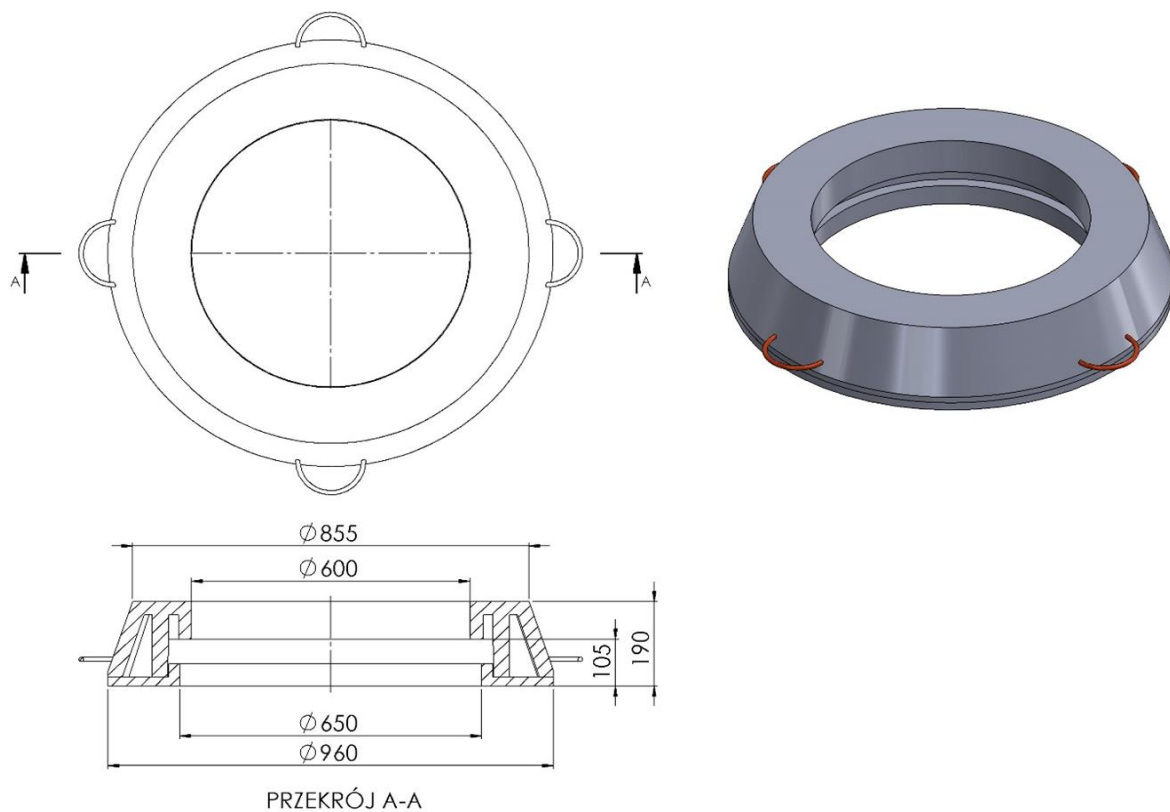


**T3/600 relief cone**
**Intended for:**

- Transfer of traffic loads from vehicle traffic acting on the finials of manholes beyond the core of the plastic well onto the structural layers of ground or road substructure.
- Protection of the shaft of the plastic inspection DN / ID 600 against damage both in the vertical and horizontal plane. (for shaft pipes DN / OD max 490 mm)
- Finials of inspection chambers DN / ID 600 DN / OD 630, manholes DN800, DN 1000, DN1200 with a reduction cap / reducer with an external diameter DN / OD up to a maximum of 640mm and a minimum height of 450 mm.
- Direct structural support:
  - DN 600 manholes with the outer diameter of the body frame up to max.850 mm in class A15 ÷ D400,
  - composite manholes DN 600 (including octagonal) with a frame diameter up to a maximum of 850 mm in class A15 ÷ D400
  - compensating rings of TVR T system from group T1/600, T1/620, T1R/625
  - adapters for street drains from the TX / 765 group and flange street drains 400x600 (min. outer diameter of the drain flange 700mm
  - leading rings for self-leveling manholes of the TVR T system from the TXS group

**T3/600 relief cone for plastic chambers**


| Index  | DN(mm)  | DZ(mm) | H(mm) | Weight(kg) | Class |
|--------|---------|--------|-------|------------|-------|
| T3/600 | 600/650 | 960    | 180   | 70         | D400  |

### 3.Application

The universal relief cone is an element for the construction of near-surface finials of plastic inspection and manhole wells DN/ID 600 i DN/OD max 640mm in class D400. The T3/600 relief cone enables full relief / protection of the shaft of the rising pipe of the plastic chamber against traffic loads. It provides direct support for manholes, adapters supporting sewage drains, telescopic adapters, compensation and leading rings as well as protecting covers.

For use in communication engineering in accordance with the above-mentioned purpose in the field of public roads without limits, internal roads, and railway engineering structures without limits. In the traffic areas of groups 1-4, in class D400 according to PN-EN 124-1: 2015-07. It meets the conditions of suitability for use specified in PN-EN 14802: 2005

Possible use in:

- Polieco 600 manholes
- Pro 630 Pipelife manholes

### Technical parameters of T3 / 600 relief cone

|  |                                    |   |
|--|------------------------------------|---|
| Compressive strength. Class            | 400kN D400                         | PN-EN 124-1 07-2015   |
| Tensile strength                       | 3Mpa                               | PN-EN ISO 527-1:2012  |
| Degree of resistance to frost in water | F150(-2%)                          | PB IBDIM PB/TB-1/23   |
| Degree of frost resistance in 2% NaCl  | F50(-2%)                           | PB IBDIM PB/TWm-36/98                                       |
| Absorptivity                           | <0,2%                              | PN-EN ISO 62:2008   |
| Mechanical loss                        | 0,33 tg                            |   |
| Hardness according to Schore           | >46                                | PN-EN ISO 868:2005  |
| Product dimensional tolerance          | ± 5mm in diameter, ± 3mm in height |   |
| Support surface                        | 3920 cm <sup>2</sup>               |   |
| Thermal resistance                     | -30° C do +60° C                   | In continuous work conditions.                              |
| Short-term thermal resistance 170° C   | 2h                                 | In the conditions of installation in the bituminous surface |
| PVC / PE material                      | 80%                                | PN-EN 15346 2009  |

### Product reference documents:

National Technical Assessment No. IBDiM-KOT-2017/0047 3rd edition

National Declaration of Performance No. 05 / EW / 22

Code CN 39259090

### General assembly instructions:

- around the shaft pipe, (reducer) of the well cone ( at the distance from the edge of the well  $\geq 30$  cm ) make the thickening of the substructure for the final in accordance with the rules resulting from ground conditions, compaction index, road structure type and traffic load category based on PN-ENV 1046 standard.
- Conduct compaction by hand, in layers, every 15 cm or with light mechanical equipment, in layers, every 30 cm along the entire height of the well, evenly around the circumference and obtain the degree of ground compaction in accordance with the design, requirements of the manhole assembly instructions:
- in areas with no traffic, the degree of density should be at least 92% on the Proctor scale, in pedestrian traffic routes (class A), the degree of density  $\leq 95\%$ , vehicle load (class D)  $\geq 98\%$  on the Proctor scale.
- in order to maintain proper compaction, it is recommended to stabilize the ground with cement or use Geotextile sheet 1200x1200mm with  $\varnothing 640$ mm hole
- the ground under the relieving cone should be flat and free from point loads, consisting of gravel, sand, dry concrete (chippings, etc. are not allowed.)
- Before starting the assembly works of the T3 /600 relieving cone, check whether all the elements of the near-surface final of the plastic manhole are structurally suited to the intended use:
- whether the manhole has been properly adjusted to the ordinate, e.g. by cutting the shaft pipes
- is there a sufficient height between the top of the shaft pipe of well / reducer and the relief cone of the chamber, at least 4 cm
- whether the compaction of the foundation around the well is correct and adequate for the location of the relief cone foundation.
- whether the appropriate height is maintained to the surface ordinate to allow for the installation of a manhole
- a gasket (with a lubricant) should be installed on the shaft of the plastic well from the outside
- we place the relief cone centrally over the well opening without disturbing the substructure / compacted substrate, leaving a free space of about 3-4 cm between the top of the shaft pipe and the vault of the cone
- the final of the well should be made in a tight manner, polymer bonding masses should be used between all the components of the final, i.e. relief cone, shaft pipe or a telescopic adapter , elastomeric gaskets should be used. Between the horizontal surfaces of the equalizing / reducing rings, the upper surface of the relief cone and the manhole cover , apply polymer bonding-sealing masses.
- in case of a change in the ordinate of the surface, it is possible to perform (additional) adjustment of the manhole with the TVR T system compensation rings placed on the T3 / 600relief cone
- Place the compensation rings centrally over the manhole, one on top of the other, pressing firmly until the required adjustment height is achieved.
- **Place the manhole centrally over the manhole opening and anchor with screws to the relief cone or compensation rings**
- around the final of the plastic manhole, up to up to the foot of the manhole make a road surface foundation based on breakstone (approx. 65-70%) and quick-setting cement masses (approx. 30-35%) or B35 concrete or asphalt mass / hot asphalt concrete
- reconstruction of the road surface around the near-surface final and the manhole is made in layers with appropriate compaction of each hot applied bitumen layer to the level of the pavement ordinate
- commissioning should take into account the necessary time of complete cooling of the bituminous mass, allowing it to be put into service

### Notes on installation conditions

#### During height adjustment of sewage wells with the use of plastic elements of the TVR T System, it is forbidden to:

- installation and assembly of relief cones on an unprepared, uncompressed substructure around the manhole. Without providing full permanent support for the relief cone.
- use of ground materials for compaction of the substructure that do not comply with the recommendations of the manufacturer of manholes and materials other than those approved for use in road construction described in PN-S 02205, height adjustment, overlapping, placing point destructive elements under the cones
- laying the surface without making the correct foundation, filling and compacting the space around the final and the manhole