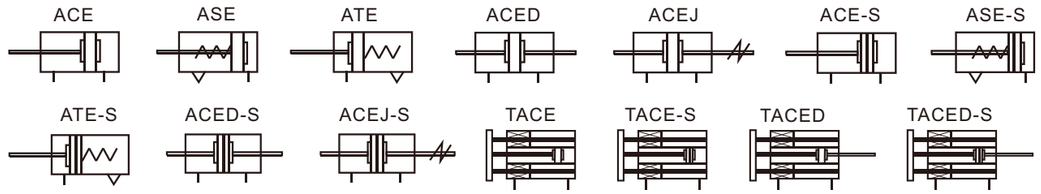
IS09001 CE

ACE Series Compact Cylinder







Ordering Code ACE Series Compact Cylinder

ACE 20 × 30 - 30 S B

- ACE: Model
- 20: Bore size
- 30: Stroke
- 30: Adjustable stroke
- S: Magnet
- B: Rod type

ACE: Double acting
ASE: Single acting spring extend
ATE: Single acting spring return
ACED: Double rod
ACEJ: Adjustable stroke
TACE: Double acting non-rotating with yoke
TACED: Double shaft non-rotating with yoke

10: 10mm
20: 20mm
30: 30mm
40: 40mm
50: 50mm
75: 75mm
100: 100mm

Blank:Without magnet
S: With magnet

Blank: Female thread
B: Male thread
N:No thread

* Standard thread is blank here.

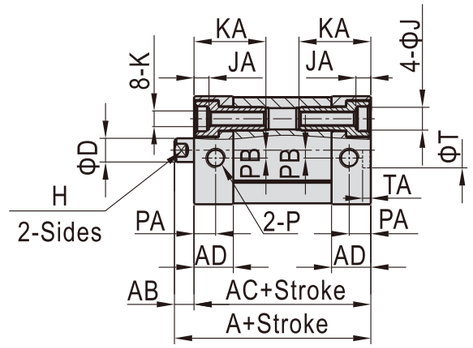
Specifications

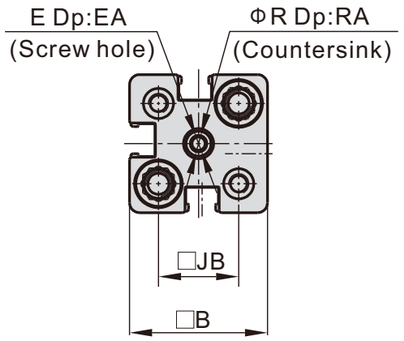
Bore(mm)		12	16	20	25	32	40	50	63	80	100	125
Acting type		Double acting										
		Single acting-Push type,Single acting-Pull type										
Working medium		Clean air (40μm filteration)										
Operating pressure	Double acting	0.1~1.0MPa (14~145psi)										
	Single acting	0.2~1.0MPa (28~145psi)										
Proof pressure		1.5MPa (215psi)										
Working Temperature		-20 to 70℃										
Speed range		Double acting:30~500mm/s Single acting:50~500mm/s										
Stroke tolerance		Stroke≤100 $^{+1.0}_{0}$ Stroke>100 $^{+1.5}_{0}$										
Cushion type		Bumper										
Port size		M5×0. 8				G1/8						G1/4

* PT thread,G thread and NPT thread are available.

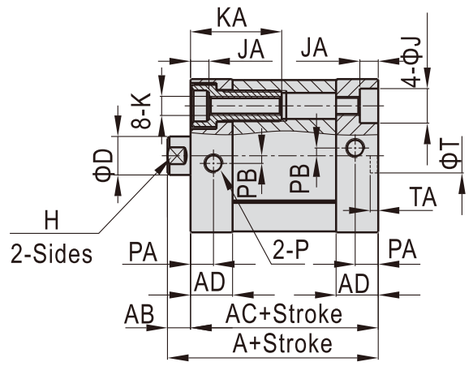
Main Dimensions ACE (Double Acting Type)

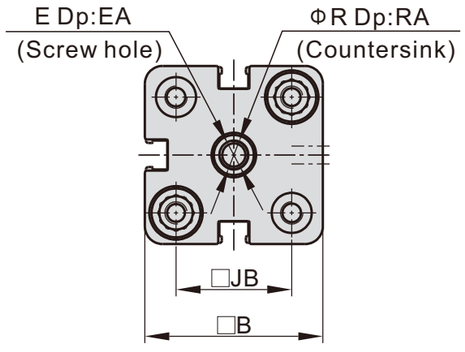
Φ12





Φ16~Φ25





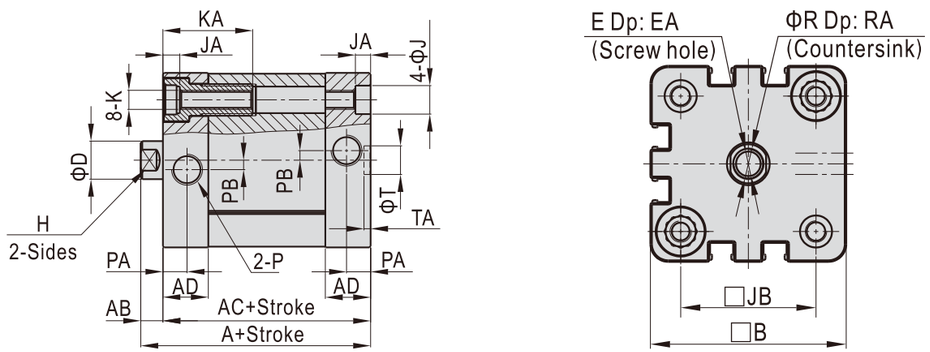
Sign / Bore	A	AB	AC	AD	B	D	E	EA	H	J	JA	JB	K	KA	P	PA	PB	R	RA	T	TA
12	40	5	35	10	27.5	6	M3×0.5	8	5	6	3.5	16	M4×0.7	18.5	M5×0.8	5.5	2	3.5	1.5	9	2.1
16	40	5	35	10	30	8	M4×0.7	10	7	6	3.5	18	M4×0.7	18.5	M5×0.8	5.5	2	4.5	1.5	9	2.1
20	43	6	37	10.5	35.5	10	M6×1. 0	14	9	9	4.5	22	M5×0.8	23.5	M5×0.8	6	2	6.5	2.5	9	2.1
25	45	6	39	11	40	10	M6×1. 0	14	9	9	4.5	26	M5×0.8	23.5	M5×0.8	6	2	6.5	2.5	9	2.1

* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

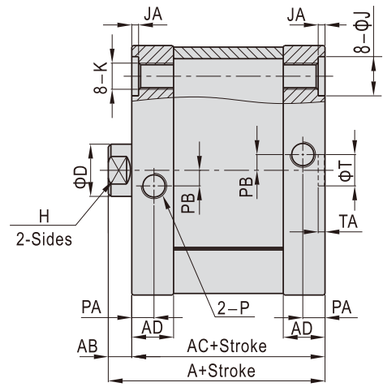
ACE Series Compact Cylinder

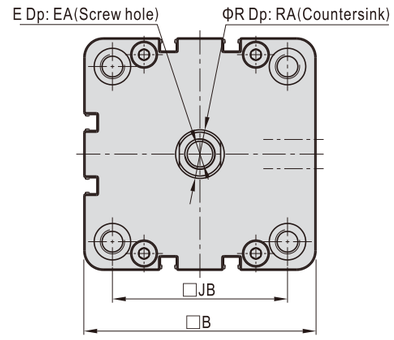
Main Dimensions ACE (Double Acting Type)

Φ32~Φ63



Φ80~Φ125





Sign / Bore	A	AB	AC	AD	B	D	E	EA	H	J	JA	JB	K	KA	P	PA	PB	R	RA	T	TA
32	51	7	44	14	49.5	12	M8×1.25	16	10	9	4.5	32.5	M6×1.0	28.5	G1/8	7.5	3	8.5	3.5	9	2.1
40	52.5	7	45.5	14.5	55	12	M8×1.25	16	10	9	4.5	38	M6×1.0	28.5	G1/8	7.5	3	8.5	3.5	9	2.1
50	53.5	8	45.5	14.5	65.5	16	M10×1.5	20	13	11	4.5	46.5	M8×1.25	30.5	G1/8	7.5	3	10.5	4.5	12	2.6
63	57	8	49	15	75.5	16	M10×1.5	20	13	11	4.5	56.5	M8×1.25	30.5	G1/8	7.5	4	10.5	4.5	12	2.6
80	63	9	54	16	95.5	20	M12×1.75	20	17	15	2.5	72	M10×1.5	–	G1/8	8.5	6	12.5	6	12	2.6
100	76	9	67	19	113.5	20	M12×1.75	20	17	15	2.5	89	M10×1.5	–	G1/8	10.5	7	12.5	6	12	2.6
125	92	11	81	20	134.5	25	M16×2.0	25	21	–	–	110	M12×1.75	–	G1/4	10.5	8	16.5	7	12	2.6

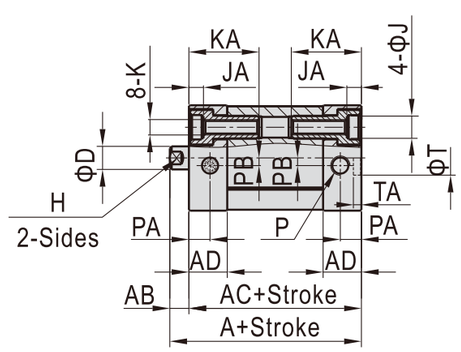
* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

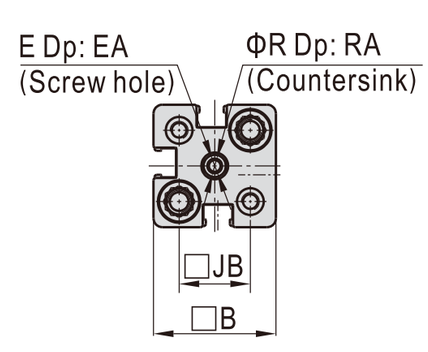
IS09001 CE
VPC PNEUMATIC®

ACE Series Compact Cylinder

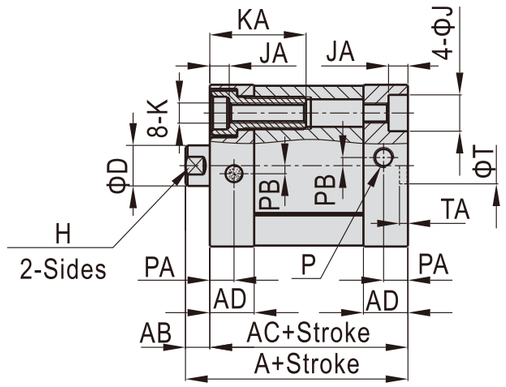
Main Dimensions ASE (Single Acting Spring Extend Type)

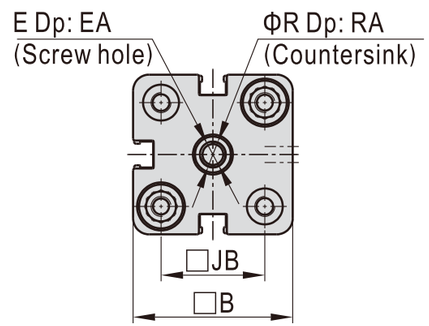
Φ12





Φ16~Φ25





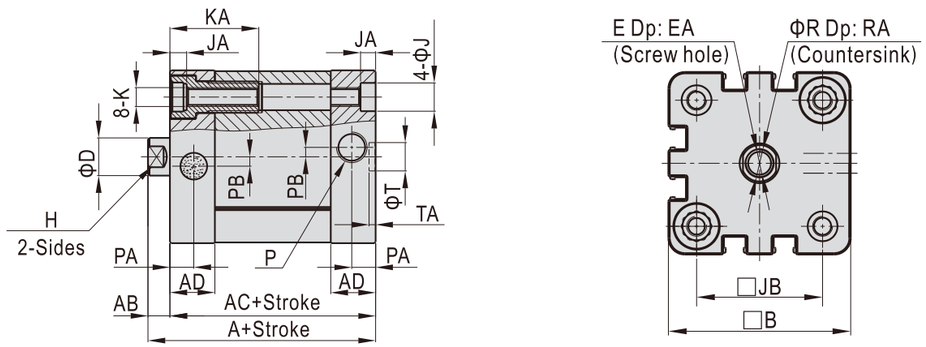
Sign / Bore	A	AB	AC	AD	B	D	E	EA	H	J	JA	JB	K	KA	P	PA	PB	R	RA	T	TA
12	40	5	35	10	27.5	6	M3×0.5	8	5	6	3.5	16	M4×0.7	18.5	M5×0.8	5.5	2	3.5	1.5	9	2.1
16	40	5	35	10	30	8	M4×0.7	10	7	6	3.5	18	M4×0.7	18.5	M5×0.8	5.5	2	4.5	1.5	9	2.1
20	43	6	37	10.5	35.5	10	M6×1. 0	14	9	9	4.5	22	M5×0.8	23.5	M5×0.8	6	2	6.5	2.5	9	2.1
25	45	6	39	11	40	10	M6×1. 0	14	9	9	4.5	26	M5×0.8	23.5	M5×0.8	6	2	6.5	2.5	9	2.1

* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

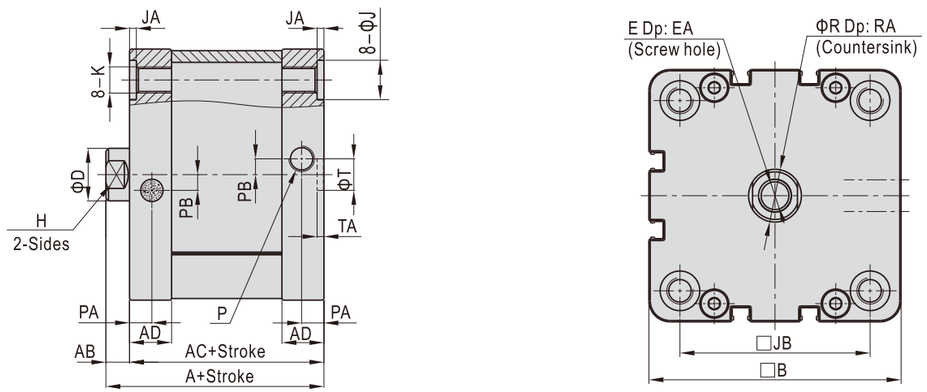
ACE Series Compact Cylinder

Main Dimensions ASE (Single Acting Spring Extend Type)

Φ32~Φ63



Φ80~Φ100



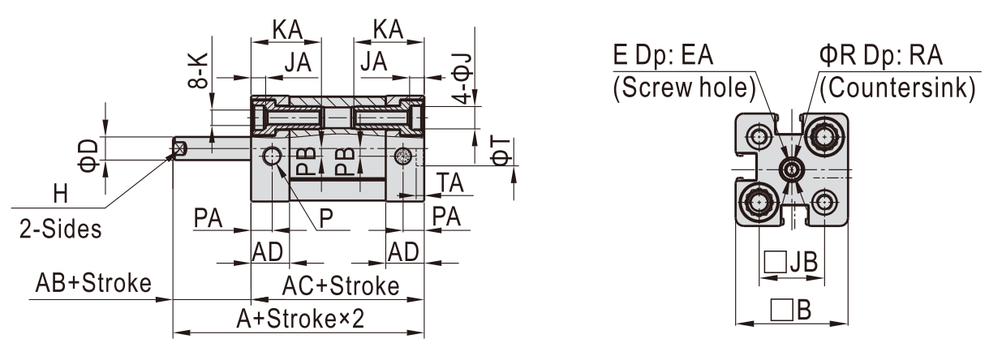
Sign / Bore	A	AB	AC	AD	B	D	E	EA	H	J	JA	JB	K	KA	P	PA	PB	R	RA	T	TA
32	51	7	44	14	49.5	12	M8×1.25	16	10	9	4.5	32.5	M6×1.0	28.5	G1/8	7.5	3	8.5	3.5	9	2.1
40	52.5	7	45.5	14.5	55	12	M8×1.25	16	10	9	4.5	38	M6×1.0	28.5	G1/8	7.5	3	8.5	3.5	9	2.1
50	53.5	8	45.5	14.5	65.5	16	M10×1.5	20	13	11	4.5	46.5	M8×1.25	30.5	G1/8	7.5	3	10.5	4.5	12	2.6
63	57	8	49	15	75.5	16	M10×1.5	20	13	11	4.5	56.5	M8×1.25	30.5	G1/8	7.5	4	10.5	4.5	12	2.6
80	63	9	54	16	95.5	20	M12×1.75	20	17	15	2.5	72	M10×1.5	–	G1/8	8.5	6	12.5	6	12	2.6
100	76	9	67	19	113.5	20	M12×1.75	20	17	15	2.5	89	M10×1.5	–	G1/8	10.5	7	12.5	6	12	2.6

* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

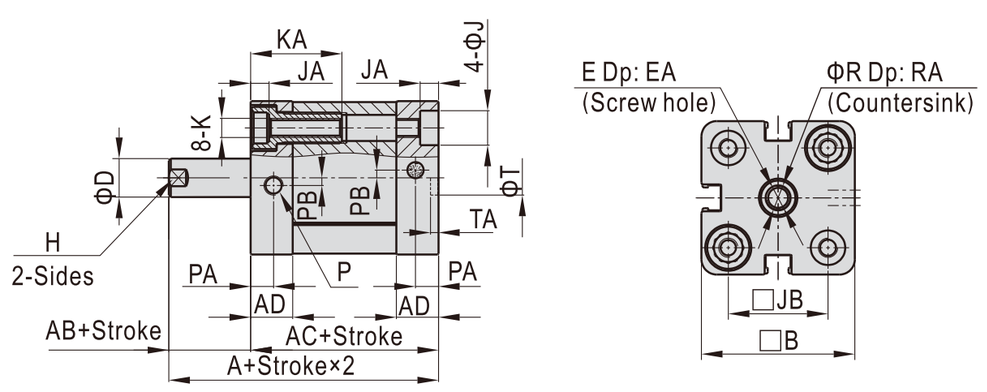
ACE Series Compact Cylinder

Main Dimensions ATE (Single Acting Spring Return Type)

Φ12



Φ16~Φ25



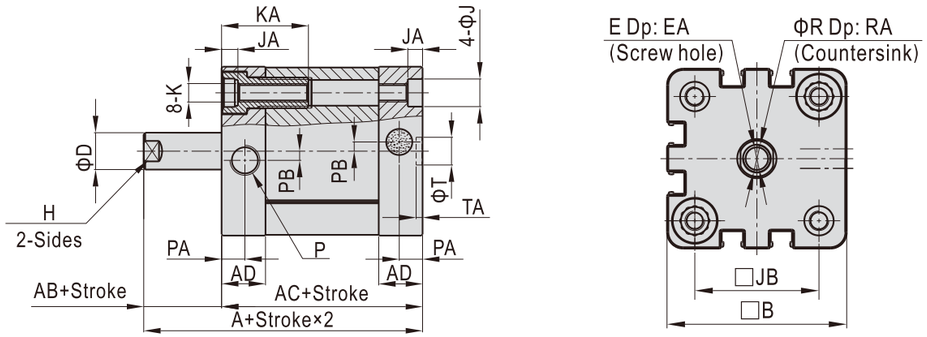
Sign / Bore	A	AB	AC	AD	B	D	E	EA	H	J	JA	JB	K	KA	P	PA	PB	R	RA	T	TA
12	40	5	35	10	27.5	6	M3×0.5	8	5	6	3.5	16	M4×0.7	18.5	M5×0.8	5.5	2	3.5	1.5	9	2.1
16	40	5	35	10	30	8	M4×0.7	10	7	6	3.5	18	M4×0.7	18.5	M5×0.8	5.5	2	4.5	1.5	9	2.1
20	43	6	37	10.5	35.5	10	M6×1. 0	14	9	9	4.5	22	M5×0.8	23.5	M5×0.8	6	2	6.5	2.5	9	2.1
25	45	6	39	11	40	10	M6×1. 0	14	9	9	4.5	26	M5×0.8	23.5	M5×0.8	6	2	6.5	2.5	9	2.1

* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

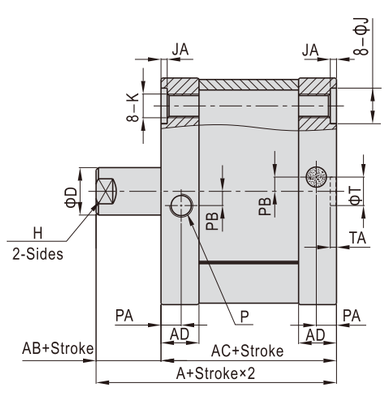
ACE Series Compact Cylinder

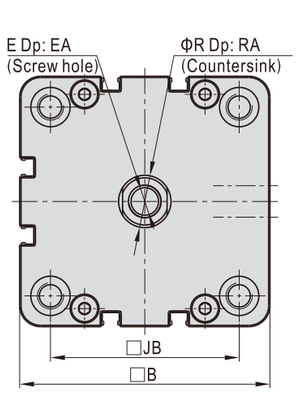
Main Dimensions ATE (Single Acting Spring Return Type)

Φ32~Φ63



Φ80~Φ100





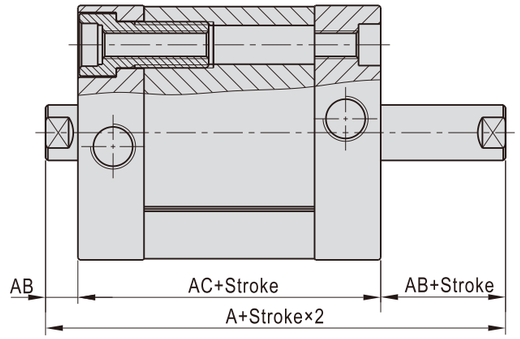
Sign / Bore	A	AB	AC	AD	B	D	E	EA	H	J	JA	JB	K	KA	P	PA	PB	R	RA	T	TA
32	51	7	44	14	49.5	12	M8×1.25	16	10	9	4.5	32.5	M6×1.0	28.5	G1/8	7.5	3	8.5	3.5	9	2.1
40	52.5	7	45.5	14.5	55	12	M8×1.25	16	10	9	4.5	38	M6×1.0	28.5	G1/8	7.5	3	8.5	3.5	9	2.1
50	53.5	8	45.5	14.5	65.5	16	M10×1.5	20	13	11	4.5	46.5	M8×1.25	30.5	G1/8	7.5	3	10.5	4.5	12	2.6
63	57	8	49	15	75.5	16	M10×1.5	20	13	11	4.5	56.5	M8×1.25	30.5	G1/8	7.5	4	10.5	4.5	12	2.6
80	63	9	54	16	95.5	20	M12×1.75	20	17	15	2.5	72	M10×1.5	–	G1/8	8.5	6	12.5	6	12	2.6
100	76	9	67	19	113.5	20	M12×1.75	20	17	15	2.5	89	M10×1.5	–	G1/8	10.5	7	12.5	6	12	2.6

* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

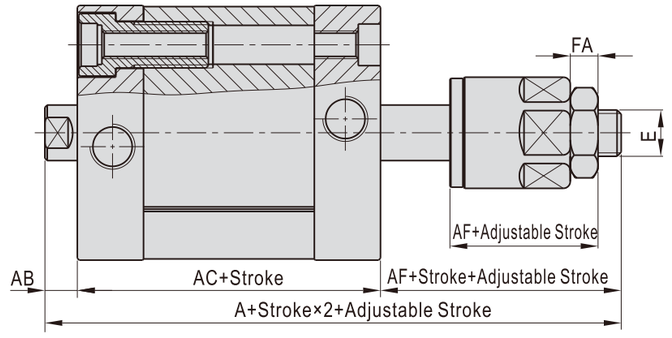
VPC PNEUMATIC®
IS09001 CE
ACE Series Compact Cylinder

Main Dimensions

ACED (Double Shaft Double Acting Type)



ACEJ (Double Shaft Adjustable Stroke Type)



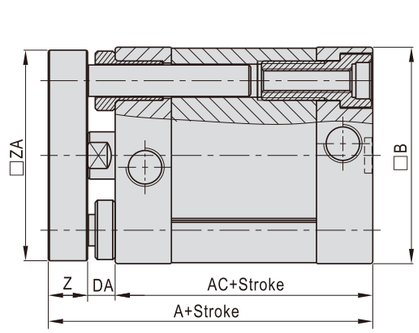
Sign / Bore	A(ACED)	A(ACEJ)	AB	AC	AF	FA	E
12	45	57	5	35	17	4	M5×0.8
16	45	61	5	35	21	5	M6×1.0
20	49	68	6	37	25	6	M8×1.25
25	51	70	6	39	25	6	M8×1.25
32	58	78	7	44	27	6	M10×1.25
40	59.5	79.5	7	45.5	27	6	M10×1.25
50	61.5	81.5	8	45.5	28	7	M12×1.25
63	65	85	8	49	28	7	M12×1.25
80	72	92	9	54	29	8	M16×1.5
100	85	105	9	67	29	8	M16×1.5
125	103	127.5	11	81	35.5	10	M20×1.5

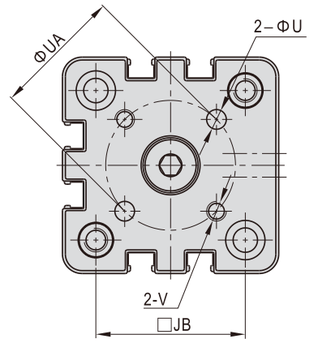
* The unmarked dimension is the same as ACE standard type.
* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

ACE Series Compact Cylinder

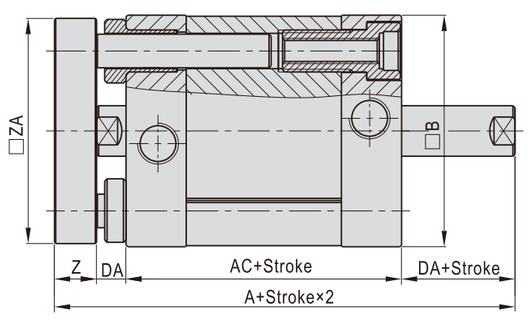
Main Dimensions

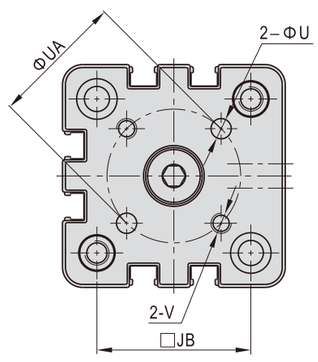
TACE (Double Acting Non-rotating with Yoke Type)





TACED (Double Shaft Non-rotating with Yoke Type)





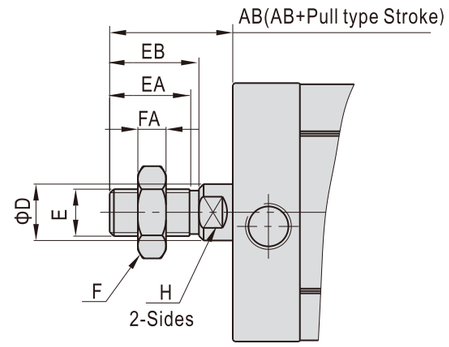
Bore \ Sign	A(TACE)	A(TACED)	AC	B	DA	JB	U	UA	V	Z	ZA
12	46	51	35	27.5	5	16	3	12	M3×0.5	6	26.5
16	46	51	35	30	5	18	3	14	M3×0.5	6	29
20	51	57	37	35.5	6	22	4	17	M4×0.7	8	34.5
25	53	59	39	40	6	26	5	22	M5×0.8	8	39
32	61	68	44	49.5	7	32.5	5	28	M5×0.8	10	48
40	62.5	69.5	45.5	55	7	38	5	33	M5×0.8	10	53.5
50	62.5	73.5	45.5	65.5	8	46.5	6	42	M6×1.0	12	64
63	69	77	49	75.5	8	56.5	6	50	M6×1.0	12	74
80	77	86	54	95.5	9	72	8	65	M8×1.25	14	94
100	90	99	67	113.5	9	89	10	80	M10×1.5	14	112

* The unmarked dimension is the same as ACE standard type.
* The dimensions of magnet type cylinder are the same as non-magnet type cylinder.

ACE Series Compact Cylinder

Main Dimensions

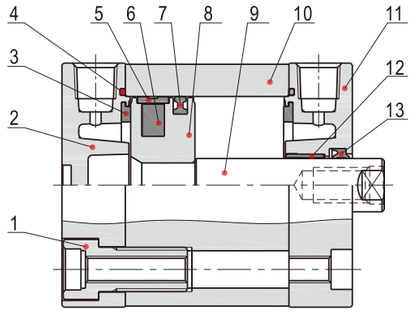
Male Thread



Bore \ Sign	AB	D	E	EA	EB	F	FA	H
12	15	6	M5×0.8	9	10	8	4	5
16	17	8	M6×1. 0	11	12	10	5	7
20	22	10	M8×1. 25	15	16	12	6	9
25	22	10	M8×1. 25	15	16	12	6	9
32	26	12	M10×1.25	17	19	17	6	10
40	26	12	M10×1.25	17	19	17	6	10
50	30	16	M12×1.25	20	22	17	7	13
63	30	16	M12×1.25	20	22	17	7	13
80	37	20	M16×1.5	26	28	23	8	17
100	37	20	M16×1.5	26	28	23	8	17
125	51	25	M20×1.5	38	40	26	10	21

Inner structure and material of major parts

ACE-S



NO.	Item	Material
1	Screw	Carbon steel
2	Back cover	Aluminum alloy
3	Bumper	TPU
4	O-ring	NBR
5	Wear ring	No(Φ12 to 20) Wear resistant material (Others)
6	Magnet	Sintered metal (Neodymium-iron-boron)(Φ12 to 20)
		Plastic(Others)
7	Piston seal	NBR
8	Piston	Aluminum alloy
9	Piston rod	S45C
10	Body	Aluminum alloy
11	Front cover	Aluminum alloy
12	Bushing	No(Φ12 to 25) Wear resistant material (Others)
13	Front cover packing	NBR
14	Panal	Aluminum alloy
15	Screw	Carbon steel
16	Bushing	Wear resistant material
17	Guide rod	Stainless steel (Φ12 to 40) S45C (Others)

TACE-S

