

# SDA Series Thin Type(Compact) Cylinder



SDA 32 x 25



SDAJ 32 x 25-10

Ordering Code

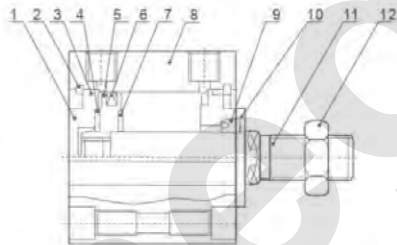
**SDA**      **20** × **30**      **5**      **S**      **B**

**Series Code**      **Cylinder Bore**      **Stroke**      **Adjust Stroke**      **Magnet Code**      **Cog Type**

SDA: Double Action Type      12mm~100mm      5mm      Blank:Without Magnet      Blank:Inner Thread  
 SSA: Single Action Extrusion Type      15mm      S:With Magnet      B:Outer Thread  
 STA: Single Action Drawing-in Type      25mm      N:No Thread  
 SDAD: Double-shaft Double Action Type  
 SDAJ: Double-shaft and Adjustable Stroke Type

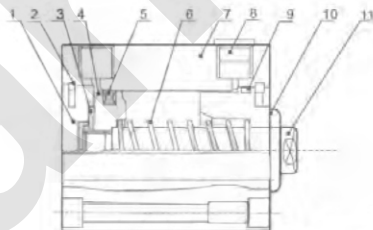
Internal structure

SDA Type



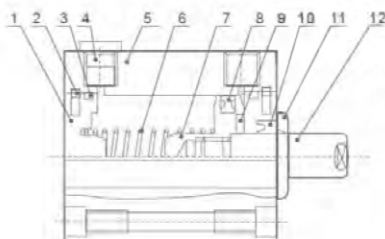
NO	Designation	NO	Designation
1	Back cover	2	Type C buckle ring
3	O-ring	4	Anti-crash cushion
5	Piston	6	Piston O-ring
7	Anti-crash cushion	8	Barrel
9	Front cover seal ring	10	Front cover
11	Piston rod	12	Piston Rod Nut

SSA Type



NO	Designation	NO	Designation
1	Back cover	2	Type C buckle ring
3	Anti-crash cushion	4	Piston
5	Piston O-ring	6	Compressed spring
7	Barrel	8	Silencer
9	Cover O-ring	10	Front cover
11	Piston rod		

STA Type



NO	Designation	NO	Designation
1	Back cover	2	Type C buckle ring
3	Cover O-ring	4	Silencer
5	Barrel	6	Compressed spring
7	Piston	8	Piston O-ring
9	Anti-crash cushion	10	Front cover sealing
11	Front cover	12	Piston rod

# SDA Series Thin Type(Compact) Cylinder

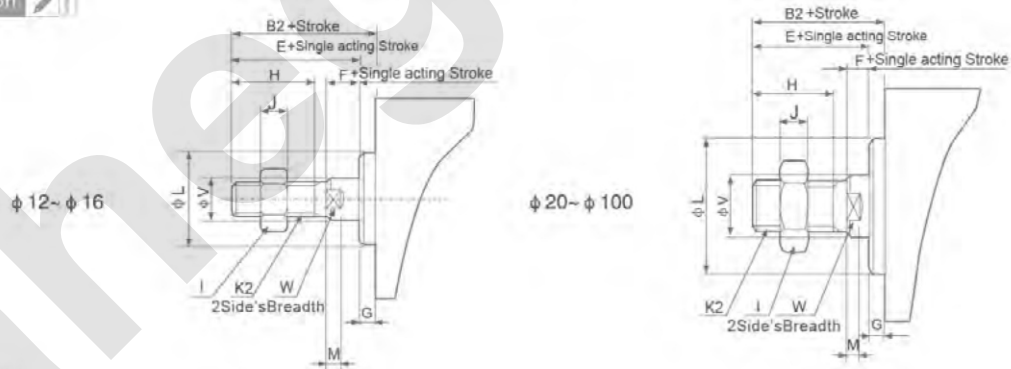
## Specification

Bore(mm)	12	16	20	25	32	40	50	63	80	100	
Motion Pattern	Single Acting Extrusion type				Double Action Single Acting Drawing-in Type						
Working Medium					Air						
Operating Pressure Range	Double Action				0.1~0.9MPa						
	Single Action				0.2~0.9MPa						
Ensured Pressure Resistance					1.35MPa						
Operating Temperature Range					-5~70 C						
Operating Speed Range	Double Action				30~500mm/s			30~350mm/s		30~250mm/s	
	Single Action				100~500mm/s						
Buffer Type					Fixed Type Buffer						
Port Size	M5×0.8				G1/8"		G1/4"		G3/8"		

## Stroke

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Double Action	Not attach magnet 5~60 mm Every 5mm is grouped as one grade	5~85 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~110 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade
Single Action	Attach magnet 5~50 mm Every 5mm is grouped as one grade	5~75 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100mm	5~90 mm Every 5mm is grouped as one grade	5~90 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade	100~130 mm Every 5mm is grouped as one grade
Max.Stroke	60mm	100mm	100mm	120mm	120mm	130mm	130mm	130mm	130mm	130mm

## Outer Thread Dimension



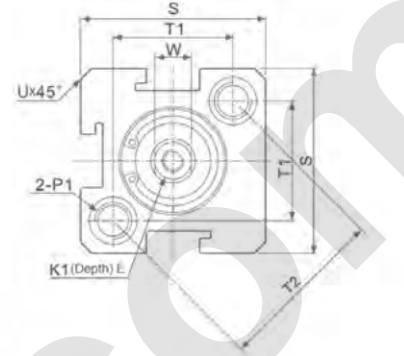
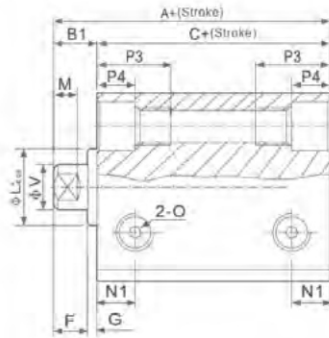
## Dimension Sheet

Bore/Symbol	B2	E	F	G	H	I	J	K2	L	M	V	W
12	17	16	4	1	10	8	4	M5×0.8	10.2	2.8	6	5
16	17.5	16	4	1.5	10	8	4	M5×0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	10	5	M6×1.0	16	2.8	8	6
25	23	21	4	2	15	12	6	M10×1.25	17	2.8	10	8
32	25	22	4	3	15	17	6	M10×1.25	22	2.8	12	10
40	35	32	4	3	25	19	8	M14×1.5	28	2.8	16	14
50	37	33	5	4	25	27	11	M18×1.5	38	2.8	20	17
63	37	33	5	4	25	27	11	M18×1.5	40	2.8	20	17
80	44	39	6	5	30	32	13	M22×1.5	45	4	25	22
100	50	45	7	5	35	36	13	M26×1.5	55	4	32	27

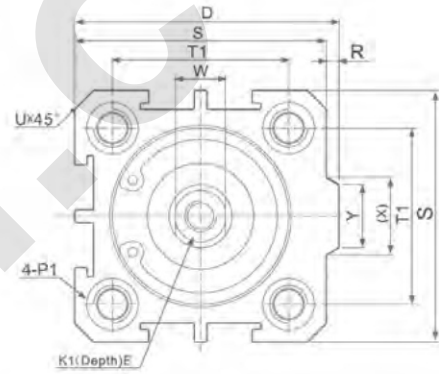
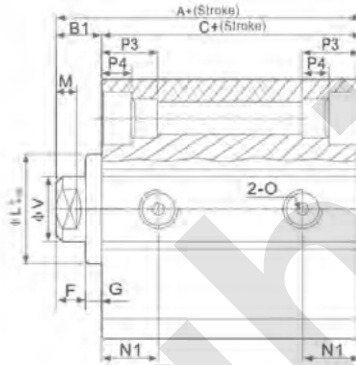
# SDA Series Thin Type(Compact) Cylinder

## Overall Dimensions

SDA.SDAS Type  
Φ12-Φ16



SDA.SDAS Type  
Φ20-Φ100



## Dimension Sheet

Type	Standard Type			Attach Magnet			D	E		F	G	K1	L	M	N1
	A	B1	C	A	B1	C		Stroke≤10	Stroke>10						
12	22	5	17	32	5	27	-	6	4	1	M3×0.5	10.2	2.8	6.3	
16	24	5.5	18.5	34	5.5	28.5	-	6	4	1.5	M3×0.5	11	2.8	7.3	
20	25	5.5	19.5	35	5.5	29.5	36	8	4	1.5	M4×0.7	15	2.8	7.5	
25	27	6	21	37	6	31	42	10	4	2	M5×0.8	17	2.8	8	
32	31.5	7	24.5	41.5	7	34.5	50	12	4	3	M6×1	22	2.8	9	
40	33	7	28	43	7	36	58.5	12	4	3	M8×1.25	28	2.8	10	
50	37	9	28	47	9	38	71.5	15	5	4	M10×1.5	38	2.8	10.5	
63	41	9	32	51	9	42	84.5	15	5	4	M10×1.5	40	2.8	11.8	
80	52	11	41	62	11	51	104	15	6	5	M14×1.5	45	4	14.5	
100	63	12	51	73	12	61	124	18	7	5	M18×1.5	55	4	20.5	

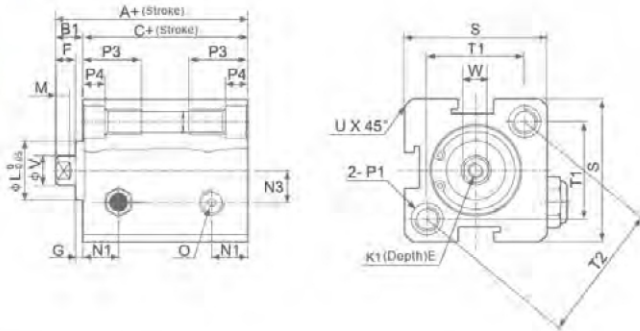
Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
16	6.5	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	Double Sides:Φ8.2/Thread:M6×1.0/Through ports:Φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides:Φ8.2/Thread:M6×1.0/Through ports:Φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides:Φ10/Thread:M8×1.25/Through ports:Φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	Double Sides:Φ11/Thread:M8×1.25/Through ports:Φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	28.7	20
63	-	G1/4"	Double Sides:Φ11/Thread:M8×1.25/Through ports:Φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	Double Sides:Φ14/Thread:M12×1.75/Through ports:Φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	Double Sides:Φ17.5/Thread:M14×2/Through ports:Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26



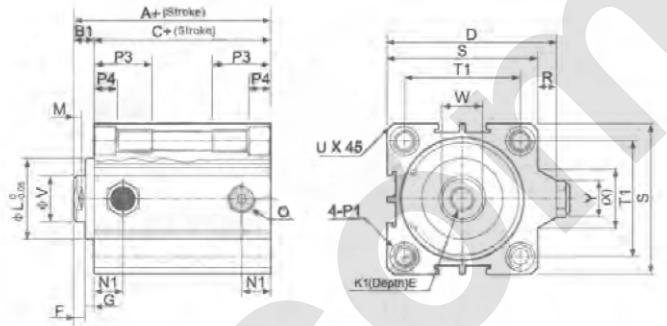
# SDA Series Thin Type(Compact) Cylinder

## Overall Dimensions

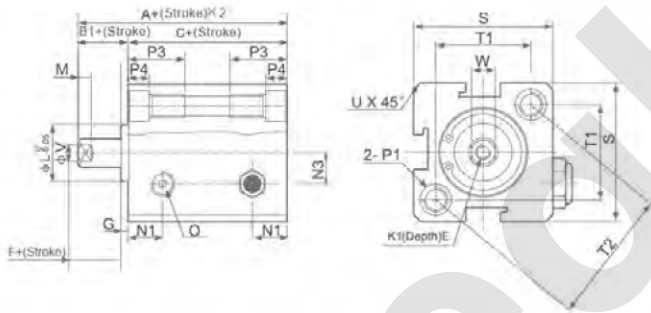
SSA.SSAS Type  $\phi 12-\phi 16$



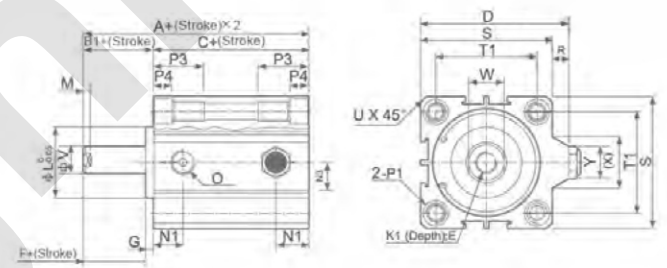
SSA.SSAS Type  $\phi 20-\phi 40$



STA.STAS Type  $\phi 12-\phi 16$



STA.STAS Type  $\phi 20-\phi 40$



## Dimension Sheet

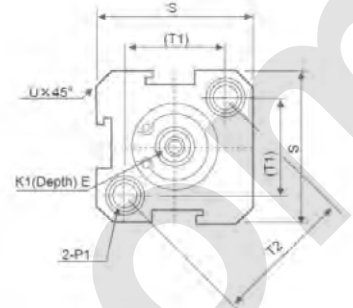
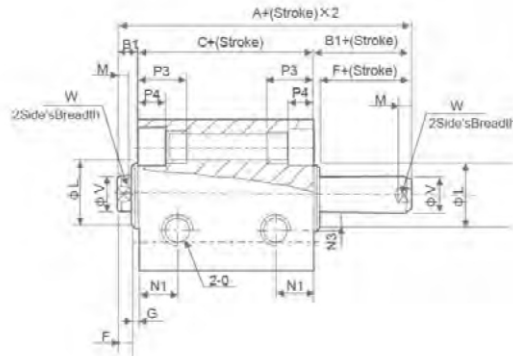
Type Bore Stroke/ Symbol	Standard Type				Attach Magnet						D	E	F	G	K1	L	M	N1
	A		B1	C		A		B1	C									
	≤10	>10		≤10	>10	≤10	>10		≤10	>10								
12	32	42	5	27	37	42	52	5	37	47	-	6	4	1	M3×0.5	10.2	2.8	6.3
16	34	44	5.5	28.5	38.5	44	54	5.5	38.5	48.5	-	6	4	1.5	M3×0.5	11	2.8	7.3
20	35	45	5.5	29.5	39.5	45	55	5.5	39.5	49.5	36	8	4	1.5	M4×0.7	16	2.8	7.5
25	37	47	6	34	41	47	57	6	41	51	42	10	4	2	M5×0.8	17	2.8	8
32	41.5	51.5	7	34.5	44.5	51.5	61.5	7	44.5	54.4	50	12	4	3	M6×1	22	2.8	9
40	43	53	7	36	46	53	63	7	46	56	58.5	12	4	3	M8×1.25	28	2.8	10

Bore Stroke/Symbol	N3	O	P1				P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2				12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2				12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2				14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	Double Sides:Φ8.2/Thread:M6×1.0/Through ports:Φ4.6				15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides:Φ8.2/Thread:M6×1.0/Through ports:Φ4.6				16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides:Φ10/Thread:M8×1.25/Through ports:Φ6.5				20	7.5	6.5	52	40	-	2.25	16	14	21.3	16

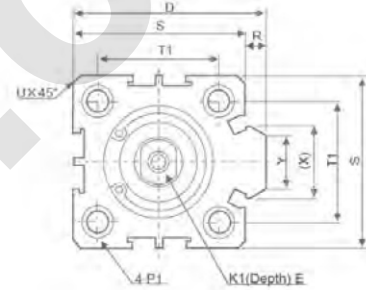
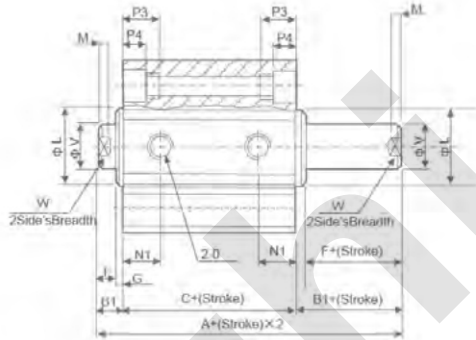
# SDA Series Thin Type(Compact) Cylinder

## Overall Dimensions

SDAD.SDADS Type  
Φ12-Φ16



SDAD.SDADS Type  
Φ20-Φ100



## Dimension Sheet

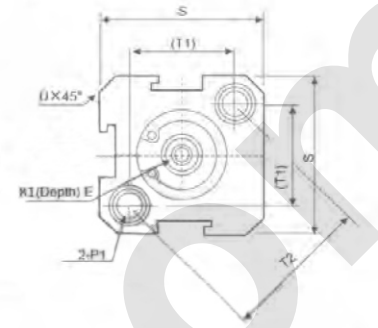
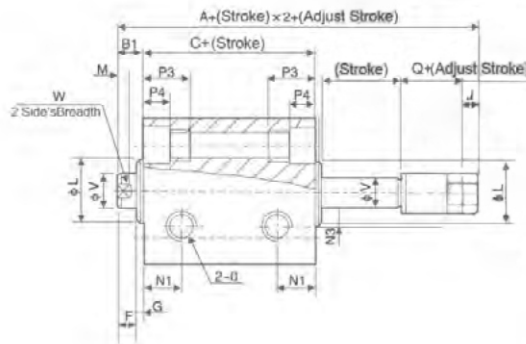
Type	Standart Type			Attach Magnet			D	E		F	G	K1	L	M	N1
	A	B1	C	A	B1	C		Stroke≤10	Stroke>10						
12	27	5	17	37	5	27	-	6	4	1	M3×0.5	10.2	2.8	6.3	
16	29.5	5.5	18.5	39.5	5.5	28.5	-	6	4	1.5	M3×0.5	11	2.8	7.3	
20	30.5	5.5	19.5	40.5	5.5	29.5	36	8(Stroke=5/itis6.5)	4	1.5	M4×0.7	16	2.8	7.5	
25	33	6	21	43	6	31	42	10(Stroke=5/itis7)	4	2	M5×0.8	17	2.8	8	
32	38.5	7	24.5	48.5	7	34.5	50	8	12	4	M6×1	22	2.8	9	
40	40	7	28	50	7	36	58.5	9	12	4	M8×1.25	28	2.8	10	
50	46	9	28	56	9	38	71.5	11	15	5	M10×1.5	38	2.8	10.5	
63	50	9	32	60	9	42	84.5	11	15	5	M10×1.5	40	2.8	11.8	
80	63	11	41	73	11	51	104	14	20	6	M14×1.5	45	4	14.5	
100	75	12	51	85	12	61	124	18	20	7	M18×1.5	55	4	20.5	

Bore Size/Symbol	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	Double Sides:Φ6.5/Thread:M5×0.8/Through ports:Φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	Double Sides:Φ8.2/Thread:M6×1.0/Through ports:Φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides:Φ8.2/Thread:M6×1.0/Through ports:Φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides:Φ10/Thread:M8×1.25/Through ports:Φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	Double Sides:Φ11/Thread:M8×1.25/Through ports:Φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	-	G1/4"	Double Sides:Φ11/Thread:M8×1.25/Through ports:Φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	Double Sides:Φ14/Thread:M12×1.75/Through ports:Φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	Double Sides:Φ17.5/Thread:M14×2/Through ports:Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26

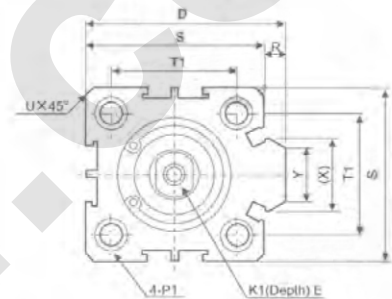
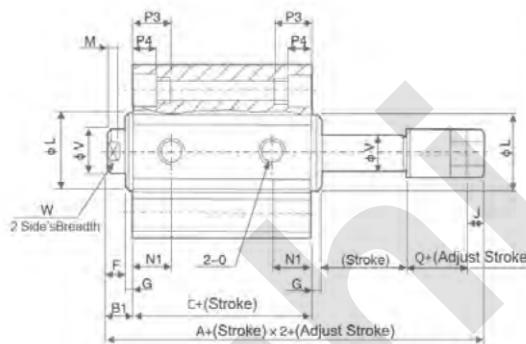
# SDA Series Thin Type(Compact) Cylinder

## Overall Dimensions

SDAJ.SDAJS Type  
Φ12~Φ16



SDAJ.SDAJS Type  
Φ20~Φ100



## Dimension Sheet

Type Bore Size/Symbol	Standart Type			Attach Magnet			D	E		F	G	K1	L	M	N1
	A	B1	C	A	B1	C		Stroke≤10	Stroke>10						
12	22	5	17	32	5	27	-	6	4	1	M3×0.5	10.2	2.8	6.3	
16	24	5.5	18.5	34	5.5	28.5	-	6	4	1.5	M3×0.5	11	2.8	7.3	
20	25	5.5	19.5	35	5.5	29.5	36	8	4	1.5	M4×0.7	15	2.8	7.5	
25	27	6	21	43	6	31	42	10	4	2	M5×0.8	17	2.8	8	
32	31.5	7	24.5	41.5	7	34.5	50	12	4	2	M6×1	22	2.8	9	
40	33	7	28	43	7	36	58.5	12	4	3	M8×1.25	28	2.8	10	
50	37	9	28	47	9	38	71.5	15	5	4	M10×1.5	38	2.8	10.5	
63	41	9	32	51	9	42	84.5	15	5	4	M10×1.5	40	2.8	11.8	
80	52	11	41	62	11	51	104	15	20	6	M14×1.5	45	4	14.5	
100	63	12	51	73	12	61	124	18	20	7	M18×1.5	55	4	20.5	

Bore Size/Symbol	N3	O	P1				P3	P4	R	S	T1	T2	U	V	W	X	Y
			Double Sides	Thread	Magnet	Through ports											
12	6	M5×0.8	Double Sides	Φ6.5/Thread	M5×0.8/Through ports	Φ4.2	12	4.5	-	25	16.2	23	1.6	6	5	-	-
16	6.5	M5×0.8	Double Sides	Φ6.5/Thread	M5×0.8/Through ports	Φ4.2	12	4.5	-	29	19.8	28	1.6	6	5	-	-
20	-	M5×0.8	Double Sides	Φ6.5/Thread	M5×0.8/Through ports	Φ4.2	14	4.5	2	34	24	-	2.1	8	6	11.3	10
25	-	M5×0.8	Double Sides	Φ6.5/Thread	M6×1.0/Through ports	Φ4.6	15	5.5	2	40	28	-	3.1	10	8	12	10
32	-	G1/8"	Double Sides	Φ6.5/Thread	M6×1.0/Through ports	Φ4.6	16	5.5	6	44	34	-	2.15	12	10	18.3	15
40	-	G1/8"	Double Sides	Φ6.5/Thread	M8×1.25/Through ports	Φ6.5	20	7.5	6.5	52	40	-	2.25	16	14	21.3	16
50	-	G1/4"	Double Sides	Φ6.5/Thread	M8×1.25/Through ports	Φ6.5	25	8.5	9.5	62	48	-	4.15	20	17	30	20
63	-	G1/4"	Double Sides	Φ6.5/Thread	M8×1.25/Through ports	Φ6.5	25	8.5	9.5	75	60	-	3.15	20	17	28.7	20
80	-	G3/8"	Double Sides	Φ6.5/Thread	M12×1.75/Through ports	Φ9.2	25	10.5	10	94	74	-	3.65	25	22	36	26
100	-	G3/8"	Double Sides	Φ6.5/Thread	M12×1.75/Through ports	Φ11.3	30	13	10	114	90	-	3.65	32	27	35	26