

**USERS MANUAL**

**BALL CHECK VALVE zCHE**

**Fig. 400, 401**

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Fig.400

Fig 401

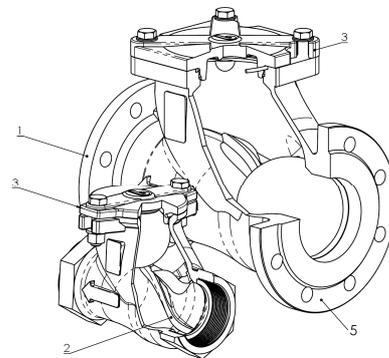
**1. PRODUCT DESCRIPTION**

The valves in series 400 and 401 are manufactured in accordance with the most severe product norms, and in conformity with the quality requirements of EN ISO 9001. Figure 400 available from DN 25 to DN 500, figure 401 from DN 25 – DN 80

Accessories:

- Spare ball
- Spare seals

1. Internal and external epoxy coating.
2. The ribs guide the ball, reducing erosion and noises.
3. The cover enables easy maintenance. For DN 80, and above, the shape of the cover allows this to be dismantled without removing the fixing screws.
4. Series F7 flanged: Face to face standardized EN558-1 48.



**1. REQUIREMENTS FOR MAINTENANCE STAFF**

Personnel assigned to assembly, maintenance and operation work should be qualified to perform these works.

**2. TRANSPORT AND STORAGE**

Keep in a closed and dry place. Avoid exposure to direct sunlight. Protect from moisture and mechanical damage. The temperature of the storage should not exceed -10 ° C to 50 ° C.

### 3. APPLICATION

They are suitable for waste water, industrial applications, agricultural purposes, for viscous e dense liquids.  
Possibility to use in internal and external sewage systems.

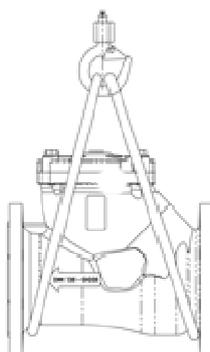
Temperature: min -10° C max 70° C

Pressure: DN 25 – 150 16 Bar  
DN 200 – 500 10 Bar

Note: Please ensure the choice of the corresponding item

### 4. ASSEMBLY

- Handle with care;
- Place the valve between the flanges of the pipe and install the seal between the pipe and valve flanges. Check that the seals have been positioned correctly. The distance between the counter flanges must be the equal to the valve's face to face distance. Do not use bolts of the counter flanges to bring the piping close to the valve. The bolts should be cross tightened;
- Do not weld the flanges to the piping after installing the valve;
- Water hammers might cause damage and ruptures. Inclination, torsions and misalignments of the piping may subject the installed valve to excessive stresses. It is recommended that elastic joints be used in order to reduce such effects as much as possible;
- Use belts and safety hooks for harnessing and lifting (see picture 1).



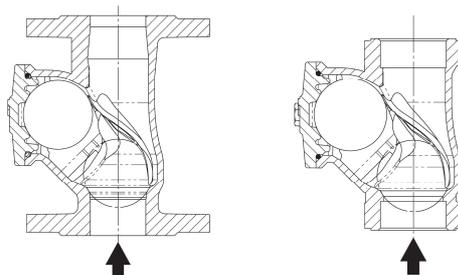
This valve is unidirectional: install in accordance with the flow direction arrow indicated on the body.



It is requested that the valve be positioned some distance from any change of direction in the pipe work or from other apparatus in order not to place it in a turbulent zone which would increase its wear. 3 x DN in a straight line upstream and 5 x DN downstream of the valve.

Piping with vertical upstream flow: install the valve as shown in figure 3.

Figure 3



Piping with horizontal or inclined flow (upstream flow): install the valve as shown in figure 4.

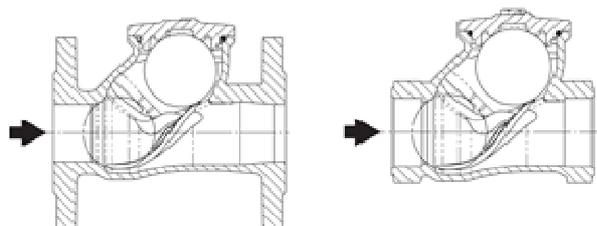


Figure 4

### SERVICE AND REPAIR

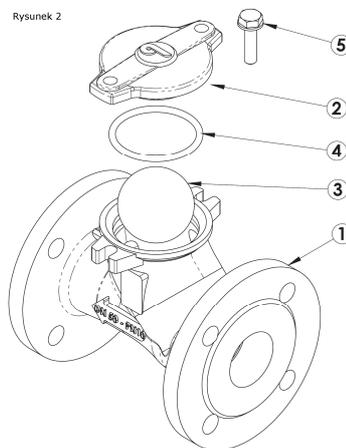
- Remove the valve from the line;
- Remove the screws from the cover ( n°5);
- Remove the cover ( n°2);
- Take out the O-ring (n°4);
- Remove the ball (n°3)

For bigger sizes, turn the body (n°1) by 90°, to remove the ball

### RECOMMENDATIONS

- before carrying out maintenance or dismantling the valve:
- be sure that the pipes, valves and fluids have cooled down,
- decrease the pressure and drain the lines and pipes in case of toxic,
- corrosive, inflammable or caustic liquids.

Temperatures above 50°C and below 0°C might cause damage to people.



### 7. VALVE SERVICE DISCONTINUITY

All obsolete and dismantled valves must not be disposed with household waste. ZETKAMA valves are made of materials which can be re-used and should be delivered to designated recycling centres.

### 8. WARRANTY TERMS

- ZETKAMA grants quality warranty with assurance for proper operation of its products, providing that assembly of them is done according to the users manual and they are operated according to technical conditions and parameters described in ZETKAMA's catalogue cards. Warranty period is 18 months starting from assembly date, however not longer than 24 months from the sales date.

- warranty claim does not cover assembly of foreign parts and design changes done by user as well as natural wear.

- immediately after detection the user should inform ZETKAMA about hidden defects of the product
- a claim should be prepared in written form.

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