



# SEWAGE MANHOLES

## DN 800

### external sewage systems

#### MATERIAL

- polyethylene (PE)

#### WELL TYPES

- **reinforced** (including the reinforced elements – WZ)
- **standard** (made of standard elements – ST)
- **optimal** (combination of standard and reinforced elements)

the selection of the well type is based on the design requirements

#### PURPOSE

- for sewage:
  - **gravity** (sanitary and rainwater)
  - **pressure**
  - with flat bottom for water installations
- used as: inspection, expanding, sump wells, waste pumping stations

#### VALUES

- low weight of elements
- high mechanical strength
- construction stiffness
- resistance to chemical corrosion
- very high resistance to aggressive sewage, aggressive or contaminated ground water and contaminated soil
- 100% tightness, non-toxic for the environment, do not emit any substances during the operation
- highest resistance to abrasion (many times higher than the resistance of concrete, GRP, PVC)
- low investment cost
- easy and quick assembly, especially in hard terrain conditions
- possibility of making narrow trenches with dimensions adapted to the wells
- possibility of assembling the wells without the use of heavy equipment, which lowers the investment cost





The manhole elements are ribbed, which increases their rigidity and counteracts the buoyancy in unstable soils and soils with high level of ground water. The wells can be equipped with stainless steel manhole steps. The manholes may be monolithic (individual elements are welded together) or with elements connected with gaskets.

The maximum foundation depth of the well is 6 m, while the constructions with foundation depth over 5.3 m require contact with Elplast+.

Depending on the design and operation requirements the wells should be equipped with a proper type of cover and crown. For the wells located in green areas Ø 624 polyethylene covers produced by Elplast+.

WZ elements have thicker walls than the ST elements, and thus better strength parameters.

In the case of wells meeting the requirements of PN-EN 13598-2 standard, the elements can be connected by extrusion welding or with rubber gaskets.

The well wall thickness can be adapted individually by the guidelines of the system user or designer, depending on the ground conditions (production on special request).

## CONSTRUCTION:

- sump - base with profiled ducts for the connection of inlet and outlet pipes
- turret that ensures proper height of the well
- cone used to connect the well with crown elements (with a load distribution ring) with a concrete plate with cast-iron manhole or PE cover
- the base with flat bottom for the pumping station tanks, spherical
- bottom to lose the sewer energy, gaskets connecting the well
- elements that ensure tightness
- inlet gasket to connect the pipe with a sump

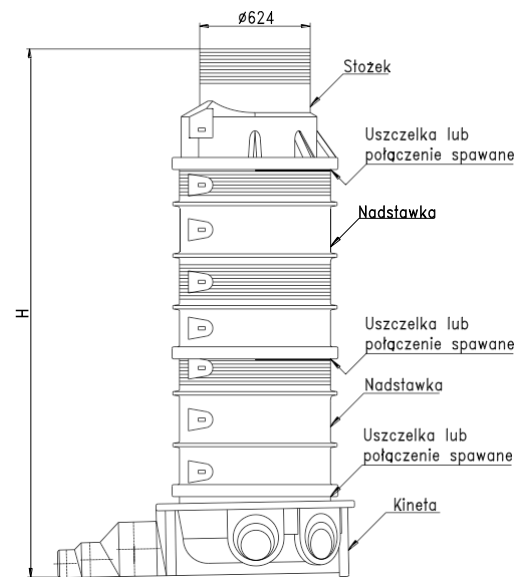


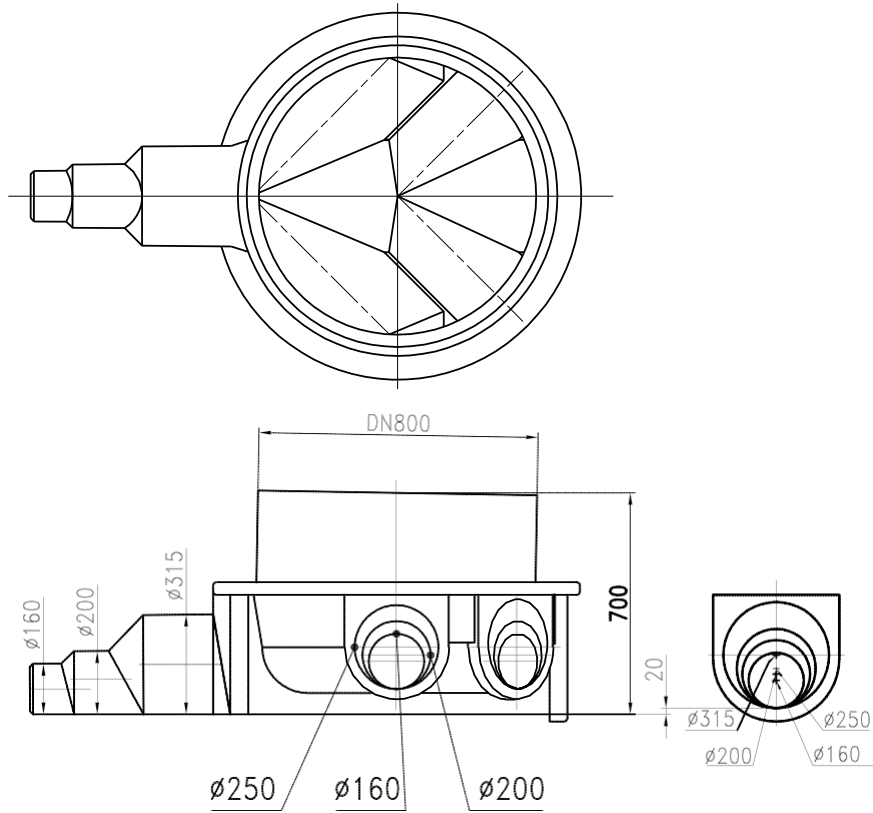
TABLE 1 DN 800 sewage manholes elements

ELEMENT	MARKING	DESC RIPTI	HEIGHT H [MM]	VERSION
Cone	S 800/450	cone located in the middle, with a stainless steel step or without step	450	ST WZ
	S 800/650	cone located in the middle, with a stainless steel step or without step	650	ST WZ
Turret	N 800/500	turret with 2 steps with SN or w/o steps	500	ST WZ
	N 800/800	turret with 3 steps with SN or w/o steps	800	ST WZ
	N 800/1100	turret with 4 steps with SN or w/o steps	1100	ST WZ
Sump	5Pk 250/800/700	5 inlets, diameter Ø250, 1 SN step or w/o step	700	ST WZ
	5Pk 315/800/700	5 inlets, diameter Ø315, 1 SN step or w/o step	700	ST WZ
Base with flat bottom	Pp 800/850	3 SN steps or no steps	850	WZ
	Pp 800/1100	4 SN steps or no steps	1100	WZ
Base with rounded bottom	Po 800/800	2 SN steps or no steps	850	WZ
	Pp 800/1100	3 SN steps or no steps	1100	WZ

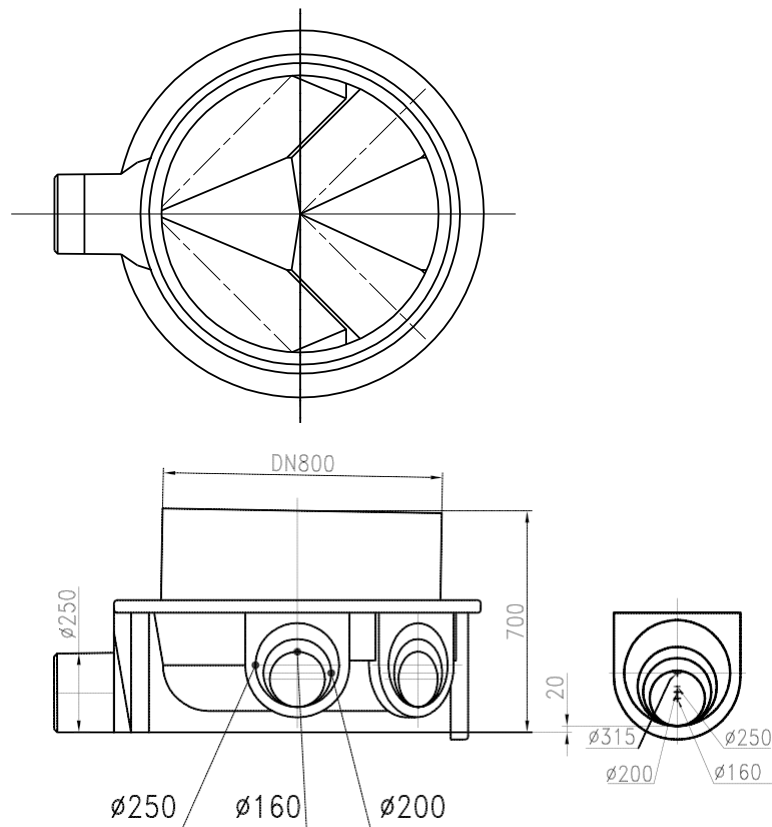
ST - standard  
WZ - reinforced



5-clo wlotowa podstawa - klneta  
DN800 z przelotem  $\varnothing 315$

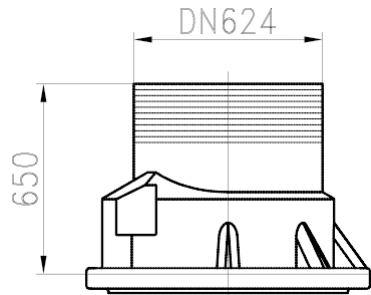


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DN800 z przelotem  $\varnothing 250$

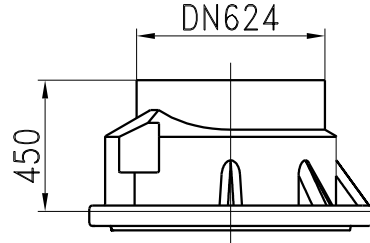




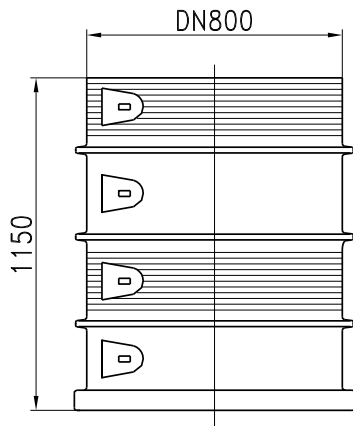
Stožek DN800/65C



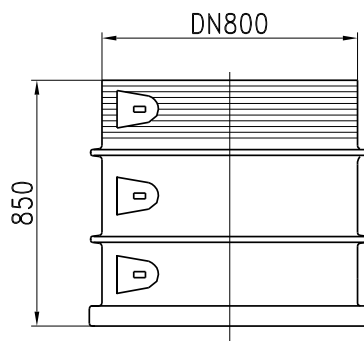
Stožek DN800/45C



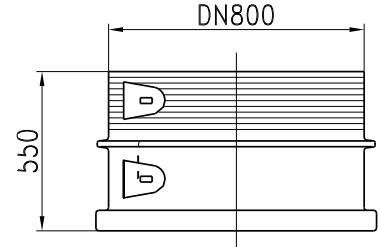
Podstawa z dnem płaskim  
DN800/1150



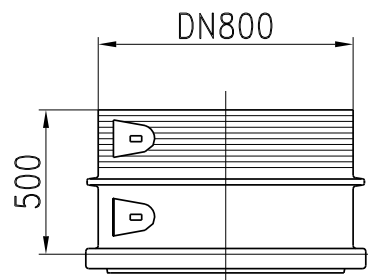
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DN800/850



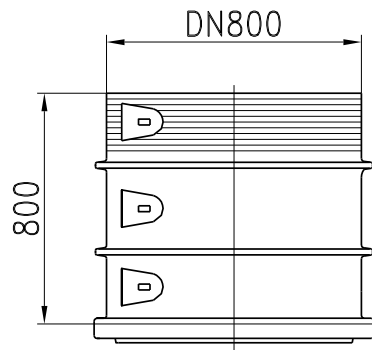
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DN800/550



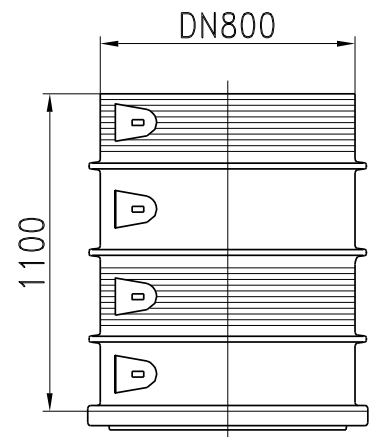
Nadstawka DN800/500

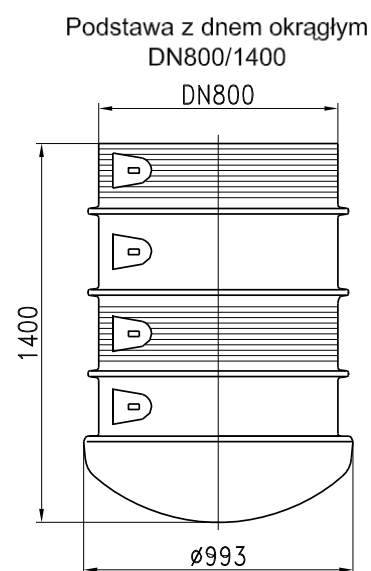
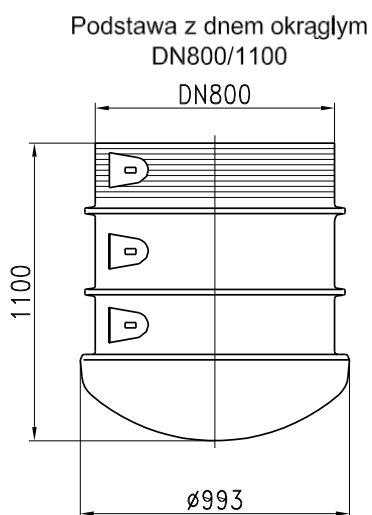
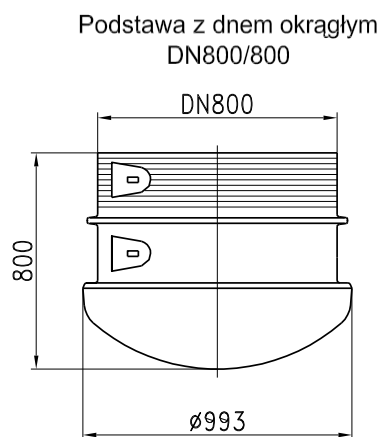


Nadstawka DN800/800



Nadstawka DN800/1100





## APPENDICES:

- Technical brochure EL-06
- Technical approval IBDiM AT /2007-02-2237
- Declaration of conformity no. 12 (complete wells)
- Declaration of conformity no. 13 (well elements)
- Declaration of conformity no. 12a (wells conformable with PN-EN 13598-2 standard)
- GiG opinion that allows for the use of wells at the mining areas of damage
- CSK price list