

# EDIBLE OIL FILTRATION



## ABOUT EDIBLE OIL FILTRATION

Filtration is a key process in the purification of edible/vegetable/biodiesel oil industry. Sulphurnet provides solutions for different process steps, such as bleaching, hydrogenation, and deodorization. Main goals are to remove undesirable particles and **to maintain the quality of the oil**. Sulphurnet offers more than 30 year of experience in the edible oil industry. Sulphurnet's strengths includes a dedicated team focused on edible oil filtration. In addition to various types of filter systems, Sulphurnet provides Filter Leafs and also repairs and re-meshing for existing systems.



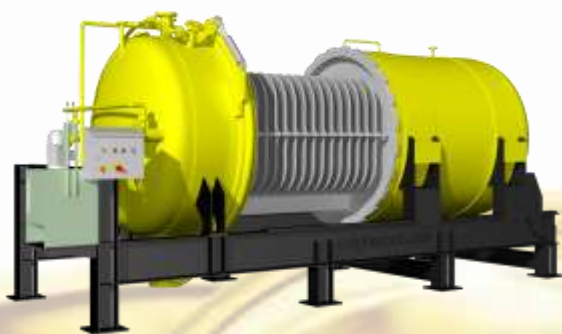
### DIFFERENT FILTRATION STEPS DEPENDING ON THE TYPE OF OIL:

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

### SPECIAL WINTERISING FILTER SYSTEMS

Sulphurnet offers a special solution for winterising application. Sulphurnet Filter Leafs are executed with internal heating assembly (Construction) . The filtration process is executed at low temperature. When the filtration is finalised the temperature inside the Filter Leafs is increased. Due to the temperature increase the filter cake is automatically removed by releasing (drops) the filter cake. Extremely low labour costs are achieved with Sulphurnet solution.



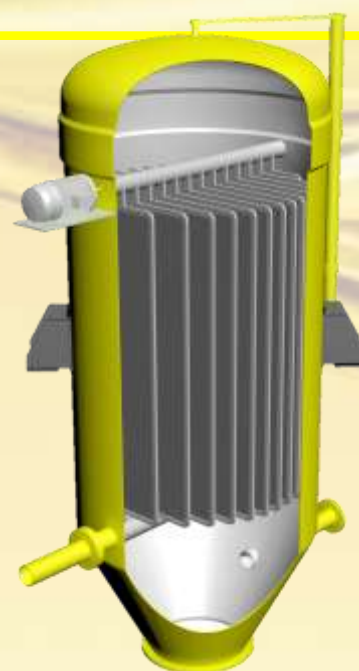


### PRESSURE LEAF FILTERS: HORIZONTAL TANK

Pressure filters with a large specific filtration area due to the shape of the filter elements. In the edible oil industry it is mainly used for crude oil filtration, bleaching earth filtration and filtration after the winterisation. The filter can be built in large units according to your specifications.

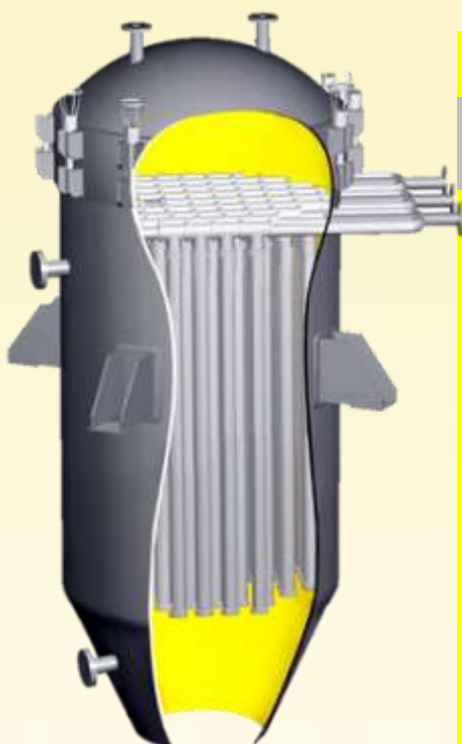
### PRESSURE LEAF FILTERS: VERTICAL TANK

Pressure Leaf Filter with vertical tank is unique feature mainly used for heel filtration. For batch type of operation Sulphurnet offers vertical tank with drop bottom doors. This guarantees 100% recovery of the oil. A special build in filter-plate filters the remains inside the drop bottom door.



### SELF-CLEANING CANDLE FILTER

Self-Cleaning Candle Filter (SCCF) can be used for various applications in edible oil processing. The filtration is done from outside to the inside of a filter cartridge. The filter cake is discharged by back pulsing. The filter can be used in various steps of filtration, including crude oil, bleaching clay, deodorization, winterization, hydrogenation, and post-bleaching. The SCCF can also be used for hydrogenation processing. The SCCF is easily regenerated by back washing and can be automated completely. The filter has no rotating parts, which keeps the maintenance in a minimum level.



Let's introduce Sulphurnet. We at Sulphurnet, provide custom solutions for various chemical processes. We're especially good at process engineering and filtration solutions, the entire design package; everything under one roof. Everything from Basic Process Design up to full scale production units including after services. If thinking outside the box is what you need, we are happy to help you. With bright thinking Sulphurnet imagines things others don't, design things others can't and delivers bright results!

## FILTER LEAFS

Filter Leafs are the heart of the filter system and therefore the most critical part of the filter. Good filtration performance begins with quality Filter Leafs. Sulphurnet offers various designs of filter plates for all filter brands. Standard Filter Leafs consist of several layers of mesh. The middle layer/s are thicker in order that the flow of the filtrate is free and to support the drainage and filter layer.

- ◆ 3 layer filter leaf
- ◆ Support 1 layer mesh 4 \* 4
- ◆ Filtration 2 layers media 24 \* 110
- ◆ 5 layer filter leaf
- ◆ Support 1 layer mesh 4 \* 4
- ◆ Drainage 2 layer mesh 8 \* 8
- ◆ Filtration 2 layers media 24 \* 110
- ◆ The top Mesh is available in various grades of SS; 316L, NSCD or 904L SS

