



**chemical
products**
insulation solutions

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ASSEMBLY INSTRUCTION FOR MINERAL STONE WOOL PIPE SECTION ISOLSHELL MAX

1. Preparation of the pipes for the assembly of the new thermo-insulation

Once the surface of the pipeline, including expansion joints and fittings are perfectly cleaned from residues of wool dust, dirt and rust, the pipes are processed twice with anticorrosive primer for ferrous metals PF-021 in two different colors: red-brown and white, designed to prime the rust cleaned and degreased metal surfaces for corrosion protection of steel structures and equipment.

2. Installation of thermo insulation structure.

2.1. Insulation of straight pipeline.

The insulation consists of mineral stone wool segments. The insulation of the feeding pipe is 120 mm thick, while the insulation of the returning is 80 mm thick. The top of the tube which represents 25 to 30% of the pipeline is covered with 150 kg/m³ segments, the remaining are with density 80 kg/m³.

2.2. The assembly of segments is completed as following, see Figure 1.

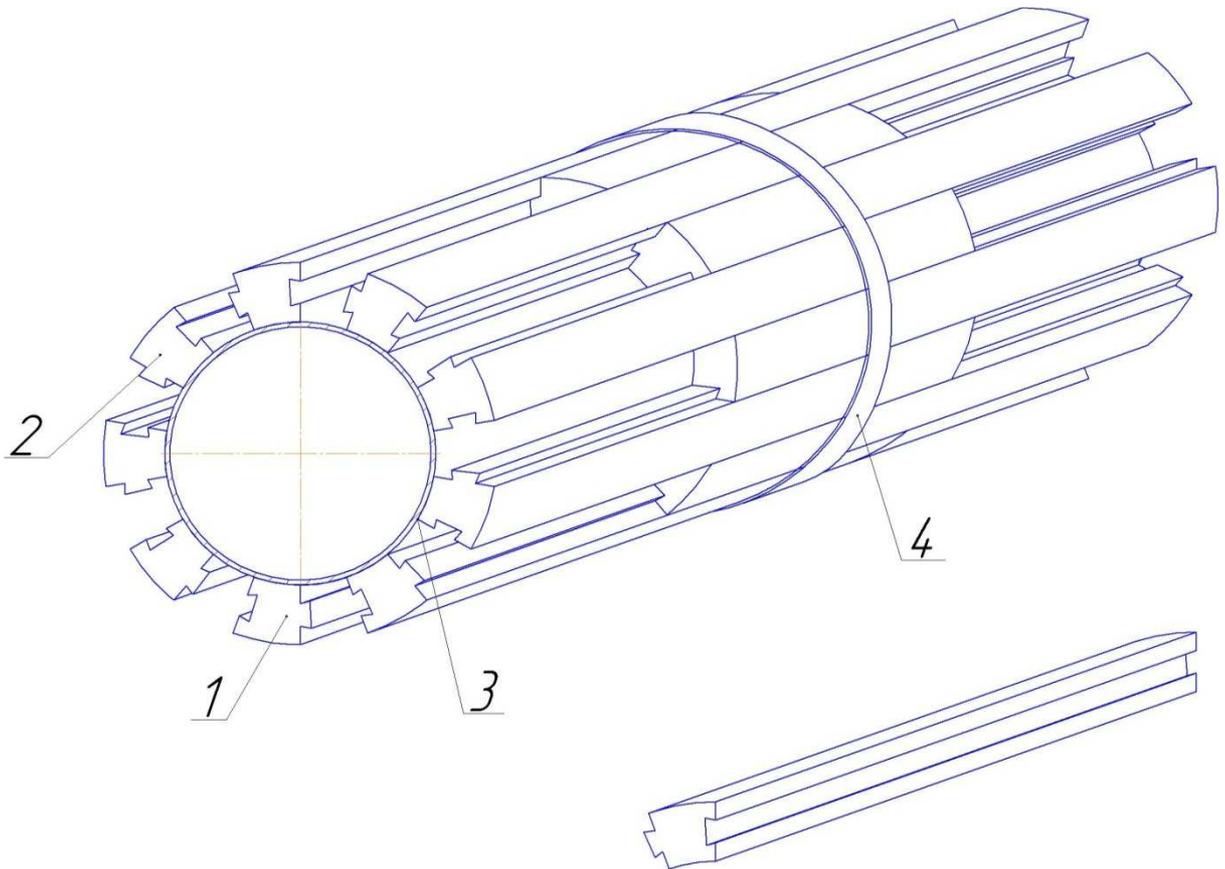


Fig.1

1. Mineral wool segments with density 80 kg/m³ – 12 p.
2. Mineral wool segments with density 150 kg/m³ – 6 p.
3. Existing pipe.
4. Firming strapping.

The segments are made with relative thickness in 20 degrees along the pipe diameter. One side of the segment is cut as 'tongue' and the other side as 'groove'. Before installation, temporary belts are used to support the initial segments. Installation is performed by staggering segments through placing the tongue into the groove. After the assembly is completed the insulation is fastened with PVC strips, then belts are removed. Strapping is fixed in three meters along the pipe. Fiberglass shells cover the mineral insulation form outside.

Fig. 2

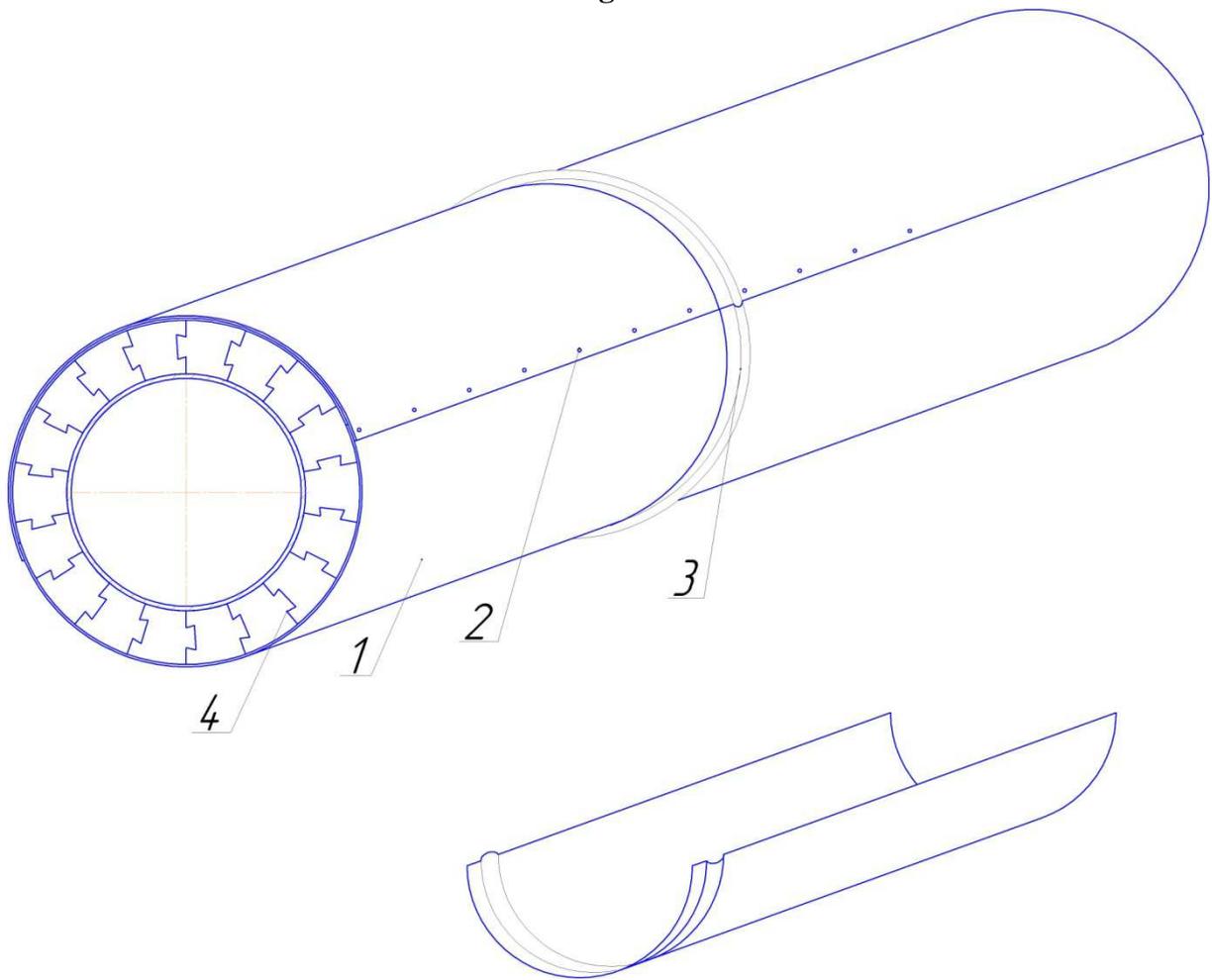


Fig.2

1. Half-pipe fiberglass section
2. Rivet
3. Rubber ring
4. Mineral wool

The assembly of both halves is done by rivets. Each half- pipe section has factory made channel. Rubber ring is fixed into the channel to ensure water resistant permeability. Following the installment of the pipe sections the gaps are sealed by fiberglass strap and then painted.

2.3. Insulation of expansion joint.

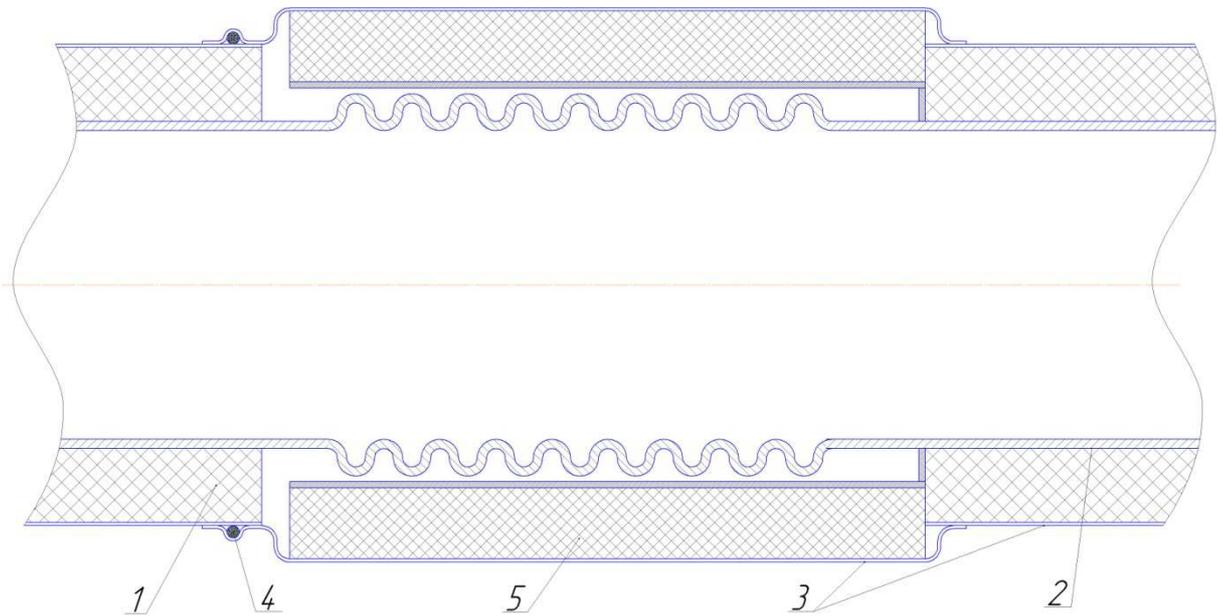


Fig.2

1. Mineral wool.
2. Pipeline with expansion joint.
3. Fiberglass pipe sections.
4. Rubber ring.
5. Wired mat mineral wool.

During the insulation of the pipeline upon reaching the expansion joint, segments should be cut and aligned. The pipe is insulated by wired mat mineral wool with density 80kg/m³ with the same thickness as the segments. After installing fiberglass shells on the straight parts of the pipe, the expansion joints are also insulated with the fiberglass shell allowing their functioning, see Figure 2