



SURPLUSSING VALVE FOR STEAM

MODEL SP-COSR-16

SELF-ACTUATED BACK PRESSURE CONTROL VALVES WITH UNIQUE PISTON DESIGN

Benefits

Technologically advanced, pilot-operated surplussing valve for accurate back pressure control in process steam or flash recovery systems.

1. Unique Shock-Absorbing Spherical (SAS) piston ensures high accuracy of control, even during severe conditions of varying primary pressure.
2. Unique self-aligning piston design provides for maximum reliability, releasing surplus steam with high responsiveness.
3. Unique two-piece pilot and main valve designs assure seal-tight shutoff under no-flow conditions.
4. Internal screen for pilot extends maintenance-free service.
5. Designed with PTFE gaskets for inspection ease.
6. Capable of internal primary pressure sensing for compact space installation.



Specifications

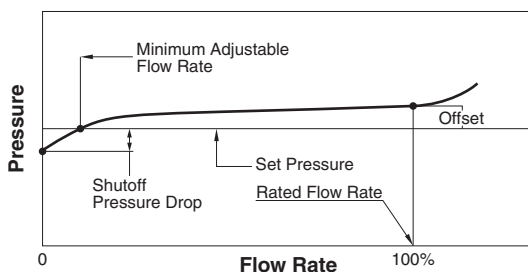
Model	SP-COSR-16	
Connection	Screwed	Flanged
Size (in)	1/2, 3/4, 1, 1 1/4, 1 1/2, 2	1, 1 1/4, 1 1/2, 2
Body Material	Cast Iron (FC250)	
Maximum Operating Pressure (psig) PMO	250	
Maximum Operating Temperature (°F) TMO	428	
Maximum Allowable Pressure (psig) PMA	250	
Maximum Allowable Temperature (°F) TMA	428	
Minimum Adjustable Flow Rate	5% of Rated Flow Rate	
Pressure Setting Range (psig)	15 – 150	
Seat Leakage Rating	Less than 0.05% of Rated Flow Rate	
Shutoff Pressure Drop (psi)	max. 3	
Offset at Rated Flow (psi)	max. 5	

SP-COSR-16 is a non-standard product, consult TLV for delivery time required.



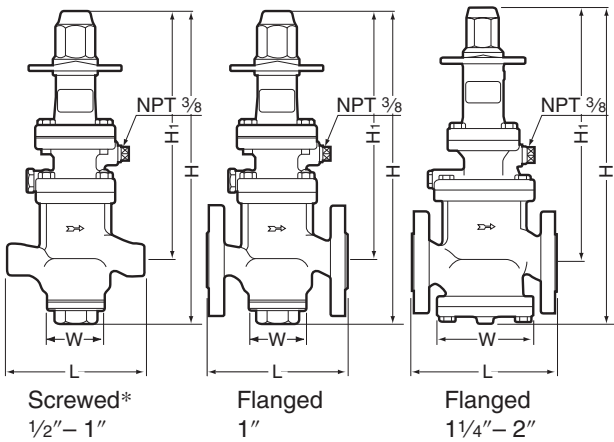
To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

Flow Characteristics



Dimensions

● **SP-COSR-16**



* Configuration of sizes 1 1/4" - 2" bottom cover same as flanged version

SP-COSR-16 Screwed* (in)

Size	L	H	H ₁	W	Weight (lb)
1/2	6 7/8	15 7/16	12 5/8	3 11/16	18
3/4			12 1/2		19
1	7 1/2				22
1 1/4	8 11/16	16 13/16	13 5/16	4 15/16	25
1 1/2					26
2	10 1/4	17 5/8	13 7/8	6 3/16	28

* NPT, other standards available

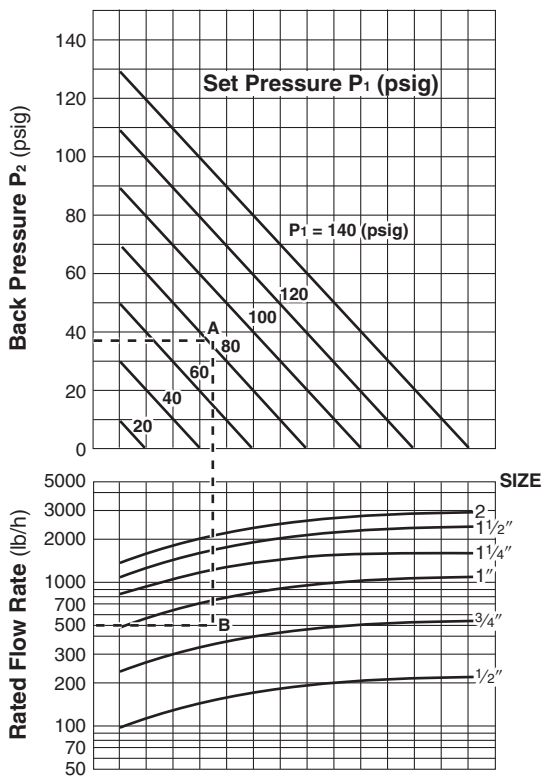
SP-COSR-16 Flanged (in)

Size	L Connects to ASME Class		H	H ₁	W	Weight* (lb)
	125FF	250RF				
1	6 15/16	7 3/8	15 7/16	12 1/2	3 11/16	29
1 1/4	8 1/8	8 11/16	16 13/16	13 5/16	4 15/16	37
1 1/2	8 1/4	8 3/4				41
2	9 3/4	10 1/4	17 5/8	13 7/8	6 3/16	57

Other standards available, but length and weight may vary

* Weight is for Class 250 RF

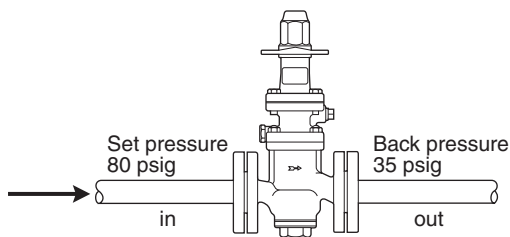
Sizing Charts



Sizing Example

For a set pressure of 80 psig, back pressure of 35 psig and a saturated steam flow rate of 500 lb/h, select an appropriate size.

Locate intersecting point A of 80 psig and 35 psig in the upper graph and go down until 500 lb/h, point B in the lower graph is reached. Since point B is located between 3/4" and 1", the larger size, 1" should be chosen.



DO NOT DISASSEMBLE OR REMOVE THIS PRODUCT WHILE IT IS UNDER PRESSURE.
 Allow internal pressure of this product to equal atmospheric pressure and its surface to cool to room temperature before disassembling or removing. Failure to do so could cause burns or other injury. READ INSTRUCTION MANUAL CAREFULLY.

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Manufacturer
TLV CO., LTD.
 Kakogawa, Japan
 is approved by LRQA Ltd. to ISO 9001/14001

ISO 9001/ISO 14001

