- Fully automatic no operator required.
- Guaranteed cake discharge.
- The best in washing efficiency.
- Driest cake of all filteration methods.
- PLC controlled operation.
- All hydraulic functions.

Automatic Vertical Pressure Filter

Rotofilt

There is ever increasing demand for :

- Improvement in productivity.
- Reduction in energy consumption.
- Superior product Properties.
- High Yield.
- Avoid emission.

Rotofilt with its decade long application engineering competence in solid / liquid separation, ever committed to Research. Innovation is one of the foundation stones on which the Rotofilt strength lies. The aim of such activity is to develop most cost effective, new products with improved quality levels, most efficient performance and on line producing around the clock.

To address the needs of Chemical Process Industries, Rotofilt developed with simple and reliable design Automatic Vertical Pressure Filter. The end result - Most efficient and economic solution for solid/liquid separation.

Rotofilt's test facilities are available for Laboratory and pilot scale testing.

The test filtration produces dewatered solids and filtrate samples with slurry obtained directly from the client's process.

All process and cost benefit's of the application are projected with reliable test results, which is also used for proper dimensioning of the filter.

The present day intense competition, brought with it the demand for optimal cost effective solutions. The chemical Process Industry is no exception to this.

Operation

Design Features:

1 The horizontal plate design results in even distribution of slurry, wash liquid and most effective air penetration with no risk of cake cracking.

2 Fully automatic

- Resulting in consistent performance in terms of through put, i.e. higher productivity.
- Once downstream and upstream equipment integrated with optimized process parameters leading to highest quality products, with lowest moisture and yield.
- No operator required, eliminates exposure of operator to chemicals & equipment.

3 As the driest cake is produced of all filtration methods, Lower energy costs as it eliminates or reduces the requirement of dryers.

4 Ultra filtration wash system eliminates plant effluent system.

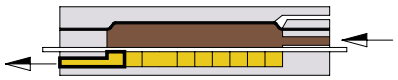
5 The machine can be built with features confirming to explosion proof standards.

6 Based on service requirements non corrosive, corrosive or highly corrosive application, machine can be built with various stainless steels & high strength materials.

Filtration

With the push of Button, Filter Plates close, closed chambers are formed. Pressurised pumping of slurry into all chambers simultaneously takes place. As filtrate permeates the filter cloth, cakes are formed.

Filtrate Slurry flows into chambers



Squeezing

High Pressure water fills all chambers, inflates diaphragm, squeezing the already formed cakes with 4 to 5 times higher pressure than feed pressure.

Tightly woven filter cloth allows for higher pressure and increases filter efficiency.

Filtrate Pressurized water fills diaphragms

Cake Wash

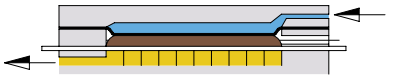
As the plates are horizontal, wash liquid is evenly distributed for uniform cake washing.

Filtrate Wash water is pumped in

Post Wash Squeezing

High pressure water is pumped in simultaneously to all chambers, squeezing all the wash liquid through cakes with 'Total displacement' wash, thus achieving very high efficiency.

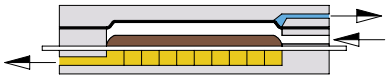
Filtrate Pressurized water fills diaphragms



Air - Blowing

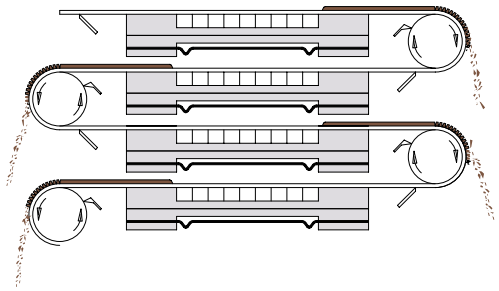
Compressed air is blown through cakes in all chambers simultaneously through adjusting Pressure & duration of air, further minimizes the moisture.

Filtrate Compressed air blown into chambers



Cake Discharge & Cloth Washing

All filter plate packs open with advancement of filter cloth all solids are discharged automatically. Both sides of filter cloth is washed with high pressure water to clear the cloth sieves of any binding solids.



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