

# SQ Series Compact Cylinder



## SQ

### Compact Cylinder



### Specifications

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Acting type	Double Acting/Single Acting									
Working medium	Clean Air(40 μ m filtration)									
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)									
Garanteed pressure(MPa)	1.5									
Working temperature(°C)	-20~80(No freezing)									
Speed range(mm/s)	30~500									
Cushion type	Rubber cushion									
Port size	M5 x 0.8			G1/8①			G1/4①		G3/8①	

① PT、NPT port size is optional.

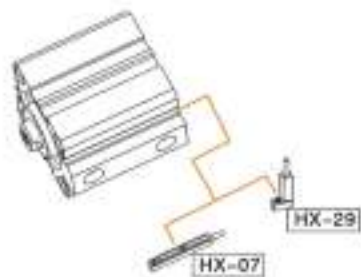
### How to Order?

Series No.	Mounting type	Type No.	Bore	X	Stroke	Adjustable Stroke	Magnet No.	Piston Rod Thread Type	Thread Type
SQ	Blank: Through hole A: Femal thread at both ends	Blank: Basic type D: Double shaft type J: Double shaft and adjustable stroke type SA: Single acting spring extend SB: Single acting spring return	12 16 20 25 100		25 50 75 40 50 75 100	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Blank: Female thread M: Male thread	Blank: G P: PT T: NPT

#### Order Example:

SQ Series single acting spring extend cylinder, through hole mounting type, 40mm bore, 30mm stroke, with magnet, femal thread on piston rod, G thread.  
ERP code is: SQSA40X30-S

### Optional Accessories



Note: Short stroke please use HX-29 series due to limited space.

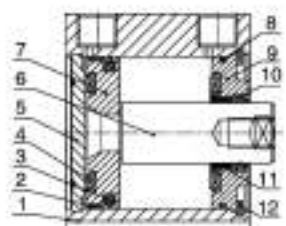
### Stroke

	Bore (mm)	Standard Stroke (mm)										Max. Stroke (mm)						
	Double Acting	12/16	5	10	15	20	25	30	35	40	45	50	50					
	20/25	5	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	150
	32~100	5	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	100
Single Acting	12/16	5	10	15	20	20												20
	20~63	5	10	15	20	25	30											30

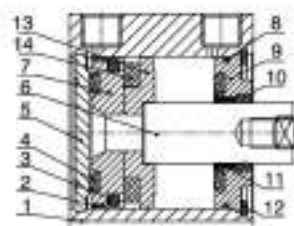
Note: The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.  
e.g. 27 mm stroke cylinder has the same dimensions of 30 std. stroke cylinder.  
When ordering stroke is larger than the maximum stroke, please contact us.

### Internal Structure

No magnet



With magnet



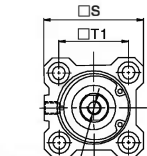
No	Part Name
1	Barrel
2	Wear ring
3	Piston seal
4	Anti-burn cushion
5	Rear cover
6	Piston rod
7	Piston
8	O-ring
9	Head cover
10	Piston rod seal
11	Self lubricating bearing
12	C type retainer ring
13	Magnet
14	Magnet base

# SQ Series Compact Cylinder

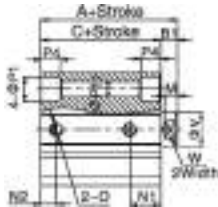


## Main Dimension

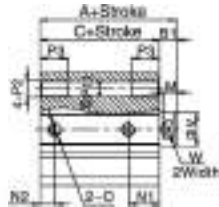
### SQ $\Phi 12-\Phi 25$ ( No magnet )



Through hole type



Thread type



Through hole type

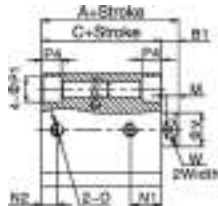
Model Sign Bore	Basic Type				With Magnet									
	A		C		N1	N2	A	C	N1	N2	B1	D	E	M
	St $\leq$ 50	St $\geq$ 60	St $\leq$ 50	St $\geq$ 60										
12	20.5	-	17	-	7.5	5	31.5	28	9	5	3.5	-	6	3.5
16	22	-	18.5	-	8	5.5	34	30.5	9.5	5.5	3.5	-	8	3
20	24	34	19.5	29.5	9	5.5	36	31.5	9.5	5.5	4.5	-	7	4
25	27.5	37.5	22.5	32.5	11	5.5	37.5	32.5	11	5.5	5	-	12	4.5
Bore/Sign	K1	O	P1	P11	P2		P3	P4	S	T1	T2	V	W	
12	M3x0.5	M5x0.8	6.3	3.4	M4x0.7		7	3.5	25	15.5	22	6	5	
16	M4x0.7	M5x0.8	6.5	3.4	M4x0.7		7	3.5	29	20	28	8	6	
20	M5x0.8	M5x0.8	9	5.4	M6x1.0		10	7	36	25.5	36	10	8	
25	M6x1.0	M5x0.8	9	5.4	M6x1.0		10	7	40	28	40	12	10	



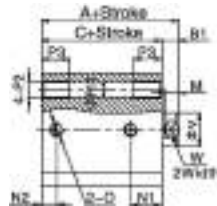
$\Phi 12$  ( With magnet )



$\Phi 16-\Phi 25$  ( With magnet )

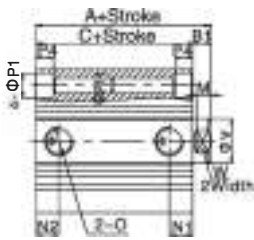


Through hole type

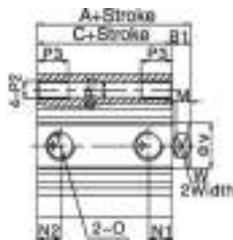


Thread type

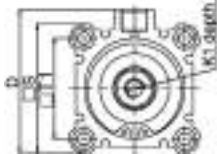
### SQ $\Phi 32-\Phi 100$



Through hole type

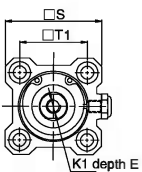


Thread type

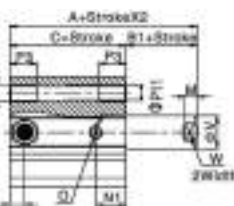
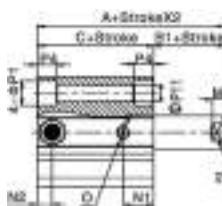


Model Sign Bore	Basic Type				With Magnet									
	A		C		N1	N2	A	C	N1	N2	B1	D	E	M
	St $\leq$ 5	St $>$ 5	St $\leq$ 5	St $>$ 5										
32	30	40	23	33	7.5	6.5	40	33	10.5	7.5	7	49.5	13	6
40	36.5	46.5	29.5	39.5	11	8	46.5	39.5	11	8	7	57	13	6
50	38.5	48.5	30.5	40.5	9	9	48.5	40.5	10.5	10.5	8	71	15	6.5
63	44	54	36	46	14	9.5	54	46	15	10.5	8	84	15	6.5
80	53.5	63.5	43.5	53.5	16	14	63.5	53.5	16	14	10	104	20	8.5
100	65	75	53	63	20	17.5	75	63	20	17.5	12	123.5	26	9.5
Bore/Sign	K1	O	P1	P11	P2		P3	P4	S	T1	T2	V	W	
32	M8x1.25	1/8"	9	5.4	M6x1.0		10	7	45	34	-	16	14	
40	M8x1.25	1/8"	9	5.4	M6x1.0		10	7	52	40	-	16	14	
50	M10x1.5	1/4"	11	6.5	M8x1.25		14	8	64	50	-	20	17	
63	M10x1.5	1/4"	14	8.9	M10x1.5		18	10.5	77	60	-	20	17	
80	M16x2.0	3/8"	17.5	10.9	M12x1.75		22	13.5	98	77	-	25	22	
100	M20x2.5	3/8"	17.5	10.9	M12x1.75		22	13.5	117	94	-	32	27	

### SQSA $\Phi 12-\Phi 25$ ( No magnet )

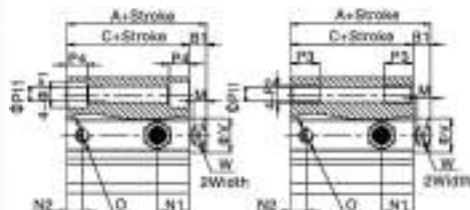


Through hole type

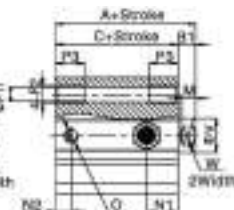


Thread type

### SQSB $\Phi 12-\Phi 25$ ( No magnet )



Through hole type



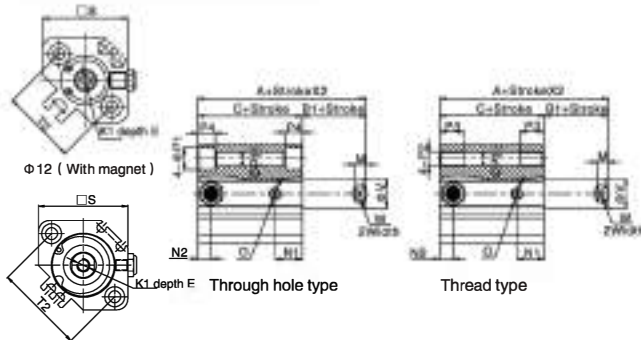
Thread type

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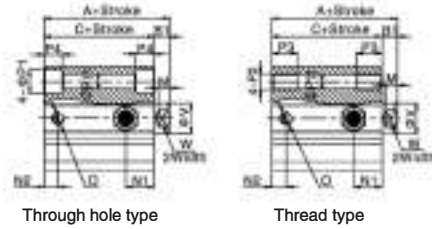


## ◎ Main Dimension

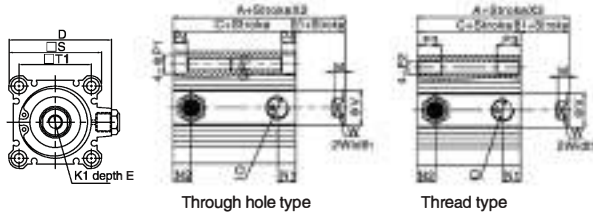
SQSA  $\phi 12-\phi 25$  ( With magnet )



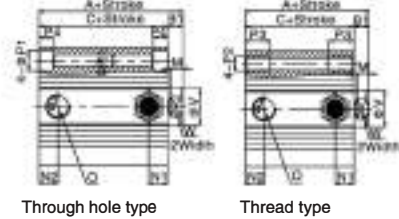
SQSB  $\phi 12-\phi 25$  ( With magnet )



SQSA  $\phi 32-\phi 63$



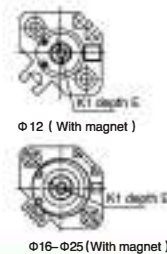
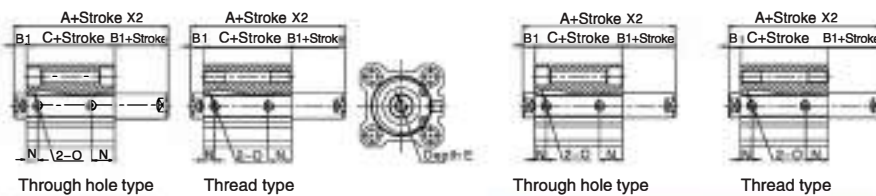
SQSB  $\phi 32-\phi 63$



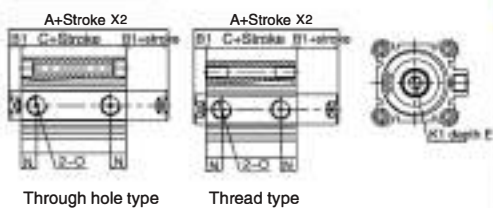
Model	Basic Type							N1	N2	B1	D	E
	Bore /Sign		A			C						
	Stroke	5/10	15/20	25/30	5/10	15/20	25/30					
12	12	25.5	30.5	-	22	27	-	7.5	5	3.5	-	6
16	16	27	32	-	23.5	28.5	-	8	5.5	3.5	-	8
20	20	29	34	39	24.5	29.5	34.5	9	5.5	4.5	-	7
25	25	32.5	37.5	42.5	27.5	32.5	37.5	11	5.5	5	-	12
32	32	35	40	45	28	33	38	10.5	7.5	7	49.5	13
40	40	41.5	46.5	51.5	34.5	39.5	44.5	11	8	7	57	13
50	50	48.5	53.5	58.5	40.5	45.5	50.5	10.5	10.5	8	71	15
63	63	54	59	64	46	51	56	15	10.5	8	84	15
	Bore /Sign	O	P1	P11	P2	P3	P4					
12	12	M5x0.8	6.3	3.4	M4x0.7	7	3.5					
16	16	M5x0.8	6.5	3.4	M4x0.7	7	3.5					
20	20	M5x0.8	9	5.4	M6x1.0	10	7					
25	25	M5x0.8	9	5.4	M6x1.0	10	7					
32	32	1/8"	9	6.5	M6x1.0	10	7					
40	40	1/8"	9	8.9	M6x1.0	10	7					
50	50	1/4"	11	10.9	M8x1.25	14	8					
63	63	1/4"	14	10.9	M10x1.5	18	10.5					

Model	Basic Type							N1	N2	K1
	Bore /Sign		A			C				
	Stroke	5/10	15/20	25/30	5/10	15/20	25/30			
12	12	36.5	41.5	-	33	38	-	9	5	M3x0.5
16	16	39	44	-	35.5	40.5	-	9.5	5.5	M4x0.7
20	20	41	46	51	36.5	41.5	46.5	9.5	5.5	M5x0.8
25	25	42.5	47.5	52.5	37.5	42.5	47.5	11	5.5	M6x1.0
32	32	45	50	55	38	43	48	10.5	7.5	M8x1.25
40	40	51.5	56.5	61.5	44.5	49.5	54.5	11	8	M8x1.25
50	50	58.5	63.5	68.5	50.5	55.5	60.5	10.5	10.5	M10x1.5
63	63	64	69	74	56	61	66	15	10.5	M10x1.5
	Bore /Sign	M	S	T1	T2	V	W			
12	12	3.5	25	15.5	22	6	5			
16	16	3	29	20	28	8	6			
20	20	4	36	25.5	36	10	8			
25	25	4.5	40	28	40	12	10			
32	32	6	45	34	-	16	14			
40	40	6	52	40	-	16	14			
50	50	6.5	64	50	-	20	17			
63	63	6.5	77	60	-	20	17			

SQD  $\phi 12-\phi 25$  ( No magnet )



SQD  $\phi 32-\phi 63$



Bore /Sign	A		C		B1	E	N
	Standard	With magnet	Standard	With magnet			
12	32.2	39.4	25.2	32.4	3.5	6	9
16	33	43	26	36	3.5	8	9.5
20	35	47	26	38	4.5	7	9.5
25	39	49	29	39	5	9.5 (St $\leq$ 5)/12 (St $>$ 5)	11
32	44.5	54.5	30.5	40.5	7	9 (St $\leq$ 10)/13 (St $>$ 10)	10
40	54	64	40	50	7	11 (St $\leq$ 10)/13 (St $>$ 10)	13
50	56.5	66.5	40.5	50.5	8	12 (St $\leq$ 10)/15 (St $>$ 10)	13.5
63	58	68	42	52	8	12 (St $\leq$ 10)/15 (St $>$ 10)	16
80	71	81	51	61	10	14 (St $\leq$ 15)/20 (St $>$ 15)	16
100	84.5	94.5	60.5	70.5	12	20 (St $\leq$ 25)/26 (St $>$ 25)	21

Note: Not marked dimensions is same as standard type. Male thread type pls check this page.

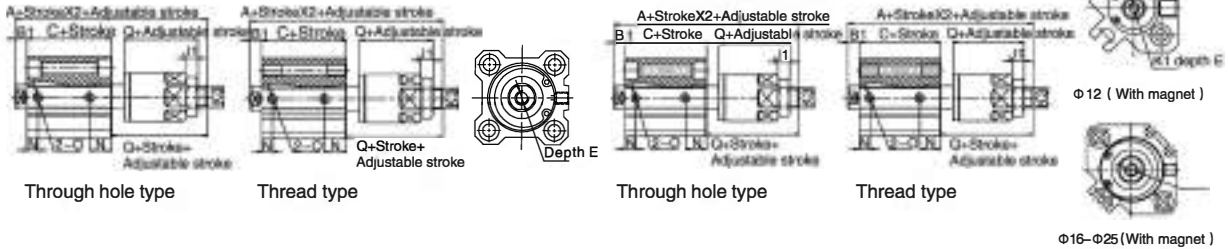


# SQ Series Compact Cylinder

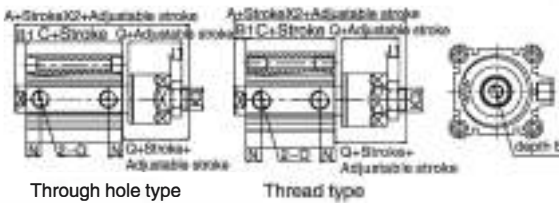


## Main Dimension

SQ  $\Phi 12-\Phi 25$  (No magnet)

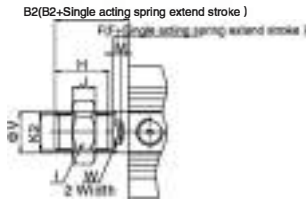


SQ  $\Phi 32-\Phi 100$



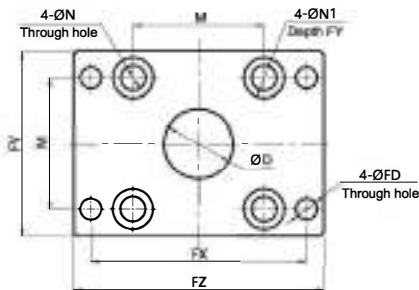
Bore / Sign	A		C		B1	E	N	Q	J1	K3
	Standard	With magnet	Standard	With magnet						
12	45.2	52.4	25.2	32.4	3.5	6	9	17	4	M5x0.8
16	50	60	26	36	3.5	8	9.5	21	5	M6x1.0
20	55	67	26	38	4.5	7	9.5	25	6	M8x1.25
25	61.5	71.5	29	39	5	9.5(St<5)/12(St>5)	11	28	6	M10x1.25
32	67	77	30.5	40.5	7	9(St<10)/13(St>10)	10	30	8	M14x1.5
40	75.5	85.5	40	50	7	11(St<10)/13(St>10)	13	29	8	M14x1.5
50	80.5	90.5	40.5	50.5	8	12(St<10)/15(St>10)	13.5	32	11	M18x1.5
63	82	92	42	52	8	12(St<10)/15(St>10)	16	32	11	M18x1.5
80	97.3	107.3	51	61	10	14(St<15)/20(St>15)	16	37	13	M22x1.5
100	106.5	116.5	60.5	70.5	12	20(St<25)/26(St>25)	20	37	13	M26x1.5

## Male type dimension



Bore / Sign	B2	F	H	I	J	K2	M	V	W
12	14	3.5	9	8	4	M5x0.8	3.5	6	5
16	15.5	3.5	10	10	5	M6x1.0	3	8	6
20	18.5	4.5	12	12	6	M8x1.25	4	10	8
25	22.5	5	15	17	6	M10x1.25	4.5	12	10
32	28.5	5	20.5	19	8	M14x1.5	4	16	14
40	28.5	5	20.5	19	8	M14x1.5	4	16	14
50	33.5	5	26	27	11	M18x1.5	4	20	17
63	33.5	5	26	27	11	M18x1.5	4	20	17
80	43.5	8	32.5	32	13	M22x1.5	6	25	22
100	43.5	8	32.5	36	13	M26x1.5	5.5	32	27

FA



Bore/Sign	M	N	N1	FD	FT	FV	FX	FY	FZ	D	所配螺丝 (短头内六角圆柱头螺钉)
SQA32-FA	34	6.5	10.5	5.5	8	48	56	4.3	65	20	GSH6X12B(发黑)X4只
SQA40-FA	40	6.5	10.5	5.5	8	54	62	4.3	72	20	GSH6X12B(发黑)X4只
SQN32-FA	34	6.5	10.5	5.5	8	48	56	4.3	65	20	GSH6X16B(发黑)X4只
SQN40-FA	40	6.5	10.5	5.5	8	54	62	4.3	72	20	GSH6X16B(发黑)X4只
SQN50-FA	50	8.5	13.5	6.5	9	67	76	5.3	89	25	GSH8X16B(发黑)X4只
SQN63-FA	60	10.5	16.5	9	10	80	92	6.3	108	25	GSH10X20B(发黑)X4只
SQN80-FA	77	12.5	18.5	11	12	99	116	7.5	134	30	GSH12X25B(发黑)X4只
SQN100-FA	94	12.5	18.5	11	12	117	136	7.5	154	40	GSH12X25B(发黑)X4只

备注:

1. 法兰板表面处理: 抛丸-电泳(黑色);
2. SQA□-FA, SQN□-FA; 两者只是螺钉长度不一样, 法兰板尺寸相同;
3. 缸径32和40的法兰应用区分SQA, SQN. 其它SQA, SQN法兰安装包通用.

# SQ Series Compact Cylinder(Long Stroke Type)

## SQ

Compact Cylinder(Long Stroke Type)



### Specifications

Bore(mm)	32	40	50	63	80	100
Acting type	Double Acting/Single Acting					
Working medium	Clean Air(40 μ m filtration)					
Working pressure(MPa)	0.1~1.0(Double acting) / 0.2~1.0(Single acting)					
Garanteed pressure(MPa)	1.5					
Working temperature(°C)	-20~80(No freezing)					
Speed range(mm/s)	30~500					
Cushion type	Rubber cushion					
Port size ①	G1/8		G1/4		G3/8	

① PT, NPT port size is optional.

### How to Order?

Series No.	Type No.	Bore	X Stroke	Adjustable Stroke	Magnet No.	Piston Rod Thread Type	Thread Type
SQA (Thread type)		32 40 50	Details in stroke chart	10 20 30 40 50 75 100	Blank: No magnet S: With magnet	Blank: Female thread M: Male thread	Blank: G P: PT T: NPT
	Blank: Basic type	100					
	D: Double shaft type						
	J: Double shaft and adjustable stroke type						
	SA: Single acting spring extend						
	SB: Single acting spring return						

#### Order Example:

SQA Series basic type cylinder, 40mm bore, 125mm stroke, with magnet, male thread on piston rod, G thread, ERP code is: SQA40X125-S-M

### Optional Accessories



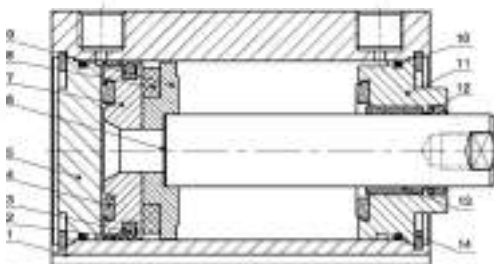
Note: Short stroke please use HX-29 series due to limited space.

### Stroke

Bore (mm)	Standard Stroke (mm)	Max. Stroke (mm)
32 40 50 63	125 150 175 200 250 300	300
80 100	125 150 175 200 250 300 350	350

No te: The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder.  
e.g. 115mm stroke cylinder has the same dimensions of 125 std. stroke cylinder.

### Internal Structure



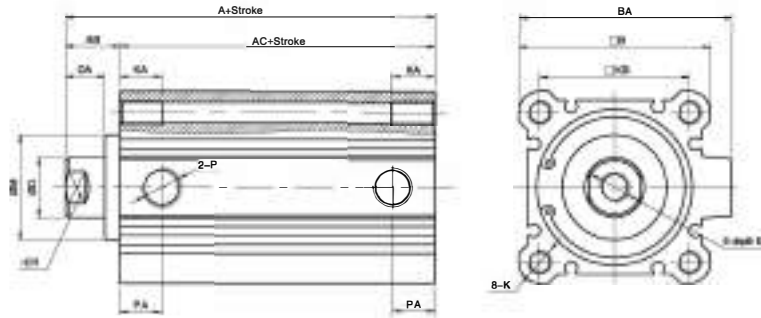
No.	Part Name	Material
1	Barrel	Aluminum alloy
2	Wearing	PTEE
3	Piston seal	NBR
4	Anti-bump cushion	NBR/TPU
5	Rear cover	Aluminum alloy
6	Piston rod	S45C hard chrome carbon steel
7	Piston	Aluminum alloy
8	Magnet	Plasic
9	Magnet base	Aluminum alloy
10	O-ring	NBR
11	Head cover	Aluminum alloy
12	Piston rod seal	TPU
13	Self lubricating bearing	Bronze powder
14	C-type retainer ring	Spring steel

# SQ Series Compact Cylinder(Long Stroke Type)



## Main Dimension

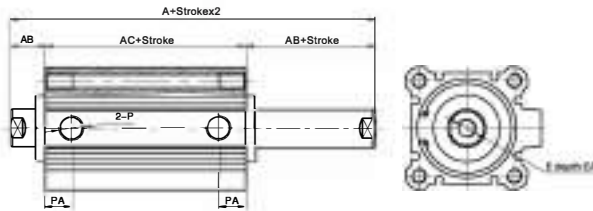
SQA32~SQA100(S>100)



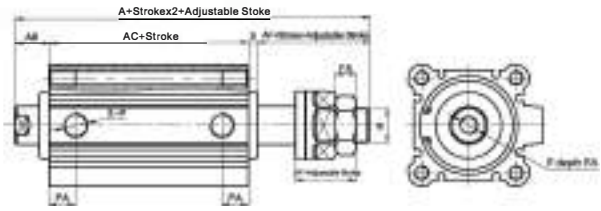
Bore/Sign	A	AB	AC	B	BA	D	DA	E	EA	H	K	KA	KB	M	P	PA
32	62.5	17	45.5	45	49.5	16	12	M8X1.25	13	14	M6X1.0	10	34	22	1/8"	12.5
40	72	17	55	52	57	16	12	M8X1.25	13	14	M6X1.0	10	40	28	1/8"	14
50	73.5	18	55.5	64	71	20	13	M10X1.5	15	17	M8X1.25	14	50	35	1/4"	14
63	75	18	57	77	84	20	13	M10X1.5	15	17	M10X1.5	18	60	35	1/4"	16.5
80	86	20	66	98	104	25	15	M16X2.0	21	22	M12X1.75	22	77	43	3/8"	19
100	97.5	22	75.5	117	123.5	32	17	M20X2.5	27	27	M12X1.75	22	94	59	3/8"	23

Note: With magnet and without magnet, the dimensions are same.

SQAD32~SQAD100(S>100)



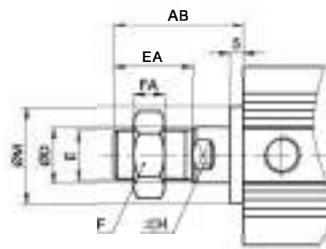
SQAJ32~SQAJ100(S>100)



Bore/Sign	A(SQAD)		A(SQAJ)		AB	AC		AF	E	EA	FA	PA	H
	No magnet	With magnet	No magnet	With magnet		Standard	With magnet						
32	79.5	89.5	97.5	107.5	17	45.5	55.5	30	M8X1.25	13	8	12.5	M14X1.5
40	89	99	106	116	17	55	65	29	M8X1.25	13	8	14	M14X1.5
50	91.5	101.5	110.5	120.5	18	55.5	65.5	32	M10X1.5	15	11	14	M18X1.5
63	93	103	112	122	18	57	67	32	M10X1.5	15	11	16.5	M18X1.5
80	106	116	128	138	20	66	76	37	M16X2.0	21	13	19	M22X1.5
100	119.5	129.5	139.5	149.5	22	75.5	85.5	37	M20X2.5	27	13	23	M26X1.5

## Dimension of Male Thread

Φ32~Φ100(S>100)



Bore/Sign	AB	D	E	EA	FA	F	H	M
32	38.5	16	M14X1.5	23.5	8	19	14	22
40	38.5	16	M14X1.5	23.5	8	19	14	28
50	43.5	20	M18X1.5	28.5	11	27	17	35
63	43.5	20	M18X1.5	28.5	11	27	17	35
80	53.5	25	M22X1.5	35.5	13	32	22	43
100	53.5	32	M26X1.5	35.5	13	36	27	59

SQ (Long stroke)