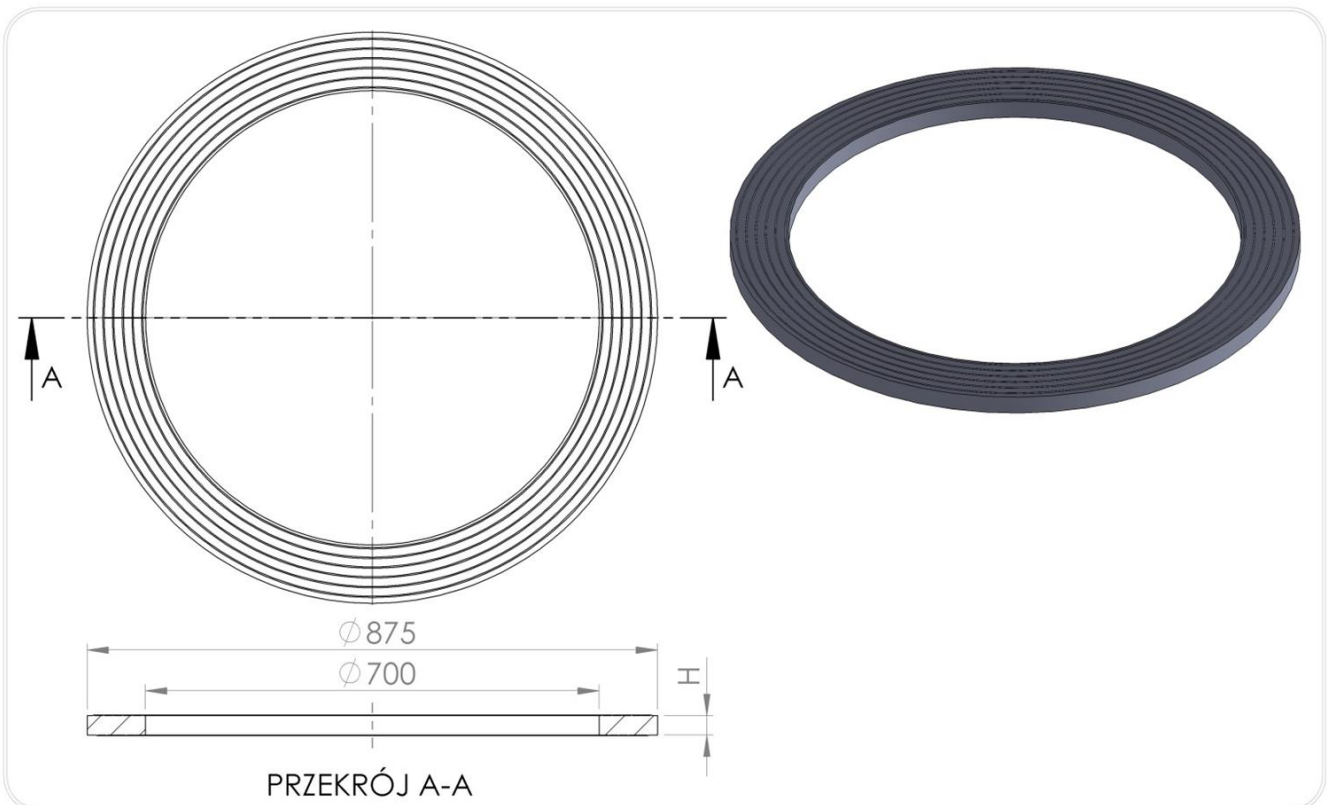


T1/700 Compensating rings
Intended for:

- height adjustment of concrete chambers with a DN 700 mm manhole.
- height adjustment of plastic manholes on the relief cones T3 / 615 / BR and T3 / 680 / BR
- direct seating of flanged manholes class D400 DN 680÷DN700 (with the outer diameter of the flange of the manhole base maximum 870 mm)
- direct mounting of the TVR T-System Guide Adapters (TXS) for self-leveling manholes
- the installation of manholes and self-leveling drains class D400 (with the outer diameter of the leading flange 680 ÷ 695 mm) on the cover plates of concrete manholes with manholes DN600, DN625, DN650, DN 700

T1/700 Compensating rings

Tabela nr1.

Index	DN(mm)	DZ(mm)	H(mm)	Weight(kg)	Class
T1/700/15	700	875	15	4,9	D400
T1/700/30	700	875	30	9,2	D400
T1/700/50	700	875	50	12,4	D400
T1/700/100	700	875	100	24,5	D400

3. Application:

Plastic compensation rings from the T1 / 700 assortment group are elements of the top-surface of sewer manholes ensuring height adjustment of the well in the range from 15 to 300 mm for manholes and from 15 to 700 mm for non-manhole wells. Laid on concrete reducers or cover plates of sewage chambers with a DN 700 manhole.

- They are direct basis for the assembly of standard manholes DN680 up to class D400, inclusive of the outer diameter of the body foot max. \varnothing 870mm
- They are an element of height adjustment of the final for self-leveling manholes DN600 ÷ DN700 class D400, supporting directly adapters / leading rings such as:
 - TXS / 700/80
 - TXS / 710/80

Tabela. Nr 2

Rings for adjusting the height of the manhole with a manhole opening DN 600 ÷ 700	TVR T system components for direct support of the manhole	Manholes DN 600 ÷ DN700, class A15 ÷ D400 (Type , dimensions)
T1/700	It does not require a supporting element	<ul style="list-style-type: none"> • traditional round cast iron manholes with the outer diameter of the body base $\varnothing \leq 870$ mm • self-leveling cast iron manholes with the outer diameter of the leading pipe \varnothing 685 mm
T1/700	Adapter / leading ring for a self-leveling manhole TXS/710/80 <ul style="list-style-type: none"> • inner diameter of the ring \varnothing710mm • outer diameter of the ring \varnothing875 mm • height 80mm 	<ul style="list-style-type: none"> • self-leveling cast iron manholes with the outer diameter of the leading pipe \varnothing 695 mm
For use in the communication engineering in accordance with the above-mentioned purpose in the field of public roads without limits , internal roads, road and railway engineering structures without limits . In the traffic areas of groups 1-4, in class up to D400 according to PN-EN 124-1: 2015-07.		
Attention. Do not use for direct support of the bodies of openwork manholes with an outer diameter of the foot > \varnothing 890mm		
Technical parameters of T1 / 700 compensating rings		
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
Dimensional tolerance of the product	± 5mm in diameter, ± 3mm in height	
Support surface	1535cm ²	
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. 04/ EW / 22

Code CN 39259090

General assembly instructions:

- before starting the assembly works with the TVR T system compensating rings, check whether the diameters (external and internal) are appropriate for a given manhole and that all elements are structurally suited to the intended application
- determine the necessary amount, the height of the compensation rings for height adjustment, taking into account the angle of inclination (or the height of the supporting element), the height of the manhole, the thickness of the repair layer
- T1/700 compensation rings may be installed on the upper elements of concrete chambers, provided that the ground on which they are to be installed is in good technical condition. They require the provision of an even, strong base / foundation.
- any defects, unevenness, damage, leaks should be repaired before the installation of compensating rings by making a compensating and repair layer with the use of cement quick-setting masses or resins with appropriate strength and operating parameters, dedicated by the manufacturer to repair the finials of sewage manholes, anchoring manholes
- the thickness of the repair layer should be in accordance with the recommendations of the manufacturer of quick-setting compounds
- the surface of the manhole finial should be made in a tight manner, polymer adhesives and sealants should be used between all the elements of the top, i.e. compensation rings, supporting element, manhole
- place the rings centrally over the manhole, one on top of the other, pressing firmly until the required adjustment height is achieved.
- put the leading adapter under the self-leveling manhole in table no.1 on the compensation rings (with the seal on the bottom)
- the minimum thickness of the bituminous layer under the flange of the self-leveling manhole and the adapter, compensation rings should be 10cm
- around the top, make reconstruction / substructure of the road surface based on breakstone (approx. 65-70%) and cement quick-setting masses (approx. 30-35%)
- reconstruction of the road surface around the near-surface finial is made in layers with appropriate compaction (in accordance with the design)
- 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 and sewage drains with the use of plastic elements of the TVR T System, it is forbidden to:

- compensation rings installation on damaged elements of sewage chambers, on uneven, unrepaired, unprepared surfaces, not providing full permanent support for compensation rings.
- use any placing point destructive elements (bars, plates, cut rings, etc.) for height adjustment via putting them on the compensation rings
- use of concrete mortars between the plastic compensation rings
- install manholes that are structurally and dimensionally unadjusted to the elements directly supporting the TVR T system
- make high adjustments above 25cm only on the rings with low dimensions
- laying the surface without making the correct foundation, filling and compacting the space around the finial and the manhole