16	38	65	63	95	28
50	156	94	16	46.5	75	75	107	28
63	156	94	20	56.5	90	90	130	30
80	190	114	20	72	112	110	150	32
100	190	114	25	89	135	132	182	38
125	223	120	25	110	170	160	210	40

[Note] The TC accessory has been installed on the barrel of cylinder before it worked off, and the position of the accessories can not be adjusted arbitrarily.

If consumer orders the TC solely, he will not install it on the barrel of standard cylinder directly.

Standard cylinder——JSI Series

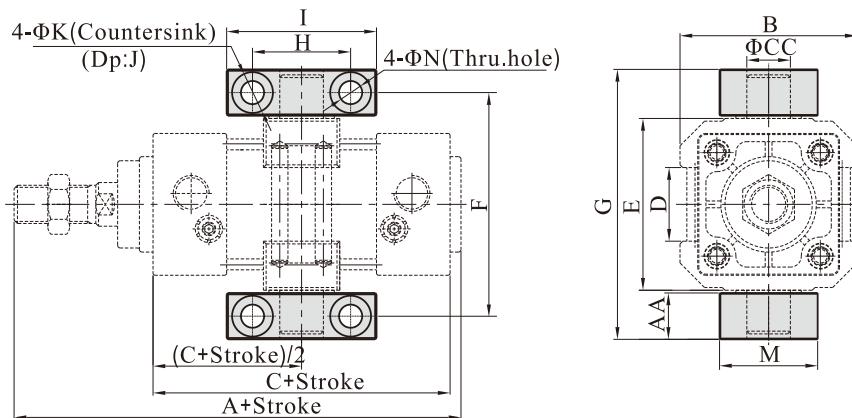
TCM1 type



Bore size\Item	B	A	AA	C	CC	D	E	F	G	H	I	J	K	L	M	N
32	66	135	22	84	40	11	9	60	80	52	12	20	50	62	77	12
40	86.5	139	28	84	54	11	12	75	100	65	16	27	63	79	98	16
50	91.5	156	28	94	54	11	12	75	100	75	16	31	75	91	110	16
63	115	156	30	94	70	11	12	85	110	90	20	42	90	110	133	20
80	126	190	32	114	70	11	12	85	110	112	20	54	110	130	153	20
100	157.5	190	38	114	90	19	18	115	155	135	25	68	132	157	185	25
125	175	223	40	120	90	19	18	115	155	170	25	80	160	185	213	25

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

TCM2 type



Bore size\Item	A	AA	B	C	CC	D	E	F	G	H	I	J	K	M	N
32	135	14	52	84	12	20	50	66	80	32	46	6.8	11	30	7
40	139	17	65	84	16	27	63	82	99	36	55	9	15	36	9
50	156	17	75	94	16	31	75	94	111	36	55	9	15	36	9
63	156	20.5	90	94	20	42	90	113.5	134	42	65	11	18	40	11
80	190	20.5	112	114	20	54	110	133.5	154	42	65	11	18	40	11
100	190	24.5	135	114	25	68	132	159.5	184	50	75	14	20	50	14
125	223	24.5	170	120	25	80	160	187.5	212	50	75	14	20	50	14

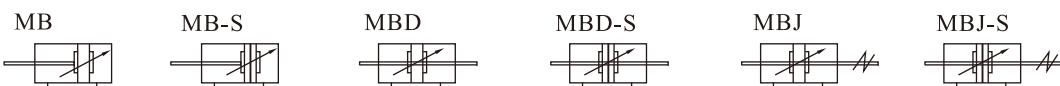
[Note] The installation position of the accessories can not be adjusted arbitrarily.

Standard cylinder——MB Series

Product feature

1. JIS standard cylinder and is a cylindrical aluminum barrel cylinder.
2. The seal of piston adopts heterogeneous two way seal structure. It's dimension is tight and it has the function of greasel reservation.
3. The cylinder barrel is aluminum profile with hard anodizing treatment.
4. Compared with ISO15552 standard cylinder, the cylinder of JSI series with the same cylinder diameter is shorter.
5. The buffer adjustment of cylinder is smooth and steady.
6. Cylinders and mounting accessories for installation with several specifications are optional.

Symbol



Specification

Bore size(mm)	32	40	50	63	80	100	125		
Acting type	Double acting								
Fluid	Air(to be filtered by 40μm filter element)								
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					30~500			
Stroke tolerance	0~250 ^{+1.0} ₀ 251~1000 ^{+1.5} ₀ 1001~1500 ^{+2.0} ₀								
Cushion type	Variable cushion								
Adjustable cushion stroke	24			32	37.5	40			
Port size [Note1]	G1/8	G1/4	G3/8		G1/2				

[Note1] The standard thread type is G thread, Please control us for other thread type.

Standard Stroke

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

[Note] Consult us for non-standard stroke.

Standard cylinder——MB Series

■ Ordering code

MB - 63 × 50	-S - FA - □					
MBD - 63 × 50	-S - FA - □					
MBJ - 63 × 50 - 20 - S - FA - □						
①	②	③	④	⑤	⑥	⑦

⑥ Mounting style

Mounting style	Adaptable series
Blank: No accessories	
LB: LB type	MB
FA: FA type	MBD
TC: TC type	MBJ
FB: FB type	
CA: CA type	
CB: CB type	MB
CR: CR type	

⑤ Magnet

Blank: Without magnet
S: With magnet

⑦ Thread type

Blank: G thread
PT: PT thread

① Model

MB: Double acting type

MBD: Double rod type

MBJ: Adjustable stroke type

② Bore size

32 40 50 63
80 100 125

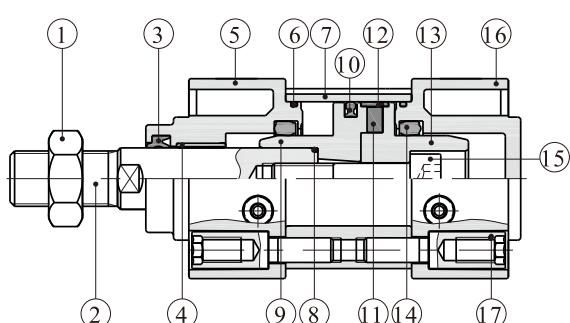
③ Stroke

Refer to stroke table for details

④ Adjustable stroke

Series	Adjustable stroke
MBJ series	10: 10mm
	20: 20mm
	30: 30mm
	40: 40mm
	50: 50mm
	75: 75mm
Others series	100: 100mm
	No this code

■ Inner structure and material of major parts

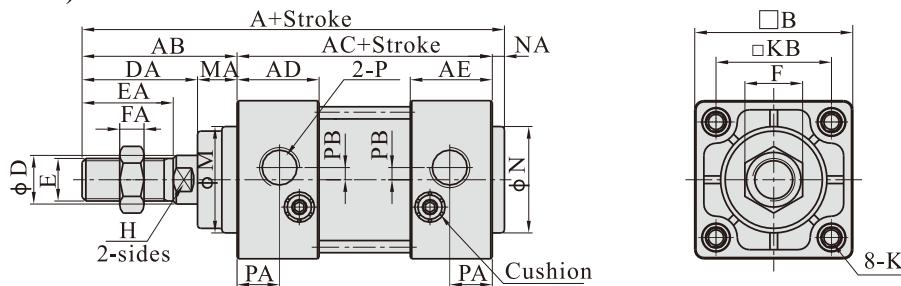


NO.	Item	Material
1	Rod nut	Carbon steel\Stainless steel
2	Piston rod	Carbon steel with 20μm chrome plated
3	Front cover packing	NBR
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	O-ring	NBR
7	Barrel	Aluminum alloy
8	O-ring	NBR
9	Piston	Aluminum alloy
10	Piston seal	NBR
11	Magnet	Plastic
12	Wear ring	Wear resistant material
13	Magnet holder	Aluminum alloy
14	Buffer gasket	NBR
15	Screw	Carbon steel
16	Back cover	Aluminum alloy
17	Tie-rod nut	Carbon steel

Standard cylinder——MB Series

Dimensions

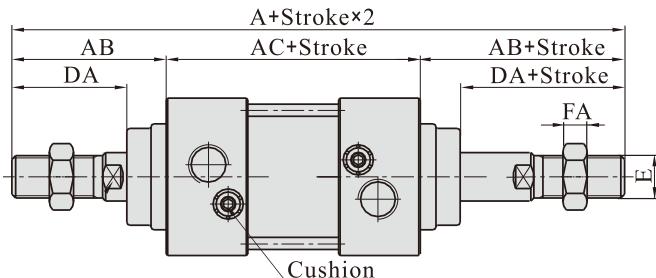
MB Series($\Phi 32 \sim \Phi 125$)



Item Bore size	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	M	MA	K		K		KB	N	NA	P	PA	PB
																(No TC)	(With TC)	KB	N	NA	P	PA	PB		
32	135	47	84	27	27	46	12	34	M10×1.25	22	17	6	10	30	13	M6	M5	32.5	30	4	G1/8	13	4		
40	139	51	84	27	27	52	16	38	M14×1.5	30	19	7	14	35	13	M6	M5	38	35	4	G1/4	14	4		
50	156	58	94	31.5	31	65	20	44	M18×1.5	35	24	8	17	40	14	M8	M6	46.5	40	4	G1/4	15.5	5		
63	156	58	94	30.5	31	75	20	44	M18×1.5	35	24	8	17	45	14	M8	M6	56.5	45	4	G3/8	16.5	9		
80	190	72	114	38	38	95	25	52	M22×1.5	40	30	10	22	45	20	M10	M8	72	45	4	G3/8	19	11.5		
100	190	72	114	38	38	114	30	52	M26×1.5	40	30	10	26	55	20	M10	M8	89	55	4	G1/2	19	17		
125	223	97	120	38	40	140	32	70	M27×2.0	54	41	13.5	27	60	27	M12	M12	110	60	6	G1/2	23	14		

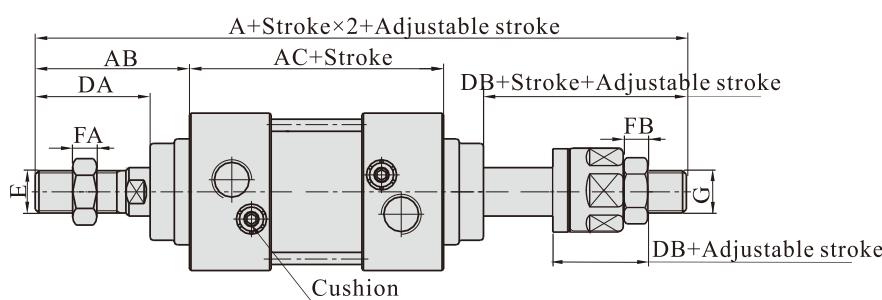
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

MBD Series($\Phi 32 \sim \Phi 125$)



Bore size\Item	A(MBD)	A(MBJ)	AB	AC	DA	DB
32	178	171	47	84	34	27
40	186	176	51	84	38	28
50	210	195	58	94	44	29
63	210	195	58	94	44	29
80	258	241.5	72	114	52	35.5
100	258	248.5	72	114	52	42.5
125	314	286.5	97	120	70	42.5

MBJ Series($\Phi 32 \sim \Phi 125$)



Bore size\Item	E	FA	FB	G
32	M10X1.25	6	6	M10X1.25
40	M14X1.5	8	7	M12X1.25
50	M18X1.5	11	8	M16X1.5
63	M18X1.5	11	8	M16X1.5
80	M22X1.5	13	10	M20X1.5
100	M26X1.5	13	13.5	M27X2.0
125	M27X2.0	13.5	13.5	M27X2.0

Remark:

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

Accessories

MB series's accessories are all with JSI series, please refer to page 43~47 for details.

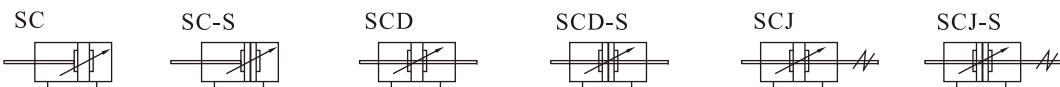
Standard cylinder——SC Series



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 to guarantee the normal operation of cylinder at 150°C.

Symbol



Specification

Bore size(mm)	32	40	50	63	80	100	125	160
Acting type	Double acting							
Fluid	Air(to be filtered by 40μm filter element)							
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)							
Proof pressure	1.5MPa(215psi)(15bar)							
Temperature	-20~70°C							
Speed range	30~800 mm/s							
Stroke tolerance	0 ~ 250 ^{+1.0} ₀		251 ~ 1000 ^{+1.5} ₀		1001 ~ 2000 ^{+2.0} ₀			
Cushion type	Variable cushion							
Cushion stroke	21			28		29	28	29
Port size [Note1]	G1/8	G1/4		G3/8		G1/2		G3/4

[Note1] The standard thread type is G thread, Please control us for other thread type.

Standard Stroke

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

[Note] Consult us for non-standard stroke.

Standard cylinder——SC Series

■ Ordering code

SC - 63 × 50	-S - FA - H - □
SCD - 63 × 50	-S - FA - H - □
SCJ - 63 × 50 - 20 - S - FA - H - □	
①	②
③	④
⑤	⑥
⑦	⑧

① Model

SC: Double acting type

SCD: Double rod type

SCJ: Adjustable stroke type

② Bore size

32 40 50 63 80

100 125 160

③ Stroke

Refer to stroke table for details

⑥ Mounting style

Mounting style	Adaptable series
Blank: No accessories	
LB: LB type	SC
FA: FA type	SCD
TC: TC type	SCJ
FB: FB type	
CA: CA type	SC
CB: CB type	

[Note1] TC are used with TCM1.

⑤ Magnet

Blank: Without magnet

S: With magnet

⑦ Seals material

Blank: NBR

H: Viton

T: TPU

⑧ Thread type

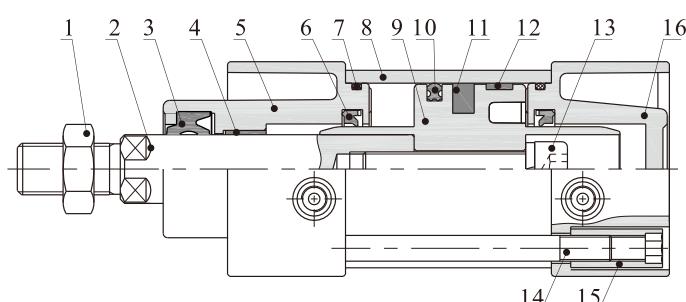
Blank: G thread

PT: PT thread

④ Adjustable stroke

Series	Adjustable stroke
	10: 10mm
	20: 20mm
	30: 30mm
SCJ series	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

■ Inner structure and material of major parts

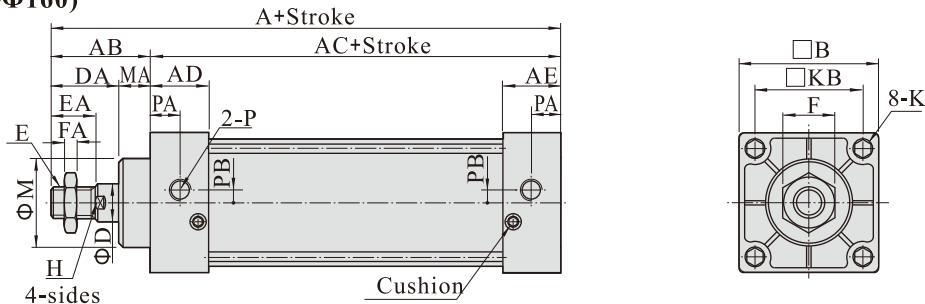


NO.	Item	Material
1	Rod nut	Carbon steel
2	Piston rod	Carbon steel with 20μm chrome plated
3	Front cover packing	TPU
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	Cushing O-ring	NBR
7	Cushion gasket	TPU
8	Barrel	Aluminum alloy
9	Piston	Aluminum alloy
10	Piston seal	NBR
11	Magnet	Plastic
12	Wear ring	Wear resistant material
13	Bolt	Carbon steel
14	Tie-rod	Carbon steel
15	Tie-rod nut	Carbon steel
16	Back cover	Aluminum alloy

Standard cylinder——SC Series

Dimensions

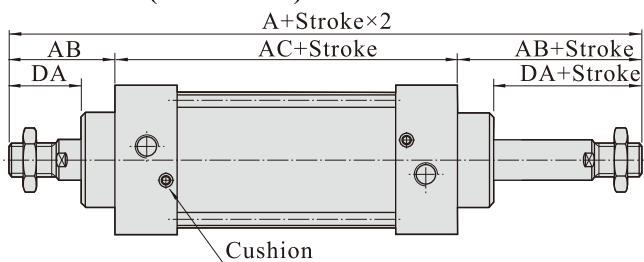
SC Series($\Phi 32 \sim \Phi 160$)



Bore size\Item	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	K	KB	M	MA	P	PA	PB
32	140	47	93	27.5	27.5	45	12	32	M10×1.25	22	17	6	10	M6×1.0	33	28	15	G1/8	13.5	3.5
40	142	49	93	27.5	27.5	50	16	34	M12×1.25	24	17	7	13	M6×1.0	37	32	15	G1/4	13.5	6
50	150	57	93	27.5	27.5	62	20	42	M16×1.5	32	23	8	17	M6×1.0	47	38	15	G1/4	13.5	8.5
63	153	57	96	27.5	27.5	75	20	42	M16×1.5	32	23	8	17	M8×1.25	56	38	15	G3/8	13.5	9.5
80	182	75	107	33	33	94	25	54	M20×1.5	40	26	10	22	M10×1.5	70	47	21	G3/8	16.5	10
100	188	75	113	33	33	112	25	54	M20×1.5	40	26	10	22	M10×1.5	84	47	21	G1/2	16.5	11
125	203	88	115	38	38	138	32	68	M27×2.0	54	41	13.5	27	M12×1.75	104	52	20	G1/2	19	10
160	239	113	126	38	38	174	40	88	M36×2.0	72	55	18	36	M16×2.0	134	62	25	G3/4	19	15

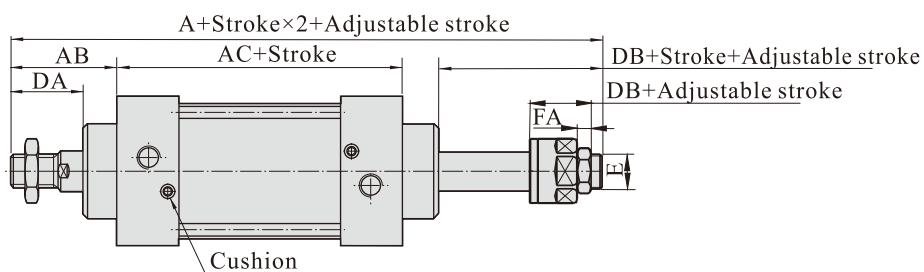
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

SCD Series($\Phi 32 \sim \Phi 160$)



Bore size\Item	A(SCD)	A(SCJ)	AB	AC	DA
32	187	182	47	93	32
40	191	185	49	93	34
50	207	194	57	93	42
63	210	197	57	96	42
80	257	238.5	75	107	54
100	263	244.5	75	113	54
125	291	265.5	88	115	68
160	352	332	113	126	88

SCJ Series($\Phi 32 \sim \Phi 160$)



Bore size\Item	DB	E	FA
32	27	M10X1.25	6
40	28	M12X1.25	7
50	29	M16X1.5	8
63	29	M16X1.5	8
80	35.5	M20X1.5	10
100	35.5	M20X1.5	10
125	42.5	M27X2.0	13.5
160	68	M36X2.0	18

Remark:

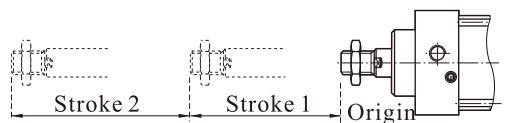
1. The dimensions of magnet type cylinder are the same as non-magnet type cylinder.
2. The unmarked dimension is the same as SC standard type.

Standard cylinder——SCT Series



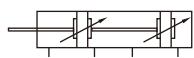
Product feature

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. Piston rod can be positioned in several positions in the whole action process.
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 to guarantee the normal operation of cylinder at 150°C.

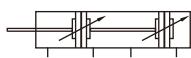


Symbol

SCT



SCT-S



Specification

Bore size(mm)	32	40	50	63	80	100
Acting type	Double acting					
Fluid	Air(to be filtered by 40μm filter element)					
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)					
Proof pressure	1.5MPa(215psi)(15bar)					
Temperature	-20~70°C					
Speed range	30~800 mm/s					
Stroke tolerance	0 ~ 250 ^{+1.0} ₀		251 ~ 1000 ^{+1.5} ₀		1001 ~ 2000 ^{+2.0} ₀	
Cushion type	Variable cushion					
Cushion stroke	21			28		29
Port size [Note1]	G1/8	G1/4	G3/8			G1/2

[Note1] The standard thread type is G thread, Please control us for other thread type.

Standard Stroke

Bore size(mm)	Standard stroke	Max.std stroke	Max. stroke
32	25 50 75 100 125 150 175 200 250 300 350 400 450 500	500	800
40	25 50 75 100 125 150 175 200 250 300 350 400 450 500	500	800
50	25 50 75 100 125 150 175 200 250 300 350 400 450 500	500	800
63	25 50 75 100 125 150 175 200 250 300 350 400 450 500	500	800
80	25 50 75 100 125 150 175 200 250 300 350 400 450 500	500	800
100	25 50 75 100 125 150 175 200 250 300 350 400 450 500	500	800

[Note] If the stroke is ≥800mm within the maximum stroke scope, it is treated as non-standard one.

Please contact the company for other special strokes.

Standard cylinder——SCT Series

■ Ordering code

SCT- 63×50×50-S-LB-H -□

(1) (2) (3) (4) (5) (6) (7) (8)

⑤ Magnet

Blank: Without magnet
S: With magnet

⑥ Mounting style

Blank: No accessories
LB: LB type
FA: FA type
FB: FB type
CA: CA type
CB: CB type

⑦ Seals material

Blank: NBR
H: Viton
T: TPU

⑧ Thread type

Blank: G thread
PT: PT thread

① Model

SCT : Double acting Multi-position type

② Bore size

32 40 50 63 80 100

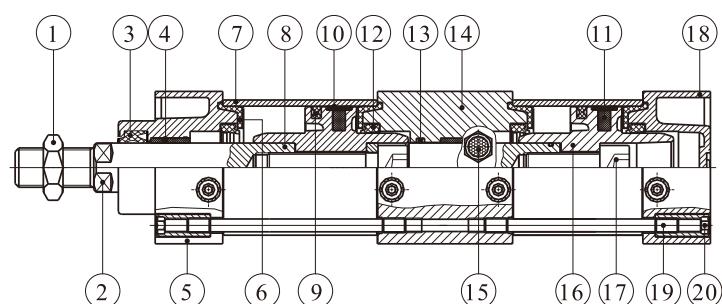
③ Stroke I

Refer to stroke table for details

④ Stroke II

Refer to stroke table for details

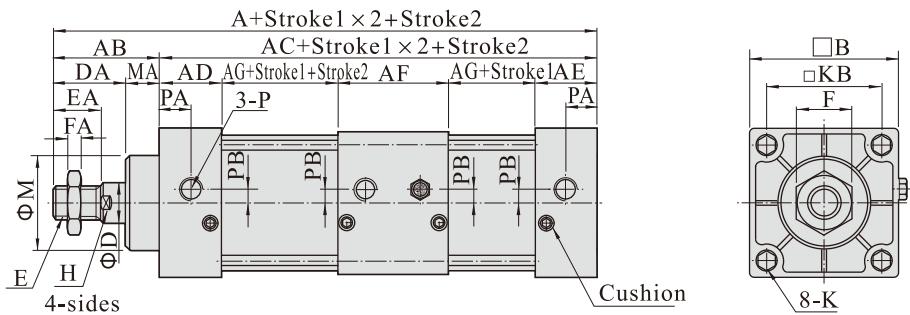
■ Inner structure and material of major parts



NO.	Item	Material
1	Rod nut	Carbon steel
2	Piston rod	Carbon steel with 20 μm chrome plated
3	Packing	TPU
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	Cushing O-ring	TPU
7	Barrel	Aluminum alloy
8	Rod O-ring	NBR
9	Piston seal	NBR
10	Wear ring	Wear resistant material
11	Magnet	Plastic
12	Gasket	NBR
13	O-ring	NBR
14	Joint seat	Aluminum alloy
15	Silencer	
16	Piston	Aluminum alloy
17	Bolt	Carbon steel
18	Back cover	Aluminum alloy
19	Tie-rod	Carbon steel
20	Tie-rod nut	Carbon steel

Standard cylinder——SCT Series

Dimensions



Bore size\Item	A	AB	AC	AD	AE	AF	AG	B	D	DA	E	EA	F	FA	H	K	KB	M	MA	P	PA	PB
32	233	47	186	27.5	27.5	55	38	45	12	32	M10×1.25	22	17	6	10	M6×1.0	33	28	15	G1/8	14	5.5
40	235	49	186	27.5	27.5	55	38	50	16	34	M12×1.25	24	17	7	13	M6×1.0	37	32	15	G1/4	15	6
50	243	57	186	27.5	27.5	55	38	62	20	42	M16×1.5	32	23	8	17	M6×1.0	47	38	15	G1/4	17	8.5
63	249	57	192	27.5	27.5	55	41	75	20	42	M16×1.5	32	23	8	17	M8×1.25	56	38	15	G3/8	15	9.5
80	296	75	221	33	33	73	41	94	25	54	M20×1.5	40	26	10	22	M10×1.5	70	47	21	G3/8	19.5	10
100	308	75	233	33	33	73	47	112	25	54	M20×1.5	40	26	10	22	M10×1.5	84	47	21	G1/2	16.5	11

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

Standard cylinder——SC Series

■ List for ordering code of accessories

Accessories Bore size	Mounting accessories					
	LB	FA\FB	CA	CB	TC	TCM1
32	F-SC32LB	F-SC32FA	F-SC32CA	F-SC32CB	F-SC32TC	F-SI40TCM1
40	F-SC40LB	F-SC40FA	F-SC40CA	F-SC40CB	F-SC40TC	F-SC40TCM1
50	F-SC50LB	F-SC50FA	F-SC50CA	F-SC50CB	F-SC50TC	F-SC40TCM1
63	F-SC63LB	F-SC63FA	F-SC63CA	F-SC63CB	F-SC63TC	F-SC40TCM1
80	F-SC80LB	F-SC80FA	F-SC80CA	F-SC80CB	F-SC80TC	F-SC80TCM1
100	F-SC100LB	F-SC100FA	F-SC100CA	F-SC100CB	F-SC100TC	F-SC80TCM1
125	F-SC125LB	F-SC125FA	F-SC125CA	F-SC125CB	F-SC125TC	F-SC125TCM1
160	F-SC160LB	F-SC160FA	F-SC160CA	F-SC160CB	F-SC160TC	F-SC160TCM1

Accessories Bore size	Knuckle				Sensor switch	
	I: I Knuckle	Y: Y Knuckle	F: F Knuckle	U: U Knuckle	CS1-G	DS1-G
32	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U	CMSG	DS1-G
40	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U		
50	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
63	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
80	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
100	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
125	F-M27X200I	F-M27X200Y	F-M27X200F	F-M27X200U		
160	F-M36X200I	F-M36X200Y	F-M36X200F	F-M36X200U		

■ Accessory selection

Cylinder model	Mounting accessories							Knuckle				Sensor switch	
	LB	FA	FB	CA	CB	TC	TCM1	I	Y	U	F	CS1-G	DS1-G
SC	Standard	●	●	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	●	●	●	●	●	●	●	●	●
SCD	Standard	●	●	✗	✗	✗	●	●	●	●	●	✗	✗
	With magnet	●	●	✗	✗	✗	●	●	●	●	●	●	●
SCJ	Standard	●	●	✗	✗	✗	●	●	●	●	●	✗	✗
	With magnet	●	●	✗	✗	✗	●	●	●	●	●	●	●
SCT	Standard	●	●	●	●	●	✗	✗	●	●	●	✗	✗
	With magnet	●	●	●	●	●	✗	✗	●	●	●	●	●

■ Material of accessories

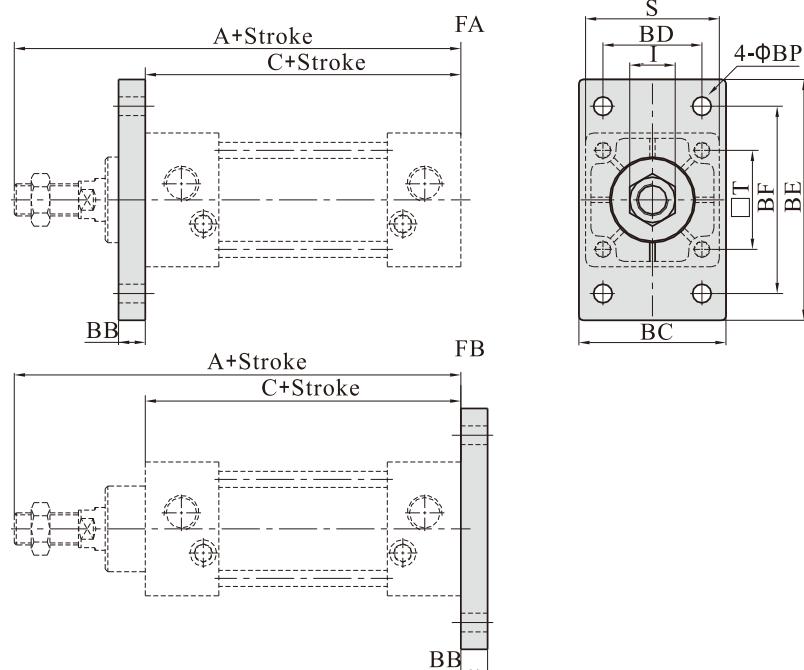
Accessories Bore size	Mounting accessories							Knuckle			
	LB	FA	FB	CA	CB	TC	TCM1	I	Y	F	U
32~100	□	●	●	◇	◇	◇	◇	□	□	□	□
125~160	◇	◇	◇	◇	◇	◇	◇	□	□	—	□

●—Aluminum alloy, ■—Cast steel, ◇—Nodular cast iron, □—Carbon steel.

Standard cylinder——SC Series

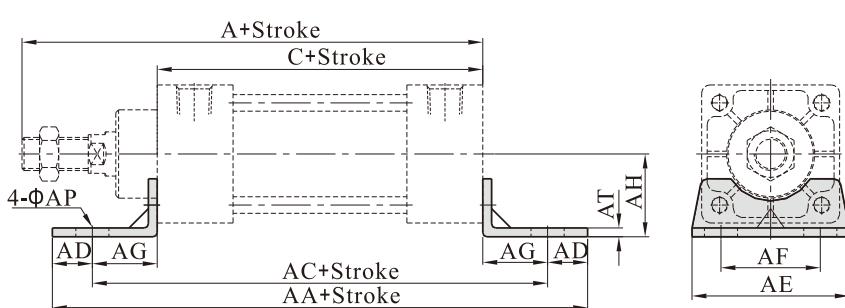
■ Accessories Dimensions

FA\FB type



Bore size\Item	A	C	BB	BC	BD	BE	BF	BP	I	S	T
32	140	93	10	47	33	80	58	7	17	45	33
40	142	93	10	53	36	90	70	7	17	50	37
50	150	93	10	65	47	104	86	9	23	62	47
63	153	96	12	75	56	118	98	9	23	75	56
80	182	107	16	95	70	140	119	11	26	94	70
100	188	113	16	115	84	160	138	11	26	112	84
125	203	115	20	135	104	196	168	14	41	136	104
160	239	126	20	173	134	248	212	18	55	174	134

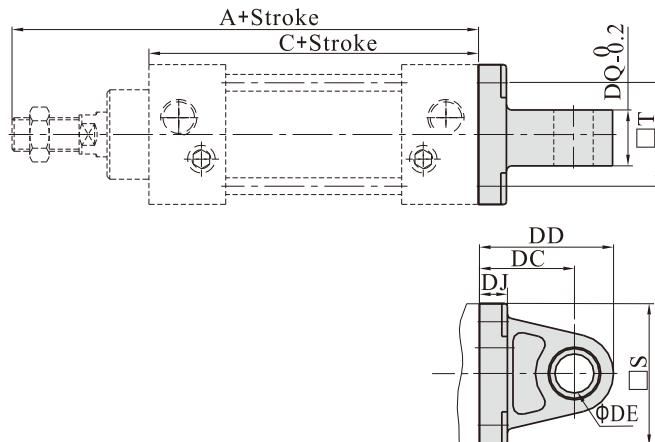
LB type



Bore size\Item	A	C	AA	AC	AD	AE	AF	AG	AH	AP	AT
32	140	93	153	134	9.5	50	33	20.5	28	9	3
40	142	93	169	140	14.5	57	36	23.5	30	12	3
50	150	93	173	149	12	68	47	28	36.5	12	3
63	153	96	184	158	13	80	56	31	41	12	3
80	182	107	199	167	16	97	70	30	49	14	4
100	188	113	209	173	18	112	84	30	57	14	4
125	203	115	221	185	18	136	104	35	70	17	6
160	239	126	246	206	20	174	134	40	91	17	8

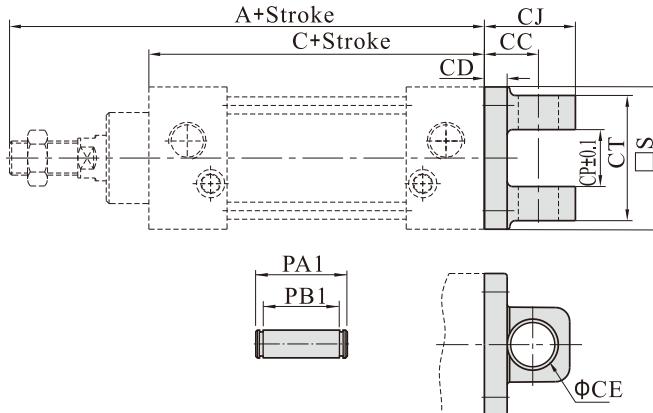
Standard cylinder——SC Series

CA type



Bore size\Item	A	C	DC	DD	DE	DJ	DQ	S	T
32	140	93	34	44.5	12	9	16	45	33
40	142	93	34	45.5	14	9	20	49	37
50	150	93	34	46	14	10	20	61	47
63	153	96	34	46.5	14	10	20	74	56
80	182	107	48	64.5	20	14	32	93	70
100	188	113	48	65	20	14	32	111	84
125	203	115	32	52	20	17	31.7	135	104
160	239	126	40	68	28	19.5	39.7	173	134

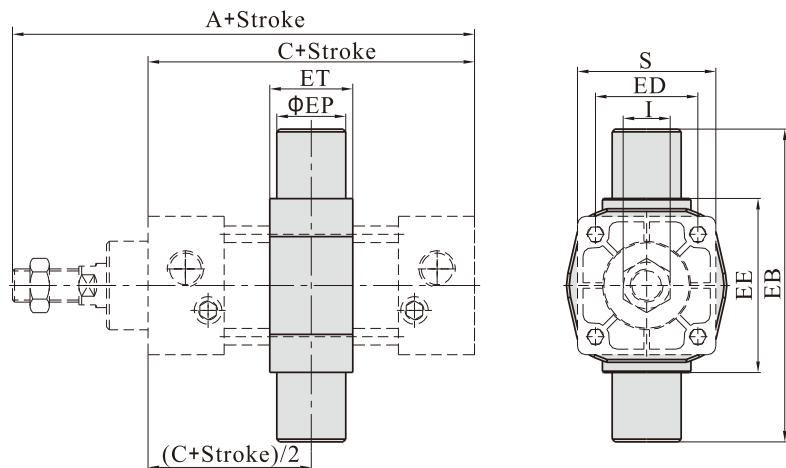
CB type



Bore size\Item	A	C	S	CC	CD	CE	CJ	CP	CT	PA1	PB1
32	140	93	45	19	9	12	29.5	16.3	32	39	32.8
40	142	93	49	19	9	14	30.5	20.3	44	51	44.8
50	150	93	61	19	10	14	31	20.3	52	59	52.8
63	153	96	74	19	10	14	31.5	20.3	52	59	52.8
80	182	107	93	32	14	20	48.5	32.3	64	73	64.8
100	188	113	111	32	14	20	49	32.3	64	73	64.8
125	203	115	135	32	14	20	52	32.1	64	73	64.8
160	239	126	173	40	15	28	68	40.1	80	90.2	80.8

Standard cylinder——SC Series

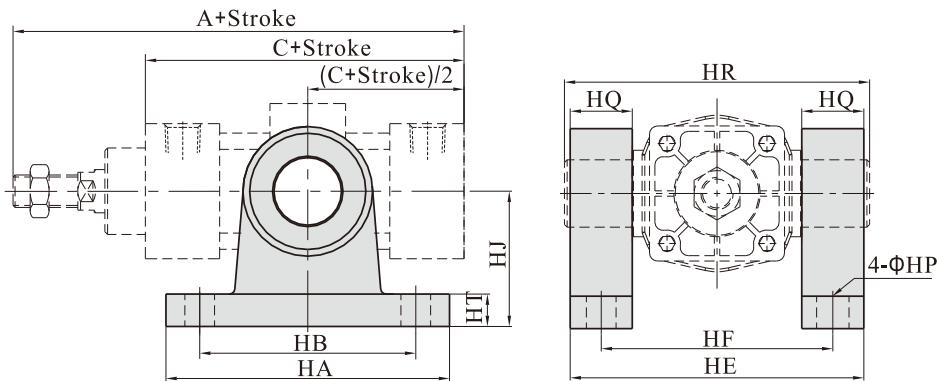
TC type



Bore size\Item	A	C	EB	ED	EE	EP	ET	I	S
32	140	93	87	33	55	16	22	17	45
40	142	93	113	37	63	25	28	17	50
50	150	93	126	47	76	25	28	23	62
63	153	96	138	56	88	25	30	23	75
80	182	107	164	70	114	25	32	26	94
100	188	113	182	84	132	25	38	26	112
125	203	115	208	104	158	25	40	41	136
160	239	126	272	134	200	36	46	55	174

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

TCM1 type



Bore size\Item	A	C	HA	HB	HE	HF	HP	HQ	HR	HT	JH
32	140	93	100	75	90	71	12	16	87	11	54
40	142	93	103	80	109	86	11	23	113	12	50
50	150	93	103	80	122	99	11	23	126	12	50
63	153	96	103	80	134	111	11	23	138	12	50
80	182	107	110	85	160	137	13	23	164	12	70
100	188	113	110	85	178	155	13	23	182	12	70
125	203	115	145	105	211	183	18	25	208	20	85
160	239	126	185	140	272	236	22	36	272	25	130

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

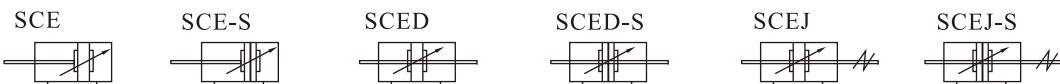
Standard cylinder——SCE Series



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 oil reservation.
3. It is no tie rod cylinder. The cylinder barrel is aluminum profile with hard anodizing treatment.
4. Compared with ISO15552 standard cylinder, SCE series cylinder with the same bore size is shorter.
5. The buffer adjustment of cylinder is smooth and steady.
6. Mounting accessories are the same as SC series.
7. The seal material with high temperature resistance is adopted to guarantee the normal operation of cylinder at 150°C.

Symbol



Specification

Bore size(mm)	32	40	50	63	80	100
Acting type	Double acting					
Fluid	Air(to be filtered by 40μm filter element)					
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)					
Proof pressure	1.5MPa(215psi)(15bar)					
Temperature	-20~70°C					
Speed range	30~800 mm/s					
Stroke tolerance	0 ~ 250 ^{+1.0} ₀		251 ~ 1000 ^{+1.5} ₀		1001 ~ 2000 ^{+2.0} ₀	
Cushion type	Variable cushion					
Cushion stroke	21			28		29
Port size [Note1]	G1/8	G1/4	G3/8		G1/2	

[Note1] The standard thread type is G thread, Please control us for other thread type.

Standard Stroke

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

[Note] Consult us for non-standard stroke.

Standard cylinder——SCE Series

■ Ordering code

SCE - 63 × 50	-S - FA - H - □
SCED - 63 × 50	-S - FA - H - □
SCEJ - 63 × 50 - 20 - S - FA - H - □	

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Model

SCE: Double acting type

SCED: Double rod type

SCEJ: Adjustable stroke type

② Bore size

32 40 50 63
80 100

③ Stroke

Refer to stroke table for details

⑥ Mounting style

Mounting style	Adaptable series
Blank: No accessories	SC
LB: LB type	SCD
FA: FA type	SCJ
FB: FB type	
CA: CA type	SC
CB: CB type	

[Note1] TC are used with TCM1.

⑤ Magnet

Blank: Without magnet

S: With magnet

⑦ Seals material

Blank: NBR

H: Viton

T: TPU

⑧ Thread type

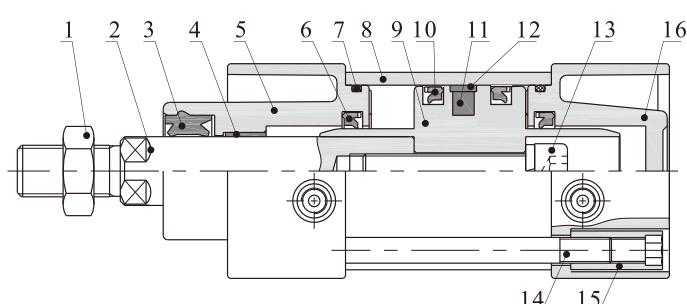
Blank: G thread

PT: PT thread

④ Adjustable stroke

Series	Adjustable stroke
	10: 10mm
	20: 20mm
	30: 30mm
SCEJ series	40: 40mm
	50: 50mm
	75: 75mm
	100: 100mm
Others series	No this code

■ Inner structure and material of major parts

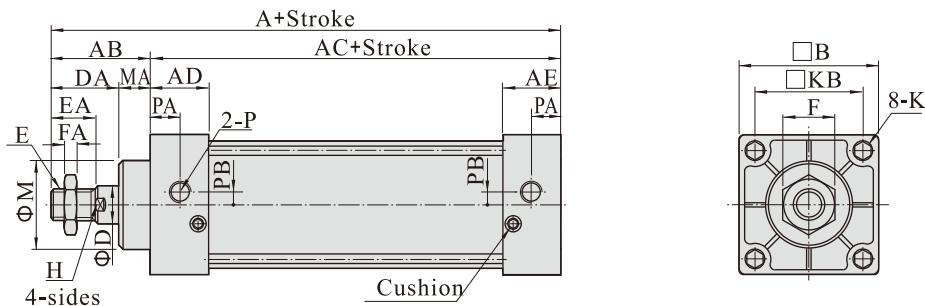


NO.	Item	Material
1	Rod nut	Carbon steel
2	Piston rod	Carbon steel with 20μm chrome plated
3	Front cover packing	TPU
4	Bushing	Wear resistant material
5	Front cover	Aluminum alloy
6	Cushing O-ring	NBR
7	Cushion gasket	TPU
8	Barrel	Aluminum alloy
9	Piston	Aluminum alloy
10	Piston seal	NBR
11	Magnet	Plastic
12	Wear ring	Wear resistant material
13	Bolt	Carbon steel
14	Tie-rod	Carbon steel
15	Tie-rod nut	Carbon steel
16	Back cover	Aluminum alloy

Standard cylinder——SCE Series

Dimensions

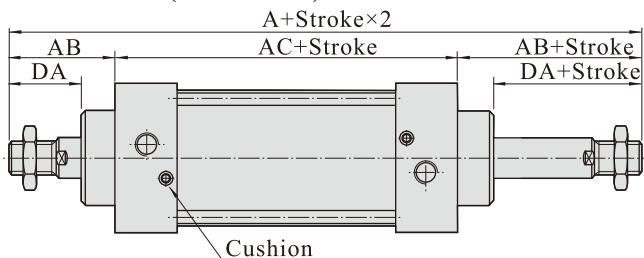
SCE Series($\Phi 32 \sim \Phi 100$)



Bore size\Item	A	AB	AC	AD	AE	B	D	DA	E	EA	F	FA	H	K	KB	M	MA	P	PA	PB
32	140	47	93	27.5	27.5	45	12	32	M10×1.25	22	17	6	10	M6×1.0	33	28	15	G1/8	13.5	3.5
40	142	49	93	27.5	27.5	50	16	34	M12×1.25	24	17	7	13	M6×1.0	37	32	15	G1/4	13.5	6
50	150	57	93	27.5	27.5	62	20	42	M16×1.5	32	23	8	17	M6×1.0	47	38	15	G1/4	13.5	8.5
63	153	57	96	27.5	27.5	75	20	42	M16×1.5	32	23	8	17	M8×1.25	56	38	15	G3/8	13.5	9.5
80	182	75	107	33	33	94	25	54	M20×1.5	40	26	10	22	M10×1.5	70	47	21	G3/8	16.5	10
100	188	75	113	33	33	112	25	54	M20×1.5	40	26	10	22	M10×1.5	84	47	21	G1/2	16.5	11

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

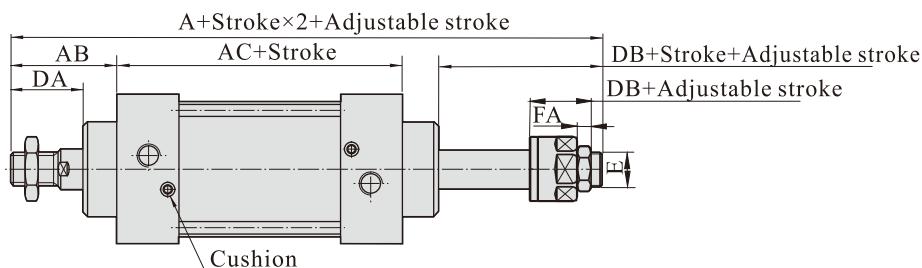
SCED Series($\Phi 32 \sim \Phi 100$)



Bore size\Item	A(SCD)	A(SCJ)	AB	AC	DA
32	187	182	47	93	32
40	191	185	49	93	34
50	207	194	57	93	42
63	210	197	57	96	42
80	257	238.5	75	107	54
100	263	244.5	75	113	54

Bore size\Item	DB	E	FA
32	27	M10X1.25	6
40	28	M12X1.25	7
50	29	M16X1.5	8
63	29	M16X1.5	8
80	35.5	M20X1.5	10
100	35.5	M20X1.5	10

SCEJ Series($\Phi 32 \sim \Phi 100$)



Remark:

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

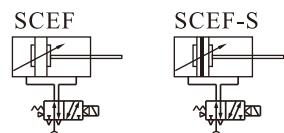
Standard cylinder——SCEF Series



■ Product feature

1. For Standard Cylinders: use 4M210 valve for bore size 32, 40 & 50; 4M310 valve for bore size 63, 80 & 100mm.
2. Individually control, no need for extra solenoid valves.
3. Installation time & space saving; suitable for decentralize installation in large system.
4. Options of mounting accessories & easy installation.

■ Symbol



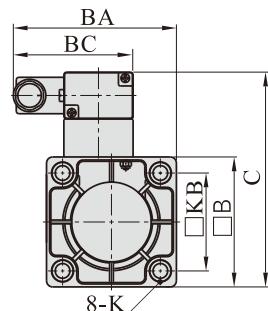
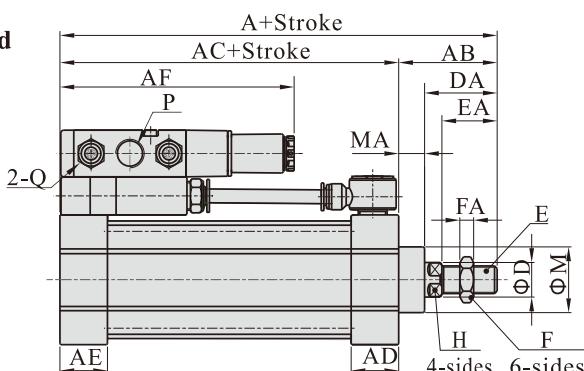
■ Specification

Cylinder 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	Basic FA FB CA CB LB										
Operating pressure	0.1~1.0MPa(15~145psi)(1.0~10.0bar)										
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 cushionstroke	21		28		29						
Port size	G1/8	G1/4	G3/8	G1/2							
PU tube size(ODXID)	Φ8 × Φ5				Φ10 × Φ6.5						
Solenoid valve specification											
Model	4M210-06 & 4M210-08			4M310-08 & 4M310-10							
Fluid	Air(to be filtered by 40μm filter element)										
Acting type	Internal piloted										
Port size [Note1]	In=Exhaust=1/8" & In=1/4" Exhaust=1/8"			In=Exhaust=1/4" & In=PT3/8 Exhaust=1/4"							
Orifice size	4M210-06: 14.0mm ² (Cv=0.78) 4M210-08: 16.0mm ² (Cv=0.89)			4M310-08: 25.0mm ² (Cv=1.40) 4M310-10: 30.0mm ² (Cv=1.68)							
Valve type	5 port 2 position										
Operating pressure	0.15~0.8MPa(21~114psi)										
Proof pressure	1.5MPa(215psi)										
Temperature °C	-20~70										
Body material	Aluminum alloy										
Lubrication	Not required										
Max. frequency	5 cycle/sec			4 cycle/sec							
Coil specification											
Standard voltage	AC220V、AC110V、AC24V、DC24V、DC12V										
Scope voltage	AC: ± 15% DC: ± 10%										
Power consumption	AC: 3.5VA DC: 3.0W										
Protection	IP65(DIN40050)										
Temperature classification	B Class										
Electrical entry	Terminal, Grommet										
Activating time	0.05 sec and below										

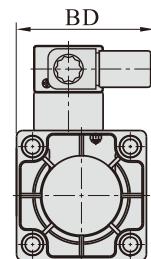
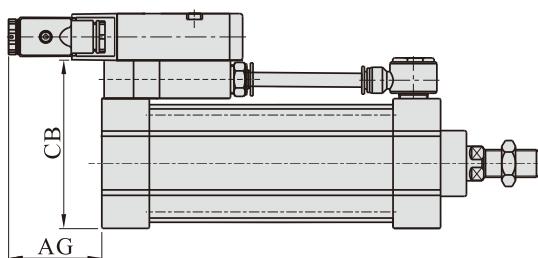
Standard cylinder——SCEF Series

Dimensions

Pull when energized



Push when energized



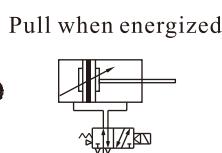
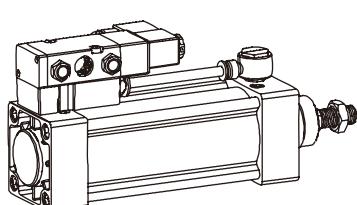
Bore size\Item	A	AB	AC	AD	AE	AF	AG	B	BA	BC	BD
32	140	47	93	27.5	27.5	118	53	45	67	67	77
40	142	49	93	27.5	27.5	118	53	50	68.5	67	80.5
50	150	57	93	27.5	27.5	120	51	62	72	67	89
63	153	57	96	27.5	27.5	135.5	54.5	75	77.5	69.5	96.5
80	182	75	107	33	33	137	53	94	86.5	69.5	106.5
100	188	75	113	33	33	135.5	54.5	112	96	69.5	115

Bore size\Item	valve's type	P	K
32	4M210-06	1/8"	M6
	4M210-08	1/4"	
40	4M210-06	1/8"	M6
	4M210-08	1/4"	
50	4M210-06	1/8"	M6
	4M210-08	1/4"	
63	4M310-08	1/4"	M8
	4M310-10	3/8"	
80	4M310-08	1/4"	M10
	4M310-10	3/8"	
100	4M310-08	1/4"	M10
	4M310-10	3/8"	

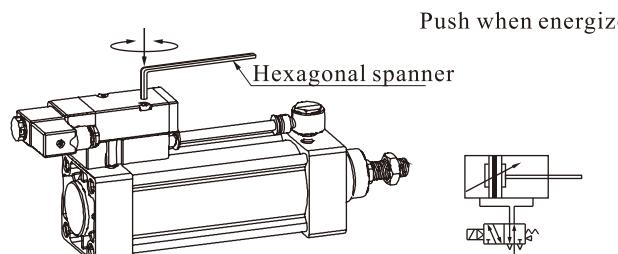
Remark: The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

How to use

- Options for piston rod to retract or extend when solenoid coil is energized.
- Default factory setting will be piston rod to retract when energized(see Drawing one). Should you require piston rod to extend when energized, reposition the solenoid valve as shown in Drawing two.



Drawing one



Drawing two

Attention Ensure that the seals between the mounting block & valve are placed correctly when repositioning the valve.

Standard cylinder——SCEF Series

■ Standard Stroke

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

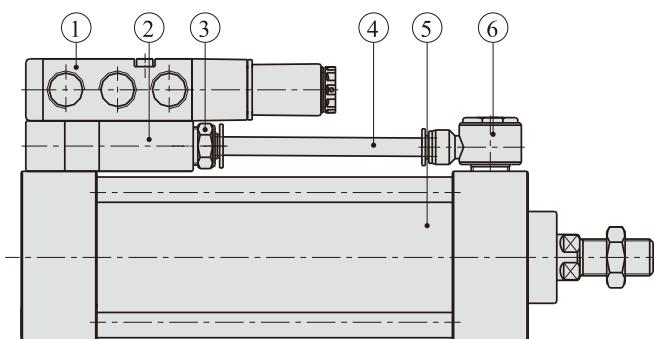
[Note] Consult us for non-standard stroke.

■ Ordering code

SCEF 63 × 1000 S LB-06 A I □								
①	②	③	④	⑤	⑥	⑦	⑧	⑨
⑤ Mounting style			⑥ Port size			⑦ Voltage		
Blank: No accessories			06: 1/8"			A: AC220V		
LB: LB type			08: 1/4"			B: DC24V		
FA: FA type			10: 3/8"			C: AC110V		
FB: FB type						E: AC24V		
CA: CA type						F: DC12V		
CB: CB type								
⑧ Electrical entry								
Blank: Terminal			I: Grommet					

① Model	② Bore size
SCEF: Double acting with valve type	32 40 50 63 80 100
③ Stroke	
Refer to stroke table for details	
④ Magnet	
Blank: Without magnet	
S: With magnet	
⑨ Thread type	
Blank: G thread	
PT: PT thread	

■ Inner structure and material of major parts



NO.	Item
1	4M series solenoid valve
2	Unite block
3	APC series tube connector
4	PU tube
5	SCE series cylinder
6	APH series tube connector

Standard cylinder——SCE Series

■ List for ordering code of accessories

Accessories Bore size	Mounting accessories			
	LB	FA\FB	CA	CB
32	F-SC32LB	F-SC32FA	F-SC32CA	F-SC32CB
40	F-SC40LB	F-SC40FA	F-SC40CA	F-SC40CB
50	F-SC50LB	F-SC50FA	F-SC50CA	F-SC50CB
63	F-SC63LB	F-SC63FA	F-SC63CA	F-SC63CB
80	F-SC80LB	F-SC80FA	F-SC80CA	F-SC80CB
100	F-SC100LB	F-SC100FA	F-SC100CA	F-SC100CB

Accessories Bore size	Knuckle				Sensor switch	
	I: I Knuckle	Y: Y Knuckle	F: F Knuckle	U: U Knuckle	CS1-G	DS1-G
32	F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U		
40	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U		
50	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
63	F-M16X150I	F-M16X150Y	F-M16X150F	F-M16X150U		
80	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		
100	F-M20X150I	F-M20X150Y	F-M20X150F	F-M20X150U		

■ Accessory selection

Cylinder model	Mounting accessories					Knuckle				Sensor switch	
	LB	FA	FB	CA	CB	I	Y	U	F	CS1-G	DS1-G
SCE	Standard	●	●	●	●	●	●	●	●	×	×
	With magnet	●	●	●	●	●	●	●	●	●	●
SCED	Standard	●	●	✗	✗	✗	●	●	●	×	✗
	With magnet	●	●	✗	✗	✗	●	●	●	●	●
SCEJ	Standard	●	●	✗	✗	✗	●	●	●	×	✗
	With magnet	●	●	✗	✗	✗	●	●	●	●	●
SCEF	Standard	●	●	●	●	●	●	●	●	×	✗
	With magnet	●	●	●	●	●	●	●	●	●	●

■ Material of accessories

Accessories Bore size	Mounting accessories					Knuckle			
	LB	FA	FB	CA	CB	I	Y	F	U
32~100	□	●	●	◇	◇	□	□	□	□

●—Aluminum alloy, ■—Cast steel, ◇—Nodular cast iron, □—Carbon steel.

■ Dimensions

The accessories are the same as SC series's accessories, please refer to P57~60 for details.

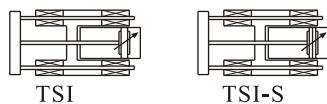
With guide frame cylinder——TSI Series



■ Product feature

1. A new type of cylinder combined with guide frame and standard cylinder.
2. Brass bearing: It is suitable for the action that has radial load resistance. with greater torsion stiffness.
Linear bearing: It is suitable for push-up action, or where high precision and high load capacity are required, especially for occasions requiring low friction.
3. The special design of the guide frame body provides a multi-directional mounting.
4. The buffer adjustment of cylinder is smooth and steady.
5. According to the actual use requirements, combined with sensor holder can to change the sensor installation location.

■ Symbol



■ Specification

Bore size(mm)	32	40	50	63	80	100
Acting type				Double acting		
Fluid			Air(to be filtered by 40μm filter element)			
Operating pressure			0.15~1.0MPa(22~145psi)(1.5~10.0bar)			
Proof pressure			1.5MPa(215psi)(15bar)			
Temperature °C			-20~70			
Speed range mm/s			30~500			
Stroke tolerance			0~250 ^{+1.0} / ₀ >250 ^{+1.5} / ₀			
Cushion type			Variable cushion			
Port size [Note]	1/8"		1/4"		3/8"	1/2"

[Note] PT thread, G thread are available.

■ Standard Stroke

Bore size (mm)	Standard stroke (mm)	Max.std stroke
32	50 100 150 200 250 300 350 400 450 500	500
40	50 100 150 200 250 300 350 400 450 500	500
50	50 100 150 200 250 300 350 400 450 500	500
63	50 100 150 200 250 300 350 400 450 500	500
80	50 100 150 200 250 300 350 400 450 500	500
100	50 100 150 200 250 300 350 400 450 500	500

[Note] Consult us for non-standard stroke.

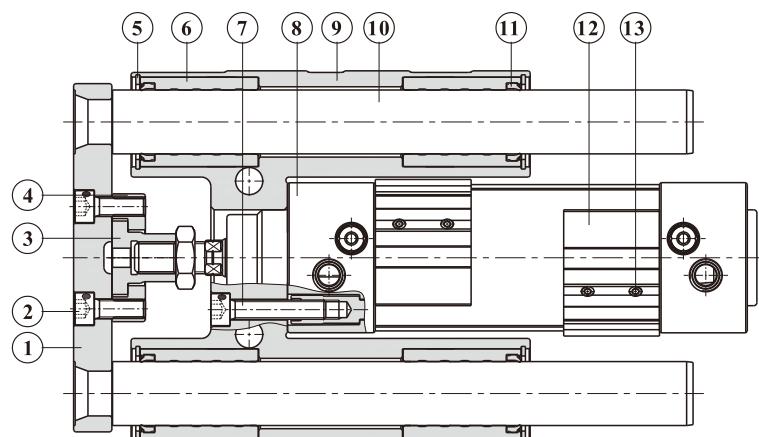
With guide frame cylinder——TSI Series

Criteria for selection: Cylinder thrust

Unit: Newton(N)

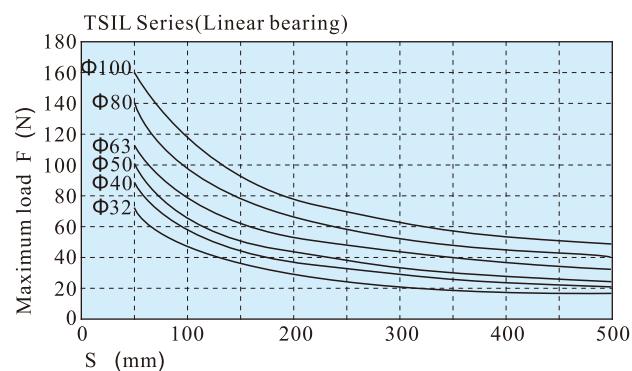
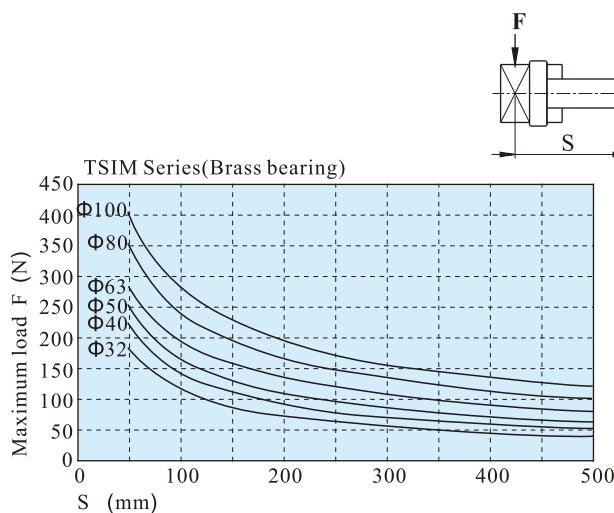
Bore size	Rod size	Acting type	Pressure area(mm ²)	Operating pressure(MPa)									
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
32	12	Double acting	Push side	804	80.4	160.8	241.2	321.6	402.0	482.4	562.8	643.2	723.6
			Pull side	690	69.0	138.0	207.0	276.0	345.0	414.0	483.0	552.0	621.0
40	16	Double acting	Push side	1256	125.6	251.2	376.8	502.4	628.0	753.6	879.2	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	4288.2	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

Inner structure



NO.	Item	Material
1	Fixed plate	Ductile iron
2	Bolt	Carbon steel
3	Floating nut	Carbon steel
4	Floating baffle	Carbon steel
5	C clip	Spring steel
6	Linear/Brass bearing	No/Brass
7	Bolt	Carbon steel
8	SI Cylinder	Unit
9	Guide frame	Aluminum alloy
10	Guider (Linear/Brass)	Alloy steel/Carbon steel
11	Dust ring	Plastic
12	Sensor holder	Aluminum alloy
13	Screw	Alloy steel

Maximum load relationship curve



With guide frame cylinder——TSI Series

■ Ordering code

TSI M 40 X 100 S □

① ② ③ ④ ⑤ ⑥

① Model
TSI: With guide frame cylinder

② Bearing type
M: Brass bearing
L: Linear bearing

③ Bore size
32 40 50 63 80 100

④ Stroke
Refer to stroke table for details

⑤ Magnet [Note1]
Blank: Without magnet
S: With magnet

⑥ Thread type
Blank: PT thread
G: G thread

[Note1] With magnet cylinders are equipped with 2 pcs sensor holders.

■ Ordering code(for guide frame)

F – TSI M 40 X 100

① ② ③ ④ ⑤

① Accessory
F: Accessory

② Model
TSI: With guide frame cylinder

③ Bearing type
M: Brass bearing
L: Linear bearing

④ Bore size
32 40 50 63 80 100

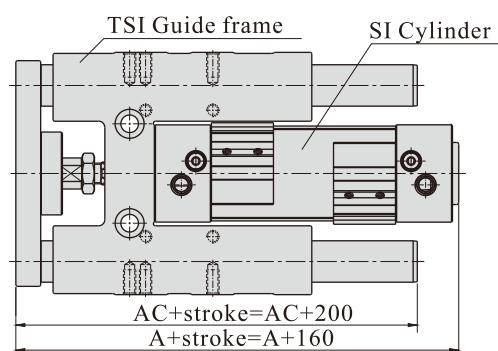
⑤ Stroke
Refer to stroke table for details

【Note】 When ordering the guide frames separately, 2 pcs sensor holders are equipped.
The matching relationship between the sensor holder and the bore size is shown in the following table.

Sensor holder type\Bore size	32	40	50	63	80	100
F-TSI32E	●	●				
F-TSI50E			●	●		
F-TSI80E					●	●

Ordering instructions :

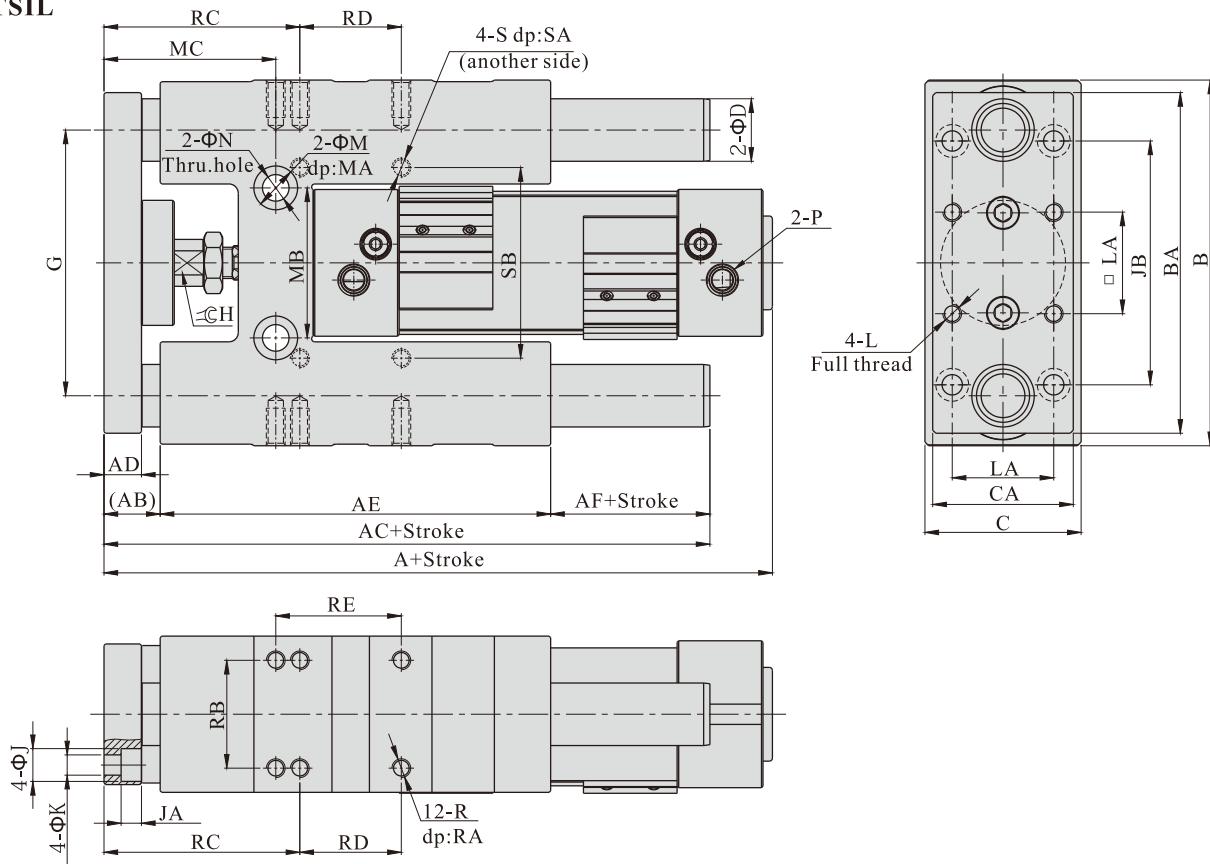
1. When ordering guide frame separately, only standard strokes from the stroke list can be ordered.
(Other stroke can only be ordered by non-standard)
2. To order non-standard stroke cylinders with guide frame, the combination is as follows:
Non-standard stroke cylinder
+ guide frame of the upper standard stroke.
Example: SI32X160 (non-standard stroke cylinder)
+F-TSIM32X200(Standard stroke guide frame).
The dimension is as follows:



With guide frame cylinder——TSI Series

Dimensions

TSIM/TSIL



Bore size\Item	A	AB	AC	AD	AE	AF	B	BA	C	CA	D	G	H	J	JA	JB	K	L
32	164	18	144	12	125	1	117	109	50	45	20(16)	85	15	10.5	6.5	78	6.5	M6X1.0
40	183.5	16	157	12	140	1	123	115	58	54	20(16)	91	15	10.5	6.5	84	6.5	M6X1.0
50	198.5	18	169	15	150	1	145	135	70	63	20	108	19	14	8.5	100	8.5	M8X1.25
63	214	18	201	15	182	1	160	150	85	80	20	123	19	14	8.5	105	8.5	M8X1.25
80	243	24	240	20	215	1	198	189	105	100	30(25)	150	27	17	10.5	130	10.5	M10X1.5
100	258	24	245	20	220	1	221	210	130	120	30(25)	172	27	17	10.5	150	10.5	M10X1.5

Bore size\Item	LA	M	MA	MB	MC	N	P	R	RA	RB	RC	RD	RE	S	SA	SB
32	32.5	14	4.5	48	55	8.5	1/8"	M6X1.0	12	34.5	62.7	32.5	40.2	M6X1.0	12	61
40	38	14	6	54	61	8.5	1/4"	M6X1.0	14	38	64	38	51	M6X1.0	14	69
50	46.5	17	7	66	72	10.5	1/4"	M8X1.25	16	46.5	70.2	46.5	64.7	M8X1.25	16	85
63	56.5	17	10	79	72	10.5	3/8"	M8X1.25	16	56.5	73.7	56.5	76.5	M8X1.25	16	100
80	72	-	-	-	-	-	3/8"	M10X1.5	20	72	90	72	90	M10X1.5	20	130
100	89	-	-	-	-	-	1/2"	M10X1.5	20	89	91.5	89	113	M10X1.5	20	150

[Note]The values in “()” in the above table are TSIL series sizes.