

# FILTRATION IN GEOTHERMAL ENERGY



Complete package of filter elements & systems



Optimization of the filtration process



Reduction of acquisition, waste & maintenance costs

## MEET THE INTERFILTER GROUP

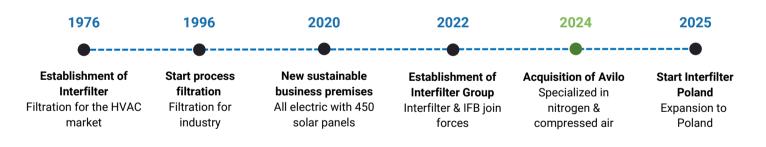
Interfilter was founded in 1976 and has since developed itself more and more as a total supplier in the field of air, liquid, dust and gas filtration. With more than 45 years of experience in the field of filtration, Interfilter Group delivers more than just filters and accessories.

#### **MISSION & VISION**

The mission of Interfilter Group is to create a clean environment. For now and for the future. For every situation where filtration is required, Interfilter Group offers the solution. Interfilter strives for the ultimate customer experience and sustainability when it comes to its products and services. And that is why we stand for "Filtration for our Future". With this vision, we have now grown into a leading supplier on the market.

NTEXALTER

## ABOUT US



## **Partnership with Interfilter Group**



Intensive partnership There is always a permanent and trusted team available for you with a strong focus on your needs.



Optimization, cost reduction and engineering Working together to achieve optimization and the most sustainable solution for your specific situation.



Superior logistics You will receive your order packed per destination and delivered just-in-time thanks to our own production and large stock in the Netherlands.



Sustainable products, services and innovations Thanks to our innovative character, we deliver the most sustainable products and services.

# FILTERS FOR GEOTHERMAL ENERGY PROCESSES

Geothermal energy is a sustainable energy source, with geothermal wells being free of co2 emissions. It is primarily used for heating greenhouses and, in some cases, homes. Geothermal energy harnesses natural heat sources, such as hot springs and steam, to heat buildings or for industrial applications. It is also used in geothermal power plants to generate electricity, where water or steam is utilized to drive turbines and produce electricity. The water used in these processes must be filtered and purified to extend the system's lifespan and maintain efficiency.

### The importance of filtration in geothermal energy

In geothermal energy, filtration is crucial for protecting equipment such as pumps, pipelines, and heat exchangers. Impurities in the water can cause wear and damage to the system. By filtering out these impurities, the lifespan of the equipment is extended, and wear and blockages are prevented. Impurities in the water can also hinder heat transfer, and filtration ensures more efficient operation. For hygiene and health, it is also important to filter geothermal water, as it is sometimes used directly for heating buildings and other applications. Keeping this water free of bacteria and other microorganisms is essential for safe use. Unfiltered water containing impurities can be harmful to the environment if discharged untreated.

## SELECTING FILTERS FOR GEOTHERMAL ENERGY

#### Flow rate and velocity

The filtration rate must be matched to the flow rate of the geothermal water to ensure optimal performance. Low flow rates can lead to inefficiency, while excessively high speeds can reduce filter performance.

#### **Temperature and pressure**

The filters must be able to withstand the high temperatures and pressures of geothermal systems to ensure durability.

#### Particle size

Depending on the specific applications, the filters must be capable of capturing the appropriate particle size. The filters need to be effective in removing the specific particle sizes present in the geothermal water.

#### Maintenance

The filters must be regularly cleaned or replaced to maintain optimal performance. Therefore, it is important to choose filters that are easy to access and maintain.

#### Compatibility

The filters must be compatible with the chemical composition of the geothermal water. Geothermal water can contain corrosive or chemically agressive elements that may effect the lifespan of the filters.



#### **BAG FILTERS FOR LIQUIDS**

**Description:** Bag filters for liquids are available in various sizes and types, such as felt and mesh.



#### FILTER HOUSINGS FOR BAG FILTERS

**Description:** Filter housings for bag filters made of stainless steel. Choose from multi-filter housings or single filter housings.



#### PLEATED BAG FILTERS

Filter Medium: Pleated polypropylene or fiberglass Gasket: Silicone, EPDM, Viton, or NBR



CANDLE FILTERS Description: Wound, meltblown, and specialized filter elements



FILTER HOUSINGS FOR CANDLE FILTERS
Description: Filter housings for candle
filters



SAND BED FILTERS Description: Coarse depth filtration using a sand bed



STRAINERS AND FILTER BASKETS Description: Custom-made with desired dimensions and micron ratings



SELF-CLEANING SCREEN FILTER Description: Continuous filtration process with automatic cleaning



SELF-CLEANING GAILEO FILTER Description: Automatic cleaning with high filter efficiency



ACTIVATED CARBON FILTERS Filter Medium: Molecular filter medium (activated carbon) Frame: Galvanized or stainless steel



COMPRESSED AIR CONDITIONING

**Description:** Atmospheric air compressed into a smaller volume with various treatments



#### COMPRESSED AIR FILTERS AND HOUSINGS

**Description:** Filters for the treatment of compressed air, including the corresponding housings



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