

NSQ

NFPA Standard



Specifications

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Acting type	Double Acting / Single Acting: With Spring Return / With Spring Extend									
Working medium	Clean Air (40 μm filtration)									
Working pressure (psi)	14.5-145									
Guaranteed pressure (psi)	217									
Working temperature	-20-70°C (-4-176°F) (No freezing)									
Cushion type	Rubber Cushion									
Stroke tolerance	+1.0 0									
Lubrication	Not required									
Port size	M5x0.8			NPT1/8			NPT1/4		NPT3/8	
Magnet switch	HX-07/HX-29									

How to Order?

Series No	Mounting Type	Type No	Bore	X	Stroke	Adjustable Stroke	Magnet No	Piston Rod Thread Type	Thread Type
NSQ (North America Standard)	Blank: Through hole A: Femal thread at both ends		12		25	10	Blank: No magnet S: With magnet	Blank: Female thread M: Male thread N: No thread	Blank: NPT
			16		50	20			
			20		75	30			
			25		...	40			
			50			
		100		...	75				
					100				

D: Double shaft type
 J: Double shaft and adjustable stroke type
 SA: Single acting spring extend
 SB: Single acting spring return

Order Example:

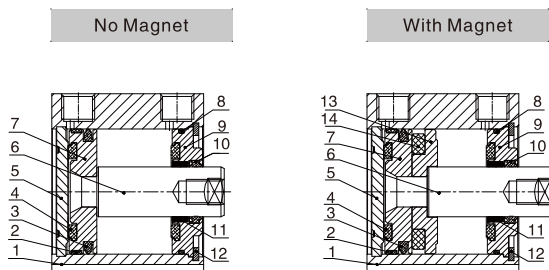
NSQ Series single acting spring extend cylinder, through hole mounting type, 40mm bore, 30mm stroke, with magnet, female thread on piston rod, NPT thread.
ERP code is: NSQSA40X30-S

Stroke

Bore (mm)	Standard Stroke (mm)	Max.Stroke (mm)	
Double Acting	12/16	5 10 15 20 25 30 35 40 45 50 60	50
	20/25	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	
	32-100	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	
Single Acting	12/16	5 10 15 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. 27mm stroke cylinder has the same dimensions of 30 std. stroke cylinder.

Internal Structure



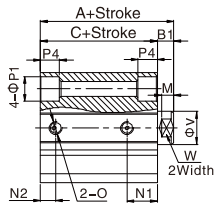
No	Part Name
1	Barrel
2	Wear ring
3	Piston seal
4	Anti-bump cushion
5	Rear cover
6	Piston rod
7	Piston
8	O-ring
9	Head cover
10	Piston rod seal
11	
12	C type retainer ring
13	Magnet
14	Magnet base

NSQ Series NFPA Standard Compact Cylinder

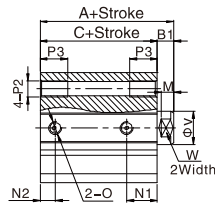


Main Dimension

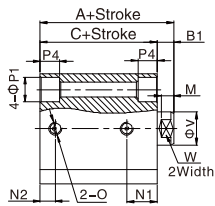
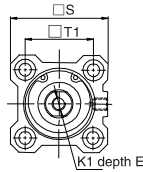
NSQ $\Phi 12-\Phi 25$ (No Magnet)



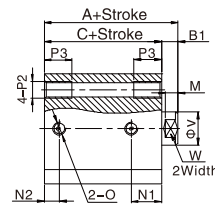
Through hole type



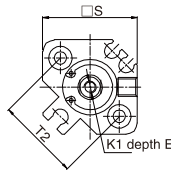
Thread type



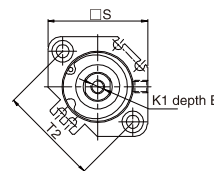
Through hole type



Thread type



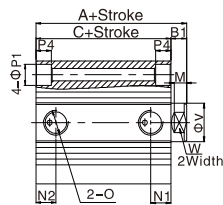
$\Phi 12$ (With magnet)



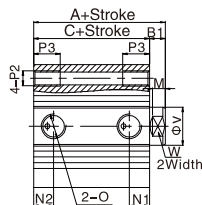
$\Phi 16-\Phi 25$ (With magnet)

Model	Basic Type				With Magnet									
	A		C		N1	N2	A	C	N1	N2	B1	D	E	M
Bore	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	-	5.4	3.5
16	22	-	18.5	-	8	5.5	34	30.5	9.5	5.5	3.5	-	5.4	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	-	10	4.5
Bore /Sign	K1	O	P1	P2	P3	P4	S	T1	T2	V	W			
12	M3x0.5	#8-32UNC	6.3	#8-32UNC	7	3.5	25	15.5	22	6	5			
16	M4x0.7	#8-32UNC	6.5	#8-32UNC	7	3.5	29	20	28	8	6			
20	M5x0.8	#10-32UNF	9	1/4-20UNC	10	7	36	25.5	36	10	8			
25	M6x1.0	1/4-28UNF	9	1/4-20UNC	10	7	40	28	40	12	10			

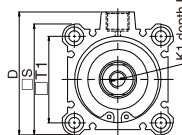
NSQ $\Phi 32-\Phi 100$



Through hole type



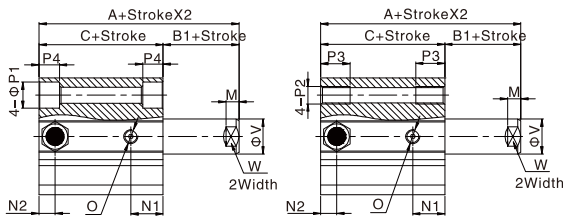
Thread type



Model	Basic Type				With Magnet										
	A		C		N1	N2	A	C	N1	N2	B1	D	E	M	
Bore	St \leq 50	St \geq 60	St \leq 50	St \geq 60											
32	St=5	30	40	23	33	7.5	6.5	40	33	10.5	7.5	7	49.5	13.3	6
	St>5					10.5	7.5								
40	St=5	36.5	46.5	29.5	39.5	11	8	46.5	39.5	11	8	7	57	18.3	6
	St>5					9	9								
50	St=5	38.5	48.5	30.5	40.5	10.5	10.5	48.5	40.5	10.5	10.5	8	71	17.6	6.5
	St>5					14	9.5								
63	St=5	44	54	36	46	15	10.5	54	46	15	10.5	8	84	17.6	6.5
	St>5					15	10.5								
80	St=5	53.5	63.5	43.5	53.5	16	14	63.5	53.5	16	14	10	104	24.3	8.5
	St>5					16	14								
100	St=5	65	75	53	63	20	17.5	75	63	20	17.5	12	123.5	27	9.5
	St>5					20	17.5								
Bore /Sign	K1	O	P1	P2	P3	P4	S	T1	T2	V	W				
32	5/16-24UNF	NPT1/8	9	1/4-20UNC	10	7	45	34	-	16	14				
40	3/8-24UNF	NPT1/8	9	1/4-20UNC	10	7	52	40	-	16	14				
50	1/2-20UNF	NPT1/4	11	5/16-18UNC	14	8	64	50	-	20	17				
63	1/2-20UNF	NPT1/4	14	7/16-14UNC	18	10.5	77	60	-	20	17				
80	5/8-18UNF	NPT3/8	17.5	1/2-13UNC	22	13.5	98	77	-	25	22				
100	3/4-16UNF	NPT3/8	17.5	1/2-13UNC	22	13.5	117	94	-	32	27				

Main Dimension

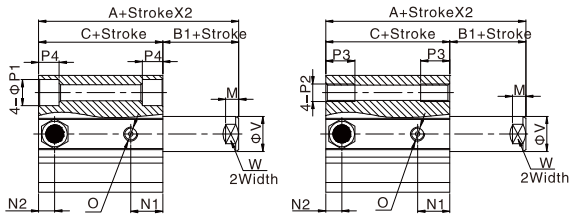
NSQSA $\Phi 12-\Phi 25$ (No Magnet)



Through hole type

Thread type

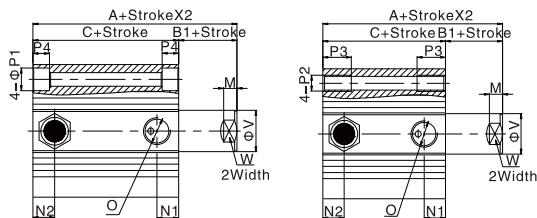
NSQSA $\Phi 12-\Phi 25$ (With Magnet)



Through hole type

Thread type

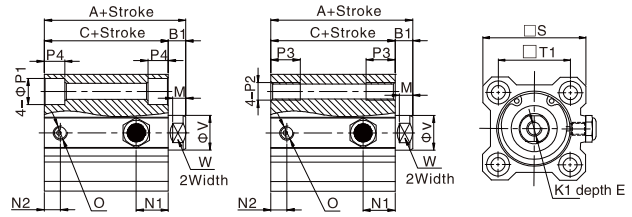
NSQSA $\Phi 32-\Phi 63$



Through hole type

Thread type

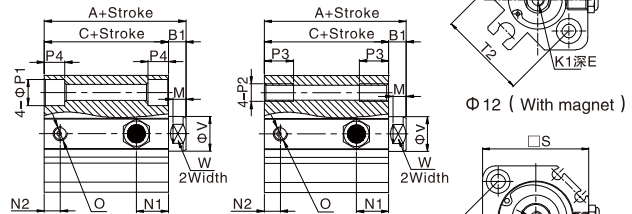
NSQSB $\Phi 12-\Phi 25$ (No Magnet)



Through hole type

Thread type

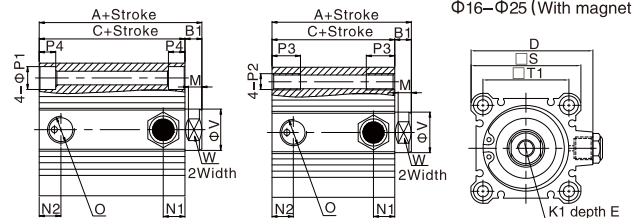
NSQSB $\Phi 12-\Phi 25$ (With Magnet)



Through hole type

Thread type

NSQSB $\Phi 32-\Phi 63$



Through hole type

Thread type

Model	Basic Type							N1	N2	B1	D	E
	A			C								
Bore /Sign	5/10	15/20	25/30	5/10	15/20	25/30						
Stroke	5/10	15/20	25/30	5/10	15/20	25/30						
12	25.5	30.5	-	22	27	-	7.5	5	3.5	-	5.4	
16	27	32	-	23.5	28.5	-	8	5.5	3.5	-	5.4	
20	29	34	39	24.5	29.5	34.5	9	5.5	4.5	-	7	
25	32.5	37.5	42.5	27.5	32.5	37.5	11	5.5	5	-	10	
32	35	40	45	28	33	38	10.5	7.5	7	49.5	13.3	
40	41.5	46.5	51.5	34.5	39.5	44.5	11	8	7	57	18.3	
50	48.5	53.5	58.5	40.5	45.5	50.5	10.5	10.5	8	71	17.6	
63	54	59	64	46	51	56	15	10.5	8	84	17.6	

Bore /Sign	O	P1	P2	P3	P4
12	M5x0.8	6.3	#8-32UNC	7	3.5
16	M5x0.8	6.5	#8-32UNC	7	3.5
20	M5x0.8	9	1/4-20UNC	10	7
25	M5x0.8	9	1/4-20UNC	10	7
32	NPT1/8	9	1/4-20UNC	10	7
40	NPT1/8	9	1/4-20UNC	10	7
50	NPT1/4	11	5/16-18UNC	14	8
63	NPT1/4	14	7/16-14UNC	18	10.5

Model	Basic Type							N1	N2	K1
	A			C						
Bore /Sign	5/10	15/20	25/30	5/10	15/20	25/30				
Stroke	5/10	15/20	25/30	5/10	15/20	25/30				
12	36.5	41.5	-	33	38	-	9	5	#8-32UNC	
16	39	44	-	35.5	40.5	-	9.5	5.5	#8-32UNC	
20	41	46	51	36.5	41.5	46.5	9.5	5.5	#10-32UNF	
25	42.5	47.5	52.5	37.5	42.5	47.5	11	5.5	1/4-28UNF	
32	45	50	55	38	43	48	10.5	7.5	5/16-24UNF	
40	51.5	56.5	61.5	44.5	49.5	54.5	11	8	3/8-24UNF	
50	58.5	63.5	68.5	50.5	55.5	60.5	10.5	10.5	1/2-20UNF	
63	64	69	74	56	61	66	15	10.5	1/2-20UNF	

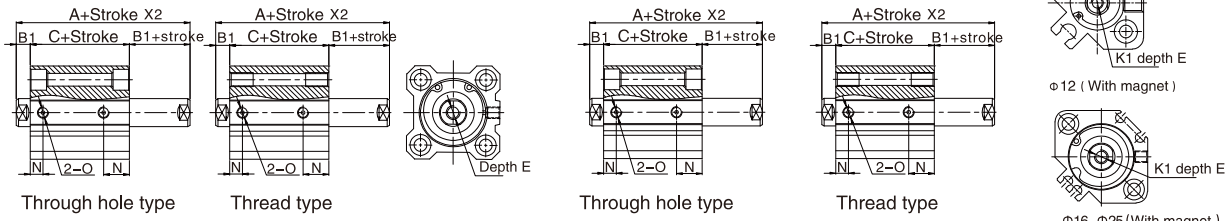
Bore /Sign	M	S	T1	T2	V	W
12	3.5	25	15.5	22	6	5
16	3	29	20	28	8	6
20	4	36	25.5	36	10	8
25	4.5	40	28	40	12	10
32	6	45	34	-	16	14
40	6	52	40	-	16	14
50	6.5	64	50	-	20	17
63	6.5	77	60	-	20	17

NSQ Series NFPA Standard Compact Cylinder

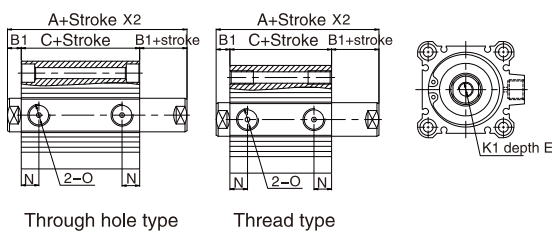


Main Dimension

NSQD $\Phi 12-\Phi 25$ (No Magnet)



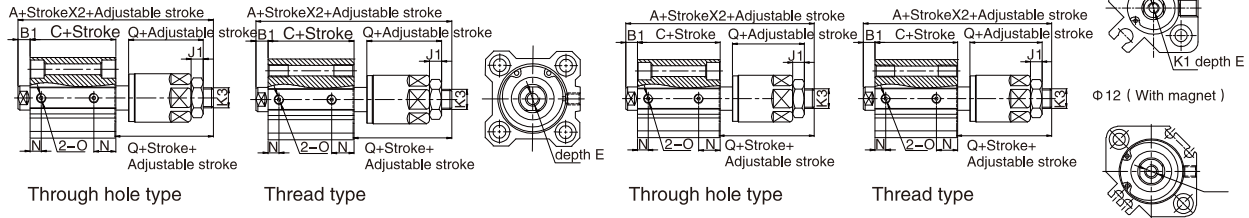
NSQD $\Phi 32-\Phi 63$



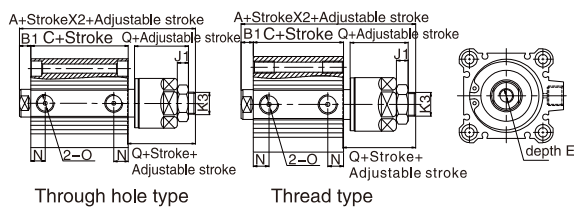
Bore /Sign	A		C		B1	E	N
	standard	With magnet	standard	With magnet			
12	32.2	39.4	25.2	32.4	3.5	5.4	9
16	33	43	26	36	3.5	5.4	9.5
20	35	47	26	38	4.5	7	9.5
25	39	49	29	39	5	9.5(St≤5)/10(St>5)	11
32	44.5	54.5	30.5	40.5	7	9(St≤10)/13.3(St>10)	10
40	54	64	40	50	7	11(St≤10)/18.3(St>10)	13
50	56.5	66.5	40.5	50.5	8	12(St≤10)/17.6(St>10)	13.5
63	58	68	42	52	8	12(St≤10)/17.6(St>10)	16
80	71	81	51	61	10	14(St≤15)/24.3(St>15)	16
100	84.5	94.5	60.5	70.5	12	20(St≤25)/27(St>25)	21

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

NSQJ $\Phi 12-\Phi 25$ (No Magnet)

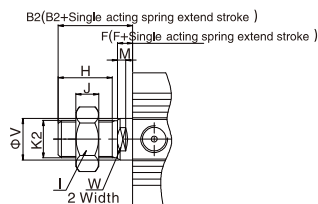


NSQJ $\Phi 32-\Phi 100$



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	5.4	9	17	4	M5x0.8
16	50	60	26	36	3.5	5.4	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)/10(St>5)	11	28	6	M10x1.25
32	67	77	30.5	40.5	7	9(St≤10)/13.3(St>10)	10	30	8	M14x1.5
40	75	85.5	40	50	7	11(St≤10)/18.3(St>10)	13	29	8	M14x1.5
50	80.5	90.5	40.5	50.5	8	12(St≤10)/17.6(St>10)	13.5	32	11	M18x1.5
63	82	92	42	52	8	12(St≤10)/17.6(St>10)	16	32	11	M18x1.5
80	97.3	107.3	51	61	10	14(St≤15)/24.3(St>15)	16	37	13	M22x1.5
100	109	119	60.5	70.5	12	20(St≤25)/27(St>25)	21	37	13	M26x1.5

Male Type Dimension



Bore /Sign	B2	F	H	I	J	K2	M	V	W
12	11.5	3.5	9	8	4	#8-32UNC	3.5	6	5
16	11.5	3.5	10	10	5	#8-32UNC	3	8	6
20	12.5	4.5	12	12	6	#10-32UNF	4	10	8
25	14.5	5	15	17	6	1/4-28UNF	4.5	12	10
32	19.7	7	20.5	19	8	5/16-24UNF	4	16	14
40	23	7	20.5	19	8	3/8-24UNF	4	16	14
50	27.5	8	26	27	11	1/2-20UNF	4	20	17
63	27.5	8	26	27	11	1/2-20UNF	4	20	17
80	35.5	10	32.5	32	13	5/8-18UNF	6	25	22
100	40.5	12	32.5	36	13	3/4-16UNF	5.5	32	27