

Vertical ground heat exchangers - Probes

The geothermal probe is responsible for the balanced reception of heat accumulated in the rock mass and for supplying a medium of stable temperature to the ground heat pump. The PRAWTECH heat exchanger is designed for both heating and cooling operation. All ground exchangers are made of high density polyethylene HDPE 100 RC (Crack Resistant - resistant to so-called slow propagation of scratches) in the following standard configurations: 2x40 mm or 2x32 mm. The product is also available in two pressure series: PN 16 (SDR 11) and PN 12.5 (SDR 13.6). The probe head is equipped with additional third "socket" facilitating axial application of the probe into the borehole.

The product is covered by a 10-year manufacturer's warranty.

 **PRAWTECH**
GEO THERMAL

**Ground source
technology for heat
pumps**

Basic advantages of ground source heat pump (GSHP) technology:



economy thanks to limiting the use of traditional energy sources and through high energy efficiency of the device



independence from traditional fossil fuel suppliers



heating and cooling functions



reliability, long life and highest comfort of use



ecology, limiting the so-called low emissions

PRAWTECH has been gaining experience in the production of the highest quality technology for the heating industry for over twenty years. We dedicate our system solutions to professionals who value high quality and reliability as well as the European origins of the technologies we offer.

By actively participating in the development of the heating industry in Poland and all over the world, we have created a department promoting the use of Renewable Energy Sources (RES).



As part of the offer dedicated to RES technologies, we dynamically develop a geothermal section for ground heat pumps. Using extensive production facilities, we manufacture the highest quality accessories for heat pumps:

- geothermal probes
- chambers and manifolds



Manifold chambers with flowmeters TERRA R and D

The series of **TERRA R and D** manifold chambers is a component of the PRAWTECH geothermal system: ground source system for heat pumps.
The TERRA chamber consists of a geothermal manifold permanently installed in a black polyethylene chamber. The chamber has been designed to protect the hydraulic distributor against the pressure of soil and ground water and guarantee access to basic regulatory and service activities

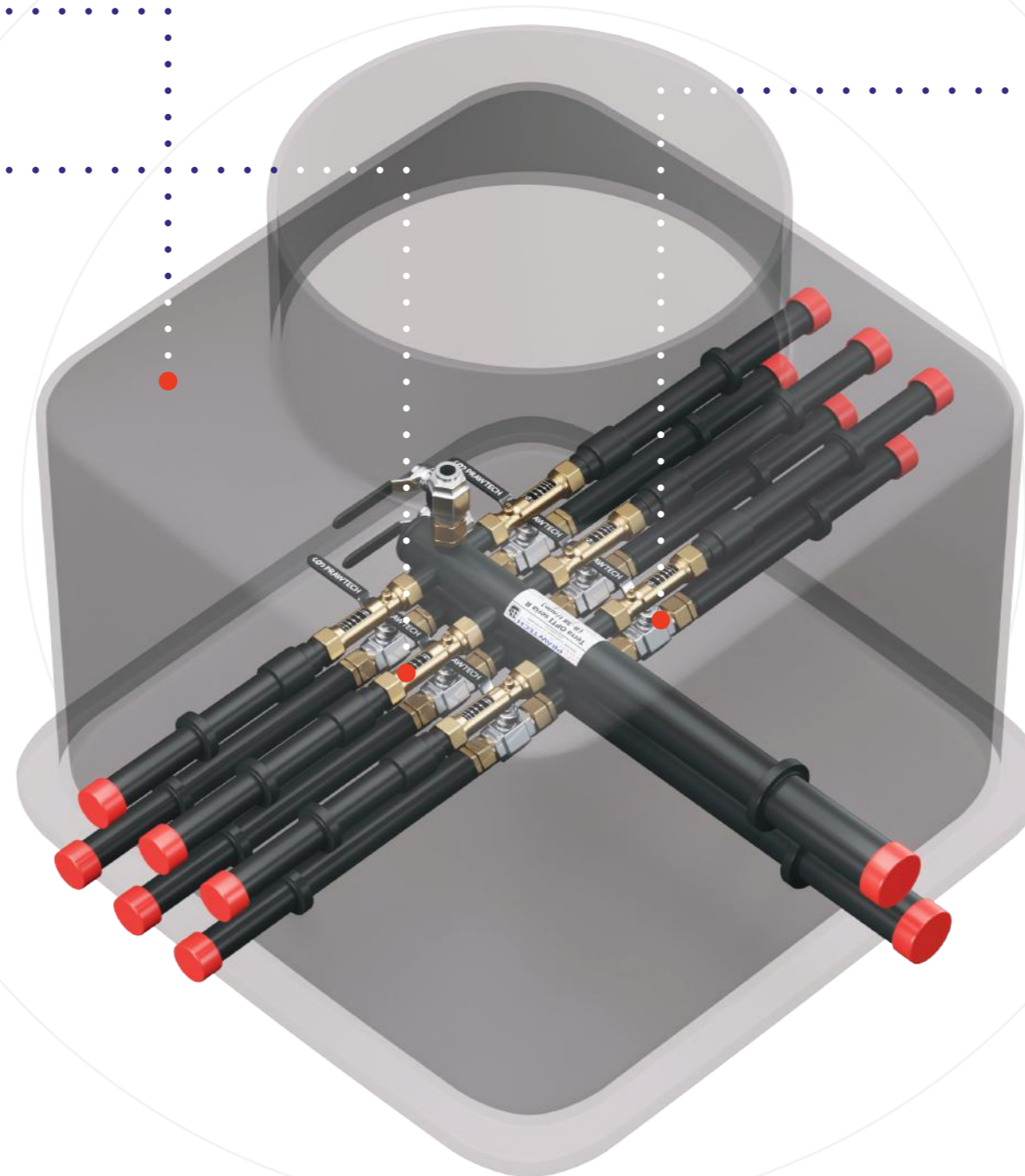
The supply manifold bar*

Is equipped on each section with brass inline flowmeters in the range of 8-38 l/min. Flowmeters allow for regulation of the flow and cutting off a given section of the geothermal installation through a ball valve integrated in the body of the flowmeter.

Multi-section manifolds

In addition to the manufactured manifold chambers of the TERRA Mini and Opti series, PRAWTECH company has developed a complete range of multi-section manifolds. The manifold is dedicated for wall mounting inside or outside the building, alternatively the manufacturer allows the product to be installed in a plastic or concrete chamber in the ground. All PRAWTECH multi-section manifolds are equipped as standard with 40mm ground source sections. The diameter of the collector bars and inlet pipes is 63 mm for manifolds from 2-6 sections, and 90 mm for larger configurations.

In the "D" chamber configurations, the supply manifold bar, same as the return manifold bar, is equipped with ball valves instead of flowmeters.



The return manifold bar

Is equipped with a cut-off ball valve on each section. The ball valves allow complete cut-off of the flow individually for each ground source loop.

Each of TERRA chamber manifold bars is equipped with a 3/4" or 1" internal thread vent / filling valve. This section allows you to effectively flush, fill and vent the ground source system.

Quality control

PRAWTECH manifold chambers are delivered to the customer after passing the pressure and flow tests in accordance with the internal quality control procedure.



The Prawtech company offers manifold chambers in two dimensional standards:

- TERRA Mini in the range of 2-6 sections
- TERRA Opti in the range of 2-16 sections