

INSTALLATION AND MAINTENANCE INSTRUCTIONS PRESSURE SUSTAINING VALVES PS30 – PS31

GENERAL

- These instructions must be carefully read before any work involving products supplied by VALSTEAM ADCA ENGINEERING S.A. is undertaken.
- The installation procedure is a critical stage in a life of a valve and care should be taken to avoid damage to the valve or equipment.
- Sustaining valves are designed to maintain the upstream pressure under control in those systems where a limit flow rate is available and is necessary to guaranty the supply of some critical process applications. They give their maximum performance only when the equipment associated with them is correctly sized and installed in accordance with our recommendations.

Warning!

- If malfunction of any other equipment or system operation failure may result in a dangerous overpressure, over temperature or even vacuum condition, a safety device must be included in the system to prevent such situations.
- At start up, the presence of small particles in the fluid (dirt, scale, weld splatters, etc) may cause an imperfect closure of the seat. If this occurs, proceed to an accurate cleaning.
- Do not touch the equipment without appropriate protection during working operation because it may conduct heat if the used fluid is at high temperature.
- Before starting maintenance be sure that the equipment is not pressurized or hot.
- The equipments must be used within the working temperature and pressure limits laid down for them, otherwise they may fail (refer to nameplate and/or IS- Information Sheet).
- Do not remove the nameplate attached to the equipment. Serial number and other useful information is stamped on it.
- The valve is not suitable for oxygen service.

INSTALLATION



ATTENTION

- Prior to install check that the product is suitable for the intended application: materials and pressure/temperature ratings.
- Before to install remove plastic covers placed on flanges or connection ends. The equipment has an arrow or Inlet/Outlet designations. Be sure that it will be installed on the appropriate direction.
- Take care with jointing material to ensure that none may be permitted to block or enter the valve.
- Sustaining valves are recommended to be fitted with the centre line of the valve in a vertical position to ensure that the best results are obtained.
- An ADCA pipeline strainer should be installed upstream of the valve to protect from dirt which could damage the valve or cause mal-functioning.
- The sustaining valve pipework should be properly supported and free from strain and it should not be subjected to undue surges of pressure.

For installations where gas and condensate can be present, we strongly recommend that the sustaining valve is positioned where condensation is unable to collect or that, alternatively, separators and steam traps are fitted so that the pipework drains correctly. The start up condition should be considered.

Installation area requirements:

- The installation area should have easy access and provide enough space for maintenance and removing operations.
- The installation area should have the necessary firing system to prevent damage of the equipment due to over temperature/pressure cause by fire.

MAINTENANCE

- We recommend that the pressure sustaining valves to be serviced as necessary. Pressure sustaining valves should be checked periodically (at least yearly), to verify that they are operating correctly and to clean the internal parts (if any).
- When reassembling makes sure that all gasket faces are clean and always use a new gasket. Tighten cover bolts uniformly in a diagonal sequence.
- Valves in store for long periods should have their adjusting spring relaxed.
- For further information refer to the relevant PRV brochure or consult our Sales Office.

CE MARKING (PED - European Directive)	
PN63	Category
DN15 to DN32	SEP
DN40 to DN50	1 (CE Marked)

LIMITING CONDITIONS	PS30SS	PS31SS
Body design conditions	PN63	PN63
Max. upstream pressure	15bar	50bar
Min. upstream pressure	0,2bar	3bar
Max. Design temperature *	80°C	80°C

*Other on request

Recommended limit of operation (°C)						
EPDM (E)	NBR (N)	VITON (V)	PTFE (T)			
130°	95°	180°	180°			
Pressure ranges (bar)						
Spring Nr.	1	2	3	4	5	6
PRV30SS	0,2-1,5	0,3-3	0,8-8	1,5-15	-	-
PRV31SS	-	-	-	-	3 - 30	5 - 50

It is preferable to select a range spring where the desired reduced pressure is at upper end of range.

USEFUL NOTES ON VALVE AND PIPE SIZING

If the flow is unknown it's possible to estimate it based on pipe size or equipment heat requirements - please consult.



ATTENTION

- **LOSS OF WARRANTY:** Total or partial disregard of above instructions involves loss of any right to warranty.