EDIBLE OIL

Making the world safer, healthier and more productive









Amafilter®

Over 90 Years of Expertise in Edible Oil Filtration

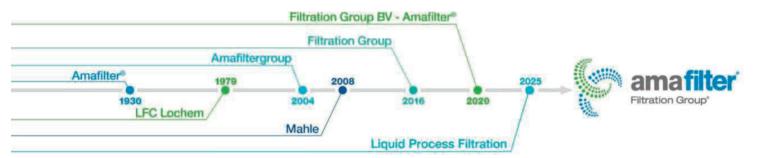
For more than nine decades, Amafilter® has been a trusted partner in delivering efficient, reliable, and highquality filtration solutions to the edible oil industry. We specialise in filtration systems for the Food & Beverage sector, with a particular focus on edible oil applications.

With over 5,000 vertical pressure leaf filter systems installed worldwide — including our unique Cricketfilter® automated system — our solutions are proven across the full spectrum of edible oil processes. Our comprehensive portfolio includes:

- The Versis® vertical pressure leaf filter system
- Horizontal pressure leaf filter systems
- The Cricketfilter® automated filtration system
- A full range of process filtration spares

Filtration plays a critical role in purifying edible oils, removing undesirable particles while preserving the quality and integrity of the final product. Our solidliquid filtration technologies are designed to capture even the finest contaminants, ensuring only the highest product quality.

Our global service team delivers worldclass technical support — from optimising your filtration process to providing ongoing maintenance. We believe in true partnerships, working alongside our customers throughout the lifecycle of their filter systems. From laboratory analysis and process optimisation to design, testing, commissioning, and servicing, we provide complete filtra-



MISSION

We are committed to a better tomorrow and our mission is to make the world safer, healthier and more productive.

Our mission comes alive through the markets we serve, the solutions we provide and how we interact with our teams and customers.









We understand our customers rely on our knowledge, expertise and experience for innovative filtration solutions.

Customers depend on us – we deliver.



Markets we serve

Edible Oil Applications

The selection of the right filter type for each individual process step depends on a number of factors mentioned below and our team of experts works closely with customers to identify the best filtration solution to meet their requirements.

- Space availability
- Type of cake discharge
- Filter unit size in combination with the plant capacity
- Batch or continuous operation
- o Investment costs

Some of the edible oil applications we have expertise in include:

- Rapeseed Oil
- Olive Oil
- Avocado Oil
- Cold Pressed Rapeseed Oil
- Cocunut Oil
- Sunflower Oil
- Palm Oil
- Peanut Oil
- Mustard Oil



Filtration steps in edible/vegetable oil

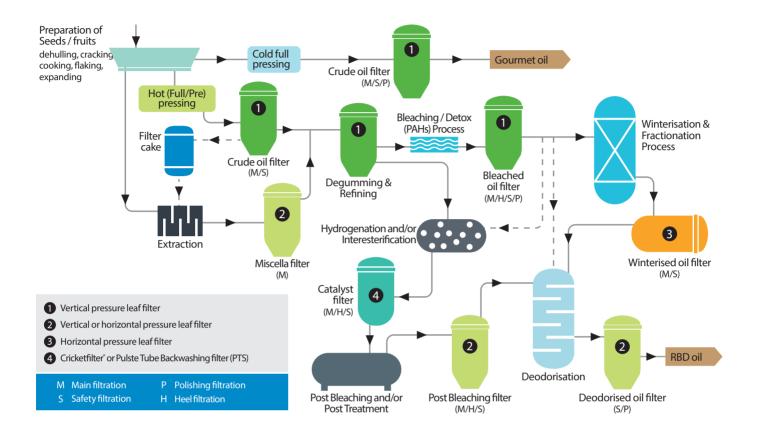
Depending on the type of oil and final purpose, the oil is processed in a sequence of process steps in which we have extensive expertise and a portfolio of products to fulfil these requirements:

- o Crude oil filtration for removal of feet.
- Miscella filtration for production of lecithin from gums.
- o Bleached and/or detoxified oil filtration to remove colour and other components.
- o Winterised oil filtration to remove waxes to enhance cold stability and with the possibility to recover the waxes.
- o Catalyst filtration to remove nickel catalyst after hydrogenation of the oil.
- o Residual catalyst filtration to remove solid nickel catalyst after transitioning to nickel soaps.
- o Deodorised oil filtration to remove impurities formed during deodorization.
- o Safety filtration to improve filtrate quality and/or to protect sequential equipment.
- Polishing filtration to improve product quality.



Flow Diagram

Edible oil flow diagram filtration process



Filtration Solution	Filter Purpose	Filter Benefits
Amafilter® Versis® Vertical Pressure Leaf Filter System	Required for the main filtration and the safety filtration process. Removal of gums and foots.	Effectively removes foots, gums and other impurities from the oil, resulting in a high quality oil that is ready for further treatment and enduse.
Amafilter® Versis® Vertical Pressure Leaf Filter System and the Horizontal Pressure Leaf Filter Systems	Both systems can be used in the heel filtration process to bleach and/or detoxify the oil.	This efficiently removes colour and other components resulting in a clear, light high purity oil.
Amafilter® Horizontal Pressure Leaf Filter System and Cricketfilter® System	Used during the winterisation oil filtration process	Effectively removes waxes to enhance cold stability.
Amafilter® Cricketfilter® automated system	Used in the posttreatment stage for catalyst filtration.	This ensures the complete removal and subsequent reuse of nickel catalyst after hydrogenation of the oil.



Amafilter® Filtration Solutions





The Cricketfilter® Is a proven filtration technology for winterization applications.



Amafilter® bag filter housings

We supply a wide range of bag filter housings in 304 or 316 stainless steel for use in the filtration of liquids containing higher concentrations of coarse solids.

These bag filter housings are suitable for biodiesel applications.

They are robust, corrosion free, have a highflow capacity and provide consistent and reliable performance in solid liquid filtration applications.



Cartridge filter housings

Amafilter® liquid cartridge filter housings are designed and built to deliver quality, functionality and reliability. They are produced to ASME industry standards and can be used in a variety of filtration processes including prefiltration, final filtration and polished filtration. Our housings are extensively used in the chemical, mining & minerals and food & beverages industries.

We can customdesign cartridge filter housings to meet specific customer requirements and meet all necessary regulations and international standards. We work closely with our customers to understand their challenges and design and customize our housings to meet their unique needs.



Amafilter® Filtration Solutions





Versis® Pressure Leaf Filter System

The Amafilter® Versis® pressure leaf filter system has been specifically designed to provide a large filtration area. It is a fully automated system with double sided stainless steel pressure filter leaves. It is suitable for most applications.

Horizontal Pressure Leaf Filter Systems

The Amafilter® horizontal pressure leaf filters have been specifically designed to provide a large filtration area and produce high filtrate clarity after the clarification run. Different types of filter aids can be used in our pressure leaf filters to improve filtrate quality.



Pressure Leaf Filter Systems Elements

Our product range of Versis' vertical pressure leaf and horizontal pressure leaf filters include an extensive range of filter leaves designs to meet various market sector requirements.

The quality and condition of filter leaves can have a significant impact, not only on the productivity of the filtration system but also on its ability to achieve a high performance standard.



Case Studies

Providing a Filtration Solution that Increased Plant Efficiency, Maintained the Quality of the Product and Made the Plant More Profitable

Villapana Spa was experiencing frequent filter changes which were both time and labour intensive and caused significant filtration process inefficiencies and product output to only reach 40% of the plant's capacity.

After reviewing the process, Amafilter® recommended the use of their RBDCD horizontal pressure leaf filter system for the customer's grapeseed oil application. The filter system would assist in the winterizing process, the final step in the production of grapeseed oil. Once installed, Villapana Spa began experiencing noticeable improvements in plant efficiency. The new system only required one operator to clean it, reducing operating costs by 50% and production downtime was reduced due to the quicker and easier servicing of the new filter system.

Importantly, the plant is now operating at 100% capacity, up from 40%. They are now producing approximately 8 tonnes of oil each day, nearly triple their original output. Product quality has remained excellent, and the company has become more profitable since switching to the RBDC horizontal pressure leaf filter system.



SKEBY GULD EKOLOGISK KALLPRESSAD RAPSOLJA SOOM SKEBY GROWN KER KALLPRESSAD RAPSOLJA SOOM KER KALLPRESSAD RAPSOLJA RAP

Process Optimisation Doubles Efficiency in Cold Pressed Rapeseed Oil Production

Skeby Gadar, a Swedish producer of cold pressed rapeseed oil, faced several production challenges despite being satisfied with their product quality. They aimed to increase production capacity by 50% annually but were hindered by an inefficient filtration process, uneven and insufficient cake formation, and overly long drying cycles. Their existing Versis® pressure leaf filter system also included an automated programme with unnecessary steps that slowed operations.

To address these issues, an Amafilter® service engineer conducted a full site inspection and reviewed the filtration cycle. The proposed optimizations included extending filtration time for thicker cake formation, installing a higher-capacity pump to improve flow rate and prevent sedimentation, and significantly reducing the cake drying cycle from 1–4 hours to just 30 minutes.

These changes led to a 50% increase in production capacity, reduced energy consumption, and improved process efficiency. Additionally, the resulting higherquality dry cake allowed Skeby Gadar to enter new markets by selling it as cattle feed. The success of these improvements led to the purchase of a second Versis® system, supporting their continued expansion in the high-quality cold pressed oil market.





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