

The Original Seat Valve

SRC Sanitary Remote-Controlled Valve

Application

SRC is an air-operated seat valve with a sanitary and flexible design giving a wide field of application, e.g. as a stop valve with two or three ports or as divert valve with three to five ports.

Working principle

The valve is remote-controlled by means of compressed air. It has few and simple moveable parts which results in a very reliable valve.

Standard Design

SRC consists of an actuator, bonnet, lip seal, plug, stem and valve bodies. All components are assembled by means of sanitary clamps and a stem clip-system.

Actuator function

- Pneumatic downward movement, spring return (NO).
- Pneumatic upward movement, spring return (NC).
- Pneumatic upward and downward movement (A/A).
- Actuator for intermediate position of the valve plug as option

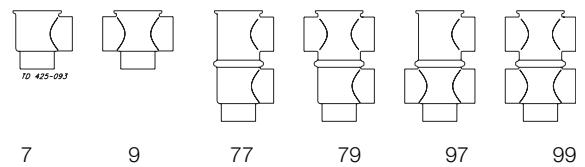
Other valves in the same basic design:

- Air operated seat valve, type 361.
- Air operated seat valve, type 761.
- Aseptic Remote controlled valve, type ARC.
- Sanitary Long Stroke valve, type SRC-LS.
- Sanitary Manual valve, type SMO.
- Sanitary Manual regulating valve, type SMO-R.
- Sanitary Manual valve, type SRC-BC.
- Sanitary Manual valve, type SMO-R, SMO-RA.



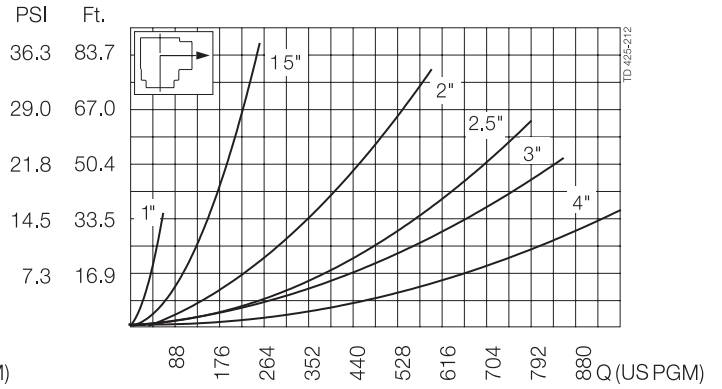
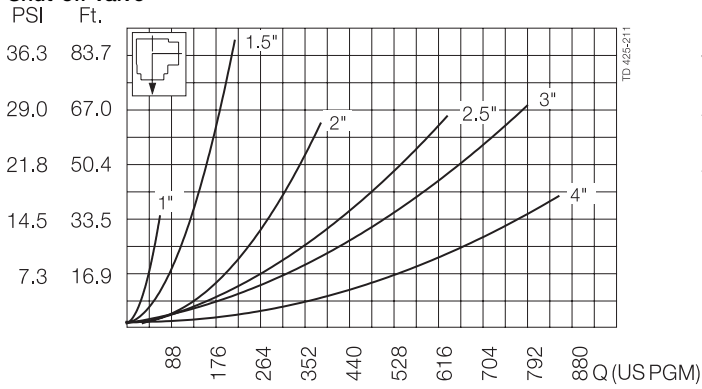
SRC valve with 7 body and ThinkTop®.

Valve body combinations

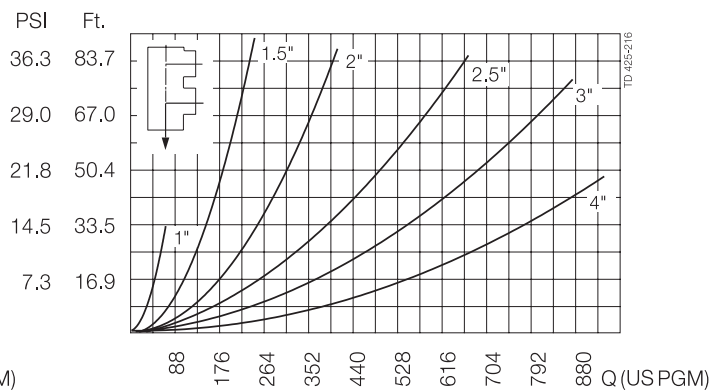
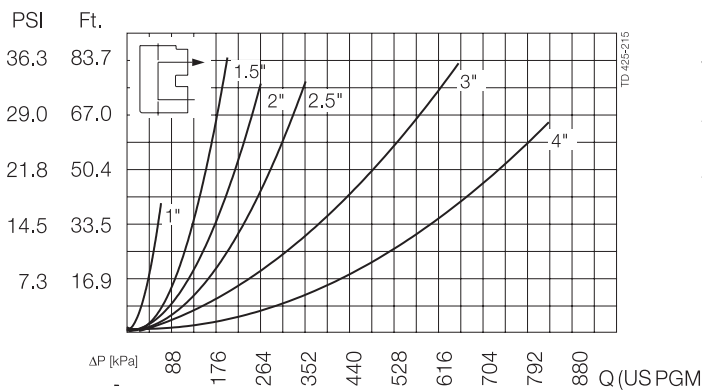
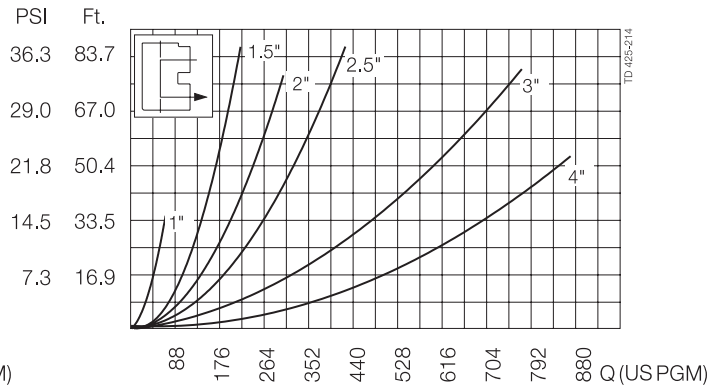
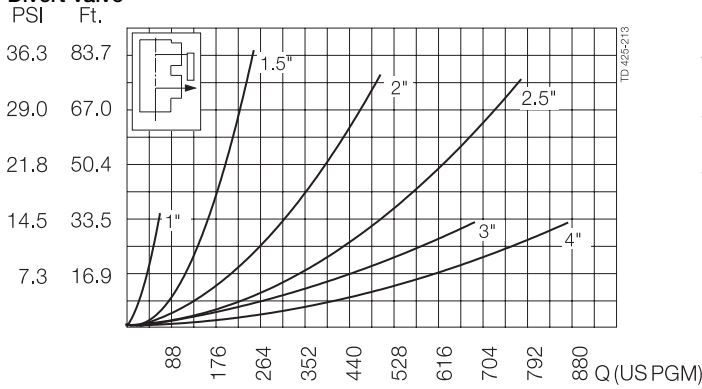


Pressure drop/capacity diagrams

Shut-off valve



Divert valve



NOTE!

For the diagrams the following applies:

Medium: Water (68°F).

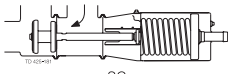
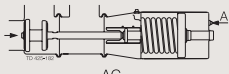
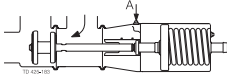
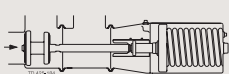
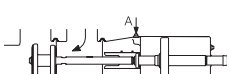
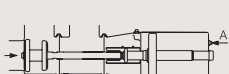
Measurement: In accordance with VDI 2173

Pressure data for SRC

Actuator type / function

- 10. Pneumatic downward movement, spring return (NO-lower seat)
- 20. Pneumatic upward movement, spring return (NC-lower seat)
- 30. Pneumatic upward and downward movement (A/A).
- 60. Three-positions (NO-lower seat).
- 70. Three-positions (NC-lower seat).

Table 1: Stop and divert valves - Max. pressure without leakage at the valve seat

Actuator / Valve body combination and direction of pressure	Air pressure (bar)	Actuator type/function	Valve Size					
			1-inch	1.5-inch	2-inch	2.5-inch	3-inch	4-inch
 <p>SC Spring to close</p>		10(NO) 60(NO)	137	65	65	44	72	50
 <p>AC Air to close</p>	72 87	10(NO) 10(NO)	Min. 145	100 145*	58 80*	44 58*	58 87	36 58
 <p>AC Air to close</p>	72 87	20(NC) 70(NC)	137 Min.145	65 95*	65 95*	44 58*	65 100*	36 58*
 <p>SC Spring to close</p>		20(NC) 70(NC)	Min.145	100	58	36	72 *	50 *
 <p>AC Air to close</p>	72 87	30(A/A)	Min.145	130 145*	130 145*	116 145*	145 145*	108 145*
 <p>AC Air to close</p>	72 87	30(A/A)		145 145*	130 145*	87 145*	145 145*	108 130*

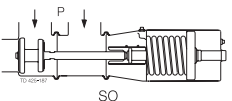
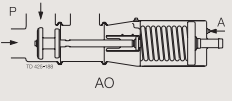
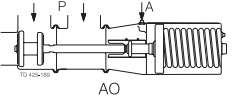
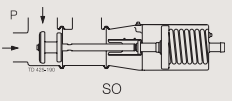
*= Values are valid for air pressure of 87 PSI.

->= Actual product pressure.

Pressure data for SRC

Table 2: Stop and Divert valves - Max. pressure for opening

The table shows the approx. static pressure (P) in PSI against which the valve can open.

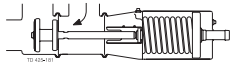
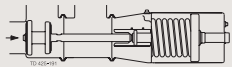
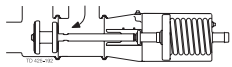

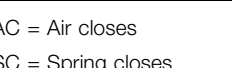
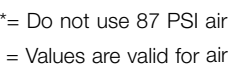
Actuator / Valve body combination and direction of pressure	Air pressure (bar)	Actuator type	Valve size					
			1-inch	1.5-inch	2-inch	2.5-inch	3-inch	4-inch
 <p>SO Spring Opens</p>		10(NO) 60(NO)	Min. 145	130	87	58	108	72
 <p>AO Air Opens</p>	87	10(NO) 60(NO)	Min.145	108	108	80	130	87
 <p>AO Air Opens</p>	87	20(NC) 70(NC)	Min.145	145	108	72	130	87
 <p>SO Spring Opens</p>		20(NC) 70(NC)	Min.145	87	87	72	108	72

*= Values are valid for air pressure of 116 PSI

-> = Actual product pressure

Do not use 87 PSI air pressure

Table 3: Stop and Divert valves with extra strong springs or special cylinder
 - Max. pressure (PSI) without leakage at the valve seat

Actuator / Valve body combination and direction of pressure	Air pressure (bar)	Actuator type	Valve size						Spec. actuator Valve size				
			1-inch	1.5-inch	2-inch	2.5-inch	3-inch	4-inch	1.5-inch	2-inch	2.5-inch		
 SC Spring closes		10(NO)	Min.145	94	94						130	87	
 AC Air closes	72	10(NO)	33	29	0						145	123	87
 AC Air closes	87		145	29*	29*	*	*	*			**	**	**
 AC Air closes	72	20(NC)	58	0	0						130	130	87
 AC Air closes	87		117	29*	*	*	*	*			**	**	**
 SC Spring closes		20(NC)	Min.145	130	79						145	130	87

AC = Air closes

SC = Spring closes

A = Air

-> = Actual product pressure

**= Do not use 87 PSI air pressure

* = Values are valid for air pressure of 116 PSI

Dimensions (in)

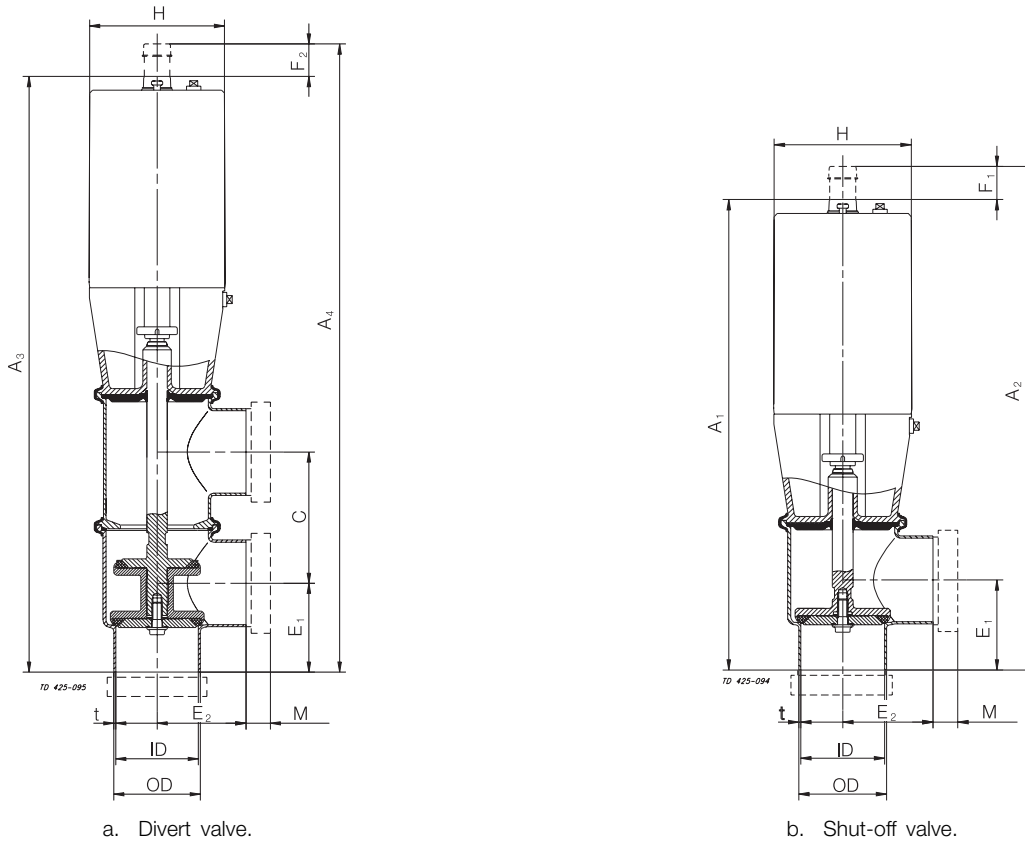


Fig 2. Dimensions.

Size	1-inch	1.5-inch	2-inch	2.5-inch	3-inch	4-inch
A1	12.24	13.58	13.98	15.31	17.91	20.75
A2	13.07	14.56	14.96	16.30	19.17	22.01
A3	14.37	16.37	17.68	19.69	22.99	26.65
A4	15.26	17.36	18.66	20.67	24.25	27.91
C	2.19	3.11	3.70	4.45	5.08	6.42
OD	1.00	1.50	2.00	2.50	3.00	4.00
ID	0.87	1.37	1.87	2.37	2.83	3.84
t	0.059	0.063	0.063	0.063	0.078	0.078
E1	1.19	1.81	2.44	3.23	3.43	5.28
E2	2.24	1.81	2.44	3.23	3.43	5.28
F	0.83	0.98	0.98	0.98	1.26	1.26
H	3.43	3.43	3.43	3.43	5.25	5.25
M/GC-clamp	0.85	0.85	0.50	0.50	0.50	0.63

Caution, opening/closing time:

Opening/closing time will be effected by the following

- The air supply (air pressure).
- The length and dimensions of the air hoses.
- Number of valves connected to the same air hose.
- Use of single solenoid valve for serial connected air actuator functions.
- Product pressure.

Air Connections Compressed air:R 1/8" (BSP), internal thread.

Technical data

Max. product pressure:145 PSI
 Min. product pressure:Full vacuum.
 Temperature range:14° F to 200° F. Temperatures above 200° F require the alternative lip seal option
 Temperature range:73-100 PSI

Air Consumption

Valve Size	NO or NC	A/A
1-inch - 2.5 inch	0.84 x air pressure (PSI)	2.95 x air pressure (PSI)
3-inch - 4-inch	1.68 x air pressure (PSI)	5.47 x air pressure (PSI)

Materials

Product wetted steel parts:Acid-resistant steel AISI 316L.
 Finish:32 Ra
 Other steel parts:Stainless steel AISI 304.
 Plug stemAISI 316L with hard chrome plated stem surface.
 Product wetted seals:EPDM rubber.
 Other seals:Nitrile (NBR).

Options

Equipment

- Male parts or clamp liners in accordance with required standard.
- Control and Indication (see chapter in Product Catalogue).
- Damper against water hammer.
- Actuator with reinforced spring.
- Larger actuator for valve sizes 1.5-inch and 2.5-inch.
- Alternate stem lip seal.
- Two-step or three-position actuator.
- Tangential side port valve.

Material grades

- Industrial finish
- Elastomers of Nitrile (NBR), Fluorinated rubber (FPM) or PTFE

Tools

- Service tools for actuator.
 - Lifting tool
 - Turning tool

Ordering

Please state the following when ordering:

- Size.
- Connections if not welding ends.
- Valve body combination.
- Actuator function, NC, NO or A/A
- Options.