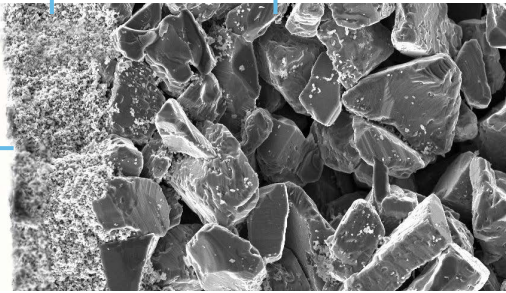


MOST ADVANCED ULTRAFILTRATION

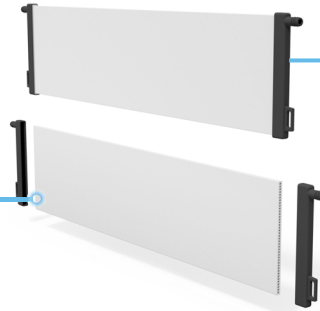
Product Design Concept

Filter active membrane layer on the outside of the ceramic plate
0.1 micron

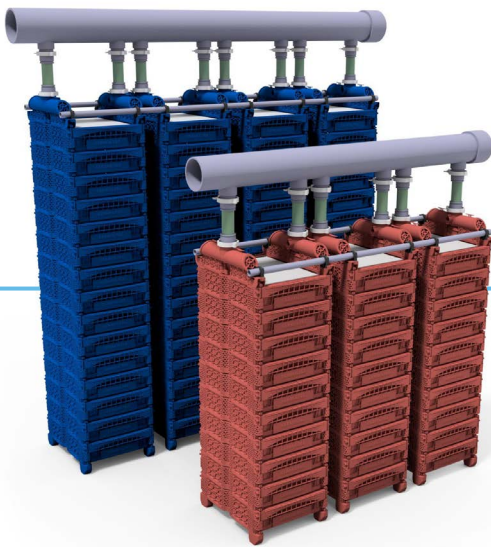
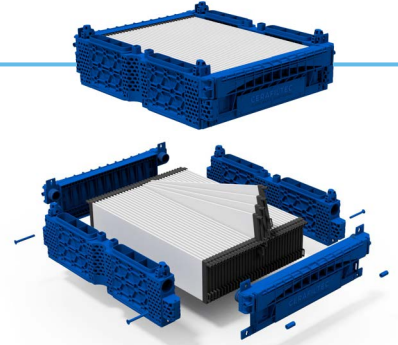
Membrane body (substrate) with very large pore size
8 micron



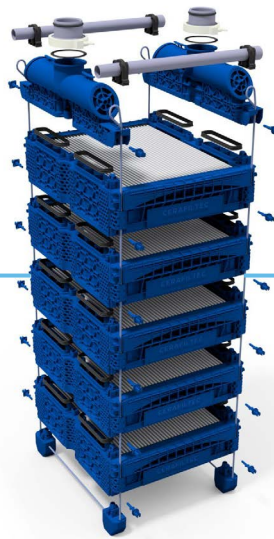
Single ceramic plate
Double side filtered water outlet for high flux operation



Filtration module with 6.0 m²
Multi ceramic plate configuration with exchangeable single ceramic plates and internal filtered water piping



Multi tower configuration
Most compact and flexible installation due to frameless design concept



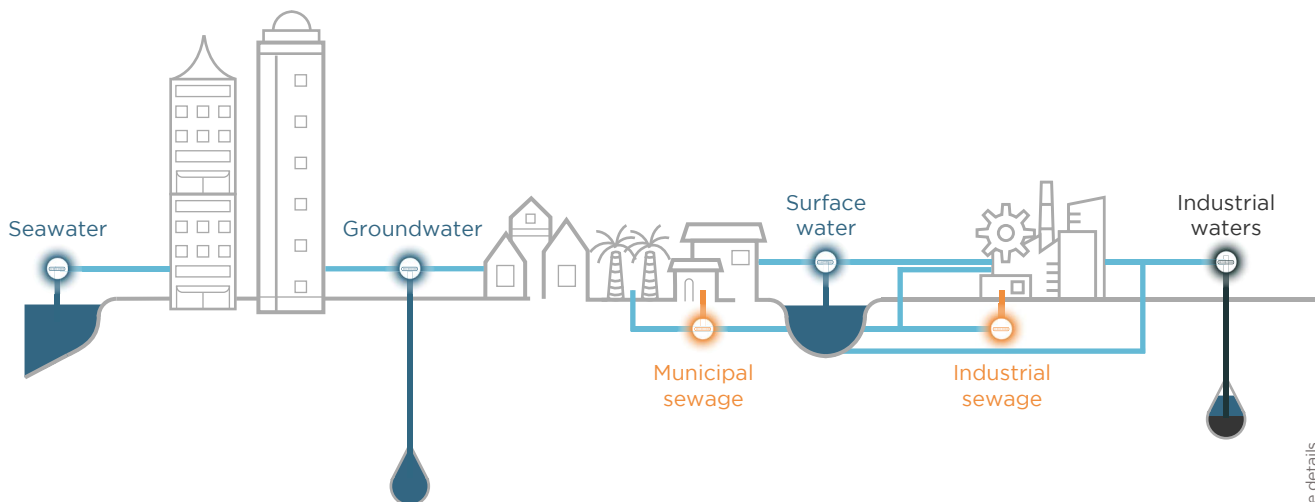
Single filtration tower exploded
Fully made of glass fiber reinforced resin without any steel parts



Single filtration tower assembled with 5 modules, header and base sets



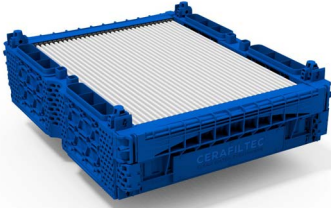
Water We Clean



Products

MODULE 6.0 S

Our standard for most applications

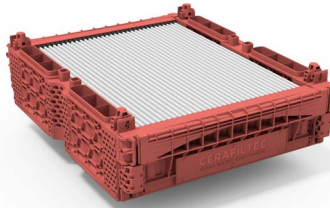


High flux operation up to 1,500 LMH for water and sewage treatment applications



MODULE 6.0 H

Our specialist for hot water filtration



Operation above 60 °C for hot groundwater, produced water, boiler and heat exchanger systems



MODULE ST SERIES

The allrounders for sludge thickening

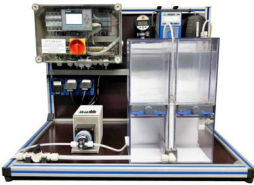


Extra large distance between single plates available in 3 standard configurations



LAB TEST UNITS

Ideal for your laboratory



Sample filtration for simple study of filterability and achievable filtered water quality; Use of a small single membrane plate with filter area of 0.01 m²



SUITCASE TEST UNIT

Must have for mobile testing

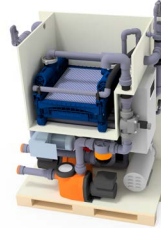


Portable unit for on-site tests; Similar equipment to lab test units, but packed into a suitcase weight conform to airline baggage check-in standards



SKID PILOT UNIT

Compact and easy to transport



For long duration on-site tests for all water applications with dead-end filtration process; Contains a complete module with 6.0 m²



CONTAINER PILOT UNIT

Full option and remote controlled piloting



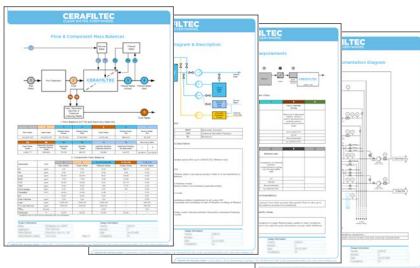
Similar to skid pilot unit, but also includes pre-treatment and chemical cleaning equipment; Remote controlled and full data monitoring (SCADA system included)



Engineering Services

PROJECTION

The right process design and project cost understanding

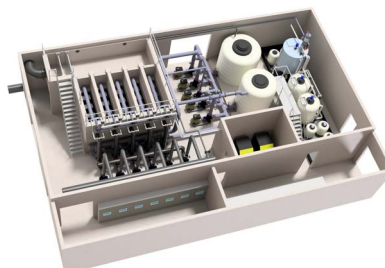


Detailed calculation package to filtration process and pre-treatment requirements, power and chemical consumption, equipment list and more



PLANT LAYOUT DESIGN

For the most efficient construction and future operation



We provide civil works structure, filtration tank design, piping and instrumentation design, P&IDs and process philosophy



INSTALLATION & COMMISSIONING

Assembly, installation, process start-up and more



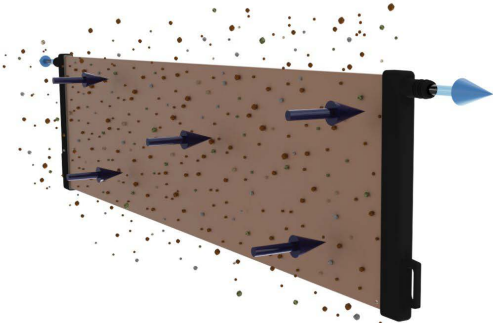
CERAFILTEC's installation team will be at your site and supervise your team for a fast and smooth plant commissioning and operation



How It Works

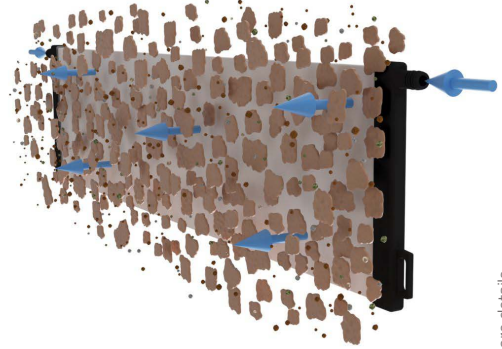
OUT-TO-IN FILTRATION

Single ceramic plate with filter active layer on the outside of the membrane. Suspended solids are rejected on the membrane surface and forming a cake layer while clean water is passing through the membrane body and is collected at both end caps.



IN-TO-OUT BACKWASH

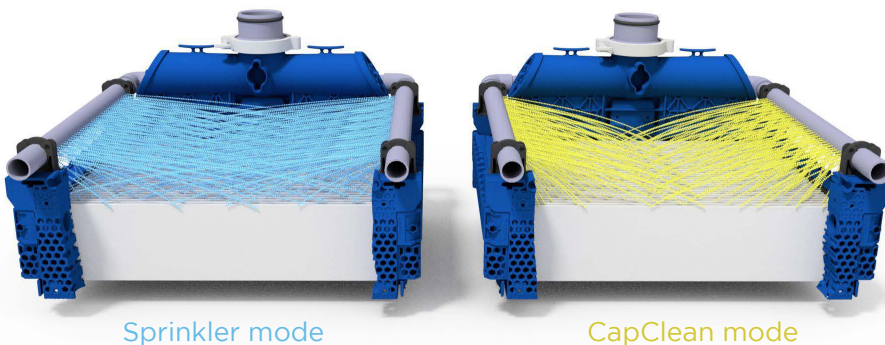
Reversed flow direction to filtration. A very small amount of filtered water is used to backwash the membrane. Within seconds, the formed cake layer comes off in flakes. Air-scouring can enhance the cake layer removal.



Novel Double Line Sprinkler

The integrated sprinkler system is used as water jet to enhance the removal of cake layers during on-air backwash.

At lower flow rates, the sprinkler can also be used for an efficient chemical cleaning by spraying concentrated chemicals over the ceramic flat sheet membrane surface (on-air cleaning). Due to the capillary force of the membrane pores, the chemicals are sucked into the membrane (CapClean mode).



- Sprinkler mode as mechanical cleaning with a spray flow up to 20 m³/hr @ 2 bar
- CapClean mode as chemical cleaning with a spray flow up to 8 m³/hr @ 1 bar

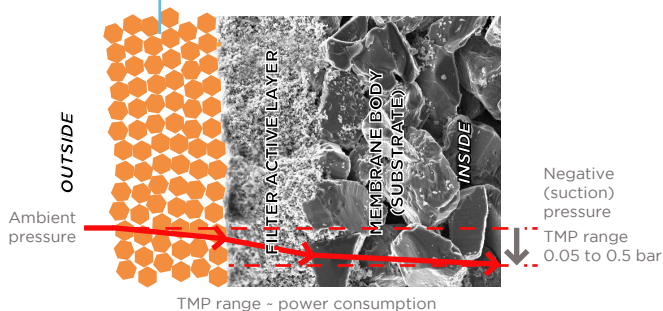


Unique Active Cake Layer Filtration

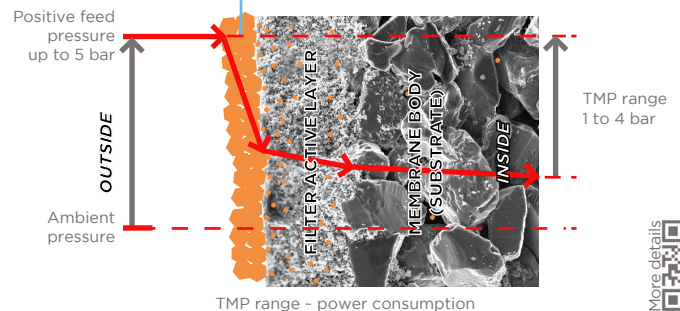
The module is designed as submerged solution with an out-to-in filtration process. It allows a targeted formation of a cake layer on the ceramic surface, contrary to pressurized membrane filtration solutions in which a cake layer formation needs to be avoided.

The cake layer can be used as additional filter barrier for enhanced removal of very small particles and colloidal fractions. Sorption processes inside the cake layer enable the selective removal of dissolved contents, like radium, uranium, arsenic or organics. The formed cake layer can function as protective coating to minimize biofouling or scaling. An improved filtered water quality can be achieved.

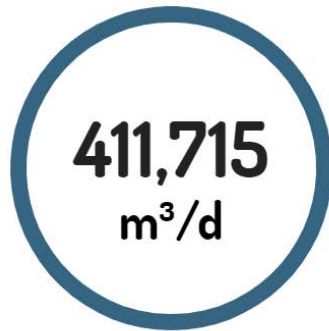
SUBMERGED Thick/uncompressed cake layer with very low pressure decline



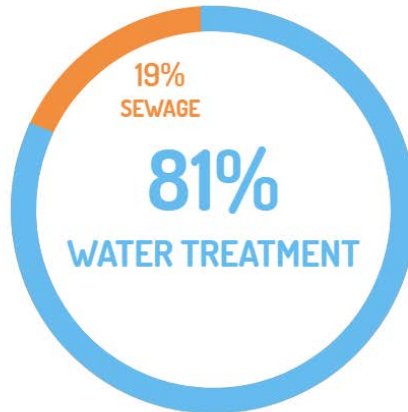
PRESSURIZED Thin/compressed cake layer with high pressure decline



Reference Overview



TOTAL CAPACITY



APPLICATION SPLIT



IN 29 COUNTRIES



Latest update

About CERAFILTEC

More than 25 years ago, in 1993, the idea of the ceramic flat sheet membrane was born and patented. Since then, technology specialists have developed several products and processes using the perspective ceramic flat sheet membrane concept and established the technology in many water and sewage treatment applications.

In 2016, leading experts of the ceramic filtration technology decided to combine their know-how under one new umbrella: CERAFILTEC. During the first operating year, CERAFILTEC has developed the latest and most innovative ceramic flat sheet membrane module. Within a short time, the product was successfully applied all over the world.

Today, CERAFILTEC has been internationally established with entities, partners and distributors in Europe, Middle East, Africa, Asia, North America and Australia.



The team



Company structure

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