

INSTALLATION, OPERATION & SAFETY MANUAL OF DJK SLEEVED PLUG VALVE

0 Introduction

These instructions are to support the user with installation, operation and maintenance of valves.


1 Safety notes

1.1 General safety notes

The same safety regulations apply for valves as for the piping system in which they are installed and as for the control system to which the actuator is connected. The instructions available provide only such safety notes which are to be observed additionally for valves.





1.2 Safety notes for the operator

It is not within the responsibility of the manufacturer, and thus when using the valve, to ensure that the valve is used as intended in such a way as described

 Danger	Safeguard against improper use of the valve: It must be particularly ensured that the selected materials of the wetted parts of the valve are suitable for the used media. Ignorance of these precautionary measures can mean danger for life and limb and cause damage in the piping system.
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- An actuator or a manual operating possibility which has been installed subsequently onto the valve, and adapted to the valve is adjusted correctly in both end positions of the valve.
- Only for pressure-conducting pipelines, qualified employee operates, services and repairs the valve.
- This employee knows these operating instructions and observes them fully.

1.3 Special types of danger

 Danger to life	Before loosening the screw connection at the cover or before dismantling the valve of the pipeline, the pressure in the pipeline must be completely diminished , so that the media does not escape unchecked from the line.
 Danger	<i>For valves, which are used as end valve:</i> During normal use, in particular with gas-like, hot and/or dangerous media a blind flange must be mounted at the free connecting pieces or the valve must be securely locked in „CLOSE“-position.
 Danger	If a valve has to be opened as end valve in a pressure containing line, this may take place with all caution only in such a way that the spurting media does not cause any damage.
 Danger	If a valve must be disassembled from a pipeline, media can escape from the line or from the valve. With unhealthy or dangerous media the pipeline must be completely emptied before the valve is disassembled. Caution with residues which reflow from the line or which have remained in body cavities of the valve (under pressure) .


2 Transport and storage

Valves must be treated, transported and stored carefully:


- The valve is to be stored in its protective package and/or with the protective caps at the connection ends. Valves which are heavier than approx. 10 kg, should be stored and transported on a pallet (or similar supported) (also to the installation place).
- With storage before installation, valve, gear and actuator are to be protected from damaging influences such as dirt or humidity and are to be stored at ambient temperature.
- Particularly the lining of the flange sealing surfaces may not be damaged during transport and storage. Do not stack valves!
- Valves must be stored in such a way as they were supplied. The operating device may not be activated.

3 Installation into the piping


3.1 General instructions

 Caution	<i>The valve is fully lined:</i> Handle the valve particularly carefully and observe the instructions for the flange connection
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3.2 Working steps


 Caution	The valve must be transported in the protective package to the installation place and may be only removed there. In each case the flange coverings may and must only be removed immediately before the installation of the valve.
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- Examine valve, gear and actuator for transport damage. Damaged units may not be installed.
- Ensure that only valves are installed whose pressure class, type of connection and connection dimensions correspond to the application conditions. The connection data for the actuator must correspond with the data of the control.
- The identification must remain also identifiable after the commissioning.
- The counter flanges of the piping must align and be parallel to the plane.


 Caution	Connection flanges which do not align / which are not parallel could damage the lining of the valve.
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- Before the installation, the valve and the subsequent piping must be cleaned carefully of dirt, in particular from hard foreign substances.
- Particularly the sealing surfaces at the flange connection and the sealings must be free of any contamination when installing.

4 Tightening of the flanges screws

 Caution	<i>The lining at the flange packing surfaces may not be overloaded:</i> The tightening torque of the flange screws is to be limited in each case to the value which is determined for the PTFE-flat gaskets at flange connections according to the relevant regulations. In limit cases 10% higher tightening torques are permitted. Otherwise the lining at the flange can be damaged and the valve becomes useless.
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- For the connection of the actuator unit to the control, the appropriate instructions apply.


 Danger	Faulty executed control commands could mean danger for life and limb and cause damage to the piping system .
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5 Pressure test of the piping section

For the pressure test of the valves the same instructions apply as for the piping. Additionally applies:

- Rinse new installed line systems carefully in order to wash out foreign substances.
- Fill and vent the line for the pressure test after the rinse.

 Caution	<i>For the protection of the lining of the body:</i> The test pressure of fully lined valves is to be limited in each case to 11 bar . The valve may thereby not be closed. A higher test pressure could make the valve unusable.
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 Caution	<i>If a flange connection with lining is leaky:</i> Retighten first of all the flange connection with the torque according to Section 4 <Working steps>. If necessary, this torque can be increased by 10% - as described. Check the packing surfaces at all flanges: If the lining is damaged, the valve and/or counter-flange must be exchanged.
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6 Normal operation and maintenance

The valves are to be operated manually or with the signals of the control. Valves which were supplied ex factory with actuator or gear are exactly adjusted and may not be adjusted as long as a valve operates perfectly.

For the manual operation or the hand emergency operation at the actuator (if available) normal hand force is sufficient; the usage of extension for the increase of the actuation moment is not permissible.