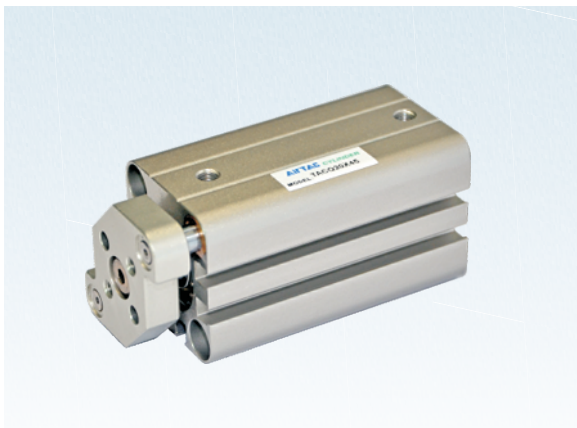


Compact cylinder

TACQ Series(With guider type)



Specification

Bore size(mm)	12	16	20	25	32	40	50	63	80	100
Acting type	Double acting									
Fluid	Air(to be filtered by 40 μ m filter element)									
Operating pressure	0.1~1.0MPa(14~145psi)									
Proof pressure	1.5MPa(215psi)									
Temperature °C	-20~80									
Speed range mm/s	30~500									
Stroke tolerance	+1.0 0									
Cushion type	Bumper									
Port size ①	M5 × 0.8				1/8"		1/4"		3/8"	
Non-rotating tolerance ②	± 0.2°			± 0.1°						

① PT thread, NPT thread and G thread are available. ② Retract position.
Add) Refer to P397~420 for detail of sensor switch.

Stroke

Bore size (mm)	Standard stroke (mm)										Max. std stroke(mm)	Middle stroke range(mm)
	5	10	15	20	25	30	35	40	45	50		
12 16	●	●	●	●	●	●	×	×	×	×	×	1~29
20 25	●	●	●	●	●	●	●	●	●	×	×	1~49
32 40	●	●	●	●	●	●	●	●	●	●	●	1~99
50 63 80 100	×	●	●	●	●	●	●	●	●	●	●	5~99

Note) 1. Please contact the company for other special strokes.
2. The dimensions of non-std stroke cylinder has the same dimensions as the next longer stroke std. stroke cylinder. e.g. 23mm stroke cylinder has the same dimensions of 25 std. stroke cylinder.

Ordering code

TACQ 50 × 100 S

Model: TACQ: Compact cylinder (Double acting with guider)

Bore size: 12 16 20 25 32 40 50 63 80 100

Stroke: Refer to stroke table for details

Thread type: Blank: PT, T: NPT, G: G

Magnet: Blank: Without magnet, S: With magnet

Inner structure and material of major parts

TACQS

TACQ

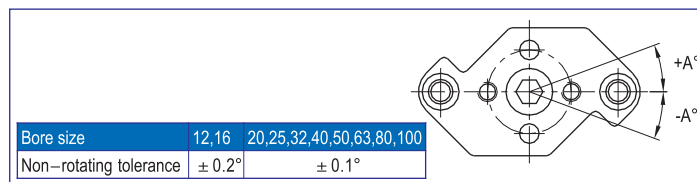
NO.	Item	Material	NO.	Item	Material
1	Back cover	Aluminum alloy	10	Front cover	Aluminum alloy
2	Bumper	NBR	11	O-ring	NBR
3	Piston	Aluminum alloy	12	Front cover packing	NBR
4	Piston seal	NBR	13	C clip	Spring steel
5	Piston rod	Carbon steel with 20 μ m chrome plated	14	Fixing plate	Aluminum alloy
6	Magnet	Sintered metal(Neodymium-iron-boron)	15	Screw	Carbon steel
7	Magnet holder	Aluminum alloy	16	Leader	Stainless steel
8	Body	Aluminum alloy	17	Bushing	Brass
9	Wear ring	NBR			

Compact cylinder

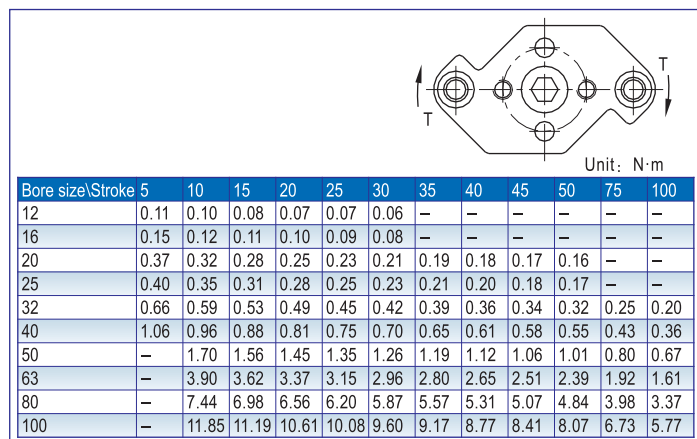
TACQ Series(With guider type)

Installation and application

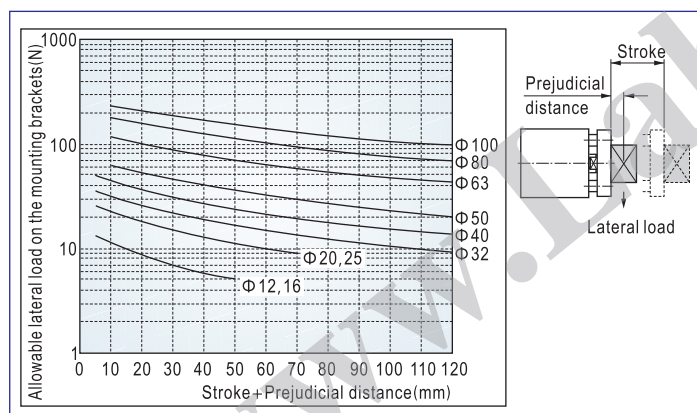
1. TACQ series cylinder is designed with double guide rod which is non-rotating. Make sure the non-rotating accuracy of the fixing plate is in the allowable range.



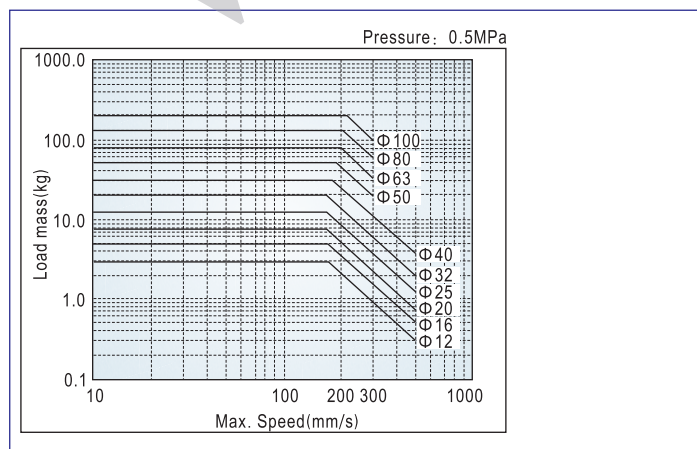
2. Do not apply reverse torque to the piston rods. The torque beyond the limits may cause malfunction or reduction of the service life.



3. Make sure the lateral load on the mounting bracket is within the limits. Any exceeding may cause malfunction or reduction of the service life.

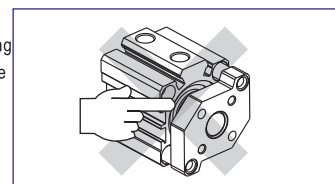


4. Make sure the load quality and the maximum speed are within the limits. Any exceeding may cause malfunction or reduction of the service life.

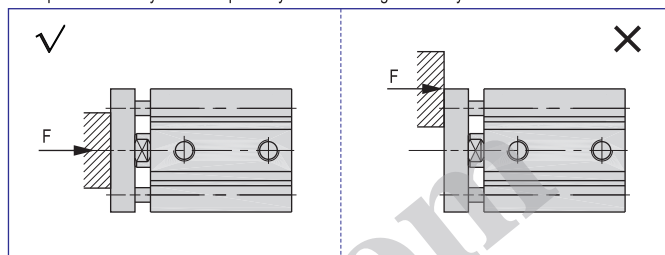


5. Caution before mounting:

- 5.1) Do not put hands between the mounting bracket and cylinder, which may cause damage to a human body when the piston rod retracts.



- 5.2) Make sure the external force against the mounting bracket is concentric with the piston rod. Any extra torque may cause damage to the cylinder.



- 5.3) Install the fixture onto the mounting bracket only when the piston rod is in the retraction state. Do not apply the installation torque on the guide rod.

- 5.4) Avoid any damage on piston rod and guide rod, which may cause damage on seals and air leakage or malfunction.



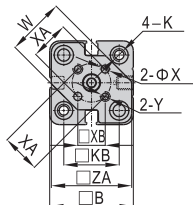
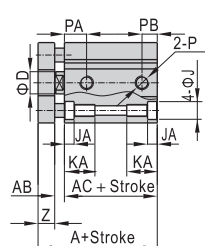
TACQ

Compact cylinder

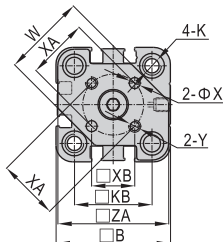
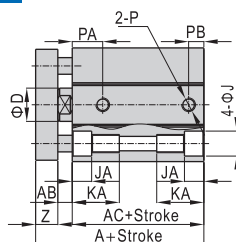
TACQ Series(With guider type)

■ Dimensions

Bore size: 12,16



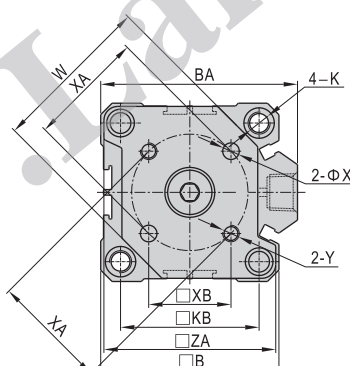
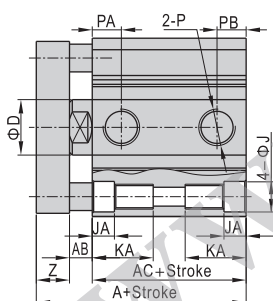
Bore size: 20,25



Bore size/Item	A	AC	PA	PB	A	AC	PA	PB	AB	P	B	D	J	JA
Magnet	Without magnet				With magnet									
12	26.5	17.3	7.5	5	37.5	28.3	9	7	3	M5 × 0.8	26	6	6.5	3.5
16	28	19	8	5.5	40	31	9.5	5.5	3	M5 × 0.8	30	8	6.5	3.5
20	32	20.5	9	5.5	44	32.5	9.5	5.5	3.5	M5 × 0.8	36	10	9	7
25	35.5	23	11	5.5	45.5	33	11	5.5	4.5	M5 × 0.8	41	12	9	7

Bore size/Item	K	KA	KB	W	X	XA	XB	Y	Z	ZA
12	M4 × 0.7 Thru.hole: Φ3.4	11.5	15.5	15	3	10	7.1	M3 × 0.5	6	25
16	M4 × 0.7 Thru.hole: Φ3.4	11.5	20	21	3	14	9.9	M3 × 0.5	6	29
20	M6 × 1.0 Thru.hole: Φ5.2	18	25.5	26	4	17	12	M4 × 0.7	8	35
25	M6 × 1.0 Thru.hole: Φ5.2	17.5	28	30	5	22	15.6	M5 × 0.8	8	40

Bore size: 32~100



Bore size/Item	A AC				A AC	AB	B	BA	D	J	JA	K	
	Without magnet				With magnet	-							
Stroke	St ≤ 50	St ≥ 75	St ≤ 50	St ≥ 75	-								
32	40		23.5		50	33.5	6.5	45	49.5	16	9	7	M6 × 1.0 Thru.hole: Φ 5.2
40	46.5		29.9		56.5	39.9	6.6	53	57	16	9	7	M6 × 1.0 Thru.hole: Φ 5.2
50	50.5	60.5	31	41	60.5	41	7.5	64	71	20	11	8	M8 × 1.25 Thru.hole: Φ 6.8
63	56	66	36	46	66	46	8	77	84	20	14	10.5	M10 × 1.5 Thru.hole: Φ 8.5
80	67.5	77.5	43.5	53.5	77.5	53.5	10	98	104	25	17.5	13.5	M12 × 1.75 Thru.hole: Φ 10.3
100	81	91	53	63	91	63	12	117	123.5	32	17.5	13.5	M12 × 1.75 Thru.hole: Φ 10.3

Bore size/Item		KA	KB	P	PA	PB	PA	PB	W	X	XA	XB	Y	Z	ZA
					Without magnet	With magnet	Without magnet	With magnet							
32	St=5	17.5	34	1/8"	7.5	6.5	10.5	7.5	37	5	28	19.8	M5 × 0.8	10	43
	St>5				10.5	7.5									
40		17.5	40	1/8"	11	8	11	8	46	5	33	23.3	M5 × 0.8	10	51
50		22.5	50	1/4"	10.5	10.5	10.5	10.5	58	6	42	29.7	M6 × 1.0	12	62
63		28.5	60	1/4"	15	10.5	15	10.5	69	6	50	35.4	M6 × 1.0	12	75
80		35.5	77	3/8"	16	14	16	14	90	8	65	46	M8 × 1.25	14	95
100		35.5	94	3/8"	20	17.5	20	17.5	113.5	10	80	56.6	M10 × 1.5	16	114.5