



# SURPLUSSING VALVE FOR STEAM

## MODEL SP-COSR-16

### Features

Pilot operated surplussing valve to rapidly and accurately release excess pressure from steam equipment. Ideal for flash steam recovery systems.

1. The patented self-aligning and shock absorbing spherical piston ensures high accuracy of control.
2. Suplus steam is released with high responsiveness.
3. Proportional regulator with extremely small P-offset.
4. Pilot valve protected by fine mesh screen.
5. Internal pressure sensing channels make external sensing lines unnecessary.
6. Wide pressure range and large capacity.
7. Major internal components made of stainless steel.



### Specifications

Model	SP-COSR-16	
Connection	Screwed	Flanged
Size (mm)	15, 20, 25, 32, 40, 50	
Body Material	Cast Iron (FC250)	
Maximum Operating Pressure (MPaG) PMO	1.57	
Maximum Operating Temperature (°C) TMO	220	
Minimum Adjustable Flow Rate	5% of Rated Flow Rate	
Pressure Setting Range (MPaG)	0.1–1.0	
Valve Seat Leak Rate	max. 0.05% of Rated Flow Rate	
Shutoff Pressure (MPaG)	max. 0.02	
Offset (MPaG)	max. 0.03	

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS):

Maximum Allowable Pressure (MPaG) PMA: 1.57

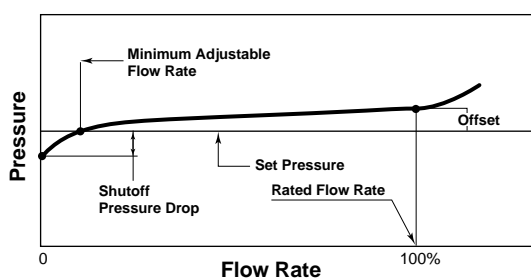
Maximum Allowable Temperature (°C) TMA: 220

1 MPa = 10.197 kg/cm<sup>2</sup>



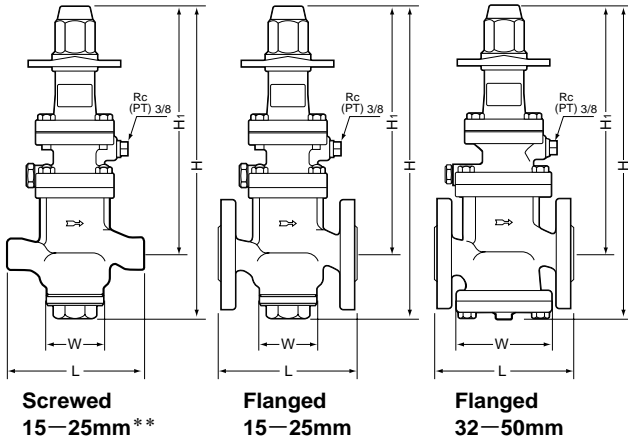
To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the specification range. Local regulations may restrict the use of this product to below the conditions quoted.

### Flow Characteristics



**Dimensions**

● **SP-COSR-16**



**SP-COSR-16 Screwed\*** (mm)

Size	L	H	H <sub>1</sub>	W	Weight (kg)
15	175	392	320	93	9
20			317		9.5
25	190	427	337	126	11
32	220				15
40		16			
50	260	447	350	157	21

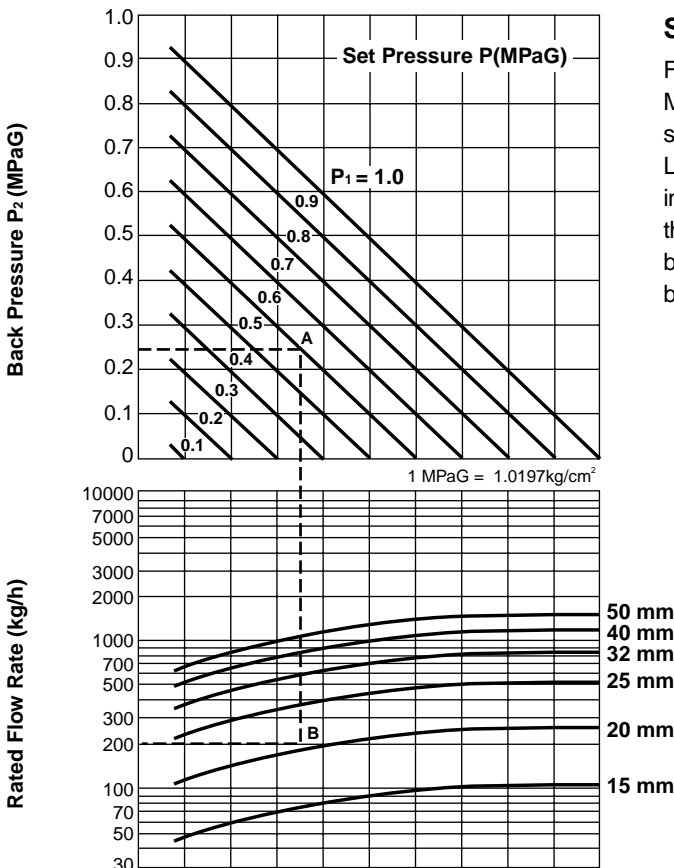
**SP-COSR-16 Flanged\*** (mm)

Size	L	H	H <sub>1</sub>	W	Weight (kg)
15	150	392	320	93	10
20	155		11		
25	160	427	317	126	13
32	190		18		
40	19				
50	220	447	350	157	26

\*\* Shape of 32—50 mm base same as flanged 32—50mm

\* Screwed: Rc (PT), flanged: JIS 10/16K, other standards available

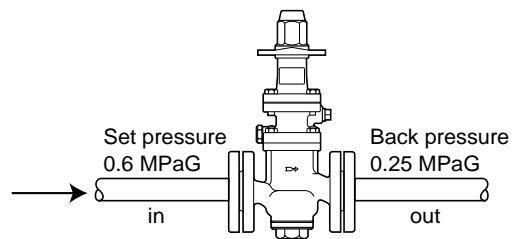
**Sizing Charts**



**Sizing Example**

For a set pressure of 0.6 MPaG, back pressure of 0.25 MPaG and a saturated steam flow rate of 200 kg/h, select an appropriate size.

Locate intersecting point A of 0.6 MPaG and 0.25 MPaG in the upper graph and go down until 200 kg/h, point B in the lower graph is reached. Since point B is located between 20 mm and 25 mm, the large size, 25mm should be chosen.



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

