



# INSTALLATION AND MAINTENANCE INSTRUCTIONS PRV - PRESSURE REDUCING VALVES

**PRV25I - PRV25IG - PRW25I** 

#### **GENERAL**

- 1. These instructions must be carefully read before any work involving products supplied by VALSTEAM ADCA ENGINEERING S.A. is undertaken.
- 2. 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.
  - Reducing valves are designed to give accurate control of down-stream pressures. 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 unperfected 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**

- 1. Prior to install check that the product is suitable for the intended application: materials and pressure/temperature ratings.
- 2. 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.
- 3. Take care with jointing material to ensure that none may be permitted to block or enter the valve.
- 4. Reducing 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.
- 5. An ADCA pipeline strainer should be installed upstream of the valve to protect from dirt which could damage the valve or cause mal-functioning.
- 6. The reducing valve pipework should be properly supported and free from strain and it should not be subjected to undue surges of pressure.
  - For steam installations we strongly recommend that the reducing 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.
- 7. A balance pipe must be connected downstream at least 1 metre from valve. See AS.PR25.









#### **MAINTENANCE**

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

LIMITING CONDITIONS				
	PRV25I	PRV25IG	PRW25I	
Body design conditions	PN25	PN25	PN25	
Max.upstream pressure	17 bar	17 bar	14 bar	
Max.downstream pressure	8,6 bar	8,6 bar	8,6 bar	
Min.downstream pressure	0,14 bar	0,14 bar	0,35 bar	
Max.design temperature	210°C	180ºC	75°C	
Max.cold hydraulic test	38 bar	38 bar	38 bar	
Max.reducing ratio	10:1	10:1	10:1	

PRESSURE RANGES				
Spring colour	Blue *	Yellow **	Green	Red
Red.Press. bar	0,35 - 1,7	0,14 - 1,7	1,4 - 4,0	3,5 - 8,6

<sup>\*</sup>Applicable only on the PRW; \*\* Appl.only on the PRV

Where control spring ranges overlap, always use the lower

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 is possible to estimate it based on pipe size or equipment heat requirement-please consult.

CE MARKING (PED - European Directive 97/23/EC)		
PN 25	Category	
DN15 to DN32	SEP - art. 3, paragraph3	









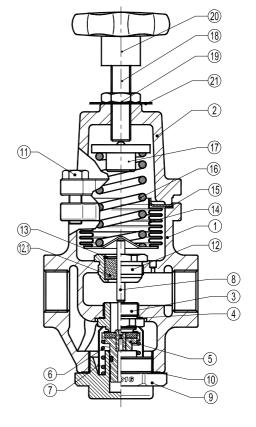
# PARTS LIST FOR PRV25I PRESSURE REDUCING VALVES:

CODE	DESIGNATION	VALVE SIZE DN	POS.NR.	QTY.
VR.9610.015	Bellows and body gasket	15 - 25	14,15	1 set
VR.9610.115	Spring and body gasket 0,35-1,7 bar	15 - 25	15,16,21	1 set
VR.9610.215	Spring and body gasket 0,14-1,7 bar	15 - 25	15,16,21	1 set
VR.9610.315	Spring and body gasket 1,4-4 bar	15 - 25	15,16,21	1 set
VR.9610.415	Spring and body gasket 3,5-8,6 bar	15 - 25	15,16,21	1 set
VR.9614.015	Metal plug	15 - 25	5,6,7,10	1 set
VR.9614.020	Metal plug	15 - 25	5,6,7,10	1 set
VR.9614.025	Metal plug	15 - 25	5,6,7,10	1 set
VR.9615.015	PTFE/GR plug	15 - 25	5,6,7,10	1 set
VR.9615.020	PTFE/GR plug	15 - 25	5,6,7,10	1 set
VR.9615.025	PTFE/GR plug	15 - 25	5,6,7,10	1 set
VR.9616.015	NBR plug	15 - 25	5,6,7,10	1 set
VR.9616.020	NBR plug	15 - 25	5,6,7,10	1 set
VR.9616.020	NBR plug	15 - 25	5,6,7,10	1 set

# Recommended tightening torques:

Pos.Nr.	Valve Size	Nm
3	DN 15 - 25	100-110
9	DN 15 - 25	65-75
11	DN 15 - 25	20-25

Remarks: tighten cover bolts uniformly



LOSS OF GUARANTEE: Total or partial disregard of above instructions involves loss of any right to guarantee.



