

## LENSER FILTER PLATES

CUSTOMIZED SOLUTIONS FOR VARIOUS FILTRATION PROCESSES



LENSER Filtration Product Catalog

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LENSER FILTER PLATES CUSTOMIZED SOLUTIONS FOR VARIOUS FILTRATION PROCESSES

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## **YOUR FILTRATION EXPERT SINCE 1969**

LENSER Filtration is one of the world's leading manufacturers of filter elements for industrial solid/liquid separation in filter presses. Our filter plates have been successfully used for a variety of industrial applications for over 50 years all over the world.

In addition to the production of filter elements up to large-format and customer-specific product developments, our range of services also includes distribution of field-tested filter cloths as well as comprehensive analysis and advice on your filtration process.

The future offers us new opportunities to integrate smart and future-oriented technologies in classic filter presses. With the development of intelligent sensors and innovative services,









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LENSER has again achieved global technological leadership – not for the first time in the company's history.

We also take the issue of sustainability very seriously: for instance, we are currently researching biologically produced material alternatives, are converting to resource-saving processing in manufacturing, and are developing an all-encompassing product cycle for our filter plates.

As #FiltrationExpert, we look forward to being your reliable and competent partner, now and in the future. Whatever your challenges, LENSER uses its entire knowledge and experience to find the perfect solution for your filtration process.

# SOLUTIONS FOR EVERY APPLICATION

Sugar, pigments, lithium, drinking water – every day we use a variety of products that are made with the help of filtration processes. Our customers come from numerous industries that could not be more different. However, they all rely on our expertise and choose our individual, custom-made solutions.



#### INDIVIDUAL SOLUTIONS IN NUMEROUS APPLICATIONS

LENSER know-how is in far more products than you might expect. The chemical industry, the food production, mining and the extraction of the highest quality minerals rely on our expertise. Even in environmental protection, solid-liquid separation using LENSER filter plates has established itself as a reliable process.

No matter how individual your filter press or process may be, we will find the perfect solution for all areas of filtration.

#### **CHEMICALS – THE WAY TO A LASTING FUTURE**

We only proceed materials with maximum chemical resistance. Our products feature maximum stability and efficiency.

Whatever your filtration process needs, we have the technology and process knowledge to:

Extract maximum value from your product

Δ

- Guarantee product purity, plant safety and reliability
- Select the right solution fitting to your strict process requirements and chemical characteristics

#### **GET IN TOUCH**

#### Your application is not listed?

No problem – feel free to send us a contact request. We are sure to have the perfect solution for your application.

Simply scan the following QR code and fill out the short form. Our #FiltrationExperts will then get in touch with you:



#### Our key applications in the chemicals industry:

- Fertilizers & Phosphates
- Aluminum Oxide
- Pigments
- Silicates

#### MINING & MINERALS – FOUNDATION OF INDUSTRIAL PRODUCTION

You need to boost your throughput, improve your tailings treatment, or maximize your water recovery?

We only supply extremely robust filter plates with abrasion protection. You will get maximum throughput with a short cycle time.

Whatever your filtration process needs, we have the technology and process knowledge to:

- Guarantee efficient filtration
- Increase dewatering throughput while preserving product quality
- Safely handle tailings

Our key applications in the mining & minerals industry:

- Calcium Carbonate
- Concentrates
- Tailings
- Kaolin

#### **ENVIRONMENT – THINKING OF TOMORROW TODAY**

Strict municipal budgets, climate change, pollution. When it comes to handling wastewater, potable water and other types of sludge and waste, the right filtration solutions and services are the key to sustainable growth.

We offer a wide range of products that improve your process efficiency. Our product solutions meet your throughput / volume.

## Whatever your filtration process needs, we have the technology and process knowledge to:

- Maximize energy recovery
- Lower energy consumption and therefore also lower operating costs
- Select the right solution to meet your diversified needs

#### Our key applications in the environment industry:

- Flue Gas Desulphurization (FGD)
- Refinery & Chemical Waste
- Industrial Wastewater
- Municipal Wastewater

#### FOOD – SOURCE OF LIFE

We only proceed certified materials. Our solutions are suitable for extreme parameters: from the lowest to the highest temperatures and pressure levels.

## Whatever your filtration process needs, we have the technology and process knowledge to:

- Improve product quality
- Boost production efficiency
  - Improve flavors and textures
- Maximize yield and purity

#### Our key applications in the food industry:

- Vegetable Oils / Biodegradation
- Oil & Fat Fractionation
- Sugar & Sweeteners
- Beer Mash

# **A UNIQUE VARIETY OF FILTRATION SOLUTIONS**

LENSER filter elements are used all over the world and guarantee a smooth filtration process with optimum filtration results. Over 50 years of experience and passion go into each of our filter elements.



Since 1969, our products have been convincing our customers, with the highest of engineering skills and top quality.

Based on our sophisticated and broad product range, we create the customized solutions that our customers need. Customer requirements are as diverse as our solutions. As an innovative expert in solid-liquid separation, we have made it our goal to offer the right solution for every application. The basis of these solutions comes from our comprehensive product range and is then individually tailored to customer requirements.

In this way, each product type ultimately becomes a unique LENSER product - made according to the customer's needs.

Our broad product portfolio ranges from the classic filter plate and frame system to solutions with chamber and membrane filter elements as single-type or mixed configuration - our so-called LENSER Mixed Pack.

The following is an overview of our comprehensive product selection.

## **LENSER FPR**

Filter plates and frames



#### FILTER PLATES AND FRAME SYSTEMS FOR PRESSURE FILTRATION AT LOW PRESSURE STAGES

Before the development of chamber filter elements, filter plate and frame systems were used as standard for solid-liquid separation. At the time, these were made of wood, but today they are made of plastic. LENSER manufactures them according to your requirements in many different formats and designs.

Filter plate and frame systems are still an inexpensive solution for simple filtration processes. They are a much sought-after solution for special processes and are used in the production of pharmaceuticals or for the filtration of blood plasma, as well as in the food industry.

We develop and manufacture the complete system, consisting of:

- **FP** Filter plate elements
- FR Filter frame elements
- FX Filter plate elements for a LENSER Mixed Pack

#### **FEATURES**

- For filtration at low pressure levels
- · Especially suitable for cheap filter media
- Easy cloth exchange

- Most cost-effective solution for special
- Good washing results due to symmetrical cake chambers
- Variable cake thicknesses due to easy exchange of filter frames

## LENSER KF

## Chamber filter element - standard

## LENSER KA

#### Chamber filter element – reinforced edge



Size:From 250 mm to 1.500 mmCake thickness:From 15 mm to 50 mmFiltration pressure:Up to 16 borFeed port position: $\bigcirc$  $\bigcirc$ </t

#### STANDARD CHAMBER FILTER ELEMENTS FOR COST-EFFECTIVE PROCESSES

Chamber filter elements are based on the principle of filter plate and frame systems and are operated in the same way with pressure filtration. They represent an cost-effective and efficient basic equipment for filtration processes with low demands on the dry matter content.

Chamber filter elements represent an inexpensive and efficient basic equipment for filtration processes with low demands on the dry matter content. LENSER supplies chamber filter elements in various sizes for open and closed filtrate discharge.

#### **FEATURES**

- Wide choice
  Available in different sizes and materials for open
  and closed drains
- Individual cake thickness possible
  Freely selectable depending on application
- Designed for high filtration temperatures The standard design also resists high filtration temperatures

#### YOUR BENEFITS

- Efficient standard equipment: For filtration processes with low dry content requirements
- Varied application processes: Universal customization – tailored to application and individual customer requirements



#### FILTER PLATES AND FRAME SYSTEMS FOR PRESSURE FILTRATION AT LOW PRESSURE STAGES

Chamber filter elements are based on the principle of filter plate and frame systems and are operated in the same way with pressure filtration. They represent an cost-effective and efficient basic equipment for filtration processes with low demands on the dry matter content.

The edge-reinforced design concept of the LENSER KA provides improved stability of the filter plate. The improved stability allows higher filtration pressures in the process.

#### FEATURES

- Edge reinforcement
  Edge-reinforced design concept provides improved
  filter plate stability
- Individual cake thickness possible
  Freely selectable depending on application
- Wide choice Available in different sizes and materials for open and closed drains

- Efficient standard
  equipment: For filtration
  processes with low dry
  content requirements
- Higher filtration pressure: Improved stability allows a higher filtration pressure
- Varied application processes: Universal customization – tailored to application and individual customer requirements

## LENSER KF CGR

Chamber filter element - standard, sealed

## **LENSER KM BLOC**

#### Membrane filter element - standard, welded





LENSER filter elements are also available in sealed form. These are based on LENSER standard chamber filter elements (KF). For differentiation from the classic LENSER KF, they are assigned the suffix CGR (caulked-grooved) in the nomenclature.

CGR plates are used when the filter chambers must be drip-proof. LENSER offers a variety of sealing materials such as EPDM, silicone, NBR and FKM, depending on the resistance requirements. For the food and pharmaceutical sector, we use FDA or EU-compliant seals, among others.

#### **FEATURES**

- For filter chambers that must be absolutely drip-tight
- Various sealing materials available depending on requirements
- FDA-compliant, anti-static or ATEX-compliant on request
- Also available in PVDF for chemically harsh conditions
- Equipped with cloth tension groove and O-ring sealing
- Compatible with critical chemical conditions through the use of additives

#### **YOUR BENEFITS**

- Available in PVDF for chemically harsh conditions
- FDA-compliant, antistatic or ATEX-compliant on request
- Equipped with cloth clamping groove (Ω-type or U-type) and O-ring sealing



#### MEMBRANE FILTER ELEMENT FOR UNIFORM CAKE THICKNESS

As the inventor of the polypropylene filter element, membrane filter elements have been part of our core service from the very beginning. With LENSER membrane filter plates, you can significantly shorten your filtration process, increase the dry content of your cake and save enormous resources. This is made possible by mechanically squeezing the filter cake after the actual filtration process.

The recessed membrane allows a more uniform cake thickness and a very good washing result.

#### FEATURES

- Shorter filtration cycles
- Shorter washing times
- · Higher dry solids contents
- Even cake thickness distribution across filtration area

- Higher throughput rate
- Reduced water consumption
- Reduced air consumption during blow-drying
- Superior cake washing/ blowing results

## **LENSER KM UM BLOC**

Membrane filter element – empty chamber, welded

## **LENSER KM UM HD BLOC**

High-pressure membrane filter element – empty chamber, welded





With LENSER membrane filter elements, you can significantly shorten your filtration process, increase the dry content of your cake and save enormous resources. This is made possible by mechanically squeezing the filter cake after the actual filtration process.

The UM bloc version is characterized by a bar row in the edge area that is stepped to double the nap height. Moreover the LENSER UM membrane convinces with a high operational reliability, because it endures underfunded or empty filter chamber without damages on the edge area.

#### **FEATURES**

- Shorter filtration cycles
- Shorter washing times
- · Higher dry solids content
- Double bar row in the edge area

#### **YOUR BENEFITS**

- Higher throughput rate
- Reduced water consumption
- Reduced air consumption during blow-drying
- Squeezing in an unfilled or empty chamber



#### HIGH-PRESSURE MEMBRANE FILTER ELEMENT FOR A SQUEEZING PRESSURE OF UP TO 30 BAR

With LENSER membrane filter elements, you can significantly shorten your filtration process, increase the dry content of your cake and save enormous resources. This is made possible by mechanically squeezing the filter cake after the actual filtration process.

High-pressure membrane filter elements are characterized by their high load capacity. Thanks to special inlet designs and material combinations, these filter elements can withstand squeezing pressures of up to 30 bar.

#### FEATURES

- Shorter filtration cycles
- Shorter washing times
- · Higher dry solids contents
- Even cake thickness distribution across filtration area



e:	470 mm and from 1 m to 2 m
ke thickness:	From 15 mm to 50 mm
ration pressure:	Up to 8 bar
leezing pressure:	Up to 30 bar
ed port position:	corner external

- Higher throughput rate
- Reduced water consumption
- Reduced air consumption during blow-drying
- Squeezing pressure up to 30 bar

## **LENSER KM RUD**

#### Membrane filter element – exchangeable membrane half

## **LENSER KM RUM**

## Membrane filter element - exchangeable membrane half



Size: 320 mm, from 1 m to 1.5 m Cake thickness: From 15 mm to 50 mm Filtration pressure: Up to 8 bar Squeezing pressure: Up to 30 bar Feed port position: 0 centre corner externa Version: С

#### EXCHANGEABLE MEMBRANE FILTER ELEMENT FOR COST-EFFICIENT MAINTENANCE

With LENSER membrane filter elements, you can significantly shorten your filtration process, increase the dry content of your cake and save enormous resources. Exchangeable membrane filter plates are an efficient and cost-effective solution for maintaining your filter press equipment. In the case of worn elements, it is not necessary to replace the complete filter plate, but only the membrane - the basic body remains intact.

With type KM RUD, the membrane are fastened in the designated mounting grooves of the basic body by means of clamping strips. Please note that the KM RUD type can only be used as LENSER Mixed Pack.

#### **FEATURES**

- Shorter filtration cycles
- Shorter washing times
- · Higher dry solids content
- · Membrane attachment with clamping strips

#### **YOUR BENEFITS**

- Higher throughput rate
- Reduced water consumption
- Reduced air consumption during blow-drying
- Squeezing pressure up to 30 bar

#### EXCHANGEABLE MEMBRANE FILTER ELEMENT FOR COST-EFFICIENT MAINTENANCE

With LENSER membrane filter elements, you can significantly shorten your filtration process, increase the dry content of your cake and save enormous resources. Exchangeable membrane filter plates are an efficient and cost-effective solution for maintaining your filter press equipment. In the case of worn elements, it is not necessary to replace the complete filter plate, but only the membrane - the basic body remains intact.

With the type KM RUM, the membrane halves are fixed to the carrier plate by means of clip strips. These designs allow easy and problem-free replacement of the membrane.

#### FEATURES

- Shorter filtration cycles
- Shorter washing times
- Higher dry solids contents
- Membrane attachment with clip strips



- Higher throughput rate
- Reduced water consumption
- Reduced air consumption during blow-drying
- Squeezing pressure up to 30 bar

## **LENSER MIXED PACK**

#### Membrane filter elements in combination with chamber filter elements

## **LENSER FILTROLIZER®**

Chamber filter plate - temperature-controlled





#### THE COMBINATION OF CHAMBER AND MEMBRANE FILTER ELEMENTS

Get a significant cost reduction by combining chamber and membrane filter elements compared to a membrane-only plate package. Still benefit from all the advantages of membrane technology.

LENSER Mixed Packs are a combination of:

- KM Any membrane filter element, whether welded or interchangeable •
- **KX** Chamber filter element as associated combination plate for the respective membrane •

#### **FEATURES**

- Shorter filtration cycles
- Shorter washing times
- · Higher dry solids content



#### **YOUR BENEFITS**

- Higher throughput rate
- Reduced water consumption
- Reduced air consumption during blow-drying
- Cost reduction by combining chamber and membrane filter



#### THE HEAT EXCHANGER – A TEMPERATURE-CONTROLLED CHAMBER FILTER PLATE

LENSER has a wide product portfolio of standardized and high-quality filter plate types. In addition, we also continually develop in-house products to optimize the filtration process, save resources and improve the filtration result. Because our goal is even to fully exploit unused potential.

The LENSER Filtrolizer® is designed to heat or cool the filter cake.

#### FEATURES

- Available as KF, KA or as LENSER Mixed Pack (KX)
- · Optimal filter cake heat transfer to heat or cool it
- High chemical resistance
- · Resistant to classical filtration process, as well as cake washing
- Temperature control of the filter cake



Size:	From 470 mm to 2.000 mm	
Cake thickness:	From 0 mm to 50 mm	
Filtration pressure:	Up to 8 bar	
Heating medium:	Water (95°C)	
Feed port position:		
centre off-centre	e corner external	
Version:		

## **YOUR BENEFITS** • Temperature control on the filter cake • Drying of filter cake within process chemical production process • Prevents clogging of filter cloths Cost-effective alternative to other metal-based filter plates

(stainless steel, aluminum i.e.)

## LENSER KA NXT

## Optimized chamber filter element - reinforced edge

# **LENSER i-PLATE**

## Chamber filter plate - equipped with sensor technology



#### THE "NEXT GENERATION" OF EDGE-ENHANCED CHAMBER FILTER ELEMENT

Optimize your filtration process. With this particularly flat chamber filter plate, you can load far more elements with your filter press. This noticeably increases the amount of filtrate and filter cake per cycle.

#### **FEATURES**

- · Optimized arrangement of stay-boss positions
- Optimized web design
- Reduced web thickness for less weight (from 104 kg to 86 kg)
- Higher volume of recessed filter plates (almost 2 liters)
- Appropriate LENSER filter cloth solution available on demand

#### YOUR BENEFITS

- Increased differential pressure resistance
- Higher filtration volume
- Selected fabrics deliver optimal results (chemical and thermal compatibility, DS content, filtrate purity, etc.)



#### **VISIBLE CONTROL OF MEMBRANE FILTER ELEMENTS**

The LENSER i-Plate opens up completely new insights into your individual filtration process. Reliable, digital real-time measurement provides you with a wide range of relevant data from your filter press during ongoing operation. In this way, you gain insights into your processes and can optimize them.

#### FEATURES

- Measurement range for moisture from 0% to 100%
- Measurement range for temperature from 0°C to 70°C
- Measurement range for electrical conductivity from 0 ms/m to 20 mS/m
- Sensor is made of V4A high-grade steel and ceramics
- Suitable for all filtration processes within the application areas Chemicals, Mining, Minerals and Environment
- Form fitting in the milled groove with 0-ring clamping
- The sensor is positioned directly at the filter cake it's only covered by the filter cloth
- Insight into digital real-time data through online diagnostics, offline reviews or via a direct integration into the press control or through the addlQ-Monitoring Box for data visualization

Please contact your #FiltrationExpert for further information and process requirements.

# YOUR BENEFITS Real-time surveillance of filtration process Adjusting the filtration cycle in detail Shorter cycle times for same residual moisture Indication of potential plate blocking, deflection or breakage at an early stage Less energy, water or pressure needed to achieve the same process results

## **LENSER ACCESSORIES**

A sophisticated range of accessories for all cases. Choose from a wide range of accessories the right ones for your filtration process.



- LENSER Accessorie: 2-screw-handle for manual plate shifting Α
- В LENSER Accessorie: Feed shoe
- С LENSER Accessorie: 3-way-valve (discharge system)

LENSER filter elements are customizable to the last nuance - so are the accessories. Our accessories are manufactured and constantly optimized on the basis of our daily experience in use and taking into account the latest technical developments.

We also attach great importance to the best quality for these products to ensure correct and satisfactory functioning.

In general, we distinguish between necessary accessories, which must be adapted for the general functionality of the filter elements and a sovereign filtration process.

Here, LENSER customer can choose between various additional components such as:

- Welded and mounted handles
- Different drainage systems
- Different cloth clamping devices
- etc. •

In addition, LENSER has developed further accessories that help to further optimize the filtration process.

These include, among others:

- Distributor ring •
- Anti-static discharge system
- LENSER Fix-Click
- Membrane Control System •
- etc.

The following two examples show only a selection of the common LENSER accessories. We offer further accessories on request. For more, please contact your #FiltrationExpert.



#### LENSER MEMBRANE CONTROL SYSTEM

With the patented LENSER Membrane Control System (LENSER MCS) you can effectively monitor the repressing process.

The LENSER MCS immediately detects when a membrane is leaking and emits a conspicuous blue light signal. In this way, you can see from a distance which membrane filter plate is affected.

#### Advantages

- Direct detection of leaks under real operating conditions
- Increased operational safety ٠
- Reduced downtimes
- Easy to retrofit for individual connections



#### **LENSER FIX-CLICK**

The LENSER-Fix Click is a combination of a support distribution ring and a cloth clamping ring. It enables filter cloths to be fitted extremely quickly and securely.

#### Advantages

- Simple and quick assembly without • additional tools
- Enables the use of overhanging cloths • instead of push-through cloths
- Secure hold and exact positioning of the fabric
- Use of identical components, shorter • service life when changing cloths
- Secure protection of the membrane filter . elements in the inlet area extends the life of your LENSER products
- Protects against cake build-up in ٠ the inlet
- Protection of the filter cloth against abrasive media in the inlet area

# THE WIDE RANGE OF **LENSER FILTER MEDIA**

Efficient and effective filtration processes run with filter media that are precisely tailored to the application and the filtration process. LENSER takes over the research for your ideal filter cloth.



Finding the right filter cloth for your filtration process often feels like looking for a needle in a haystack. Filter media have a number of different characteristics and these have different effects - positive or negative - on the filtration result.

#### FEATURES OF THE FILTER CLOTHS

These features include the design or type of fabric, the number of pores, the pore shape and the pore size and permeability. All of these factors influence cake formation and thus also particle retention and filtrate flow as well as the life of the filter media, both individually and in combinations. All in all, they are of crucial importance to efficiency and overall process costs.

#### SELECTING THE RIGHT FILTER MEDIA

A comprehensive and qualified analysis is always the first step in selecting the filter media. By taking account of your filter press type and the respective application, we can already reduce the number of possible filter media to be considered. In addition, we consider the requirements of your filtration process and the properties of your suspension. These give our #FiltrationExperts essential information on the required pore size, allowing us to determine the air permeability and the appropriate fabric type.

The fabric type is a central parameter that influences the overall economy of the filtration process. It defines the filter media resistance: the lower the resistance, the shorter the filter cycles. At this point, the cost-effectiveness of the right filter cloth becomes clear - a shorter filtration time means a higher product output.





- LENSER PRESS TEX Mono-Multi barrel-neck filter cloth Α В LENSER PRESS TEX Mono filter cloth with backing cloth
  - Macro view of a LENSER PRESS TEX Multi filament

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Another key parameter in optimizing process economy is particle retention by the filter medium. The overall goal is to obtain a clear filtrate after as few filtration cycles as possible. Once again, the influence of the fabric design becomes apparent: The closer the knit of the fabric structure, the more particles are retained.

#### TEST THE SUITABLE FILTER CLOTH WITHOUT OBLIGATION

Our service aims at determining the filter cloth that provides the optimum filtration for your process, with the lowest possible resistance and assuming an acceptable level of particle breakthrough. Our #FiltrationExperts carry out field tests for perfect results. This way we can determine the ideal filter cloth for your filtration process. Test our recommendation free of charge and without any obligation.

#### **FILTER CLOTH CRITERIA**

- Filtration equipment and
- Properties of the suspension and filter cake
- Residual moisture in the filter cake and clarity of the filtrate
- Pore size, pore shape and number of pores per cm<sup>2</sup>
- Air permeability
- Fabric type or design
- Particle retention

# LENSER PRESS TEX: MONO, MULTI, COMPOSITE

Choosing the right fabric design for your filter cloth is a key criterion in the efficiency of your filtration process. At LENSER we distinguish between Mono-, Multi- and Composite-filaments.



#### LENSER PRESS TEX MONO – FOR A LONG PRODUCT LIFE CYCLE

The benefits of mono filament fabrics are minimum clogging, high throughput, excellent cake dryness and perfect cake release. However, It also has less tensile strength and less sealing properties at the frame area of the filter element.



#### LENSER PRESS TEX MULTI – FOR ROBUST APPLICATIONS

The multi filament fabric are needed for robust solutions as well as good retention of fine particles. Due to the rough yarn structure, the cake sticks more strongly to the cloth. This means a greater risk of blinding and requires frequent cleaning cycles.



#### LENSER PRESS TEX COMPOSITE – FOR FINEST FILTRATE

This is a modern, specially built-up and finished short fiber construction. We differentiate between standard composite and pre-formed composite fabrics (LFC). The benefits are clear filtrate, high yield and easy mounting. Due to the high fabric density, cleaning cycles must also be considered here.

# OUR POSSIBILITIES OF CLOTH FASTENING

Depending on the area of application, filter cloths have different properties and characteristics – and the fastening techniques for LENSER PRESS TEX filter cloths are just as varied.



The filtration equipment and the application decide primarily which mounting option is the most suitable. It must always be secure and non-slip, but also easy to install and time-saving.

LENSER has a wide selection of filter cloths and additional mounting options. We are always developing new and innovative ideas to make work on the filter press easier for your staff. We also bear assembly and replacement in mind.

#### LENSER MOUNTING OPTIONS

There are different filter cloth designs that prefer different forms of mounting. For the majority of applications, we advise using the classic barrelneck filter cloth with eyelets at the edges, which are secured with cable ties. The use of Velcro fastenings is also increasing, because operators want to prevent cut or broken cable ties from

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contaminating the product. The drape-over filter cloth in combination with a distribution ring or a cloth grommet is a good alternative to a barrelneck design. Single filter cloths for head and end-plates can be reliably and easily fixed with re-usable plastic caps. These are much easier and faster to install and are also secured with eyelets or Velcro fastenings.

For gasketed filter elements, LENSER offers the classic, filter cloth with sewn-in EPDM cord, as well as the innovative LENSER EASY-FIT, which matches the cloth clamping groove perfectly and requires practically no tools.

Ask your #FiltrationExpert about suitable options to optimize cloth mounting and capitalize on high maintenance cost.





# **LENSER EASY-FIT: LATEST TECHNOLOGY FOR LEAK-PROOF DESIGN**

Save time and money with our gasketed filter elements when replacing filter cloths. Use the LENSER EASY-FIT filter cloth and benefit from our elastomer sealing technology.



#### **FEATURES**

- · Fast and easy to install
- Leak-free filtration and safe operation •
- No further fastening materials are required
- Elastomer seals can be recycled •
- Fulfills the guidelines of EC 1935/2004 and EC 10/2011 • as well as complying with FDA regulations
- High quality, good tensile strength and excellent elasticity
- Hydrophobic coating is available on request •
- LENSER EASY-FIT is available in all sizes based on polypropylene, polyamide or polyester



- Quick assembly
- Short downtimes
- Designed for gasketed filter elements
- Exchange of cloth without removing the filter element
- Compliant with food
- Long service life due to robust design

# LENSER LFC AND LFC-HYBRID: INNOVATIVE CONNECTOR

The easiest way to change filter cloths: Use the LENSER Formed Composite (LFC) for gasketed filter elements and the LFC-Hybrid filter cloth for standard filter elements.



#### FEATURES OF LFC

- Plug-in neck consisting of male/female part
- Sintered fiber construction perfectly adopted to filter element geometry
- Suitable for low and high pH values
- High retention of fine particles
- Robust surface finishing
- Hydrophobic coating available on request

#### FEATURES OF LFC-HYBRID

- LENSER LFC-neck sewn onto proven LENSER PRESS TEX
  filter fabric
- Available as a single or drape-over filter cloth
- Fabric fastening with eyelets and cable ties or with Velcro

#### **YOUR BENEFITS**

- Quick and easy installation
- Short downtimes
- Exchange of cloth without removing the filter element
- No leakage due to perfect fit on LENSER filter plates
- Long service life due to robust design
- Can be retrofitted
- Can be used for almost all applications and brands





A Detail view: Male part of the plug-in neck (smaller diameter)

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- Detail view: Female part of the plug-in neck (larger diameter)
- Visualization for the correct assembly of the pug-in neck

naller diameter) (larger diameter) pug-in neck

## LENSER SERVICES: BEST POSSIBLE SUPPORT

LENSER is a dependable partner at your side – in every respect. We want to offer you the best possible support on all issues related to the filtration process. Therefore we build up some different service packages.



An all-encompassing product portfolio as the basis of our customized filtration solutions, new innovative products, as well as analysis and a perfectly fitting filter cloth are only a part of what we can offer.

All in all, our services add up to a solid all-round package that you can rely on.

#### LABORATORY AND ON-SITE TESTS

We carry out filtration trials for you in our laboratory to analyze the filter cake or suspension. In addition, we offer fabric analyses for filter cloths in order to make you the best possible recommendations.

#### TRAINING

On request, we are happy to offer operator training and tailored seminars for your operating and maintenance personnel on filtration processes, depending on your needs and requirements.

#### LOCAL SUPPORT

Thanks to our extensive sales network, consisting of product managers, intermediaries and agents, we are also available personally for our customers all over the world. Our field service technicians are happy to help you.

#### PROCESS OPTIMIZATION

We provide you with process analyses and innovative tools to increase your profit. Our team will be happy to help if you need any assistance.

# FULL SERVICE OPERATION BY CHOOSING LENSER 3-IN-1

LENSER looks after all tasks related to your cloth assembly. With LENSER 3-IN-1 you get your filter elements and the associated filter cloths pre-assembled ready for installation.



#### **RELY ON YOUR #FILTRATIONEXPERT**

Our experts are well trained and has the knowhow of over 50 years of filtration expertise. We will assemble the appropriate filter cloths

#### **REDUCE THE DOWNTIME OF YOUR PRESS**

Save time and personnel costs by having your filter elements delivered ready for installation.

# LENSER FILTRATION: WE MEET YOUR CHALLENGES

Do you want to increase efficiency while saving on resources and energy? Or is your goal to optimize your end product?

Let our #FiltrationExperts help you. For decades, we have been supporting our customers personally and competently on site. Not only within Europe, but around the world, you can take advantage of LENSER services.

Based on more than 50 years of experience in multiple fields, we can give you reliable recommendations on the right process equipment and most suitable filter elements.

LENSER supplies customers in over 150 countries all around the world. We have built up a nationwide sales network in recent years – consisting of LENSER sales offices and renowned agents.

At numerous locations, you can contact competent LENSER staff personally and discuss your individual requirements and challenges.

#### HAVE A LOOK AT OUR FULL-COVERAGE NETWORK

Who is your responsible contact?

You can find your responsible #FiltrationExpert in the blink of an eye. Simply **scan the following QR code** and click on your country in the world map:



## Do you already know LENSER ServiceConnect?

LENSER ServiceConnect – the all-in-one web app Enjoy free and easy access without any timeconsuming download. Send order inquiries to your responsible sales person or obtain specific product and service information.

Let's get started: Simply **scan the QR code** and open the LENSER ServiceConnect – anytime and anywhere.



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## What are the challenges in your filtration process?

Even the smallest improvements in your filter elements can make a noticeable impact on your bottom line.

LENSER is the first port of call and a competent partner in choosing the right filter plate for your application. All our products are tailored according to our customers' requirements. Our application engineers analyze suspension and filtration parameters in order to achieve the desired filtration results with the right filter elements. Trust in our many years of expertise.





LENSER Filtration GmbH Breslauer Strasse 8 89250 Senden Germany

p. +49 7307 / 801-0 info@lenser.de lenser.de/de

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