STNC®

TGD Series Standard Cylinder

According ISO6431、ISO15552 Standard、VDMA24562

Designed with new seal material and buffer structure, with a simple structure, light weight,low starting pressure, running balance, good sealing performance, long life, easy maintenance, etc., are widely used in light industry, chemical industry, gold, mechanical, electronics and other industries automation equipment, there are a varieties of components options to attend different installation requirements.

Cylinder installation instructions

1、Before installation, be sure if the cylinder was not damaged during transportation.Check if connecting parts were loose, etc.
2、When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
3、When cylinder installation, especially for long stroke cylinder, it must use level instrument for three—point position calibration.
4、Before the pipe connects into air intake, it should clear pipe' s burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
5、Speed adjustment: firstly adjusting speed control valve (one—way throttle) in the middle, gradually adjusting the output pressure of regulator , when cylinder speed is close to pre—determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
6、After cylinder installation, in working pressure range, to operate 2—3 times without load, checking the cylinder before if is working normally.
7、At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
8、In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
9、In low—temperature environment, it should take antifreeze measure to prevent water freezing of the system. .
10、If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.

III

Theoretical calculation of the cylinder output

$$F = P \times A$$

F : cylinder theoretical output

P : Working pressure

A : Piston force area

■ Theoretical force sheet

Cylinder inside diamater		32		40		50		63		80		100		125		160		200	
External diameterof piston rad		12		16		20		20		25		25		32		40		40	
Action Type		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action	
		Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk
Compression area cm^2		8.04	6.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122.7	114.6	201.0	188.4	314	301
Air pressure Kgf/cm^2	1	08.04	06.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122	114	210	188	314	301
	2	16.08	13.80	25.12	21.10	39.26	32.98	62.34	56.06	100.52	90.72	157.06	147.24	245	229	402	377	628	603
	3	24.12	20.70	37.68	31.65	58.89	49.47	93.51	84.09	150.78	186.08	235.59	220.86	368	344	603	565	942	904
	4	32.16	27.60	50.24	42.20	78.52	65.96	124.68	112.12	201.04	181.44	314.12	294.48	491	458	804	754	1257	1206
	5	40.20	34.50	62.80	52.75	98.15	82.45	155.85	140.15	251.30	226.80	392.65	368.10	615	573	1005	942	1570	1507
	6	48.24	41.40	75.36	63.30	117.78	98.94	187.02	168.18	301.56	272.16	471.18	441.72	736	688	1206	1130	1885	1808
	7	56.28	48.30	87.92	73.85	137.41	115.43	218.19	196.21	351.82	317.52	549.71	515.34	859	802	1407	1319	2199	2110
	8	64.32	55.20	100.48	84.40	157.04	131.92	249.36	224.24	402.08	362.88	628.24	588.96	982	917	1608	1507	2513	2411
	9	72.36	62.10	113.04	94.95	176.67	148.41	280.53	252.27	452.34	408.24	706.77	662.58	1104	1031	1809	1696	2826	2713

TGD Series Standard Cylinder

According ISO6431、ISO15552 Standard、VDMA24562

Ordering Code

TGD — 50 × 50 — S — LB

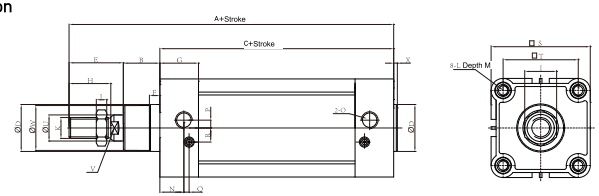
- TGD: Series
- 50: Bore
- 50: Stroke
- S: The Code name of magnet; S: With magnet; Blank: Without magnet
- LB: Fix type; Blank: Basic type; LB: Front and back be fixed; FA: Front port be fixed(front flange); FB: Back port be fixed(Back flange); CA: Back port be fixed(pivot type); CB: Back port be fixed(clevis type)

Standard Specification

Bore (mm)	32	40	50	63	80	100	125
Action	Double action type						
Applicable medium	Air						
Pressure range	0.1～0.9 MPa						
Proof pressure	1.35 MPa						
Temperature range	−10 ～60°C						
Speed range	50～800 mm/s						
Cushion type	Adjustable cushion						
Cushion stroke(mm)	24 mm				32 mm		38 mm
Prot Size	G1/8	G1/4		G3/8		G1/2	

Figure Dimension

Φ32 – Φ125



Theoretical Force Sheet

Bore/Code	A	B	C	D	E	F	G	H	I	J	K	L
32	142	16	94	30	32	10	25	22	17	6	M10×1.25	M6
40	159	20	105	35	34	10	29.5	24	17	7	M12×1.25	M6
50	175	27	106	40	40	10	32	32	23	8	M16×1.5	M8
63	190	26	122	45	40	10	36	32	23	8	M16×1.5	M8
80	214	35	127	45	52	10	37	40	26	10	M20×1.5	M10
100	229	40	137	55	52	10	39	40	26	10	M20×1.5	M10
125	279	46	160	60	73	11	44.7	54	–	–	M27×2	M12

Bore/Code	M	N	O	P	Q	R	S	T	U	V	W	X
32	9.5	15	G1/8	5	3	6.5	46.5	32.5	12	10	28	4
40	9.5	17.5	G1/4	7	3	7	54	38	16	14	33	4
50	9.5	21	G1/4	7	3	9	64.5	46.5	20	17	38	4
63	9.5	23	G3/8	8	5	9	77	56.5	20	17	40	4
80	11.5	24	G3/8	10	5	12	95	72	25	22	43	4
100	11.5	26	G1/2	10	5	14	115	89	25	22	47	4
125	12	22.3	G1/2	13	8	16	142	110	32	27	58	6

STNC®

TGDJ Series Standard Cylinder

According ISO6431、ISO15552 Standard、VDMA24562

Ordering Code

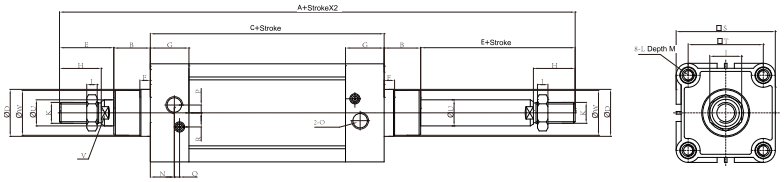
TGDD — 50 × 50 — S — LB

- TGDD: Series
- 50: Bore
- 50: Stroke
- S: The Code of magnet; S: With magnet; Blank: Without magnet
- LB: Fix type; Blank: Basic type; LB: Front and back be fixed; FA: Front port be fixed(front flange)

Standard Specification

Bore (mm)	32	40	50	63	80	100	125
Action	Double action type						
Applicable medium	Air						
Pressure range	0.1～0.9 MPa						
Proof pressure	1.35 MPa						
Temperature range	−10 ～60°C						
Speed range	50～800 mm/s						
Cushion type	Adjustable cushion						
Cushion stroke(mm)	24 mm				32 mm		38 mm
Prot Size	G1/8	G1/4		G3/8		G1/2	

Figure Dimension



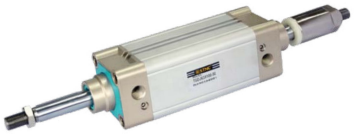
Theoretical Force Sheet

Bore/Code	A	B	C	D	E	F	G	H	I	J	K	L
32	190	16	94	30	32	10	25	22	17	6	M10×1.25	M6
40	213	20	105	35	34	10	29.5	24	17	7	M12×1.25	M6
50	244	27	106	40	40	10	32	32	23	8	M16×1.5	M8
63	258	26	122	45	40	10	36	32	23	8	M16×1.5	M8
80	301	35	127	45	52	10	37	40	26	10	M20×1.5	M10
100	321	40	137	55	52	10	39	40	26	10	M20×1.5	M10
125	352	46	160	60	73	11	44.7	54	–	–	M27×2	M12

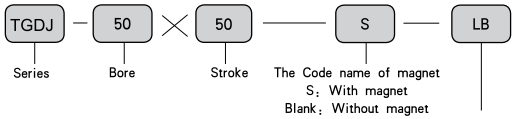
Bore/Code	M	N	O	P	Q	R	S	T	U	V	W
32	9.5	15	G1/8	5	3	6.5	46.5	32.5	12	10	28
40	9.5	17.5	G1/4	7	3	7	54	38	16	14	33
50	9.5	21	G1/4	7	3	9	64.5	46.5	20	17	38
63	9.5	23	G3/8	8	5	9	77	56.5	20	17	40
80	11.5	24	G3/8	10	5	12	95	72	25	22	43
100	11.5	26	G1/2	10	5	14	115	89	25	22	47
125	12	22.3	G1/2	13	8	16	142	110	32	27	58

TGDJ Series Standard Cylinder

According ISO6431、ISO15552 Standard、VDMA24562



Ordering Code

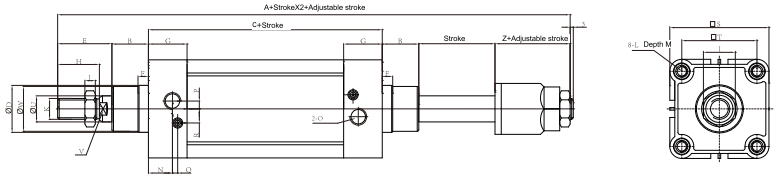


Standard Specification

Bore (mm)	32	40	50	63	80	100	125
Action	Double action type						
Applicable medium	Air						
Pressure range	0.1～0.9 MPa						
Proof pressure	1.35 MPa						
Temperature range	−10 ～60°C						
Speed range	50～800 mm/s						
Cushion type	Adjustable cushion						
Cushion stroke(mm)	24 mm				32 mm		38 mm
Prot Size	G1/8	G1/4		G3/8		G1/2	

Figure Dimension

Φ32 – Φ125



Theoretical Force Sheet

Bore/Code	A	B	C	D	E	F	G	H	I	J	K	L
32	185	16	94	30	32	10	25	22	17	6	M10×1.25	M6
40	207	20	105	35	34	10	29.5	24	17	7	M12×1.25	M6
50	233	27	106	40	40	10	32	32	23	8	M16×1.5	M8
63	247	26	122	45	40	10	36	32	23	8	M16×1.5	M8
80	288	35	127	45	52	10	37	40	26	10	M20×1.5	M10
100	308	40	137	55	52	10	39	40	26	10	M20×1.5	M10
125	–	46	160	60	73	11	44.7	54	–	–	M27×2	M12

Bore/Code	M	N	O	P	Q	R	S	T	U	V	W	Z
32	9.5	15	G1/8	5	3	6.5	45	32.5	12	10	28	28
40	9.5	17.5	G1/4	7	3	7	52	38	16	13	33	28
50	9.5	21	G1/4	7	3	9	65	46.5	20	17	38	31
63	9.5	23	G3/8	8	5	9	76	56.5	20	17	40	31
80	11.5	24	G3/8	10	5	12	94	72	25	22	43	39
100	11.5	26	G1/2	10	5	14	112	89	25	22	47	39
125	12	22.3	G1/2	13	8	16	142	110	32	27	58	–

TGI Series Standard Cylinder

According ISO6431、ISO15552 Standard、VDMA24562

Character

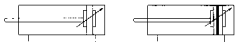
Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

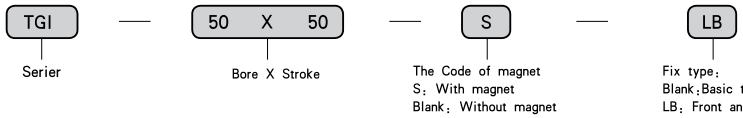
Kinds of mounting: Have kinds of accessories to choose.

Adjustable stroke: Attached with adjustable nut, the operator can adjust the stroke within its stroke range.

Graphics Sign



Ordering Code



Ordering example

1)Bore:50mm, Stroke:50mm, CA installation, Code : TGI50×50–CA

2)Bore:32mm, Stroke:100mm, LB installation, Code : TGI32×100–LB

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～1.0 MPa								
Proof pressure	1.5 MPa								
Temperature range	−10 ～60°C								
Speed range	50～500 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm					32 mm			
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

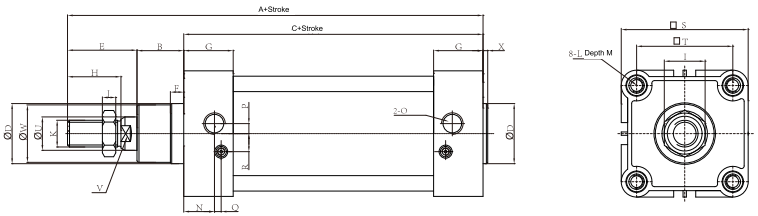
■ Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

III

■ Figure Dimension

Φ32 – Φ125



STNC®
TGI Series Standard Cylinder
According ISO6431、ISO15552 Standard、VDMA24562

Figure Dimension(mm)

Bore/Code	A	B	C	D	E	F	G	H	I	J	K	L
32	142	16	94	30	32	10	25	22	17	6	M10×1.25	M6
40	159	20	105	35	34	10	29.5	24	17	7	M12×1.25	M6
50	175	27	106	40	40	10	32	32	23	8	M16×1.5	M8
63	190	26	122	45	40	10	36	32	23	8	M16×1.5	M8
80	214	35	127	45	52	10	37	40	26	10	M20×1.5	M10
100	229	40	137	55	52	10	39	40	26	10	M20×1.5	M10
125	279	46	160	60	73	11	44.7	54	–	–	M27×2	M12
160	332	60	180	65	92	–	–	72	–	–	M36×2	M16
200	347	70	180	75	97	–	–	72	–	–	M36×2	M16

III

Bore/Code	M	N	O	P	Q	R	S	T	U	V	W	X
32	9.5	15	G1/8	5	3	6.5	46.5	32.5	12	10	28	4
40	9.5	17.5	G1/4	7	3	7	54	38	16	13	33	4
50	9.5	21	G1/4	7	3	9	64.5	46.5	20	17	38	4
63	9.5	23	G3/8	8	5	9	77	56.5	20	17	40	4
80	11	24	G3/8	10	5	12	95	72	25	22	43	4
100	11	26	G1/2	10	5	14	115	89	25	22	47	4
125	12	22.3	G1/2	13	8	16	142	110	32	27	58	6
160	–	25	G3/4	–	–	–	179	140	40	36	–	6
200	–	25	G3/4	–	–	–	221	175	40	36	–	6

Product characteristics

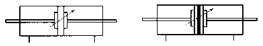
Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Graphics Sign



Ordering Code

TGID — 50 X 50 — S — LB

- TGID: Serier
- 50 X 50: Bore X Stroke
- S: The Code name of magnet
  S: With magnet
  Blank: Without magnet
- LB: Fix type:
  Blank:Basic type
  LB: Front and back be fixed
  FA: Front port be fixed(front flange)
  TC : Trunion type

Ordering example

1)Bore:63mm, Stroke:50mm, LB installation, Code : TGID63×50—LB

2)Bore:32mm, Stroke:100mm, FA installation, Code : TGID32×100—FA

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～1.0 MPa								
Proof pressure	1.5 MPa								
Temperature range	−10 ～60°C								
Speed range	50～500 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm					32 mm			
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

STNC®

TGID Series Standard Cylinder

According ISO6431、ISO15552 Standard、VDMA24562

Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300	200	300
40	25 50 75 80 100 125 150 160 175 200 250 300	200	300
50	25 50 75 80 100 125 150 160 175 200 250 300	200	300
63	25 50 75 80 100 125 150 160 175 200 250 300	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	300	400
100	25 50 75 80 100 125 150 160 175 200 250 300	300	400
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

Figure Dimension

Φ32 — Φ125

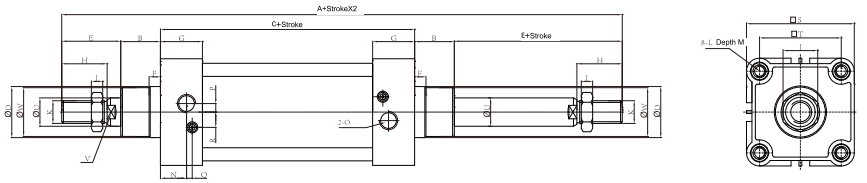


Figure Dimension(mm)

Bore/Code	A	B	C	D	E	F	G	H	I	J	K	L
32	190	16	94	30	32	10	25	22	17	6	M10×1.25	M6
40	213	20	105	35	34	10	29.5	24	17	7	M12×1.25	M6
50	244	27	106	40	40	10	32	32	23	8	M16×1.5	M8
63	258	26	122	45	40	10	36	32	23	8	M16×1.5	M8
80	301	35	127	45	52	10	37	40	26	10	M20×1.5	M10
100	321	40	137	55	52	10	39	40	26	10	M20×1.5	M10
125	352	46	160	60	73	11	44.7	54	–	–	M27×2	M12
160	484	60	180	65	92	–	–	72	–	–	M36×2	M16
200	514	70	180	75	96	–	–	72	–	–	M36×2	M16

Bore/Code	M	N	O	P	Q	R	S	T	U	V	W
32	9.5	15	G1/8	5	3	6.5	46.5	32.5	12	10	28
40	9.5	17.5	G1/4	7	3	7	54	38	16	13	33
50	9.5	21	G1/4	7	3	9	64.5	46.5	20	17	38
63	9.5	23	G3/8	8	5	9	77	56.5	20	17	40
80	11	24	G3/8	10	5	12	95	72	25	22	43
100	11	26	G1/2	10	5	14	115	89	25	22	47
125	12	22.3	G1/2	13	8	16	142	110	32	27	58
160	–	25	G3/4	–	–	–	195	140	40	36	–
200	–	25	G3/4	–	–	–	238	175	40	36	–

Product characteristics

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

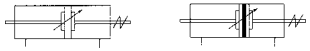
Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

Graphics Sign



Ordering Code

TGIJ — 50 X 50 — 25 — S — LB

- TGIJ: Series
- 50 X 50: Bore X Stroke
- 25: Adjustable stroke type — 25:25mm; 50:50mm; 75:75mm
- S: The Code of magnet — S: With magnet; Blank: Without magnet
- LB: Fix type: Blank:Basic type; LB: Front and back be fixed; FA: Front port be fixed(front flange); TC : Trunion type

Ordering example

1)Bore:50mm, Stroke:50mm, adjustable stroke:25, LB installation, Code : TGIJ50×50−25−LB

2)Bore:32mm, Stroke:100mm, adjustable stroke:25, FA installation, Code : TGIJ32×100−25−FA

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～1.0 MPa								
Proof pressure	1.5 MPa								
Temperature range	−10 ～60°C								
Speed range	50～500 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm					32 mm			
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

STNC®

TGIJ Series Standard Cylinder

According ISO6431、ISO15552 Standard、VDMA24562

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200	200	300
40	25 50 75 80 100 125 150 160 175 200	200	300
50	25 50 75 80 100 125 150 160 175 200	200	300
63	25 50 75 80 100 125 150 160 175 200	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	300	400
100	25 50 75 80 100 125 150 160 175 200 250 300	300	400
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

Figure Dimension

Φ32 – Φ125

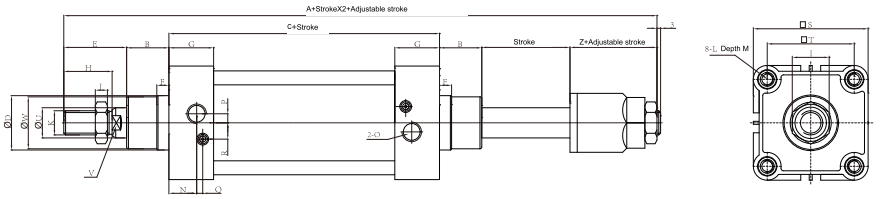


Figure Dimension(mm)

Bore/Code	A	B	C	D	E	F	G	H	I	J	K	L
32	185	16	94	30	32	10	25	22	17	6	M10×1.25	M6
40	207	20	105	35	34	10	29.5	24	17	7	M12×1.25	M6
50	233	27	106	40	40	10	32	32	23	8	M16×1.5	M8
63	247	26	122	45	40	10	36	32	23	8	M16×1.5	M8
80	288	35	127	45	52	10	37	40	26	10	M20×1.5	M10
100	308	40	137	55	52	10	39	40	26	10	M20×1.5	M10
125	–	46	160	60	73	11	44.7	54	–	–	M27×2	M12
160	–	60	180	65	92	–	–	72	–	–	M36×2	M16
200	–	70	180	75	96	–	–	72	–	–	M36×2	M16

Bore/Code	M	N	O	P	Q	R	S	T	U	V	W	Z
32	9.5	15	G1/8	5	3	6.5	45	32.5	12	10	28	28
40	9.5	17.5	G1/4	7	3	7	52	38	16	13	33	28
50	9.5	21	G1/4	7	3	9	65	46.5	20	17	38	31
63	9.5	23	G3/8	8	5	9	76	56.5	20	17	40	31
80	11	24	G3/8	10	5	12	94	72	25	22	43	39
100	11	26	G1/2	10	5	14	112	89	25	22	47	39
125	12	22.3	G1/2	13	8	16	142	110	32	27	58	–
160	–	25	G3/4	–	–	–	195	140	40	36	–	–
200	–	25	G3/4	–	–	–	238	175	40	36	–	–

Theoretical calculation of the cylinder output

$$F = P \times A$$

F：cylinder theoretical output

P：Working pressure

A：Piston force area

Designed with new seal material and buffer structure, with a simple structure, light weight,low starting pressure, running balance, good sealing performance, long life, easy maintenance, etc., are widely used in light industry, chemical industry, gold, mechanical, electronics and other industries automation equipment, there are a varieties of components options to attend different installation requirements.

Cylinder installation instructions

1、Before installation, be sure if the cylinder was not damaged during transportation.Check if connecting parts were loose, etc.
2、When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
3、When cylinder installation, especially for long stroke cylinder, it must use level instrument for three-point position calibration.
4、Before the pipe connects into air intake, it should clear pipe's burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
5、Speed adjustment: firstly adjusting speed control valve (one-way throttle) in the middle, gradually adjusting the output pressure of regulator , when cylinder speed is close to pre-determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
6、After cylinder installation, in working pressure range, to operate 2-3 times without load, checking the cylinder before if is working normally.
7、At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
8、In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
9、In low-temperature environment, it should take antifreeze measure to prevent water freezing of the system. .
10、If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.

Theoretical force sheet

Cylinder inside diamater		32		40		50		63		80		100		125		160		200	
External diameterof piston rad		12		16		20		20		25		25		32		40		40	
Action Type		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action	
		Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk
Compression area cm^2		8.04	6.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122.7	114.6	201.0	188.4	314	301
Air pressure Kgf/cm^2	1	08.04	06.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122	114	210	188	314	301
	2	16.08	13.80	25.12	21.10	39.26	32.98	62.34	56.06	100.52	90.72	157.06	147.24	245	229	402	377	628	603
	3	24.12	20.70	37.68	31.65	58.89	49.47	93.51	84.09	150.78	186.08	235.59	220.86	368	344	603	565	942	904
	4	32.16	27.60	50.24	42.20	78.52	65.96	124.68	112.12	201.04	181.44	314.12	294.48	491	458	804	754	1257	1206
	5	40.20	34.50	62.80	52.75	98.15	82.45	155.85	140.15	251.30	226.80	392.65	368.10	615	573	1005	942	1570	1507
	6	48.24	41.40	75.36	63.30	117.78	98.94	187.02	168.18	301.56	272.16	471.18	441.72	736	688	1206	1130	1885	1808
	7	56.28	48.30	87.92	73.85	137.41	115.43	218.19	196.21	351.82	317.52	549.71	515.34	859	802	1407	1319	2199	2110
	8	64.32	55.20	100.48	84.40	157.04	131.92	249.36	224.24	402.08	362.88	628.24	588.96	982	917	1608	1507	2513	2411
	9	72.36	62.10	113.04	94.95	176.67	148.41	280.53	252.27	452.34	408.24	706.77	662.58	1104	1031	1809	1696	2826	2713

TGC series Standard Cylinder

Product characteristics

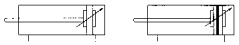
Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Graphics Sign



Ordering Code

TGC — 50 X 50 — S — LB

- TGC: Series — TGC: Standard double action
- 50 X 50: Bore size x Stroke
- S: Magnetic type — No Mark : Without magnet; S: With magnet
- LB: Installing way — No Mark: Basic type; LB : Foot mounting type; FA : Front flange mounting type; FB : Rear-flange mounting type; CA : Pivot type; CB : Black flange mounting type; TC : Trunion type

Ordering example

1) Bore:50mm, stroke:50mm, CA installation, Code : TGC50×50-CA
2) Bore:32mm, stroke:100mm, LB installation, Code : TGC32×100-LB

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	-10 ～60°C								
Speed range	50～800 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm				32 mm		35 mm		42 mm
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

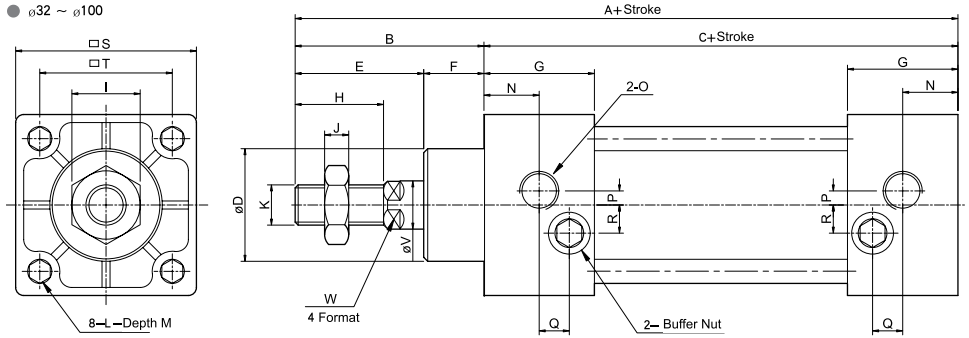
TGC series Standard Cylinder

Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

Figure Dimension

● ø32 ~ ø100



Bore	A	B	C	D	E	F	G	H	I	J	K	L
32	140	47	93	28	32	15	27.5	22	17	6	M10x1.25	M6x1
40	142	49	93	32	34	15	27.5	24	17	7	M12x1.25	M6x1
50	150	57	93	38	42	15	27.5	32	23	8	M16x1.5	M6x1
63	153	57	96	38	42	15	27.5	32	23	8	M16x1.5	M8x1.25
80	186	75	111	47	54	21	33	40	26	10	M20x1.5	M10x1.5
100	188	75	113	47	54	21	33	40	26	10	M20x1.5	M10x1.5
125	249	106	143	60	74	32	40	54	41	13.5	M27x2	M12
160	312	132	180	65	94	38	50	72	55	18	M36x2	M16
200	342	162	180	75	105	57	50	72	55	18	M36x2	M16

Bore	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4	7	8.2	9	62	47	20	17
63	9.5	13.5	G3/8	7	8.2	8.5	75	56	20	17
80	11	16.5	G3/8	10	9.5	14	94	70	25	22
100	11	16.5	G1/2	11	9.5	14	112	84	25	22
125	11	–	G1/2	–	–	–	140	110	32	27
160	–	–	G3/4	–	–	–	180	140	40	36
200	–	–	G3/4	–	–	–	220	175	40	36

Standard Cylinder Double—Axis Type

Product characteristics

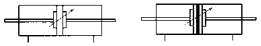
Without lubricating: Needn' t lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder' s action.

Graphics Sign



Ordering Code

TGCD — 50 X 50 — S — LB

- TGCD — Series: TGCD: Double—Axis double acting type
- 50 X 50 — Bore size x Stroke
- S — Magnetic type: No Mark : Without magnet; S: With magnet
- LB — Installing way: No Mark: Basic type; LB : Foot mounting type; FA : Front flange mounting type; TC : Trunion type

Example

1) Bore: 63mm, stroke: 50mm, LB installation, Code : TGCD63×50—LB
2) Bore: 32mm, stroke: 100mm, FA installation, Code : TGCD32×100—FA

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	−10 ～60°C								
Speed range	50～800 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm				32 mm		35mm		42 mm
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

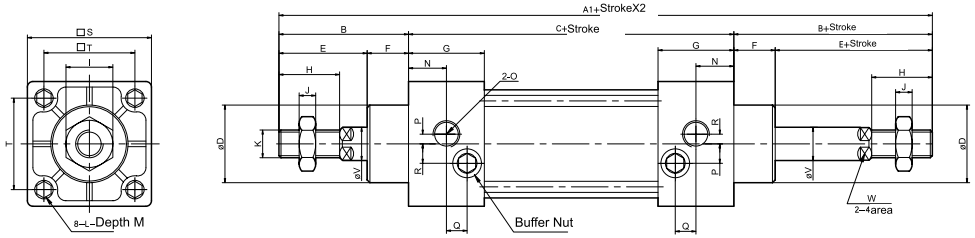
Standard Cylinder Double—Axis Type

■ Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300	200	300
40	25 50 75 80 100 125 150 160 175 200 250 300	200	300
50	25 50 75 80 100 125 150 160 175 200 250 300	200	300
63	25 50 75 80 100 125 150 160 175 200 250 300	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	300	400
100	25 50 75 80 100 125 150 160 175 200 250 300	300	400
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

■ Figure Dimension

● ø32 ~ ø100



Bore	A1	B	C	D	E	F	G	H	I	J	K	L
32	187	47	93	28	32	15	27.5	22	17	6	M10x1.25	M6x1
40	191	49	93	32	34	15	27.5	24	17	7	M12x1.25	M6x1
50	207	57	93	38	42	15	27.5	32	23	8	M16x1.5	M6x1
63	210	57	96	38	42	15	27.5	32	23	8	M16x1.5	M8x1.25
80	261	75	111	47	54	21	33	40	26	10	M20x1.5	M10x1.5
100	263	75	113	47	54	21	33	40	26	10	M20x1.5	M10x1.5
125	355	106	143	60	74	32	40	54	41	13.5	M27x2	M12
160	444	132	180	65	94	38	50	72	55	18	M36x2	M16
200	504	162	180	75	105	57	50	72	55	18	M36x2	M16

Bore	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4	7	8.2	9	62	47	20	17
63	9.5	13.5	G3/8	7	8.2	8.5	75	56	20	17
80	11	16.5	G3/8	10	9.5	14	94	70	25	22
100	11	16.5	G1/2	11	9.5	14	112	84	25	22
125	11	–	G1/2	–	–	–	140	110	32	27
160	–	–	G3/4	–	–	–	180	140	40	36
200	–	–	G3/4	–	–	–	220	175	40	36

STNC®

TGCJ Standrad Cylinder Doulbe Axis Adjustable Type

● Product characteristics

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

■ Graphics Sign

● Ordering Code

TGCJ — 50 X 50 — 25 — S — LB

- TGCJ — Series: TGCJ: Double—Axis double acting adjustable type
- 50 X 50 — Bore size x Stroke
- 25 — Adjustable stroke type: 25:25mm; 50:50mm; 75:75mm
- S — Magnetic type: No Mark: Without magnet; S:With magnet
- LB — Installing way: No Mark:Basic type; LB: Foot mounting type; FA: Front flange mounting type; TC: Trunion type

■ Example

1) Bore:50mm, stroke:50mm, adjustable stroke:25, LB installation, Code: TGCJ50×50—25—LB

2) Bore:32mm, stroke:100mm, adjustable stroke:25, FA installation, Code: TGCJ32×100—25—FA

■ Standard Specification

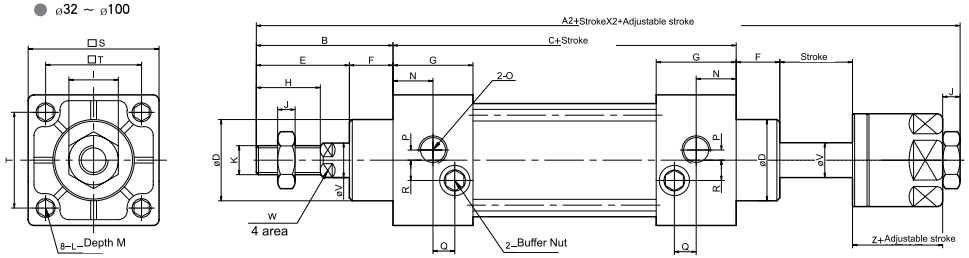
Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1~0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	−10 ~60°C								
Speed range	50~800 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm				32 mm		35mm		42 mm
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

TGCJ Standrad Cylinder Doulbe Axis Adjustable Type

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200	200	300
40	25 50 75 80 100 125 150 160 175 200	200	300
50	25 50 75 80 100 125 150 160 175 200	200	300
63	25 50 75 80 100 125 150 160 175 200	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	300	400
100	25 50 75 80 100 125 150 160 175 200 250 300	300	400
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

Figure Dimension

● ø32 ~ ø100



Bore (mm)	A2	B	C	D	E	F	G	H	I	J	K	L
32	182	47	93	28	32	15	27.5	22	17	6	M10x1.25	M6x1
40	185	49	93	32	34	15	27.5	24	17	7	M12x1.25	M6x1
50	196	57	93	38	42	15	27.5	32	23	8	M16x1.5	M6x1
63	199	57	96	38	42	15	27.5	32	23	8	M16x1.5	M8x1.25
80	242	75	107	47	54	21	33	40	26	10	M20x1.5	M10x1.5
100	248	75	113	47	54	21	33	40	26	10	M20x1.5	M10x1.5
125	336	106	143	60	74	32	40	54	41	13.5	M27x2	M12
160	408	132	180	65	94	38	50	72	55	18	M36x2	M16
200	457	162	180	75	105	57	50	72	55	18	M36x2	M16

Bore (mm)	M	N	O	P	Q	R	S	T	V	W	Z
32	9.5	13.7	G1/8	3.5	7.5	7	45	33	12	10	21
40	9.5	13.5	G1/4	6	8.2	9	50	37	16	14	21
50	9.5	13.5	G1/4	8.5	8.2	9	62	47	20	17	23
63	9.5	13.5	G3/8	7	8.2	8.5	75	56	20	17	23
80	11	16.5	G3/8	10	9.5	14	94	70	25	22	29
100	11	16.5	G1/2	11	9.5	14	112	84	25	22	29
125	11	–	G1/2	–	–	–	140	110	32	27	35
160	–	–	G3/4	–	–	–	180	140	40	36	40
200	–	–	G3/4	–	–	–	220	175	40	36	40

TGCT Double Power Cylinder

● Product characteristics

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

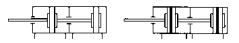
Cushion: Besides mounted cushion, there is adjustable cushion at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Optional position: With special structure and system controlling, the piston rod can work by step and has optional working positions in the whole stroke.

■ Graphics Sign



● Ordering Code

TGCT — 50 X 50 X 50 — S — LB

- TGCT: Series
- 50 X 50 X 50: Bore / Stroke1 / Stroke2
- S: Magnetic type — No Mark : Without magnet; S: With magnet
- LB: Installing way — No Mark: Basic type; LB : Foot mounting type

■ Example

1) Bore:50mm, stroke1:50mm, stroke2:50mm, LB installation, Code : TGCT50×50×50–LB

2) Bore:32mm, stroke1:100mm, stroke2:100mm, Standard installation, Code : TGUT32×100×100

■ Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1~0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	−10 ~60°C								
Speed range	50~800 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm				32 mm		35mm		42 mm
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

Note: This cyinder can be used in condition that output power be required to raise but cylinder diameter can not beadded cylinder body raising is allowed.(Working stroke of this cylinder only one)

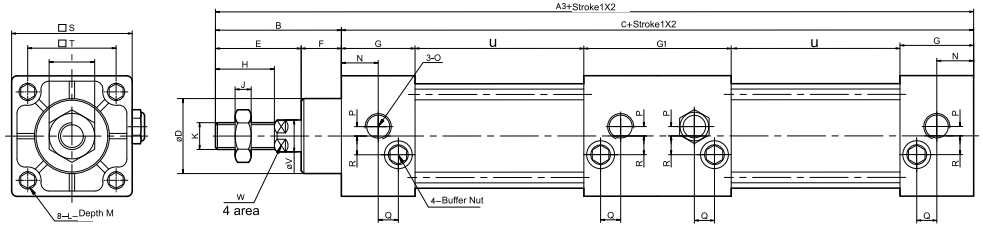
TGCT Double Power Cylinder

Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

Figure Dimension

● ø32 ~ ø100



Bore (mm)	A3	B	C	D	E	F	G	G1	H	I	J	K	L
32	233	47	186	28	32	15	27.5	55	22	17	6	M10x1.25	M6x1
40	235	49	186	32	34	15	27.5	55	24	17	7	M12x1.25	M6x1
50	243	57	186	38	42	15	27.5	55	32	23	8	M16x1.5	M6x1
63	249	57	192	38	42	15	27.5	55	32	23	8	M16x1.5	M8x1.25
80	296	75	221	47	54	21	33	73	40	26	10	M20x1.5	M10x1.5
100	308	75	233	47	54	21	33	73	40	26	10	M20x1.5	M10x1.5
125	329.5	106	143	60	74	32	40	–	54	41	13.5	M27x2	M12
160	408	32	180	65	94	38	50	–	72	55	18	M36x2	M16
200	472	167	180	75	100	67	50	–	72	55	18	M36x2	M16

Bore (mm)	M	N	O	P	Q	R	S	T	V	U	W
32	9.5	13.7	G1/8	3.5	7.5	7	45	33	12	38	10
40	9.5	13.5	G1/4	6	8.2	9	50	37	16	38	14
50	9.5	13.5	G1/4	8.5	8.2	9	62	47	20	38	17
63	9.5	13.5	G3/8	7	8.2	8.5	75	56	20	41	17
80	11	16.5	G3/8	10	9.5	14	94	70	25	41	22
100	11	16.5	G1/2	11	9.5	14	112	84	25	47	22
125	12	–	G1/2	–	–	–	140	110	32	27	35
160	–	–	G3/4	–	–	–	180	140	40	36	40
200	–	–	G3/4	–	–	–	220	175	40	36	40

TGU Series Standard Cylinder

● Calculation of cylinder theoretical force

$$F = P \times A$$

F: Theoretical force

P: Pressure

A: Piston area

● Standard cylinder

It is designed in using new seal material and buffer, with simple structure, light, low pressure in starting, stable operation, good seal, long service life, easy maintenance and operation. It is widely used in the automatic equipment of light industry, chemical industry, metallurgy, machinery, textile industry, electronic industry and etc. There are many kinds of accessories to choose for different mounting.

● Cylinder installation instructions

1、Before installation, be sure if the cylinder was not damaged during transportation. Check if connecting parts were loose, etc.
2、When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
3、When cylinder installation, especially for long stroke cylinder, it must use level instrument for three-point position calibration.
4、Before the pipe connects into air intake, it should clear pipe' s burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
5、Speed adjustment: firstly adjusting speed control valve (one-way throttle) in the middle, gradually adjusting the output pressure of regulator , when cylinder speed is close to pre-determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
6、After cylinder installation, in working pressure range, to operate 2-3 times without load, checking the cylinder before if is working normally.
7、At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
8、In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
9、In low-temperature environment, it should take antifreeze measure to prevent water freezing of the system. .
10、If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.

Theoretical force sheet

Cylinder inside diamater		32		40		50		63		80		100		125		160		200	
External diameterof piston rad		12		16		20		20		25		25		32		40		40	
Action Type		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action		Double action	
		Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk
Compression area cm^2		8.04	6.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122.7	114.6	201.0	188.4	314	301
Air pressure Kgf/cm^2	1	08.04	06.90	12.56	10.55	19.63	16.49	31.17	28.03	50.26	45.36	78.53	73.62	122	114	210	188	314	301
	2	16.08	13.80	25.12	21.10	39.26	32.98	62.34	56.06	100.52	90.72	157.06	147.24	245	229	402	377	628	603
	3	24.12	20.70	37.68	31.65	58.89	49.47	93.51	84.09	150.78	186.08	235.59	220.86	368	344	603	565	942	904
	4	32.16	27.60	50.24	42.20	78.52	65.96	124.68	112.12	201.04	181.44	314.12	294.48	491	458	804	754	1257	1206
	5	40.20	34.50	62.80	52.75	98.15	82.45	155.85	140.15	251.30	226.80	392.65	368.10	615	573	1005	942	1570	1507
	6	48.24	41.40	75.36	63.30	117.78	98.94	187.02	168.18	301.56	272.16	471.18	441.72	736	688	1206	1130	1885	1808
	7	56.28	48.30	87.92	73.85	137.41	115.43	218.19	196.21	351.82	317.52	549.71	515.34	859	802	1407	1319	2199	2110
	8	64.32	55.20	100.48	84.40	157.04	131.92	249.36	224.24	402.08	362.88	628.24	588.96	982	917	1608	1507	2513	2411
	9	72.36	62.10	113.04	94.95	176.67	148.41	280.53	252.27	452.34	408.24	706.77	662.58	1104	1031	1809	1696	2826	2713

TGU Series Standard Cylinder

Product characteristics

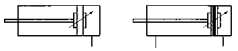
Without lubricating: Needn' t lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder' s action.

Graphics Sign



Ordering Code

TGU — 50 X 50 — S — LB

- TGU — Series: TGU: Standard double acting type
- 50 X 50 — Bore size x Stroke
- S — Magnetic type: No Mark : Without magnet; S:With magnet
- LB — Installing way: No Mark:Basic type; LB : Foot mounting type; FA : Front flange mounting type; FB : Rear—flange mounting type; CA : Pivot type; CB : Black flange mounting type; TC : Trunion type

Example

1) Bore:50mm, stroke:50mm, LB installation, Code : TGU50×50—LB

2) Bore:32mm, stroke:100mm, LA installation, Code : TGU32×100—FA

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	−10 ～60°C								
Speed range	50～800 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm				32 mm		35mm		42 mm
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

TGU Series Standard Cylinder

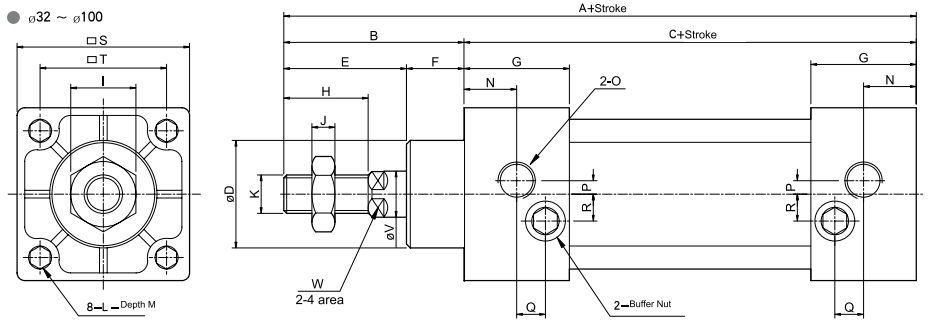
Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

＊ Special stroke please contact with as

Figure Dimension

ø32 ～ ø100



Bore (mm)	A	B	C	D	E	F	G	H	I	J	K	L
32	140	47	93	28	32	15	27.5	22	17	6	M10x1.25	M6x1
40	142	49	93	32	34	15	27.5	24	17	7	M12x1.25	M6x1
50	150	57	93	38	42	15	27.5	32	23	8	M16x1.5	M6x1
63	153	57	96	38	42	15	27.5	32	23	8	M16x1.5	M8x1.25
80	182	75	107	47	54	21	33	40	26	10	M20x1.5	M10x1.5
100	188	75	113	47	54	21	33	40	26	10	M20x1.5	M10x1.5
125	249	106	143	60	74	32	40	54	41	13.5	M27x2	M12
160	312	132	180	65	94	38	50	72	55	18	M36x2	M16
200	342	162	180	75	105	57	50	72	55	18	M36x2	M16

Bore (mm)	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4	8.5	8.2	9	62	47	20	17
63	9.5	13.5	G3/8	7	8.2	8.5	75	56	20	17
80	11	16.5	G3/8	10	9.5	14	94	70	25	22
100	11	16.5	G1/2	11	9.5	14	112	84	25	22
125	11	–	G1/2	–	–	–	140	110	32	27
160	–	–	G3/4	–	–	–	180	140	40	36
200	–	–	G3/4	–	–	–	220	175	40	36

Standard Cylinder Double—Axis Type

Product characteristics

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

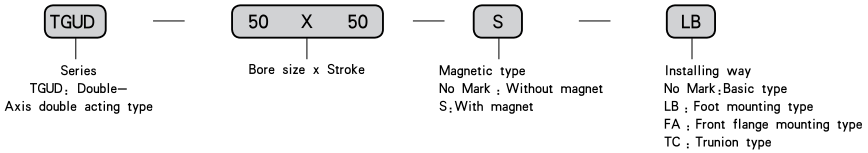
Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Graphics Sign

Ordering Code



Example

1) Bore:50mm, stroke:50mm, LB installation, Code : TGUD50×50—LB

2) Bore:32mm, stroke:100mm, FA installation, Code : TGUD32×100—FA

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	−10 ～60°C								
Speed range	50～800 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm				32 mm		35mm		42 mm
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

Standard Cylinder Double—Axis Type

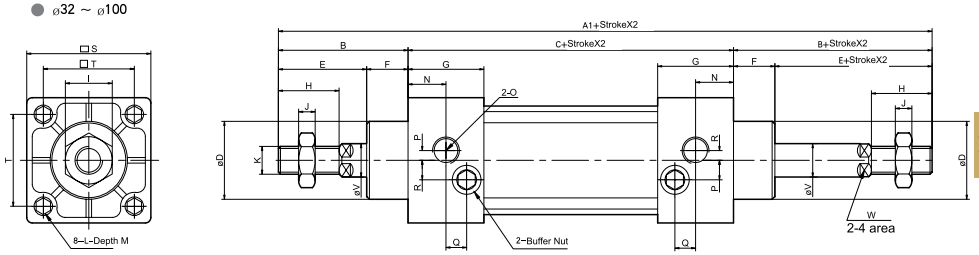
Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	2000
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1200	2000
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	2000
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

* Special stroke please contact with as

Figure Dimension

ø32 ～ ø100



Bore (mm)	A1	B	C	D	E	F	G	H	I	J	K	L
32	187	47	93	28	32	15	27.5	22	17	6	M10x1.25	M6x1
40	191	49	93	32	34	15	27.5	24	17	7	M12x1.25	M6x1
50	207	57	93	38	42	15	27.5	32	23	8	M16x1.5	M6x1
63	210	57	96	38	42	15	27.5	32	23	8	M16x1.5	M8x1.25
80	257	75	107	47	54	21	33	40	26	10	M20x1.5	M10x1.5
100	263	75	113	47	54	21	33	40	26	10	M20x1.5	M10x1.5
125	355	106	143	60	74	32	40	54	41	13.5	M27x2	M12
160	444	132	180	65	94	38	50	72	55	18	M36x2	M16
200	504	162	180	75	105	57	50	72	55	18	M36x2	M16

Bore (mm)	M	N	O	P	Q	R	S	T	V	W
32	9.5	13.7	G1/8	3.5	7.5	7	45	33	12	10
40	9.5	13.5	G1/4	6	8.2	9	50	37	16	14
50	9.5	13.5	G1/4	8.5	8.2	9	62	47	20	17
63	9.5	13.5	G3/8	7	8.2	8.5	75	56	20	17
80	11	16.5	G3/8	10	9.5	14	94	70	25	22
100	11	16.5	G1/2	11	9.5	14	112	84	25	22
125	11	–	G1/2	–	–	–	140	110	32	27
160	–	–	G3/4	–	–	–	180	140	40	36
200	–	–	G3/4	–	–	–	220	175	40	36

Standard Cylinder Double—Axis Adjustable Type

Product characteristics

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

Cushion: Besides mounted cushion, there is adjustable buffer at the terminal of the cylinder to act smoothly.

Kinds of mounting: many kinds of accessories to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

Graphics Sign

Ordering Code

TGUJ — 50 X 50 — 25 — S — LB

- TGUJ: Series — Double—Axis double acting adjustable type
- 50 X 50: Bore size x Stroke
- 25: Adjustable stroke type — 25:25mm; 50:50mm; 75:75mm
- S: Magnetic type — No Mark: Without magnet; S: With magnet
- LB: Installing way — No Mark: Basic type; LB: Foot mounting type; FA: Front flange mounting type; TC: Trunion type

Example

1) Bore:50mm, stroke:50mm, adjustable stroke:25, LB installation, Code: TGUJ50×50—25—LB

2) Bore:32mm, stroke:100mm, adjustable stroke:25, FA installation, Code: TGUJ32×100—25—FA

Standard Specification

Bore (mm)	32	40	50	63	80	100	125	160	200
Action	Double action type								
Applicable medium	Air								
Pressure range	0.1～0.9 MPa								
Proof pressure	1.35 MPa								
Temperature range	−10 ～60°C								
Speed range	50～800 mm/s								
Cushion type	Adjustable cushion								
Cushion stroke(mm)	24 mm				32 mm		35 mm		42 mm
Prot Size	G1/8	G1/4		G3/8		G1/2		G3/4	

STNC®

Standard Cylinder Double—Axis Adjustable Type

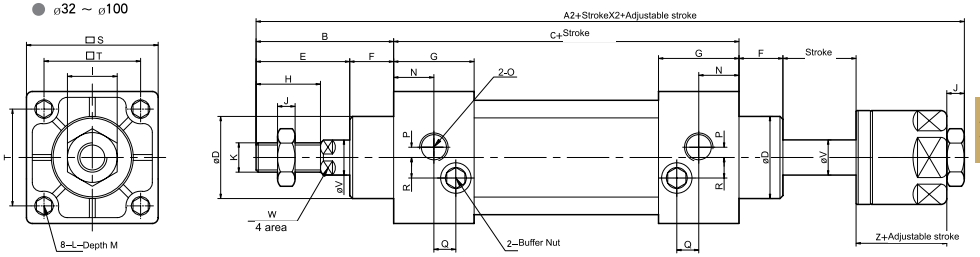
Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
32	25 50 75 80 100 125 150 160 175 200	200	300
40	25 50 75 80 100 125 150 160 175 200	200	300
50	25 50 75 80 100 125 150 160 175 200	200	300
63	25 50 75 80 100 125 150 160 175 200	200	300
80	25 50 75 80 100 125 150 160 175 200 250 300	300	400
100	25 50 75 80 100 125 150 160 175 200 250 300	300	400
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
160	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000
200	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	2000

＊ Special stroke please contact with as

Figure Dimension

● ø32 ～ ø100



Bore (mm)	A2	B	C	D	E	F	G	H	I	J	K	L
32	182	47	93	28	32	15	27.5	22	17	6	M10x1.25	M6x1
40	185	49	93	32	34	15	27.5	24	17	7	M12x1.25	M6x1
50	196	57	93	38	42	15	27.5	32	23	8	M16x1.5	M6x1
63	199	57	96	38	42	15	27.5	32	23	8	M16x1.5	M8x1.25
80	242	75	107	47	54	21	33	40	26	10	M20x1.5	M10x1.5
100	248	75	113	47	54	21	33	40	26	10	M20x1.5	M10x1.5
125	329.5	106	143	60	74	32	40	54	41	13.5	M27x2	M12
160	408	32	180	65	94	38	50	72	55	18	M36x2	M16
200	472	167	180	75	100	67	50	72	55	18	M36x2	M16

Bore (mm)	M	N	O	P	Q	R	S	T	V	W	Z
32	9.5	13.7	G1/8	3.5	7.5	7	45	33	12	10	21
40	9.5	13.5	G1/4	6	8.2	9	50	37	16	14	21
50	9.5	13.5	G1/4	8.5	8.2	9	62	47	20	17	23
63	9.5	13.5	G3/8	7	8.2	8.5	75	56	20	17	23
80	11	16.5	G3/8	10	9.5	14	94	70	25	22	29
100	11	16.5	G1/2	11	9.5	14	112	84	25	22	29
125	11	–	G1/2	–	–	–	140	110	32	27	35
160	–	–	G3/4	–	–	–	180	140	40	36	40
200	–	–	G3/4	–	–	–	220	175	40	36	40

III

Product characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled bearing.

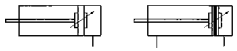
Cushion: Have adjustable buffers at the terminals of the cylinder for acting smoothly.

Kinds of mounting: Many kinds of accessory components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.ptional Position:

With two cylinders linked and different valve to control, cylinder has optional working positions in the stroke.

Graphics Sign



Ordering Code

TGF — 63 X 100 — S — LB

- TGF: Series — Standard double acting type
- 63 X 100: Bore size X Stroke
- S: Magnetic type — No Mark : Without magnet; S:With magnet
- LB: Installing way — No Mark:Basic type

Example

1) Bore:63mm, stroke:100mm, with magnet, Code : TGF–63×100–S

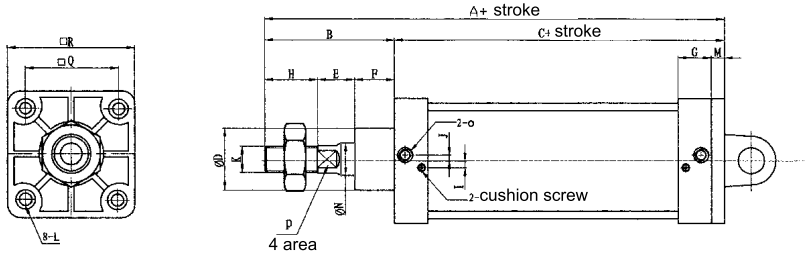
Standard Specification

Bore (mm)	63	100	125
Action	Double action type		
Applicable medium	Air		
Pressure range	0.1～0.9MPa		
Proof pressure	1.35MPa		
Temperature range	−10～60°C		
Speed range	50～800 mm/s		
Cushion type	Adjustable cushion		
Cushion stroke(mm)	28 mm		35 mm
Prot Size	M12x1.5		

Note:no magnet switch for cylinder of 100mm bore(can make to order)

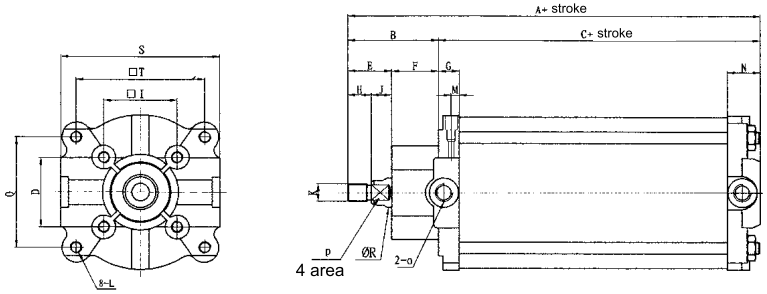
Figure Dimension

ø63



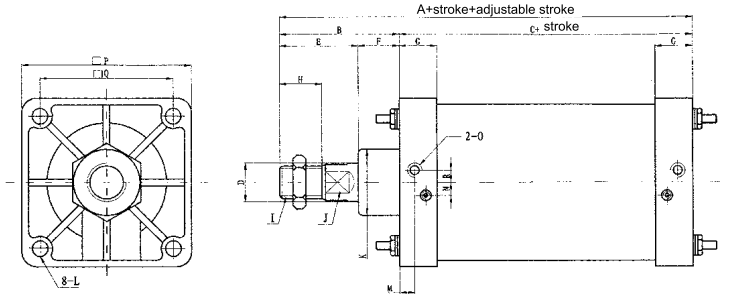
Bore (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
63	174.5	65.5	104	38	12.5	21	28	32	8.5	7	M16x1.5	M8	8	20	ZG1/4	17	56	75

ø100



Bore (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
100	141.5	60	81.5	50	30	32	14	16	20	14	M12	M8	8	23.5	M12x1.5	12	76	20	108.5	88

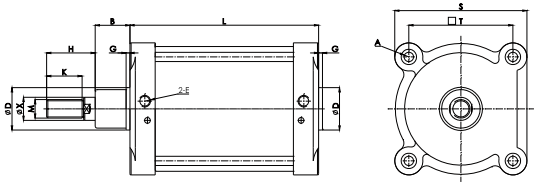
ø125



Bore (mm)	A	B	C	D	E	F	G	H	I	J	K	R	N	M	O	P	Q	L
100	216	99	117	ø32	65	34	31	35	M27	15	ø55	10	11	15	M12x1.5	140	110	ø13

TGIC Series Big Standard Cylinder

Bore：Φ250—Φ320



● characteristic

Without lubricating：Needn’ t lubricating on piston rod for using oiled axletree.

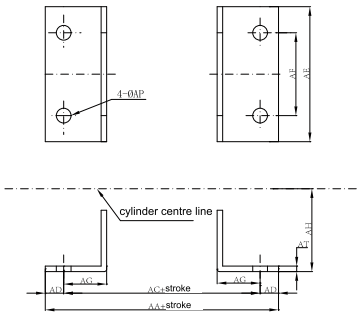
Durability：With high—class stainless steel, it is more anticorrosive and durable.

■ Specification

Bore(mm)	D	X	M	B	G	E	K	H	A	L	T	S
250	90	50	M42X2	80	10	G3/4"	84	109	M20	200	220	280
320	110	60	M48X2	90	10	G1"	96	126	M24	220	270	343

■ Theoretical Force Sheet

Bore(mm)	External diameter of piston rod	Action type	Compressed area	Air pressure Kgf/cm²						
			cm²	2	3	4	5	6	7	8
250	50	Push	490.6	982	1473	1963	2454	2945	3436	3927
		Pluck	471	942	1413	1884	2355	2826	3297	3768
320	60	Push	803	1608	2411	3215	4019	4823	5627	6430
		Pluck	775	1551	2327	3102	3878	4654	5429	6205

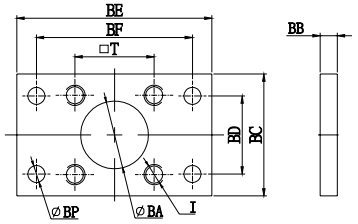


■ LB

Bore(mm)	AA	AC	AD	AE	AF	AH	AP	AT	AG
250	430	350	40	280	165	165	26	14	75
320	480	390	45	353	200	200	32	16	85

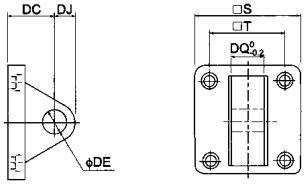
TGIC Series Big Standard Cylinder

Bore：Φ250—Φ320



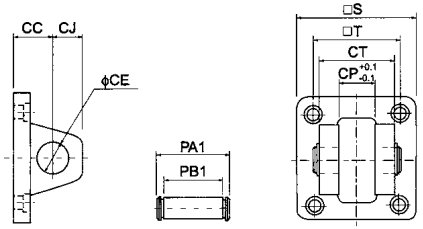
■ FA；FB

Bore (mm)	BC	BD	BE	BF	T	BB	BP	I	BA
250	280	165	395	330	220	25	26	M20	91
320	353	200	475	400	270	30	33	M24	111



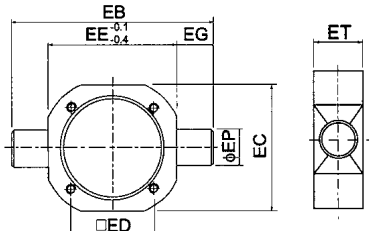
■ CA

Bore (mm)	S	T	DC	DE	DJ	DQ
250	280	220	70	40	41	110
320	353	270	80	45	46	120



■ CB

Bore (mm)	CC	CE	CJ	CP	CT	PAI	PBI	S	T
250	70	40	41	110	200	220	200	280	220
320	80	45	46	120	220	240	220	353	270



■ TC

Bore(mm)	EB	EC	ED	EE	EG	EP	ET
250	400	320	220	320	40	40	60
320	500	400	270	400	50	50	70

STNC®

TGL Series stainless steel cylinder

According : ISO6432

• characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to be chosen.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

■ Specification

Bore (mm)	8	10	12	16	20	25
Medium	Air					
Action way	Double Acting Type					
Ensure operatin pressure MPa{kgf/cm2}	1.5{1.53}					
Max pressure MPa{kgf/cm2}	1.0{10.2}					
Min pressure MPa{kgf/cm2}	0.1{1}			0.05{0.5}		
Environment and fluid emperature	−10 ~ 60°C(No Freeze)					
Piston speed	Rubber Cushion (Standard)			Air Cushion (By Yourself)		
Relax	50 ~ 750mm/s					
* Lubricate	No					
Power allonled(J)	0.02	0.03	0.04	0.09	0.27	0.4
Pipe Size	M5×0.8				G1/8	

* If Lubrication, please use ISOVG32 No1

■ Stroke/Solenoid switch channel

Bore (mm)	Standard stroke (mm)	Max.Stroke (mm)
8 10	10,25,40,50, 80,100	100
12 16	10,25,40,50,80, 100,125,160,200	320
20 25	25,40,50,75,80,100,125, 150,160,175,200,250,300	500

● Theoretical calculation of the cylinder output

$$F = P \times A$$

F : cylinder theoretical output

P : Working pressure

A : Piston force area

■ Theoretical force sheet

Cylinder inside diamater		8		10		12		16		20		25	
External diameterof piston rad		4		4		6		6		8		10	
Action Type		Double action		Double action		Double action		Double action		Double action		Double action	
		Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk	Push	Pluk
Compression area cm^2		0.5	0.37	0.78	0.65	1.13	0.85	2.01	1.73	3.14	2.64	4.90	4.12
Air pressure Kgf/cm^2	1	-	-	-	-	-	-	2.01	1.73	3.14	2.64	4.90	0.12
	2	-	-	0.16	0.13	2.26	1.7	4.02	3.46	6.28	5.28	9.80	8.24
	3	0.15	0.11	0.23	0.2	3.4	2.55	6.03	5.19	9.42	7.92	14.70	12.36
	4	0.2	0.15	0.31	0.26	4.52	3.4	8.04	6.92	12.56	10.56	19.60	16.48
	5	0.25	0.18	0.39	0.33	5.65	4.25	10.05	8.65	15.70	13.20	24.50	20.60
	6	0.3	0.22	0.47	0.39	6.78	5.1	12.06	10.39	18.84	15.84	29.40	24.72
	7	0.35	0.26	0.55	0.46	7.91	5.95	14.07	12.11	21.98	18.48	34.30	28.84
	8	0.4	0.3	0.62	0.52	9.04	6.8	16.08	13.84	25.12	21.12	39.20	32.96
	9	0.45	0.33	0.70	0.59	10.17	7.65	18.09	15.57	28.26	23.76	44.10	37.08

TGL Series stainless steel cylinder

According ; ISO6432

• characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to be chosen.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

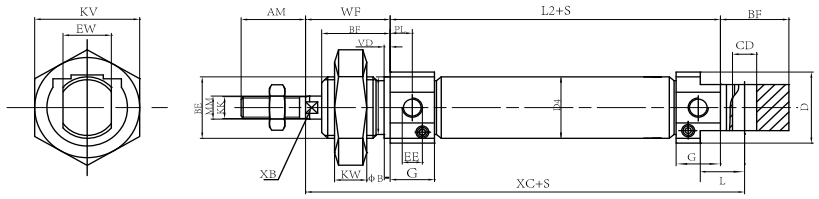
● Ordering Code

TGL — 20 X 100 — S — C

- TGL: Series
- 20 X 100: Bore X Stroke
- S: Magnetic type — No Mark ; Without magnet; S;With magnet
- C: Relax — No Mark — Rubber relax; C—Air relax; ＊ The cylinder longer than 16mm suit air relax

■ Ordering example

1) Bore:20mm, Stroke:100mm, single clevis air cushion, Code: TGL—20×100—C



■ Figure Dimension(mm)

Bore/Type	AM	ϕB	BE	BF	ϕCD	ϕD	D4	EW	G	L2+	KK
8	12	12	M12X1.25	12	4	15	9.3	8	10	46	M4
10	12	12	M12X1.25	12	4	15	11.3	8	10	46	M4
12	16	16	M16X1.5	17	6	20	13.3	12	10	50	M6
16	16	16	M16X1.5	17	6	20	17.3	12	10	56	M6
20	20	22	M22X1.5	20	8	27	21.3	16	16	68	M8
25	22	22	M22X1.5	22	8	27	26.5	16	16	69.5	M10X1.25

Bore/Type	KV	KW	L	ϕMM	PL	VD	WF	XC	XB	EE
8	19	6	6	4	6	2	16	64	3.5	M5
10	19	6	6	4	6	2	16	64	3.5	M5
12	24	8	9	6	6	2	22	75	5	M5
16	24	8	9	6	6	2	22	82	5	M5
20	32	11	12	8	8.2	2	24	95	7	G1/8
25	32	11	12	10	8.2	2	28	104	9	G1/8

Spring Single—acting

According ; ISO6432

• characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to be chosen.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

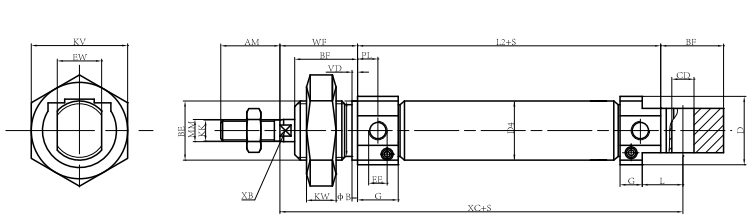
● Ordering Code

TGLW — 16 X 25 — S

- TGLW: spring single acting
- 16 X 25: Bore X Stroke
- S: Magnetic type — No Mark ; Without magnet; S;With magnet

■ Ordering example

1) Bore:16mm, Stroke:25mm, spring single acting type mini cylinder with magnet, Code ; TGLW—16×25—S



■ Figure Dimension(mm)

Bore/Type	AM	ϕB	BE	BF	ϕCD	ϕD	EW	G	KK	EE	L2+S
8	12	12	M12X1.25	12	4	15	8	10	M4	M5	46
10	12	12	M12X1.25	12	4	15	8	10	M4	M5	46
12	16	16	M16X1.5	17	6	20	12	10	M6	M5	50
16	16	16	M16X1.5	17	6	20	12	10	M6	M5	56
20	20	22	M22X1.5	20	8	27	16	16	M8	G1/8	68
25	22	22	M22X1.5	22	8	27	16	16	M10X1.25	G1/8	69.5

Bore/Type	KV	KW	L	ϕMM	PL	VD	WF	XC	XB	D4
8	19	6	6	4	6	2	16	64	3.5	9.3
10	19	6	6	4	6	2	16	64	3.5	11.3
12	24	8	9	6	6	2	22	75	5	13.3
16	24	8	9	6	6	2	22	82	5	17.3
20	32	11	12	8	8.2	2	24	95	7	21.3
25	32	11	12	10	8.2	2	28	104	9	26.5

Double axis double acting type

According：ISO6432

• characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to be chosen.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

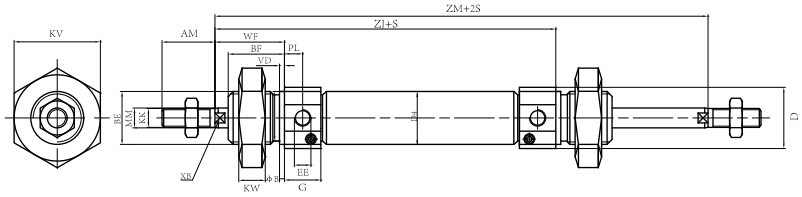
● Ordering Code

TGLD — 16 X 50 — S — C

- TGLD: Double acting type
- 16 X 50: Bore X Stroke
- S: Magnetic type — No Mark：Without magnet; S:With magnet
- C: Relax — No Mark — Rubber relax; C—Air relax; ＊ The cylinder longer than 16mm suit air relax

■ Ordering example

1) Bore:16mm, Stroke:50mm, magnet inside mini cylinder with air cushion , Code：TGLD—16×50—C



■ Figure Dimension(mm)

Bore/Type	AM	ϕB	BE	BF	KW	ϕD	D4	EE	KV
8	12	12	M12X1.25	12	6	15	9.3	M5	19
10	12	12	M12X1.25	12	6	15	11.3	M5	19
12	16	16	M16X1.5	17	8	20	13.3	M5	24
16	16	16	M16X1.5	17	8	20	17.3	M5	24
20	20	22	M22X1.5	20	11	27	21.3	G1/8	32
25	22	22	M22X1.5	22	11	27	26.5	G1/8	32

Bore/Type	G	KK	ϕMM	PL	VD	WF	ZJ	ZM	XB
8	10	M4	4	6	2	16	62	78.4	3.5
10	10	M4	4	6	2	16	62	78.4	3.5
12	10	M6	6	6	2	22	72	94	5
16	10	M6	6	6	2	22	78	100	5
20	16	M8	8	8.2	2	24	92	116	7
25	16	M10X1.25	10	8.2	2	28	97.5	125.5	9

Acting adjustable double acting type

According：ISO6432

• characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to be chosen.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

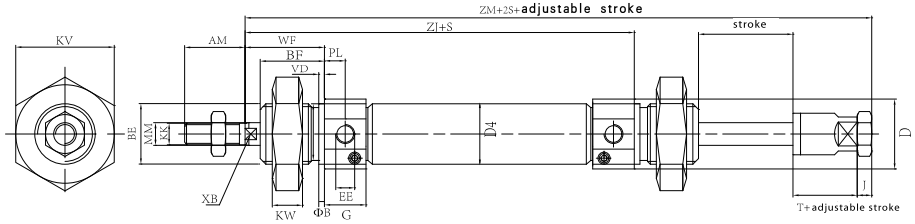
● Ordering Code

TGLJ — 16 X 100 — 25 — S — C

- TGLJ: Double acting adjustable type
- 16 X 100: Bore X Strock
- 25: adjustable stroke — 25：25mm; 50：50mm
- S: Magnetic type — No Mark：Without magnet; S:With magnet
- C: Relax — No Mark — Rubber relax; C—Air relax; ＊ The cylinder longer than 16mm suit air relax

■ Ordering example

1)Bore:16mm, Strock:100mm, adjustable stroke is 25mm, double axis adjustable mini cylinder with magnet, Code:TGLJ—16×100—25—S



■ Figure Dimension(mm)

Bore/Type	AM	ϕB	BE	BF	KW	ϕD	D4	EE	KV	G
16	16	16	M16X1.5	17	8	20	17.3	M5	24	10
20	20	22	M22X1.5	20	11	27	21.3	G1/8	32	16
25	22	22	M22X1.5	22	11	27	26.5	G1/8	32	16

Bore/Type	KK	ϕMM	PL	VD	WF	ZJ	ZM	XB	T	J
16	M6	6	6	2	22	78	121	5	16	5
20	M8	8	8.2	2	24	92	141	7	19	6
25	M10X1.25	10	8.2	2	28	97.5	152.5	9	21	6

Stainless Steel Barrel Slim Cylinder

Calulation of theoretical force of cylinder

$$F = P \times A - F_0$$

F:Theoretical force
P:Pressure
A:Pitston area
F0:Regain power of spring

Cylinder installation instructions

1、Before installation, be sure if the cylinder was not damaged during transportation.Check if connecting parts were loose, etc.
2、When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
3、When cylinder installation, especially for long stroke cylinder, it must use level instrument for three-point position calibration.
4、Before the pipe connects into air intake, it should clear pipe's burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
5、Speed adjustment: firstly adjusting speed control valve (one-way throttle) in the middle, gradually adjusting the output pressure of regulator , when cylinder speed is close to pre-determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
6、After cylinder installation, in working pressure range, to operate 2-3 times without load, checking the cylinder before if is working normally.
7、At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
8、In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
9、In low-temperature environment, it should take antifreeze measure to prevent water freezing of the system. .
10、If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.

Theoretical force sheet

Cylinder inside diamater		16			20			25			32			40		
External diameterof piston rad		6			8			10			12			16		
Action Type		Single action	Double action		Single action	Double action		Single action	Double action		Single action	Double action		Single action	Double action	
			Push	Pluk		Push	Pluk		Push	Pluk		Push	Pluk		Push	Pluk
Compression area cm^2		2.01	2.01	1.81	3.14	3.14	2.64	4.90	4.90	4.12	8.04	8.04	6.90	12.56	12.56	10.55
Air pressure Kgf/cm^2	1	–	02.01	01.81	–	03 14	02.64	–	04 90	04.12	–	08.04	06.90	–	12.56	10.55
	2	–	04.02	03.62	01.57	06.28	05.28	02.45	09.80	08.24	04.02	16.08	13.80	06.28	25.12	21.10
	3	02.01	06.03	05.43	04.71	09.42	07.92	07.35	14.70	12.36	12.06	24.12	20.70	18.84	37.68	31.65
	4	04.02	08.04	07.24	07.85	12.56	10.56	12.25	19.60	16.48	20.10	32.16	27.60	31.40	50.24	42.20
	5	06.03	10.05	09.05	10.99	15.70	13.20	17.15	24.50	20.60	28.14	40.20	34.50	43.96	62.80	52.75
	6	08.04	12.06	10.86	14.13	18.84	15.84	22.05	29.40	24.72	36.18	48.24	41.40	41.40	75.36	63.30
	7	10.04	14.07	12.67	17.27	21.98	18.48	26.95	34.30	28.84	44.22	56.28	48.30	69.08	87.92	73.85
	8	–	–	–	20.41	25.12	21.12	31.85	39.20	32.96	52.26	64.32	55.20	81.64	100.48	84.40
	9	–	–	–	23.55	28.26	23.76	36.75	44.10	37.08	60.30	72.36	62.10	94.20	113.04	94.95

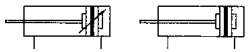
STNC®

Stainless Steel Barrel Slim Cylinder

characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.
Durability: With high-class stainless steel, it is more anticorrosive and durable.
Kinds of mounting: Have kinds of auxiliary components to be chosen.
With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Graphics Sign



Ordering Code

TGA — U — 20 X 50 — LB

- TGA — Series: TGA : Double acting type; TGAC : Double acting cushion type
- U — The type of back cover: No Mark:Fishtail type; CM:Rounded type; U:Horizontal type
- 20 X 50 — Bore size x Stroke
- LB — Installing way: No Mark:Basic type; LB : Foot mounting type; FA : Front flange mounting type; SDB : Trunion type

Example

1) Bore:20mm, stroke:50mm, the back cover is fishtail type, with SDB pattern, Code : TGA20×50-SDB
2) Bore:32mm, stroke:100mm, Horizontal type back cover, Code : TGM-U-32×100

Standard Specification

Bore (mm)		16	20	25	32	40
Action		Double action type				
Applicable medium		Air				
Pressure range		0.1~0.9MPa				
Proof pressure		1.35 MPa				
Temperature range		-10 ~60°C (No Freeze)				
Speed range		50~800 mm/s				
Cushion type	Standard type	Mounted Cushion				
Cushion stroke(mm)	Cushion type	Adjustable cushion				
Prot Size		M5x0.8	G1/8			

III

Stainless Steel Barrel Slim Cylinder

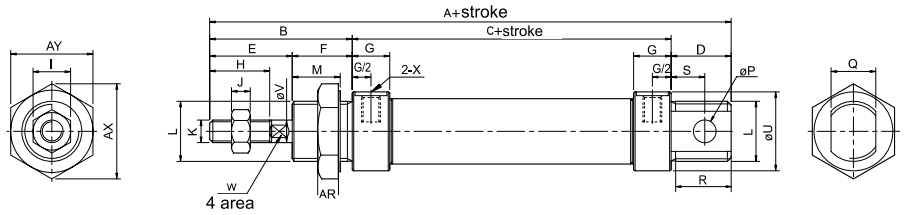
Stroke

Bore (mm)	Standard Stroke																Max. Stroke	Permissible. Stroke
16	25	50	75	80	100	125	150	160	175	200							300	500
20	25	50	75	80	100	125	150	160	175	200	250	300					500	650
25	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	650
32	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	650
40	25	50	75	80	100	125	150	160	175	200	250	300	350	400	450	500	500	650

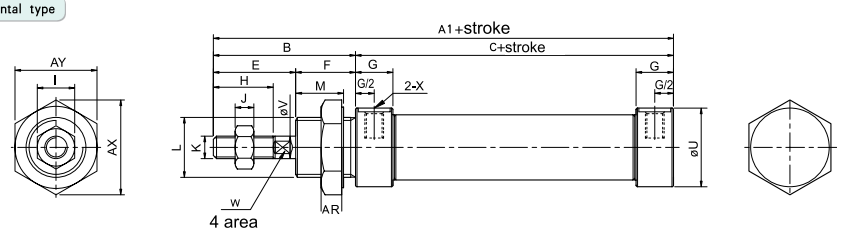
Figure Dimension

● ø16 ~ ø40

● Fishtail type



● Horizontal type



Bore (mm)	A	A1	B	C	D	E	F	G	H	I	J	K
16 ※	114	98	38	60	16	22	16	10	16	10	5	M6x1
20	137	116	40	76	21	28	12	16	20	12	6	M8x1.25
25	141	120	44	76	21	30	14	16	22	17	6	M10x1.25
32	147	120	44	76	27	30	14	16	22	17	6	M10x1.25
40	149	122	46	76	27	32	14	16.7	24	17	7	M12x1.25

Bore (mm)	L	M	P	Q	R	S	U	V	W	X	AR	AX	AY
16 ※	M16x1.5	14	6	12	14	9	21	6	5	M5	6	25	22
20	M22x1.5	10	8	16	19	12	27	8	6	G1/8	7	33	29
25	M22x1.5	12	8	16	19	12	30	10	8	G1/8	7	33	29
32	M24x2.0	12	10	16	25	15	35	12	10	G1/8	8	37	32
40	M30x2.0	12	12	20	25	15	41.6	16	14	G1/8	9	47	41

STNC®

Stainless Steel Barrel Slim Cylinder

characteristic

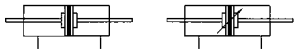
Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to be chosen.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Graphics Sign



Ordering Code

TGAD — 20 X 50 — LB

Type
TGAD:Double action type
TGACD:Biaxial complex pneumatic buffer type

Bore size x Stroke

Installing way
No Mark:Basic type
LB : Foot mounting type
FA : Front flange mounting type

Example

1) Bore:20mm, Stroke:50mm, LB installation, Code : TGAD20×50-LB
2) Bore:32mm, Stroke:100mm, FA installation, Code : TGAD32×100-FA

Standard Specification

Bore (mm)		16	20	25	32	40
Action		Double action type				
Applicable medium		Air				
Pressure range		0.1~0.9MPa				
Proof pressure		1.35MPa				
Temperature range		-10 ~60°C				
Speed range		30~800 mm/s				
Cushion type	Standard type	Bumper				
Cushion stroke(mm)	cushion type	-	Adjustable cushion			
Prot Size		M5x0.8	G1/8			

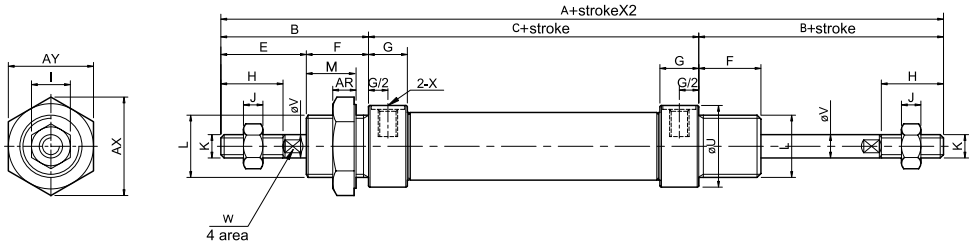
Stainless Steel Barrel Slim Cylinder Double Axis Type

■ Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible Stroke
16	25 50 75 80 125 150 160	150	200
20	25 50 75 80 125 150 160 175 200	200	300
25	25 50 75 80 125 150 160 175 200 250	250	300
32	25 50 75 80 125 150 160 175 200 250	250	300
40	25 50 75 80 125 150 160 175 200 250	250	300

■ Figure Dimension

● ø16 ~ ø40



Bore (mm)	A	B	C	E	F	G	H	I	J	K	L
16	136	38	60	22	16	10	16	10	5	M6x1	M16x1.5
20	156	40	76	28	12	16	20	12	6	M8x1.25	M22x1.5
25	164	44	76	30	14	16	22	17	6	M10x1.25	M22x1.5
32	164	44	76	30	14	16	22	17	6	M10x1.25	M24x2.0
40	168	46	76	32	14	16.7	24	17	7	M12x1.25	M30x2.0

Bore (mm)	M	U	V	W	X	AR	AX	AY
16	14	21	6	5	M5	6	25	22
20	10	27	8	6	G1/8	7	33	29
25	12	30	10	8	G1/8	7	33	29
32	12	35	12	10	G1/8	8	37	32
40	12	41.6	16	14	G1/8	9	47	41

STNC®

Stainless Steel Slim Cylinder Double Axis Adjustable Type

● characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Adjustable stroke: Attached with adjustable nut, the operator can adjust the stroke within its stroke range.

■ Graphics Sign

● Ordering Code

TGAJ — 20 X 50 — 25 — LB

Series
TGAJ:Double acting adjustable type
TGACJ:Double acting adjustable cushion type

Bore size X Stroke

Adjustable Stroke
25:25mm
50:50mm
75:75mm

Installing way
No Mark:Basic type
LB : Foot mounting type
FA : Front flange mounting type

■ Example

1) Bore:20mm, Stroke:50mm, adjustable Stroke:25, LB installation, Code : TGAJ20×50-25-LB

2) Bore:32mm, Stroke:100mm, adjustable Stroke:25, FA installation, Code : TGACJ32×100-25-FA

■ Standard Specification

Bore (mm)		16	20	25	32	40
Action		Double action type				
Applicable medium		Air				
Pressure range		0.1~0.9MPa				
Proof pressure		1.35 MPa				
Temperature range		-10~60°C				
Speed range		30~800 mm/s				
Cushion type	Standard type	Bumper				
	cushion type	Adjustable cushion				
Prot Size		M5x0.8	G1/8			

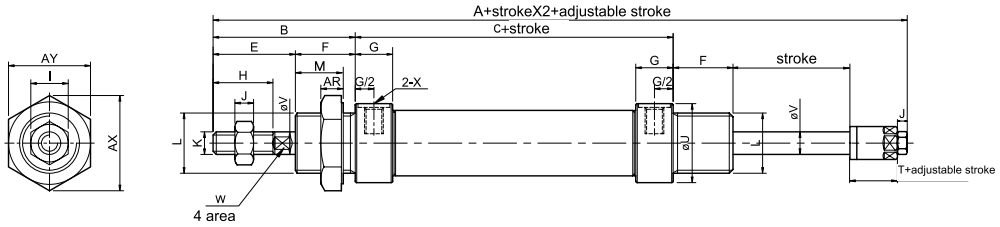
Stainless Steel Slim Cylinder Double Axis Adjustable Type

Stroke

Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
16	25 50 75 80 125 150	150	200
20	25 50 75 80 125 150 160 175 200	200	300
25	25 50 75 80 125 150 160 175 200 250	250	300
32	25 50 75 80 125 150 160 175 200 250	250	300
40	25 50 75 80 125 150 160 175 200 250	250	300

Figure Dimension

● ø16 ~ ø40



Bore (mm)	A	B	C	E	F	G	H	I	J	K	L
16	135	38	60	22	16	10	16	10	5	M6x1	M16x1.5
20	153	40	76	28	12	16	20	12	6	M8x1.25	M22x1.5
25	161	44	76	30	14	16	22	17	6	M10x1.25	M22x1.5
32	161	44	76	30	14	16	22	17	6	M10x1.25	M24x2.0
40	164	46	76	32	14	16.7	24	17	7	M12x1.25	M30x2.0

Bore (mm)	M	T	U	V	W	X	AR	AX	AY
16	14	16	21	6	5	M5	6	25	22
20	10	19	27	8	6	G1/8	7	33	29
25	12	21	30	10	8	G1/8	7	33	29
32	12	21	35	12	10	G1/8	8	37	32
40	12	21	41.6	16	14	G1/8	9	47	41

STNC®

TGSA Series Single Action cylinder

Product characteristic

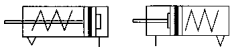
Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With high-class stainless steel, it is more anticorrosive and durable.

Kinds of mounting: Have kinds of auxiliary components to choose.

With magnet: With permanent magnet on piston, it can touch the magnet switch to track cylinder's action.

Graphics Sign



Ordering Code

TGSA — U — 20 X 50 — LB

- TGSA: Series — TGSA: Single acting extrusion type
- U: The type of back cover — No Mark: Fishtail type; U: Horizontal type
- 20 X 50: Bore size X Stroke
- LB: Installing way — No Mark: Basic type; LB: Foot mounting type; FA: Front flange mounting type; SDB: Trunnion type

Example

1) Bore: 20mm, Stroke: 50mm, LB installation, Code: TGSA20×50-LB

2) Bore: 32mm, Stroke: 100mm, FA installation, Code: TGSA32×100-FA

Standard Specification

Bore (mm)	16	20	25	32	40
Action	Double action type				
Applicable medium	Air				
Pressure range	0.2~0.9MPa				
Proof pressure	1.35MPa				
Temperature range	-10~60°C				
Speed range	30~800 mm/s				
Cushion type	Adjustable cushion				
Prot Size	M5x0.8	G1/8			

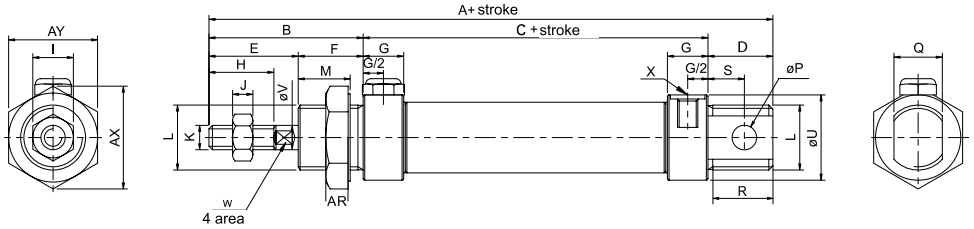
TGSA Series Single Action cylinder

■ Stroke

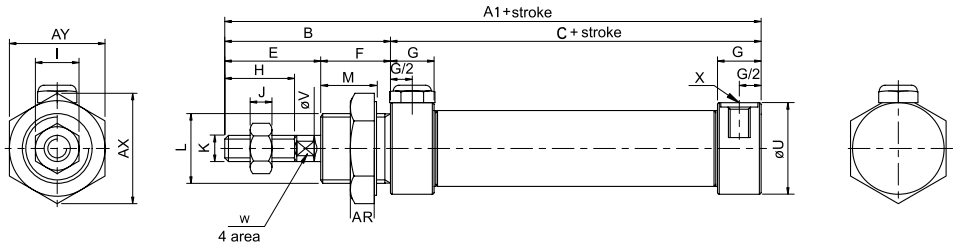
Bore (mm)	Standard Stroke	Max. Stroke
16	25 50 75	100
20	25 50 75 100	100
25	25 50 75 100	100
32	25 50 75 100	100
40	25 50 75 100	100

■ Figure Dimension

● ø16 ~ ø40 ● Fishtail type



● Horizontal type



Type	A		A1		B	C		D	E	F	G	H	I	J	K
Bore (mm)	0–50	51–100	0–50	51–100		0–50	51–100								
16	114	139	98	123	38	60	85	16	22	16	10	16	10	5	M6x1
20	137	162	116	141	40	76	101	21	28	12	16	20	12	6	M8x1.25
25	141	166	120	145	44	76	101	21	30	14	16	22	17	6	M10x1.25
32	147	172	120	145	44	76	101	27	30	14	16	22	17	6	M10x1.25
40	149	174	122	147	46	76	101	27	32	14	16.7	24	17	7	M12x1.25

Bore (mm)	L	M	P	Q	S	R	U	V	W	X	AR	AX	AY
16	M16x1.5	14	6	12	9	14	21	6	5	M5x0.8	6	25	22
20	M22x1.5	10	8	16	12	19	27	8	6	G1/8	7	33	29
25	M22x1.5	12	8	16	12	19	30	10	8	G1/8	7	33	29
32	M24x2.0	12	10	16	15	25	35	12	10	G1/8	8	37	32
40	M30x2.0	12	12	20	15	25	41.6	16	14	G1/8	9	47	41

Aluminum Barrel Slim Cylinder

● Calculation of theoretical force of cylinder

$$F = P \times A - F_0$$

F: Theoretical force
P: Pressure
A: Piston area

● Aluminum barrel slim cylinder

It is made in aluminum barrel, light and small. The cylinder wall is treated with hard anodic oxidation. It uses new seal material and can automatically compensate the abrasion surface of seal, with good resistance to abrasion and long service life. There are different installing accessories to choose.

● Cylinder installation instructions

1、Before installation, be sure if the cylinder was not damaged during transportation. Check if connecting parts were loose, etc.
2、When installation, the cylinder piston rod shall not withstand eccentric or radial loads, the load must be consistent with the direction of piston rod axis.
3、When cylinder installation, especially for long stroke cylinder, it must use level instrument for three-point position calibration.
4、Before the pipe connects into air intake, it should clear pipe's burrs, pipeline without corrosion, after cleaning up and checked, can be installation.
5、Speed adjustment: firstly adjusting speed control valve (one-way throttle) in the middle, gradually adjusting the output pressure of regulator , when cylinder speed is close to pre-determine speed, it can ascertain working pressure, and then using speed control valve for fine tuning. Finally adjusting the buffer speed (usually adjustable needle is adjusted at the factory)
6、After cylinder installation, in working pressure range, to operate 2–3 times without load, checking the cylinder before if is working normally.
7、At high temperature or corrosive conditions, it should use the appropriate temperature or corrosion resistance cylinders
8、In the occasions of humidity, dust or water drop, oil, dust, welding slag, the cylinder should be protected with devices.
9、In low-temperature environment, it should take antifreeze measure to prevent water freezing of the system. .
10、If the cylinder is not used for a long time, pay attention to the surface oxidation, the intake and exhaust ports should be added plug dust protection.

■ Theoretical force sheet

Cylinder inside diamater		20			25			32			40		
External diameterof piston rad		8			10			12			16		
Action Type		Single action	Double action		Single action	Double action		Single action	Double action		Single action	Double action	
			Push	Pluk		Push	Pluk		Push	Pluk		Push	Pluk
Compression area cm^2		3.14	3.14	2.64	4.90	4.90	4.12	8.04	8.04	6.90	12.56	12.56	10.55
Air pressure Kgf/cm^2	1	–	03.14	02.64	–	04.90	04.12	–	08.04	06.90	03.75	12.56	10.55
	2	01.26	06.28	05.28	21.10	09.80	32.98	07.66	16.08	13.80	16.31	25.12	21.10
	3	04.40	09.42	07.92	31.65	14.70	12.36	15.70	24.12	20.70	28.87	37.68	31.65
	4	07.54	12.56	10.56	42.20	19.60	16.48	23.74	32.16	27.60	4 143	50.24	42.20
	5	10.68	15.70	13.20	52.75	24.50	20.60	31.78	40.20	34.50	53.99	62.80	52.75
	6	13.82	18.84	15.84	63.30	29.40	24.72	39.82	48.24	41.40	66.55	75.36	63.30
	7	16.96	21.98	18.48	73.85	34.30	28.84	47.86	56.28	48.30	79.11	87.92	73.85
	8	21.10	25.12	21.12	84.40	39.20	32.96	55.90	64.32	55.20	91.67	100.48	84.40
	9	23.24	28.26	23.76	94.95	44.10	37.08	63.94	72.36	62.10	104.23	113.04	94.95

Aluminum Barrel Slim Cylinder

Aluminum barrel slim cylinder

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

Kinds of mounting: Have kinds of installing accessories to choose.

Graphics Sign

Ordering Code

TGM — U — 20 X 50 — S — LB

- TGM — Series: TGM: Double acting type
- U — Back cover type: No Mark: Fishtail type; U: Horizontal type; CM: Rounded type
- 20 X 50 — Bore sizeX Stroke
- S — Magnet code: No Mark: Without magnet; S: With magnet
- LB — Installing way: No Mark: Basic type; LB: Foot mounting type; FA: Front flange mounting type; SDB: Trunnion type

Example

1) Bore: 20mm, Stroke: 50mm, Fishtail type back cover installation, SDB pattern, Code: TGM-CA-20×50-SDB
2) Bore: 32mm, Stroke: 100mm, Horizontal back cover and is aluminium slim cylinder, Code: TGM-U-32×100

Standard Specification

Bore (mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.1~0.9MPa			
Proof pressure	1.35MPa			
Temperature range	−10~60°C			
Speed range	30~800 mm/s			
Prot Size	G1/8			G1/4

STNC®

Aluminum Barrel Slim Cylinder

Stroke

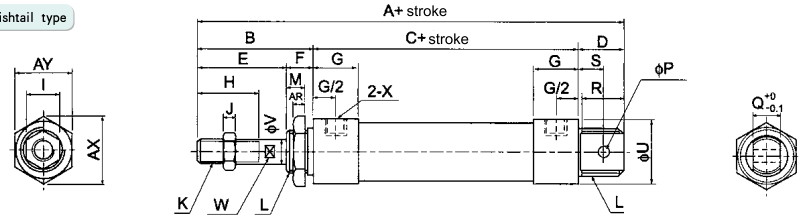
Bore (mm)	Standard Stroke	Max. Stroke	Permissible. Stroke
20	25 50 75 80 100 125 150 160 175 200 250 300	500	800
25	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	800	1200
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	800	1200
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1200	1500

* Special stroke please contact with as

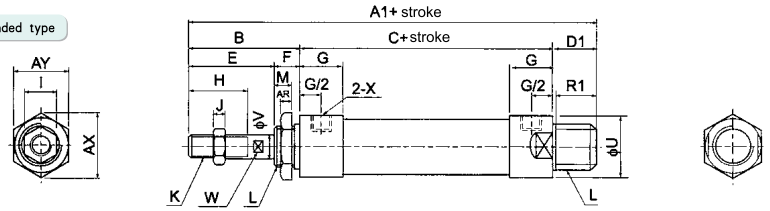
Figure Dimension

● ⌀20 ~ ⌀40

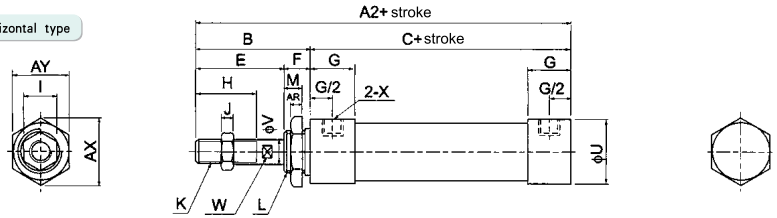
● Fishtail type



● Rounded type



● Horizontal type



Bore (mm)	A	A1	A2	B	C	D	D1	E	F	G	H	I	J	K
20	131	122	110	40	70	21	12	28	12	16	20	12	6	M8x1.25
25	135	128	114	44	70	21	14	30	14	16	22	17	6	M10x1.25
32	141	128	114	44	70	27	14	30	14	16	22	17	6	M10x1.25
40	165	152	138	46	92	27	14	32	14	22	24	17	7	M12x1.25

Bore (mm)	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
20	M22x1.5	10	8	16	19	10	12	29	8	6	G1/8	7	33	29
25	M22x1.5	12	8	16	19	12	12	34	10	8	G1/8	7	33	29
32	M24x2.0	12	10	16	25	12	15	39.5	12	10	G1/8	8	37	32
40	M30x2.0	12	12	20	25	12	15	49.5	16	14	G1/4	9	47	41

III

Aluminium Compact Cylinder Double Axis Type

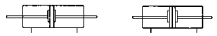
Product characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

Kinds of mounting: Have kinds of installing accessories to choose.

Graphics Sign



Ordering Code

TGMD — 20 X 50 — S — LB

- TGMD — Series: TGMD: Double acting type
- 20 X 50 — Bore size X Stroke
- S — Magnet code: No Mark: Without magnet; S: With magnet
- LB — Installing way: No Mark: Basic type; LB: Foot mounting type; FA: Front flange mounting type

Example

1) Bore: 20mm, stroke: 50mm, LB installation, Code: TGMD20×50-LB

Standard Specification

Bore (mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.1~0.9MPa			
Proof pressure	1.35MPa			
Temperature range	-10~60°C			
Speed range	50~800 mm/s			
Prot Size	G1/8			G1/4

STNC®

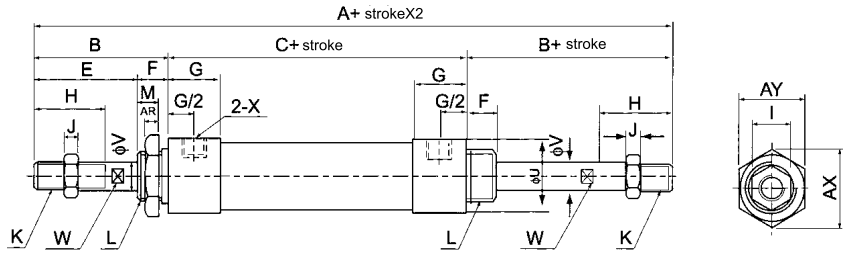
Aluminium Compact Cylinder Double Axis Type

Stroke

Bore (mm)	Standard Stroke											Max. Stroke	Permissible Stroke
20	25	50	75	80	100	125	150	160	175	200		200	300
25	25	50	75	80	100	125	150	160	175	200	250	250	300
32	25	50	75	80	100	125	150	160	175	200	250	250	300
40	25	50	75	80	100	125	150	160	175	200	250	250	300

Figure Dimension

● ø20 ~ ø40



Bore (mm)	A	B	C	E	F	G	H	I	J	K	L	M	U	V	W	X	AR	AX	AY
20	150	40	70	28	12	16	20	12	6	M8x1.25	M22x1.5	10	29	8	6	G1/8	7	33	29
25	158	44	70	30	14	16	22	17	6	M10x1.25	M22x1.5	12	34	10	8	G1/8	7	33	29
32	158	44	70	30	14	16	22	17	6	M10x1.25	M24x2.0	12	39.5	12	10	G1/8	8	37	32
40	184	46	92	32	14	22	24	17	7	M12x1.25	M30x2.0	12	49.5	16	14	G1/4	9	47	41

Aluminium Mini Cylinder Double Axis Adjustable Type

Product characteristic

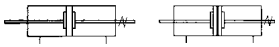
Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

Kinds of mounting: Have kinds of accessories to choose.

Adjustable stroke: Attached with adjustable nut, the operator can adjust the stroke within its stroke range.

Graphics Sign



Ordering Code

TGMJ	—	20 X 50	—	30	—	S	—	LB
Series TGMJ:Double acting adjustable type		Bore size X Stroke		Adjustable stroke 25:25mm 50:50mm 75:75mm		Magnet code No Mark : Without magnet S:With magnet		Installing way No Mark:Basic type LB : Foot mounting type FA : Front flange mounting type

Example

1) Bore:20mm, stroke:50mm, adjustable stroke:25, LB installation, Code : TGMJ20×50-LB

Standard Specification

Bore (mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.1～0.9MPa			
Proof pressure	1.35MPa			
Temperature range	−10～60℃			
Speed range	50～800 mm/s			
Prot Size	G1/8			G1/4

STNC®

Aluminium Mini Cylinder Double Axis Adjustable Type

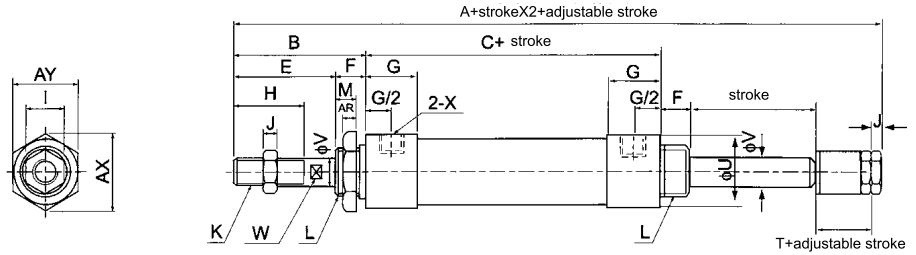
Stroke

Bore (mm)	Standard Stroke											Max. Stroke	Permissible. Stroke
20	25	50	75	80	100	125	150	160	175	200		200	300
25	25	50	75	80	100	125	150	160	175	200	250	250	300
32	25	50	75	80	100	125	150	160	175	200	250	250	300
40	25	50	75	80	100	125	150	160	175	200	250	250	300

* Special stroke please contact with us

Figure Dimension

● ø20 ～ ø40



Bore (mm)	A	B	C	E	F	G	H	I	J	K	L	M	T	U	V	W	X	AR	AX	AY
20	147	40	70	28	12	16	20	12	6	M8x1.25	M22x1.5	10	19	29	8	6	G1/8	7	33	29
25	155	44	70	30	14	16	22	17	6	M10x1.25	M22x1.5	12	21	34	10	8	G1/8	7	33	29
32	155	44	70	30	14	16	22	17	6	M10x1.25	M24x2.0	12	21	39.5	12	10	G1/8	8	37	32
40	180	46	92	32	14	22	24	17	7	M12x1.25	M30x2.0	12	21	49.5	16	14	G1/4	9	47	41

III

Product characteristic

Without lubricating: Needn't lubricating on piston rod for using oiled axletree.

Durability: With oxidative steel tube, cover deal with electrophoresis, it is not only anticorrosive, durable and wear-resistant, but also has compact shape.

Kinds of mounting: Have kinds of installing accessories to choose.

Graphics Sign

Ordering Code

TGSM	—	CA	—	20 X 50	—	S	—	LB

TGSM — Series
MSAL: Single acting type

CA — Back cover type
No Mark:
CA: Fishtail type
CM: Rounded type
U: Horizontal type

20 X 50 — Bore size X Stroke

S — Magnet code
No Mark: Without magnet
S: With magnet

LB — Installing way
No Mark: Basic type
LB: Foot mounting type
FA: Front flange mounting type
SDB: Trunnion type

Example

1) Bore: 20mm, stroke: 50mm, Back cover type Fishtail type, with runnion SDB, Code: TGSM-CA-20×50-SDB
2) Bore: 32mm, stroke: 100mm, Back cover type is Horizontal type, Code: TGSM-U-32×100

Stroke

Bore (mm)	Standard Stroke	Max. Stroke
20	25 50 75 100	100
25	25 50 75 100	100
32	25 50 75 100	100
40	25 50 75 100	100

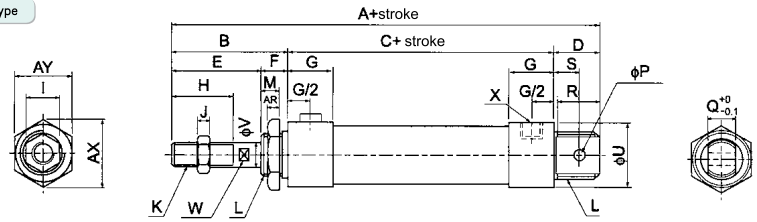
Standard Specification

Bore (mm)	20	25	32	40
Action	Double action type			
Applicable medium	Air			
Pressure range	0.2~0.9MPa			
Proof pressure	1.35MPa			
Temperature range	-10~60°C			
Speed range	50~800 mm/s			
Prot Size	G1/8 Adjustable cushion			G1/4

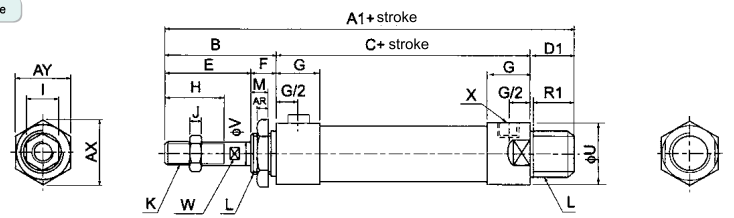
Figure Dimension

ø20 ~ ø40

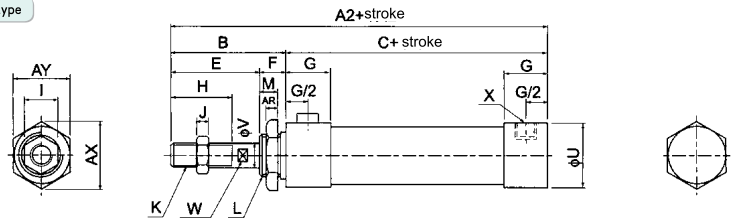
Fishtail type



Rounded type



Horizontal type



Type	A		A1		A2		B	C		D	D1	E	F	G	H	I	J
Bore (mm)	0-50	51-100	0-50	51-100	0-50	51-100		0-50	51-100								
20	131	156	122	147	110	135	40	70	95	21	12	28	12	16	20	12	6
25	135	160	128	153	114	139	44	70	95	21	14	30	14	16	22	17	6
32	141	166	128	153	114	139	44	70	95	27	14	30	14	16	22	17	6
40	165	190	152	177	138	163	46	92	117	27	14	32	14	22	24	17	7

Bore (mm)	K	L	M	P	Q	R	R1	S	U	V	W	X	AR	AX	AY
20	M8x1.25	M22x1.5	10	8	16	19	10	12	29	8	6	G1/8	7	33	29
25	M10x1.25	M22x1.5	12	8	16	19	12	12	34	10	8	G1/8	7	33	29
32	M10x1.25	M24x2.0	12	10	16	25	12	15	39.5	12	10	G1/8	8	37	32
40	M12x1.25	M30x2.0	12	12	20	25	12	15	49.5	16	14	G1/4	9	47	41

Necdle type cylinder (Single Act)

(φ6–φ15)

Standard Specification

Bore (mm)	6	10	15
Fluid	Air		
Acting	Single act–Spring Draw		
Proof pressure	10.5MPa{1.05kgf/cm2}		
Max.pressure	7MPa{0.7kgf/cm2}		
Min.pressure	2MPa{0.2kgf/cm2}	1.5MPa{0.15kgf/cm2}	
Environment and fluid temperature	5–60℃		
Cushion	No		
Stroke toleranle	+1.0, 0		
* Lubrication	No need		
Prot Size	M5×0.8(Panel mounting)		

* Lubricate please use ISOVG32

Ordering Code

Panel Mounting: CJPB [10] — [15] — [ ]

Built–in Type: CJPS [6] — [5] — [B]

Bore
6–φ6mm
10–φ10mm
15–φ15mm

Stroke

Rod end thread
No: Thread
B: No thread

Order example

1) Panel mounting: No thread, Bore: 6, Stroke: 10,
Code: CJPB6–10–B

2) Built–in type: thread, Bore: 10, Stroke: 15,
Code: CJPS10–15

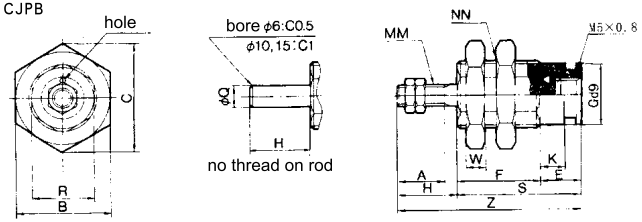
Stroke/Spring Force

Bore (mm)	Stroke(mm)	Retractable postion	Extended postion
6	5,10,15	150	400
10	5,10,15	250	610
16	5,10,15	450	1100

III

Figure Dimension(mm)

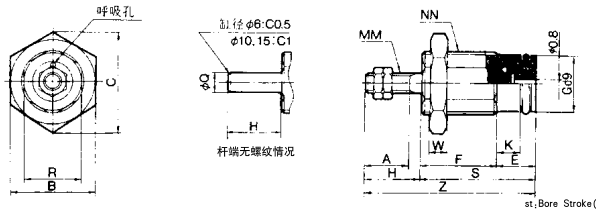
Panel mounting CJPB



st:Bore Stroke(mm)

Bore(mm)	A	B	C	E	S			φG	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	15st							5st	10st	15st		5st	10st	15st	
6	7	12	13.9	6	12.5	19.5	26.5	8.5	9	3.5	M3×0.5	M10×1.0	9	18.5	22.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	14.5	21	28	12	12	3.5	M4×0.7	M15×1.5	13	20.5	27	34	3	32.5	39	46	5
15	12	27	31	7	16.5	22.5	29	19	14	4.2	M5×0.8	M22×1.5	20	23.5	29.5	36	4	37.5	43.5	50	6

Panel mounting CJPS



st:Bore Stroke(mm)

Bore(mm)	A	B	C	E	S			φG	H	K	MM	NN	R	S			W	Z			Q
					5st	10st	15st							5st	10st	15st		5st	10st	15st	
6	7	12	13.9	6	12.5	19.5	26.5	8.5	9	3.5	M3×0.5	M10×1.0	9	18.5	22.5	32.5	3	27.5	34.5	41.5	3
10	10	19	22	6	14.5	21	28	12	12	3.5	M4×0.7	M15×1.5	13	20.5	27	34	3	32.5	39	46	5
15	12	27	31	7	16.5	22.5	29	19	14	4.2	M5×0.8	M22×1.5	20	23.5	29.5	36	4	37.5	43.5	50	6

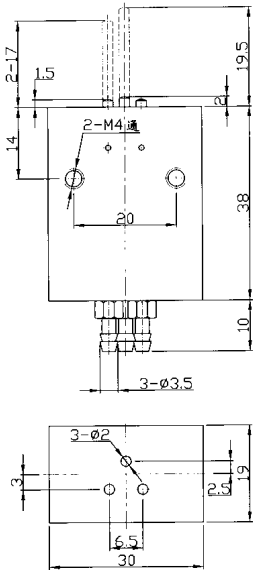
Multi–cylinder assembly

THZ4–3

Character

The cylinder dedicated to the textile industry, combined with my company supporting the use of solenoid valves.

Dimensions

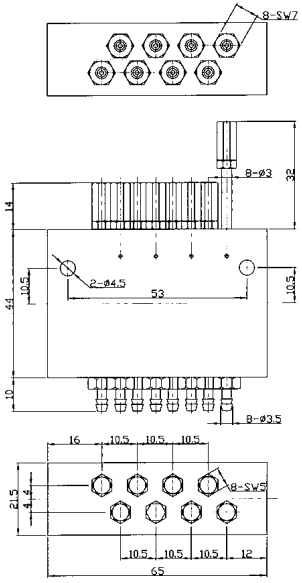


THZ6X18–8

Character

The cylinder dedicated to the textile industry, combined with my company supporting the use of solenoid valves.

Dimensions



III

Compact Cylinder

Characteristic

It is a kind of compact cylinder type, with small axial size, less space, light structure and handsome shape. All kinds of fi xtue and special machinery can be compactly designed with it. It can bear large transverse load and can be installed directly without accessories.

Theoretical Force Sheet

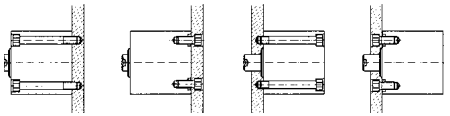
Cylinder inside diamater	External diameter of piston rad	Action Type		Compression area cm^2	Air pressure Kgf/cm^2						
					1.0	2.0	3.0	4.0	5.0	6.0	7.0
12	6	Extrusion Single action		1.13	–	0.70	1.83	2.96	4.09	5.22	6.35
		Single action drawing–in		0.85	–	0.14	0.99	1.84	2.69	3.54	4.39
		Double action	Push	1.13	–	2.26	3.39	4.52	5.65	6.78	7.91
			Pluk	0.85	–	1.70	2.55	3.40	4.25	5.10	5.95
16	6	Extrusion Single action		2.01	–	1.36	3.37	5.38	7.39	9.40	11.41
		Single action drawing–in		1.73	–	0.80	2.53	4.26	5.99	7.72	9.45
		Double action	Push	2.01	–	4.02	6.03	8.04	10.05	12.06	14.07
			Pluk	1.73	–	3.46	5.19	6.92	8.65	10.38	12.11
20	8	Extrusion Single action		3.14	–	2.87	6.01	9.15	12.29	15.43	18.57
		Single action drawing–in		2.64	–	1.87	4.51	7.15	9.79	12.43	15.07
		Double action	Push	3.14	–	6.28	9.42	12.56	15.70	18.84	21.98
			Pluk	2.64	–	5.28	7.92	10.56	13.20	15.84	18.48
25	10	Extrusion Single action		4.90	–	5.80	10.70	15.60	20.50	25.40	30.30
		Single action drawing–in		4.12	–	4.24	8.36	12.48	16.60	20.72	24.84
		Double action	Push	4.90	–	9.80	14.70	19.60	24.50	29.40	34.30
			Pluk	4.12	–	8.24	12.36	16.48	20.60	24.72	28.84
32	12	Extrusion Single action		8.04	–	11.21	19.25	27.29	35.33	43.37	51.41
		Single action drawing–in		6.90	–	8.93	15.83	22.73	29.63	36.53	43.43
		Double action	Push	8.04	–	16.08	24.12	32.16	40.20	48.24	56.28
			Pluk	6.90	–	13.80	20.70	27.60	34.50	41.40	48.30
40	16	Extrusion Single action		12.56	–	20.08	32.64	45.20	57.76	70.32	82.88
		Single action drawing–in		10.55	–	16.06	26.61	37.16	47.71	58.26	68.81
		Double action	Push	12.56	12.56	25.12	37.68	50.24	62.80	75.36	87.92
			Pluk	10.55	10.55	21.10	31.65	42.20	52.75	63.30	73.85
50	20	Double action	Push	19.63	19.63	39.26	58.89	78.52	98.15	117.78	137.41
			Pluk	16.49	16.49	32.98	49.47	65.96	82.45	98.94	115.43
63	20	Double action	Push	31.17	31.17	62.34	93.51	124.68	155.85	187.02	218.19
			Pluk	28.03	28.03	56.06	84.09	112.12	140.15	168.18	196.21
80	25	Double action	Push	50.26	50.26	100.52	150.78	201.04	251.30	301.56	351.82
			Pluk	45.36	45.36	90.72	136.08	181.44	226.80	272.16	317.52
100	32	Double action	Push	78.53	78.53	157.06	235.59	314.12	392.65	471.18	549.71
			Pluk	70.49	70.49	140.98	211.47	281.96	352.45	422.94	493.43

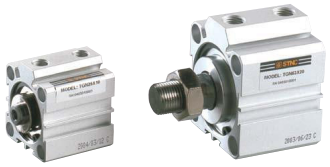
Calculation of cylinder' s theoretic force

$$F = P \times A - F_0$$

F: Theoretical force
P: Pressure
A: Piston area
F0: Regain power of spring

Mounting Type





Characteristic

Thin and light: In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

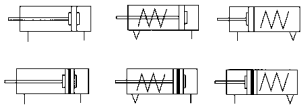
Easy to install: With the embedding type of mounting, need nothing and save room.

Easy to maintain: With simple design to assemble, install and repair easily.

Magnet switch: Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

Graphics Sign



Ordering Code

TGN — S — 20 X 30 — B

- TGN: Series
  - TGN: Double acting type
  - TGTN: Extrusion type
  - TGSN: Drawing in type
- S: Magnetic type
  - No Mark: Without magnet
  - S: With magnet
- 20 X 30: Bore size X Stroke
- B: Installing way
  - No Mark: Female thread
  - B: Male thread
  - N: Non-thread

Example

1) Bore: 20mm, stroke: 30mm, With magnet, Code: TGN-S-20×30-B
2) Bore: 32mm, stroke: 10mm, no thread, Code: TGN-32×10-N

Specification

Bore (mm)		12	16	20	25	32	40	50	63	80	100
Action		Double acting type									
		Extrusion Single acting type		Single acting drawing-in type				–			
Applicable medium		Air									
Pressure range	Double acting type	0.1~0.9 MPa									
	Single acting type	0.2~0.9 MPa						–			
Proof pressure		1.35 MPa									
Temperature range		-10~60°C (No Freeze)									
Speed range	Double acting type	30~500 mm/s						30~350 mm/s		30~250 mm/s	
	Single acting type	100~500 mm/s						–			
Cushion type		Mounted Cushion									
Port size		M5x0.8			G1/8			G1/4		G3/8	

Stroke

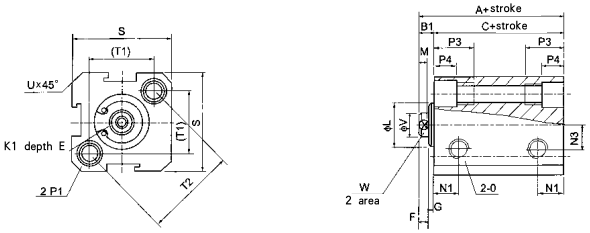
Bore (mm)		12 16	20	25		32 40 50 63 80 100	
Double acting type	Without magnet	5~60mm 5mm/grade	5~85mm 5mm/grade	5~90mm 5mm/grade	100~110mm 10mm/grade	5~90mm 5mm/grade	100~130mm 10mm/grade
	With magnet	5~50mm 5mm/grade	5~75mm 5mm/grade	5~90mm 5mm/grade	100mm	5~90mm 5mm/grade	100~120mm 10mm/grade
Single acting type	Without magnet	5~30mm 5mm/grade	5~30mm 5mm/grade	5~30mm 5mm/grade		5~30mm 5mm/grade	–
	With magnet	5~30mm 5mm/grade	5~30mm 5mm/grade	5~30mm 5mm/grade		5~30mm 5mm/grade	–
Max. stroke		60mm	100mm	120mm		130mm	

* Special stroke please contact with as

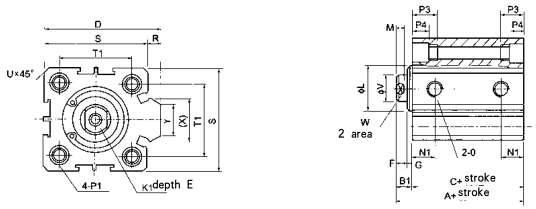
Figure Dimension

TGN、TGNS

● ø12 ~ ø16



● ø20 ~ ø100

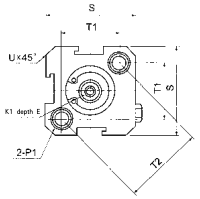


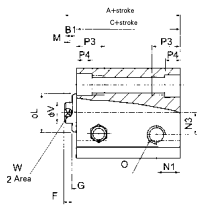
Type	Without magnet			With magnet			D	E		F	G	K1	L	M	N1
Bore	A	B1	C	A	B1	C		Stroke ⩽10	Stroke>10						
12	22	5	17	32	5	27	–	6		4	1	M3x0.5	10	2.8	6.3
16	24	5.5	18.5	34	5.5	28.5	–	6		4	1.5	M3x0.5	11	2.8	7.3
20	25	5.5	19.5	35	5.5	29.5	36	8		4	1.5	M4x0.7	14	2.8	7.5
25	27	6	21	37	6	31	42	10		4	2	M5x0.8	16	2.8	8
32	31.5	7	24.5	41.5	7	34.5	50	12		4	3	M6x1	20	2.8	9
40	33	7	26	43	7	36	58.5	12		4	3	M8x1.25	26	2.8	10
50	37	9	28	47	9	38	71.5	15		5	4	M10x1.5	33	2.8	10.5
63	41	9	32	51	9	42	84.5	15		5	4	M10x1.5	35	2.8	11.8
80	52	11	41	62	11	51	104	15	20	6	5	M14x1.5	45	4	14.5
100	63	12	51	73	12	61	124	18	20	7	5	M18x1.5	50	4	20.5

Bore	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	12	4.5	–	25	16.2	23	1.6	6	5	–	–
16	6.5	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	12	4.5	–	29	19.8	28	1.6	6	5	–	–
20	–	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	14	4.5	2	34	24	–	2.1	8	6	11.3	10
25	–	M5x0.8	Double side:Φ8.2 Cog M5x1.0 Through hole:Φ4.6	15	5.5	2	40	28	–	3.1	10	8	12	10
32	–	G1/8	Double side:Φ8.2 Cog M5x1.0 Through hole:Φ4.6	16	5.5	6	44	34	–	2.15	12	10	18.3	15
40	–	G1/8	Double side:Φ10 Cog M8x1.25 Through hole:Φ6.5	20	7.5	6.5	52	40	–	2.25	16	14	21.3	16
50	–	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	25	8.5	9.5	62	48	–	4.15	20	17	30	20
63	–	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	25	8.5	9.5	75	60	–	3.15	20	17	28.7	20
80	–	G3/8	Double side:Φ14 Cog M12x1.75 Through hole:Φ9.2	25	10.5	10	94	74	–	3.65	25	22	36	26
100	–	G3/8	Double side:Φ17.5 Cog M14x2 Through hole:Φ11.3	30	13	10	114	90	–	3.65	32	27	35	26

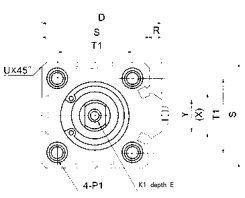
TGSN、TGSNS

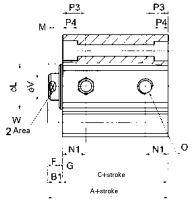
● ø12 ~ ø16





● ø20 ~ ø63



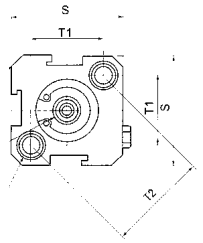


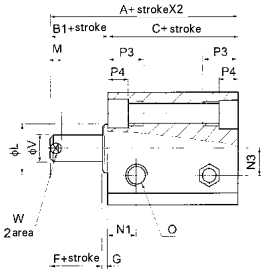
Type	without magnet type					within magnet type					D	E	F	G	K1	L	M	N1	N3
Bore / Stroke	A		B1	C		A		B1	C										
	⩽10	>10		⩽10	>10	⩽10	>10		⩽10	>10									
12	32	42	5	27	37	42	52	5	37	47	–	6	4	1	M3x0.5	10	2.8	6.3	6
16	34	44	5.5	28.5	38.5	44	54	5.5	38.5	48.5	–	6	4	1.5	M3x0.5	11	2.8	7.3	6.5
20	35	45	5.5	29.5	39.5	45	55	5.5	39.5	49.5	36	8	4	1.5	M4x0.7	14	2.8	7.5	–
25	37	47	6	31	41	47	57	6	41	51	42	10	4	2	M5x0.8	16	2.8	8	–
32	41.5	51.5	7	34.5	44.5	51.5	61.5	7	44.5	54.5	50	12	4	3	M6x1	20	2.8	9	–
40	43	53	7	36	46	53	63	7	46	56	58.5	12	4	3	M8x1.25	26	2.8	10	–
50	47	57	9	38	48	57	67	9	48	58	71.5	15	5	4	M10X1.5	33	2.8	10.5	–
63	51	61	9	42	52	61	71	9	52	62	84.5	15	5	4	M10X1.5	35	2.8	11.8	–

Bore	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	M5x0.8	double side：ø6.5 tooth: M5x0.8 through hole：ø4.2	12	4.5	–	25	16.2	23	1.6	6	5	–	–
16	M5x0.8	double side：ø6.5 tooth: M5x0.8 through hole：ø4.2	12	4.5	–	29	19.8	28	1.6	6	5	–	–
20	M5x0.8	double side：ø6.5 tooth: M5x0.8 through hole：ø4.2	14	4.5	2	34	24	–	2.1	8	6	11.3	10
25	M5x0.8	double side：ø8.2 tooth: M6x1.0 through hole：ø4.6	15	5.5	2	40	28	–	3.1	10	8	12	10
32	G1/8	double side：ø8.2 tooth: M6x1.0 through hole：ø4.6	16	5.5	6	44	34	–	2.15	12	10	18.3	15
40	G1/8	double side：ø10 tooth: M8x1.25 through hole：ø6.5	20	7.5	6.5	52	40	–	2.25	16	14	21.3	16
50	G1/4	double side：ø11 tooth: M8x1.25 through hole：ø6.5	25	8.5	9.5	62	48	–	4.15	20	17	30	20
63	G1/4	double side：ø11 tooth: M8x1.25 through hole：ø6.5	25	8.5	9.5	75	60	–	3.15	20	17	28.7	20

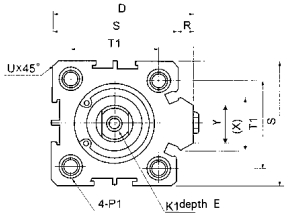
TGTN、TGTNS

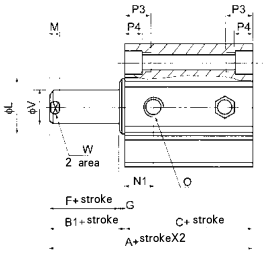
● ø12 ~ ø16





● ø20 ~ ø63



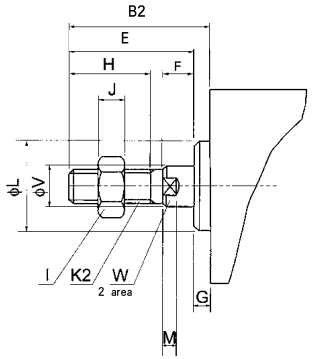


Type	without magnet type					within magnet type					D	E	F	G	K1	L	M	N1	N3
Bore / Stroke	A		B1	C		A		B1	C										
	⩽10	>10		⩽10	>10	⩽10	>10		⩽10	>10									
12	32	42	5	27	37	42	52	5	37	47	–	6	4	1	M3x0.5	10	2.8	6.3	6
16	34	44	5.5	28.5	38.5	44	54	5.5	38.5	48.5	–	6	4	1.5	M3x0.5	11	2.8	7.3	6.5
20	35	45	5.5	29.5	39.5	45	55	5.5	39.5	49.5	36	8	4	1.5	M4x0.7	14	2.8	7.5	–
25	37	47	6	31	41	47	57	6	41	51	42	10	4	2	M5x0.8	16	2.8	8	–
32	41.5	51.5	7	34.5	44.5	51.5	61.5	7	44.5	54.5	50	12	4	3	M6x1	20	2.8	9	–
40	43	53	7	36	46	53	63	7	46	56	58.5	12	4	3	M8x1.25	26	2.8	10	–
50	47	57	9	38	48	57	67	9	48	58	71.5	15	5	4	M10X1.5	33	2.8	10.5	–
63	51	61	9	42	52	61	71	9	52	62	84.5	15	5	4	M10X1.5	35	2.8	11.8	–

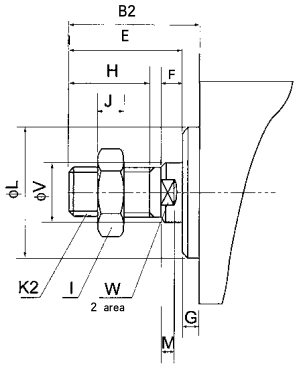
Bore	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	M5x0.8	double side：ø6.5 tooth: M5x0.8 through hole：ø4.2	12	4.5	–	25	16.2	23	1.6	6	5	–	–
16	M5x0.8	double side：ø6.5 tooth: M5x0.8 through hole：ø4.2	12	4.5	–	29	19.8	28	1.6	6	5	–	–
20	M5x0.8	double side：ø6.5 tooth: M5x0.8 through hole：ø4.2	14	4.5	2	34	24	–	2.1	8	6	11.3	10
25	M5x0.8	double side：ø8.2 tooth: M6x1.0 through hole：ø4.6	15	5.5	2	40	28	–	3.1	10	8	12	10
32	G1/8	double side：ø8.2 tooth: M6x1.0 through hole：ø4.6	16	5.5	6	44	34	–	2.15	12	10	18.3	15
40	G1/8	double side：ø10 tooth: M8x1.25 through hole：ø6.5	20	7.5	6.5	52	40	–	2.25	16	14	21.3	16
50	G1/4	double side：ø11 tooth: M8x1.25 through hole：ø6.5	25	8.5	9.5	62	48	–	4.15	20	17	30	20
63	G1/4	double side：ø11 tooth: M8x1.25 through hole：ø6.5	25	8.5	9.5	75	60	–	3.15	20	17	28.7	20

Figure Dimension

● ø12 ~ ø16

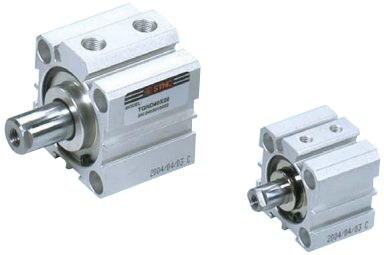


● ø20 ~ ø100



Bore (mm)	B2	E	F	G	H	I	J	K2	L	M	V	W
12	17	16	4	1	10	8	4	M5x0.8	10	2.8	6	5
16	17.5	16	4	1.5	10	8	4	M5x0.8	11	2.8	6	5
20	20.5	19	4	1.5	13	10	5	M6x1.0	14	2.8	8	6
25	23	21	4	2	15	12	6	M8x1.25	16	2.8	10	8
32	25	22	4	3	15	17	6	M10x1.25	20	2.8	12	10
40	35	32	4	3	25	19	8	M14x1.5	26	2.8	16	14
50	37	33	5	4	25	27	11	M18x1.5	33	2.8	20	17
63	37	33	5	4	25	27	11	M18x1.5	35	2.8	20	17
80	44	39	6	5	30	32	13	M22x1.5	45	4	25	22
100	50	45	7	5	35	36	13	M26x1.5	55	4	32	27

STNC®
Compact Cylinder



Characteristic

Thin and light: In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

Easy to install: With the embedding type of mounting, need nothing and save room.

Easy to maintain: With simple design to assemble, install and repair easily.

Magnet switch: Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

Graphics Sign

Ordering Code

TGND — S — 20 X 30 — B

- TGND — Series: TGND: Double axis double acting type
- S — Magnetic type: No Mark: Without magnet; S: With magnet
- 20 X 30 — Bore size X Stroke
- B — Installing way: No Mark: Female thread; B: Male thread; N: Non-thread

Specification

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting type									
Applicable medium	Air									
Pressure range	0.1~0.9 MPa									
Proof pressure	1.35 MPa									
Temperature range	-10~60°C (No Freeze)									
Speed range	30~500 mm/s						30~350 mm/s		30~250 mm/s	
Cushion type	Mounted Cushion									
Port size	M5x0.8				G1/8		G1/4		G3/8	

Stroke

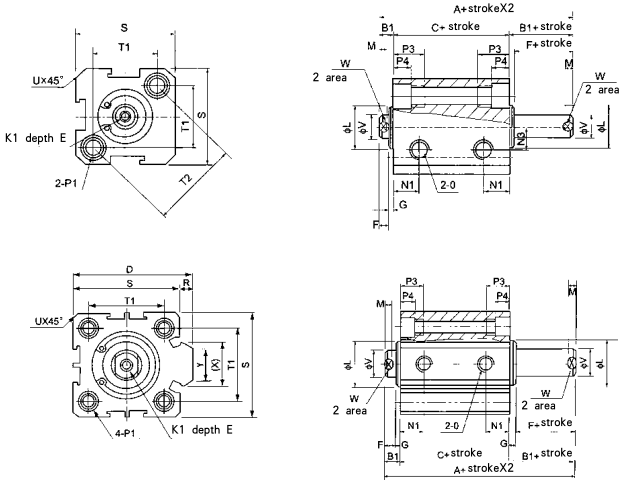
Bore(mm)	12 16	20	25		32 40 50	63 80 100
Without magnet	5~60mm 5mm/grade	5~85mm 5mm/grade	5~90mm 5mm/grade	100~110mm 10mm/grade	5~90mm 5mm/grade	100~130mm 10mm/grade
With magnet	5~50mm 5mm/grade	5~75mm 5mm/grade	5~90mm 5mm/grade	100mm	5~90mm 5mm/grade	100~120mm 10mm/grade
Max.stroke	60mm	100mm	120mm		130mm	

* special stroke, please contact with us

Figure Dimension

● TGND、TGNDS

● ø12 ~ ø16



● ø20 ~ ø100

Type	Without magnet			With magnet			D	Stroke≤10	Stroke>10	F	G	K1	L	M	N1
Bore	A	B1	C	A	B1	C		E							
12	27	5	17	37	5	27	–	6		4	1	M3x0.5	10	2.8	6.3
16	29.5	5.5	18.5	39.5	5.5	28.5	–	6		4	1.5	M3x0.5	11	2.8	7.3
20	30.5	5.5	19.5	40.5	5.5	29.5	36	8(when stroke is 5, the value is 6.5)		4	1.5	M4x0.7	14	2.8	7.5
25	33	6	21	43	6	31	42	10(when stroke is 5, the value is 6.5)		4	2	M5x0.8	16	2.8	8
32	38.5	7	24.5	48.5	7	34.5	50	8	12	4	3	M6x1	20	2.8	9
40	40	7	26	50	7	36	58.5	9	12	4	3	M8x1.25	26	2.8	10
50	46	9	28	56	9	38	71.5	11	15	5	4	M10x1.5	33	2.8	10.5
63	50	9	32	60	9	42	84.5	11	15	5	4	M10x1.5	35	2.8	11.8
80	63	11	41	73	11	51	104	14	20	6	5	M14x1.5	45	4	14.5
100	75	12	51	85	12	61	124	18	20	7	5	M18x1.5	55	4	20.5

Bore	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	12	4.5	–	25	16.2	23	1.6	6	5	–	–
16	6.5	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	12	4.5	–	29	19.8	28	1.6	6	5	–	–
20	–	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	14	4.5	2	34	24	–	2.1	8	6	11.3	10
25	–	M5x0.8	Double side:Φ8.2 Cog M5x1.0 Through hole:Φ4.6	15	5.5	2	40	28	–	3.1	10	8	12	10
32	–	G1/8	Double side:Φ8.2 Cog M5x1.0 Through hole:Φ4.6	16	5.5	6	44	34	–	2.15	12	10	18.3	15
40	–	G1/8	Double side:Φ10 Cog M8x1.25 Through hole:Φ6.5	20	7.5	6.5	52	40	–	2.25	16	14	21.3	16
50	–	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	25	8.5	9.5	62	48	–	4.15	20	17	30	20
63	–	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	25	8.5	9.5	75	60	–	3.15	20	17	28.7	20
80	–	G3/8	Double side:Φ14 Cog M12x1.75 Through hole:Φ9.2	25	10.5	10	94	74	–	3.65	25	22	36	26
100	–	G3/8	Double side:Φ17.5 Cog M14x2 Through hole:Φ11.3	30	13	10	114	90	–	3.65	32	27	35	26

＊ Special stroke please contact with us

● Characteristic

Thin and light: In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

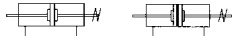
Easy to install: With the embedding type of mounting, need nothing and save room.

Easy to maintain: With simple design to assemble, install and repair easily.

Magnet switch: Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

Adjustable stroke: Attached with adjustable nut, cylinder can adjust the stroke within its stroke range.

■ Graphics Sign



● Ordering Code

TGNJ — S — 20 X 30 — 10 — B

- TGNJ — Series: TGNJ: Double axis double acting adjustable stroke type
- S — Magnetic type: No Mark: Without magnet; S: With magnet
- 20 X 30 — Bore size X Stroke
- 10 — Adjustable stroke type
- B — Installing way: No Mark: Female thread; B: Male thread; N: Non-thread

■ Example

1) Bore:20mm, stroke:30mm, adjustable stroke:10, With magnet, Code: TGNJ-S-20×30-10-B

2) Bore:32mm, stroke:100mm, adjustable stroke:10, no thead, Code: TGNJ-32×100-10-N

■ Specification

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting type									
Applicable medium	Air									
Pressure range	0.1~0.9 MPa									
Proof pressure	1.35 MPa									
Temperature range	-10~60°C(No Freeze)									
Speed range	30~500 mm/s						30~350 mm/s		30~250 mm/s	
Cushion type	Mounted Cushion									
Port size	M5x0.8				G1/8		G1/4		G3/8	

■ Stroke

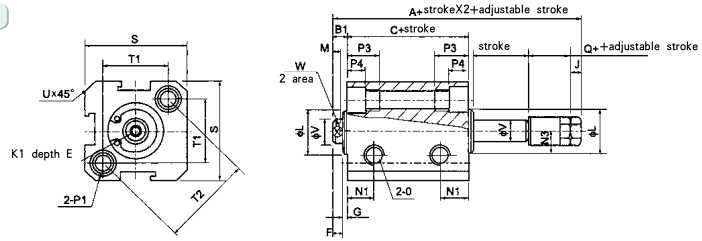
Bore(mm)	12 16	20	25		32 40 50 63 80 100	
Without magnet	5~60mm 5mm/grade	5~85mm 5mm/grade	5~90mm 5mm/grade	100~110mm 10mm/grade	5~90mm 5mm/grade	100~130mm 10mm/grade
With magnet	5~50mm 5mm/grade	5~75mm 5mm/grade	5~90mm 5mm/grade	100mm	5~90mm 5mm/grade	100~120mm 10mm/grade
Max.stroke	60mm	100mm	120mm		130mm	

＊ Special stroke please contact with us

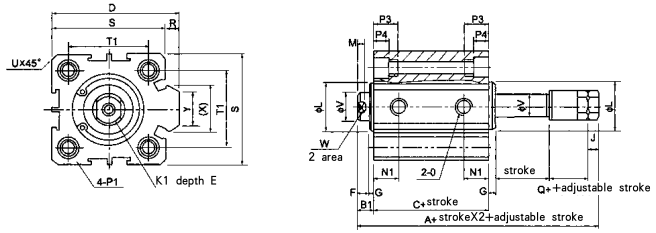
Figure Dimension

● TGNJ、TGNJS

● ø12 ~ ø16

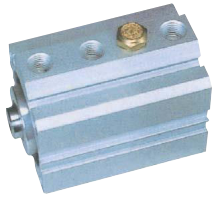


● ø20 ~ ø100



Type / Bore	Without magnet A	B1	C	With magnet A	B1	C	D	Stroke≤10 / Stroke>10 E		F	G	K1	L	M	N1
12	27	5	17	37	5	27	–	6		4	1	M3x0.5	10	2.8	6.3
16	29.5	5.5	18.5	39.5	5.5	28.5	–	6		4	1.5	M3x0.5	11	2.8	7.3
20	30.5	5.5	19.5	40.5	5.5	29.5	36	8(when stroke is 5, the value is 6.5)		4	1.5	M4x0.7	14	2.8	7.5
25	33	6	21	43	6	31	42	10(when stroke is 5, the value is 6.5)		4	2	M5x0.8	16	2.8	8
32	38.5	7	24.5	48.5	7	34.5	50	8	12	4	3	M6x1	20	2.8	9
40	40	7	26	50	7	36	58.5	9	12	4	3	M8x1.25	26	2.8	10
50	46	9	28	56	9	38	71.5	11	15	5	4	M10x1.5	33	2.8	10.5
63	50	9	32	60	9	42	84.5	11	15	5	4	M10x1.5	35	2.8	11.8
80	63	11	41	73	11	51	104	14	20	6	5	M14x1.5	45	4	14.5
100	75	12	51	85	12	61	124	18	20	7	5	M18x1.5	55	4	20.5

Bore	N3	O	P1	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	6	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	12	4.5	–	25	16.2	23	1.6	6	5	–	–
16	6.5	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	12	4.5	–	29	19.8	28	1.6	6	5	–	–
20	–	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	14	4.5	2	34	24	–	2.1	8	6	11.3	10
25	–	M5x0.8	Double side:Φ8.2 Cog M5x1.0 Through hole:Φ4.6	15	5.5	2	40	28	–	3.1	10	8	12	10
32	–	G1/8	Double side:Φ8.2 Cog M5x1.0 Through hole:Φ4.6	16	5.5	6	44	34	–	2.15	12	10	18.3	15
40	–	G1/8	Double side:Φ10 Cog M8x1.25 Through hole:Φ6.5	20	7.5	6.5	52	40	–	2.25	16	14	21.3	16
50	–	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	25	8.5	9.5	62	48	–	4.15	20	17	30	20
63	–	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	25	8.5	9.5	75	60	–	3.15	20	17	28.7	20
80	–	G3/8	Double side:Φ14 Cog M12x1.75 Through hole:Φ9.2	25	10.5	10	94	74	–	3.65	25	22	36	26
100	–	G3/8	Double side:Φ17.5 Cog M14x2 Through hole:Φ11.3	30	13	10	114	90	–	3.65	32	27	35	26



● Characteristic

Thin and light: In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

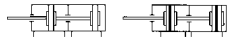
Easy to install: With the embedding type of mounting, need nothing and save room.

Easy to maintain: With simple design to assemble, install and repair easily.

Magnet switch: Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

Optional Position: With two cylinders linked and different valve to control, cylinder has optional working positions in the stroke.

■ Graphics Sign



● Ordering Code

TGNT — S — 20 X 30 X 10 — B

- TGNT: Series — TGNT: Optional position double acting type
- S: Magnetic type — No Mark: Without magnet; S: With magnet
- 20: Bore; 30: Stroke 1; 10: Stroke 2
- B: Installing way — No Mark: Female thread; B: Male thread; N: Non-thread

■ Example

1) Bore: 20mm, stroke 1: 30mm, stroke 2: 10mm, with magnet the pistonrod with malescrew, high pressure cylinder,

Code: TGNT-S-20×30×10-B

■ Specification

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting type									
Applicable medium	Air									
Pressure range	0.1~0.9 MPa									
Proof pressure	1.35 MPa									
Temperature range	-10~60°C (No Freeze)									
Speed range	30~500 mm/s						30~350 mm/s		30~250 mm/s	
Cushion type	Mounted Cushion									
Port size	M5x0.8				G1/8		G1/4		G3/8	

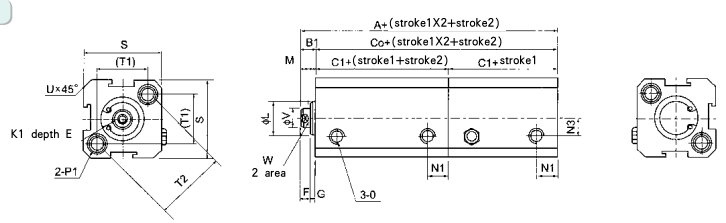
■ Stroke

Bore(mm)	12 16	20	25		32 40 50 63 80 100	
Without magnet	5~60mm 5mm/grade	5~85mm 5mm/grade	5~90mm 5mm/grade	100~110mm 10mm/grade	5~90mm 5mm/grade	100~130mm 10mm/grade
With magnet	5~50mm 5mm/grade	5~75mm 5mm/grade	5~90mm 5mm/grade	100mm	5~90mm 5mm/grade	100~120mm 10mm/grade
Max. stroke	60mm	100mm	120mm		130mm	

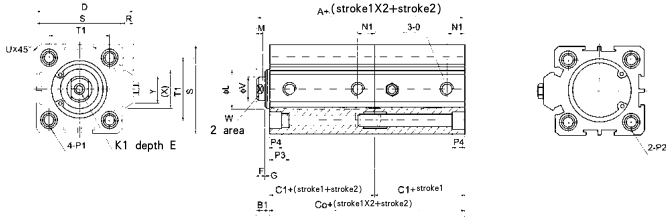
Figure Dimension

TGNT、TGNTS

● ø12 ~ ø16



● ø20 ~ ø100



Type / Bore	Without magnet A	B1	C0	C1	With magnet A	B1	C0	C1	D	E Stroke≤10	E Stroke>10	F	G	K1	L	M	N1	N3
12	39	5	34	17	59	5	54	27	–	6		4	1	M3x0.5	10	2.8	6.3	6
16	42.5	5.5	37	18.5	62.5	5.5	57	28.5	–	6		4	1.5	M3x0.5	11	2.8	7.3	6.5
20	44.5	5.5	39	19.5	64.5	5.5	59	29.5	36	8		4	1.5	M4x0.7	14	2.8	7.5	–
25	48	6	42	21	68	6	62	31	42	10		4	2	M5x0.8	16	2.8	8	–
32	56	7	49	24.5	76	7	69	34.5	50	12		4	3	M6x1	20	2.8	9	–
40	59	7	52	26	79	7	72	36	58.5	12		4	3	M8x1.25	26	2.8	10	–
50	65	9	5	28	85	9	76	38	71.5	15		5	4	M10x1.5	33	2.8	10.5	–
63	73	9	64	32	93	9	84	42	84.5	15		5	4	M10x1.5	35	2.8	11.8	–
80	93	11	82	41	113	11	102	51	104	15	20	6	5	M14x1.5	45	4	14.5	–
100	114	12	102	51	134	12	122	61	124	18	20	7	5	M18x1.5	55	4	20.5	–

Bore	O	P1	P2	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	M5x0.8	ø6.5 Cog M5x0.8 Through hole:: ø4.2	-	12	4.5	–	25	16.2	23	1.6	6	5	–	–
16	M5x0.8	ø6.5 Cog M5x0.8 Through hole:: ø4.2	-	12	4.5	–	29	19.8	28	1.6	6	5	–	–
20	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	Double side:Φ6.5 Through hole:Φ5.2	14	4.5	2	34	24	–	2.1	8	6	11.3	10
25	M5x0.8	Double side:Φ8.2 Cog M6x1.0 Through hole:Φ4.6	Double side:Φ8.2 Through hole:Φ6.2	15	5.5	2	40	28	–	3.1	10	8	12	10
32	G1/8	Double side:Φ8.2 Cog M6x1.0 Through hole:Φ4.6	Double side:Φ8.2 Through hole:Φ6.2	16	5.5	6	44	34	–	2.15	12	10	18.3	15
40	G1/8	Double side:Φ10 Cog M8x1.25 Through hole:Φ6.5	Double side:Φ10 Through hole:Φ8.2	20	7.5	6.5	52	40	–	2.25	16	14	21.3	16
50	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	Double side:Φ11 Through hole:Φ8.5	25	8.5	9.5	62	48	–	4.15	20	17	30	20
63	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	Double side:Φ11 Through hole:Φ8.5	25	8.5	9.5	75	60	–	3.15	20	17	28.7	20
80	G3/8	Double side:Φ14 Cog M12x1.75 Through hole:Φ9.2	Double side:Φ14 Through hole:Φ12.3	25	10.5	10	94	74	–	3.65	25	22	36	26
100	G3/8	Double side:Φ17.5 Cog M14x2 Through hole:Φ11.3	Double side:Φ17.5 Through hole:Φ14.2	30	13	10	114	90	–	3.65	32	27	35	26

STNC®
Compact Cylinder

Characteristic

Thin and light: In possession of the precision of action and service life, the length is only 1/2 ~ 1/3 of normal cylinder.

Easy to install: With the embedding type of mounting, need nothing and save room.

Easy to maintain: With simple design to assemble, install and repair easily.

Magnet switch: Around the body, leave room for the magnet switch in advance to install and adjust the magnet position more easily.

Optional Position: With two cylinders linked and different valve to control, cylinder has optional working positions in the stroke.

Graphics Sign

Ordering Code

TGNW — S — 20 X 30 X 10 — B

- TGNW — Series: TGNW: Double axis optional position double acting type
- S — Magnetic type: No Mark: Without magnet; S: With magnet
- 20 — Bore Size
- 30 — Stroke1
- 10 — Stroke2
- B — Installing way: No Mark: Female thread; B: Male thread; N: Non-thread

Example

1) Bore: 20mm, stroke1: 30mm, stroke2: 10mm, male thread, magnet type

Code: TGNW—S—20×30×10—B

Specification

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Action	Double acting type									
Applicable medium	Air									
Pressure range	0.1~0.9 MPa									
Proof pressure	1.35 MPa									
Temperature range	-10~60°C (No Freeze)									
Speed range	30~500 mm/s						30~350 mm/s		30~250 mm/s	
Cushion type	Mounted Cushion									
Port size	M5x0.8				G1/8		G1/4		G3/8	

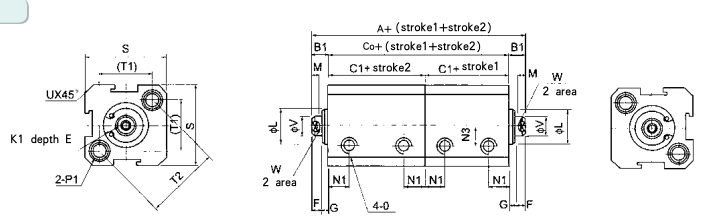
Stroke

Bore(mm)	12 16	20	25		32 40 50 63 80 100	
Without magnet	5~60mm 5mm/grade	5~85mm 5mm/grade	5~90mm 5mm/grade	100~110mm 10mm/grade	5~90mm 5mm/grade	100~130mm 10mm/grade
With magnet	5~50mm 5mm/grade	5~75mm 5mm/grade	5~90mm 5mm/grade	100mm	5~90mm 5mm/grade	100~120mm 10mm/grade
Max.stroke	60mm	100mm	120mm		130mm	

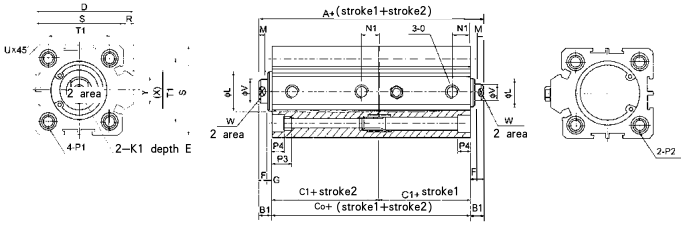
Figure Dimension

TGNW、TGNWS

● ø12 ~ ø16



● ø20 ~ ø100

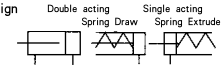


Type / Bore	Without magnet A	B1	C0	C1	With magnet A	B1	C0	C1	D	E Stroke⩽10	E Stroke>10	F	G	K1	L	M	N1	N3
12	44	5	34	17	64	5	54	27	–	6		4	1	M3x0.5	10	2.8	6.3	6
16	48	5.5	37	18.5	68	5.5	57	28.5	–	6		4	1.5	M3x0.5	11	2.8	7.3	6.5
20	50	5.5	39	19.5	70	5.5	59	29.5	36	8		4	1.5	M4x0.7	14	2.8	7.5	–
25	54	6	42	21	74	6	62	31	42	10		4	2	M5x0.8	16	2.8	8	–
32	63	7	49	24.5	83	7	69	34.5	50	12		4	3	M6x1	20	2.8	9	–
40	66	7	52	26	86	7	72	36	58.5	12		4	3	M8x1.25	26	2.8	10	–
50	74	9	56	28	94	9	76	38	71.5	15		5	4	M10x1.5	33	2.8	10.5	–
63	82	9	64	32	102	9	84	42	84.5	15		5	4	M10x1.5	35	2.8	11.8	–
80	104	11	82	41	124	11	102	51	104	15	20	6	5	M14x1.5	45	4	14.5	–
100	126	12	102	51	146	12	122	61	124	18	20	7	5	M18x1.5	55	4	20.5	–

Bore	O	P1	P2	P3	P4	R	S	T1	T2	U	V	W	X	Y
12	M5x0.8	ø6.5 Cog M5x0.8 Through hole:: ø4.2	-	12	4.5	–	25	16.2	23	1.6	6	5	–	–
16	M5x0.8	ø6.5 Cog M5x0.8 Through hole:: ø4.2	-	12	4.5	–	29	19.8	28	1.6	6	5	–	–
20	M5x0.8	Double side:Φ6.5 Cog M5x0.8 Through hole:Φ4.2	Double side:Φ6.5 Through hole:Φ5.2	14	4.5	2	34	24	–	2.1	8	6	11.3	10
25	M5x0.8	Double side:Φ8.2 Cog M6x1.0 Through hole:Φ4.6	Double side:Φ8.2 Through hole:Φ6.2	15	5.5	2	40	28	–	3.1	10	8	12	10
32	G1/8	Double side:Φ8.2 Cog M6x1.0 Through hole:Φ4.6	Double side:Φ8.2 Through hole:Φ6.2	16	5.5	6	44	34	–	2.15	12	10	18.3	15
40	G1/8	Double side:Φ10 Cog M8x1.25 Through hole:Φ6.5	Double side:Φ10 Through hole:Φ8.2	20	7.5	6.5	52	40	–	2.25	16	14	21.3	16
50	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	Double side:Φ11 Through hole:Φ8.5	25	8.5	9.5	62	48	–	4.15	20	17	30	20
63	G1/4	Double side:Φ11 Cog M8x1.25 Through hole:Φ6.5	Double side:Φ11 Through hole:Φ8.5	25	8.5	9.5	75	60	–	3.15	20	17	28.7	20
80	G3/8	Double side:Φ14 Cog M12x1.75 Through hole:Φ9.2	Double side:Φ14 Through hole:Φ12.3	25	10.5	10	94	74	–	3.65	25	22	36	26
100	G3/8	Double side:Φ17.5 Cog M14x2 Through hole:Φ11.3	Double side:Φ17.5 Through hole:Φ14.2	30	13	10	114	90	–	3.65	32	27	35	26

ϕ 12– ϕ 100

Sign



Standard Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Applicable medium	Air									
Action	Double acting, Single acting : Spring Draw/Spring Extrude									
Proof pressure	1.5MPa{15.3kgf/cm²}									
Highest pressure	1.0MPa{10.2kgf/cm²}									
Environment and fluid	5 ~ 60 °C									
Rod end thread	Female thread (Standard), Male thread(Choose by nomself)									
Cushion	No									
Stroke tolerance	+1.0, 0									
*Lubrication	No need									
Mounting	Through hole(Standard), Both ends female thread(Choose by nomself)									
Pipe Size	M5×0.8			1/8		1/4			3/8	

* If lubricating please use ISO VG032

Order Example

1)Bore : 16,Stroke : 20, double move, screw thread inside
Code : CQ2B16–20D
2)Bore : 32,Stroke : 100, double acting Magnetic Type, Both ends female thread, Rod end male thread, rubber Cushion
Code : DQ2A32–100DCM

Choosen Type

Basic Type : CQ2 — A | 12 | 10 | D | M

Magnetic Type : CDQ2 — A | 20 | 30 | D | C

Mounting
B–Through
A–Both ends female hread

Bore
12– ϕ 12mm
16– ϕ 16mm
20– ϕ 20mm
25– ϕ 25mm
32– ϕ 32mm
40– ϕ 40mm
50– ϕ 50mm
63– ϕ 63mm
80– ϕ 80mm
100– ϕ 100mm

Stroke

Singele Acting / Double Acting

Acting
D– Double acting
S– Single acting (Spring Draw)
T– Single acting (Spring Extrude)

Banel (Choose by nourself)
No Mark – Female hread
C–Cushion
M–Rod end male thread

* Single acting Bore can' t have Cushion

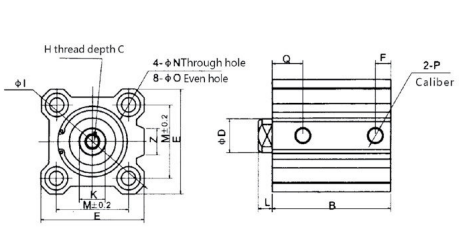
* Single acting Bore Max to ϕ 50mm

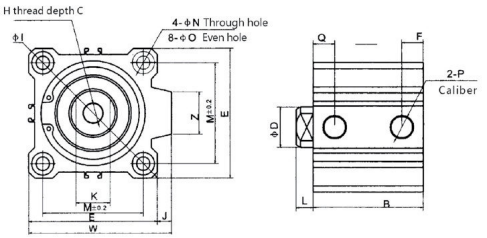
Stroke/Magnetic Switch

Bore (mm)	Standard Stroke: Double acting	Standard Stroke: Single acting
12	5,10,15, 20,25,30	5,10
16		
20	5,10,15,20,25, 30,35,40,45,50	5,10
25		
32	5,10,15,20,25, 30,35,40,45,50, 75,100	5,10
40		
50	10,15,20, 25,30,35, 40,45,50, 75,100	Can' t suit
63		
80		
100		

Note 1)Sensor switch specification the same with sensor switch serive

Dimension





Double Act Cylinder Demension

Type	Note 1)Stroke(mm)	B	ϕD	E	F	H	C	ϕI	J	K	L	M	ϕN	ϕO	P	Q	W	Z
CQ2B12– □D	5–30	17+st	6	25	5	M3X0.5	6	32	–	5	3.5	15.5	3.5	6.5depth3.5	M5X0.8	7.5	–	–
CQ2B16– □D	5–30	18.5+st	8	29	5.5	M4X0.7	8	38	–	5	3.5	20	3.5	6.5depth3.5	M5X0.8	8	–	10
CQ2B20– □D	5–50	19.5+st	10	36	5.5	M5X0.8	7	47	–	6	4.5	25.5	5.5	9depth7	M5X0.8	9	–	10
CQ2B25– □D	5–50	22.5+st	12	40	5.5	M6X1.0	12	52	–	8	5	28	5.5	9depth7	M5X0.8	11	–	10
CQ2B32– □D	5 / 10–50	23+st	16	45	5.5 / 7.5	M8X1.25	13	60	4.5	10	7	34	5.5	9depth7	M5X0.8 / 1/8	11.5 / 10.5	49.5	18
CQ2B40– □D	5–50	29.5+st	16	52	8	M8X1.25	13	69	5	14	7	40	5.5	9depth7	1/8	11	57	18
CQ2B50– □D	10–50	30.5+st	20	64	10.5	M10X1.5	15	86	7	17	8	50	6.6	11depth8	1/4	10.5	71	22
CQ2B63– □D	10–50	36+st	20	77	10.5	M10X1.5	15	103	7	17	8	60	9	14depth10.5	1/4	15	84	22
CQ2B80– □D	10–50	43.5+st	25	98	12.5	M16X2.0	21	132	6	22	10	77	11	17.5depth13.5	3/8	16	104	26
CQ2B100– □D	10–50	53+st	32	117	13	M20X2.5	27	156	6.5	27	12	94	11	17.5depth13.5	3/8	23	123.5	26

Note 2) Long Stroke

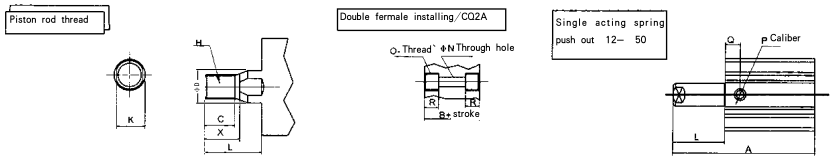
Type	Stroke(mm)	B	F	P	Q
32	75,100	33	7.5	1/8	10.5
40	75,100	39.5	8	1/8	11
50	75,100	40.5	10.5	1/4	10.5
63	75,100	46	10.5	1/4	15
80	75,100	53.5	12.5	3/8	16
100	75,100	63	13	3/8	23

Note 1) Standard Stroke is per 5mm apart
Note 2) The strokes between 55mm and 100mm, please add the plate
Note 3) If no special demands through hole and both ends temale thread have the same size.

Single Act Cylinder Demension

Type	B			ϕD	E	B		H	C	ϕI	J	K	L	M	ϕN	ϕO	P			Q		W	Z
	5st	10st	20st			5st	10st										5st	10st	20st	5st	10st		
CQ2B12– □D	22	27	–	6	25	5	5	M3X0.5	6	32	–	5	3.5	15.5	3.5	6.5depth3.5	M5X0.8		–	7.5	7.5	–	–
CQ2B16– □D	23.5	28.5	–	6	29	5.5	5.5	M4X0.7	8	38	–	5	3.5	20	3.5	6.5depth3.5	M5X0.8		–	8	8	–	10
CQ2B20– □D	24.5	29.5	–	8	36	5.5	5.5	M5X0.8	7	47	–	6	4.5	25.5	5.5	9depth7	M5X0.8		–	9	9	–	10
CQ2B25– □D	27.5	32.5	–	10	40	5.5	5.5	M6X1.0	12	52	–	8	5	28	5.5	9depth7	M5X0.8		–	11	11	–	10
CQ2B32– □D	28	33	–	12	45	5.5	5.5	M8X1.25	13	60	4.5	10	7	34	5.5	9depth7	M5X0.8	1/8	–	11.5	11.5	49.5	18
CQ2B40– □D	34.5	39.5	–	16	52	8	8	M8X1.25	13	69	5	14	7	40	5.5	9depth7	1/8		–	11	11	57	18
CQ2B50– □D	–	40.5	50.5	20	64	10.5	10.5	M10X1.5	15	86	7	17	8	50	6.6	11depth8	–	1/4		10.5	10.5	71	22

st=Stroke



Piston rod male thread

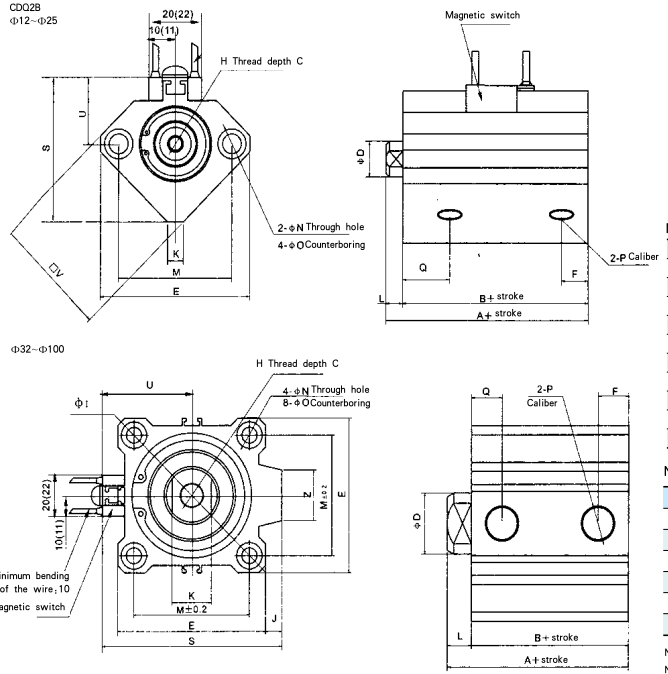
Bore (mm)	C	X	ϕD	H	L	K
12	9	10.5	6	M5X0.8	14	5
16	10	12	8	M6X1.0	15.5	5
20	12	14	10	M8X1.25	18.5	6
25	15	17.5	12	M10X1.5	22.5	8
32	20.5	23.5	16	M14X1.5	28.5	10
40	20.5	23.5	16	M14X1.5	28.5	14
50	26	28.5	20	M18X1.5	33.5	17
63	26	28.5	20	M18X1.5	33.5	17
80	32.5	35.5	25	M22X1.5	43.5	22
100	32.5	35.5	32	M26X1.5	43.5	27

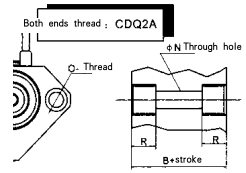
Note 3) Both ends female hread

Bore (mm)	O	R
12	M4X0.7	7
16	M4X0.7	7
20	M6X1.0	10
25	M6X1.0	10
32	M6X1.0	10
40	M6X1.0	10
50	M8X1.25	14
63	M10X1.5	18
80	M12X1.75	22
100	M12X1.75	22

Double acting cylinder demension

Bore (mm)	A			L		
	5st	10st	20st	5st	10st	20st
12	30.5	40.5	–	8.5	13.5	–
16	32	42	–	8.5	13.5	–
20	34	44	–	9.5	14.5	–
25	37.5	47.5	–	10	15	–
32	40	50	–	12	17	–
40	46.5	56.5	–	12	17	–
50	–	58.5	78.5	–	18	28





Note 3) Both ends female hread

Bore (mm)	O	R
12	M4X0.7	7
16	M4X0.7	7
20	M6X1.0	10
25	M6X1.0	10
32	M6X1.0	10
40	M6X1.0	10
50	M8X1.25	14
63	M10X1.5	18
80	M12X1.75	22
100	M12X1.75	22

Note 2) Long Stroke

Type	Stroke(mm)	B	F	P	Q
32	75,100	33	7.5	1/8	10.5
40	75,100	39.5	8	1/8	11
50	75,100	40.5	10.5	1/4	10.5
63	75,100	46	10.5	1/4	15
80	75,100	53.5	12.5	3/8	16
100	75,100	63	13	3/8	23

Note 1) Standard Stroke is per 5mm apart
Note 2) The strokes between 55mm and 100mm, please add the plate
Note 3) If no special demands through hole and both ends temale thread have the same size.

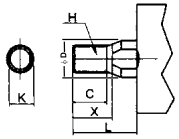
*the above dimensions are just for D–A.7,D–8A magnet switches.
*( ) : the dimensions in the bracket is D–F79L,D–J79L magnet switch

Double acting cylinder demension

Type	Note 1)Stroke(mm)	A	B	ϕD	E	F	H	C	ϕI	J	K	L	M	ϕN	ϕO	P	Q	S	U	V	Z
CDQ2B12	5–30	31.5	28	6	25	5	M3X0.5	6	32	–	5	3.5	15.5	3.5	6.5depth3.5	M5X0.8	11	35.5	19.5	25	–
CDQ2B16	5–30	34	30.5	8	29	5.5	M4X0.7	8	38	–	5	3.5	20	3.5	6.5depth3.5	M5X0.8	10	41.5	22.5	29	–
CDQ2B20	5–50	36	31.5	10	36	5.5	M5X0.8	7	47	–	6	4.5	25.5	5.5	9depth7	M5X0.8	10.5	48	24.5	36	–
CDQ2B25	5–50	37.5	32.5	12	40	5.5	M6X1.0	12	52	–	8	5	28	5.5	9depth7	M5X0.8	11	53.5	27.5	40	–
CDQ2B32	5–50	40	33	16	45		M8X1.25	13	60	4.5	10	7	34	5.5	9depth7	1/8	10.5	58.5	31.5	–	18
CDQ2B40	5–50	46.5	39.5	16	52	8	M8X1.25	13	69	5	14	7	40	5.5	9depth7	1/8	11	66	35	–	18
CDQ2B50	10–50	48.5	40.5	20	64	10.5	M10X1.5	15	86	7	17	8	50	6.6	11depth8	1/4	10.5	80	41	–	22
CDQ2B63	10–50	54	46	20	77	10.5	M10X1.5	15	103	7	17	8	60	9	14depth10.5	1/4	15	93	47.5	–	22
CDQ2B80	10–50	63.5	53.5	25	98	12.5	M16X2.0	21	132	6	22	10	77	11	17.5depth13.5	3/8	16	112.5	57.5	–	26
CDQ2B100	10–50	75	63	32	117	13	M20X2.5	27	156	6.5	27	12	94	11	17.5depth13.5	3/8	23	132.5	67.5	–	26

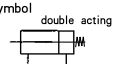
Rod end male thread

Bore (mm)	C	X	ϕD	H	L	K
12	9	10.5	6	M5X0.8	14	5
16	10	12	8	M6X1	15.5	5
20	12	14	10	M8X1.25	18.5	6
25	15	17.5	12	M10X1.25	22.5	8
32	20.5	23.5	16	M14X1.5	28.5	10
40	20.5	23.5	16	M14X1.5	28.5	14
50	26	28.5	20	M18X1.5	33.5	17
63	26	28.5	20	M18X1.5	33.5	17
80	32.5	35.5	25	M22X1.5	43.5	22
100	32.5	35.5	32	M26X1.5	43.5	27



CQ2B Series

symbol



Choosen Type

CQ2 [B] [Bore] [Stroke] — [D] — XC9

Standard Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Applicable medium	Air									
Action	Double acting									
Proof pressure	1.5MPa{15.3kgf/cm²}									
Highest pressure	1.0MPa{10.2kgf/cm²}									
	5 ~ 60 °C									
Rod end thread	Female thread (Standard), Male thread(Choose by nomself)									
Cushion	No									
Stroke tolerance	+1.0, 0									
*Lubrication	No need									
Mounting	Through hole(Standard), Both ends female hread(Choose by nomself)									
Pipe Size	M5×0.8				1/8		1/4		3/8	

* If lubricating please use ISO VG032

Stroke/Magnetic Switch

Bore (mm)	Standard Stroke	
	Double Acting	adjustable stroke
12	5,10,15, 20,25,30	5,10
16		
20	5,10,15,20,25, 30,35,40,45,50	
25		
32	5,10,15,20,25, 30,35,40,45,50, 75,100	
40		
50	10,15,20, 25,30,35, 40,45,50, 75,100	
63		
80		
100		

Note 1)Sensor switch specification the same with sensor switch serive

CQ2WB Series

symbol

Choosen Type

CQ2W [B] [Bore] [Stroke] — [D]

Standard Specification

Bore (mm)	12	16	20	25	32	40	50	63	80	100
Applicable medium	Air									
Action	Double acting									
Proof pressure	1.5MPa{15.3kgf/cm²}									
Highest pressure	1.0MPa{10.2kgf/cm²}									
	5 ~ 60 °C									
Rod end thread	Female thread (Standard), Male thread(Choose by nomself)									
Cushion	No									
Stroke tolerance	+1.0, 0									
*Lubrication	No need									
Mounting	Through hole(Standard), Both ends female hread(Choose by nomself)									
Pipe Size	M5×0.8				1/8		1/4		3/8	

* If lubricating please use ISO VG032

Stroke/Magnetic Switch

Bore (mm)	Standard Stroke
	Double Acting
12	5,10,15, 20,25,30
16	
20	5,10,15,20,25, 30,35,40,45,50
25	
32	5,10,15,20,25, 30,35,40,45,50, 75,100
40	
50	10,15,20, 25,30,35, 40,45,50, 75,100
63	
80	
100	

Note 1)Sensor switch specification the same with sensor switch serive

CQ2 series thin cylinder (long stroke)

ϕ 32– ϕ 100

Technical Parameter

Bore(mm)	32	40	50	63	80	100
Applicable medium	Air					
Action	Double acting					
Proof pressure	0.05 ~ 1.0MPa					
Highest pressure	Magnetic switch : -5 ~ +60℃, Non magnetic switch : -10 ~ +70℃,					
Environment and fluid temperature	Female thread(standard),male thread(choose by nomself)					
Rod end thread	50 ~ 500mm					
Cushion	Standard ;rubber buffer					
Stroke tolerance	$+^{1.4}_{0}$					
*Lubrication	No need					
Mounting	Through hole (standard)					
Pipe size Rc	1/8		1/4		3/8	

* If lubricating please use ISO VG032

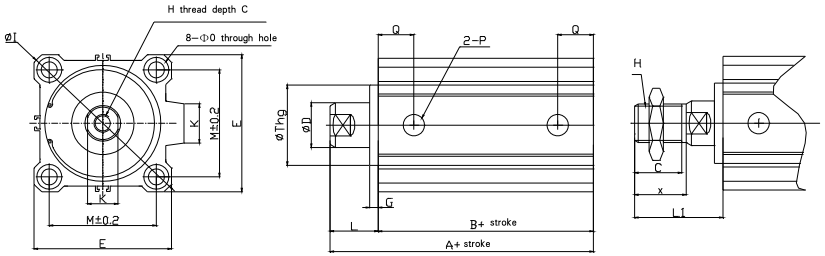
Ordering Code

C [D] Q2 [A] [32] — [200] — [D] [C] [M]

- D : magnet; blank : without magnet
- Installation: Mark: installation form; A: two screw
- Bore: 32 : ϕ :32mm; 40 : ϕ :40mm; 50 : ϕ :50mm; 63 : ϕ :63mm; 80 : ϕ :80mm; 100 : ϕ :100mm
- Stroke / Standard stroke: 32 / 125; 40 / 150; 50 / 175; 63 / 200; 80 / 250; 100 / 300
- Double acting
- Rubber buffer
- Mounting: blank : through; M:both ends female hread

Figure Dimension

CQ2A/CDQ2A



Bore(mm)	stroke(mm)	A	B	C	D	E	G	H	I	J	K	L	M	O	P	Q	R	Th9	Z
32	125~200 250,300	62.5	45.5	13	16	45	5	M8X1.25	60	4.5	14	17	34	M6X1.0	Rc1/8	12.5	10	$22^{0}_{-0.052}$	14
40		72	55	13	16	52	5	M8X1.25	69	5	14	17	40	M6X1.0	Rc1/8	14	10	$28^{0}_{-0.052}$	14
50		73.5	55.5	15	20	64	5	M10X1.5	86	7	17	18	50	M8X1.25	Rc1/4	14	14	$35^{0}_{-0.052}$	19
63		75	57	15	20	77	5	M10X1.5	03	7	17	18	60	M10X1.5	Rc1/4	16.5	18	$35^{0}_{-0.052}$	19
80		86	66	21	25	98	5	M16X2.0	132	6	22	20	77	M12X1.75	Rc3/8	19	22	$43^{0}_{-0.052}$	26
100		97.5	75.5	27	30	117	5	M20X2.5	156	6.5	27	22	94	M12X1.75	Rc3/8	23	22	$59^{0}_{-0.052}$	26

Bore(mm)	C	H	L1	X
32	20.5	M14X1.5	38.5	23.5
40	20.5	M14X1.5	38.5	23.5
50	26	M18X1.5	43.5	28.5
63	26	M18X1.5	43.5	28.5
80	32.5	M22X1.5	53.5	35.5
100	32.5	M26X1.5	53.5	35.5

Cylinder bore and front cover are threaded connection, with good strength, easy maintenance; hard oxidation process has been done after roll extrusion of inner diameter of cylinder bore assure the good resistance and durability ; the piston seal adopts with shaped two-way seal design, has the features of compacted size and oil storing.

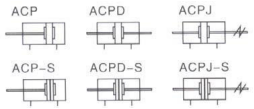
ACP — S — 20 X 30 — B — LB

- S: blank：without magnet; S：magnet
- 20 X 30: Bore / Stroke
- B: blank：female thread; B：male thread; N：no teeth
- LB: fix type; blank：without installation accessories; FA：front port be fixed; CA：back port be fixed (pivot type); CB：back port be fixed (clevis type); LB：front and back be fixed

Ordering example

1) Required bore 20mm, stroke 50mm, LB, how to order：ACP-20×50-LB

symbol



Technical parameters

Bore(mm)	12	16	20	25	32	40	50	63	80	100
Fluid	Air									
Action type	Double action、single action、spring draw/spring extrude									
Max.pressure	1.5MPa									
Pressure (Double acting)	0.1-1.0MPa									
Pressure (Single acting)	0.2-1.0MPa									
Temperature range	-10 ~ 60℃									
Cushion type	fender									
Piston speed	Double action 30 ~ 500mm/s single action 50 ~ 500mm/s									
Port size	M5×0.8				G1/8					G1/4

* If lubricating please use ISOVG32

Stroke

Bore(mm)		standard stroke (mm)	Max stroke	allow stroke
12 16	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	200	200
	Single acting	5 10	10	–
20 25	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	200	200
	Single acting	5 10 15 20 25	25	–
32 40 50 63	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	300	300
	Single acting	5 10 15 20 25	25	–
80 100	Double acting	5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 110 120 125 150 160 175 200	400	400
	Single acting	5 10 15 20 25	25	–

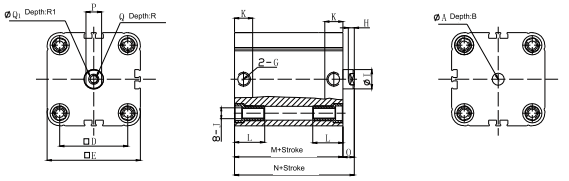
STNC®

ACP series compact cylinder

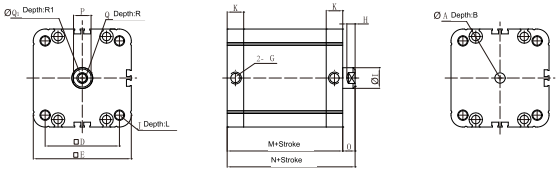
Implement the standard：ISO21287

Figure Dimension

ϕ32-63

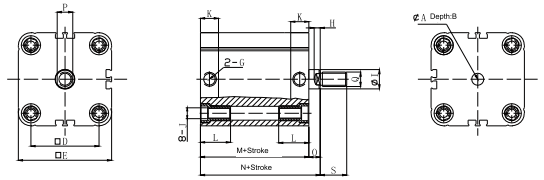


ϕ80-100

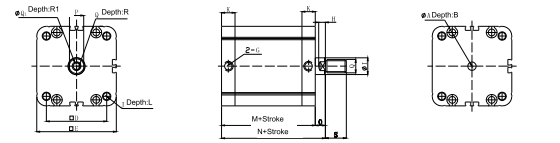


symbols / diameter	A	B	D	E	G	H	I	J	K	L	M	N	O	P	Q	Q1	R	R1
32	6	4	32.5	46.5	G1/8	4.5	12	M6	13.5	25	44.5	51	6.5	10	M6	6.5	14	2.5
40	8	5	38	54	G1/8	4.5	12	M6	13.5	25	45.5	52	6.5	10	M6	6.5	14	2.5
50	10	5	46.5	64.5	G1/8	5	16	M8	13.5	25	45.5	53	7.5	13	M8	8.5	16	3.5
63	10	5	56.5	77	G1/8	5	16	M8	15	25	50	57.5	7.5	13	M8	8.5	16	3.5
80	10	5	72	95	G1/8	8	20	M10	16	19	55	65	10	17	M10	10.5	20	4.5
100	10	5	89	115	G1/4	10	25	M10	19	19	67	77	10	22	M12	12.5	24	6

ϕ32-63



ϕ80-100



symbols / diameter	A	B	D	E	G	H	I	J	K	L	M	N	O	P	Q	S
32	6	4	32.5	46.5	G1/8	4.5	12	M6	13.5	25	44.5	51	6.5	10	M10X1.25	19
40	8	5	38	54	G1/8	4.5	12	M6	13.5	25	45.5	52	6.5	10	M10X1.25	19
50	10	5	46.5	64.5	G1/8	5	16	M8	13.5	25	45.5	53	7.5	13	M12X1.25	22
63	10	5	56.5	77	G1/8	5	16	M8	15	25	50	57.5	7.5	13	M12X1.25	22
80	10	5	72	95	G1/8	8	20	M10	16	19	55	65	10	17	M16X1.25	28
100	10	5	89	115	G1/4	10	25	M10	19	19	67	77	10	22	M16X1.25	28