
EFFICIENT FILTRATION FOR A SUCCESSFUL SUGAR CAMPAIGN

INDIVIDUAL FILTER PLATES FOR BEET AND CANE SUGAR



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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 plates 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, 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 increasingly emphasising the use of biological materials (LENSER NWTRL), 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.



BEET AND CANE SUGAR MEMBRANE FILTER ELEMENTS

Discover innovative, efficient and reliable solutions. With the LENSER membrane filter plates for a progressive and successful sugar campaign.



With an annual production of approximately 180 million tonnes, sugar is a crucial element in food, beverages or pharmaceuticals. About 70% of the world's sugar comes from sugar cane, while the remaining 30% is obtained through the processing of sugar beets- an increasing trend.

Conventional sugar manufacturing processes entail numerous challenges such as high temperatures, energy consumption, and reliability requirements. Additionally, significant amounts of solid waste, wastewater, and molasses are generated, which can cause environmental problems. Given these challenges, filtration is increasingly gaining importance as an alternative method.

LENSER FOCUSES ON MEMBRANE FILTER ELEMENTS

High efficiency makes filter presses the superior method in the production of beet and cane sugar. This applies to all, the solid content in the filter cake, the clarification results, and the required energy.

By utilizing LENSER membrane filter elements with external inlet (or others), the most economical Carbokalk mud filtration is achieved. LENSER's long-standing experience in process engineering ensures the highest quality standards. Customized filter plates and proven materials guarantee optimal adaptation to any task. Lenser also provides matching chamber plates for all membrane mix packages.

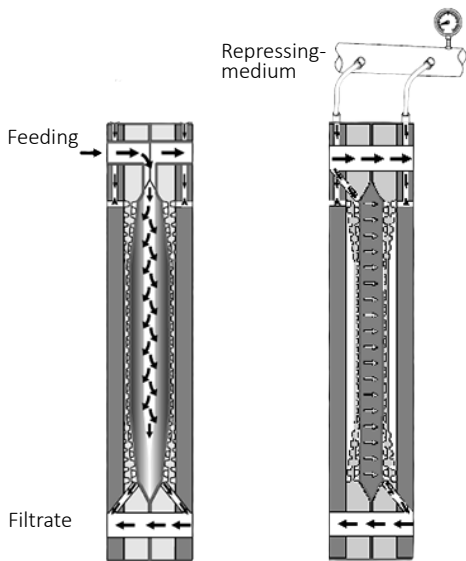
GET IN TOUCH

Let us help to take your filtration processes to a new level.

Scan the QR code and find your #FiltrationExpert:



LENSER MEMBRANE FILTER PLATES



LENSER ensures absolute cost-effectiveness through the synergistic development of process-specific filter elements and suitable plastics for separation processes.

FILTRATION IN THE SUGAR INDUSTRY

Effective chamber loading with solids is crucial. After pressing, the filter cake is pre-dewatered, while the wash water extracts and removes sugar. Subsequently, mechanical dewatering occurs through post-pressing and discharge of the dried filter cake.

LENSER filter plates for sugar filtration reduce process interruptions by requiring less frequent cloth washing and result in cost savings.

The reduced water usage and decreased evaporation costs increase capacity, enabling a reduction in the number of filter presses and thus in investment and energy costs. A high dry cake content allows for efficient further processing.

YOUR BENEFITS WITH LENSER

Optimized filtration surface design

Speeding up filtration, decreasing cycle time, increasing efficiency in feeding, filtration and washing results

Smooth and stable surface

No deformation, easy cleaning

Excellent chemical resistance

No corrosion or abrasion

Low thermal conductivity

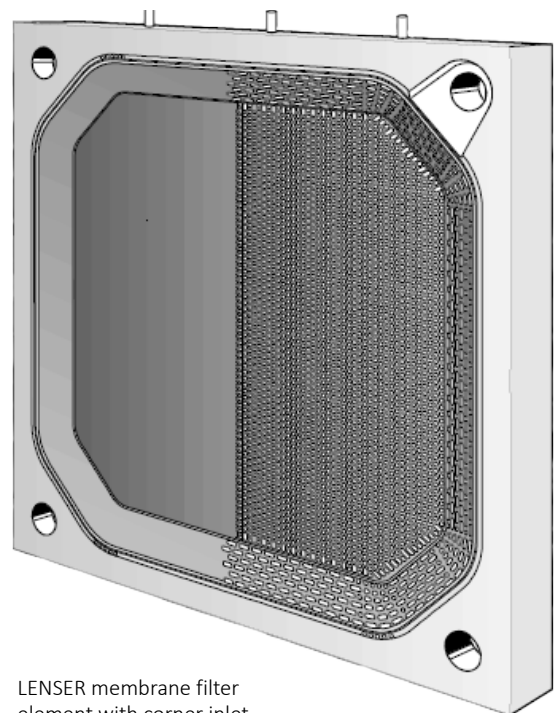
Thus no abrasion with very high dimensional stability

High elasticity

With low weight and low thermal conductivity of the material

Long plate lifespan

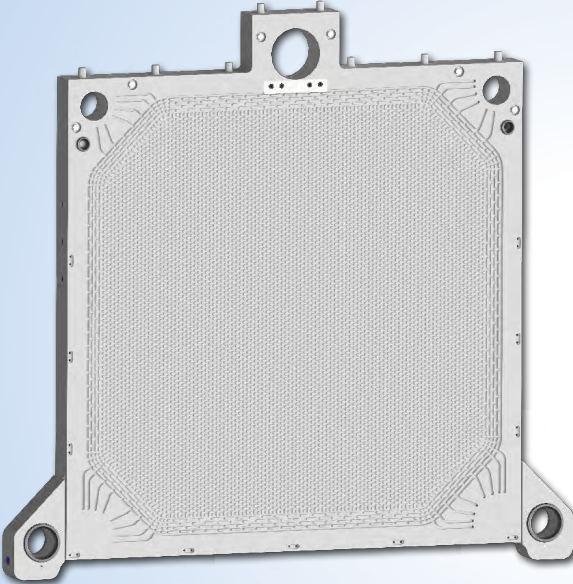
Therefore high efficiency



LENSER membrane filter element with corner inlet

LENSER KMA 1300 R NO

Exchangeable membrane filter element- engineered for sugar



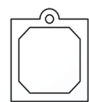
Size: 1.3 m
(only available in this format)

Cake thickness: 45 mm and 50 mm

Filtration pressure: Up to 5 bar at 85°C

Squeezing pressure: Up to 8 bar at 85°C

Feed port position:



external

MEMBRANE FILTER ELEMENT FOR HIGH MATERIAL QUALITY AND BEST WASHING RESULTS AMONG PLATES WITH EXTERNAL FEED PORT

With LENSER membrane filter elements, you can notably reduce your filtration process duration, enhance the dry content of your cake, and conserve significant resources. Interchangeable membrane filter plates offer an efficient and economical solution for maintaining your filter press equipment. When elements wear out, only the membrane needs replacing, leaving the basic body intact.

With the **KM R type**, the membrane halves are attached to the support plate using screws and cable ties. This design allows easy and problem free replacement of the membrane.

FEATURES

- Designed for sugar industry
- Membrane halve design incorporates external feed port only
- Improved drainage channel design
- Membrane halve is screwed to the plate at the corner bore holes and at the inlet area

YOUR BENEFITS

- Improved drainage channel increases filtration efficiency
- Cost saving maintenance
- Optimized design for more stability and longer lifetime
- Food certificate available on request

LENSER KME RUD

Detachable membrane filter element- exchangeable membrane half



Size: 1.2 m, 1.3 m and 1.5 m
(Other formats available)

Cake thickness: From 30 mm to 50 mm

Filtration pressure: Up to 5 bar at 85°C

Squeezing pressure: Up to 8 bar at 85°C

Feed port position:



centre



corner



external

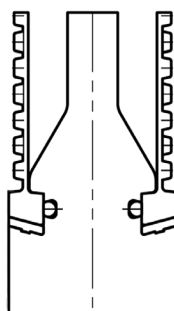
EXCHANGEABLE MEMBRANE FILTER ELEMENT FOR A COST-EFFICIENT MAINTENANCE

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 is fastened in the designated mounting grooves of the basic body by means of clamping strips.

FEATURES

- Exchangeable design offers less cost maintenance
- Less accessories due to mounting of RUD design
- Frame free half design decreases possible complications
- Membrane attachment with clamping strip



YOUR BENEFITS

- Higher throughput rate
- Reduced water consumption
- Reduced air consumption during core-blow and cake dry
- Food certificate available on request

LENSER KME BLOC

Membrane filter plate – standard, welded



Size: From 1.2 m to 1.5 m
(Other formats available)

Cake thickness: From 30 mm to 50 mm

Filtration pressure: Up to 5 bar at 85°C

Squeezing pressure: Up to 8 bar at 85°C

Feed port position:



corner



external



decentral



central

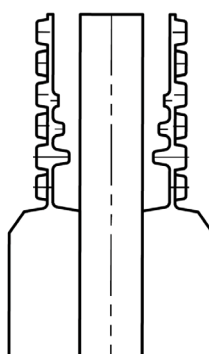
MEMBRAN FILTER ELEMENT FOR A EVEN CAKE THICKNESS AND WASHING RESULTS

As the inventor of the polypropylene filter plate, membrane filter plates 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 even cake thickness and a superior cake washing result.

FEATURES

- Bloc design offering higher volume
- Double sided feeding due to feeding hole opening
- Welded design offers more durability and strength
- Even cake thickness distribution across filtration area



YOUR BENEFITS

- Faster feeding decreases cycle time
- Longer lifespan due to welded one piece design
- Reduced air consumption during blow-drying
- Superior cake washing/blowing results
- Food certificate available on request

What are the challenges in your filtration process?

Even the smallest improvements in your filter plates 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 plates. Trust in our many years of expertise.



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