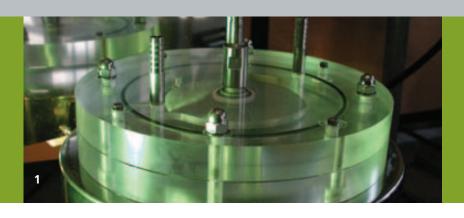


FRAUNHOFER INSTITUTE FOR ENVIRONMENTAL, SAFETY, AND ENERGY TECHNOLOGY UMSICHT



1 Oscillating Filter

OSCILLATING FILTERS

BOOSTING THE PERFORMANCE OF MEMBRANES

Fraunhofer Institute for Environmental, Safety, and Energy Technology UMSICHT

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Today membranes are used to clean wastewater, to remove turbidities from drinking water and to recover valuable products in the food industry.

A novel oscillating filter system can improve the profitability of micro, ultra and nano filtration as well as reverse osmosis.

The cake-layer formation on the membrane is considerably reduced. In order to assess the separation behavior we carry out tests in various fields of application.

Keywords

- Membrane processes
- Analysis
- Mobile pilot plant stations
- Operation monitoring
- Evaluation of tests

Industrial Sectors

- Water/Wastewater technology
- Food technology
- Pharmaceutical industry
- Chemical industry

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1 Oscillating filter from above

Technological Specification

- operating pressure from 0.1 to 160 bar
- frequency 5 to 50 Hz
- applicable in filtration of suspensions, dispersions and solutions (micro filtration, ultra filtration, nano filtration, reverse osmosis)
- sterilizable with steam
- membrane material: polymers, stainless steel
- media: depending on membrane up to pH 14

Our service

- research on the technical feasibility
- process development and engineering for technical integration
- process integration
- project monitoring and verifying of results in the analytical laboratory

Your benefit

- reduction of fouling and cake-layer formation during filtration
 - → high capacity, less downtime, lower amount of maintenance
- reduced investment costs due to an increase of the permeate flow and thus reduction of the required membrane area
- lower operating costs due to reduced fouling and cake-layer formation and consequently reduced cleaning intervals

