

Leaf Filter:

- Vertical Pressure Leaf Filters** are used for filtration of liquids with ~7% suspended solids:



- A Vertical Pressure Leaf Filter consists of a hermetically sealed tank with vertical filter leaves mounted on a central manifold at the bottom
- Each filter leaf is made from 5 layers of wire mesh – 2 outer filtering layers and 3 inner support layers
- Outer layers of fine wire mesh are selected depending on the application - these act as the primary filtering elements and eliminate the need for filter cloth
- Inner layers of coarser mesh support the outer layers and serve to collect and discharge the filtrate
- Filter cake is discharged from the bottom of the filter using a pneumatic vibrator to shake the leaves
- Cake discharge outlet is provided with a Butterfly valve that can be pneumatically controlled from a remote location, or with a wedge lock full opening valve with heel leaf
- Vertical Pressure Leaf Filters are self cleaning and simple to operate without need for repeated opening of the filter body
- The entire filtration cycle can be easily automated by using a PLC to switch between the priming, filtration, and cleaning steps at regularly timed intervals or based on pressure readings inside the filter

Applications

- Major application of Pressure Leaf Filters is in the filtration of Catalysts, Carbon black, and Bleaching earth in Edible oil processing, Crude oil Bleaching and Post-bleaching, Hydrogenation, Winterisation, and Fractionation
- Applications in the chemical and process industry include Aluminates, Fatty Acids, Sulphur, Mining, Brine, Resins, Ni Catalyst, and Electrolytes

MOC

- Filtering Mesh is manufactured from SS316L, while the inner meshes and collecting channels of the leaves are manufactured from SS304
- The housing and support elements can be manufactured from Carbon Steel, SS304, Monel, Inconel, Carbon Steel, etc. based on customer specifications
- Filters can be provided special linings such as SS304/ SS316L for food grade processes, e.g. in Vegetable Oil refining

Standard Sizes and Designs

Model No	Area (m ²)	No of Leaves	Tank OD (mm)	Leaf Height (mm)	Leaf Pitch (mm)	Cake Volume (ltr)
SWN/VPLF/5/5	5	5	780	920	70	125
SWN/VPLF/10/9	10	9	900	920	70	250
SWN/VPLF/15/9	15	9	1100	1220	70	375
SWN/VPLF/20/11	20	11	1100	1220	70	500
SWN/VPLF/24/11	24	11	1340	1220	70	600
SWN/VPLF/30/15	30	15	1220	1220	70	750
SWN/VPLF/40/17	40	17	1500	1220	70	1000
SWN/VPLF/50/17	50	17	1500	1400	70	1250
SWN/VPLF/60/17	60	17	1500	1800	70	1500
SWN/VPLF/70/17	70	17	1650	1800	70	1750

* Other sizes and designs can be custom manufactured as per on individual client requirements