Lenzing | Filtration

OptiFil™

... starts where others stop

Automatic backwash filter



OptiFil™

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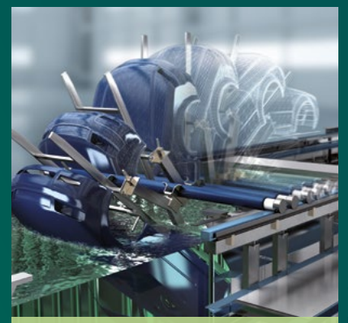
Provides reliable backwash filtering for finest filtration of fluids for the industry and for water treatment.
The patented backwash system allows highest process continuity at lowest backwash quantities.



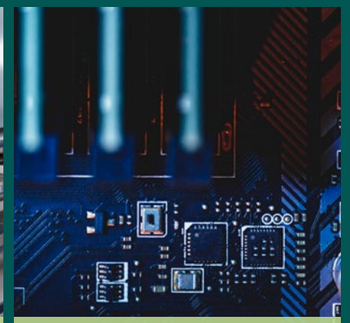
With its network of international sales partners Lenzing Filtration finds the best solution for your line of business, worldwide. No matter where you are, no distance is too far for us.

Our inventive talent combined with our sincere passion for our products, ensures the continuous enlargement of possible fields of application for our solid-liquid filtration systems.

Only this keeps innovation flowing...



Automotive industry



Electronics and photovoltaics



and gas industry



Chemistry and pharma industry



Fiber industry and film production



Power plants



Steel and aluminum industry



Colors, resins and varnishes



Food and sugar industry



Pulp and paper industry



Electroplating and surface technology



Water treatment

OptiFil™

Automatic backwash filter for fine and micro filtration.

The LENZING OptiFil system is a reliable backwash filter for finest filtration of industrial fluids and for water treatment. Its patented backwash system ensures highest process continuity at lowest backwash quantities.

In addition, the special support system ensures the usage of different filter media. The OptiFil may also be configured as a sieve or a depth filter or even as cake building filtration system.

A woven fabric or a metal fiber fleece is used as filter material, which retains particles of different sizes either on its surface or on its inside. After the predetermined degree of contamination has been reached, the filter material is cleaned by backwashing a small quantity of filtered medium, while filtration continues during the backwash.

The patented sealing between unfiltrate and backwash chamber enables an efficient backwash at minimum backwash quantities. Thus, finest filter materials can be used.

Advantages

- High (patented) backwash efficiency
- Filter fineness down to 1µm
- Very high flow rates
- Completely closed system

Application samples

- Acids, alkalis, solvents, resins, varnishes
- Process water, river water, sea water, potable water
- Well water, waste water, formation water, cooling water
- Sugar solutions, molasses, starch
- Oil, oil additives, cooling lubricants
- Cleaning bath solutions, surfactants



OptiFil™

FUNCTIONAL PINCIPLE

During the filtration the backwash mechanism remains in waiting position [1]. The filtration works from the inside to the outside.

An automatic backwash is triggered by a preset differential pressure (or by timer).

Thereby, the flow direction is reversed at a very small part of the surface.

The very high flow rate aims at an efficient flush [2] of the particles out of the filter material.

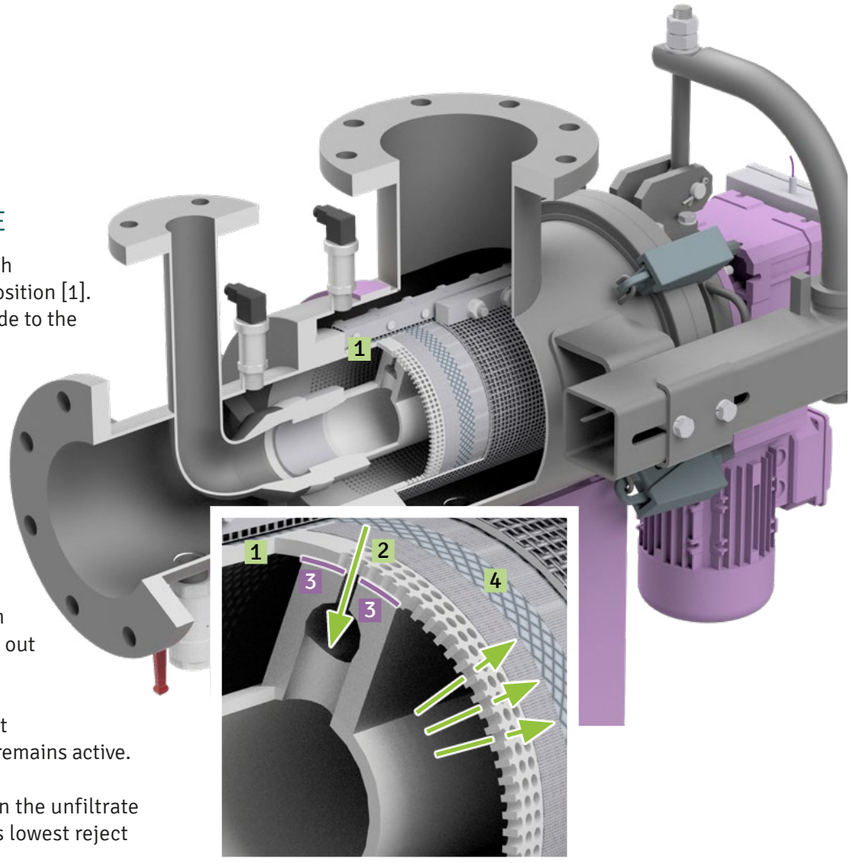
The backwash lasts only for about 2-3 seconds, while the filtration remains active.

The patented sealing [3] between the unfiltrate and the filtrate chamber enables lowest reject quantities.

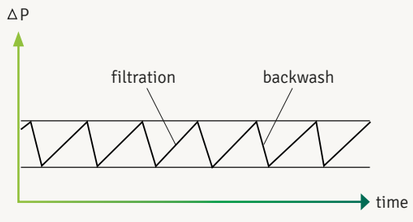
The standard material is stainless steel of quality 316Ti.

The standard design is suitable for operations at 120°C. On request, also operating temperatures up to 200°C are possible.

Different types of filter materials [4] allow for individual applications.



DIFFERENTIAL PRESSURE



ΔP - record on control board

INSTALLATION EXMAPLES

Finest filtration coupled with highest backwash efficiency assures satisfied customers, worldwide.



OptiFil for the pharmaceutical industry
Location: Germany



OptiFil for pulp producing industry
Location: Austria



OptiFil in the pre-treatment of CDC or E-Coating (cathodic dip coating) in the automotive industry | Location: China



OptiFil in the sugar industry | Location: France

OptiFil™

INSTALLATION SIZES



OptiFil-050

Flow rate up to 20 m³/h



OptiFil-100

Flow rate up to 60 m³/h
Direct replacement of
bag filter housing without welding



OptiFil-M-250

Flow rate up to 70 m³/h
Especially for very fine filtration



OptiFil-250/350

Flow rate up to 700 m³/h



OptiFil-250/350-S/L

Flow rate up to 700 m³/h

MATERIALS

- Carbon steel
- Stainless steel 316 Ti/L (1.4404, 1.4571)
- Stainless steel 904L (1.4529)
- Sea resistant
- Special compositions on request

SEALINGS

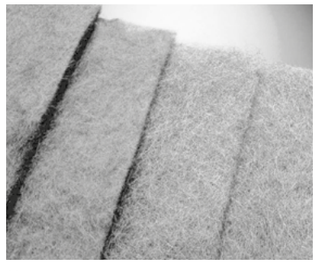
- EPDM
- Silicone
- Buna
- FPM (fluarorubber)
- PTFE

TECHNICAL DATA

	from	to
Flow rate	1 m³/h	700 m³/h
Filter fineness	1 µm	200 µm
Inner diameter connecting flange	DN 50	DN 350
Operating pressure	10 bar	16 bar
Operating temperature	0 °C	200 °C
Area of application	Filtration of low to middle viscose media	

FILTER MATERIALS

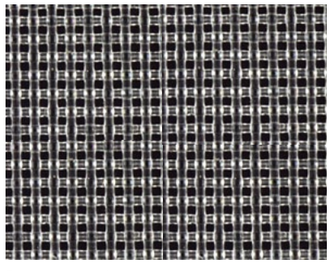
The special fixation of the filter material in our OptiFil system allows the usage of each individual flat filter material. The following types are most commonly used:



Metal fiber fleece made from stainless steel for depth filtration and for the removal of gel particles (from 3 µm)



Stainless steel fabric for sieve resp. cake building filtration (from 5 µm)



Plastic fabric for sticky particles and corrosive fluids as well as for price sensitive applications (from 5 µm, image example: polyamide 25 µm)

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For an individual offer,
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Lenzing | Filtration

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