

USER MANUAL

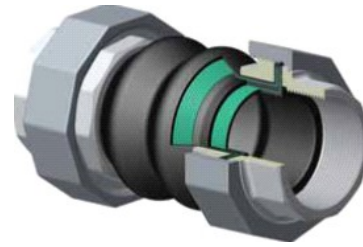
**RUBBER EXPANSION JOINTS
zJOI**

Fig. 701

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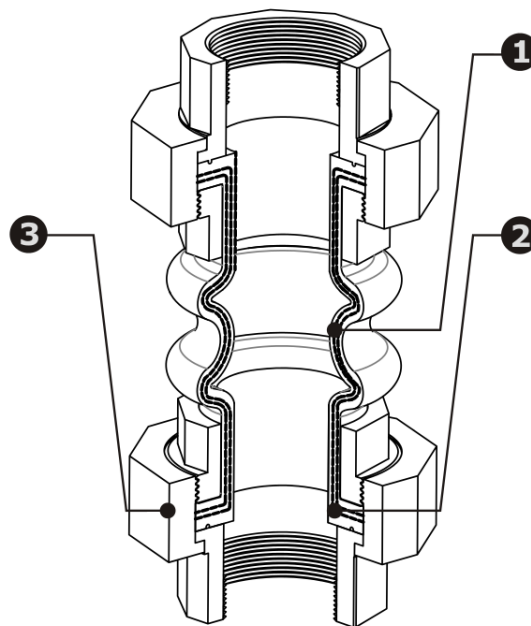
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1. PRODUCT DESCRIPTION

Rubber expansion joints protect the pipeline against the effects of expansion, compression and bending movement of the installation. They are used to decrease the noise and vibration, allowing in the same time reduction of the pressure strokes.

1. Reinforcing fabric
2. Reinforcing retaining ring
3. Connections in galvanized steel. On request:
AISI 304



2. REQUIREMENTS FOR MAINTENANCE STAFF

The staff assigned to assembly, operating and maintenance tasks should be qualified to carry out such jobs. During valve operation heat parts of the rubber expansion joints could cause burn. If necessary user should place protective shields and warning labels.

3. TRANSPORT AND STORAGE

Rubber expansion joints shall be kept in dry and dark place. Avoid exposure to direct sunlight. Protect from moisture and mechanical damage. Storage temperature should be kept between from -10° C to 50° C.

4. APPLICATION

Industrial water, heating and ventilations installations, compressed air*.

* group 2 gases DN 32-50 PS=16 bar

DN 65-80 PS=10 bar

Terms of use

Temperature: min -20° C max 100° C

Pressure: DN 20 – 80 16 bar

Warning: In order to determine more accurately the application of the product, the following table of working temperature and pressure shall be used.

DN 20 – 80 PN16						
Working temperature [° C]	Ambient	50	60	70	80	90
Maximum working pressure [bar]	16	9,6	7,5	6,2	5,0	4,0

5. ASSEMBLY

- Prior to installation, clean the surface of rubber and flanges;
- Make sure that no sharp edges will not damage the surface of rubber expansion joint;
- Do not assembly rubber expansion joints in direct contact with other rubber surfaces (e.g. in direct contact with butterfly valves);
- Do not place any additional gaskets between the flanges of rubber expansion joints and flanges of the pipeline;
- Avoid direct exposure to sunlight. When installing the rubber expansion joint outside, it is recommended to use special protective covers.

6. SERVICE AND REPAIR

The inspection of the rubber expansion joints shall be done on regular periodical basis. The first inspection shall be conducted one week after assembling the rubber expansion joint on the pipeline, another inspections on annual basis. Particular attention shall be paid to external damages of the rubber expansion joints such as blisters, cracks, leaks, deformations. Unacceptable movement, change in the body length, corrosion and wear of whole rubber expansion joint shall be checked.

Each type of rubber is a subject of natural ageing, which causes the decreasing elasticity of rubber components in time and increases their hardness calculated in Shore degrees. It can be assumed that under normal conditions of use the hardness of the rubber grows of 1 degree per year. At higher temperatures, this value may increase more drastically. Therefore it is recommended to regular control the Shore hardness and replace the rubber expansion joint if the hardness will exceed 80 degrees. The initial hardness of the rubber expansion joints is approximately $60\pm 5^\circ$ acc to Shore calculations method. The lifetime of the rubber expansion joint is also influenced by external conditions like f.e. UV radiation.

For cleaning rubber expansion joints do not use any objects with sharp edges, wire brushes or sandpaper. Cleaning of the rubber expansion joint should be carried out with clean water with soap with a low alkaline.

Warning: It is forbidden to perform any actions close to rubber expansion joint (e.g. unscrewing the mounting bolts on the flanges), when the pipeline is under the pressure.

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 user's 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.

Claim should be prepared in written form.

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