COSPECT® STEAM PRESSURE REDUCING VALVE

MODEL SCOS-16/SCOSR-16 BRONZE

COMPACT PRESSURE REDUCING VALVE WITH SHOCK-ABSORBING SPHERICAL PISTON

Features

Technologically-advanced compact pilot operated pressure reducing valve for accurate control in process steam systems.

1. Self-aligning shock-absorbing spherical piston and advanced pilot regulator designs maintain secondary steam pressure accuracy, even during adverse process conditions.
2. Major internal components made of stainless steel for long service life.
3. Large surface area integral screen for pilot valve extends trouble-free service.
4. Internal secondary pressure-sensing channel makes external sensing lines unnecessary.
5. SCOS-16 has a built-in separator, with condensate separation efficiency as high as 98%, a self-modulating free float steam trap and a large screen to protect the main valve.

Specifications

Model	SCOS-16	SCOSR-16
Connection	Screwed	
Size	½″, ¾″, 1″	
Body Material	Bronze	
Maximum Operating Pressure (barg) PMO	16	
Maximum Operating Temperature (°C) TMO	220	
Primary Pressure Range (barg)	2 – 16	
Adjustable Pressure Range (all conditions must be met)	Within 10 – 84% of primary pressure but with a minimum pressure of 0.3 barg	
	Differential pressure between 0.7 – 8 bar	
Minimum Adjustable Flow Rate	10% of rated flow rate	
Special Features	Built-in cyclone separator and steam trap	—

PRESSURE SHELL DESIGN CONDITIONS (**NOT** OPERATING CONDITIONS): 1 bar = 0.1 MPa
Maximum Allowable Pressure (barg) PMA: 16
Maximum Allowable Temperature (°C) TMA: 220

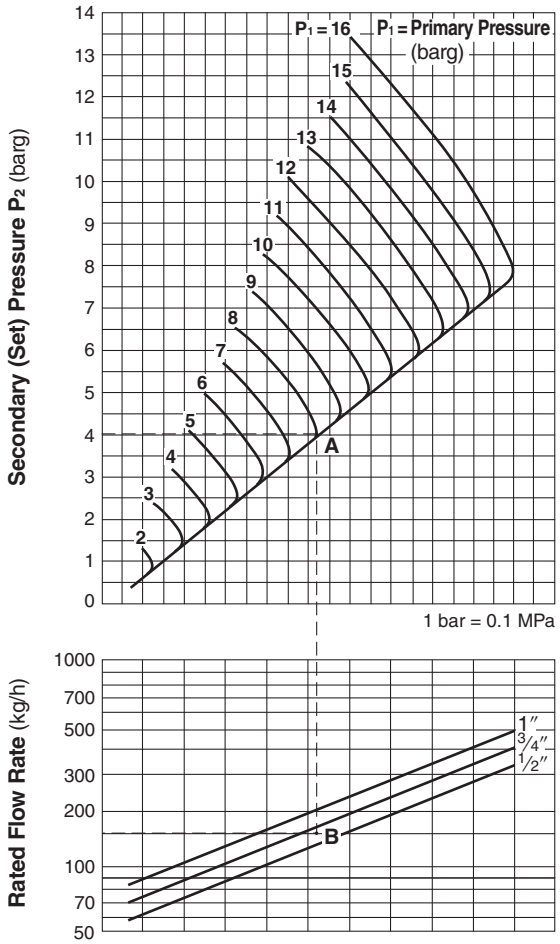
⚠ CAUTION To avoid abnormal operation, accidents or serious injury, DO NOT use this product outside of the secification range. Local regulations may restrict the use of this product to below the conditions quoted.

Cv & Kvs Values

	Nominal Valve Size		
	½″	¾″	1″
Kvs (DIN)	1.0	1.3	1.5
Cv (UK)	1.0	1.2	1.5
Cv (US)	1.2	1.5	1.8

⚠ CAUTION The Cv & Kvs values shown are for the valve in the full fail open position. These values are not to be used for SCOS/SCOSR sizing, and instead may be used as one of the factors in calculations for safety valve selection.

Sizing Chart

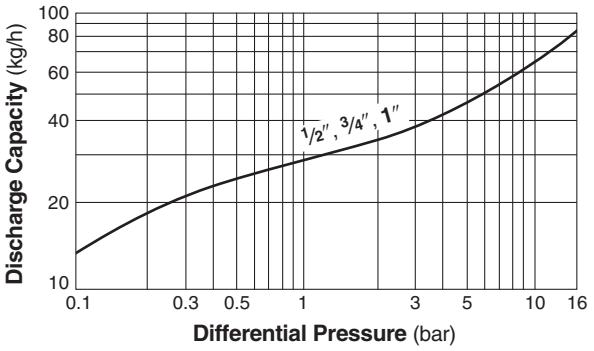


Sizing Example

For primary pressure of 10 barg, set pressure 4 barg, and saturated steam flow rate 150 kg/h select an appropriate size.

1. Locate intersecting point A of 10 barg primary pressure and 4 barg set pressure. Go to point A and down until 150 kg/h, point B, is reached.
2. Since point B is located between ½″ and ¾″, the larger size, ¾″, should be chosen.

Trap Discharge Capacity (SCOS-16)

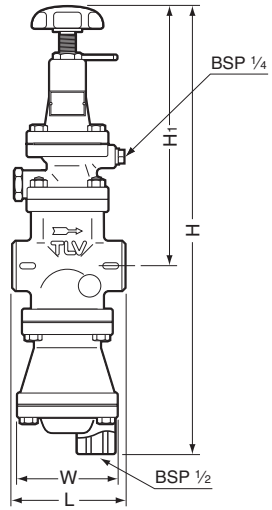


Note: 1. The discharge capacity is the maximum continuous condensate discharge 6 °C below saturated steam temperature.
2. The differential pressure is the difference between the SCOS/SCOSR inlet and the trap outlet pressure.

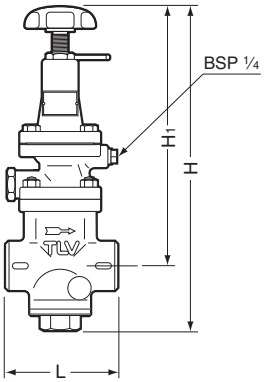
CAUTION DO NOT use this product under conditions that exceed maximum differential pressure, as condensate backup will occur!

Dimensions

SCOS-16



SCOSR-16



SCOS-16 Screwed* (mm)

Size	L	H	H_1	W	Weight (kg)
½″	100	400	235	88	7.2
¾″					
1″					

* BSP DIN 2999, other standards available

SCOSR-16 Screwed* (mm)

Size	L	H	H_1	Weight (kg)
½″	100	290	232	4.4
¾″				
1″				

* BSP DIN 2999, other standards available

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