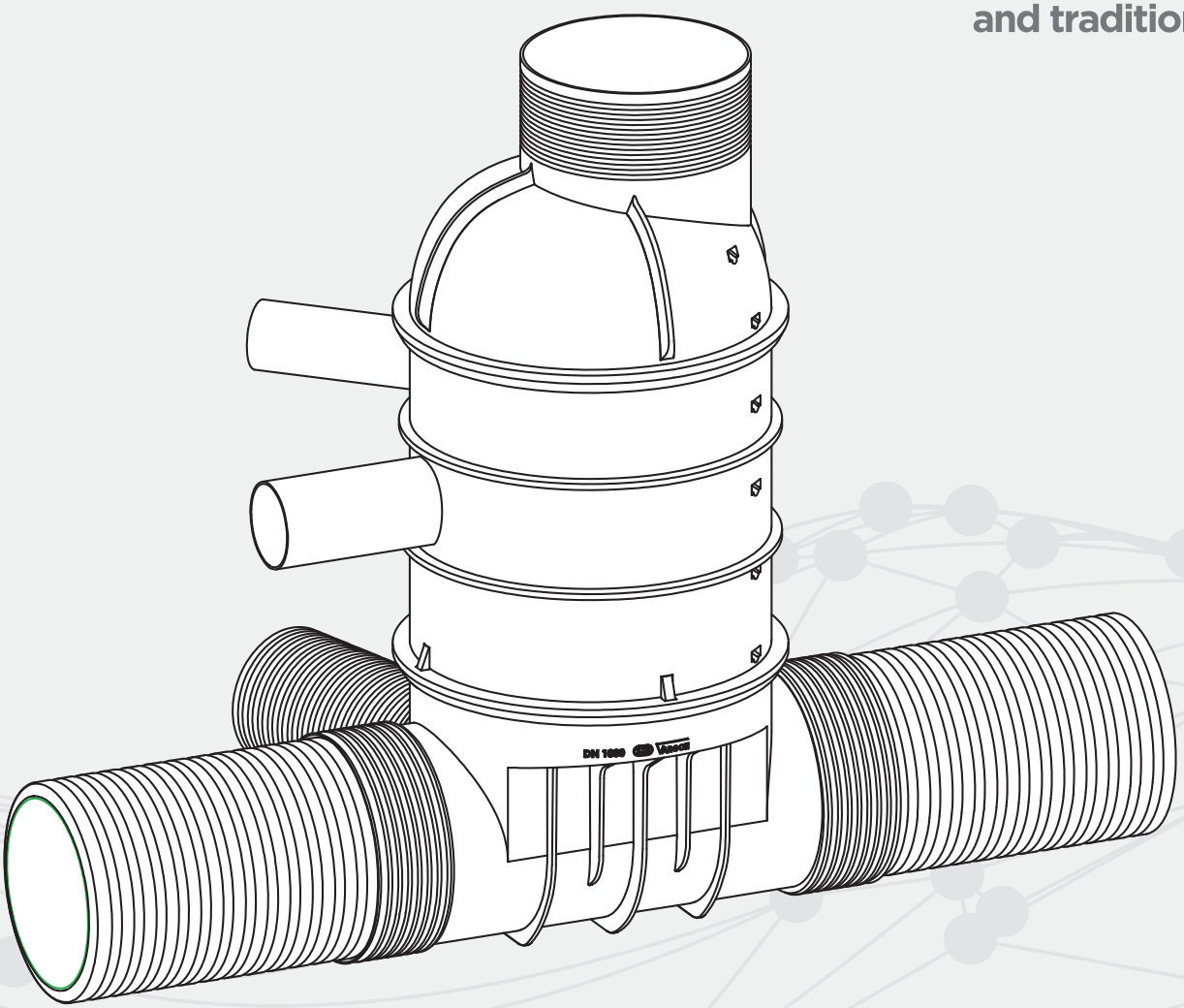
INSTALLATION SYSTEM

vargokor

SEWAGE CHAMBERS AND CATCHPITS

PE CHAMBERS AND CATCHPITS FOR NON-PRESSURIZED SEWAGE

Technology
and tradition.



CATALOGUE 08/2022

Complete solutions for
sewage, water / gas supply,
drainage and cable protection

SVB VARGON
INSTALLATION SYSTEMS

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INSTALLATION SYSTEM

vargokor

CHAMBERS AND CATCHPITS

SEWAGE

PE INSPECTION CHAMBERS

PE CATCHPITS

ACCESSORIES

Rotational molding technology

Since the first documented use of rotational molding in the late nineteenth century until today, rotational molding technology has advanced significantly. Initially, this process produced artillery shells, and only in the late 1940s and early 1950s in this way began to form plastics.

Today, rotational molding technology produces modular parts that are assembled into functional inspection chambers by welding. Each module is created individually through the following steps:

1. filling the mold with powdered PE material (the amount of material depends on the product)
2. In the heated chamber (furnace) at the programmed temperature, we obtain the product in such a way that the mold with the powder rotates and at the same time the powder is evenly scattered over the entire surface of the mold, forming the final product.
3. cooling of the mold (after leaving the furnace, the mold, i.e. the product, must be cooled evenly before removal, which is achieved by cooling with a fan)
4. removing the product (after cooling, the finished product is removed from the mold)

The PE inspection chambers we produce are made according to the EN 13598 -2: 2020 standard.

We deliver the ordered chambers ready for use and made according to the customer's approved project.

Quality testing

In addition to the production process, we also ensured continuous monitoring of the quality control of the production process, starting from the control of incoming raw materials to the quality testing of the finished products. The tests are carried out in our internal laboratory, which is equipped with test equipment (mostly from the specialized German manufacturer of laboratory equipment IPT) sufficient to test all the necessary characteristics of the raw material and the finished product in accordance with the prescribed requirements of the standard that defines the individual product.

The production process is continuously monitored and tests of raw materials and finished products are carried out in accordance with the requirements of the HRN EN 13598 -2:2020 standard.

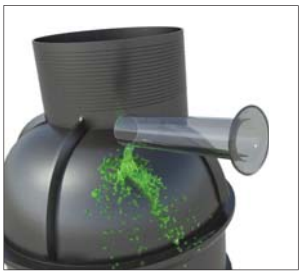
The following tests are carried out:

- Testing the melt mass-flow according to HRN EN ISO 1133 -1
- Testing the density according to HRN EN ISO 1183
- Testing ring stiffness and flexibility according to HRN EN 14982 and HRN ISO 13268
- Testing the chamber base unit for deformations according to HRN EN 14830
- Testing the resistance of upper manhole sections against road traffic loads according to HRN EN 14802 and HRN ISO 13266
- Testing the impermeability of manhole duct elements according to HRN EN 1277 and HRN EN ISO 13259

System advantages

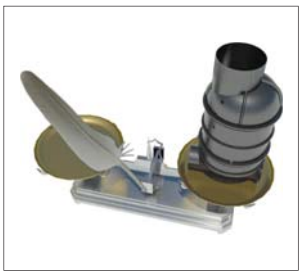
In order to meet the increasingly high ecological criteria of waste water disposal, concrete chambers that have been the standard for decades are now increasingly being replaced by PE chambers that are completely waterproof. Legislation stipulates the protection of the environment, especially the protection of groundwater - that's why it is recommended to install pipes made of waterproof materials. ***vargokor*** PE inspection chambers provide a number of advantages:

1. Water tightness
Chambers made of PE are 100% waterproof, so water does not leak.

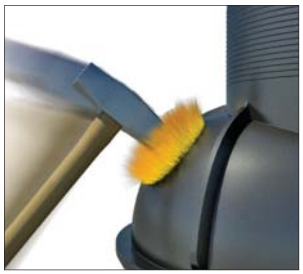


2. Chemical resistance
vargokor chambers are made of PE, which is resistant to a wide range of aggressive chemicals.

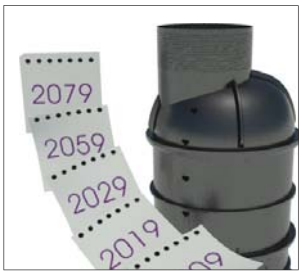
3. Simple modification on the construction site
It is possible to subsequently join connections to the catchpits and household connections.



4. Light weight
The light weight of the chamber facilitates unloading and manipulation on the construction site (no heavy machinery is required)..



5. High impact resistance
PE is an elastic and flexible material, very resistant to cracking, and therefore ***vargokor*** PE inspection chambers are more resistant to impacts and installation in conditions of high seismic activity.



6. System longevity
The high-quality production of ***vargokor*** PE inspection chambers guarantees long-term functionality

7. Adjustable height
If necessary, the cone of the chamber can be shortened with a saw or extended by mounting a special extension.

8. Smooth walls
vargokor PE inspection chambers have smooth walls, which prevents the accumulation of harmful deposits.

9. Fast installation
vargokor PE inspection chambers are delivered on a "turnkey" basis, ie with welded pipe connections. There is no need to create formwork at the installation site and to wait for a long time for the concrete to harden.

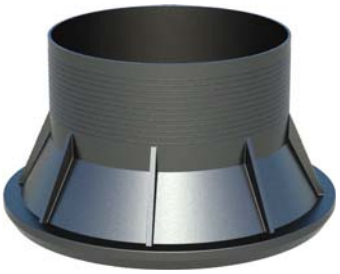
10. Recyclable
PE is a material that can be reused after the end of the product's life.

Chamber elements

In order to obtain a functional chamber, it is necessary to connect the base unit, body and cone unit into a single unit using welding technology and install inlet and outlet pipe connections. During the production process, the parts are welded to obtain the final product, which the customer can install immediately after delivery. The elements that will be an integral part of the chamber, i.e. the final product, are defined by the project and the customer's request. Step bars are installed according to the customer's request in accordance with the HRN EN 13598 -2 standard.

Base unit

Body



Cone unit

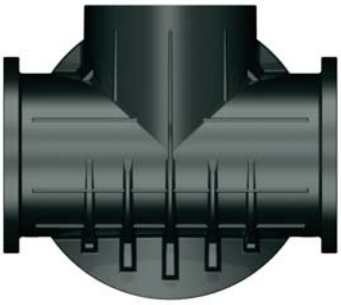
BASE UNIT

Base units are produced in diameters DN 630, DN 800 and DN 1000.

Different versions of the base unit from DN 630 to DN 1000

The base units, apart from their diameters, can be divided into passing and collecting. The passing base unit is used for straight pipelines, and collecting base unit is used when the pipeline "breaks" at a certain angle in the base or when the shaft has several inlet pipes.

Passing base unit DN 630



Passing base unit DN 800

Collecting base unit DN 800

BODY

We produce two types of bodies from which we assemble the chamber. The classic body that we use for DN 800 and DN 1000 cambers is an element produced by rotational molding technology. Its advantages are a single unit, economy, uniformity of quality and the use of recyclable materials. The second body we use to make chambers is a corrugated pipe, which is used for chambers DN 630, DN 800 and DN 1000. The advantages of a body made of corrugated pipe are greater circumferential stiffness (SN) and high resistance to the influence of groundwater.

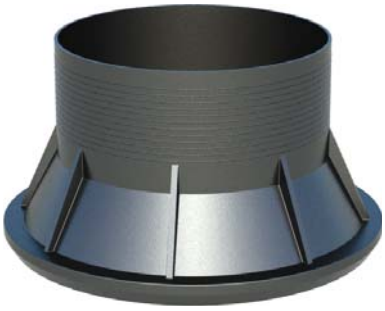
Body DN 800

Body DN 1000

Body of corrugated pipe DN 630

CONE UNIT

The cone unit is the final (upper) element of the inspection chamber. It is produced in two forms: concentric, which is used for DN 800 chambers, and eccentric for DN 1000 chambers. We mount an eccentric cone on DN 1000 chambers for easier access to the step bars for inspection.



Concentric cone unit DN 800

Eccentric cone unit DN 1000

Division of inspection chambers by performance type

PE inspection chambers can be divided into 3 groups:

Classic chambers

Classic chambers are used for mild and continuous falls where it is not necessary to solve the problem of high kinetic energy that the water gains due to large falls.

Cascade chambers

The inlet pipe of cascade chamber is located at a higher height than the outlet pipe, thus avoiding a large drop of the pipe and accumulation of large kinetic energy. As a result, the slope of the pipe does not follow the slope of the terrain, but the angle of fall is much milder.

Tangential chambers

The problem of high kinetic energy is solved by tangential chambers. Upon entering the tangential chamber, the water moves in a vortex until it loses its movement speed, and then continues its course accelerating to the next shaft.

Load capacity classes

Different parts of the road are subject to different loads and should have appropriate cast iron covers. The classification of sewage lids and grates, as well as their installation location, is defined by the HRN EN 124 standard.

Road cross-section view

CLASS A	(A 15 - load capacity up to 15 kN)	Pedestrians and bicycles
CLASS B	(B 150 - load capacity up to 150 kN)	Pavements and parking lots for cars
CLASS C	(C 250 - load capacity up to 250 kN)	Grids and covers placed at the curb on roads, mostly for cars
CLASS D	(D 400 - load capacity up to 400 kN)	Roads, curbs and parking lots for trucks
CLASS E	(E 600 - load capacity up to 600 kN)	The area of heavy traffic, ports and smaller airfields
CLASS F	(F 900 - load capacity up to do 900 kN)	Work surface area for especially heavy vehicles and airports

Chamber DN 630 1/1

1 inlet / 1 outlet

Chamber DN 630 is mostly used as a household access chamber. Most often, they have smaller height because they are used as control and not inspection chambers, which have a larger diameter.

Chamber DN 630 is made of two elements; base unit and body made of corrugated pipe, whereby the pipe represents the body and the cone unit of the chamber. By welding the base unit and the pipe body, we get the final product according to the required size.

Chambers DN 630 can theoretically be manufactured higher, but there is rarely a need for this. When installing a chamber DN 630 higher than 3 m, it is preferable to make a concrete formwork due to the large forces that affect the body of the shaft itself.

Iner diameter of the chamber:	542 mm
Maximum outer diameter of the chamber:	630 mm
Minimum height of the chamber:	0,50 m
Maximum height of the chamber:	2,75 m
Maximum diameter of the connecting pipe:	DN / ID 300
Possibility of cascading inlet:	yes
Possibility of connecting at an angle:	yes
Possibility of connecting several inlet pipes:	yes

Chambers DN 800 1/1, 2/1 i 3/1

Chambers DN 800 are most often used for fecal and rainwater drainage when the pipes required for drainage do not exceed DN / OD 400. Exceptionally, these chambers can also be used for pipelines with a diameter of DN / OD 500.

There are three versions of the base unit DN 800: 1/1 (passing), 2/1 (passing) and 3/1 (collective). Passing base units are used for straight drainage systems, and collective ones when the chamber has more than one inlet pipe or the inlet pipe has an angular offset.

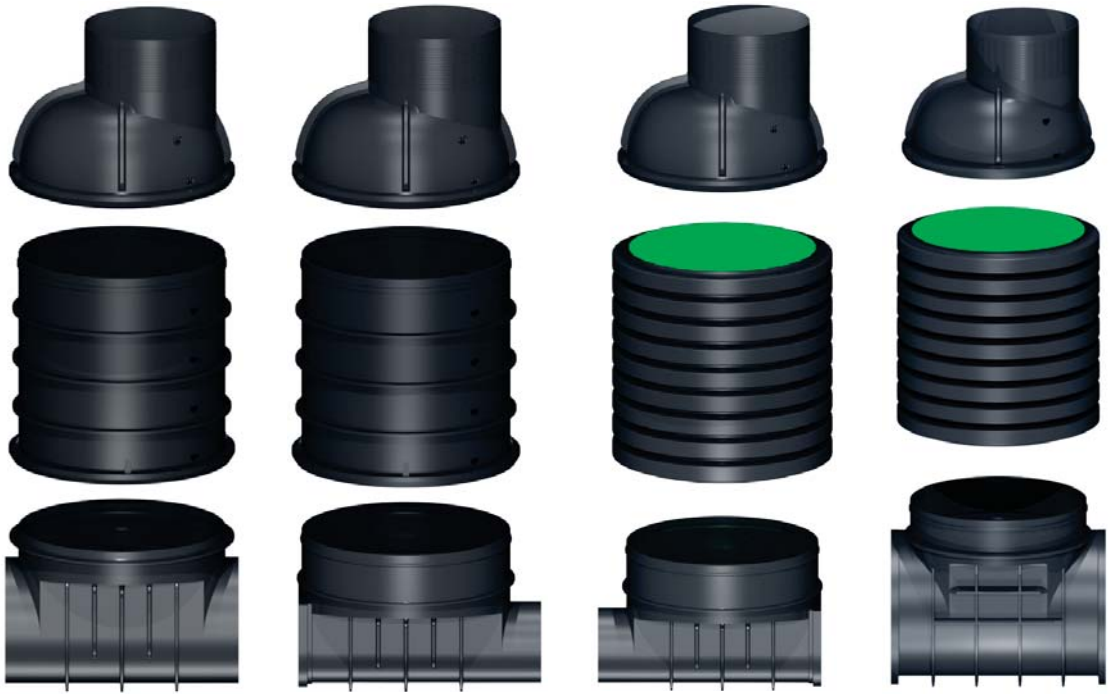
These chambers are wide enough for the entry of a person who, if necessary, performs the cleaning. If the chamber height exceeds 1.5 m, lowering into the chamber is performed with the help of built-in step bars.

If necessary, these chambers can be produced up to a height of 6 m, with a note that it is preferable for chambers higher than 4 m to create concrete formwork around the base unit up to 1/3 of the height of the chamber in order to avoid large forces that would affect the body of the chamber itself.

The cone unit DN 800 narrows the chamber entrance to DN 625.

Iner diameter of the chamber:	800 mm
Maximum outer diameter of the chamber:	920 mm
Minimum height of the chamber with cone unit:	1,00 m
Maximum height of the chamber:	4,00 m
Maximum diameter of the connecting pipe:	DN / OD 400
Possibility of cascading inlet:	yes
Possibility of connecting at an angle:	yes
Possibility of connecting several inlet pipes:	yes

Chambers DN 1000 1/1 i 3/1



Chambers DN 1000 are used for fecal and rainwater drainage of all pipe diameters up to DN / OD 1000. Depending on the diameter of the pipeline, a specific design of base unit is used in making of the chamber, given that some are designed for smaller diameter pipes and some for larger diameter pipes.

Base units 1/1 (passing) and 3/1 (collective) can be used in making these chambers. Passing base units are most often used for straight-line drainage systems, and collective ones when the chamber has more than one inlet pipe or the inlet pipe has an angular offset, although the inlet/outlet connectors can also be welded to the passing base units at an angle.

These chambers are wide enough for an adult to descend, and clean the insides if necessary. If the chamber height exceeds 1.5 m, lowering into it is performed with the help of built-in step bars.

The minimum height of the chamber with a cone depends on the design of the base unit, i.e. the diameter of the connecting pipes and ranges up to 2 m.

If necessary, these chambers can be produced up to a height of 6 m, with a note that for chambers higher than 4 m, it is preferable to concrete the base unit up to 1/3 of the chamber height in order to avoid large forces that would affect the body of the chamber itself.

The cone unit DN 1000 narrows the shaft entrance to DN 625.

Iner diameter of the chamber:		1000 mm
Maximum outer diameter of the chamber:		1120 mm
Minimum height of the chamber with cone unit:		1,50 m
Maximum height of the chamber:		4,00 m
Maximum diameter of the connecting pipe:	version 1	DN / OD 400
	version 2	DN / OD 500
	version 3	DN / OD 630
	version 4	DN / OD 800
	version 5	DN / OD 1000
Possibility of cascading inlet:		yes
Possibility of connecting at an angle:		yes
Possibility of connecting several inlet pipes:		yes

Catchpit

Catchpits are produced from ***vargokor*** corrugated pipes in such a way that one opening of the pipe is closed by welding a PE-HD plate and thus the bottom of the catchpit is watertight, and at a certain height coupling is welded to connect the drain connection. Unlike the concrete versions, these catchpits are completely waterproof, and due to their light weight, they ensure simple and quick installation.

The most common diameters of catchpits are DN / OD 500 and DN / OD 630, but other diameters can be made if necessary, and the most common diameters of couplings are DN / OD 160 and DN / OD 200, but other diameters can also be made if necessary.

Cross-section of catchpit

During the construction of storm drainage, rainwater is collected in catcpits. Sand and small stones are deposited in them, and the water goes into the sewer through the drain connections.

An example of connecting a drain connection to a inspection chamber

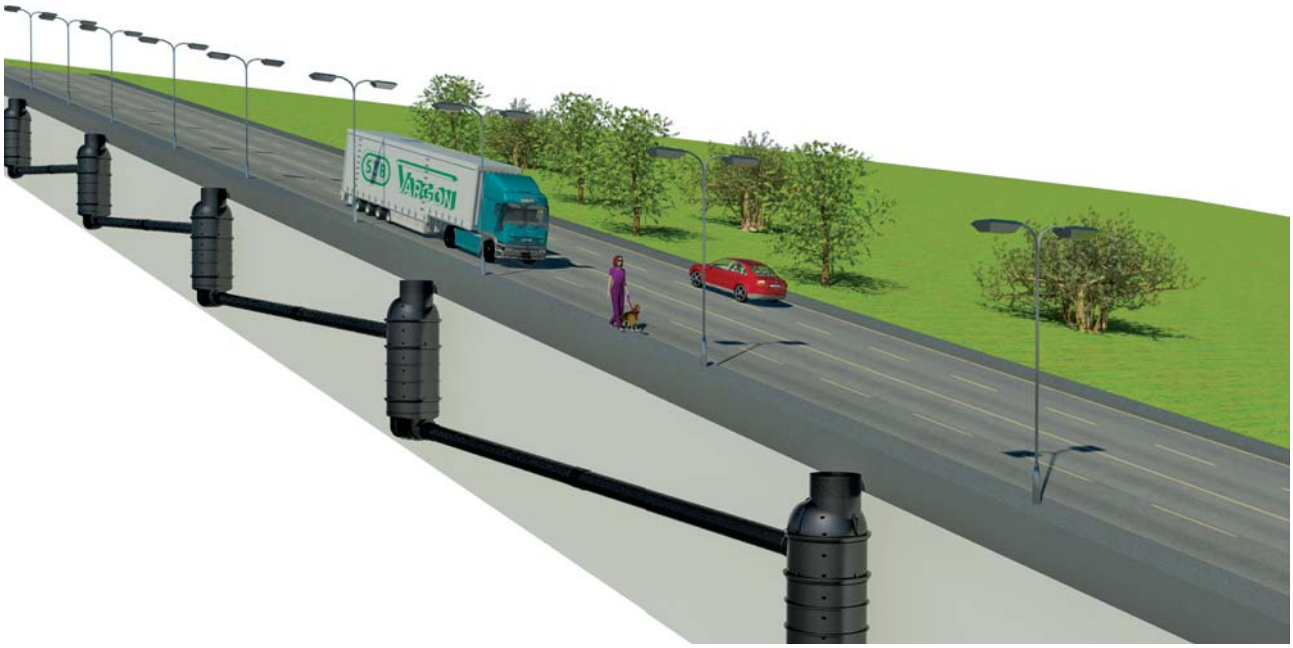
To connect the catchpit with the drain connection to the sewage system, it is only necessary to connect the drain pipe with the installed seal, since the coupling is pre-welded to the catchpit. The other end of the drainage pipe of the catchpit is connected to the inspection chamber with the help of gasket and a transition piece (the drain connection is created) and in this way drains the water into the sewage system.

Cascade and tangential chambers

With cascade chambers, the height of the inlet pipe is noticeably higher than the height of the outlet pipe.

Chambers like this are used for large drops in the terrain, that is, large drops in pipelines where the water gains too much kinetic energy.

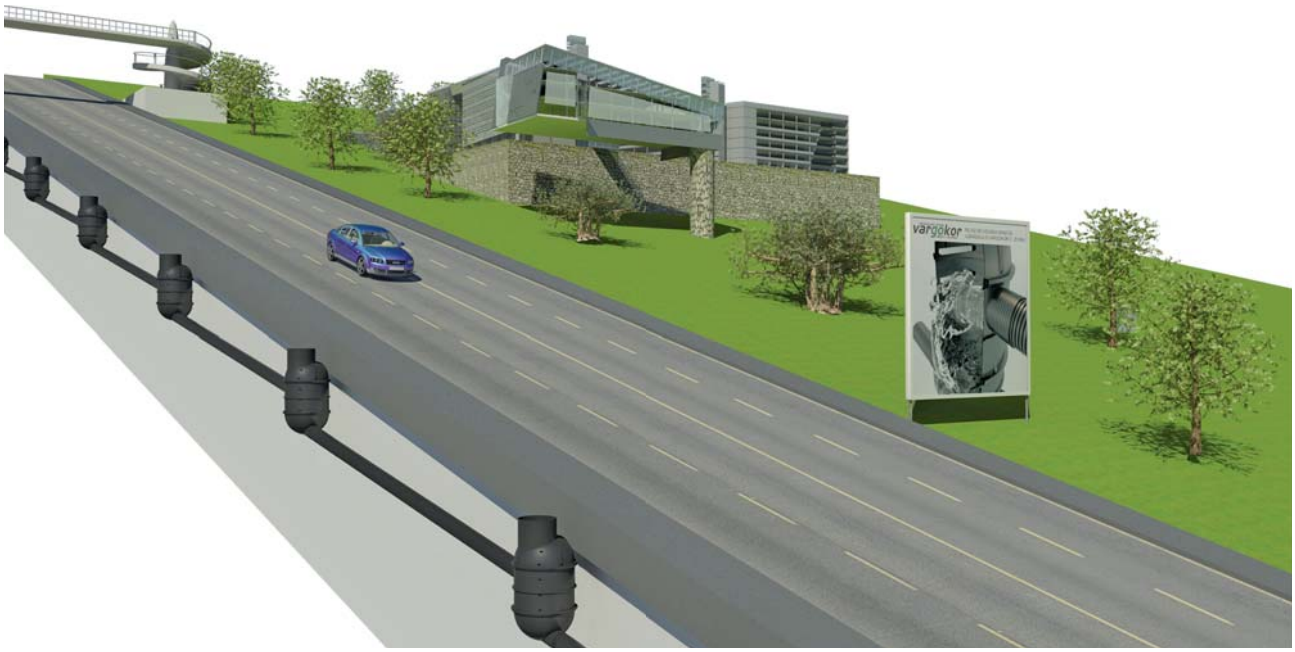
To avoid this problem, the drop of the pipe is reduced, thereby increasing the elevation where the pipe is connected to the next inspection chamber. Upon entering the chamber, the water falls freely on the base unit, and then flows on at a reduced speed.



Display of the use of cascade chambers

Tangential chambers are a solution that reduces the kinetic energy of water in a different way. These chambers have an inlet and outlet positioned in such a way that the water entering the chamber begins to move in a vortex to the exit, thus reducing the kinetic energy.

Tangential chambers are used in shallow burials, when cascade entrances cannot be used. The angle of the connecting parts can be adapted to the needs of the project.



Display of the use of tangential chambers

Assembly instructions

The chambers can be unloaded from the truck by hand or by machines. It is necessary to handle the chambers carefully to avoid unwanted impacts and possible damage. On the construction site, the chambers should be placed on a flat surface in a horizontal position, paying attention to the welded connections.

Excavation of the trench intended for laying the chamber should provide enough space for its installation. If the chamber is installed in the ground where there is a possibility of the walls of the trench collapsing, it must be secured according to its depth.

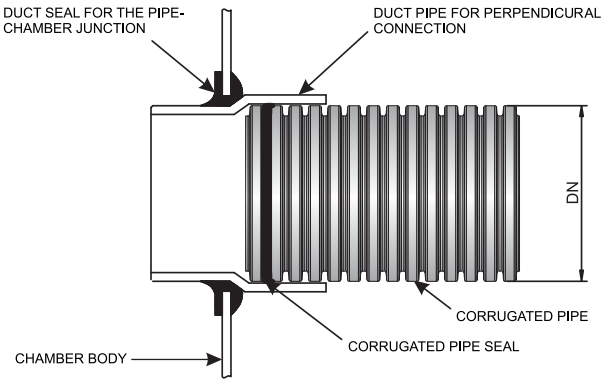
Before laying the chamber, it is necessary to prepare the substrate on which the base of the chamber will be placed. The bedding must be compact, and it must be made of material with suitable granulation. It is recommended to use round-grained material up to 32 mm or crushed material with a grain size of up to 16 mm. The thickness of the bedding layer must be 10-15 cm, and its compaction must be 97% according to Proctor. It is not recommended to use concrete when making the bedding, unless the chamber is larger than 4 m, when the bedding should be made of concrete MB15.

PE chambers are characterized by their lower weight compared to chambers made of other materials, so they are mostly lowered into the trench by hand. The chambers should be handled with care and avoid being thrown as they may break. The chamber must be placed according to the direction marked on the base.

It is important to ensure that the chamber is placed vertically during laying and subsequent backfilling. A possible slope must be corrected using a level.

The chamber comes to the construction site fully welded. Factory-welded couplings or pipes to which the pipelines are connected to the base unit. If a coupling is welded to the chamber, it is enough to connect a ***vargokor*** corrugated pipe with a seal on it. If a pipe is welded to the chamber, it is necessary to first mount a seal on that pipe, then mount a coupling on it, and then connect the ***vargokor*** pipe with the mounted seals. In both cases, it is important to make sure that the seals and couplings are clean, dirt can damage the watertightness of the pipe and pipe joints.

For easier installation, joints and seals should be greased with potassium soap.



Schematic view of the connection of the chamber with the corrugated pipe

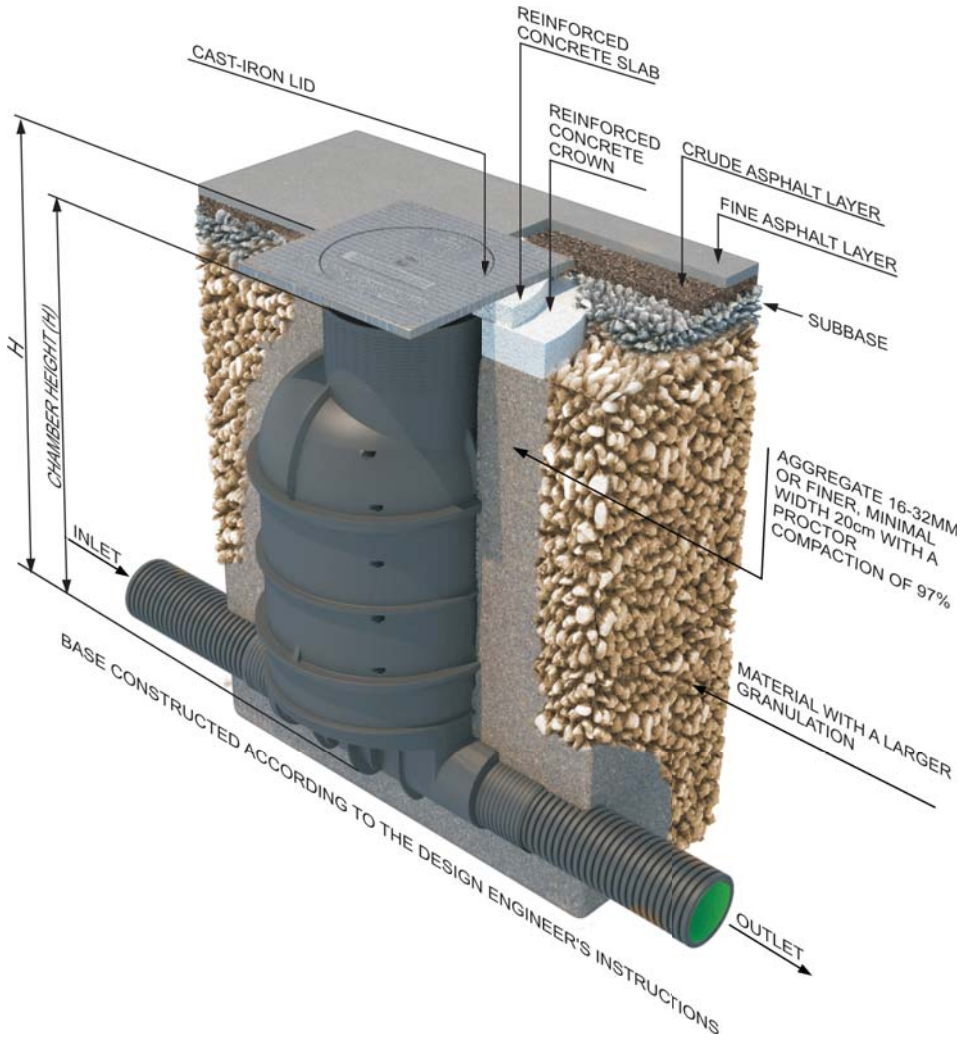
The material used to fill the excavated trench consists of 30 cm thick layers with compaction of each layer. The compaction of layers should be 95% SPD equally all around the chamber, and it must not be performed with heavy machinery, but using a manual compactors. Ganulation of material used for filling the trench must not be larger than 32 mm or material of grain size up to 16 mm in a layer of at least 20 cm around the chamber to prevent damage. In conditions of high groundwater levels, it is necessary to put concrete around the chamber to a minimum of 1/3 of the total height using anchoring elements

After backfilling the chamber, it is possible to adjust its height. The shaft can be shortened by cutting a part of the cone horizontally, and this is helped by centimeter factory markings that enable an accurate cut.And, if necessary, the height of the shaft can be extended by mounting the extension on the cone with the help of the seal provided for this purpose.

The inspection chamber can also be fitted with a catchpit or house connection on the construction site. To ensure watertightness, the following steps must be followed during installation:

1. At the place where the drain connection should be connected, drill a hole with the help of a circular saw
2. The edge of the drilled hole, with the help of a scalpel or a similar tool, should be cleaned of debris and aligned
3. On the cleaned edge of the drilled hole, mount the gasket for connecting the pipe to the shaft
4. Install a transition piece for vertical pipe connection in the hole with the installed gasket
5. Connect the ***vargokor*** corrugated pipe with the installed seal to the assembled transition piece.

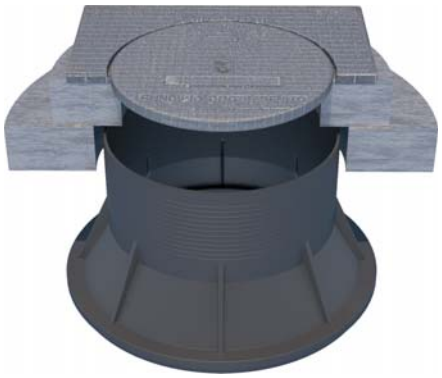
Connection of the drain connection with a gasket and a transition piece



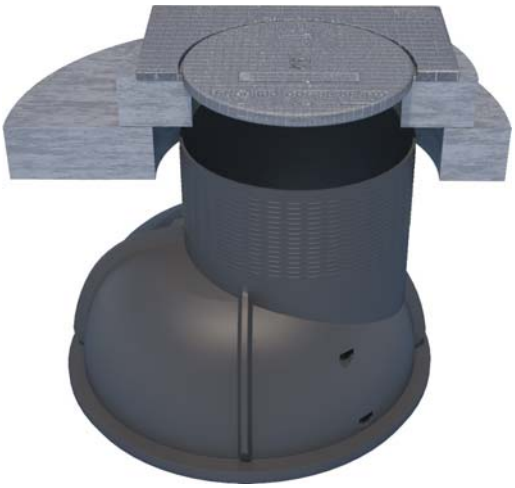
Proper installation of PE chamber in the traffic area

When installing ***vargokor*** PE inspection chambers, it is necessary to install a concrete ring. This ring has a double task: the first is to distribute the weight of the vehicles on the surrounding terrain with its surface, thus protecting the chamber from large forces that can occur when a large weight passes over the cover, and the second task is to serve as a base for the frame of cast iron cover.

The concrete ring has a height of up to 30 cm and must not touch the plastic chamber at any point. The outer diameter of the concrete ring should exceed the diameter of the chamber body, while the inner diameter of the concrete ring should be 2-3 cm away from the outer wall of the cone. The minimum recommended thickness of the concrete ring is 20 cm.



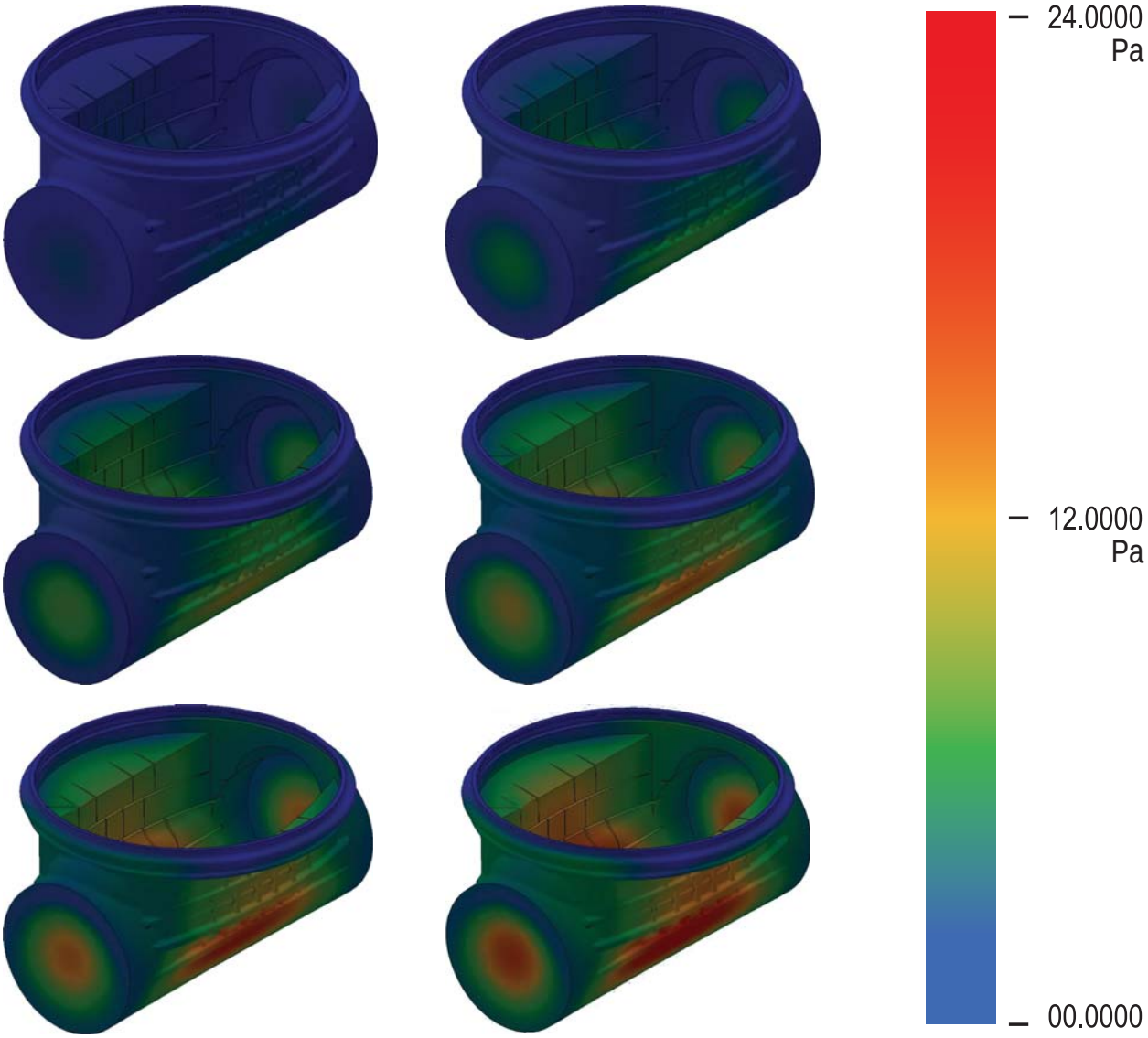
Display of concrete ring and concentric cone



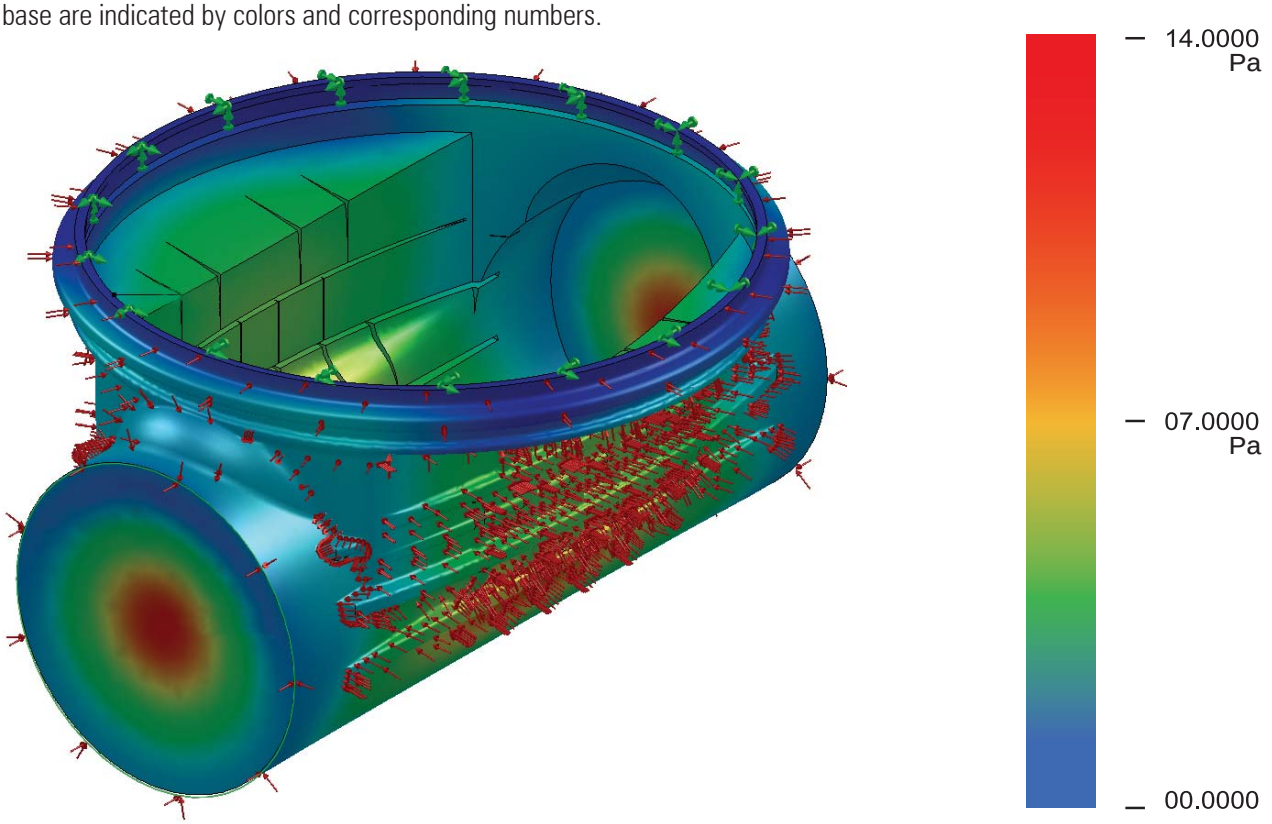
Display of concrete ring and eccentric cone

The development department of Vargon d.o.o. has constructed a new, reinforced base unit DN 800 1/1 that can be used for the most demanding projects. This base unit is constructed in such a way that it distributes external loads as evenly as possible on the entire base. The curvature of the side lines enables significantly greater forces to act on the sides of the base than the straight side lines of the chamber base allow. Base unit DN 800 1/1 can be made with integrated sockets for connection with pipes. It can also be delivered with a stand that ensures the stability of the chamber during installation. The base of the chamber has horizontal surfaces that are filled during the installation of the shaft, thus preventing its lifting.

Groundwater represents the biggest problem in inspection chamber exploitation because it has a very strong effect, especially at greater burial depths. The influence of underground water is dynamic loads that change depending on the level of underground water on a certain terrain, which also depends on the season and the amount of precipitation. In the pictures below, we can see the influence of forces and the occurrence of deformations on the base of chamber at different depths of groundwater.

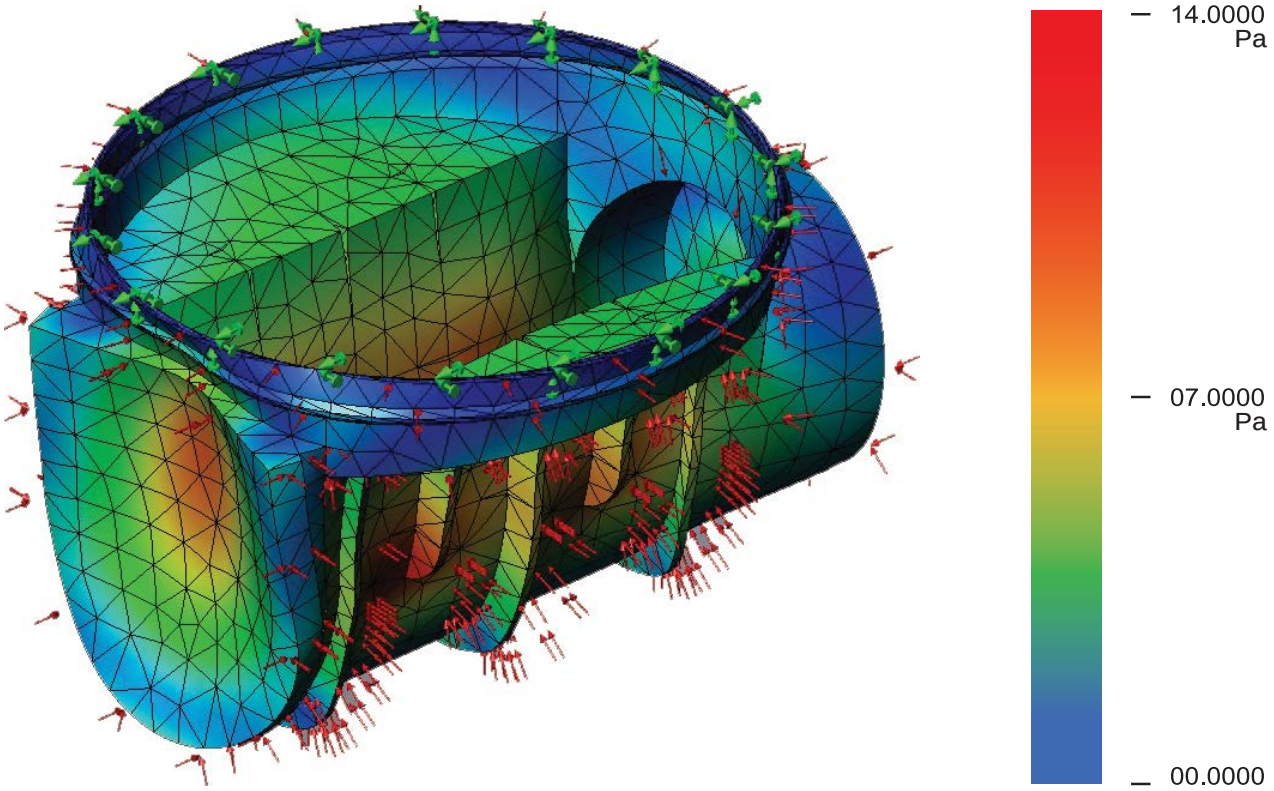


The deeper the chamber is buried, the stronger the forces are, especially if groundwater is present. The picture shows the base DN 800 1/1 UI=400 with the directions of forces at a burial depth of 5 meters. In the picture, the deformations of the base are indicated by colors and corresponding numbers.



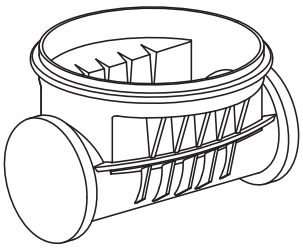
The new, reinforced base DN 800 is made together with sockets (couplings) for connecting corrugated pipes. The range of possible connections is DN / **OD** 200, 250, 315, 400 and DN / **ID** 250, 300, 400.

By making the connecting elements in the same casting process as the base, possible errors and unevenness in the connection between the socket and the base are prevented. This ensures that the elevation of the bottom of the pipe and the elevation of the bottom of the chamber are at the same height.

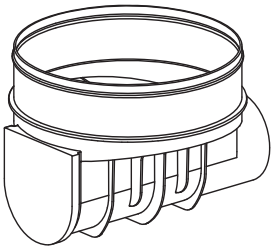


Load simulation measured in Pa

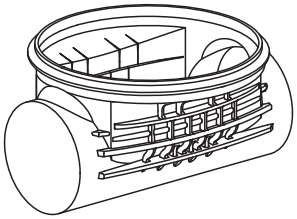
PASSING BASE UNIT 1/1 MODEL: 1	DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
	630	OD 315	0,50	s = 10 mm	15459	**1**



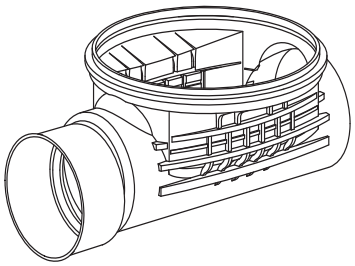
PASSING BASE UNIT 1/1 MODEL: 1	DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
	800	OD 400	0,50	s = 10 mm	11816	**1**
	1000	OD 400	0,75	s = 10 mm	11817	**1**
	1000	OD 630	0,75	s = 10 mm	15697	**1**
	1000	OD 800	1,00	s = 10 mm	15698	**1**
	800	OD 400	0,50	s = 12 mm	15699	**1**
	1000	OD 400	0,75	s = 12 mm	15700	**1**
	1000	OD 630	0,75	s = 12 mm	15701	**1**
	1000	OD 800	1,00	s = 12 mm	15702	**1**



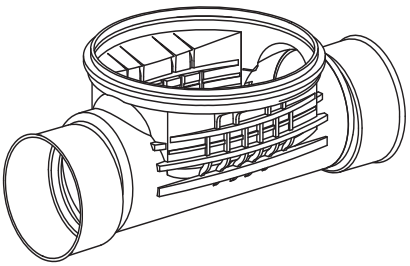
PASSING BASE UNIT 1/1 MODEL: 2	DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
	800	OD 400	0,50	s = 10 mm	15703	**1**
	800	OD 400	0,50	s = 12 mm	15704	**1**



PASSING BASE UNIT 1/1 MODEL: 2 *outlet* SOCKET	DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
	800	OD 200	0,50	s = 10 mm	17241	**1**
	800	OD 250	0,50	s = 10 mm	16813	**1**
	800	OD 315	0,50	s = 10 mm	15705	**1**
	800	OD 400	0,50	s = 10 mm	15707	**1**
	800	ID 250	0,50	s = 10 mm	17247	**1**
	800	ID 300	0,50	s = 10 mm	15708	**1**

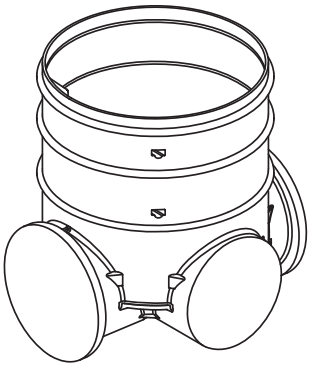


PASSING BASE UNIT 1/1
MODEL: 2 *inlet / outlet* SOCKET



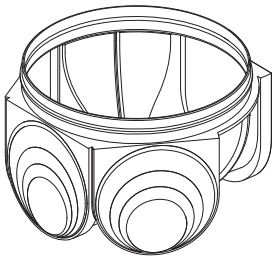
DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
800	OD 200	0,50	s = 10 mm	17244	**1**
800	OD 250	0,50	s = 10 mm	16815	**1**
800	OD 315	0,50	s = 10 mm	15710	**1**
800	OD 400	0,50	s = 10 mm	15711	**1**
800	ID 250	0,50	s = 10 mm	17250	**1**
800	ID 300	0,50	s = 10 mm	15712	**1**

COLLECTING BASE UNIT 2/1
MODEL: 1



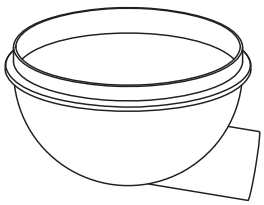
DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
800	OD 400	0,50	s = 10 mm	16474	**1**
800	OD 400	0,75	s = 10 mm	16475	**1**
800	OD 400	1,00	s = 10 mm	15728	**1**
800	OD 400	0,50	s = 12 mm	16476	**1**
800	OD 400	0,75	s = 12 mm	16477	**1**
800	OD 400	1,00	s = 12 mm	15729	**1**

COLLECTING BASE UNIT 3/1
MODEL: 1

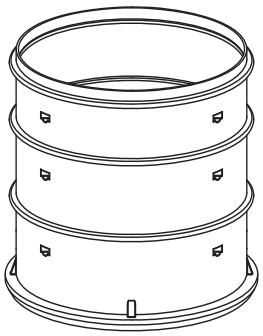


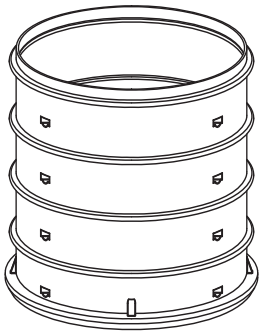
DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
800	OD 400	0,50	s = 10 mm	11662	**1**
1000	OD 500	0,75	s = 10 mm	11815	**1**
800	OD 400	0,50	s = 12 mm	15714	**1**
1000	OD 500	0,75	s = 12 mm	15715	**1**

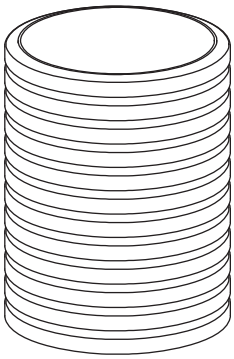
TANGENTIAL BASE UNIT 1/1
MODEL: 1



DN *mm*	Max. conn. DN *mm*	H *m*	Wall thickness	Code	
800	OD 250	0,50	s = 10 mm	- 12834 -	**1**
1000	OD 315	0,50	s = 10 mm	- 21996 -	**1**

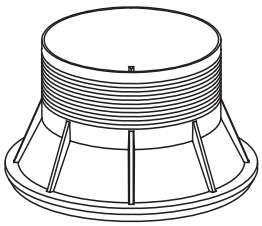
BODY MODEL: 1	DN *mm*	H *m*	Wall thickness	Code	
	800	0,25	s = 10 mm	15844	**1**
	800	0,50	s = 10 mm	13678	**1**
	800	0,75	s = 10 mm	11663	**1**
	800	0,25	s = 12 mm	15716	**1**
	800	0,50	s = 12 mm	15717	**1**
	800	0,75	s = 12 mm	15718	**1**

BODY MODEL: 2	DN *mm*	H *m*	Wall thickness	Code	
	1000	0,25	s = 10 mm	12252	**1**
	1000	0,50	s = 10 mm	12253	**1**
	1000	0,75	s = 10 mm	12254	**1**
	1000	1,00	s = 10 mm	12255	**1**
	1000	0,25	s = 12 mm	15719	**1**
	1000	0,50	s = 12 mm	15720	**1**
	1000	0,75	s = 12 mm	15721	**1**
	1000	1,00	s = 12 mm	15722	**1**

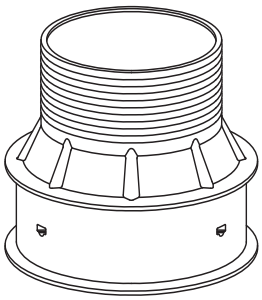
BODY OF CORRUGATED PIPE MODEL: 3	DN / OD *mm*	H *m*	Code	
	630	0,25	24348	**1**
	630	0,50	24349	**1**
	630	0,75	24338	**1**
	630	1,00	24339	**1**

DN / ID *mm*	H *m*	Code	
800	0,25	- 24336 -	**1**
800	0,50	- 24337 -	**1**
800	0,75	- 24340 -	**1**
800	1,00	- 24341 -	**1**
1000	0,25	- 24342 -	**1**
1000	0,50	- 24343 -	**1**
1000	0,75	- 24344 -	**1**
1000	1,00	- 24345 -	**1**

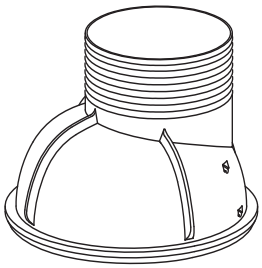
CONE UNIT MODEL: 1	DN *mm*	H *m*	Wall thickness	Code	
	800	0,50	s = 10 mm	11664	**1**



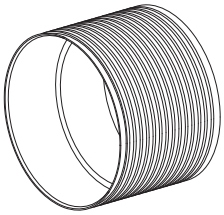
CONE UNIT MODEL: 2	DN *mm*	H *m*	Wall thickness	Code	
	800	0,75	s = 10 mm	16181	**1**
	800	1,00	s = 10 mm	16478	**1**



CONE UNIT MODEL: 3	DN *mm*	H *m*	Wall thickness	Code	
	1000	0,75	s = 10 mm	11674	**1**



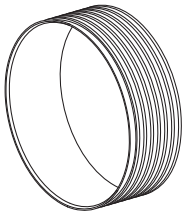
COUPLING PE



DN / OD *mm*	Code	
160	11676	1
200	17492	1
250	17493	1
315	17494	1
400	17495	1
500	17496	1
630	17497	1
800	11849	1
1000	11832	1

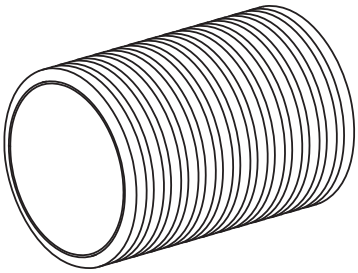
DN / ID *mm*	Code	
250	17498	1
300	17499	1
400	17500	1

HALF COUPLING PE



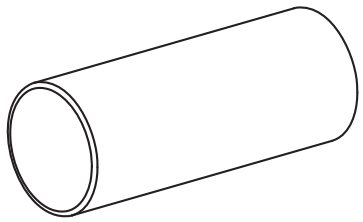
DN / OD *mm*	Code	
160	20934	1
200	20937	1
250	20944	1
315	20945	1
400	20946	1
500	20947	1
630	20948	1
800	20949	1
1000	20950	1

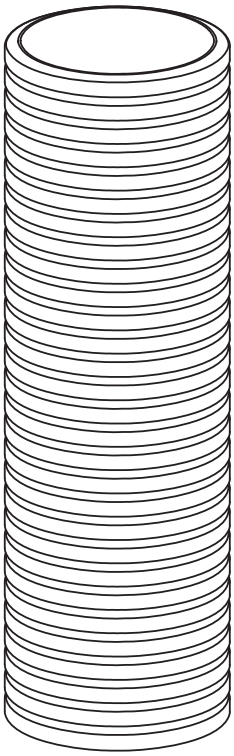
DN / ID *mm*	Code	
250	20951	1
300	20952	1
400	20953	1



PIPE SECTION CORRUGATED SN8	DN / OD *mm*	L *mm*	Code	
	160	250	20954	**1**
	160	500	20955	**1**
	200	250	20956	**1**
	200	500	20957	**1**
	250	250	20958	**1**
	250	500	20959	**1**
	315	250	20960	**1**
	315	500	20961	**1**
	400	250	20962	**1**
	400	500	20963	**1**
	500	250	20964	**1**
	500	500	20969	**1**
	630	250	20966	**1**
	630	500	20967	**1**
	800	250	20972	**1**
	800	500	20971	**1**
	1000	250	20980	**1**
	1000	500	20984	**1**
	1200	250	20985	**1**
	1200	500	20986	**1**

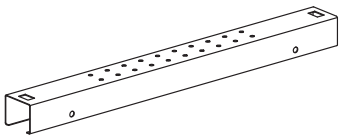
DN / ID *mm*	L *mm*	Code	
250	250	20987	**1**
250	500	20988	**1**
300	250	20989	**1**
300	500	20990	**1**
400	250	20991	**1**
400	500	20992	**1**

PIPE SECTION SMOOTH PE 100, PN 3,2, SDR 41	DN / OD *mm*	L *mm*	Code	
	110	250	- 20993 -	**1**
	110	500	- 20994 -	**1**
	125	250	- 20995 -	**1**
	125	500	- 20996 -	**1**
	160	250	- 20997 -	**1**
	160	500	- 20998 -	**1**
	200	250	- 20999 -	**1**
	200	500	- 21000 -	**1**
	250	250	- 21001 -	**1**
	250	500	- 21002 -	**1**
	315	250	- 21003 -	**1**
	315	500	- 21004 -	**1**
	400	250	- 21005 -	**1**
	400	500	- 21006 -	**1**
	500	250	- 21007 -	**1**
	500	500	- 21008 -	**1**

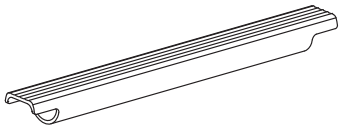
CATCHPIT with welded bottom *(without coupling)*	DN *mm*	H *m*	Code	
	OD 400	1,50	16496	**1**
	OD 400	1,75	16497	**1**
	OD 400	2,00	16498	**1**
	OD 400	2,25	16499	**1**
	OD 400	2,50	16500	**1**
	OD 500	1,50	16501	**1**
	OD 500	1,75	16502	**1**
	OD 500	2,00	16503	**1**
	OD 500	2,25	16504	**1**
	OD 500	2,50	16505	**1**
	OD 630	1,50	15606	**1**
	OD 630	1,75	16507	**1**
	OD 630	2,00	16508	**1**
	OD 630	2,25	16509	**1**
	OD 630	2,50	16510	**1**

DN *mm*	H *m*	Code	
ID 400	1,50	16511	**1**
ID 400	1,75	16512	**1**
ID 400	2,00	16513	**1**
ID 400	2,25	16514	**1**
ID 400	2,50	16515	**1**

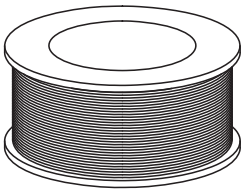
STAINLESS STEEL STEP BAR	L *mm*	for chamber *DN*	Code	
	550	800	- 21009 -	**1**
	590	1000	- 21010 -	**1**
	650	1000	- 21011 -	**1**



PE-HD STEP BAR	L *mm*	for chamber *DN*	Code	
	560	800	21012	**1**
	660	1000	21013	**1**



WELDING WIRE *in coil* PE 80	Ø *mm*	Code	
	4	- 9112 -	**kg**



NOTES


SGS

VARGON d.o.o.

ISO 9001:2015

Proizvodnja plastičnih cijevi i spojnica za vodu i odvodnju.

17021-HAA

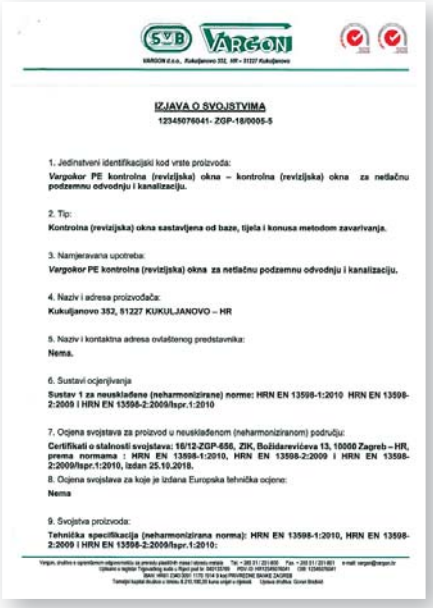

SGS

VARGON d.o.o.

ISO 14001:2015

Proizvodnja plastičnih cijevi i spojnica za vodu i odvodnju.

17021-HAA


VARGON

IZJAVA O SVOJSTVIMA

12345076041- ZGP-18/0005-5

1. Jedinstveni identifikacijski kod vrste proizvoda:

***Vargokor* PE kontrolna (revizijska) okna – kontrolna (revizijska) okna za netlačnu podzemnu odvodnju i kanalizaciju.**

2. Tip:

Kontrolna (revizijska) okna sastavljena od baze, tijela i konusa metodom zavarivanja.

3. Namjeravana upotreba:

***Vargokor* PE kontrolna (revizijska) okna za netlačnu podzemnu odvodnju i kanalizaciju.**

4. Naziv i adresa proizvođača:

Kukuljanovo 352, 51227 KUKULJANOVO – HR

5. Naziv i kontaktna adresa ovlaštenog predstavnika:

Nema.

6. Sustavi ocjenjivanja

Sustav 1 za neusklađene (neharmonizirane) norme: HRN EN 13598-1:2010 HRN EN 13598-2:2009 i HRN EN 13598-2:2009/Ispr.1:2010

7. Ocjena svojstava za proizvod u neusklađenom (neharmoniziranom) području:

Certifikati o stalnosti svojstava: 16/12-ZGP-656, ZIK, Božidarevićeva 13, 10000 Zagreb – HR, prema normama : HRN EN 13598-1:2010, HRN EN 13598-2:2009 i HRN EN 13598-2:2009/Ispr.1:2010, izdan 25.10.2018.

8. Ocjena svojstava za koje je izdana Europska tehnička ocjena:

Nema

9. Svojstva proizvoda:

Tehnička specifikacija (neharmonizirana norma): HRN EN 13598-1:2010, HRN EN 13598-2:2009 i HRN EN 13598-2:2009/Ispr.1:2010:

INSTALLATION SYSTEMS

vargokal
HOUSE SEWAGE SYSTEM

vargokal PLUS
HOUSE SEWAGE SYSTEM - LOW NOISE

vargokal ULTRA
HOUSE SEWAGE SYSTEM - SILENT

vargokal SIF
HOUSE SEWAGE SYSTEM - SYPHONS

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HOUSE WATER SUPPLY

vargoplen
WATER

vargoplen
IRRIGATION AND SEWAGE

vargoplen
GAS

vargokor
SEWAGE PIPES

vargokor
SEWAGE CHAMBERS AND CATCHPITS

vargodren
DRAINAGE PIPES

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vargoheat
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Local distributer:

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ISO 14001 SGS

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