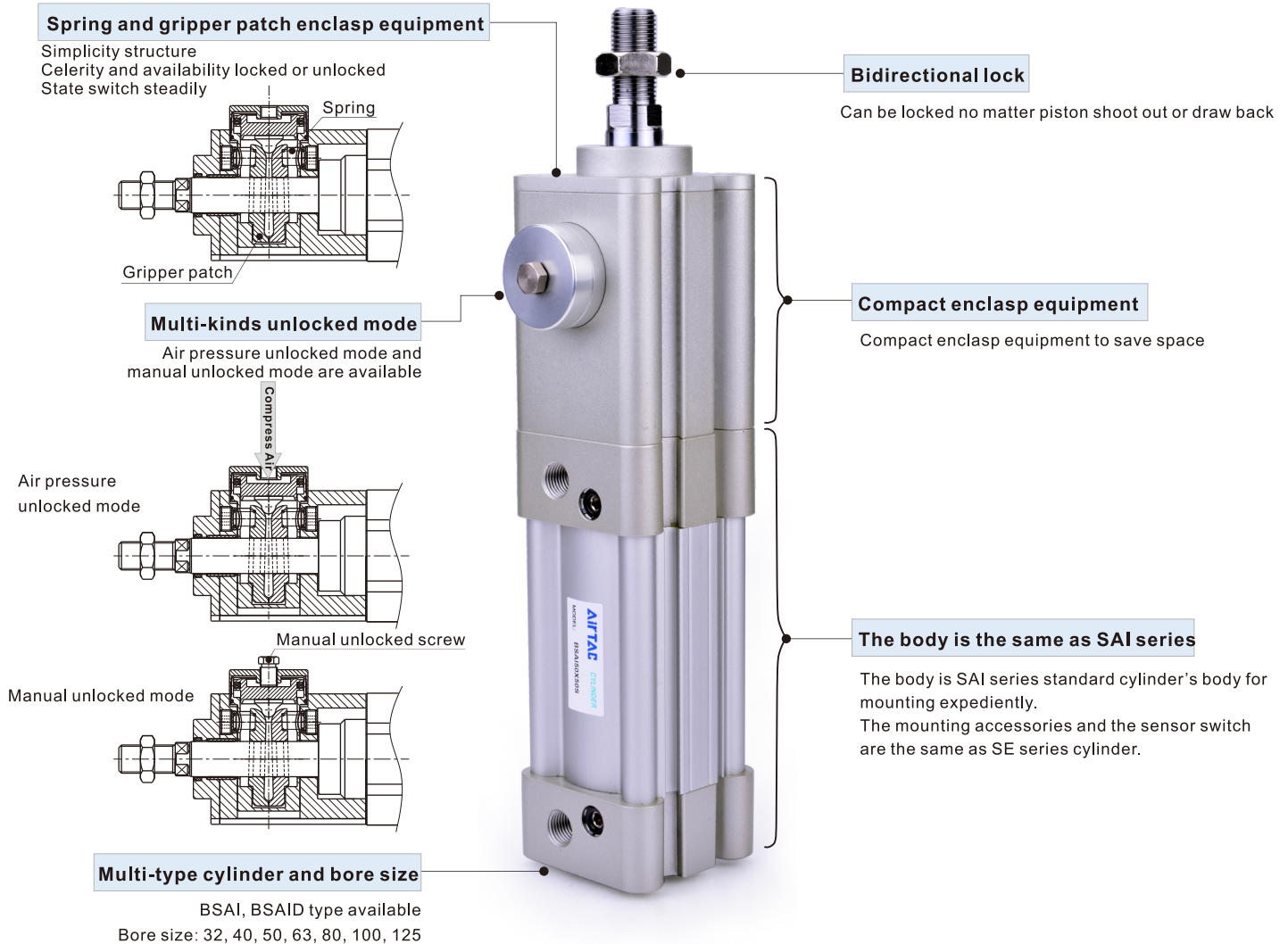




Enclasp cylinder——BSAI Series

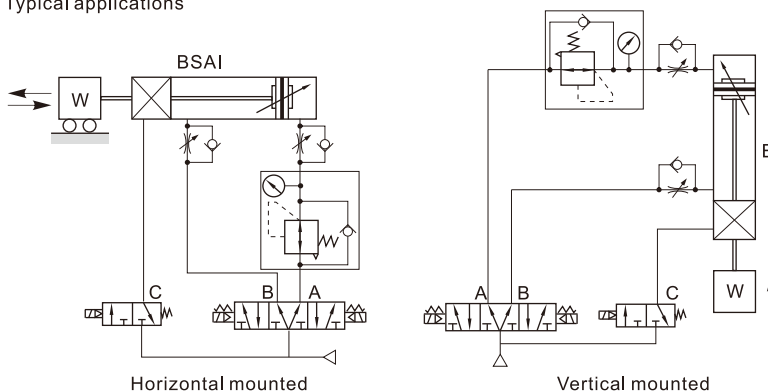
In accordance with ISO15552 standard

Compendium of BSAI Series



How to mount and use

1. The locker equipment only be locked after cylinder stopped, can't brake the piston rod while it is moving. If the lock cylinder be used for control system with safety demand, other safety measure is required.
2. The locker equipment only be unlocked when the air pressure on both sides of piston rod are equation or the cylinder stopped, otherwise piston rod movies abruptly might produce accident.
3. Typical applications



Acting type			State of acting	
Yes or No inlet	A Port	B Port	C Port	
Yes	No	Yes	Advance	
Yes	Yes	No	Locked	
Yes	Yes	Yes	unlocked	Over 0.5S
Yes	No	Yes	Advance to rod protruded completely	0~0.5S
No	Yes	Yes	Back	
Yes	Yes	No	Locked	
Yes	Yes	Yes	unlocked	Over 0.5S
No	Yes	Yes	back to rod retracted completely	0~0.5S



ISO15552 Standard cylinder

BSAI Series—Enclasp type



Symbol



Specification

Bore size(mm)		32	40	50	63	80	100	125			
Acting type		Double acting									
Fluid		Air(to be filtered by 40μm filter element)									
Mounting type	BSAI	Basic	FA	FB	CA	CB	CR	LB	TC	TCM1	TCM2
	BSAID	Basic	FA	LB	TC	TCM1	TCM2				
Operating pressure		0.15~0.7MPa(22~100psi)(1.5~7.0bar)									
Proof pressure		1.5MPa(215psi)(15bar)									
Temperature °C		-20~70									
Speed range mm/s		30~800									30~500
Stroke tolerance		0~250 ₀ ^{+1.0}		251~1000 ₀ ^{+1.5}		1001~1500 ₀ ^{+2.0}					
Cushion type		Variable cushion									
Adjustable cushion stroke		27			30			36		40	
Port size	Cylinder	1/8"	1/4"			3/8"			1/2"		
[Note 1]	Enclasp equipment	G1/8									
Unlocked Pressure		0.3~0.7MPa(45~100psi)(3~7bar)									
Static holding force (N)		600	900	1400	2200	3600	5500	8600			

[Note1] G thread is available.

Add) Refer to P528 for detail of sensor switch.

Product feature

1. Belong to SAI series standard cylinder add lock structure.
2. Can be locked at random positions in stroke scope.
3. Reasonable lock structure, the lock state no relation with the direction of piston moving.

Stroke

Bore size (mm)	Standard stroke (mm)	Max.std stroke	Max. stroke
32	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500	1000	1800
40	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800	1200	1800
50	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1200	1800
63	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
80	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
100	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800
125	25 50 75 80 100 125 150 160 175 200 250 300 350 400 450 500 600 700 800 900 1000	1500	1800

[Note] Consult us for non-standard stroke.

Ordering code

B SAI 80X50 S □ G

B SAID 80X50 S □ G

① ② ③ ④ ⑤ ⑥ ⑦

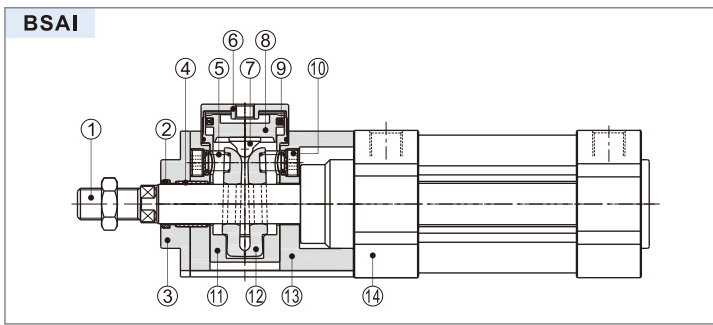
① Type	B: Enclasp cylinder			
② Model	SAI: Double acting type		SAID: Double rod type	
③ Bore size	32 40 50 63 80 100 125			
④ Stroke	Refer to stroke table for details			
⑤ Magnet	Blank: Without magnet		S: With magnet	
⑥ Mounting type [Note1]	Blank 	LB 	Blank 	LB 
	FA 	FB 	FA 	TC 
	CA 	CB 		
	CR 	TC 		
⑦ Thread type	G: G1/4			

[Note1] CR is used with CB; TC are used with TCM1、TCM2.

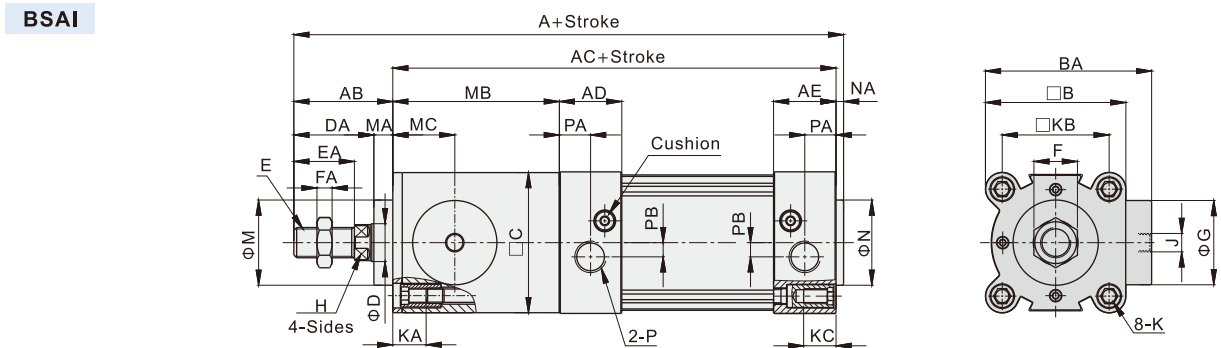
ISO15552 Standard cylinder

BSAI Series—Enclasp type

Inner structure and material of major parts

BSAI		
		
NO.	Item	Material
1	Piston rod	Carbon steel with 20 μm chrome plated or Stainless steel
2	Packing	Plastic
3	Packing holder	Aluminum alloy
4	Bearing	Carbon steel+Bronze sinter
5	Spring	Spring steel
6	Cover	Aluminum alloy
7	Unlocked header	Wear resistant material
8	Unlocked piston	Aluminum alloy
9	Piston O-ring	NBR
10	Screw	Carbon steel
11	Sleeve	Aluminum alloy
12	Clamp header	Aluminium bronze
13	Fixed holder	Aluminum alloy
14	SAI series cylinder	—

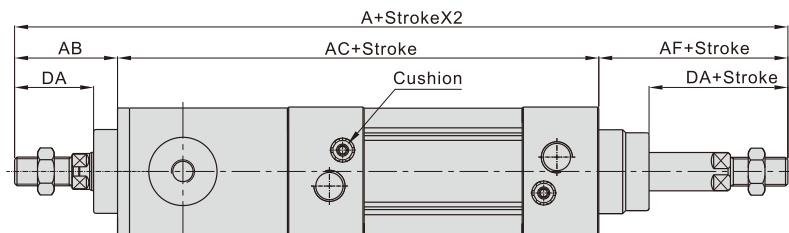
Dimensions

BSAI		
		

Bore size\Item	A	AB	AC	AD	AE	B	BA	C	D	DA	E	EA	F	FA	G	H	J	K	KA	KB	KC	M	MA	MB	MC	P	PA	PB	N	NA
32	201	39	159	27.5	27.5	47	65	46.5	12	29	M10×1.25	22	17	6	30	10	G1/8	M6X1.0	14.5	32.5	16	20	10	65	25	1/8"	13.5	6	30	3
40	222.5	43	176	32	32	53	73	52.5	16	33	M12×1.25	24	17	7	36.5	13	G1/8	M6X1.0	14.5	38	17	35	10	71	27.5	1/4"	17.5	6	35	3.5
50	249.5	52	194	31	31	65	83	64	20	42	M16×1.5	32	23	8	44.5	17	G1/8	M8X1.25	17.5	46.5	17	40	10	88	33	3/8"	14	8	40	3.5
63	265	52	209	33	33	75	88	74	20	42	M16×1.5	32	23	8	44.5	17	G1/8	M8X1.25	17.5	56.5	17	45	10	88	33	3/8"	17	8	45	4
80	321	68	249	33	33	95	107.5	94	25	53	M20×1.5	40	26	10	55.5	22	G1/8	M10X1.5	17	72	19	45	15	121	47	3/8"	16.5	8	45	4
100	336	70	262	37	37	115	117.5	113.5	25	55	M20×1.5	40	26	10	55.5	22	G1/8	M10X1.5	17	89	19	55	15	124	47	1/2"	19.5	10	55	4
125	401	92	305	46	46	140	152	138	32	74	M27×2	54	41	13.5	70	27	G1/8	M12X1.75	21.5	110	22	60	18	145	63	1/2"	23	11	60	4

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

BSAID



Bore size\Item	A	AB	AC	AF	DA	E	FA
32	246	39	159	48	29	M10×1.25	6
40	273	43	176	54	33	M12×1.25	7
50	315	52	194	69	42	M16×1.5	8
63	330	52	209	69	42	M16×1.5	8
80	403	68	249	86	53	M20×1.5	10
100	423	70	262	91	55	M20×1.5	10
125	516	92	305	119	74	M27×2	13.5

Remark:

1. The dimensions of magnet type cylinder are the same as non-magnet type cylinder.
2. The unmarked dimension is the same as BSAI standard type.