

# PRO VALVE MANHOLES





# INTRODUCTION

## WHY USE PLASTIC MANHOLES

The water supply and sewage companies that take care of the operation and maintenance of the water supply and sewage networks set high requirements on the security of systems and the protection of environment.

For the design and construction and the subsequent operation of the

water supply and sewage networks, quite often manholes with control and metering devices of various use and application need to be integrated. Their watertightness, strength and light weight is guaranteed, which render them very suitable for building a complete system with long and trouble-

free service life. The use of plastics as raw material for the manufacture of both the pipes and the manholes provides many advantages of practical and economic significance that ensure low operation costs.

## SERVICE LIFE

To demonstrate the long-lasting performance of polyolefin (polyethylene and polypropylene) pipes the European Plastic Pipes and Fittings Association – TEPPFA – conducted a study in collaboration with the manufacturers of raw materials Borealis and

LyondellBasell. The purpose of that study was to establish their thermal and oxidative degradation, maximum allowable stress, long-term behavior under permanent tension and impact of temperature. The study involved both recently manufactured new pipes

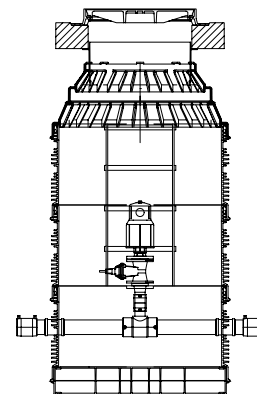
and pipes that have been in use for 40 years. The methods applied in the study were in accordance with the valid international standards (ISO) and the knowledge acquired from the polymer science.

# APPLICATION

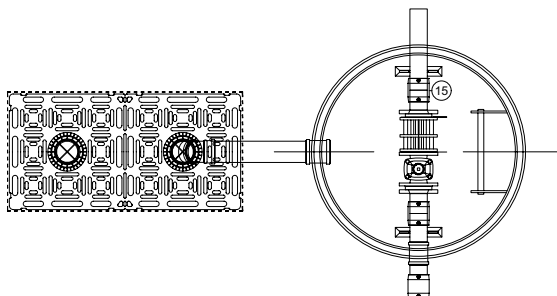
## PLASTIC VALVE MANHOLES IN THE PUBLIC SECTORS

Valve manholes should be designed in the following cases:

- For all high elevation points determined with reference to the pressure line and for all places with abrupt change of gradient from high to low and also for long and straight rising sections where vents with the corresponding shut-off devices should be integrated according to the design regulations.



- For emptying and washing out pipework



- For places where special purpose control and metering devices should be fitted, such as water consumption meters, pressure or flow regulators or other types of devices depending on the specific purpose.

# SAVING COSTS THANKS TO THE USE OF PLASTIC MANHOLES

- Lower financial expenses
- Easy to install
- Less space required
- Almost maintenance-free
- No corrosion
- Long life

## ADVANTAGES

In more than 200 000 occasions PRO manholes have proven to be expedient and efficient thanks to the following advantages::

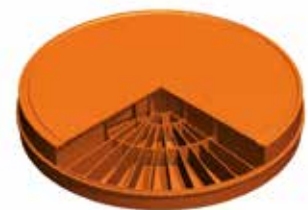
- Functional Lego-type structure! Guaranteed watertightness of the shaft structure preventing any infiltration of water into the shaft and out to the soil.
- Easy building up to the designed height using a riser and a telescopic cover.
- Guaranteed high chemical resistance, abrasive resistance and mechanical strength of the whole product.
- Light specific weight of all manhole components – guaranteed easy handling, easy installation, no need of any construction machinery.
- Long service life even when used in aggressive water.
- Economically profitable use in terms of • Transport • Storage • Installation • Operation
- Room-saving
- Recyclable

Proven practicality!

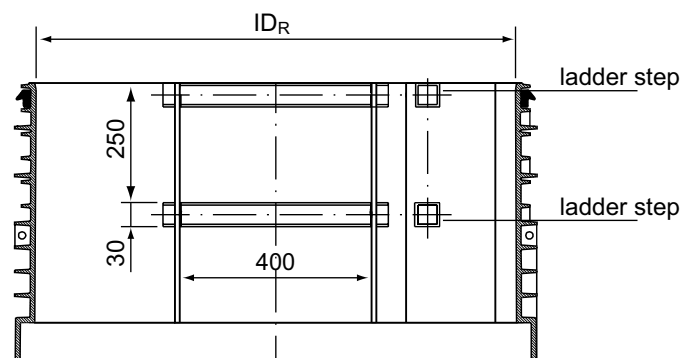
The performed static tests indicated that with regard to security and fitness for use PRO manholes met the requirements for issuance of authorization by the construction supervision agency.

## COMPONENTS

### REINFORCED DOUBLE BOTTOM



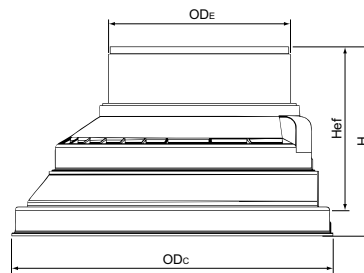
### RING RISER WITH RUBBER SEALING AND LADDER



# FUNNEL

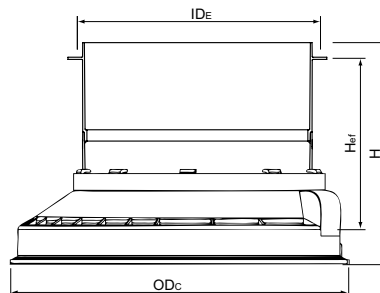
## WITH FIXED INLET 1000/630

Product Code	OD <sub>E</sub>	H	H <sub>ef</sub>	OD <sub>C</sub>	Weight (kg)
PRO-Con1000/630-Fix	630	650	560	1110	19,8



## WITH TELESCOPIC INLET AND RUBBER SEALING 1000/630

Product Code	ID <sub>E</sub>	OD <sub>C</sub>	H <sub>ef</sub>	H	Weight (kg)
PRO-Con800/630-Tel	637	910	340	480	7,9



# COVER



The cover has an adaptive concrete ring consisting of two parts, intended to align the inclination of cover with the inclination of pavement.

The cover has a concrete ring and it is intended for even road pavements without inclination.

# INSTALLATION OF PRO VALVE MANHOLES

The installation of all control and metering devices and the connection of the completed PRO valve manholes to the other units of the water supply and sewage network is identical to the connection of water supply and sewage pipework to the corresponding fittings,

such as electrically welded fittings, mechanical fittings, PUSHFIT type of fittings, etc.

The instructions for laying and installation are identical to the ones for PRO inspection chambers, and are described in details in our website:

<https://www.pipelife.bg/Infrastruktura/Produkti-za-kanal/Plastmasovi-kanalizacionni-revizionni-shahti-pro.html>, and also in our brochure and catalogue for PRO inspection chambers.