

GEROtherm[®] FLUX

The conical, safety- and pressure loss-optimised geothermal probe

The GEROtherm® FLUX geothermal probe is now available for difficult geological conditions and deep boreholes.

A pressure-resistant geothermal probe has been developed for great depths. The GEROtherm® FLUX geothermal probe provides many benefits compared to the solutions available to date:

- Significant reduction in pressure loss during operation compared to a 40 mm PN20 geothermal probe
- Improved buckling pressure resistance offers benefits when using heavier or more conductive grouting material.

The GEROtherm® FLUX geothermal probe is a full-plastic solution. This makes it corrosion-resistant with a lifespan of over 50 years, compliant with SIA 384 / 6. The patent number for this geothermal probe is EP 2 706 308.

Pressure resistance

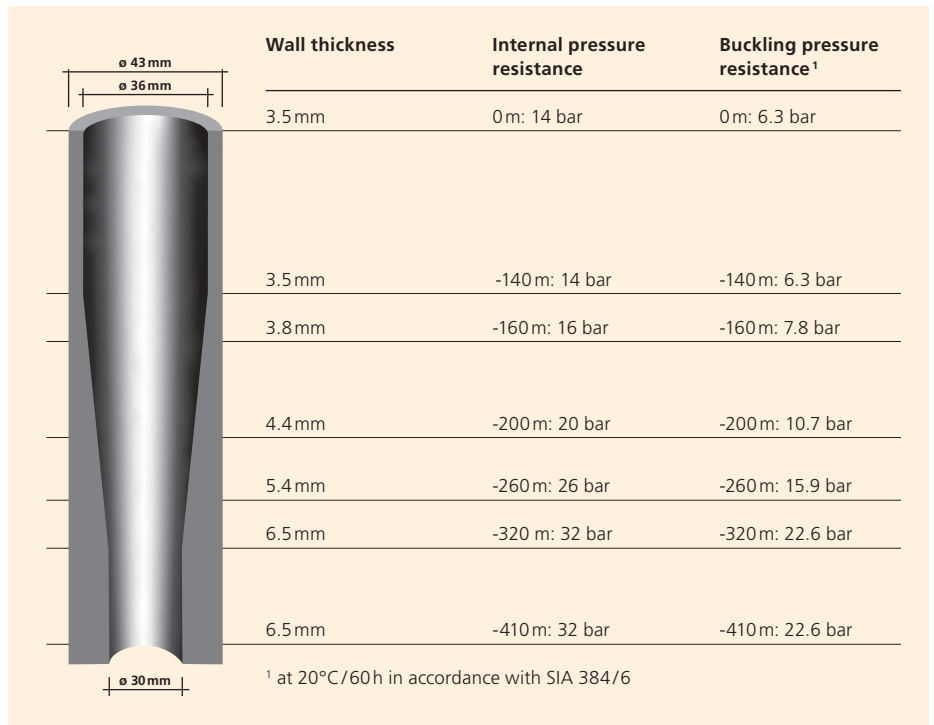
Due to the special design, the pipes of the FLUX de 43 mm have an internal pressure resistance of up to 32 bar and up to 38 bar for the FLUX de 53 mm. This makes it possible to use the geothermal probe even in difficult geological conditions.

Installation

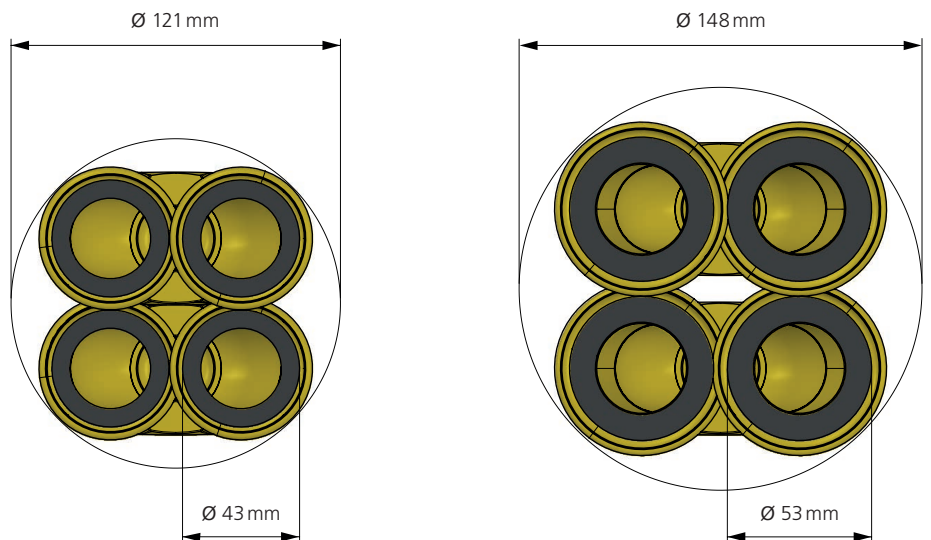
All FLUX de 43 mm geothermal probes are supplied as double U probes. The FLUX de 53 mm to 340 metres is also delivered upright and loaded on a pallet. From 350 to 500 metres, delivery is carried out on two pallets (1 single-U probe per pallet). Installation can be carried out with the usual equipment. The geothermal probe is compatible with all GEROtherm® installation aids, e.g. PUSH-FIX, UNI-FIX and weight system etc.

Certification

The complete geothermal probe is certified and regularly monitored by the Süddeutsches Kunststoff-Zentrum (SKZ). SKZ certificate A724

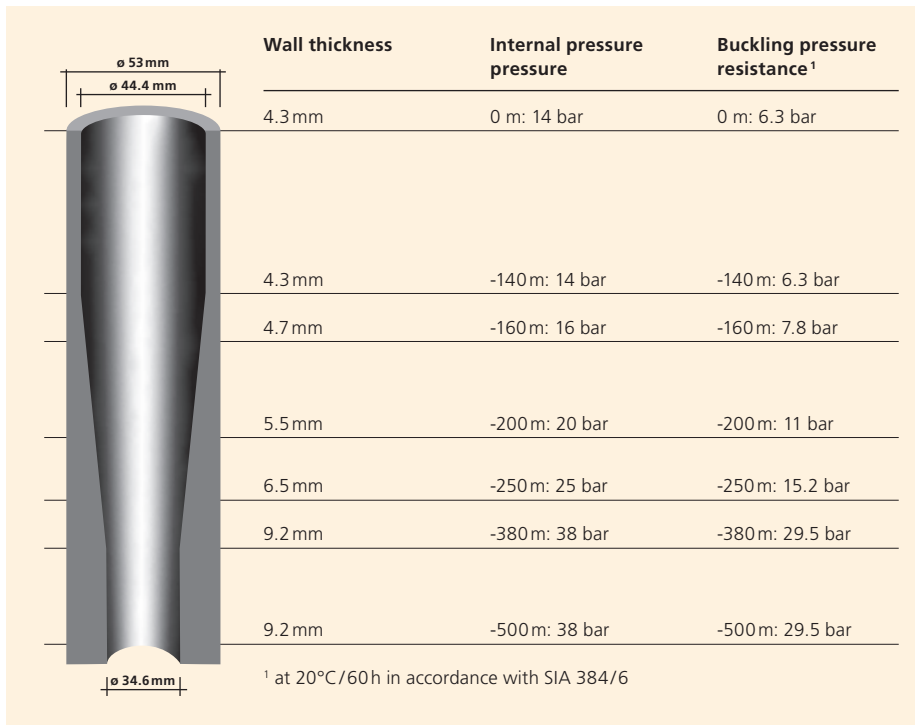


1 Wall thickness variation and pressure resistance of a GEROtherm® FLUX de 43 mm geothermal probe



2 The dimensions of the probe feet of the GEROtherm® FLUX probes have the same design as the double U probe de 40 mm.





GEROtherm® FLUX ready for sinking



GEROtherm® FLUX packaging and delivery form

3 Wall thickness variation and pressure resistance of a GEROtherm® FLUX de 53 mm geothermal probe

Advantages at a glance

- ⊕ Optimised hydraulic pressure loss for low operating costs
- ⊕ Increased internal pressure resistance for demanding geologies
- ⊕ Increased buckling pressure resistance for trouble-free, reliable installation
- ⊕ 100% digital self-monitoring and regular external monitoring in accordance with HR 3.26 at the Süddeutsches Kunststoff-Zentrum (SKZ)
- ⊕ SKZ-certified and regularly monitored in accordance with HR 3.26, SKZ certificate no. A724 for guaranteed compliance with standards and quality
- ⊕ Complete traceability of each individual geothermal probe foot by tool name and serial number in accordance with EN 10204 2.2
- ⊕ Increased volume of the FLUX de 53 mm compared to a 40 mm probe
- ⊕ Revolutionary full plastic solution for a lifespan that spans generations
- ⊕ Material made of 100% plastic, which makes it corrosion-resistant even under the most severe conditions
- ⊕ Optimum heat transfer with a constant efficiency
- ⊕ Designed for position measurement and thermal response test (TRT) by means of floats to facilitate quality assurance on the construction site
- ⊕ Pipe offcuts can be easily recycled by type for environmental sustainability
- ⊕ Installation conditions similar to those of standard probes with low pipe stiffness
- ⊕ Designed for use with common tools for secure installation
- ⊕ Compatible with GEROtherm® PUSH-FIX, UNI-FIX and weight system, etc.
- ⊕ Patent no. EP 2 706 308, proprietary technology
- ⊕ No need for on-site welding in accordance with SIA384/6 and VDI 4640

Hydraulic pressure loss

The optimised probe pipe significantly reduces hydraulic pressure loss and minimises the energy consumption of the brine circulation pump. Thereby enabling considerable cost savings over the lifetime of the system.

Conclusion

The conical **FLUX** and **VARIO** probes enable **energy to be saved**, while at the same **allowing efficient** exploitation of greater depths. In addition, the **safety** and **lifespan** of the geothermal probe are increased.

Pressure loss comparison: GEROtherm® FLUX and DUPLEX

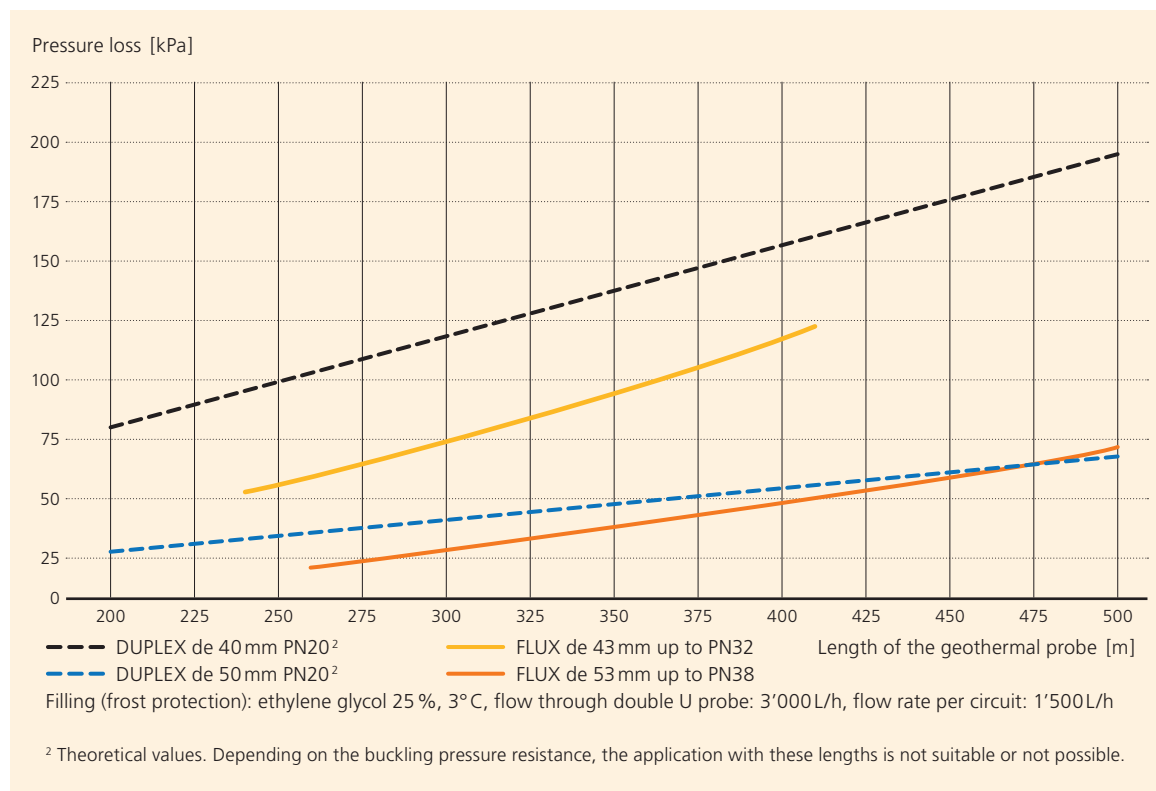


Figure 4



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