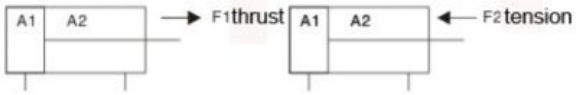
The choice of cylinder bore



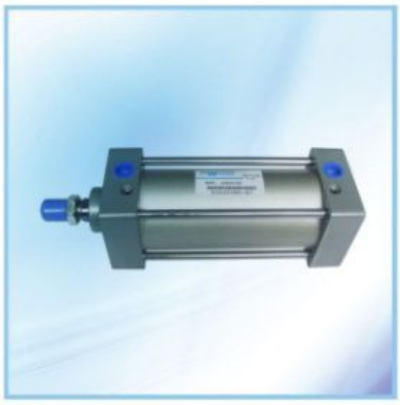
Theoretical output force(N)

Bore (mm)	Rod diameter (mm)	Compression area cm²	Output force F(N)	Operating pressure (MPa)						
				0.2	0.3	0.4	0.5	0.63	0.7	0.8
12	6	A_1 1.13	F1	22.6	33.9	45.2	56.5	71.19	79.1	90.4
		A_2 0.85	F2	17.0	25.5	34	42.5	53.6	59.5	68
16	6	A_1 2.01	F1	40.2	60.3	80.4	100.5	126.6	140.7	160.8
		A_2 1.73	F2	34.5	51.8	69.1	86.4	109	120.9	138.2
20	8	A_1 3.14	F1	62.8	94.2	125.6	157	197.8	219.8	251.2
		A_2 2.64	F2	52.8	79.2	105.6	132	166.3	184.8	211.2
25	10	A_1 4.91	F1	98.2	147.3	196.4	245.5	309.3	343.7	392.8
		A_2 4.12	F2	82.4	123.6	164.8	206	259.6	288.4	329.6
32	12	A_1 8.04	F1	160.8	241.2	321.6	402	506.5	562.8	643.2
		A_2 6.91	F2	138.2	207.3	276.4	345.5	435.3	483.7	552.8
40	16	A_1 12.56	F1	251.2	376.8	502.4	628	791.3	879.2	1004.8
		A_2 10.55	F2	211	316.5	421	527.5	664.7	738.5	844
50	20	A_1 19.63	F1	292.6	588.9	785.2	981.5	1236.7	1374	1570
		A_2 16.49	F2	329.8	494.7	659.6	824.5	1039	1154	1319
63	20	A_1 31.16	F1	823.2	934.6	1246	1558	1963	2181	2493
		A_2 28.00	F2	560	840	1120	1400	1764	1960	2240
80	25	A_1 50.24	F1	1005	1507	2010	2512	3165	3517	4019
		A_2 45.33	F2	907	1360	1813	2267	2856	3173	3626
100	25	A_1 78.5	F1	1570	2355	3140	3925	4946	5495	6280
		A_2 73.59	F2	1472	2208	2944	3680	4636	5151	5887
125	32	A_1 122.7	F1	2454	3681	4908	6135	7730	8589	9816
		A_2 114.6	F2	2292	3438	4584	5730	7220	8022	9168
160	45	A_1 201	F1	4020	6030	8040	10050	12663	14070	16080
		A_2 185.1	F2	3702	5553	7404	9255	11661	12957	14808
200	45	A_1 314	F1	6280	9420	12560	15700	19782	21980	25120
		A_2 298.1	F2	5962	8943	11924	14905	18780	20867	23848
250	50	A_1 490.6	F1	9812	14718	19624	24530	30908	34342	39248
		A_2 471	F2	9420	14130	18840	23550	29673	32970	37680
320	63	A_1 803.8	F1	16076	24114	32152	40190	50639	56266	64304
		A_2 772.7	F2	15454	23181	30908	38635	48680	54085	61816

Ordering code

SC–50 × 50–S– □

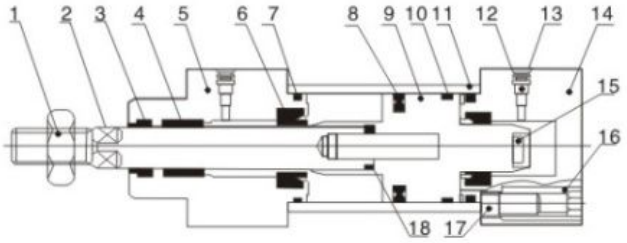
- fixed type: blank, LB, FA, FB, CA, CB, TC, TC–M
- magnet code: S: with magnet; Blank: without magnet
- stroke
- bore size
- model SC: standard double acting cylinder



Technical parameters

Bore(mm)	32	40	50	63	80	100	125	160	200
Acting type	Double acting type								
Medium	Filtered air								
Fixed type	Basic,FA,FB,CA,CB,LB,TC,TC-M								
Operating pressure range Kgf/cm²	1.5–10								
Proof pressure Kgf/cm²	13.5								
Temperature℃	0–70								
Speed range mm/s	50–500								
Cushioning	Adjustable cushion								
Buffer stroke mm		24			32			35	
Pipe size	G1/8	G1/4		G3/8		G1/2		G3/4	

Internal instructure



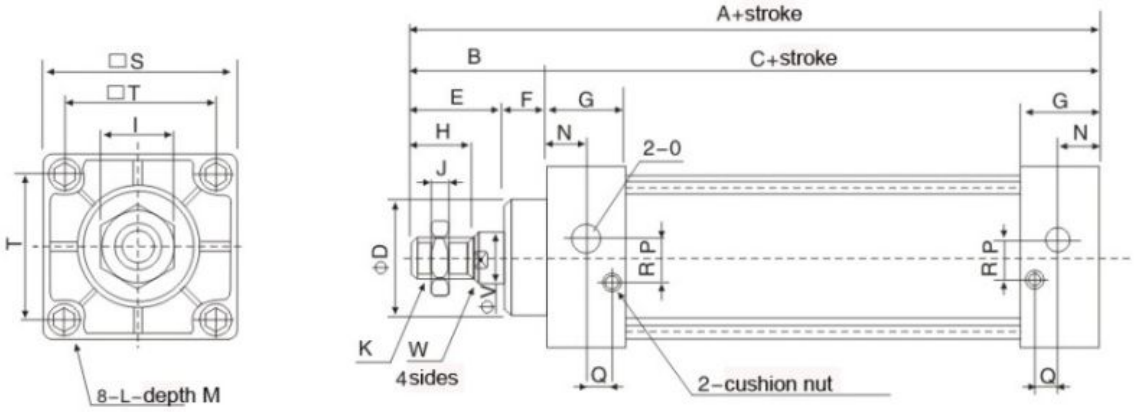
1、nut
2、piston rod
3、front seal ring
4、oil bearing
5、front cover
6、cushion O-ring
7、cushion gasket
8、piston O-ring
9、piston
10、wearing ring
11、barrel
12、cushion leakproof O-ring
13、cushion adjustable screw
14、back cover
15、hexagon socket screw
16、tie-rod nut
17、tie-rod
18、piston rod O-ring

Main parts material

Bore	32	40	50	63	80	100	125	160	200
Body	Aluminum alloy								
Piston	Aluminum alloy								
Piston rod	High carbon steel								
Front seal ring	NBR								
Piston seal ring	NBR								
Cushion gasket	NBR								
Piston rod O-ring	NBR								
Cushion O-ring	NBR								
Dust proof O-ring	NBR								
Oil bearing	Wear resistant material								
Front/back cover	Aluminum alloy								

Bore	32	40	50	63	80	100	125	160	200
Magnet	Plastic								
LB stand	Low carbon steel								
FA stand	Cast iron								
TC stand	Cast iron								
TC-M foot seat	Cast iron								
Connector bolt	Middle carbon steel								
Tie-rod	Low carbon steel								
Tie-rod nut	Low carbon steel								
Wear ring	F4								
Cushion screw	Steel								

Basic model dimension



Bore ID	A	B	C	D	E	F	G	H	I	J	K	L
32	140	47	93	28	32	15	27.5	22	17	6	M10×1.25	M6×1
40	142	49	93	32	34	15	27.5	24	17	7	M12×1.25	M6×1
50	150	57	93	38	42	15	27.5	32	23	8	M16×1.5	M6×1
63	153	57	96	38	42	15	27.5	32	23	8	M16×1.5	M8×1.25
80	182	75	107	47	54	21	33	40	26	10	M20×1.5	M10×1.5
100	189	75	114	47	54	21	33	40	26	10	M20×1.5	M10×1.5
125	230	93	137	60	68	25	40	54	41	13.5	M27×2	M12×1.75
160	208	128	180	65	90	38	50	72	55	18	M36×2	M16×2
200	341	161	180	75	90	71	50	72	55	18	M36×2	M16×2

Basic model dimension

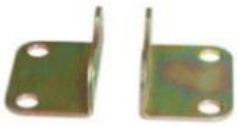
Bore ID	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.5	G1/8"	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17
63	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17
80	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22
100	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22
125	15	20	G1/2"	/	/	90	140	110	32	27
160	15	25	G3/4"	/	/	90	178	140	40	36
200	15	25	G3/4"	/	/	90	220	174	40	36


FA(FB)Front and back flange


CB Back end double earrings


CA Back end single earrings


TC Intermediate shaft

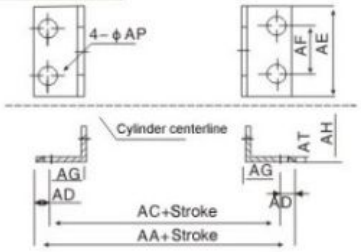

LB End foot stool

Model explanation

SC □ □

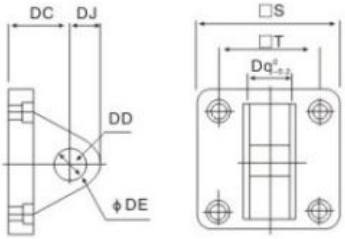
- Accessories type
  - FA(FB) Front and back flange
  - CB Back end double earrings
  - CA Back end single earrings
  - TC Intermediate shaft
  - LB End foot stool
- Bore
- Cylinder type

LB Dimension



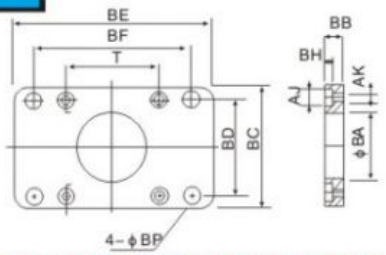
Symbol/Bore	32	40	50	63	80	100	125	160	200
AA	153	169	173	184	200	210	257	300	380
AC	134	140	149	158	167	174	225	340	320
AD	9.5	14.5	12	13	16	18	16	20	30
AE	50	57	68	80	97	112	139	180	220
AF	33	36	47	56	70	84	90	115	135
AG	20.5	23.5	28	31	30	30	44	60	70
AH	28	30	36.5	41	49	57	86	115	135
AP	9	12	12	12	14	14	16	18	22
AT	3.2	3.2	3.2	3.2	4	4	7.5	8	10

CA Dimension



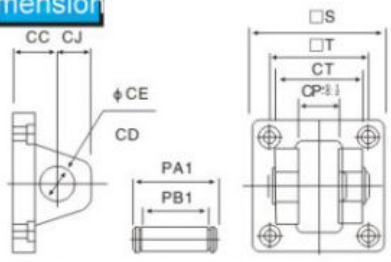
Symbol/Bore	32	40	50	63	80	100	125	160	200
S	45	50	62	75	94	112	140	178	220
T	33	37	47	56	70	84	110	140	174
DC	34	34	34	34	48	48	43	55	60
DD	14	14	15	15	20	20	25	30	30
DE	12	14	14	14	20	20	25	30	30
DJ	14	14	15	15	20	20	25	30	30
DQ	16	20	20	20	32	32	70	89	110

FA.FB Dimension



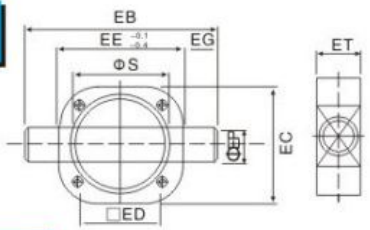
Symbol/Size	32	40	50	63	80	100	125	160	200
BA	28.3	32.3	38.3	38.3	47.3	47.3	62.5	67.5	76
BB	10	10	10	12	16	16	18.5	21	25
BC	47	52	65	76	95	115	145	187	220
BD	33	36	47	56	70	84	90	114	135
BE	72	84	104	116	143	162	217	281	320
BF	58	70	86	98	119	138	180	230	270
BH	6.5	6.5	6.5	8.5	10.5	10.5	13	13	20
AJ	10.5	10.5	13.5	13.5	16.6	16.6	20	25	25
AK	6.5	6.5	8.5	8.5	10.5	10.5	13	16.5	16.5
BP	7	7	9	9	12	12	16	18	22
T	33	37	47	56	70	84	110	140	175

CB Dimension



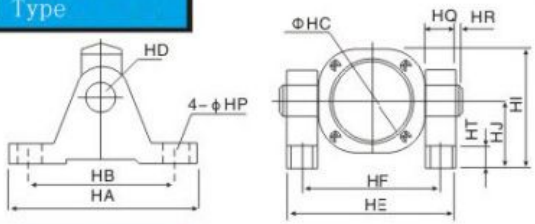
Symbol/Bore	32	40	50	63	80	100	125	160	200
CC	19	19	19	19	32	32	50	55	60
CD	5	5	3	3	8	8	15	15	30
CE	12	14	14	14	20	20	25	30	30
CJ	13	13	15	15	21	21	25	28	30
CP	16.3	20.3	20.3	20.3	32.3	32.3	71	90	90
CT	32	44	52	52	64	64	121	166	166
PA1	41	51.8	60.3	60.3	73.8	73.8	133	186	186
PB1	33.5	45.5	54	54	65.5	65.5	123	168	168
S	48	50	62	75	94	112	140	178	220
T	33	37	47	56	70	84	110	140	174

TC Type



Symbol/Bore	EB	EC	ED	EE	EG	EP	ET	S
40	113	63	37	63	25	25	30	45.5
50	126	76	47	76	25	25	30	55.5
63	138	88	56	88	25	25	30	68.5
80	164	114	70	114	25	25	35	87.5
100	182	132	84	132	25	25	40	107.5
125	210	155	110	155	30	30	40	134

TC-M Type



Symbol/Bore	HA	HB	HC	HD	HE	HF	HI	HJ	HQ	HR	HT	HP
40	110	80	45.5	25	109	86	81.5	50	23	2	12	12
50	110	80	55.5	25	122	99	88	50	23	2	12	12
63	110	80	69.5	25	134	111	94	50	23	2	12	12
80	120	80	87.5	25	160	137	127	70	23	2	14	14
100	120	80	107.5	25	178	155	136	70	23	2	14	14
125	147	110	134	30	221	191	157	80	30	3	27	14

Coupling axis

I Joint

Y Joint

Explanation

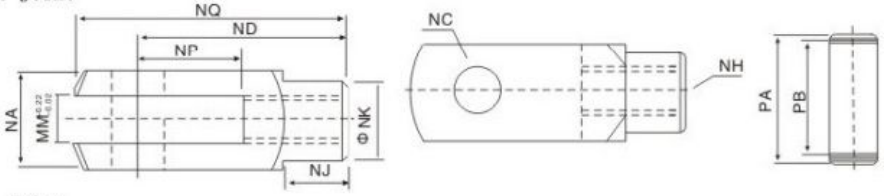
SC -50 -Y

- Joint type: I Joint / Y Joint
- Bore
- Bore type: SC / SCD / SCJ / SCT

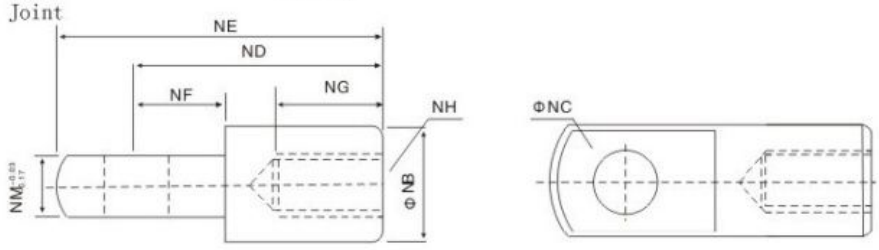
Material

I Joint ,Low carbon steel,Y Joint,Low carbon steel

Y Joint



I Joint



Bore/Symbol(ID)	NA	NB	NC	ND	NE	NF	NG	NH	NJ	NK	NM	NP	NQ	PA	PB
32	19	20	10	40	52	15	20	M10×1.25	12	18	10	20	52	25	19.5
40	25.4	24	12	48	67	24	20	M12×1.25	20	23	12	24	62	32.8	26.5
50	32	32	16	64	89	32	23	M16×1.5	22	30	16	32	83	39.3	33
63	32	32	16	64	89	32	23	M16×1.5	22	30	16	32	83	39.3	33
80	44.4	40	20	80	112	40	30	M20×1.5	30	39	20	40	105	53.3	45
100	44.4	40	20	80	112	40	30	M20×1.5	30	39	20	40	105	53.3	45
125	61	48	25	100	123	51	45	M27×2	32	40	30	40	121	71	63
160	78	62	30	127	135	47	48	M36×2	40	53	40	40	152	88	80
200	78	62	30	127	135	47	48	M36×2	40	53	40	40	152	88	80