

www.engeco.pl

PRODUCTION CATALOG 2023

GEOHERMAL SYSTEMS



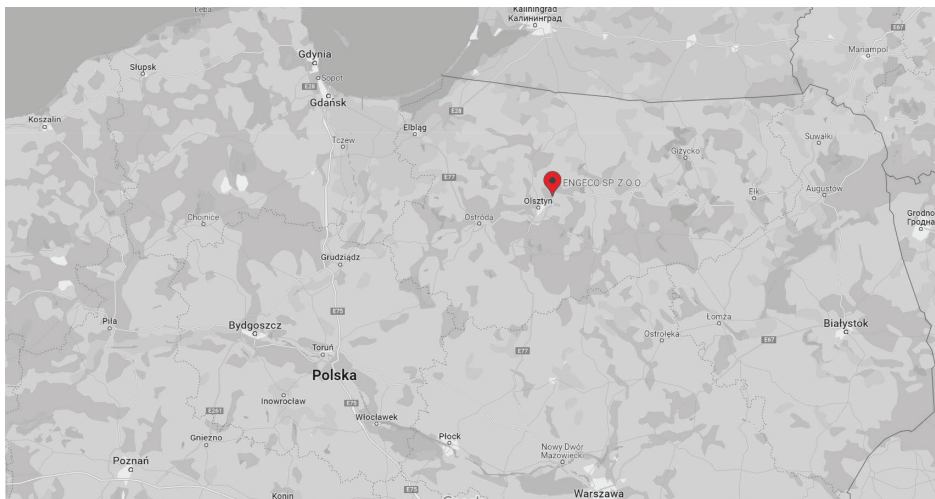
ENGECO



ENGECO Sp. z o. o.

Barczewko 133
11-010 Barczewo

tel: +48 724 322 620
e-mail: biuro@engeco.pl
internet: www.engeco.pl



- 2 Manifolds **BASE**
- 3 Manifolds **INBOX**
- 4 Manifolds **EXBOX**
- 5 Distribution chamber **MICRO**
- 6 Distribution chamber **MINI**
- 7 Distribution chamber **OPTIMUM**
- 8 Distribution chamber **MEDIUM**
- 9 Distribution chamber **MAXI**

Wall manifold BASE

1. Intended use of the product

The wall distributor is used to collect working sections (SR) from vertical wells or horizontal collectors and send the working medium to the heat pump through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and closing of individual working sections.

2. Equipment of wall distributors

- are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z)
- distributors are made of polyethylene
- The shut-off fittings installed in all products are made of PPR technology with EPDM seals. This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.
- equipped with mounting consoles

3. Technical parameters of the distributor

Material of_the_manifold	HDPE
Number of SR working sections from	2 - 40 sections
Standard diameter of working pipes (SR)	40 [mm]
Standard RP location	UP
Standard diameter of RP transmission pipes depending on the number of SR	from 40 mm to 110 mm
Pressure class_of_the_manifold	PN10
Standard type of installed rotameters: linear	5-40 l/min
Standard type of valves installed	PPR ball valve dn 32

4. Place of installation

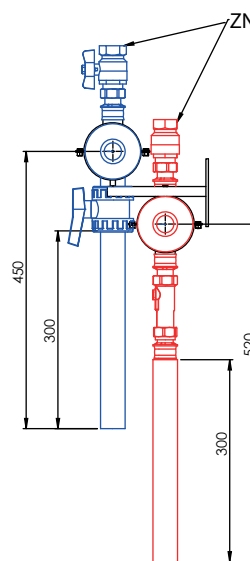
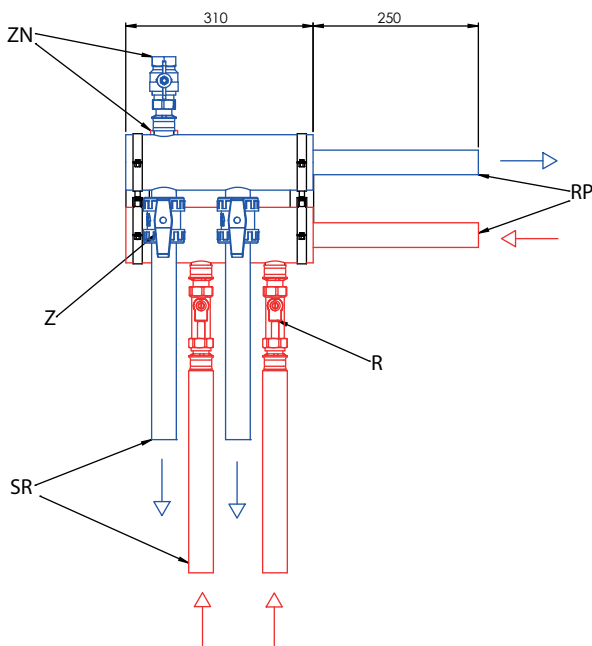
Outside the building or inside the building, in the heat pump engine room. Wall mounting.

5. List of documents related to the product

- National Declaration of Performance

6. The product is characterized by:

- Enables universal right/left connection of the installation system
- SR and RP finished with spigot stubs
- Technical service by the manufacturer
- We use various equipment variants (structural/additional fittings) to meet individual customer requirements.
- The design of the divider prevents the working sections from crossing. They are grouped in pairs.



Manifold INBOX

1. Intended use of the product:

The distribution cabinet is used to collect working sections (SR) in the form of vertical wells or horizontal collectors and send the working medium to the heat pump through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and closing of individual working sections.

2. Equipment of distribution cabinets:

- consists of insulated distributors made of synthetic rubber foam
- are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z)
- the distributors are made of polyethylene and the cabinet casing is made of piocelan material
- possibility of equipping the connection pipes with a cover
- the cabinet casing has high thermal insulation, durable and light, chemical resistance and abrasion resistance

3. Technical parameters of the distributor

Material of the manifold	HDPE
Number of SR working sections from	2 - 5 sections
Standard diameter of working pipes (SR)	40 [mm]
Standard RP location	UP
Distribution cabinet housing material	Piocelan
Standard diameter of RP transmission pipes depending on the number of SR	from 40 mm to 63 mm / 1" to 1 1/2"
Pressure class of the manifold	PN10
Standard type of installed rotameters: linear	5-40 l/min
Standard type of installed valves	PPR ball valve dn 32

- The shut-off fittings installed in all products are made of PPR technology with EPDM seals. This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.

4. Place of installation

Outside the building or inside the building, in the heat pump engine room.

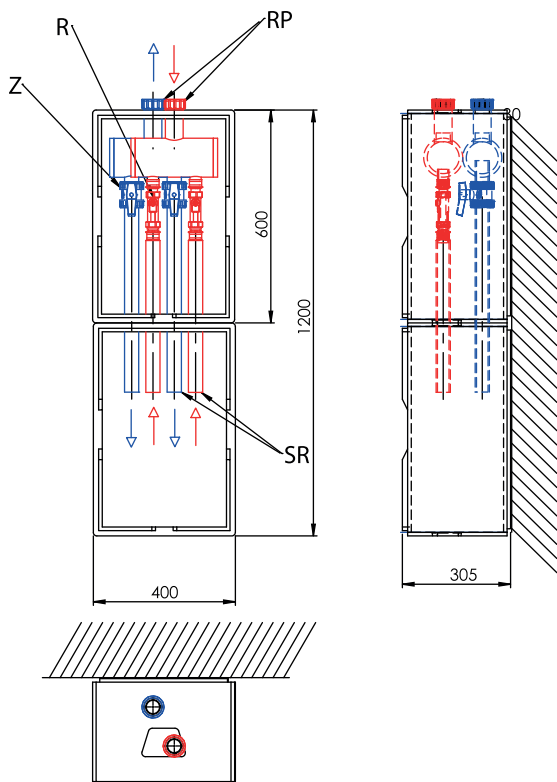
Installation wall-mounted

5. List of documents related to the product

- National Declaration of Performance

6. The product is characterized by:

- Enables universal right/left connection of the installation system
- SR and RP finished with spigot stubs
- Technical service by the manufacturer
- We use various equipment variants to meet individual customer requirements



Manifold EXBOX

1. Intended use of the product:

The distribution cabinet is used to collect working sections (SR) in the form of vertical wells or horizontal collectors and send the working medium to the heat pump through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and closing of individual working sections.

2. Equipment of distribution cabinets:

- consists of insulated distributors made of synthetic rubber foam
- are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z)
- distributors are made of polyethylene and the cabinet casing is made of PEHD material
- can be equipped with a grille
- the cabinet casing has high thermal insulation, is durable and light, chemically resistant and abrasion resistant
- The shut-off fittings installed in all products are made of PPR technology with EPDM seals.

3. Technical parameters of the distributor

Material of_the_manifold	HDPE
Number of SR working sections from	2 - 5 sections
Standard diameter of working pipes (SR)	40 [mm]
Standard_RP_location	UP
Distribution_cabinet_housing_material	PEHD
Standard diameter of RP transmission pipes depending on the number of SR	
Pressure_class_of_the_manifold	PN10
Standard type of installed rotameters: linear	5-40 l/min
Standard type of installed valves	PPR ball valve dn 32

This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.

3. Place of installation

Outside the building or inside the building, in the heat pump engine room.

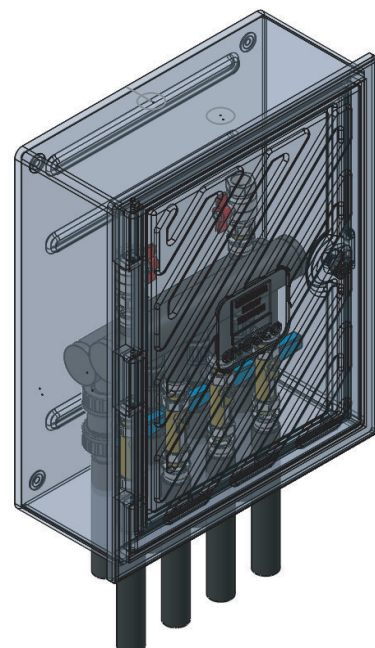
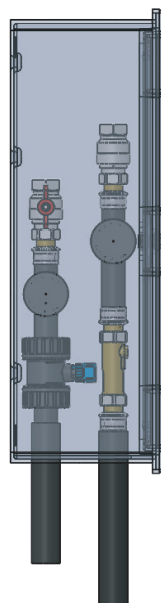
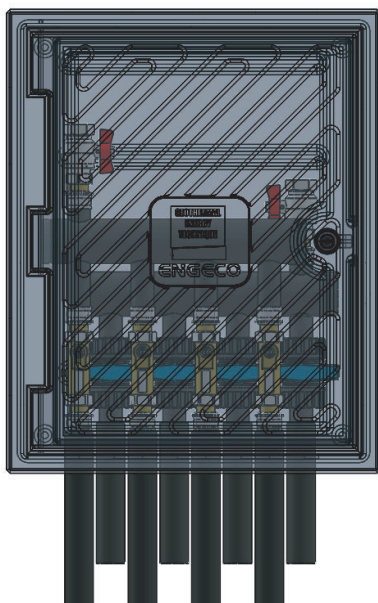
Installation wall-mounted

4. List of documents related to the product

- National Declaration of Performance

5. The product is characterized by:

- Enables universal right/left connection of the installation system
- SR and RP finished with spigot stubs
- Technical service by the manufacturer
- We use various equipment variants to meet individual customer requirements



Distribution chamber MICRO

1. Intended use of the product:

The MICRO well is used to collect working sections (SR) in the form of wells or horizontal collectors and to send the working medium to the heat pump engine room through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and isolation of individual working sections.

2. Manhole equipment:

- Wells are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z) and with filling valves (ZN)
- The collecting well is made of high-density polyethylene with tight passages made by welding.
- The chamber is standardly equipped with a telescopic extension made of PPR material and sealed at the connection with the chamber with a multi-groove gasket with a height adjustment range of up to 150 mm
- The shut-off fittings installed in all products are made of PPR technology with EPDM seals. This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.

3. Telescopic extension

The chamber is standardly equipped with a telescopic extension made of PPR material and sealed at the connection with well with a multi-groove seal with an adjustment range height up to 150 mm

4. Technical parameters of the distributor

The material of the chamber	HDPE
Number of working sections (SR)	2-6 sections
Standard diameter of working pipes (SR) coming out of the well	40 [mm]
Standard diameter of transmission pipes (RP) depending on the number of SR	40-63 [mm]
Passage of working sections through the manhole wall (SR)	Welded
Passage of transmission pipes through the manhole wall (RP)	Welded
Venting and filling connections (ZN)	1" internal thread
Standard type of installed rotameters, linear	5-40 l/min
Standard type of installed valves	PPR ball valve dn 32

5. Place of installation

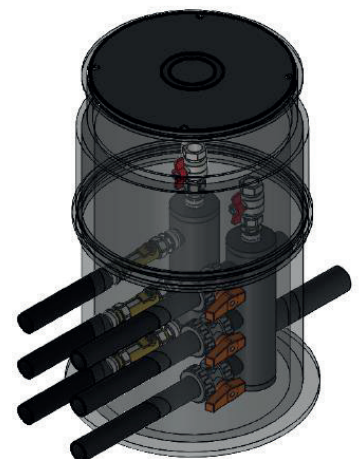
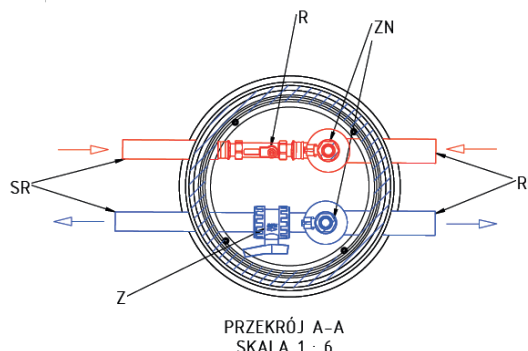
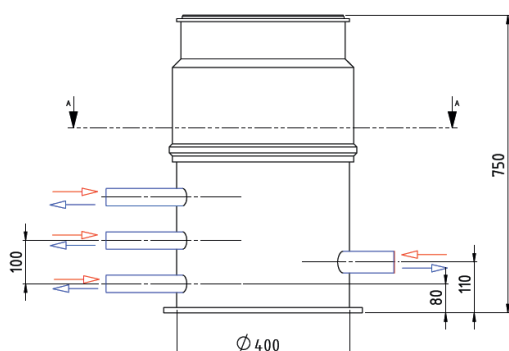
Outside the building with foundation in the ground.
Foundation depth: 75 cm below ground level or in the version with a telescopic extension up to a maximum of 0 cm below ground level (see point 3.) The manhole neck should be located flush with the ground level. Installation in paved areas - see installation instructions.

6. List of documents related to the product

- National Declaration of Performance
- Rules for installing manholes

7. The product is characterized by:

- The design of the distributor prevents pipes from crossing. The working pipes are grouped in pairs, the supply pipe above the return pipe
- The passage of RP and SR through the well shell maximizes the protective function of the distributor by making welded passages through the well shell
- RP and SR passing through the well shell end with spigots
- By installing a telescopic extension, it is possible to adjust the height of the manhole. The connection between the manhole and the extension is sealed
- The supply and return distribution collectors are made in a vertical version
- Technical service by the manufacturer
- We use various variants of equipment and construction of our products based on individual customer conditions



Distribution chamber MINI

1. Intended use of the product:

The MINI well is used to collect working sections (SR) in the form of wells or horizontal collectors and to send the working medium to the heat pump engine room through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and isolation of individual working sections.

2. Manhole equipment:

- Wells are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z) and with filling valves (ZN)
- The collection well is made of polyethylene with rounded walls with tight passages made by drilling holes and placing an inlet seal in the hole.
- The manhole is equipped with a light black cover.
- The shut-off fittings installed in all products are made of PVC technology with EPDM seals. This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.

4. Place of installation

Outside the building with foundation in the ground.
 Foundation depth: 80 cm below ground level or in the version with an extension + 50 cm or + 100 cm above ground level.
 The well neck should be located 5 cm above ground level.
 Installation in paved areas - see installation instructions.

5. List of documents related to the product

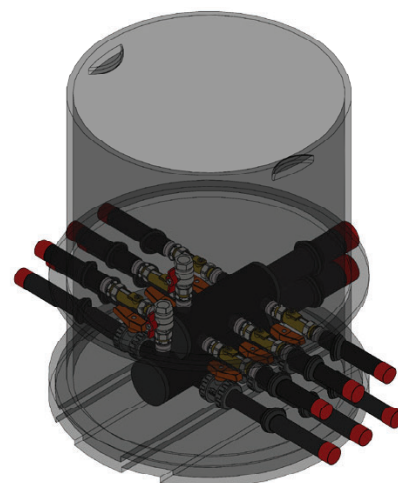
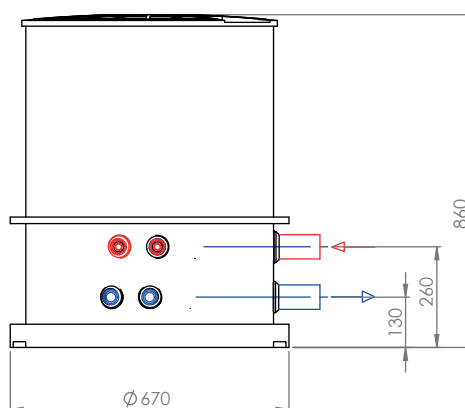
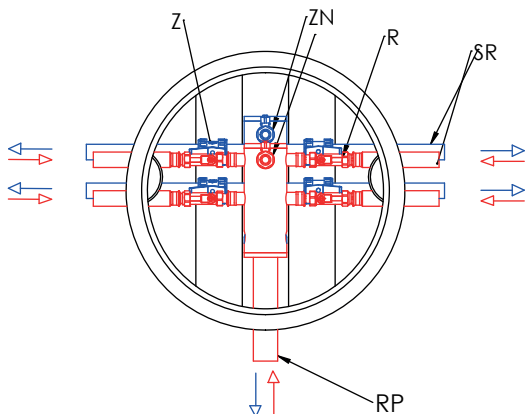
- National Declaration of Performance
- Principles of manhole installation

6. Product characterized by:

- The design of the distributor prevents pipes from crossing. The working pipes are grouped in pairs, the supply pipe above the return pipe
- The passage of RP and SR through the well shell maximizes the protective function of the distributor by installing inlet seals made of EDPM rubber
- RP and SR passing through the well shell end with spigots
- The MINI chamber can be equipped with additional cut-off valves on the transmission pipes
- By installing an extension, it is possible to adjust the height of the manhole. The connection between the manhole and the extension is sealed
- Technical service by the manufacturer
- We use various variants of equipment and construction of our products based on individual customer conditions

3. Technical parameters of the distributor

The material of the chamber	HDPE
Number of working sections (SR)	2-6 sections
Standard diameter of working pipes (SR) coming out of the well	40 [mm]
Standard diameter of transmission pipes (RP) depending on the number of SR	40-63 [mm]
Passage of working sections through the manhole wall (SR)	Rubber seal
Passage of transmission pipes through the manhole wall (RP)	Rubber seal
Venting and filling connections (ZN)	1" internal thread
Standard type of installed rotameters, linear	5-40 l/min
Standard type of installed valves	PPR ball valve dn 32



Distribution chamber OPTIMUM

1. Intended use of the product:

The OPTIMUM well is used to collect working sections (SR) in the form of wells or horizontal collectors and to send the working medium to the heat pump engine room through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and isolation of individual working sections.

2. Manhole equipment

- Wells are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z) and with filling valves (ZN)
- The collection well is made of polyethylene with flat, rectangular working walls with tight passages made by drilling holes and placing an inlet seal in the hole.
- The manhole is equipped with a light black cover. The manhole is equipped with a crossbar making it easier to enter the well and adjust it.
- The shut-off fittings installed in all products are made of PPR technology with EPDM seals. This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.

3. Technical parameters of the distributor

The material of the chamber	HDPE
Number of working sections (SR)	2-20 sections
Standard diameter of working pipes (SR) coming out of the well	40 [mm]
Standard diameter of transmission pipes (RP) depending on the number of SR	40-110 [mm]
Passage of working sections through the manhole wall (SR)	Rubber seal
Passage of transmission pipes through the manhole wall (RP)	Rubber seal
Venting and filling connections (ZN)	1" internal thread
Standard type of installed rotameters, linear	5-40 l/min
Standard type of installed valves	PPR ball valve dn 32

4. Place of installation

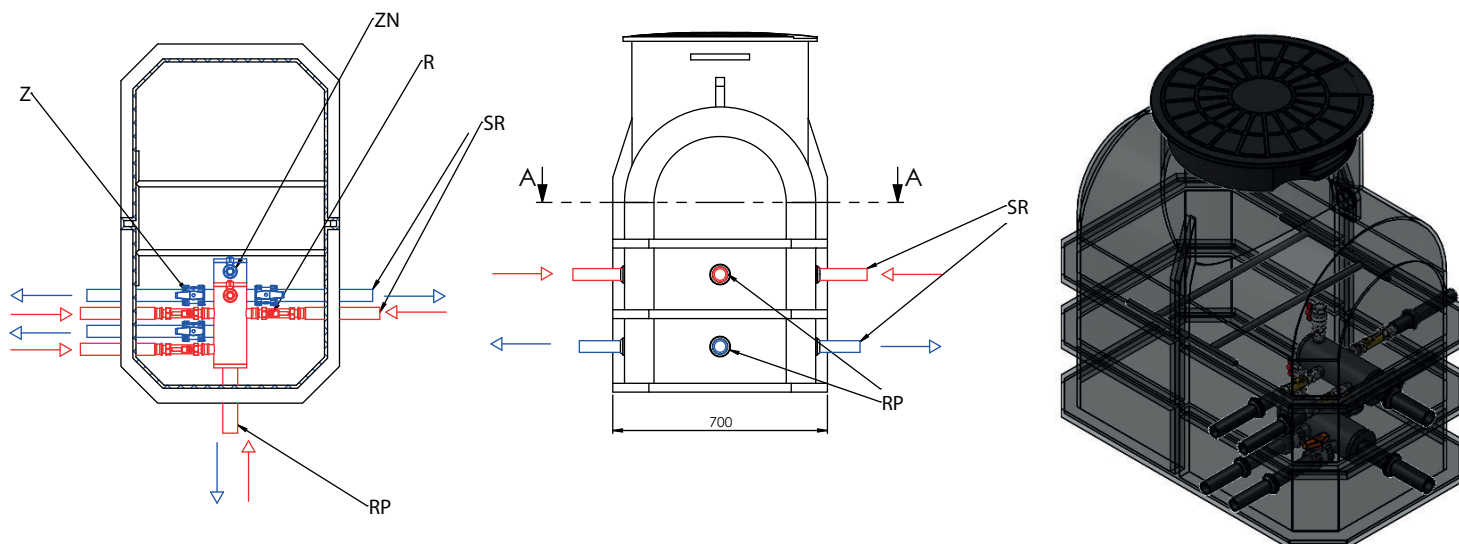
Outside the building with foundation in the ground. Foundation depth: 120 cm below ground level or in the version with an extension + 50 cm or +100 cm above ground level. The well neck should be located 5 cm above ground level. Installation in paved areas - see installation instructions.

5. List of documents related to the product

- National Declaration of Performance
- Principles of manhole installation

6. Product characterized by:

- The design of the distributor prevents pipes from crossing. The working pipes are grouped in pairs, the supply pipe above the return pipe
- Passing the RP and SR through the well shell maximizes the protective function of the manifold by installing inlet seals
- RP and SR passing through the well shell end with spigots
- The OPTIMUM chamber can be equipped with additional shut-off valves on the transmission pipes
- By installing an extension, it is possible to adjust the height of the manhole. The connection between the manhole and the extension is sealed
- Technical service by the manufacturer
- We use various variants of equipment and construction of our products based on individual customer conditions
- Crossbar – an element strengthening the structure of the well



Distribution chamber MEDIUM

1. Intended use of the product:

The MEDIUM well is used to collect working sections (SR) in the form of wells or horizontal collectors and to send the working medium to the heat pump engine room through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and isolation of individual working sections.

2. Manhole equipment

- Wells are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z), filling/venting valves (ZN) and transfer shut-off valves (ZP).
- The collection well is made of polyethylene in the shape of a horizontal, corrugated cylinder with two inspection hatches and tight passages made by drilling holes and placing an inlet seal in the hole.
- The manhole is equipped with 2 light black covers
- The shut-off fittings installed in all products are made of PPR technology with EPDM seals. This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.
- The distributor is standardly equipped with shut-off valves on the supply and return of the RP transmission pipes

4. List of documents related to the product

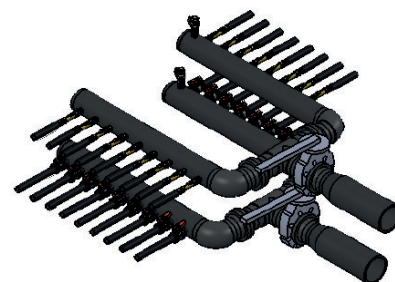
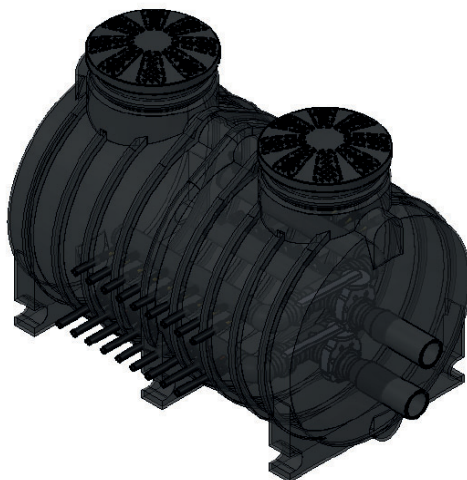
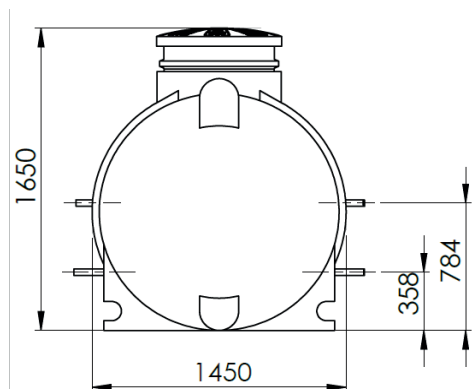
- National Declaration of Performance
- Principles of manhole installation

5. Product characterized by:

- The design of the distributor prevents pipes from crossing. The working pipes are grouped in pairs, the supply pipe above the return pipe
- Passing the RP and SR through the well shell maximizes the protective function of the manifold by installing inlet seals
- RP and SR passing through the well shell end with spigots
- The ECO MAXI chamber is standardly equipped with additional cut-off valves on the transmission pipes
- By installing an extension, it is possible to adjust the height of the manhole. The connection between the manhole and the extension is sealed
- Technical service by the manufacturer
- We use various variants of equipment and construction of our products based on individual customer conditions
- The distributor chamber has two inspection hatches
- U-shaped divider. By locating two distributor beams - supply and return - on opposite sides of the chamber, it allows for comfortable adjustment of the sections

3. Technical parameters of the distributor

The material of the chamber	HDPE
Number of working sections (SR)	2-32 sections
Standard diameter of working pipes (SR) coming out of the well	40 [mm]
Standard diameter of transmission pipes (RP) depending on the number of SR	40-140 [mm]
Passage of working sections through the manhole wall (SR)	Rubber seal
Passage of transmission pipes through the manhole wall (RP)	Rubber seal
Venting and filling connections (ZN)	1" internal thread
Standard type of installed rotameters, linear	5-40 l/min
Standard type of installed valves	PPR ball valve dn 32



Distribution chamber MAXI

1. Intended use of the product:

The MAXI well is used to collect working sections (SR) in the form of wells or horizontal collectors and to send the working medium to the heat pump engine room through two transmission pipes (RP). The distributor's equipment enables hydraulic adjustment of the installation and isolation of individual working sections.

2. Manhole equipment

- Wells are equipped with rotameters (R) or balancing valves for precise regulation of the lower source or with shut-off valves of the supply and return sections (Z), filling/venting valves (ZN) and transfer shut-off valves (ZP).
- The collecting well is made of polyethylene in a cylindrical shape with a top with a hatch and tight passages made by drilling and welding the passage through the wall
- The manhole is equipped with a light black cover
- The shut-off fittings installed in all products are made of PPR technology with EPDM seals. This technology guarantees the operation of valves at low temperatures and is resistant to the destructive effects of antifreeze fluids.

4. List of documents related to the product

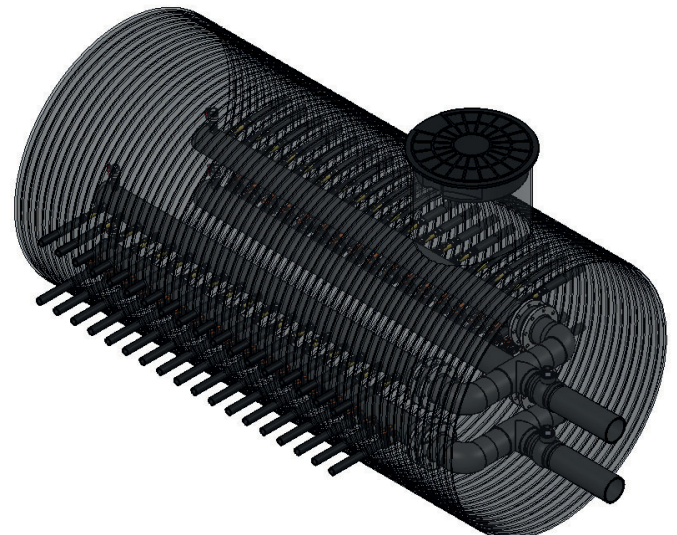
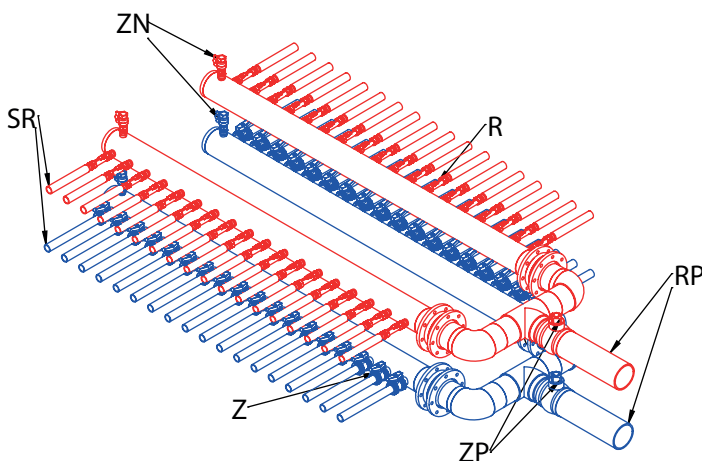
- National Declaration of Performance
- Principles of manhole installation

5. Product characterized by

- The design of the distributor prevents pipes from crossing. The working pipes are grouped in pairs, the supply pipe above the return pipe
- The U-shaped section divider enables convenient and efficient servicing
- The passage of RP and SR through the well shell maximizes the protective function of the distributor by making welded passages through the well body
- RP and SR passing through the well shell end with spigots
- The MAXI chamber can be equipped with additional shut-off valves on the transmission pipes
- By installing an extension, it is possible to adjust the height of the manhole. The connection between the manhole and the extension is sealed
- Technical service by the manufacturer
- We use various variants of equipment and construction of our products based on individual customer conditions

3. Technical parameters of the distributor

The material of the chamber	HDPE
Number of working sections (SR)	2-32 sections
Standard diameter of working pipes (SR) coming out of the well	40 [mm]
Standard diameter of transmission pipes (RP) depending on the number of SR	40-140 [mm]
Passage of working sections through the manhole wall (SR)	Rubber seal
Passage of transmission pipes through the manhole wall (RP)	Rubber seal
Venting and filling connections (ZN)	1" internal thread
Standard type of installed rotameters, linear	5-40 l/min
Standard type of installed valves	PPR ball valve dn 32



Ground probes GEOHEAT

Ground probes are a proven technology for long-term energy acquisition. The STÜWA GeoHeat® ground probe enables the economical and safe use of this form of renewable energy. GeoHeat® combines the advantages of a highly durable material, PE 100-RC, with well-thought-out system elements.

GeoHeat® ground probes are manufactured at the company's headquarters using the latest technologies in accordance with the highest quality standards. They are certified by the South German Plastics Center association. reg. (Süddeutsche Kunststoffzentrum - SKZ) and are subject to quality control in accordance with the guidelines contained in the HR 3.26 research standard.

advantages

- Production supervised by an external association SKZ Würzburg (certificate A 640)
- Probe tube made of PE 100 RC material
- High resistance to slow propagation of stress cracks
- High resistance to concentrated loads
- Resistance to cold and heat (-20 °C to +30 °C, short-term +40 °C)
- Fully automatic wall thickness control in ongoing production
- Very slim design for small diameter holes
- Suitable for all installation methods
- Simple connection of the probe feet via a unique plug connector
- Durable, flow-optimized probe foot
- Factory welding with inspection certificate
- Simple installation of weights, weights can be combined (12.5 kg / 17.5 kg)



Gruond probes GeoHeat®, PE 100-RC

Dimentions	Lenght	Wiegth	Ø inside	Ø outside	quantity on the pallette	Heigh	Heigh on the pallette	Filling capacity
	[m]	[kg]	Krag rur [mm]		[szt.]	[mm]	[mm]	[L]
4 x 32 x 3,0	30	34	690	980	3	384	1.152	64
4 x 32 x 3,0	40	45	690	1.090	3	384	1.152	85
4 x 32 x 3,0	50	56	690	1.035	3	512	1.536	106
4 x 32 x 3,0	60	67	690	1.090	3	512	1.536	127
4 x 32 x 3,0	70	79	690	1.145	3	512	1.536	148
4 x 32 x 3,0	80	90	700	1.045	2	832	1.664	170
4 x 32 x 3,0	90	101	690	1.090	2	832	1.664	191
4 x 32 x 3,0	100	112	810	1.155	2	832	1.664	212
4 x 32 x 3,0	110	123	720	1.120	2	832	1.664	233
4 x 32 x 3,0	120	134	800	1.200	2	832	1.664	254
4 x 32 x 3,0	130	146	720	1.120	2	832	1.664	276
4 x 32 x 3,0	140	157	640	1.095	2	832	1.664	297
4 x 32 x 3,0	150	168	700	1.210	2	832	1.664	318
4 x 40 x 3,7	50	88	770	1.060	2	800	1.600	168
4 x 40 x 3,7	60	105	680	1.040	2	800	1.600	201
4 x 40 x 3,7	70	122	640	1.070	2	800	1.600	235
4 x 40 x 3,7	80	140	750	1.180	2	800	1.600	268
4 x 40 x 3,7	90	157	840	1.340	2	800	1.600	302
4 x 40 x 3,7	100	174	780	1.280	2	800	1.600	335
4 x 40 x 3,7	110	192	850	1.415	2	800	1.600	369
4 x 40 x 3,7	120	209	800	1.230	1	1.120	1.120	402
4 x 40 x 3,7	140	244	900	1.390	1	1.120	1.120	469
4 x 40 x 3,7	160	279	930	1.420	1	1.120	1.120	536
4 x 40 x 3,7	180	313	840	1.340	1	1.280	1.280	603
4 x 40 x 3,7	200	348	790	1.355	1	1.280	1.280	670
4 x 40 x 3,7	220	383	910	1.475	1	1.280	1.280	737
4 x 40 x 3,7	240	417	850	1.415	1	1.440	1.440	804
4 x 40 x 3,7	260	452	800	1.440	1	1.440	1.440	871
4 x 40 x 3,7	280	487	850	1.485	1	1.440	1.440	938
4 x 40 x 3,7	300	522	900	1.610	1	1.440	1.440	1.005

Tolerance in-/out -Ø = ± 20 mm

www.engeco.pl



ENGECO

Engeco Sp. z o.o.

11-010 Barczewo, Barczewko 133B

Poland

NIP PL5891998533

KRS 0000381381

REGON 221197738

Sales department
tel +48 667 109 108|
handel@engeco.pl

Technical departmen
tel. +48 512 683 593
technika@engeco.pl

Office
tel. +48 724 322 432
biuro@engeco.pl

engeco@engeco.pl
www.engeco.pl