



PRE-VENT[®] - Valves

GENERAL INSTALLATION AND OPERATING INSTRUCTIONS

Contents:	Page
INTRODUCTION	2
RANGE OF APPLICATION	2
PRODUCT DESCRIPTION	2
1. INSTALLATION	2
2. TRANSPORT	2
3. STORAGE	2
4. PRE-CONDITIONS FOR INSTALLATION	2
5. ERECTION/COMMISSIONING	3
5.1 FLANGED CONNECTIONS	3
5.2 WELDED CONNECTIONS	4
6. MAINTENANCE	4
7. REPAIR	4
8. DISPOSAL	4
9. CONTACTING US	4

In buying a Pre-Vent regulating and on/off valve, you have acquired a product manufactured in accordance with the latest regulations and guidelines, and one complying with the stringent requirements of our Quality Management system conforming to ISO 9001.

To ensure trouble-free and safe operation with the valve, it is essential familiarise yourself with the contents of these general instructions for installation and operation, before installing and commissioning the valve.

Failure to observe or comply with these operating instructions will invalidate the manufacturer's guarantee and liability. The manufacturer's general conditions of sales and terms of delivery shall apply unless otherwise stated.

Range of application:

These operating instructions apply to all valves manufactured by Pre-Vent GmbH.

Product description:

Pre-Vent valves are designed first and foremost to operate as active elements in a production sequence, regulating or controlling the flow of fluids, gases or vapours. They are generally controlled via external regulation and control circuits.

As a rule our valves consist of the actuator itself, the drive (pneumatic or electrical), and various components such as position regulators, solenoid valves, filter regulator stations etc.

The individual components and peripheral equipment are covered by the operating instructions from the component and equipment manufacturers.

1. Installation

The actuator may only be erected and commissioned by trained and experienced personnel. Experienced personnel are persons who are familiar with the erection, commissioning and operational requirements, and especially with the safety requirements, and who can demonstrate corresponding certification for their activities. Special care must be taken during installation to avoid stressing pipework.

2. Transport

Actuator valves are generally supplied complete with drives and peripheral equipment all fitted and tested. It is therefore essential to follow the correct procedures with the valves during transport and unpacking, to avoid later problems in use. If lifting equipment has to be used on account of the weight, it must be ensured that the maximum permitted loading forces are not exceeded and that the lifting equipment has been tested. Valves that are supplied with a lifting lug should be lifted by this lug. For all other transport, care should be taken that the peripheral devices mounted on the valve are not affected or damaged.

3. Storage

Prior to erection on site, the valves must be stored so that they are protected against the effects of weather, dirt and other harmful influences. Long-term storage (> 6 months) must absolutely be avoided, as this may lead to leakage within the valve or at the gland seals. It must be ensured that during storage all orifices in the valve are sealed with blind plugs or other similar seals.

4. Pre-conditions for installation

The factory pressure tests, seal tests and functional tests, and the works Quality Management system, ensure that the construction of the valves complies with that stated in the contract.

Before installing the valve, it must be ensured that the pipework into which the valve is to be installed has been carefully cleaned and is free of dirt and impurities. Particular care must be taken that there are no metal particles or objects in the pipework, which could damage the valve if they come in contact with it.

5. Erection/commissioning

The following points must be checked prior to erection or commissioning of the valve.

Check before erecting:

- a) Does the design and rating of the valve correspond to its intended use? A valve that is not correctly rated for the use to which it is put may become damaged, and may cause a breakdown of the production plant or injury to personnel.
- b) Is the rating and functional data in full agreement with the operating data for the plant?
- c) Is sufficient space available at the erection site, so that the valve can be installed without any problem or safety risk?
- d) Has the pipework been cleaned in accordance with the requirements?
- e) Have all blind plugs and locking caps been removed from the valve, so that the valve will not be obstructed when it is installed?
- f) Is the valve visibly clean and in good order?

Check before commissioning:

- a) Does the direction arrow on the valve casing match the direction of flow of the medium?
- b) Is the pipework in order and are the pipework flanges axially aligned and parallel?
- c) Does the separation of the pipework end-flanges match the installed length of the valve?
- d) Is the mounting position given with the valve spindle vertical?
If this is not the case, the valve should be underslung or suspended under the drive. If attention is not paid to the mounting position, premature leakage of the outer seal (gland) may occur, for which the supplier will not be liable.
- e) Is the gland packing tightened?
If the gland packing is not tightened, external leakage may occur, for which the supplier will not be liable.
- f) Is there an appropriate de-stressing section both before and after the installation point? If the de-stressing section is too short (< 5x pipework diameter) it may cause undesirable fluid-flow effects, which may affect the operation of the valve or in the worst case may cause long-term damage to the valve.
- g) Is potential equalisation provided?
For valves of ATEX 100 design, the valve itself must also be earthed.
- h) Earthing must be provided for valves with electrical drives > 40 V.

Commissioning

The following risks may occur during commissioning:

- a) Critical operating conditions may lead to unacceptable noise emission and vibration.
- b) Incorrect installation may lead to damage to the valve or to the plant.
- c) The temperature of the medium is transmitted to the surface of the medium.
- d) Due to the risk of injury, do not place your hands between the yoke or the columns and the valve spindle. There is a serious risk of injury due to crushing.

Since the sources of danger lie within the field of operations, the Operator must take care that:

The Operator must ensure that all national and international environmental requirements are taken into account and all corresponding limiting conditions for the workplace are complied with. These must be maintained by means of specific site protection measures, and the Operator must instruct his personnel in these measures.

5.1 Flanged connections

Connecting material such as seals, bolts and nuts are not included in the scope of supply.

The Operator must confirm that the connection of the pipework with the valve has been carried out in every respect in accordance with safety and current regulations. The manufacturer of the valve accepts no responsibility for leaks between the pipework flange and the valve.

5.2 Welded connections

Welding must comply with the current welding guidelines.

When welding the valve casing into the pipework, all internal components such as the valve seat and valve body must first be removed, along with any attachments. Ensure that the pipework is cleaned again after welding and that the casing has cooled down after being annealed, before the valve components are re-assembled again.

6. Maintenance

Caution: Do not over-tighten the gland, this may cause locking of the valve.

7. Repair

Never open a valve when it is under pressure, there is a serious risk of injury. Installation and repair may only be carried out by trained and experienced personnel.

For spare parts lists and instructions on repair, please refer to the individual equipment manufacturer's operating instructions, where available, or consult the Technical Support

8. Disposal

If valves are to be taken out of service and disposed of, they must be cleaned of any dangerous or harmful product residues. The materials must be disposed of in accordance with the current regulations.

9. Contacting us

Details / specific information (Operating instructions with spare parts lists) are available for download on our website.

PRE-VENT GmbH

Sales - Production - Servicing

Gewerbepark Lindach A9
84489 Burghausen, Germany

Tel: +49 8677 98788-0

Fax: +49 8677 98788-80

Email: office.pre-vent@fiwagroup.com

Web: www.pre-vent.com

Manual version 1.1 08.11.2010