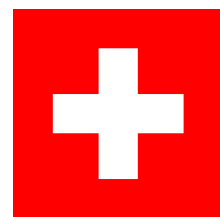



 **separatus<sup>®</sup>**  
the simple smart system



swiss made

# separatus: the key to the future of geothermal energy

- 
- ∅ Smaller boreholes
    - ÷ Less drilling mud
      - Lower fuel consumption
      - × Easy handling
    - + Fast and safe installation

=

**-30%**  
Investment costs for  
a geothermal system

## separatus: the charm of slim

We must admit: we too are fascinated by heavy rigs drilling big holes. But unfortunately, such machines are extremely expensive, burn a massive amount of fuel, and leave unpopular damage in gardens. **separatus** takes a fresh look at geothermal energy. Be it costs, feasibility, or time and effort – **separatus** excels, since the system is slim. In consequence, it opens up entirely new installation methods. Slim isn't bad either.

It all starts with the patented **separatus splitpipe** concept: supply and return are housed in one single pipe. How does that work? Thanks to a pipe design

with 2 chambers, a smart connector technique, and the unique two-chamber manifold, the installation of a geothermal systems gets as easy as pie.

The math is simple: with a pipe diameter of only 50 mm, a drilling diameter of 90 mm (3½")\* is more than sufficient. This can be achieved with an agile, compact drilling device that can operate on the narrowest of sites. This massively reduces all the cost factors involved – from machine amortization to backfill material.

Turn the page and learn more!

\* referring to technically necessary installation diameter

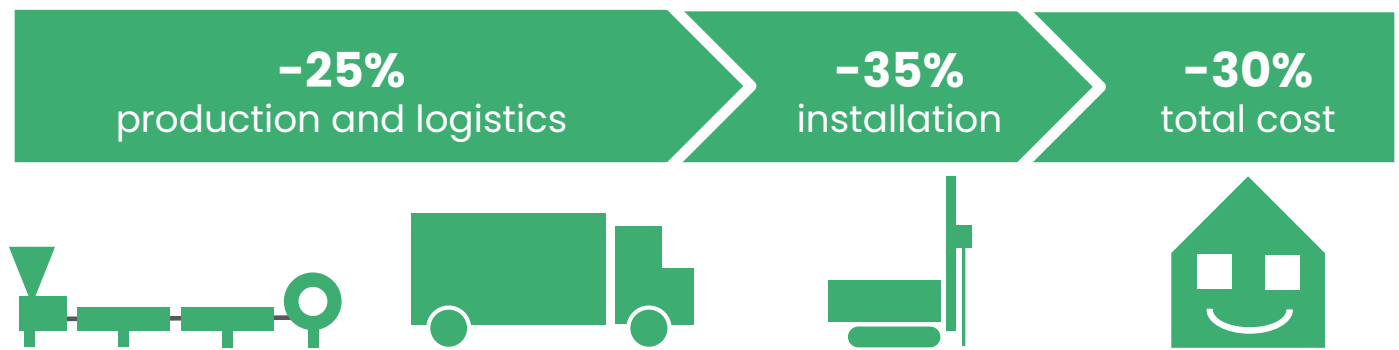
To provide you with a geothermal system that...

- causes the lowest investment costs for all stakeholders,
- requires the smallest possible working area on site, and
- guarantees the highest feasibility of realization.

OUR MISSION:

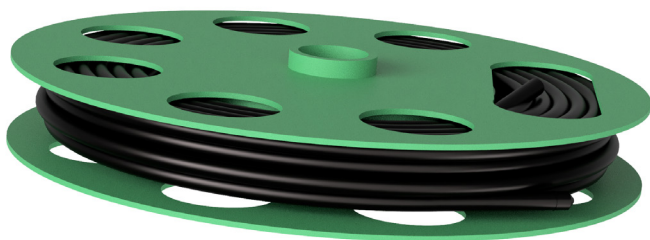
 **separatus**®

# separatus: customer benefits in focus



The advantages of the **separatus** system are obvious. The pipes and components are particularly slim, lightweight and space-saving. As a result, costs can be saved throughout the entire geothermal project, from site logistics to construction work.

Geothermal is the most efficient energy solution. But is it also cost-effective and feasible on small plots without major damage to the land? Definitely, thanks to **separatus**. More developers and home owners than ever before will consider ground-source heat pump systems.



Example of a compact installation reel with **separatus** loop

**Do you think it is possible to completely set up a site installation only using a van with a trailer? No?** Challenge accepted! Drilling rig, casing, hoses, compressor, installation reel – everything can be smaller and lighter. This will make your everyday life on the construction site easier and more efficient. Cranes, forklifts and the like become unnecessary. Imagine how this will speed up your projects, increasing your capacities and competitiveness!

**2/3 fewer connections than conventional systems:** for example, only 5 welds are required in order to connect 2 geothermal loop, saving materials and time. Sources of error are minimized, which reduces the risk of faults and customer complaints.

Last but not least, filling is also cheaper: the filling volume of a **separatus** geothermal loop is 34% less than that of a classic 32 mm „double U“ loop. In other words: you save 1/3 glycol and, of course, the same amount of your time for pumping in. Any more questions?

## Technical data geothermal pipe

Dimension: 50 x 3.0 mm  
Material: PE 100 RC  
Pressure rating: PN 10

Ideal probe depth: up to 100 meters  
SKZ certification: **Nr. A 12345**

We are fully convinced that the unique benefits will facilitate and transform your day-to-day work while inspiring and delighting your customers.

Take the opportunity to upgrade your geothermal business to the next level. Experience for yourself – the future for geothermal energy has begun!

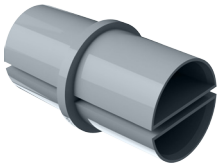


# separatus: the split pipe, powering the geothermal hype

Keep it simple and **separatus**: The *splitpipe* concept runs throughout the entire system, from the probe foot to the manifold. The very same pipe with 50 mm outer diameter is even used as both borehole heat exchanger and connecting pipes. This means that only a few tools and components are required on site. The system is also completely foolproof: supply and return cannot be mixed up.

## Connecting piece

The connecting piece is used wherever **separatus** pipes or fittings need to be joined together. It separates the two chambers with a tight fit.

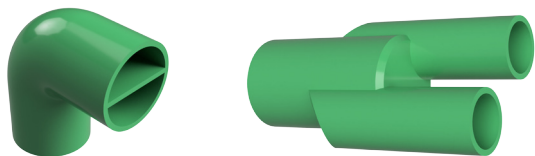


## Electrofusion fitting

A suitable conventional 50 mm electrofusion coupler is pulled over both pipe ends and the connecting piece and then welded together.

## Components and special parts

Under normal circumstances, the **separatus** tube can be bent from vertical to horizontal. For special situations various fittings, such as 90° elbows or transitions to classic tube dimensions, are available.



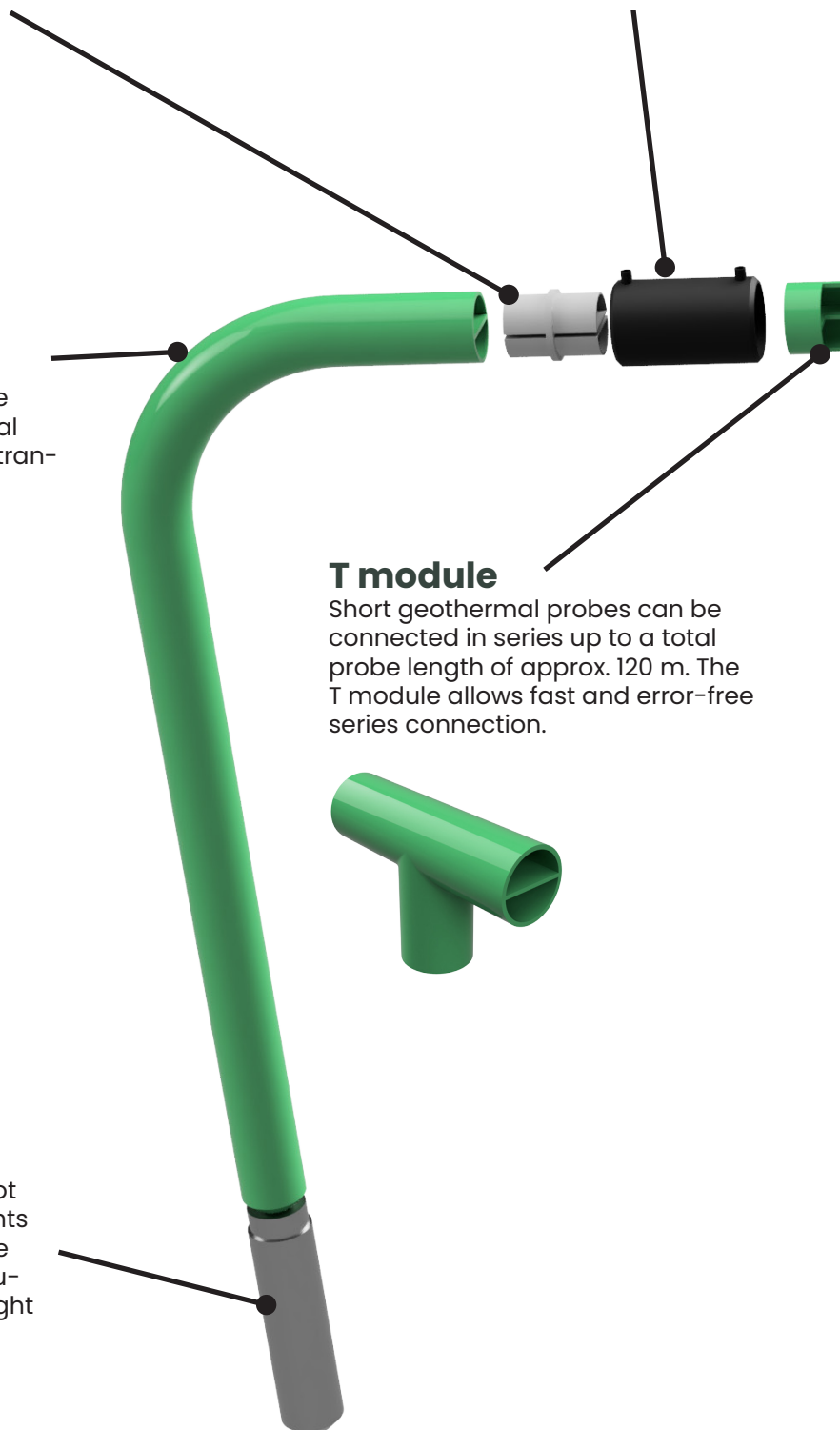
## T module

Short geothermal probes can be connected in series up to a total probe length of approx. 120 m. The T module allows fast and error-free series connection.



## Loop installation weight

**separatus** probes have less buoyancy. So why not use less installation weight? The **separatus** weights can be easily and securely attached to the probe foot and fit into small boreholes. They can be coupled virtually endlessly. An adapter for using weight rods is also available.

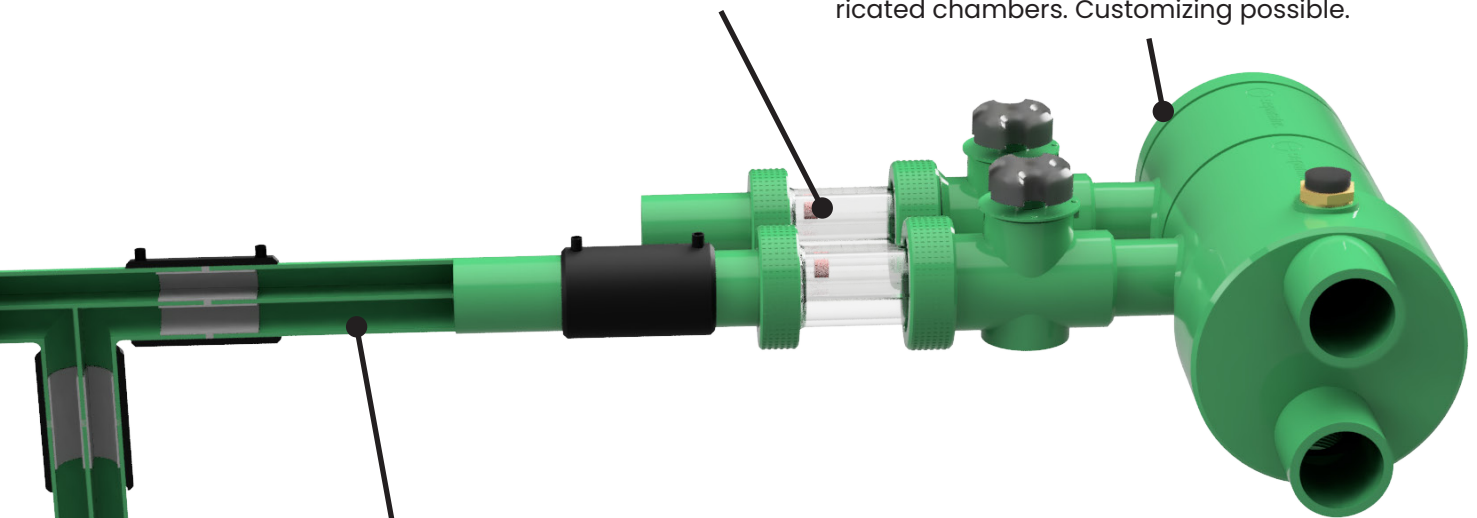


### Flow meter & shut-off valve

Each circuit can be regulated and closed using the shut-off valves. The valve closes both supply and return simultaneously. The integrated flow indicators permit hydraulic balancing.

### Manifold

Extremely space-saving with *splitpipe* concept: here too, supply and return flow are combined in 1 pipe. Connect the heat pump to the standard pipe outlets on the front. Available for wall mounting or in prefabricated chambers. Customizing possible.



### Connecting pipe

Diameter 50 mm *splitpipe*, only 1 pipe needs to be laid in the trench

The pipe coils are compact in size, very light, and securely packed in a durable and waterproof cover. This means, for example, that a 100 meter *separatus* loop, weighing only 50 kg, can be shipped by parcel service. This simplifies handling and reduces transportation costs.

The probes and connecting pipes are available in practical lengths of up to 100 meters.



### Geothermal loop

Diameter 50 mm *splitpipe*, efficient and powerful, streamlined, factory-welded probe foot





**Dietmar Alge**  
– *The Inventor*

**Stefan Geser**  
– *The Powerhouse*



**Jana Walker**  
– *The Visionary*

## About **us**: as powerful as our geothermal system

We are united by decades of experience in the plastics industry and our passion for geothermal energy, which has awakened in us the desire to create a geothermal system with unprecedented benefits. We want to provide the drilling industry with an answer to the dominance of inefficient and emissive heating systems. In cooperation with other experts from science and industry, we have succeeded in developing **separatus** into a revolutionary geothermal system. This is how the Swiss start-up **separatus** AG came into being.

We either produce the components ourselves or have them fabricated by selected manufacturers according to our exact specifications. In this way, we ensure that you receive the highest quality and reliability at all times. In addition to our in-depth know-how, our customers also feel our full dedication when we are at their side with help and advice.

Contact us!

### **separatus AG**

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