

PU-TS Pneumatic Formwork

The PU-TS type pneumatic expansion formwork are reusable functional tools dedicated to tightly securing manholes and non-manholes in sewage, telecommunication and inlets during demolition and installation (flooding) works.

It is also used to protect manholes against contamination during disassembly of damaged tops of wells .

Light, flexible, chemical-resistant PU-TS formworks enable creating a leveling and repair layer of fast-setting cement-based joint compounds, polyester resins located on the upper elements of concrete sewage chambers.

From the inside, the formwork protects the will against the loss of the pouring mass, perfectly seals the place of application and gives the shape of the screed until it is fully solidified.

During the application of the leveling mass, the transparency of the formwork enables the ongoing visual control of the pouring process, tightness and correct filling of the flooding spaces.

The material from which the pneumatic formwork was made shows high resistance to scratching, tearing, stretching and adhesion of joint compounds, both based on cements and chemically hardened resins.

It shows high chemical resistance to most known solvents and it is easy to clean and maintain the formwork.

In the contact with hot asphalt masses, it shows the necessary short-term resistance up to 160°C during assembly and cooling of the sealing mass. The permitted continuous operation is possible in the temperature range -30 to +90°C.

It is easy to assembly and disassembly - the formwork can be removed after the entire structure of the top is completed.

Working pressure 0.02 MPa.

Pneumatic formworks are intended for:

- execution of a compensatory repair layer in the manholes
- protection of manholes against contamination during demolition works
- keeping the formworks (expansion) rigid and flexible
- joining pneumatic formworks into formwork sets.



The PU-TS 625 formwork set in the manhole of the sewage chamber osadzony allows for pouring a compensating and repair layer.

The PU-TS formwork set in the manhole opening of the sewage chamber ensures the pouring of the road base around the crowning made on the basis of the TVR T system compensation rings for the installation of the self-leveling manhole,





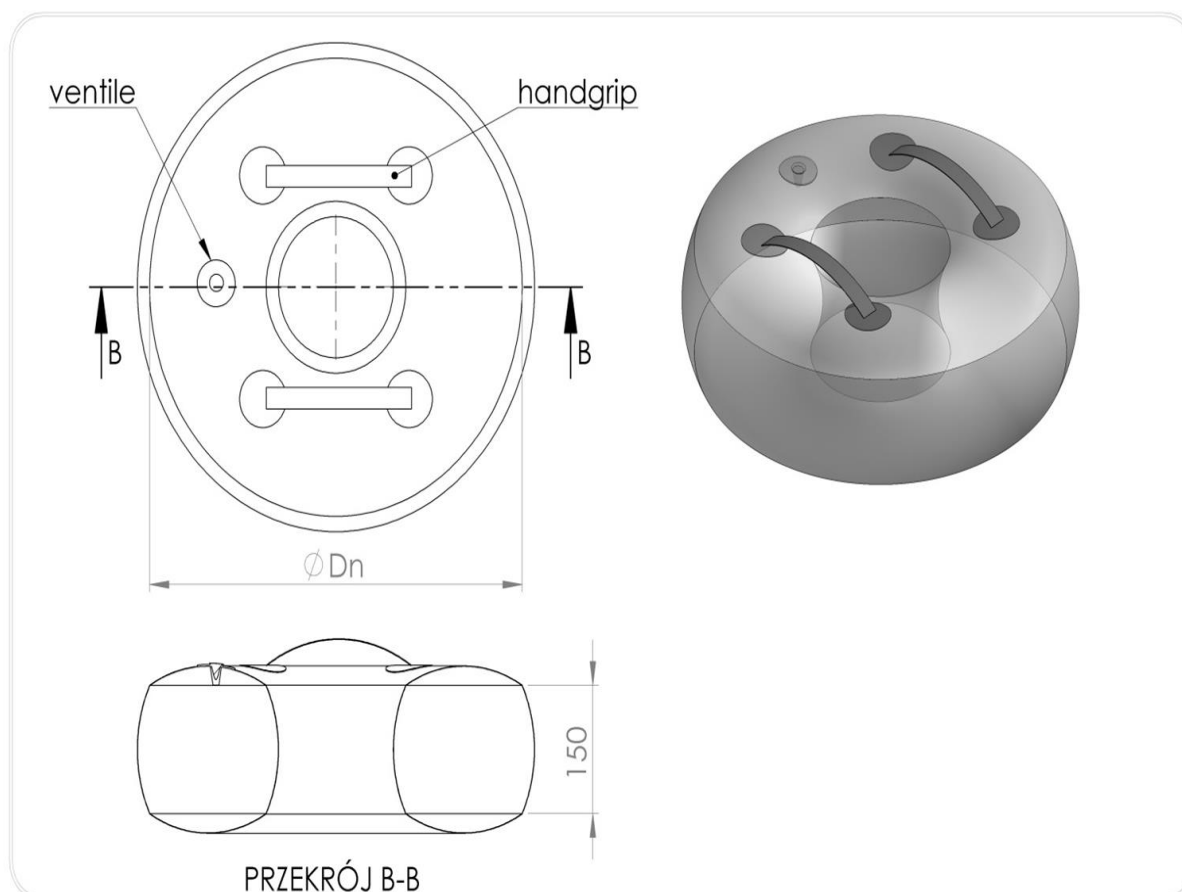
The transparency of the material from which the pneumatic formwork is made enables the ongoing control of the pouring mass pouring process. In case of leakage, it is possible to correct the pressure and the position of the formwork in order to perform the correct pouring process.

Technical parameters of the material

Material	Termoplastic Elastomer Poliuretanu TPU	
Tensile strength	>45Mpa	ASTM D412
Tear strength	$\geq 50\text{N/mm}^2$	ASTM D624 DIE C
Stretching	$\geq 500\%$	ASTM D 412
Thickness	$0,70 \pm 10\%$	PN-EN ISO 2286-2
Colour	Transparent	
Hardness acc. Shore	>85	ASTM D2240

Thermal resistance	-30°C do +90C	In continuous work conditions
Short-term thermal resistance 160°C	15 min	In conditions of installation in a bituminous surface

Sample drawing of the Pneumatic Formwork.



Pneumatic formwork PU-TS are made in accordance with the specifications of the customer, they can have the shape of a cylinder or a cuboid. The optimal height of the formwork is 150mm, 200mm, 300mm.

Cylinder-shaped formwork with diameters from 300mm to 1000mm.

Block-shaped formwork with dimensions of 400x400mm, 500x500mm, 600x600mm, 700x700mm, 800x800mm, 400x600mm, 500x700mm

Standard pneumatic formwork for sewage chambers and rain gullies:

PU-TS 500 (Ø500mm, H 150mm)

PU-TS 600(Ø600mm, H 150mm)

PU-TS 500/2 (Ø500mm, H 200mm)

PU-TS 600/2 (Ø600mm,H 200mm)

PU-TS 625 (Ø625mm, H 150mm)

Usable height of the formwork up to 120 mm. The thickness of the repair layer should not exceed the recommendations of the manufacturer of quick-setting compounds (maximum single layer height of 80-100mm)

Examples of application:



Two pneumatic formwork used to anchor a rectangular manhole on the telecommunication well with the use of polyester resin masses.



The PU-TS 600 formwork supports / expands the foam formwork during the installation of the manhole with self-leveling resin compounds.

