



# FILTRATION FOR EDIBLE OIL

Amafilter® specialise in providing effective filtration solutions for the Food & Beverages market with particular focus on the edible oil industry. We have over 90 years expertise in this field and we have supplied more than 5000 vertical pressure leaf filter systems including our unique Cricketfilter® automated system across most edible oil applications worldwide.

We have a comprehensive product portfolio to support an extensive range of edible oil applications. Our range includes the Cricketfilter®, self-cleaning filters and horizontal & vertical pressure leaf filters, as well as process filtration spares.

Filtration is an essential process in the purification of edible oil/vegetable oil and ensures that all undesirable particles are removed whilst the quality of the oil is maintained. Amafilter® solid liquid filtration solutions are designed to filter the finest particles and contaminants from the products, delivering only the very best product quality.

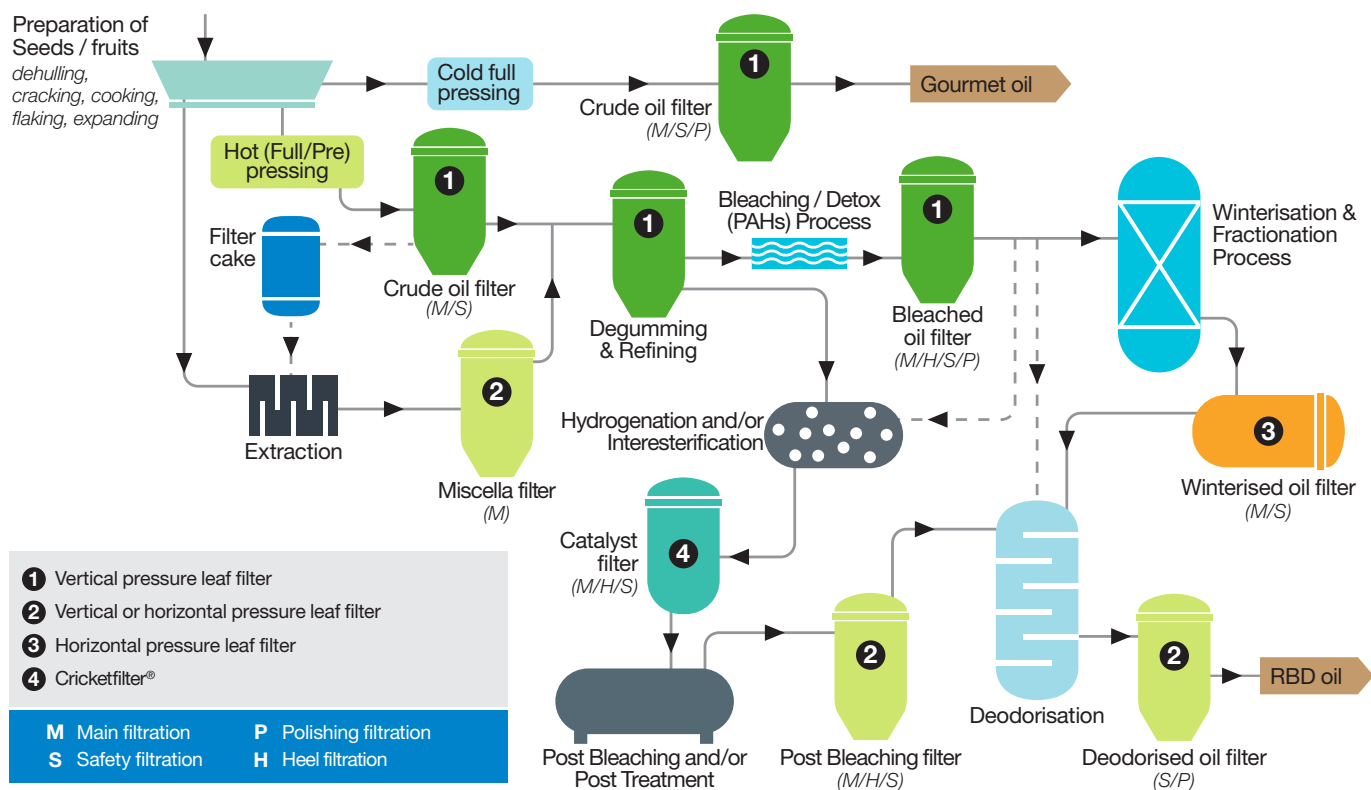
The selection of the right filter type for each individual process step depends on a number of factors mentioned below and our team of experts works closely with customers to identify the best filtration solution to meet their requirements.

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

## Some of the most well-known edible oil applications include:

- Avocado oil
- Palm oil
- Peanut oil / groundnut oil
- Rice bran oil
- Safflower oil
- Sesame oil
- Sunflower oil
- Olive oil
- Mustard oil

## Edible oil flow diagram filtration process



Depending on the type of oil and final purpose, the oil is filtered in a sequence of process steps which can be divided as follows:

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

Filtration Solution	Filter Purpose	Filter Benefits
<b>Amafilter® Versis® Vertical Pressure Leaf Filter System</b>	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 end-use.
<b>Amafilter® Versis® Vertical Pressure Leaf Filter System and the Horizontal Pressure Leaf Filter Systems</b>	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.
<b>Amafilter® Horizontal Pressure Leaf Filter System</b>	Used during the winterisation oil filtration process.	Effectively removes colour and other components resulting in a clear, light high purity oil.
<b>Amafilter® Cricketfilter® automated system</b>	Used in the post-treatment stage for catalyst filtration.	This ensures the complete removal and subsequent re-use of nickel catalyst after hydrogenation of the oil.

