



# Rotation Filtration with Ceramic Filter Discs



**DYNAMIC  
CROSS FLOW FILTRATION**

**CERAMIC MEMBRANES**

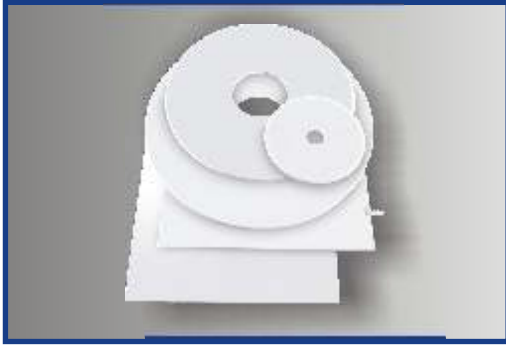
**MICROFILTRATION  
ULTRAFILTRATION**

**AERATION**

**KERAFOL<sup>®</sup>**  
KERAMISCHE FOLIEN GMBH

**Cross Flow in a new Dimension**

# Rotation Filtration with Ceramic Filter Discs



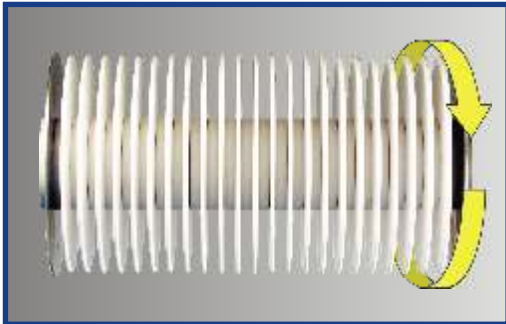
## Why Ceramic Filter Discs?

- resistance to chemical and thermal stresses
- high filtration flux and very long service life
- regeneration by backflushing or hot steam sterilisation

**= maximum process safety**

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

- optimal filter geometry for the plant engineering



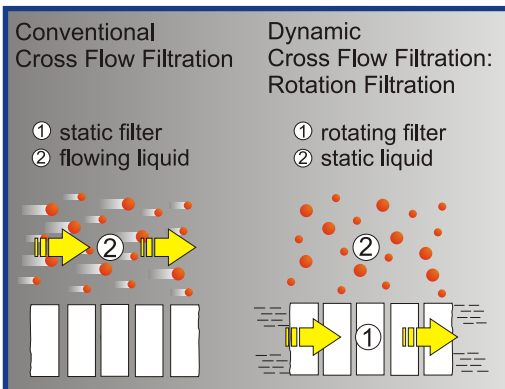
## Why Rotation Filtration?

- 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.



## First Steps for Engineering Companies

Kerafol is an independent filter producer and provides you with the parameters for installation of the Ceramic Filter Discs in your filtration units (sealing, fixing, process parameters). You can rent:

### Test Filtration Plants for Piloting

- an excellent choice for project planning of large filtration units (e.g. 100 m<sup>2</sup> filter surface)

## Typical Applications:

### Metal-Working Industry

- cooling lubricants
- cleaning units

### Food Technology

- milk
- beer, wine

### Chemical Industry

- organic solvents
- pigments

# Rotation Filtration with Ceramic Filter Discs

References:

## Metal-Working Industry

### Processing of Aluminium Swarf

- Ultrafiltration
- Water saving
- Reduced costs for chemicals



## Ceramic Industry

### Filtration of Slurries

- Closed loop technology
- Recycling of all resources
- Filtration of glazes
- Concentrations 60-70 weight%



## Waste Water Treatment

- MBR Membran bioreactor
- Sludge concentration
- Decentralized plants
- Grey water



## Digester Effluent

- Low energy consumption
- Modular construction
- Compact design



## Typical Applications:

### Waste Water Treatment

- digested sludge
- water recycling

### Paper Industry

- resource recycling
- closed loop techniques

### Biotechnology

- cell separation
- protein filtration

# Rotation Filtration with Ceramic Filter Discs



## Aeration with Ceramic Membrane Discs

- superfine distributed gas bubbles
- chemical and thermal stability

### Aeration with rotating Ceramic Membrane Discs:

- direct solving of gases in liquids

**Applications:**

- Flotation
- Ozonation
- Oxygenation
- CO<sub>2</sub>, N, ...

KERAFOL - Keramische Folien GmbH, founded 1985 and located in Eschenbach, Bavaria, is one of the worldwide leaders in manufacturing ceramic tapes and substrates of different oxide and non-oxide materials.

## Customer References:



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