



## Candle Filter

- ❖ Clean – in - Place Filtration
- ❖ Completely Closed Filtration and Cleaning
- ❖ Fine Filtration upto 1 Micron
- ❖ Complete Operator Safety



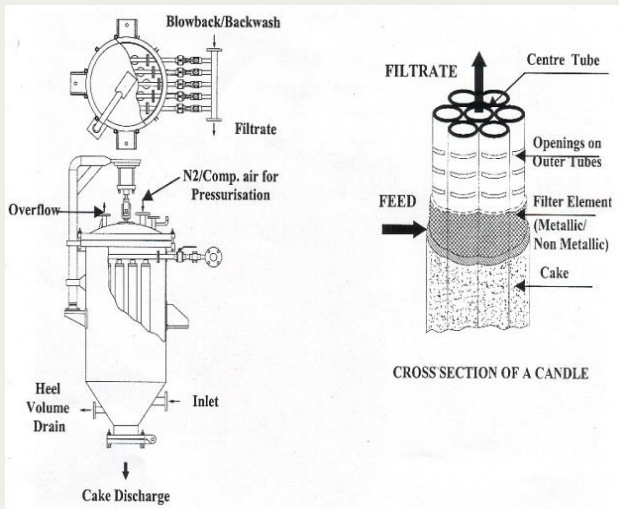
## Features

- ❖ Filtration & cake discharge in closed condition.
- ❖ Suitable for both direct filtration & precoat filtration.
- ❖ Cake removal either by blowback or backwashing.
- ❖ Highest cake stability due to unique shape of candle.
- ❖ Excellent regeneration of the filtration area after backwashing.
- ❖ Least heel volume.
- ❖ Easier cake removal due to surface filtration.

## Advantages

- ❖ More cake holding capacity for the same area compared to other pressure filters.
- ❖ Cleaner surroundings due to clean in place filtration.
- ❖ Zero operator exposure to filtration fluid/cake.
- ❖ No emission of filtration fluids to atmosphere.
- ❖ Less product loss in cake due to higher dryness.
- ❖ Least down time of the filter due to backwashing.
- ❖ Longer life of the filter element due to in situ cleaning.
- ❖ Complete automation possibility.

## Working



Candle filter is basically a pressure filter consisting of a number of Candles arranged vertically in a pressure vessel. About Candle, each consists of six nos. of slotted/ perforated tubes around a central blind wall tube & this is covered with replaceable filter cloth. This special contour of the candle ensures excellent backwashing. Slurry is fed to the filter at the bottom and the same gets filtered through the filter element of each candle under pressure & leaves out through each sub-header before joining the main header outside.

At the end of the filtration, once the feed is stopped, vessel hold up volume can be further filtered by pressurization of the filter vessel. This will minimize the heel volume that shall be drained back to the feed vessel. For removal of cake, compressed air/nitrogen or any compatible liquid is given in the reverse direction.

## Construction

- ❖ Filter vessel design as per ASME & other stds.
- ❖ Filter vessel can be jacketed also.
- ❖ Isolation facility for each row of candles.
- ❖ Filter can be suitably designed for dry or wet cake discharge.
- ❖ Candles in C.S, S.S 304/316, P.P etc.
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- ❖ Filter element in polyester, P.P., Cotton, S.S 304/316 meshes.
- ❖ Automation possible for Filtration, Backwashing and Cake discharge.
- ❖ Complete skid mounted filtration plant can be made.

## Applications

- ❖ Removal of activated carbon
- ❖ Recovery of catalysts
- ❖ Removal of bleaching earths
- ❖ Recovery of metals & metal oxides
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- ❖ Filtration of Urea solution
- ❖ Filtration of glycerine water
- ❖ Lubricating oils
- ❖ Sugar solutions
- ❖ Paints & Pigments f metal oxides
- ❖ Bulk drug solutions
- ❖ Effluent & waste water
- ❖ Solvents



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