

ISO15552 Standard cylinder

SAIL Series—With locker type



Specification

Bore size(mm)	40	50	63	80	100	125	160	200			
Acting type	Double acting										
Fluid	Air(to be filtered by 40μm filter element)										
Mounting type	Basic	FA	FB	CA	CB	CR	LB	TC	FTC	TCM1	TCM2
Operating pressure	0.15~1.0MPa(22~145psi)(1.5~10.0bar)										
Proof pressure	1.5MPa(215psi)(15bar)										
Temperature °C	-20~70										
Speed range mm/s	30~800						30~500				
Stroke tolerance	0~250 ^{+1.0} ₀		251~1000 ^{+1.5} ₀		1001~1500 ^{+2.0} ₀						
Cushion type	Variable cushion										
Adjustable cushion stroke	No locker end		30		36		40		50		
	With locker end		20		21		22.5		24		
Port size [Note1]	1/4"		3/8"		1/2"		3/4"				

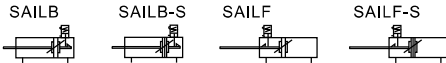
[Note1] PT thread, G thread are available.
Add) Refer to P362 for detail of sensor switch.

Stroke

Bore size (mm)	Standard stroke (mm)										Max.std stroke	Max. stroke											
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	1500	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
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

[Note] Consult us for non-standard stroke.

Symbol



Product feature

1. With lock cylinder: front cover with lock type and rear cover lock type;
2. The way of unlocking: automatic and manual.

Ordering code

SAIL B 160 × 50 S □ □

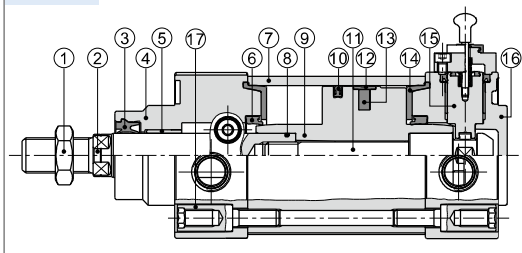


① Model	② Locker position	③ Bore size	④ Stroke	⑤ Magnet	⑥ Mounting type [Note1]	⑦ Thread type
SAIL: Double acting type (with locker)	B: Back cover with locker F: Front cover with locker	40	Refer to stroke table for details	Blank: Without magnet S: With magnet	Blank	Blank: PT G: G
		50			LB	
		63			FA	
		80			FB	
		100			CA	
		125			CB	
		160			CR	
		200			FTC	
					TC	

[Note1] CR is used with CB ; FTC, TC are used with TCM1, TCM2, please refer to page 22~24 for details.

Inner structure and material of major parts

SAILB-S

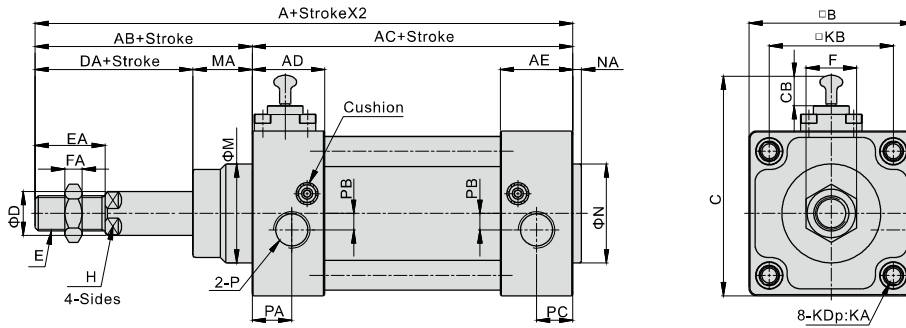


NO.	Item	Material	NO.	Item	Material
1	Rod nut	Carbon steel	9	Piston	Aluminum alloy
2	Piston rod	Carbon steel with 20μm chrome plated	10	Piston Seal	NBR
3	Front cover packing	TPU	11	Plunger	S45C
4	Front cover	Aluminum alloy	12	Wear ring	Wear resistant material
5	Bushing	Wear resistant material	13	Magnet	Plastic(≤ Φ100) Rubber(Others)
6	Cushing O-ring	TPU	14	Buffer gasket	TPU
7	Barrel	Aluminum alloy	15	Locker	
8	O-ring	NBR	16	Back cover	Aluminum alloy
			17	Screw	Carbon steel

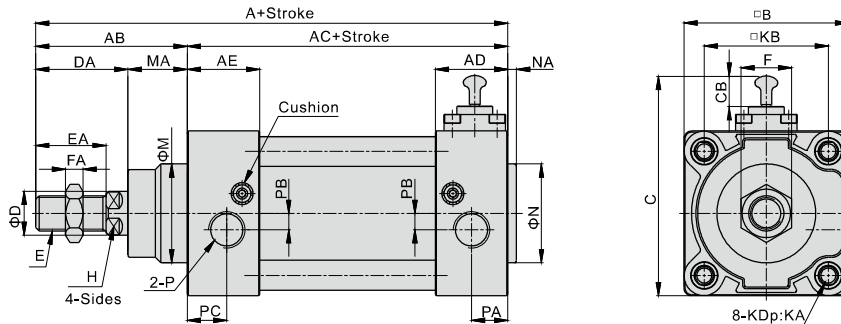
Note: inner structure & material data sheet is based on certain bore size.
Please contact AIRTAC if you need inner structure & material data sheet for specific bore size.

Dimensions

SAILF



SAILB



Bore size/Item	A	AB	AC	AD	AE	B	C	CB	D	DA	E	EA	F	FA	H	M	MA	K	KA	KB	N	NA	P	PA	PB	PC
40	159	54	105	32	32	53	78	13.5	16	32	M12×1.25	24	17	7	13	35	22	M6	17	38	35	3.5	1/4"	17	6	17
50	175	69	106	31	31	65	90	13.5	20	42	M16×1.5	32	23	8	17	40	27	M8	17	46.5	40	3.5	1/4"	19.5	7.5	15.5
63	190	69	121	33	33	75	100.5	14	20	40	M16×1.5	32	23	8	17	45	29	M8	17	56.5	45	4	3/8"	18	7.5	16.5
80	220	86	134	39	33	95	123	14.5	25	53	M20×1.5	40	26	10	22	45	33	M10	19	72	45	4	3/8"	22.5	9	16.5
100	231	91	140	39	37	115	142	13.5	25	55	M20×1.5	40	26	10	22	55	36	M10	19	89	55	4	1/2"	20.5	13.5	18.5
125	279	119	160	46	46	140	170.5	14.5	32	74	M27×2.0	54	41	13.5	27	60	45	M12	22	110	60	4	1/2"	23	14	23
160	332	152	180	50	50	180	210.5	14.5	40	94	M36×2.0	72	55	18	36	65	58	M16	30	140	65	4	3/4"	25	15	25
200	347	167	180	50	50	220	250.5	14.5	40	100	M36×2.0	72	55	18	36	75	67	M16	30	175	75	5	3/4"	25	15	25

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

Use and maintenance

- Under the condition of locking, there is a great danger to the gas port A when there is no pressure on both sides of the air port. There is a great danger similar to the release of locking, or the sudden release of lock and the piston rod flying. When the locking mechanism is lifted, it is necessary to supply the pressure of the air inlet B and remove the lock mechanism without load.
- If the fast exhaust valve is used to speed down the drop speed, the cylinder phenomenon is sometimes started than the lock pin first and can not be removed normally. Therefore, please do not use the fast exhaust valve with the lock cylinder.
- Please do not use three solenoid valves: please do not combine with three (especially the seal type metal seal) solenoid valve. If pressure is sealed in the air inlet with the locking mechanism side, the lock will not work. In addition, even if it is temporarily locked, the air leaked from the solenoid valve will enter the cylinder, and the lock will be lifted after a period of time.
- If the locking mechanism side bears the back pressure, sometimes the lock will be lifted, so please use a single or integrated individual exhaust type solenoid valve.
- If the cylinder with adjustable cushioning is excessive, if the air cushion valve needle on the locking mechanism side is screwed too much, the piston will sometimes cause restraint at the stroke terminal, causing the damage of the locking mechanism. Therefore, the needle valve should be adjusted to make the piston not be restrained.
- When the manual operation of the locking mechanism is completed, it is necessary to reset the manual device to the in situ. In addition, please do not do manual operation outside the adjustment, otherwise it will be more dangerous.
- When the cylinder is installed and adjusted, please dissolve the lock: in the lock state of the installation and other operations, sometimes it causes the lock-in parts to be damaged.
- Please do not use multiple cylinders at the same time: please do not use more than 2 locking cylinders at the same time to drive a workpiece. Sometimes one of the cylinders will not be locked out.
- Please use the speed control valve in the exhaust throttle control state: in the intake throttling control, it is sometimes impossible to release the lock.
- In the lock side, please be sure to use the terminal of the cylinder stroke: if the piston of the cylinder does not reach the terminal, locking will fail or lock.
- Manual operation is a non locking way to release: pull the lever into the anti falling piston, and pull the bolt out of the 4mm with the force of more than 20N. After the piston is moved away, it can release the lock. (no load level installation or opposite side port pressurization), or after loosened, the anti falling piston returns to the original position through the action of the stop spring and enters the piston rod groove, and the piston becomes locked.

