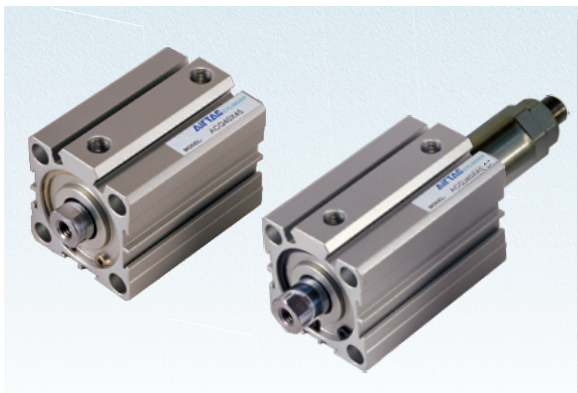


Compact cylinder



ACQ Series

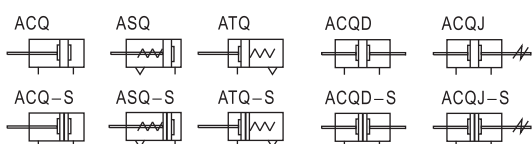


Specification

Bore size(mm)	12	16	20	25	32	40	50	63	80	100
Acting type	Double acting									
	Single acting-Push type, Single acting-Pull type									-
Fluid	Air(to be filtered by 40 μm filter element)									
Operating pressure	Double acting	0.1~1.0MPa(15~145psi)(1.0~10.0bar)								
	Single acting	0.2~1.0MPa(28~145psi)(2.0~10.0bar)								
Proof pressure	1.5MPa(215psi)(15bar)									
Temperature °C	-20~80									
Speed range mm/s	Double acting: 30~500					Single acting: 50~500				
Stroke tolerance	0~150 ^{+1.0} ₀					>150 ^{+1.4} ₀				
Cushion type	Bumper									
Port size ①	M5 × 0.8			1/8"			1/4"		3/8"	

① PT thread, NPT thread and G thread are available. Add) Refer to P419~442 for detail of sensor switch.

Symbol



Product feature

- JIS standard is implemented.
- C clip is adopted to connect the cylinder body and back cover or front cover, and riveted structure is adopted to connect piston and piston rod to make it compact and reliable.
- The internal diameter of the body is treated with rolling followed by the treatment of hard anodizing, forming an excellent abrasion resistance and durability.
- The seal of piston adopts heterogeneous two-way seal structure. It has compact dimension and the function of grease reservation.
- Compact structure can effectively save installation space.
- There are magnetic switch slots around the cylinder body, which is convenient to install inducting switch.
- Installing accessories with various specifications are optional.

Stroke

Bore size (mm)	Standard stroke (mm)	Max. std stroke	
		Without magnet	With magnet
12	Double acting	5 10 15 20 25 30 35 40 45 50	50 80 70
	Single acting	5 10 15 20	20 - -
16	Double acting	5 10 15 20 25 30 35 40 45 50 55 60	60 80 70
	Single acting	5 10 15 20	20 - -
20	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	100 140 130
	Single acting	5 10 15 20 25 30	30 - -
32	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	100 100 100
	Single acting	5 10 15 20 25 30	- - -
50	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	- - -
	Single acting	5 10 15 20 25 30	- - -
63	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	- - -
	Single acting	5 10 15 20 25 30	- - -
80	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	- - -
	Single acting	5 10 15 20 25 30	- - -
100	Double acting	5 10 15 20 25 30 35 40 45 50 60 70 75 80 90 100	- - -
	Single acting	5 10 15 20 25 30	- - -

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

ACQ	20 × 30	SB	<input type="checkbox"/>	<input type="checkbox"/>
ACQD	20 × 30	SB	<input type="checkbox"/>	<input type="checkbox"/>
ACQJ	20 × 30-30	SB	<input type="checkbox"/>	<input type="checkbox"/>

Model		Thread type ②	
ACQ: Compact cylinder(Double acting)		Blank: PT	
ASQ: Compact cylinder (Single acting-push)		T: NPT	
ATQ: Compact cylinder (Single acting-pull)		G: G	
ACQD: Compact cylinder(Double rod)			
ACQJ: Compact cylinder (Adjustable stroke)			

Bore size		Mounting type ①	
Model	Bore size	Model	Mounting type
ACQ	12 16 20 25 32 40 50 63 80 100	Blank:	No accessories
ASQ	12 16 20 25 32 40 50 63	ACQ	FA: FA type
ATQ	12 16 20 25 32 40 50 63	ASQ	FB: FB type
ACQD	12 16 20 25 32 40 50 63 80 100	ATQ	CB: CB type
ACQJ	12 16 20 25 32 40 50 63 80 100		LB: LB type
		ACQD	Blank: No accessories
		ACQJ	FA: FA type
			FB: FB type
			LB: LB type

Stroke		Rod type	
Refer to stroke table for details		Blank:	Female thread
		B:	Male thread
		N:	No thread

Adjustable stroke		Magnet	
Model	Adjustable stroke	Blank:	Without magnet
ACQJ	10: 10mm	S:	With magnet
	20: 20mm		
	30: 30mm		
	40: 40mm		
	50: 50mm		
	75: 75mm		
	100: 100mm		
Others	No this code		

① Please refer to page 279 for accessory parts.

② Standard thread is blank here.



Compact cylinder



ACQ Series

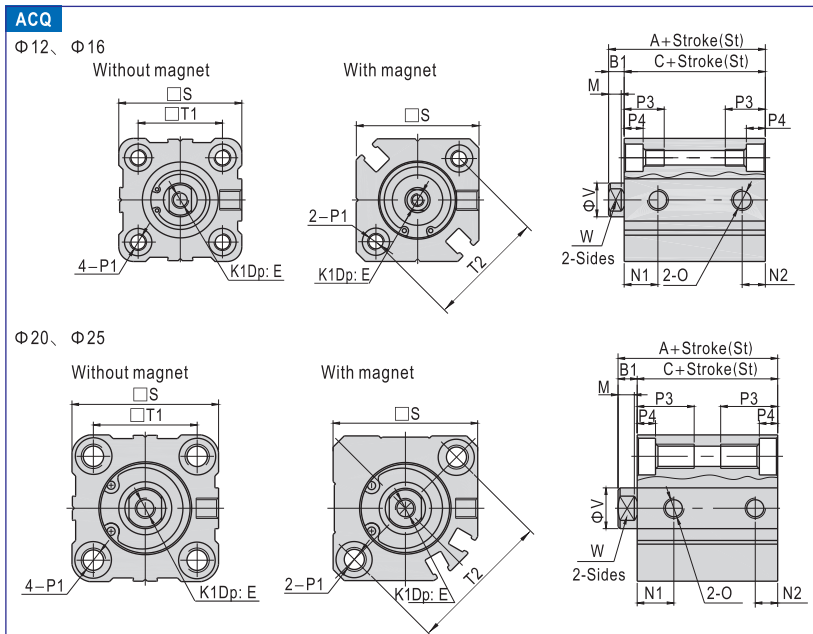
Inner structure and material of major parts

ACQ

ACQS

NO.	Item	Material
1	Back cover	No(Φ 12, 16)\Aluminum alloy(Others)
2	Bumper	TPU(Φ 12~25)\NBR(Others)
3	Piston	Brass(Φ 12, 16)\Aluminum alloy(Others)
4	Wear ring	No(Φ 12~32)\Wear resistant material(Others)
5	Piston seal	NBR
6	Piston rod	Carbon steel with 20 μ m chrome plated
7	Body	Aluminum alloy
8	Bushing	No(Φ 12~32)\Wear resistant material(Others)
9	O-ring	NBR
10	Front cover	Aluminum alloy
11	C clip	Spring steel
12	Front cover packing	NBR
13	Magnet	Φ 12~25 Sintered metal(Neodymium-iron-boron) Others Plastic
14	Magnet holder	Brass(Φ 12, 16)\Aluminum alloy(Others)

Dimensions



Model	Without magnet						With magnet						B1	D	E	M	K1
	Item	A		C		N1	N2	A	C	N1	N2						
12	20.5	-	-	17	-	-	7.5	5	31.5	28	9	7	3.5	-	6	3.5	M3 × 0.5
16	22	22	-	18.5	18.5	-	8	5.5	34	30.5	9.5	5.5	3.5	-	8	3	M4 × 0.7
20	24	-	34	19.5	-	29.5	9	5.5	36	31.5	9.5	5.5	4.5	-	7	4	M5 × 0.8
25	27.5	-	37.5	22.5	-	32.5	11	5.5	37.5	32.5	11	5.5	5	-	12	4.5	M6 × 1.0

Bore size\Item	O	P1	P3	P4	S	T1	T2	V	W
12	M5 × 0.8	2-Sides: Φ 6.5 Thread:M4 × 0.7 Thru.hole: Φ 3.4	11	3.5	25	15.5	22	6	5
16	M5 × 0.8	2-Sides: Φ 6.5 Thread:M4 × 0.7 Thru.hole: Φ 3.4	11	3.5	29	20	28	8	6
20	M5 × 0.8	2-Sides: Φ 9.0 Thread:M6 × 1.0 Thru.hole: Φ 5.2	17	7	36	25.5	36	10	8
25	M5 × 0.8	2-Sides: Φ 9.0 Thread:M6 × 1.0 Thru.hole: Φ 5.2	17	7	40	28	40	12	10

Φ 32~Φ 100 (Stroke ≤ 100)

Model	Without magnet						With magnet						B1	D	E	M	K1	O
	Item	A		C		N1	N2	A	C	N1	N2							
32	St=5	30	40	23	33	7.5	6.5	40	33	10.5	7.5	7	49.5	13	6	M8 × 1.25	1/8"	
	St>5					10.5	7.5											
40		36.5	46.5	29.5	39.5	11	8	46.5	39.5	11	8	7	57	13	6	M8 × 1.25	1/8"	
50	St=5	38.5	48.5	30.5	40.5	9	9	48.5	40.5	10.5	10.5	8	71	15	6.5	M10 × 1.5	1/4"	
	St>5					10.5	10.5											
63	St=5	44	54	36	46	14	9.5	54	46	15	10.5	8	84	15	6.5	M10 × 1.5	1/4"	
	St>5					15	10.5											
80		53.5	63.5	43.5	53.5	16	14	63.5	53.5	16	14	10	104	20	8.5	M16 × 2.0	3/8"	
100		65	75	53	63	20	17.5	75	63	20	17.5	12	123.5	26	9.5	M20 × 2.5	3/8"	

Bore size\Item	P1	P3	P4	S	T1	T2	V	W
32	2-Sides: Φ 9 Thread:M6 × 1.0 Thru.hole: Φ 5.2	17	7	45	34	-	16	14
40	2-Sides: Φ 9 Thread:M6 × 1.0 Thru.hole: Φ 5.2	17	7	53	40	-	16	14
50	2-Sides: Φ 11 Thread:M8 × 1.25 Thru.hole: Φ 6.8	22	8	64	50	-	20	17
63	2-Sides: Φ 14 Thread:M10 × 1.5 Thru.hole: Φ 8.5	28.5	10.5	77	60	-	20	17
80	2-Sides: Φ 17.5 Thread:M12 × 1.75 Thru.hole: Φ 10.3	35.5	13.5	98	77	-	25	22
100	2-Sides: Φ 17.5 Thread:M12 × 1.75 Thru.hole: Φ 10.3	35.5	13.5	117	94	-	32	27



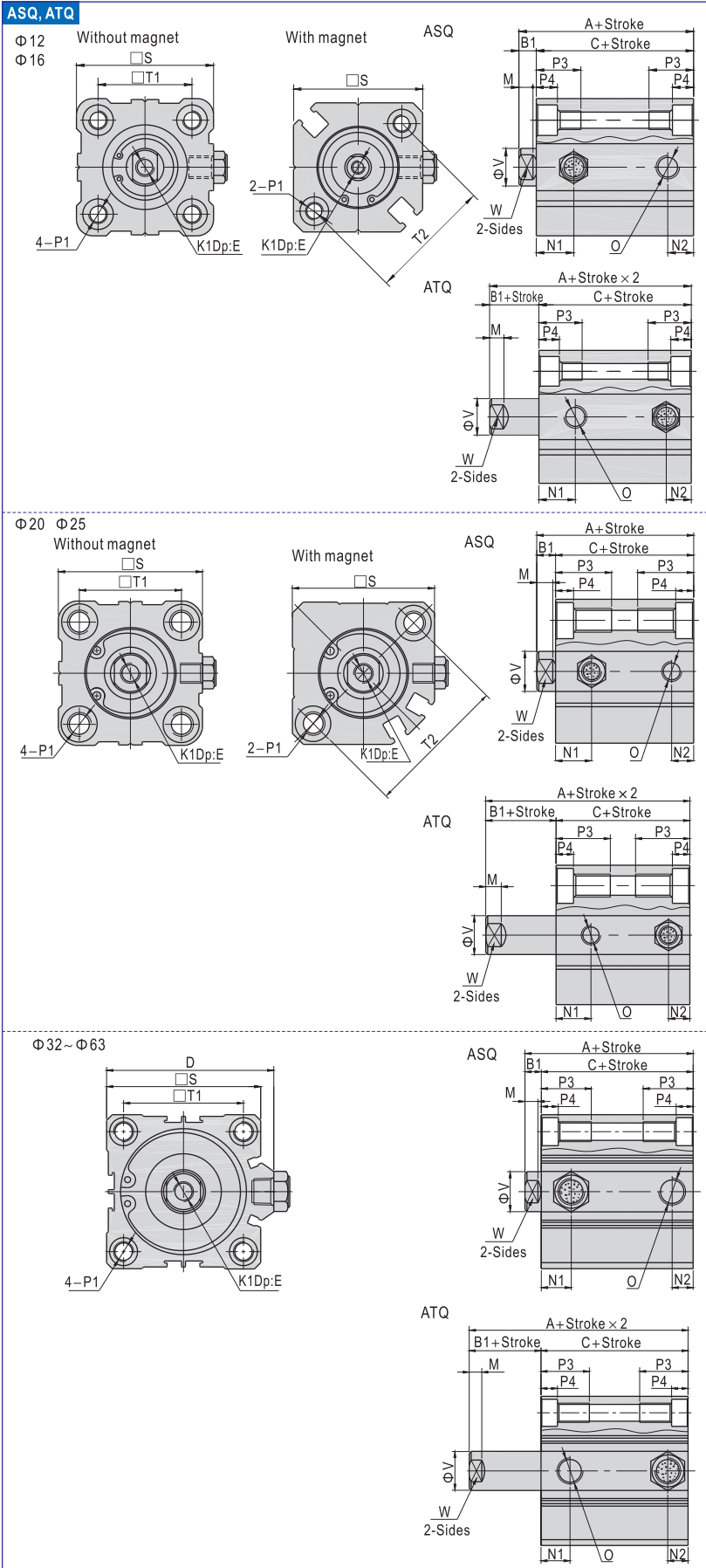
ACQ



Compact cylinder



ACQ Series



Model	Without magnet										
	A			C			N1	N2	B1	D	E
Bore size\Item	5,10	15,20	25,30	5,10	15,20	25,30					
Stroke	5,10	15,20	25,30	5,10	15,20	25,30	N1	N2	B1	D	E
12	25.5	30.5	-	22	27	-	7.5	5	3.5	-	6
16	27	32	-	23.5	28.5	-	8	5.5	3.5	-	8
20	29	34	39	24.5	29.5	34.5	9	5.5	4.5	-	7
25	32.5	37.5	42.5	27.5	32.5	37.5	11	5.5	5	-	12
32	35	40	45	28	33	38	10.5	7.5	7	49.5	13
40	41.5	46.5	51.5	34.5	39.5	44.5	11	8	7	57	13
50	48.5	53.5	58.5	40.5	45.5	50.5	10.5	10.5	8	71	15
63	54	59	64	46	51	56	15	10.5	8	84	15

Model	With magnet									
	A			C			N1	N2	K1	
Bore size\Item	5,10	15,20	25,30	5,10	15,20	25,30	N1	N2	K1	
Stroke	5,10	15,20	25,30	5,10	15,20	25,30	N1 <td>N2 <td colspan="2">K1</td> </td>	N2 <td colspan="2">K1</td>	K1	
12	36.5	41.5	-	33	38	-	9	7	M3 × 0.5	
16	39	44	-	35.5	40.5	-	9.5	5.5	M4 × 0.7	
20	41	46	51	36.5	41.5	46.5	9.5	5.5	M5 × 0.8	
25	42.5	47.5	52.5	37.5	42.5	47.5	11	5.5	M6 × 1.0	
32	45	50	55	38	43	48	10.5	7.5	M8 × 1.25	
40	51.5	56.5	61.5	44.5	49.5	54.5	11	8	M8 × 1.25	
50	58.5	63.5	68.5	50.5	55.5	60.5	10.5	10.5	M10 × 1.5	
63	64	69	74	56	61	66	15	10.5	M10 × 1.5	

Bore size\Item	O		P1							
	M5 × 0.8	M5 × 0.8	2-Sides: Φ 6.5 Thread: M4 × 0.7 Thru.hole: Φ 3.4							
12	M5 × 0.8	M5 × 0.8	2-Sides: Φ 6.5 Thread: M4 × 0.7 Thru.hole: Φ 3.4							
16	M5 × 0.8	M5 × 0.8	2-Sides: Φ 6.5 Thread: M4 × 0.7 Thru.hole: Φ 3.4							
20	M5 × 0.8	M5 × 0.8	2-Sides: Φ 9.0 Thread: M6 × 1.0 Thru.hole: Φ 5.2							
25	M5 × 0.8	M5 × 0.8	2-Sides: Φ 9.0 Thread: M6 × 1.0 Thru.hole: Φ 5.2							
32	1/8"	1/8"	2-Sides: Φ 9.0 Thread: M6 × 1.0 Thru.hole: Φ 5.2							
40	1/8"	1/8"	2-Sides: Φ 9.0 Thread: M6 × 1.0 Thru.hole: Φ 5.2							
50	1/4"	1/4"	2-Sides: Φ 11 Thread: M8 × 1.25 Thru.hole: Φ 6.8							
63	1/4"	1/4"	2-Sides: Φ 14 Thread: M10 × 1.5 Thru.hole: Φ 8.5							

Bore size\Item	P3	P4	M	S	T1	T2	V	W
	12	11	3.5	3.5	25	15.5	22	6
16	11	3.5	3	29	20	28	8	6
20	17	7	4	36	25.5	36	10	8
25	17	7	4.5	40	28	40	12	10
32	17	7	6	45	34	-	16	14
40	17	7	6	53	40	-	16	14
50	22	8	6.5	64	50	-	20	17
63	28.5	10.5	6.5	77	60	-	20	17



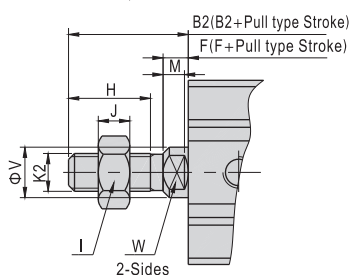
Compact cylinder



ACQ Series

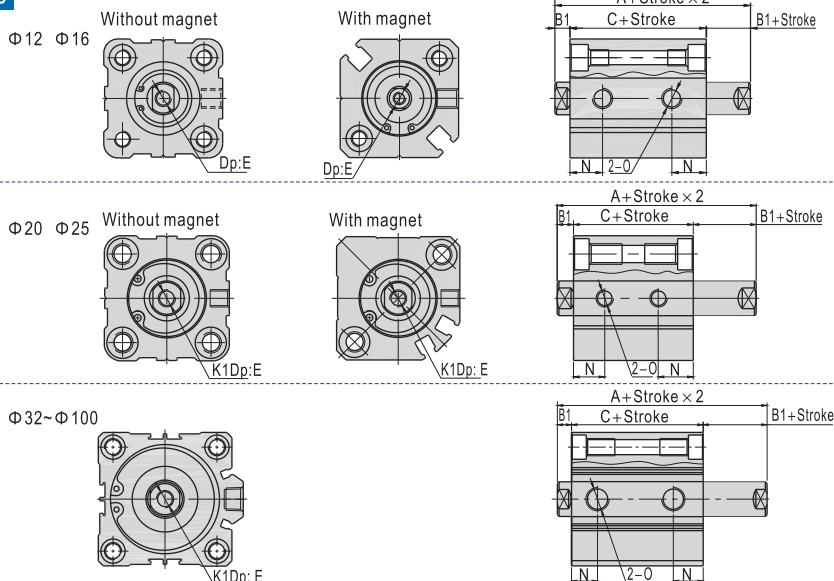
Male thread

(Bore size: $\Phi 12 \sim \Phi 100$, Stroke ≤ 100)



Bore size\Item	B2	F	H	I	J	K2	M	V	W
12	14	3.5	9	8	4	M5 × 0.8	3.5	6	5
16	15.5	3.5	10	10	5	M6 × 1.0	3	8	6
20	18.5	4.5	12	12	6	M8 × 1.25	4	10	8
25	22.5	5	15	17	6	M10 × 1.25	4.5	12	10
32	28.5	5	20.5	19	8	M14 × 1.5	4	16	14
40	28.5	5	20.5	19	8	M14 × 1.5	4	16	14
50	33.5	5	26	27	11	M18 × 1.5	4	20	17
63	33.5	5	26	27	11	M18 × 1.5	4	20	17
80	43.5	8	32.5	32	13	M22 × 1.5	6	25	22
100	43.5	8	32.5	36	13	M26 × 1.5	5.5	32	27

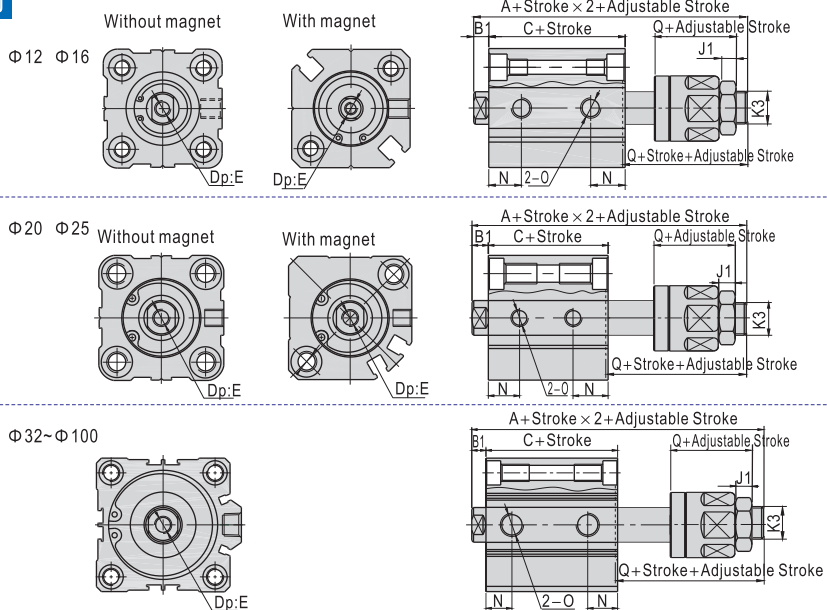
ACQD



Bore size\Item	A		C		B1	E	N
	Without magnet	With magnet	Without magnet	With magnet			
12	32.2	39.4	25.2	32.4	3.5	6	9
16	33	43	26	36	3.5	8	9.5
20	35	47	26	38	4.5	7	9.5
25	39	49	29	39	5	9.5(St=5)/12(St>5)	11
32	44.5	54.5	30.5	40.5	7	9(St≤10)/13(St>10)	10
40	54	64	40	50	7	11(St≤10)/13(St>10)	13
50	56.5	66.5	40.5	50.5	8	12(St≤10)/15(St>10)	13.5
63	58	68	42	52	8	12(St≤10)/15(St>10)	14.5(St=5)/16(St>5)
80	71	81	51	61	10	14(St≤15)/20(St>15)	16
100	84.5	94.5	60.5	70.5	12	20(St≤25)/26(St>25)	21

Remark) The unmarked dimension is the same as ACQ standard type. Please refer to this page for male thread dimensions.

ACQJ



Item	A		C		B1	E	N	Q	J1	K3
	Without magnet	With magnet	Without magnet	With magnet						
12	45.2	52.4	25.2	32.4	3.5	6	9	17	4	M5 × 0.8
16	50	60	26	36	3.5	8	9.5	21	5	M6 × 1.0
20	55	67	26	38	4.5	7	9.5	25	6	M8 × 1.25
25	60.5	70.5	29	39	5	9.5(St=5)/12(St>5)	11	27	6	M10 × 1.25
32	64.9	74.9	30.5	40.5	7	9(St≤10)/13(St>10)	10	28	7	M12 × 1.25
40	74.5	84.5	40	50	7	11(St≤10)/13(St>10)	13	28	7	M12 × 1.25
50	77	87	40.5	50.5	8	12(St≤10)/15(St>10)	13.5	29	8	M16 × 1.5
63	78.4	88.4	42	52	8	12(St≤10)/15(St>10)	14.5(St=5)/16(St>5)	29	8	M16 × 1.5
80	95.8	105.8	51	61	10	14(St≤15)/20(St>15)	16	35.5	10	M20 × 1.5
100	114.3	124.3	60.5	70.5	12	20(St≤25)/26(St>25)	21	42.5	13.5	M27 × 2.0

Remark) The unmarked dimension is the same as ACQ standard type. Please refer to this page for male thread dimensions.



ACQ



Compact cylinder

ACQ Series(Big bore size)



Specification

Bore size(mm)	125	140	160
Acting type	Double acting		
Fluid	Air(to be filtered by 40 μ m filter element)		
Operating pressure	0.05~1.0MPa(7~145psi)		
Proof pressure	1.5MPa(215psi)		
Temperature °C	-20~80		
Speed range mm/s	30~500		
Stroke tolerance mm	+1.4 0		
Cushion type	Bumper		
Port size ①	3/8"		

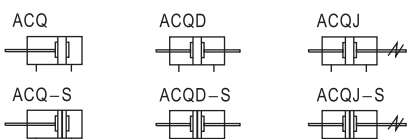
① PT thread, NPT thread and G thread are available. Add) Refer to P419~442 for detail of sensor switch.

Stroke

Bore size (mm)	Standard stroke (mm)	Max. std stroke	Max. stroke
125	10 20 30 40 50 75 100 125 150 175 200 250 300	300	300
140			
160			

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.

Symbol

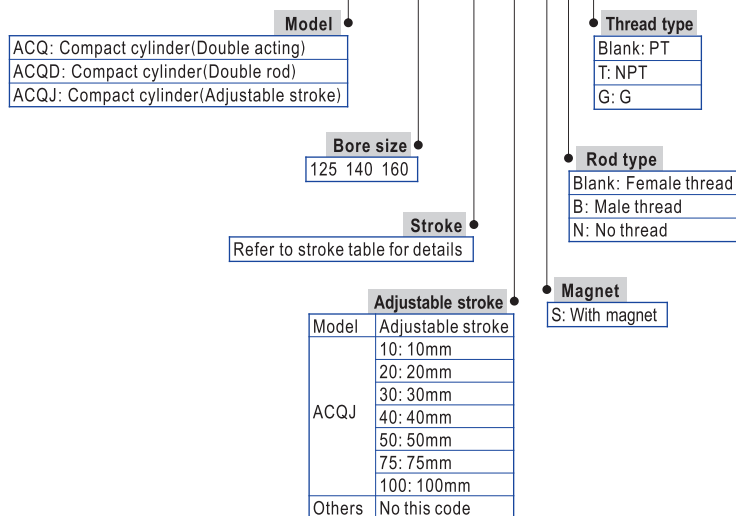


Product feature

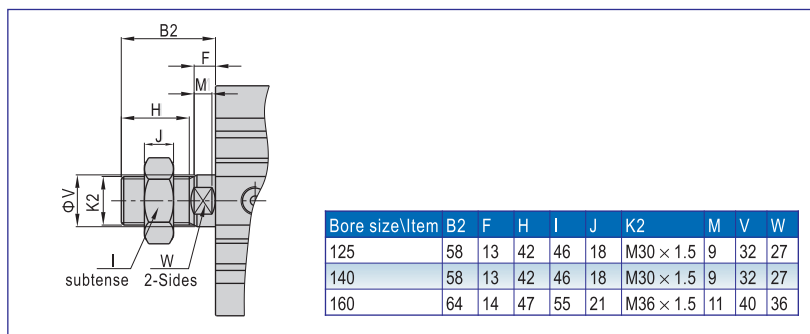
- JIS standard is implemented.
- C clip is adopted to connect the cylinder body and back cover or front cover to make it compact and reliable.
- The internal diameter of the body is treated with rolling followed by the treatment of hard anodizing, forming an excellent abrasion resistance and durability.
- The seal of piston adopts heterogeneous two-way seal structure. It has compact dimension and the function of grease reservation.
- Compact structure can effectively save installation space.
- There are magnetic switch slots around the cylinder body, which is convenient to install inducting switch.

Ordering code

ACQ	125 × 30	S	B	<input type="checkbox"/>
ACQD	125 × 30	S	B	<input type="checkbox"/>
ACQJ	125 × 30-30	S	B	<input type="checkbox"/>



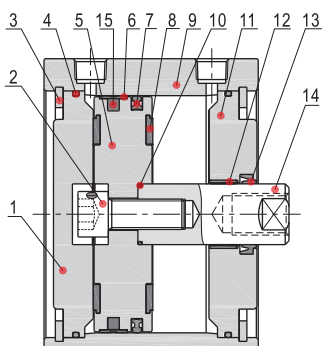
Male thread



Compact cylinder

ACQ Series(Big bore size)

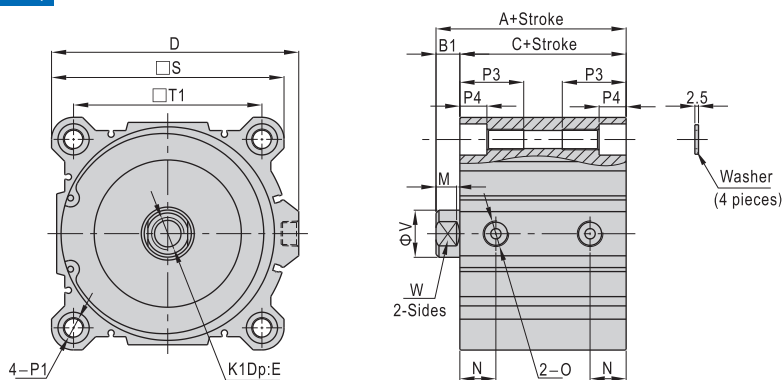
Inner structure and material of major parts



NO.	Item	Material
1	Back cover	Aluminum alloy
2	Screw	Carbon steel
3	C clip	Spring steel
4	O-ring	NBR
5	Piston	Aluminum alloy
6	Wear ring	Wear resistant material
7	Piston seal	NBR
8	Bumper	NBR
9	Body	Aluminum alloy
10	O-ring	NBR
11	Front cover	Aluminum alloy
12	Bushing	Wear resistant material
13	Front cover packing	NBR
14	Piston rod	Carbon steel with 20 μ m chrome plated
15	Magnet	Rubber

Dimensions

ACQ

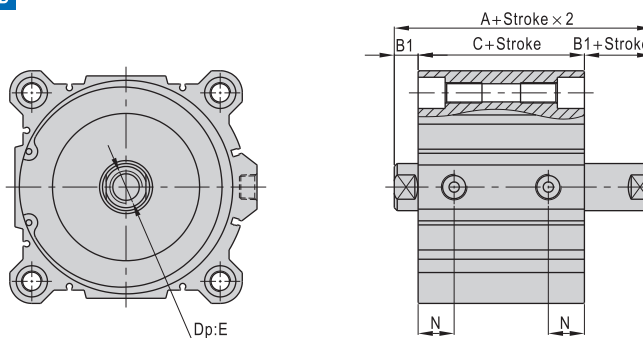


Bore size\Item	A	B1	C	D	E		K1	M	N	O	S	T1	V
					St≤10	St>10							
125	99	16	83	153	22.5	30	M22 × 2.5	12	24.5	3/8"	142	114	32
140	99	16	83	168	22.5	30	M22 × 2.5	12	24.5	3/8"	158	128	32
160	108	17	91	188	26.5	33	M24 × 3.0	14	27.5	3/8"	178	144	40

Bore size\Item	P1	P3	P4	W
125	2-Sides: Φ21.2 Thread:M14 × 2.0 Thru.hole: Φ12.3	43.4	18.4	27
140	2-Sides: Φ21.2 Thread:M14 × 2.0 Thru.hole: Φ12.3	43.4	18.4	27
160	2-Sides: Φ24.2 Thread:M16 × 2.0 Thru.hole: Φ14.3	49.2	21.2	36

Remark) Washer must be used when the cylinder be mounted by through hole.
Please refer to page 272 for male thread dimensions.

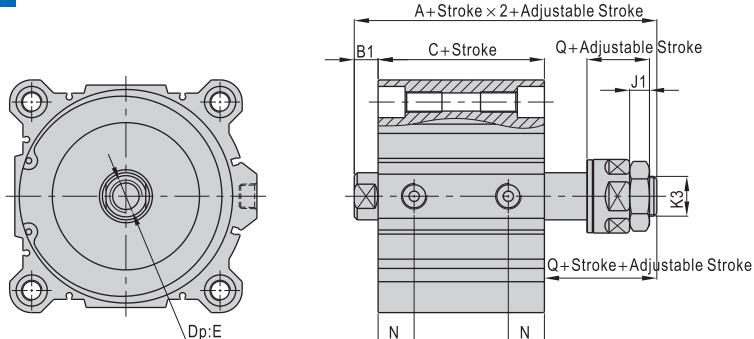
ACQD



Bore size\Item	A	B1	C	E		N
				St≤10	St>10	
125	115	16	83	22.5	30	24.5
140	115	16	83	22.5	30	24.5
160	125	17	91	26.5	33	27.5

Remark) The unmarked dimension is the same as ACQ standard type.
Please refer to page 272 for male thread dimensions.

ACQJ



Bore size\Item	A	B1	C	E		N	Q	J1	K3
				St≤10	St>10				
125	140.8	16	83	22.5	30	24.5	42.5	13.5	M27 × 2.0
140	140.8	16	83	22.5	30	24.5	42.5	13.5	M27 × 2.0
160	175.3	17	91	26.5	33	27.5	68	18	M36 × 2.0

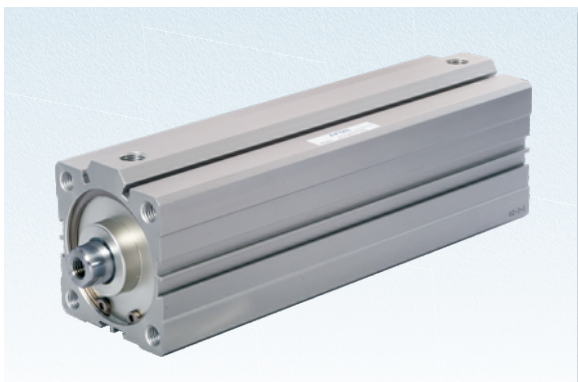
Remark) The unmarked dimension is the same as ACQ standard type.
Please refer to page 272 for male thread dimensions.



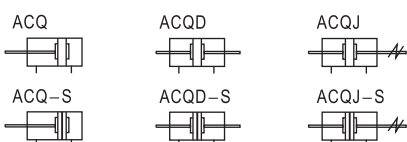
ACQ

Compact cylinder

ACQ Series(Longer stroke)



Symbol



Product feature

- JIS standard is implemented.
- C clip is adopted to connect the cylinder body and back cover or front cover, and riveted structure is adopted to connect piston and piston rod to make it compact and reliable.
- The internal diameter of the body is treated with rolling followed by the treatment of hard anodizing, forming an excellent abrasion resistance and durability.
- The seal of piston adopts heterogeneous two-way seal structure. It has compact dimension and the function of greasel reservation.
- Compact structure can effectively save installation space.
- There are magnetic switch slots around the cylinder body, which is convenient to install inducting switch.
- Installing accessories with various specifications are optional.

Specification

Bore size(mm)	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(15~145psi)					
Proof pressure	1.5MPa(215psi)					
Temperature °C	-20~80					
Speed range mm/s	30~500					
Stroke tolerance mm	101~150 ^{+1.0} ₀ >150 ^{+1.4} ₀					
Cushion type	Bumper					
Port size ①	1/8"		1/4"		3/8"	

① PT thread, NPT thread and G thread are available. Add) Refer to P419~442 for detail of sensor switch.

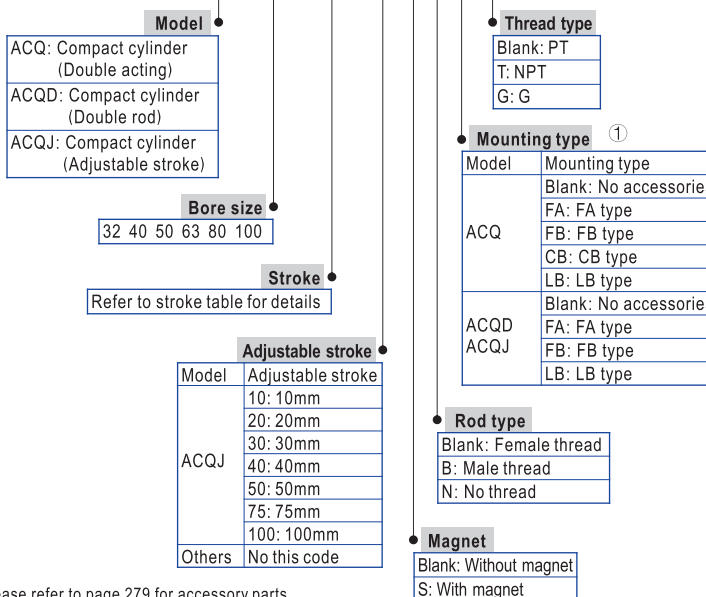
Stroke

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

Note) Within allowable stroke scope, when the stroke is larger than the maximum value, it shall be treated as non-standard one. Please contact the company for other special strokes.

Ordering code

ACQ	50 × 150	S	B	<input type="checkbox"/>	<input type="checkbox"/>
ACQD	50 × 150	S	B	<input type="checkbox"/>	<input type="checkbox"/>
ACQJ	50 × 150-30	S	B	<input type="checkbox"/>	<input type="checkbox"/>



① Please refer to page 279 for accessory parts.

Inner structure and material of major parts

ACQS				ACQ				
8	9	10	11	12	13	14	15	
7	6	5	4	3	2	1		
NO. Item	Material	NO. Item	Material	NO. Item	Material	NO. Item	Material	
1	Magnet washer	NBR	9	Wear ring	No(Φ32)\Wear resistant material(Others)	10	Piston seal	NBR
2	Magnet	Plastic	11	Magnet holder	Aluminum alloy	11	Piston rod	Carbon steel with 20 μ m chrome plated
3	Body	Aluminum alloy	12	Front cover	Aluminum alloy	12	Bushing	No(Φ32)\Wear resistant material(Others)
4	O-ring	NBR	13	Front cover packing	NBR	13		
5	Bumper	NBR	14			14		
6	Back cover	Aluminum alloy	15			15		
7	Piston	Aluminum alloy						
8	C clip	Spring steel						

Compact cylinder

Accessories

■ Dimensions

ACQ $\Phi 32 \sim \Phi 100$ (Stroke > 100)

Bore size\Item	A	B1	C	D	E	K1	M	N	O
32	62.5	17	45.5	49.5	13	M8 × 1.25	6	12.5	1/8"
40	72	17	55	57	13	M8 × 1.25	6	14	1/8"
50	73.5	18	55.5	71	15	M10 × 1.5	6.5	14	1/4"
63	75	18	57	84	15	M10 × 1.5	6.5	16.5	1/4"
80	86	20	66	104	21	M16 × 2.0	8.5	19	3/8"
100	97.5	22	75.5	123.5	27	M20 × 2.5	9.5	23	3/8"

Bore size\Item	P1	P2	Q	R	S	T1	V	W
32	2-Sides: M6 × 1.0 Thru.hole: $\Phi 5.2$	10	12	22	45	34	16	14
40	2-Sides: M6 × 1.0 Thru.hole: $\Phi 5.2$	10	12	28	53	40	16	14
50	2-Sides: M8 × 1.25 Thru.hole: $\Phi 6.8$	14	13	35	64	50	20	17
63	2-Sides: M10 × 1.5 Thru.hole: $\Phi 8.5$	18	13	35	77	60	20	17
80	2-Sides: M12 × 1.75 Thru.hole: $\Phi 10.3$	22	15	43	98	77	25	22
100	2-Sides: M12 × 1.75 Thru.hole: $\Phi 10.3$	22	17	59	117	94	32	27

ACQD $\Phi 32 \sim \Phi 100$ (Stroke > 100)

ACQJ $\Phi 32 \sim \Phi 100$ (Stroke > 100)

Bore size\Item	A		A1		C		B1	E	N	Q	J1	K3
	Without magnet	With magnet	Without magnet	With magnet	Without magnet	With magnet						
32	79.5	89.5	95.5	105.5	45.5	55.5	17	13	12.5	28	7	M12 × 1.25
40	89	99	105	115	55	65	17	13	14	28	7	M12 × 1.25
50	91.5	101.5	107.5	117.5	55.5	65.5	18	15	14	29	8	M16 × 1.5
63	93	103	109	119	57	67	18	15	16.5	29	8	M16 × 1.5
80	106	116	126.5	136.5	66	76	20	21	19	35.5	10	M20 × 1.5
100	119.5	129.5	145	155	75.5	85.5	22	27	23	42.5	13.5	M27 × 2.0

Remark) The unmarked dimension is the same as ACQ standard type.

Male thread (Bore size: $\Phi 32 \sim \Phi 100$, Stroke > 100, Longer type)

Bore size\Item	B2	H	J	K2	M	R	V	W
32	38.5	23.5	8	M14 × 1.5	6	22	16	14
40	38.5	23.5	8	M14 × 1.5	6	28	16	14
50	43.5	28.5	11	M18 × 1.5	6.5	35	20	17
63	43.5	28.5	11	M18 × 1.5	6.5	35	20	17
80	53.5	35.5	13	M22 × 1.5	8.5	43	25	22
100	53.5	35.5	13	M26 × 1.5	10	59	32	27

