ZETKAMA

INSTALLATION AND MAINTENANCE MANUAL	
CONTROL VALVE	**Fig. 227**

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1. GENERAL PRODUCT INFORMATION

This manual covers control valves produced by ZETKAMA. The valves are designed both for closing and throttling flow of a medium.

Fittings manufactured by ZETKAMA, including control valves, have a permanent marking in accordance with the requirements of the standards. Marking facilitates technical identification and includes:

- nominal diameter DN (mm),
- nominal pressure PN (bar),
- identification of the body and cover material,
- arrow indicating the direction of flow,
- symbol of the manufacturer,
- date of casting,
- CE mark for valves subject to Directive 97/23/EC.

Trouble-free operation of valves is ensured with proper installation and maintenance. However, compliance with requirements contained in this manual is essential. ZETKAMA shall not be held responsible for the consequences of misconduct. It is unacceptable to operate the valves in excess of the maximum parameters and use of the valves for medium for which they are not intended (as specified in the product data sheet). Local requirements and applicable provisions of the user of the valve and industrial plant should be observed. Note that ignoring the above warnings could cause environmental risks, physical injury or damage to an industrial plant. In case of doubt, please contact directly with ZETKAMA.

2. REQUIREMENTS FOR MAINTENANCE STAFF

Staff assigned to assembly, operating and maintenance should be qualified to perform this work. If this requirement is not met, it is necessary to train the staff and check by a designated supervisor that the instructions are known and understood to the staff. In case of using mechanical actuators for valve, their operating manual must be observed. During valve operation, if hot or cold valve parts such as knob, body or cover parts may cause a hazard, the user must be protected against accidental contact.

3. TRANSPORT AND STORAGE

Transport and storage should be carried out at temperatures from -20° to 65°C, and the valves must be protected against external forces and damage to the paint coat. It is not permitted to attach lifting equipment to the connecting holes. The valves must be stored in dirt-free and weather protected rooms.

4. APPLICATION

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Control valves are used for closing and hydraulic control in heating, ventilation and air conditioning installations. The valves can be installed in both supply and return pipelines.

5. INSTALLATION

The following rules must be observed during installation:

- before installation, determine whether the valves are not damaged during shipment or storage,
- make sure that the used valves are suitable for working conditions and media in the given plant,
- remove plugs if there are any,
- for welding the valves must be protected from splashes and the used plastics from excessive heat,
- the pipeline to which the valves are fitted should be arranged and mounted in a way that the valve body is not subjected to bending moment and stretching,
- screw connections on the pipeline must not cause additional stress resulting from excessive tightening, and fastener materials must be adapted to the operating parameters of the installation,
- protect the stem and actuator components of the valve while pipeline painting,
- valves can be mounted in any position, upper actuator position is recommended,
- after installing the valve, its actuator should be installed following the guidelines in a manual that came with the actuator,
- pay attention to the direction of flow, indicated by an arrow on the body,
- before starting the installation, especially after carried out repairs, rinse the pipeline through with the valve fully open to remove solids or spatter from welding harmful to the sealing surfaces.

6. OPERATION

The following rules must be observed during operation:

- start-up process – commissioning should be carried out in a way that eliminates the occurrence of sudden changes in temperature and pressure,
- in the event of power failure in the power installation supplying the actuator, it is possible to control the valve with emergency actuator knob (see the actuator manual),
- operation of mounted valves can be checked by their repeated opening and closing,
- to ensure safe operation, each valve, especially the ones that are rarely used, should be regularly inspected.

7. MAINTENANCE AND REPAIR

All service and repair works should be performed by qualified personnel using suitable tools and genuine replacement parts. Before removing the complete valve from the pipeline or before maintenance, the given pipeline section should be put out of service. For maintenance and repair:

- reduce pressure and temperature of the valve to a safe level,
- use personal protective equipment appropriate to the risk involved,
- after removing the valve, replace the seals with which the valve is connected to the pipeline system,
- screw connections of the cover should be tightened in open valve,

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- when reassembling the valve it is necessary to check valve operation before restarting.

8. Decommissioning

After decommissioning and dismantling the valves must not be disposed of with household waste. Valves are made of recyclable materials. Deliver them to a recycling centre.

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