

# SI Series ISO6431 Standard Cylinder:



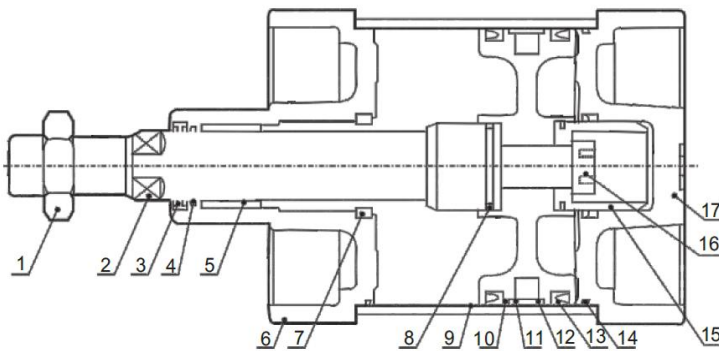
## 1. Ordering Code :

SI	-	50	X	50	-	25	-	S	-	LB
↑		↑		↑		↑		↑		↑
Model		Bore size		Stroke		Adjust stroke		S:with magnet without magnet		Fixed type
SI: Double action type						25:25mm 50:50mm 75:75mm				Blank: Basic type LB:Foot mounting type FA:Front flange mounting type FB:Rear-Flange mounting type CA:Male single Earring type CB:Female double earring type SDB: Back cover fixed type TC:Trunnion type
SID: Two axis double action type										
SIJ: Two axis double action type with stroke adjustable										

## 2.Characteristics:

- 1) This series of cylinder conforms to: ISO6431 standard
- 2) There is an adjustable buffers at the terminals of the cylinder except for mounted cushion.
- 3) We can offer different kinds of mounting style according to ISO 6431 standard, like Foot mounting, Front flange mounting, Rear-flange mounting,and so on.
- 4) Different thread type can be offered according to customers' requirements, e.g.:BSP , NPT etc.
- 5) Needn't lubricate on piston rod by oil

## 3.Internal Structure:



No.:	Designation	No.:	Designation
1.	Piston rod nut	10.	Piston
2.	Piston rod	11.	Wearing
3.	Front cover seal ring	12.	Magnet (Optional)
4.	O-ring	13.	Piston O-ring
5.	Bearing	14.	Pipe wall O-ring
6.	Front cover	15.	Damping
7.	Buffering O-ring	16.	Hex socket screw
8.	Piston rod O-ring	17.	Back cover
9.	Barrel		

## 4.Specification:

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double Action								
Applicable medium	Filtered Air								
Pressure range	0.1~0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	-5°C~70°C								
Speed range	50~800 mm/s								
Cushion style	Adjustable Air Buffer								
Cushion stroke	24 mm						32 mm		
Port size	G1/8	G1/4		G3/8		G1/2		G3/4	

## 5.Cylinder Theory output:

Cylinder inside Diameter	Extern Diameter of Piston Rod	Potion 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	139.92	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	326.88	408.24
100	25	Double Action	Press Side	78.53	78.53	157.06	235.59	314.12	392.65	471.18	428.82	628.24	706.77
			Pull Side	71.47	71.47	142.94	214.41	285.88	357.35	428.82	500.29	517.76	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

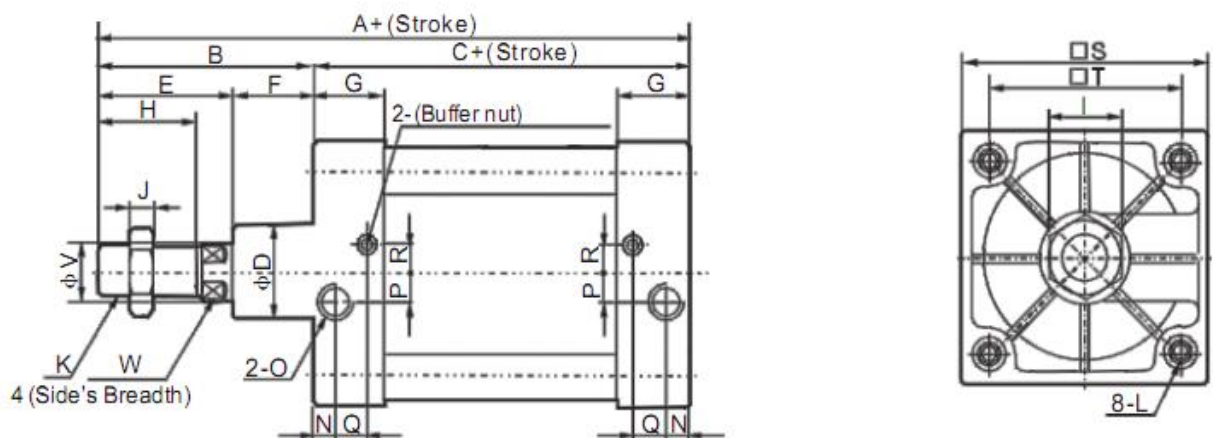
## 6.Stroke:

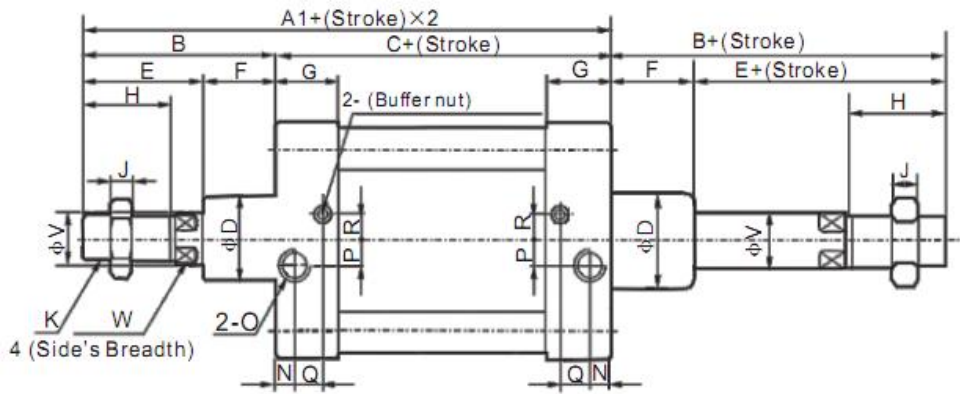
Bore(mm)	Standard Stroke	Max.Stroke	Permissible Stroke
32	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25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

■ If you need special stroke, please Tell us, we can make according your require.

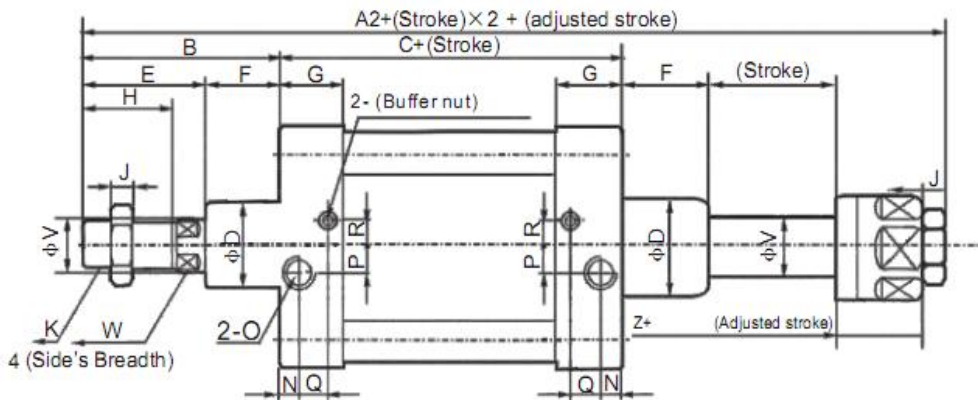
## 7. Overall and Dimension Sheet:

SI series:





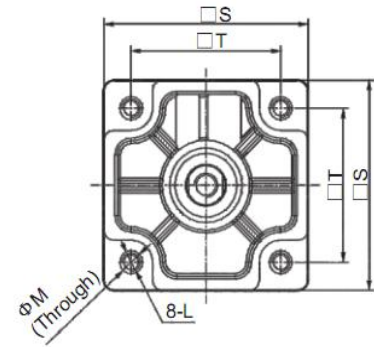
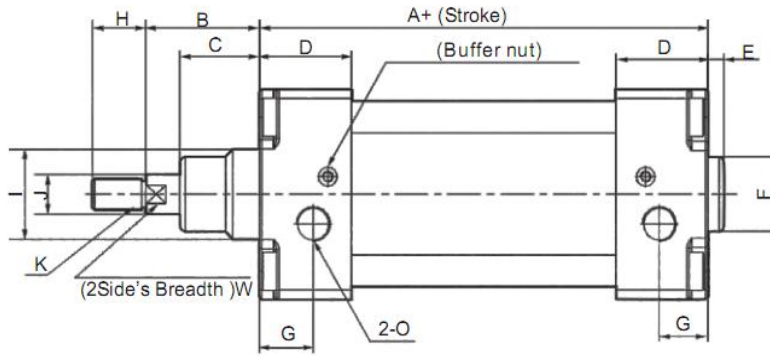
SIJ series:



Bore/Symbol	A	A1	A2	B	C	D	E	F	G	H	I	J	K	L
32	142	190	187	48	94	30	28	16	27.5	22	17	6	M10×1.25	M6
40	159	213	207	54	105	35	32	18	29	24	19	7	M12×1.25	M6
50	175	244	233	69	105	40	42	25	30	32	24	8	M16×1.5	M8
63	190	259	250	69	120	40	40	24	31.5	32	24	8	M16×1.5	M8
80	214	300	286	86	128	40	53	30	35.5	40	30	10	M20×1.5	M10
100	229	320	308	91	138	45	55	32	36	40	30	10	M20×1.5	M10
125	279	398	372.5	119	160	60	74	45	46	54	41	13.5	M27×2	M12
160	332	484	448	152	180	65	94	58	50	72	55	18	M36×2	M16
200	337	514	472	157	180	75	100	57	50	72	55	18	M36×2	M16

Bore/Symbol	N	O	P	Q	R	S	T	V	W	Z
32	13.5	G1/8"	4	7.5	7	47	32.5	12	10	21
40	16	G1/4"	6	8.5	9	53	38	16	13	21
50	15.5	G1/4"	8.5	7.5	7.5	65	46.5	20	17	23
63	16.5	G3/8"	7.5	8.5	9	75	56.5	20	17	23
80	16.5	G3/8"	11	8.5	13.5	95	72	25	22	29
100	18.5	G1/2"	13.5	9.5	14.5	115	89	25	22	29
125	23	G1/2"	14	12	14	140	110	32	27	35
160	25	G3/4"	15	12	20	180	140	40	36	40
200	25	G3/4"	15	12	20	220	175	40	36	40

## Φ 250~Φ 320 SI Series:



Bore/Symbol	A	B	C	D	E	F	G	H	I	J	K	L	M	S	T	O
250	200	105	67	52	10	90	31	84	90	50	M42×2	M20	Φ 30	270	220	G1
320	218	120	82	52	10	110	31	96	110	63	M48×2	M24	Φ 34	340	270	G1