
Lenzing
Filtration
Lenzing
Innovation flows
Solid-liquid filtration

Lenzing Filtration is specialized in the development and manufacturing of **high-quality filtration devices for solid-liquid separation.**

Since the 70ies, our **tailor made Austrian** filtration and separation solutions are applied in a multitude of industries worldwide.

Beside the expertise and process knowledge of our highly qualified employees, our customers value our technologically high-developed products. They make the decisive difference in view of longevity and quality.

Lenzing Filtration's wide product range offers PREMIUM self-cleaning patented filtration systems of its three umbrella brands **OptiFil**, **ViscoFil** and **CakeFil**, and also a wide disposable filtration portfolio with its **CoreLine**. The product range **AutoLine** accomplishes our business lines by its conventional automatic filtration systems.

Having our **own laboratory and technical center** at place, we are able to analyze many kinds of low to highly viscous fluids and thus are able to offer the perfect filtration system for our customers. Beside **pilot installations**, our wide repertoire also ranges up to **turnkey large-scale plants**.

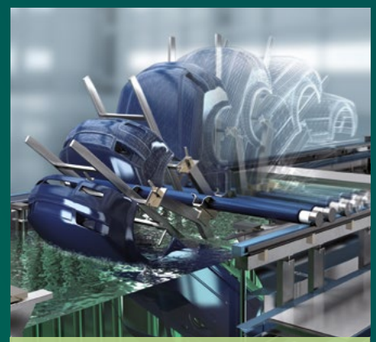
Filtration of highly viscous spinning solutions was our origin.
Keeping everything flowing is our constant ambition.

As part of the Lenzing Group with over 7,000 employees worldwide,
we prove our innovative strength every day.

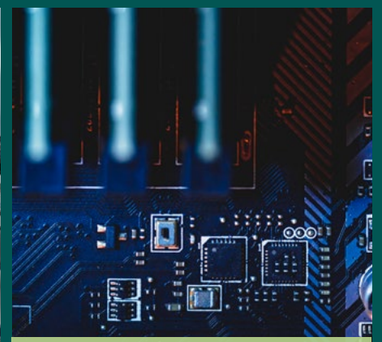
With its network of international sales partners Lenzing Filtration finds the best solution for your line of business, worldwide. No matter where you are, no distance is too far for us.

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

Oil and gas industry

Chemistry and pharma industry

Fiber industry and film production

Power plants

Steel and aluminum industry

Colours, resins and varnishes

Food and sugar industry

Pulp and paper industry

Electroplating and surface technology

Water treatment

Lenzing | Filtration

Innovation flows

... in order to sustainably filter even the finest particles out of different process fluids.

OptiFil™

... starts where others stop

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.

ViscoFil™

Proven. Permanent. Performance.

Developed for the filtration of highly viscous fluids, ViscoFil offers trustworthy filtration of semiliquid fluids up to 200.000cP and particle dimensions down to 3 µm.

Due to the combination of depth effective metal fiber fleeces together with an automatic backwash, this system is the best solution for the separation of soft and gel-like particles.

CakeFil™

Filtration's finest

The process candle filter for cake building filtration with slurry or dry discharge.

Its patented system enables a very efficient backwash and thereby a longer service life of the filter fabric.

This assures real process automation without interruption periods or any manual operation.

OptiFil™

... starts where others stop

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.

Advantages

- High backwash efficiency
- Filter fineness down to 1 µm
- Patented backwash mechanism

Fluids

- 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-100

OptiFil-250/350

OptiFil-M-250

... starts where others stop

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 level (or by timer).

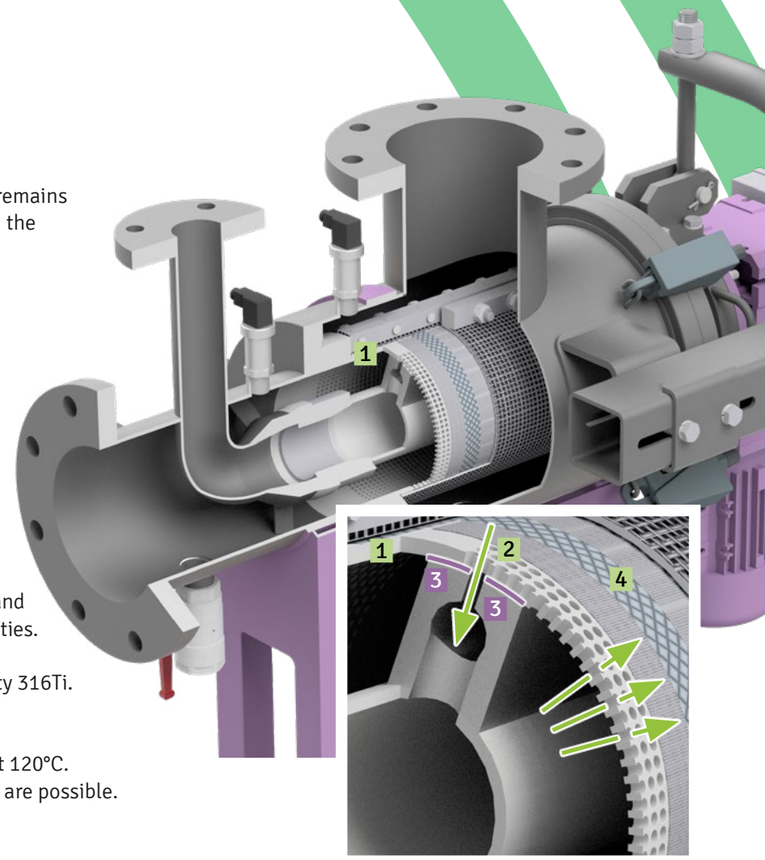
Thereby, the flow direction is reversed at a very small part of the surface. The very high flow rate aims at an efficient flush [2] of the particles out of the filter material.

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

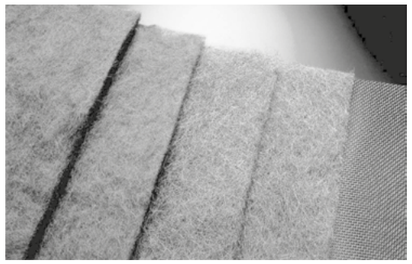
The patented sealing [3] between the unfiltrate and the filtrate chamber enables lowest reject quantities.

The standard material is stainless steel of quality 316Ti. Other materials are available on request.

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



Filter materials [4]:



Metal fiber fleece for depth filtration (stainless steel 316L)

Fabric for sieve resp. cake building filtration (stainless steel or plastic)

ViscoFil™

ViscoFil, AKF and KKF systems

Proven. Permanent. Performance.

ViscoFil™

ViscoFil, AKF and KKF systems

Automatic backwash filter for viscous fluids.

The LENZING ViscoFil system has been developed for the separation of soft gel particles out of high viscous fluids.

The unique backwash mechanism enables the usage of depth filter material at lowest backwash quantities and with continuous filtration.

With over 1,000 installations worldwide this system (type AKF/KKF) has reached market leadership in specific processes for decades, e.g. in the viscose fiber industry. Its technology is considered state-of-the-art across the industries.

Advantages

- Suitable for very high viscous fluids
- Filter fineness down to 3 µm
- Filtration of gel particles

Fluids

- Spinning and casting solutions: viscose, polyacrylics, polyimides, cellulose acetate, spandex, aramid
- Resins, varnishes, petrochemical products, hot-melt adhesives, gelatin

ViscoFil-KKF-18
For the filtration of big process streams in the wood-based-fiber industry

ViscoFil-5:
For the filtration of smaller process streams at the production of resins, adhesives and other viscous fluids

Proven. Permanent. Performance.

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

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

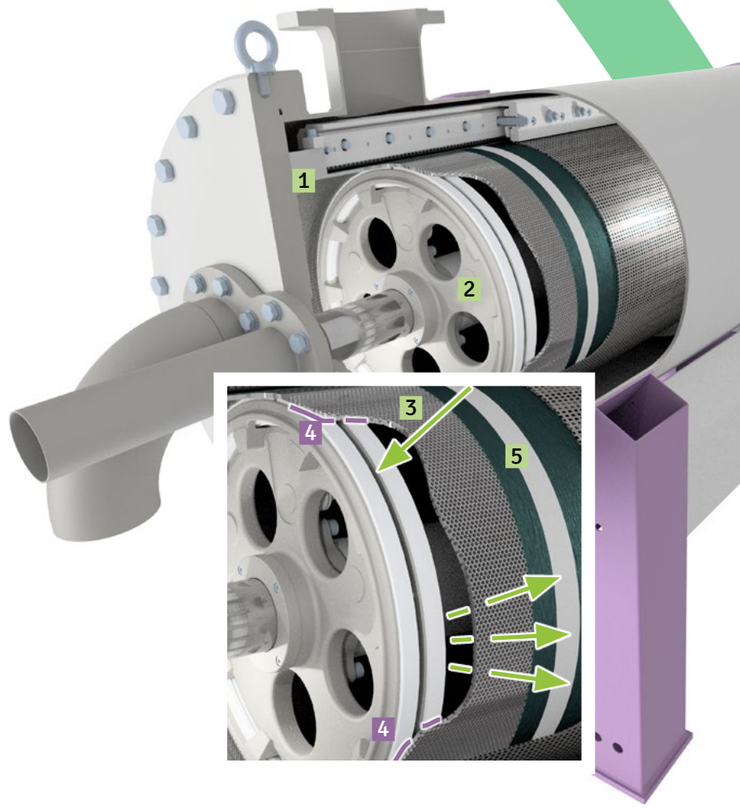
The backwash mechanism [2] moves from one end position to the other.

Thereby, the flow direction is reversed at a very small part of the surface. The very high flow rate aims at an efficient flush [3] of the particles out of the filter material.

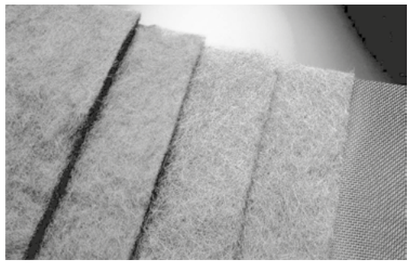
The sealing [4] between the unfiltrate and the filtrate chambers enables lowest reject quantities.

Different materials (e.g. standard steel up to 316Ti stainless steel) are available on request.

Operating temperatures and pressures are adjusted to each individual application.



Filter materials [5]:



Metal fiber fleece for depth filtration
(stainless steel 316L)

CakeFil™

Filtration's finest

CakeFil™

Filtration’s finest

Candle filter for precoat or cake buidling filtration.

The patented LENZING CakeFil system is a fully automatic precoat and cake building filtration system: pressure as driving force makes the filtration of very fine particles possible. The solid material serves either as recyclable material or as waste. It is discharged pumpable as slurry or, after a previous cake washing and cake drying step, as “dry to the touch”.

The special design of the filter candles ensures an efficient cake discharge as well as an efficient rinsing of the filter material pores.

Advantages precoat filtration

- Filtration down to submicron range
- Suitable for solids tending to clog
- Dry or slurry discharge

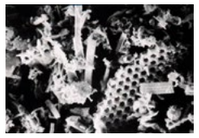
Advantages cake filtration

- Filter fineness down to 1 µm
- Solid contents of up to 10% possible
- Very efficient cake discharge

Fluids

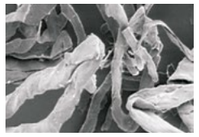
- Petrochemical products
- Acids, alkalis, solvents, chemicals
- Process water
- Sugar solutions
- Brine
- Catalyst recovery

Filter aids

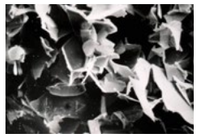


Kieselguhr

Activated carbon



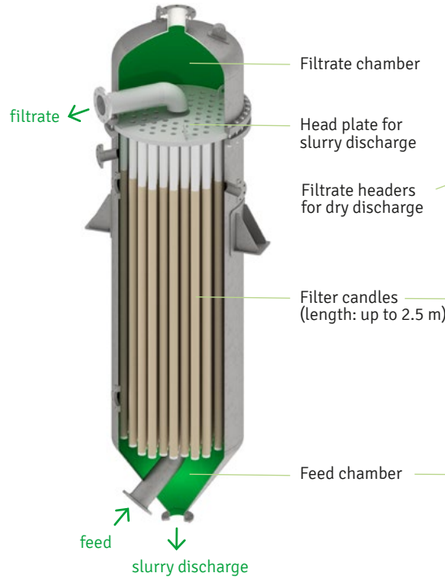
Cellulose



Perlite

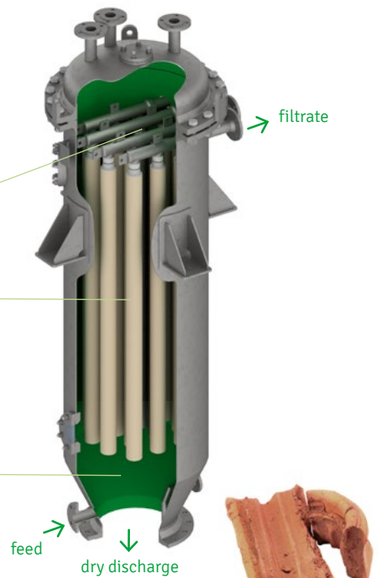
CakeFil in stainless steel design

SLURRY DISCHARGE



slurry

DRY DISCHARGE



filter cake

The CakeFil effect:

Continuous. Maintenance-free. Long-lasting.

start → filtration → backwash

Patented candle design for unrivalled backwash efficiency

Filtration from outside to the inside

Backwash/cake discharge from inside to the outside

Lenzing | Filtration

Innovation flows

AutoLine

The One-Stop-Shop for conventional automatic filters for standard processes.

We find the right filter for the respective application paired with individual expert advice.

CoreLine

Ranges from filter housings, filter bags and filter cartridges to special disposable filtration solutions for industrial and commercial customers.

We provide a wide product range and find a fast and flexible solution in consulting with you personally.

AutoLine

The fully automatic cleaning of particle loaded sieve filters can be carried out in different ways. The composition of the liquid and the solid, the filter fineness or the system requirements decide which kind of cleaning mechanism works best.

The AutoLine series covers systems for fine to coarse filtration to serve the individual application. Our longtime experience ensures you to receive the appropriate system for the respective application.

LENZING CanFil

Robust backwash filtration with automatic cleaning.

For the separation of impurities this system uses filter candles with a wedge wire or fabric, which are flowed through from the inside to the outside and retain the particles at its surface.

When the preset degree of contamination is reached (shown by increasing differential pressure) the flow direction in one of the filter candles is reversed. In case of bigger filters this happens in two or three candles.

During this step, a small volume of the filtered fluid is used to rinse the particles out of the candle while the filtration continues.

The candles are brought into their backwash position one after the other by means of the rotating backwash arm.

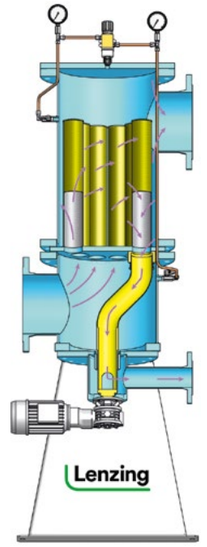
Advantages

- Filter fineness down to 50 µm
- High throughput up to 10,000 m³/h
- Efficient cleaning by reverse flow

Fluids

- River water
- Process water
- Cooling water
- Waste water
- Spray water
- Well water

CanFil-100



functional principle CanFil

CanFil-500

LENZING ScrapeFil

Self-cleaning automatic filter for high solid contents.

The filtration takes place from the outside to the inside of the filter element with the solid contents accumulating at the outside.

The clenaning runs as follows: The gear motor rotates the cylindrical filter element to which a scraper is attached. This scraper removes the solids from the surface. The solids settle at the bottom of the filter housing. By opening the ball valve/outlet, the solids are drained due to the operating pressure inside the housing.

The system is also suitable for high viscous fluids and for high solid content concentrations in the feed due to the continuous thickening process.

Advantages

- Filter fineness down to 50 µm
- High solid content
- Applicable for high viscosities

Fluids

- Juices, honey, chocolate, syrup
- Adhesives, varnishes, resins
- Cooling lubricant, water

LENZING VeloFil

Self-cleaning automatic filter for low system pressures.

This system is equipped with only one filter element. A plate with a diameter a little smaller than the filter element's diameter is led over the entire length of the element for several times. In the gap between the plate and the element an elevated flow rate occurs and due to the Bernoulli effect a vacuum is created which partially cleans the element.

The filter is especially suitable for low system pressures (from 0.6 bar).

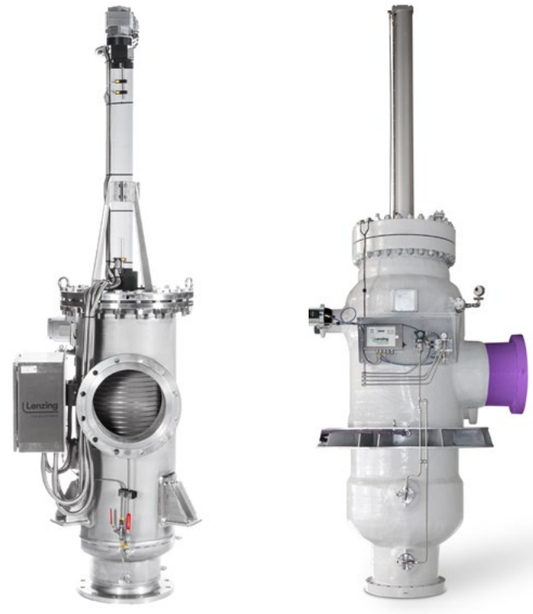
Due to its simple construction, it may be rubber lined economically. The filtration of sea water is a typical application.

Advantages

- Low pressure levels
- Filter fineness from 3 mm to 150 µm
- Efficient cleaning due to the Bernoulli effect

Fluids

- River water
- Sea water
- Process water
- Cooling water
- Waste water
- Spray water
- Well water



LENZING StrainFil

Fully automatic strainer for high system pressures without moving parts.

The filtration of the fully automatic strainer StrainFil is done by one or more slotted sieve filter elements from the inside to the outside.

Whenever a preset differential pressure is reached at the reject outlet, an automatic valve opens and creates an increased cross flow effect at the elements. This results in their cleaning.

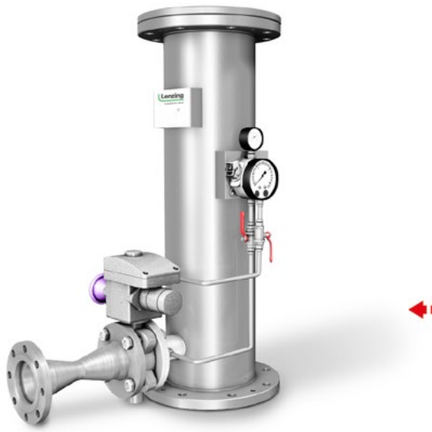
Due to its simple design and a wide range of materials of construction, the StrainFil is the perfect choice for protecting sensitive components like nozzles or heat exchangers.
In addition, the lack of moving seals to the outside and its slim construction makes the StrainFil applicable for very high system pressures in a cost-efficient way.

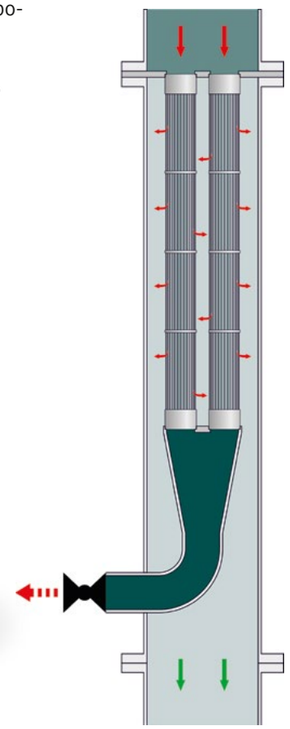
Advantages

- No moving parts therefore no wear and tear
- Filter fineness from 5 mm to 200 µm
- Suitable for high system pressures

Fluids

- River water
- Process water
- Hot water (over boiling temperature)
- Cooling water
- Spray water
- Well water





CoreLine

Our wide range of materials, finesses and separating rates enables the use of CoreLine filter systems in a multitude of applications across all lines of business.

With their long-time experience our filtration experts support you in the choice of the most efficient system for the respective application. With their maximum flexibility they offer a clear advantage over our competitors.

Advantages

- Cost-efficient disposable filtration
- Comprehensive application consulting
- Wide product range on stock

Filter cartridges

Our CoreLine cartridge assortment ranges from depth and surface filter cartridges up to stainless steel or activated carbon filter cartridges.

Its usability is very versatile. Special designs are available upon request. For example, our string wound cartridges have a high dirt holding capacity and therefore long service lifes.

Assortments:

- Meltblown cartridge
- String wound cartridge
- Pleated cartridge
- Stainless steel cartridge
- Activated carbon cartridge
- High flow cartridge

Filter bags

The CoreLine bag range includes single-layer monofilament woven bags, single- and multi-layer needle felt bags or multi-layer composite constructions made of microfiber and meltblown materials.

Here we can act very flexibly and special designs are always possible upon request.

Assortments:

- Needle felt bag
- Monofilament bag
- Microfiber bag
- Active carbon bag
- Absolut rates filter bags

Filter housings

Our CoreLine housing assortment in stainless steel or plastic is versatile. It ranges from housings for low flow rates with high content of impurities to multi cartridge filter housings whose compact design can be used for high volume flows with a high amount of solids.

Special designs and individual housing connections are possible upon request.

Assortments:

- Multi bag filter housing
- Single cartridge housing
- Bag filter housing as sideliner or topliner
- Multi cartridge housing
- High flow housing

Special filter
for highest dirt absorption and longer service life.

LENZING DoubleFil

For longer service life and better separation performance.

The LENZING DoubleFil is a filter bag that has an 80% higher filter surface compared to standard bags of size 2. In addition, the DoubleFil is characterized by longer service life and better separation efficiency resulting from a lower inflow per filter surface.

In total, the dirt holding capacity can be up to four times higher as for a standard bag. Existing standard filter bag systems may easily be changed into a DoubleFil system by installing two additional components.

Advantages

- 80% higher filter surface in comparison to standard bags
- Higher dirt holding capacities
- Longer service life if existing bag filter systems are changed
- Lower investment costs for new installations
- Very easy change of existing systems
- Less residual medium at bag change

LENZING HisoFil

Cake building solution for higher dirt contents in fluids.

The LENZING HisoFil is a special folded (pleated) filter element optimized for applications with higher dirt contents. The functional principle of a HisoFil consists in diminishing the flow velocity per filter surface.
The filtration process runs as a cake building process, while at the same time providing sufficient space for the filter cake to be absorbed. This results in maximum dirt retention, long replacement intervals and low filtration costs. In addition, the HisoFil is particularly suitable for applications in which the filter element change is associated with a great deal of effort, such as hazardous media, remote installations requiring long journeys, or off-shore operation.

Advantages

- For applications with higher dirt contents
- High dirt holding capacity by cake building filtration process due to lower flow velocity
- Low filtration costs
- Very long service life

Contact us
or be part of our partner network.

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