



RAUGEO HELIX PROBE PE-Xa

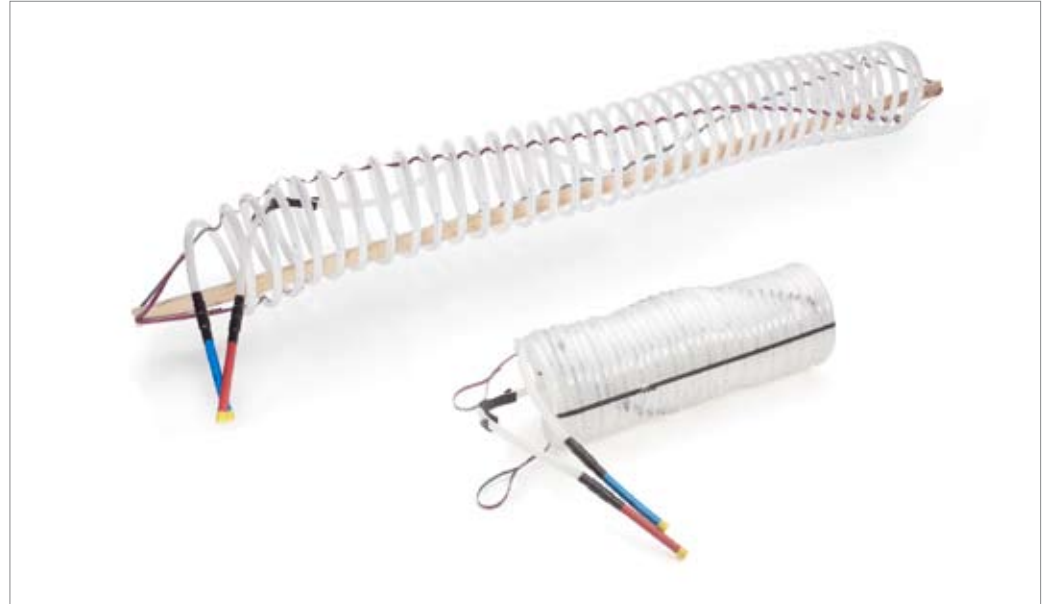
REVOLUTIONISING GROUND-SOURCE ENERGY EXTRACTION

REHAU
QUALITY

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RAUGEO HELIX PROBE PE-Xa

COST EFFECTIVE EXTRACTION OF GROUND-SOURCE ENERGY



RAUGEO Helix Probes PE-Xa are ideal for use in both new builds, and refurbishments. They are the optimum choice if only a small land area is available and probe drilling is not possible, e.g. for geological reasons or if it is not financially viable.

The distance between each probe is 3-4m and must be at least 2m away from the building. The Helix probe is a telescopic design, so that it is extendable on site from 1.1 to 3.0 m. Storage and transport costs have therefore been reduced through the use of this telescopic design.



To install Helix probes, a 1.2m deep trench is created, then a 3m deep hole is created with an auger drill, into which the Helix probe is then installed and backfilled. Typically 400-450mm boreholes are created to install Helix.

The pipe spacing is kept constant through the spiral extrusion, held together with binding. This is to ensure an even heat extraction along the probe. The new generation of probes also have coloured flow and return connections.



Typical auger drill bit used

Technical data for the Helix Probe PE-Xa:

Length	Outer Diameter (mm)	Pipe Dimension (mm)	Pipe Length (m)	Weight (kg)	Volume (litres)
3m installed 1.1m transport size	380	25 x 2.3	40	7.5	13



Simplified planning and design

The RAUGEO Helix Probe PE-Xa represents the ideal space and cost saving alternative to ground-source probes or horizontal collectors. The average extraction performance to be achieved is the deciding factor when designing Helix Probes. This is largely influenced by the type of soil and groundwater present. The more ground water that is available, the greater the heat extraction. The estimated average extraction performance achieved is 400 W/Helix Probe, in optimum conditions up to 700W/Helix Probe is possible.

The installation of the Helix Probe PE-Xa is carried out in parallel to the circuits connected to the manifold. Alternatively, 3 probes can be connected in series.

High-quality material for maximum reliability

RAUGEO Helix Probe is made from cross-linked polyethylene (PE-Xa). Due to the high-quality material, the pipe is particularly resistant to damage,

e.g. during handling and installation of the pipe on site and against puncture loads, which can affect the pipe once installed. In addition to this, the small bending radius of the pipe makes it possible to create the complete Helix Probe from a single pipe. Using PE-Xa avoids any welded connections, ensuring the highest possible reliability and efficiency. The high temperature resistance of up to +95 °C also makes a combination with solar energy possible – even retrospectively.

The advantages of the RAUGEO Helix Probe PE-Xa:

- Extraction performance of up 700 W/Helix Probe
- Simple and cost-effective drilling possible
- Less land area required than for collectors
- Low storage and transport costs due to telescopic design
- Less approvals and groundworks required
- High-quality raw material PE-Xa for maximum safety and durability



REHAU EVERLOC™ Compression Sleeve



Helix probes connected in series

REHAU RAUGEO PRODUCT RANGE

OTHER SYSTEMS AND ACCESSORIES



RAUGEO PE-Xa Probe



RAUGEO PE 100 Probe



RAUGEO Manifold Chamber



RAUGEO PE-Xa Energy Piles



RAUGEO Modular Manifold



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