

### SC/SU Series Standard Cylinder



SC 50 x 100

SU 50 x 100

SCJ 50 x 100-25

#### Ordering Code

**SC** × **50** × **50** — **25** — **S** — □

**Series Code**  
 SC: Standard double Action (Tie-rod Type)  
 SCD: Double-shaft Double Action (Tie-rod Type)  
 SCJ: Double Axis Double Acting Adjustable Type (Tie-rod Type)  
 SU: Standard Double Acting (Micky Mouse Type)

**Cylinder Bore**  
 32mm-200mm

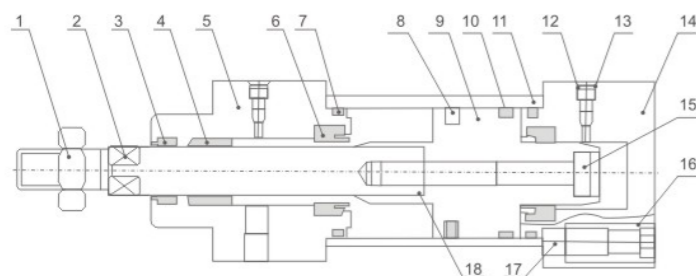
**Stroke**  
 25: 25mm  
 50: 50mm  
 75: 75mm

**Adjust Stroke**  
 25: 25mm  
 50: 50mm  
 75: 75mm

**Magnet Code**  
 Blank: Without Magnet  
 S: With Magnet

**Fixed Type**  
 Blank: Normal type  
 LB: Front and back fixed type  
 FA: Front cover Fixed type (Front flange type)  
 FB: Back cover Fixed type (Back flange type)  
 CA: Back cover Fixed type (Single earring)  
 CB: Back cover Fixed type (Double earring)  
 TC: Central trunnion Type  
 TC-M: Central trunnion type attaching foot seat

#### Internal structure



NO	Designation	NO	Designation
1	Piston Rod Nut	10	Wear Ring
2	Piston rod	11	Barrel
3	Front cover seal ring	12	Buffering Barrel o-ring
4	Bearing	13	Damping adjustable screw
5	Front cover	14	Back cover
6	Buffering o-ring	15	Hex socket screw
7	Pipe wall o-ring	16	Tie Rod Nut
8	Piston o-ring	17	Tie rod
9	Piston	18	Piston rod o-ring

#### Specification

Bore(mm)	32	40	50	63	80	100	125	160	200
Motion Pattern	Double Action								
Working Medium	Air								
Fixed Type	Basic type FA type FB type CA type CB type LB type TC type TC-M type								
Operating Pressure Range	0.1~0.9kgf/cm <sup>2</sup>								
Ensured Pressure Resistance	1.35Mpa								
Operating Temperature Range	-5~70℃								
Operating Speed Range	300~800mm/s								
Buffer Type	Adjustable Buffer								
Buffer Stroke	24				32				
Port Size	G1/8"	G1/4"	G3/8"		G1/2"		G3/4"		

■ SCD, SCJ Fixed Type: FA, FB, LB, TC & TC-M Type.

### SC/SU Series Standard Cylinder

#### Cylinder theory output

Cylinder inside Diameter	External Diameter of Piston Rod	Motion Pattern	Compression Area (cm <sup>2</sup> )	Air Pressure (kgf/cm <sup>2</sup> )									
				1	2	3	4	5	6	7	8	9	
32	12	Double Action	Press Side	8.04	8.04	16.08	24.12	32.16	40.20	48.24	56.28	64.32	72.36
			Pull Side	6.90	6.90	13.80	20.07	27.60	34.50	41.40	48.30	55.20	62.10
40	16	Double Action	Press Side	12.56	12.56	25.12	37.68	50.24	62.80	75.36	87.92	100.24	113.04
			Pull Side	10.55	10.55	21.10	31.65	42.20	52.75	63.30	73.85	84.40	94.95
50	20	Double Action	Press Side	19.63	19.63	39.26	58.89	78.52	98.15	117.78	137.41	157.04	176.67
			Pull Side	16.49	16.49	32.98	49.47	65.96	82.45	98.94	115.43	131.92	148.41
63	20	Double Action	Press Side	31.17	31.17	62.34	93.51	124.68	155.85	187.02	218.19	249.36	280.53
			Pull Side	28.03	28.03	56.06	84.09	112.12	140.15	168.18	196.21	224.24	252.27
80	25	Double Action	Press Side	50.26	50.26	100.52	150.78	201.04	251.30	301.56	351.82	402.08	452.34
			Pull Side	45.36	45.36	90.72	136.08	181.44	226.80	272.16	317.52	362.88	408.24
100	25	Double Action	Press Side	78.53	78.53	157.06	235.59	314.12	392.65	471.18	549.71	628.24	706.77
			Pull Side	71.47	71.47	142.94	214.41	285.88	357.35	428.82	500.29	571.76	643.23
125	32	Double Action	Press Side	122.72	122.72	245.44	368.16	490.88	613.60	736.32	859.04	981.76	1104.48
			Pull Side	114.68	114.68	229.36	344.04	458.72	573.40	688.08	802.76	917.44	1032.12
160	40	Double Action	Press Side	201.06	201.06	402.12	603.18	804.24	1005.30	1206.36	1407.42	1608.48	1809.54
			Pull Side	188.49	188.49	376.98	565.47	753.96	942.45	1130.94	1319.43	1507.92	1696.41
200	40	Double Action	Press Side	314.16	314.16	628.32	942.48	1256.64	1570.80	1884.96	2199.12	2513.28	2827.44
			Pull Side	301.57	301.57	603.14	904.71	1206.28	1507.80	1809.42	2100.99	2412.56	2714.13

#### Stroke

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

### SCT Series Multi-Position/Booster Cylinder



SCT 100 x 60 x 100

#### Specification

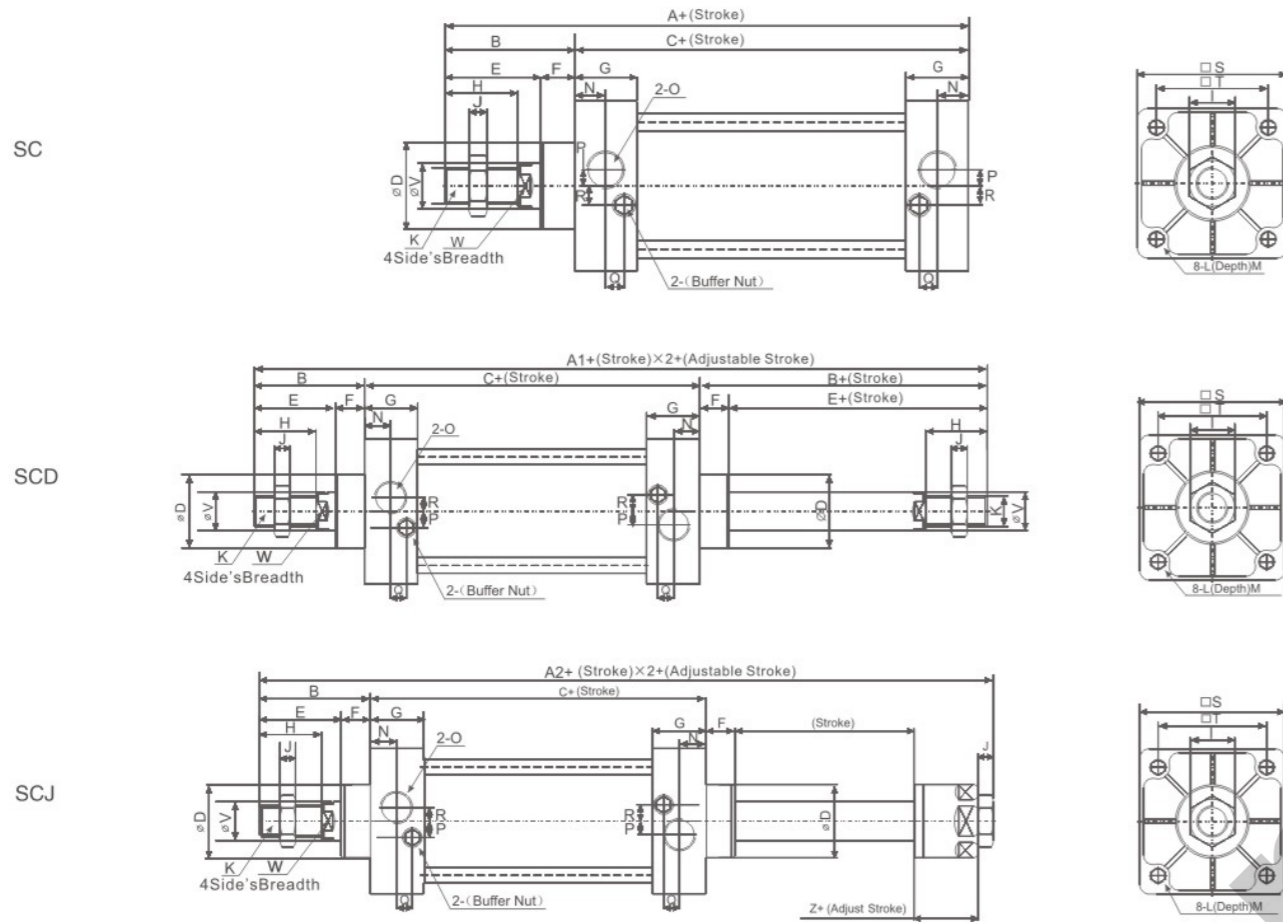
Working Medium	Air
Operating Temperature Range	0.1~0.9kgf/cm <sup>2</sup>
Ensured Pressure Resistance	1.35Mpa
Operating Temperature Range	-5~70℃

#### Product instruction

Booster cylinder combine 2 or more standard cylinder with the same bore and stroke, Create twice or multiple force as standard cylinder. The connection of 2 or more cylinders are linked with the same material Compact structure and easy for installation.

### SC/SU Series Standard Cylinder

Overall Dimensions



Dimension Sheet

Bore/Symbol	A	A1	A2	B	C	D	E	F	G	H	I	J	K
32	140	187	182	47	93	28	32	15	27.5	22	17	6	M10×1.25
40	142	191	185	49	93	32	34	15	27.5	24	17	7	M12×1.25
50	150	207	196	57	93	36	42	15	27.5	32	23	8	M16×1.5
63	153	210	199	57	96	36	42	15	27.5	32	23	8	M16×1.5
80	182	257	242	75	107	47	54	21	33	40	26	10	M20×1.5
100	188	263	248	75	108	47	54	21	33	40	26	10	M20×1.5
125	203	291	265.5	88	115	52	68	20	38	54	41	9	M27×2
160	239	352	332	113	126	62	88	25	38	72	55	16	M36×2
200	244	362	342	118	126	62	88	30	38	72	55	16	M36×2

Bore/Symbol	L	M	N	O	P	Q	R	S	T	V	W	Z
32	M6×1	9.5	13.7	G1/8"	3.5	7.5	7	45	33	12	10	21
40	M6×1	9.5	13.5	G1/4"	6	8.2	9	50	37	16	14	21
50	M6×1	9.5	13.5	G1/4"	8.5	8.2	9	62	47	20	17	23
63	M8×1.25	9.5	13.5	G3/8"	7	8.2	8.5	75	56	20	17	23
80	M10×1.5	11.5	16.5	G3/8"	10	9.5	14	94	70	25	22	29
100	M10×1.5	11.5	16.5	G1/2"	11	9.5	14	112	84	25	22	29
125	M12×1.75	16	20	G1/2"	14	6.5	14	136	104	32	27	42.5
160	M16×2	15	20	G3/4"	15	5	15	174	134	40	36	68
200	M16×2	15	20	G3/4"	15	3	15	214	163	40	36	68

### MB Series Standard Cylinder (Japanese standard)

Ordering Code

MB 50 × 50 - S - □

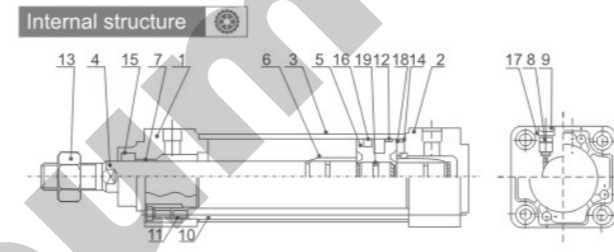
Series Code: Japanese standard Double Action Type

Stroke: 50

Cylinder Bore: 32mm-100mm

Magnet Code: Blank: Without Magnet, S: With Magnet

Fixed Type: Blank: Basic type, Lb: Front and back fixed type, Fa: Front cover fixed type (Front flange type), Fb: Back cover fixed type (Rear flange type), Ca: Back cover fixed type (Single earring), Cb: Back cover fixed type (Double earring), Tc: Central trunnion type, Tc-m: Central trunnion type attaching foot seat



NO	Designation	NO	Designation	NO	Designation
1	Front cover	6	Buffer ring	11	Tie rod nut
2	Back Cover	7	Bearing	12	Wear ring
3	Barrel	8	Cushion Screw	13	Piston rod nut
4	Piston rod	9	Cushion Seal	14	Buffer seal ring
5	Piston	10	Tie rod	15	Piston O-ring

Specification

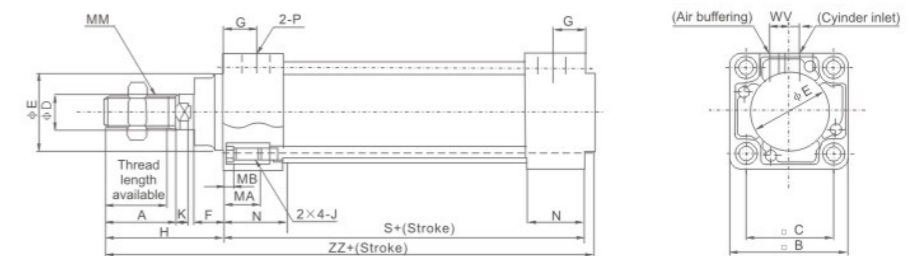
Cylinder diameter	32	40	50	63	80	100
Working Medium	Air					
Action type	Double acting					
Proof pressure	15.3kgf/cm <sup>2</sup> (1.5Mpa)					
Max.pressure	10.2kgf/cm <sup>2</sup> (1.0Mpa)					
Min.pressure	0.5kgf/cm <sup>2</sup> (0.05Mpa)					
Environment and fluid temp	-10~+60°C					
Piston velocity	50~1000mm/s					
Buffering	Air buffering					
Stroke tolerance	~0-250 <sup>+10</sup> , 251~1000 <sup>+14</sup> , 1001~1500 <sup>+18</sup>					
Rc(PT)Joint size	G1/8"	G1/4"	G3/8"	G1/2"		

Stroke

Bore(mm)	Standard stroke
32	25,50,75,100,125,150,175,200,250,300,350,400,450,500
40	25,50,75,100,125,150,175,200,250,300,350,400,450,500
50	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600
63	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600
80	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,750
100	25,50,75,100,125,150,175,200,250,300,350,400,450,500,600,700,750

Overall Dimensions

MB Series φ 32~ φ 200



Dimension Sheet

Diameter	Stroke range	Thread length available	A	B	C	φD	φE	F	G	MA	MB	J	K	MM	N	P	S	V	W	H	ZZ
32	~500	19.5	22	46	32.5	12	30	13	13	16	4	M6×1.0	6	M10×1.25	27	1/8	84	4	6.5	47	135
40	~500	27	30	52	38	16	35	13	14	16	4	M6×1.0	6	M14×1.5	27	1/4	84	4	9	51	139
50	~600	32	35	65	46.5	20	40	14	15.5	16	5	M8×1.25	7	M18×1.5	31.5	1/4	94	5	10.5	58	156
63	~600	32	35	75	56.5	20	45	14	16.5	16	5	M8×1.25	7	M18×1.5	31.5	3/8	94	9	12	58	156
80	~750	37	40	95	72	25	45	20	19	16	5	M10×1.5	10	M22×1.5	38	3/8	114	11.5	14	72	190
100	~750	37	40	114	89	30	55	20	19	16	5	M10×1.5	10	M26×1.5	38	1/2	114	17	15	72	190