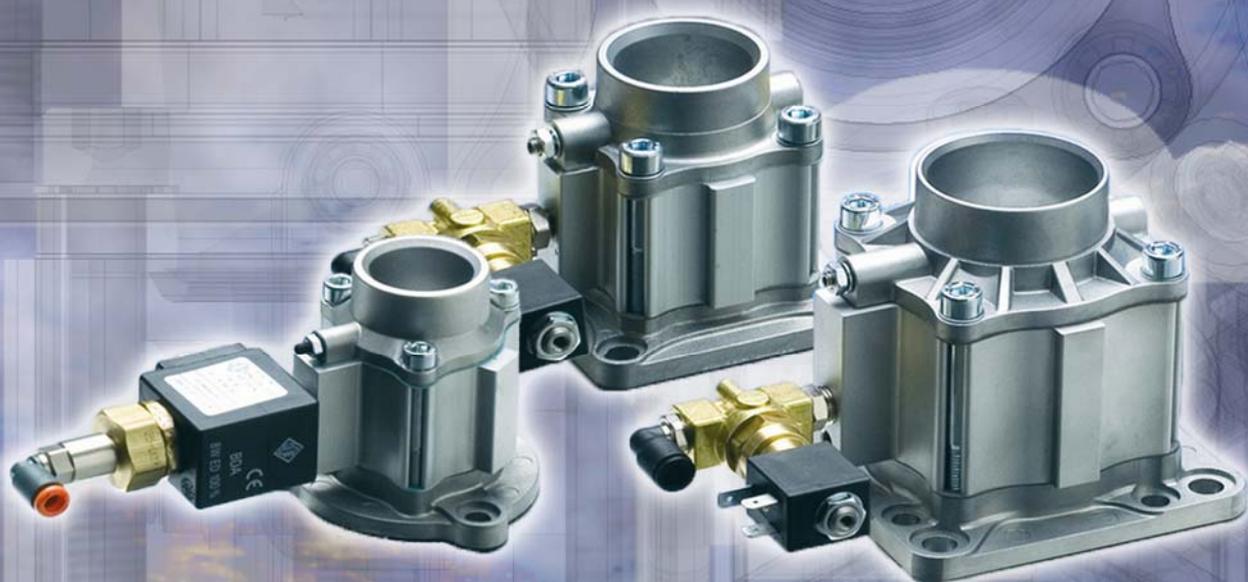


# INTAKE VALVES



Series **SSRA**

Components for compressors FAI FILTRI

# INTRODUCTION

Many years of experience in industrial compressors field, developed with the design and production of oil filtration and air / oil separation systems, has naturally led FAI FILTRI to develop the air flow regulators. The FAI FILTRI intake valves are suitable for rotary screw compressors, **SSRA** series includes three sizes of valves "normally open", applicable to compressors from 3 to 30 kW (flow range from 0.3 to 4.5 m<sup>3</sup>/min).

The **SSRA** series valves are designed with modular philosophy (air filter connection, valve body, compressor pump mounting flange): this allows a large amount of combinations, with potential for application on most of the models of compressors in the European and global landscape.

**SSRA** top range valves perform the functions of flow rate control in load / unload mode, depressurization of the separator oil receiver and maintaining the minimum pressure, and internal closed loop air recirculation.

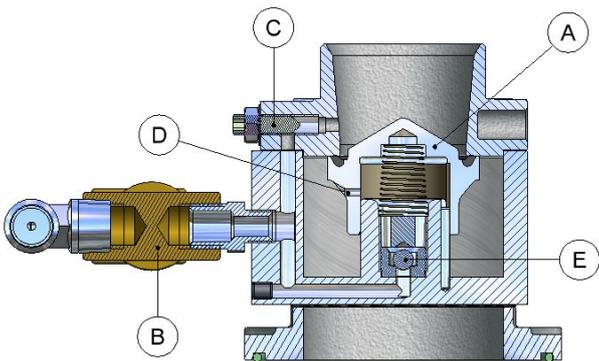
The **SSRA** series valves are also available in the simple "non return" version (no solenoid).

# TECHNICAL DATA

## MATERIALS AND TECHNICAL SOLUTIONS

**SSRA** series has body entirely made of anodized extruded aluminum and flanges in die cast. The shutter is treated with an anti-friction process. The sealing gasket is directly vulcanized into the seat.

## WORKING PRINCIPLE

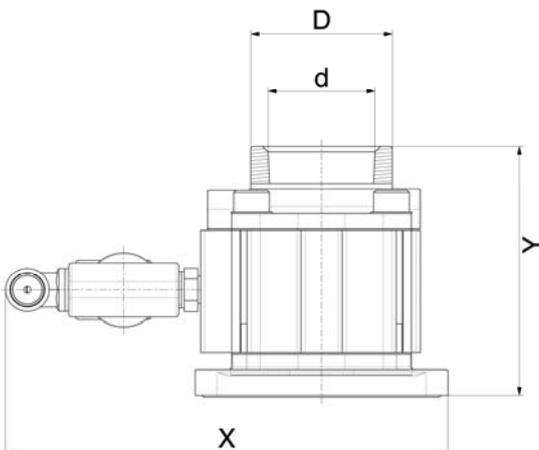


**Load run:** the solenoid valve B is energized (closed); under the shutter there is no pressure, the shutter opens as a result of the suction of the screw element.

**No-load run, internal pressure venting phase:** the solenoid valve B is not energized (open); the air coming from the separator tank closes the shutter A. System air is vented out through the nozzle C, making the depressurization of the separator receiver; the velocity of the venting phase can be managed through the nozzle C. Progressively internal pressure reaches the minimum value; in this condition the shutter is in a "floating" state. The nozzle D produces the closed loop air

recirculation, in order to avoid vibrations phenomena of the screw air end, especially in the first phase of the unload run. The non-return valve E prevents that, in emergency stop, oil invades the pneumatic control circuit.

## DIMENSIONS



	SSRA10	SSRA20	SSRA30
<b>X</b>	179	160	186
<b>Y</b>	85	92	121
<b>D</b>	<i>See the selection table</i>		
<b>d</b>			

# SELECTION TABLE

Type	Parameters for P/N definition				
SSRA zzz	p	q	r	t	u
Valve selection	<b>"zzz" parameter</b>				
	Valve model:	SSRA10	SSRA20	SSRA30	SSRA30
	3 – 7.5 kW 4 - 10 HP	010			
	5.5 – 15 kW 7.5 - 20 HP		020		
15 – 30 kW 20 - 40 HP				030	
Air filter connection diameter	<b>"p" parameter</b>				
	Valve model:	SSRA10	SSRA20	SSRA30	SSRA30
	40 mm	1	-	-	-
	40 mm + 1"	2	-	-	-
	BSP female	3	-	-	-
	3/4"	-	1	-	-
	BSP tap.male	-	2	-	-
	48 mm	-	3	-	-
	51.5 mm	-	4	-	-
	48 mm + 1"1/4	-	-	1	2
BSP female	-	-	1	2	
51.5 mm + 1"1/4	-	-	-	-	
BSP female	-	-	-	-	
59.5 mm	-	-	-	-	
70 mm	-	-	-	-	
Solenoid valve	<b>"q" parameter</b>				
	Valve model:	SSRA10	SSRA20	SSRA30	SSRA30
	24 VAC 50/60 Hz	A	A	A	A
	110 V 50 Hz	B	B	B	B
	120 V 60 Hz	C	C	C	C
	200 V 50 Hz	D	D	D	D
	220 V 60 Hz	E	E	E	E
	230 V 50 Hz	-	-	-	-
	240 V 60 Hz	-	-	-	-
	24 VDC	-	-	-	-
Connection for air filter vacuum switch	<b>"r" parameter</b>				
	Valve model:	SSRA10	SSRA20	SSRA30	SSRA30
	no connection	0	0	0	0
	1/8" BSP female	-	1	1	1
1/8" BSP female plugged	-	2	2	2	
Inlet connection axis	<b>"u" parameter</b>				
	Valve model:	SSRA10	SSRA20	SSRA30	SSRA30
	0°	A	A	A	A
90°	-	B ("p" = 2)	B	B	

AIR END flange					<b>"t" parameter</b>		
Manufacturer	Air end model	SSRA10	SSRA20	SSRA30			
ABAC	TriAB 51	A **	A **	-			
	TriAB 51/I	-	S	-			
	TriAB 69	-	C	A **			
	TriAB 69/I	-	(B **)	-			
AERZENER	VMX22R	-	-	-			
	VMX37D	-	-	D			
	VMX45RD	-	-	D			
ATLAS COPCO	C40	B **	-	-			
	C55	A **	A **	-			
	C77	-	-	A **			
	En53	C **	-	-			
ELGI	En73	-	B **	-			
	MSC60	C **	-	-			
	FS26	-	B **	-			
FINI	FS50FM	-	B **	E			
	LC44	C **	-	-			
	CE55RW	A **	A **	-			
GHH-RAND	OS70	-	-	C			
	ENDURO3	-	-	-			
	ENDURO6	-	B **	-			
Gardner Denver	ENDURO12	-	-	C			
	R186DF	-	C	A **			
	B40	A **	A ** (B **)	-			
ROTORCOMP	B60	-	A ** (B **)	-			
	B101	-	-	E			
	SCA7	C **	-	-			
TMC	SCA8	D	B **	-			
	SCA9	-	-	B			

**Note:** \*\* means "die casted" flange

**EXAMPLE:** SSRA 020 2 A 2 A B

Inlet valve SSRA20, fitting on GHH CE55RW (and others), having solenoid valve 24 VAC, with plugged connection for vacuum switch (air filter clogging detection), with rubber elbow at inlet connection (diameter = 51.5 mm)