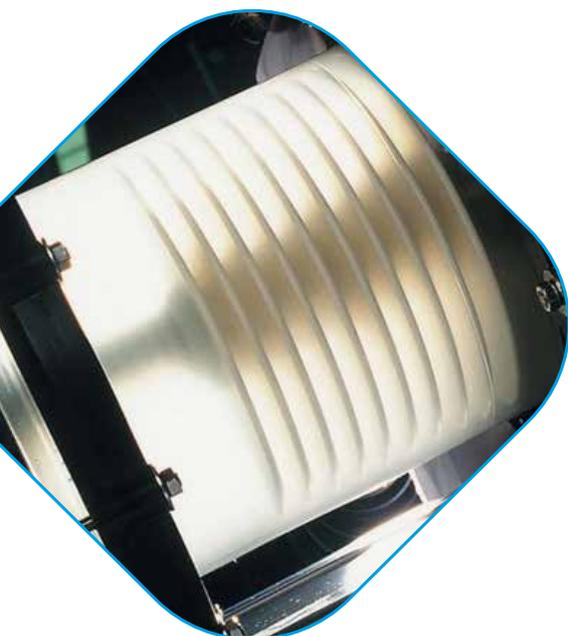


**MADE IN
GERMANY**

CERAMIC MEMBRANE DISCS
Rotation Filtration

Dynamic Cross Flow Filtration



Rotation Filtration with Ceramic Filter Discs

Why Rotation Filtration?

- ◆ Extreme cross flow velocity
(High efficient cleaning of the filter surface)
- ◆ Very low energy consumption
(Compared to conventional cross flow techniques)

✓ **Maximum filter efficiency**

Rotation Filtration (Dynamic Cross Flow Filtration)

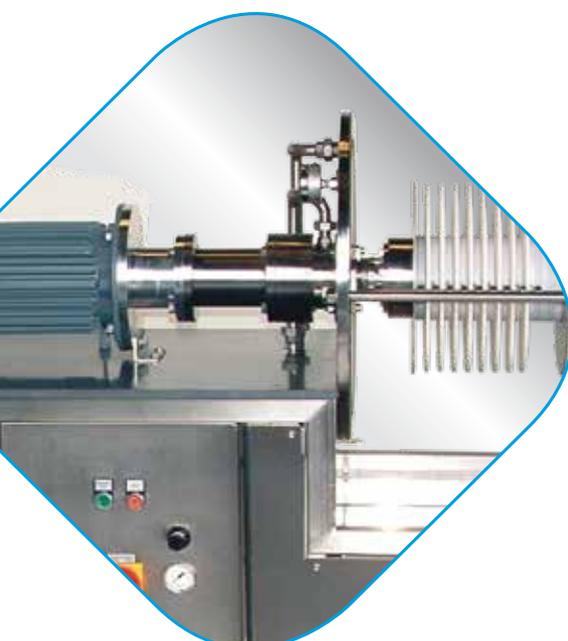
- ◆ The cross flow effect (tangentially flow cleaning of the filter surface) is generated by the rotating of the filter discs and not by pumping of large volumes.

Why Ceramic Filter Discs?

✓ **Innovative process technology**

Ceramic Filter Disc 374 mm, 312 mm and 152 mm, Microfiltration and Ultrafiltration

- ◆ Optimal filter geometry for the plant engineering



First Steps for Engineering Companies

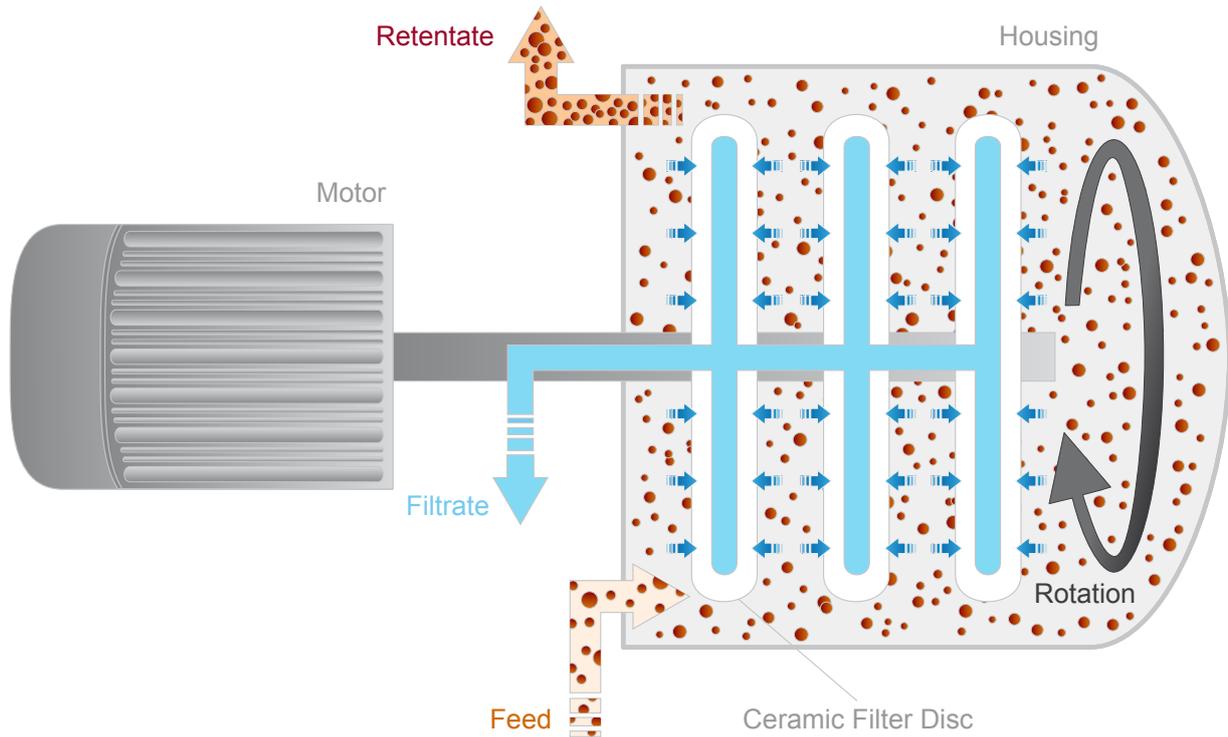
Kerafol is an independant filter producer. You can rent:

✓ **Test Filtration Plants up to 2m² for Piloting**

- ◆ An excellent choice for starting your own project planning of large filtration units (e.g. 100m² filter surface)

Diagram of a Rotation Filtration Plant

Rotating Ceramic Filter Discs are assembled in a pressurised housing. The design of the discs shows drainage channels in the inside. The filtrate is transported from the outside to the inside of the discs. The rotation of the discs generates shear forces on the membrane surface. With this technique an increase of a filter cake is avoided resulting in a high filtration flux.



Main Parameters

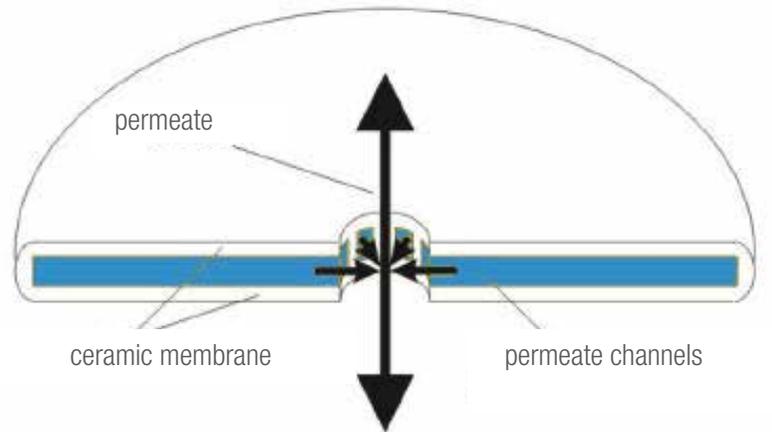
- ◆ Rotation Speed (rotating Ceramic Filter Discs)
- ◆ Transmembrane Pressure TMP (pressurised housing)
- ◆ Solid Content (concentration of liquids due to the removal of filtrate)



Customer example of a rotation Filtration Modul with Ceramic Filter Discs: Membrane Surface 35 m²

Ceramic Filter Discs

Dynamic Cross Flow Filtration



Ceramic Filter Disc 374*

- ◆ Diameter \varnothing_o 374 mm / \varnothing_i 91 mm
- ◆ Thickness $d = 5.85$ mm
- ◆ Membrane surface 0.20 m²

Ceramic Filter Disc 312*

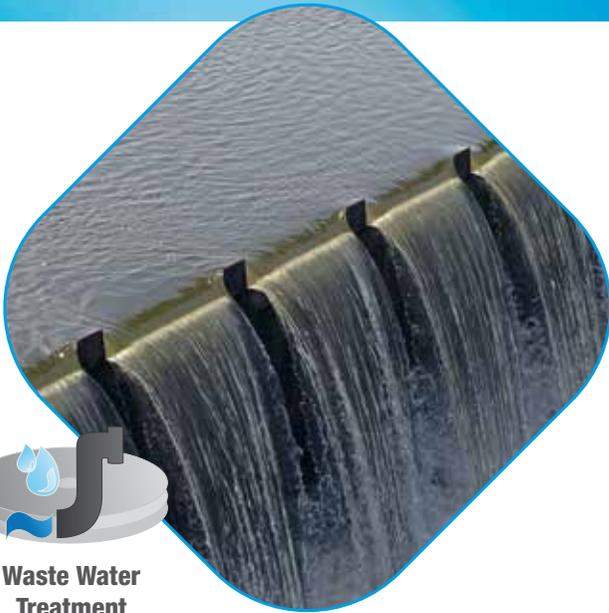
- ◆ Diameter \varnothing_o 312 mm / \varnothing_i 91 mm
- ◆ Thickness $d = 5.85$ mm
- ◆ Membrane surface 0.14 m²

Ceramic Filter Disc 152

- ◆ Diameter \varnothing_o 152 mm / \varnothing_i 25.5 mm
- ◆ Thickness $d = 4.5$ mm
- ◆ Membrane surface 360 cm²

* see corresponding technical geometric data sheet

Ceramic Filters	Micro Filtration				Ultra Filtration		
Quality	2.0 μm	0.8 μm	0.5 μm	0.2 μm	80 nm	30 nm	5 nm
Material	Al ₂ O ₃	TiO ₂	TiO ₂				



Waste Water Treatment



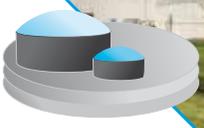
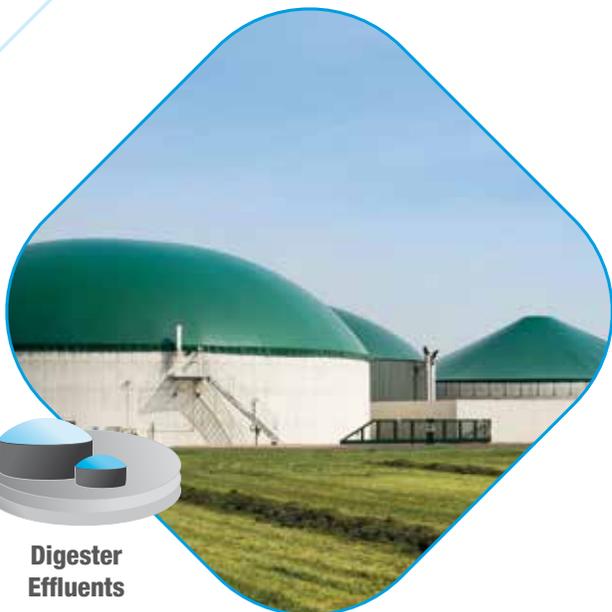
Food Technology



Pharma / Biotechnology



Chemical Industry



Digester Effluents



Oil and Gas



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