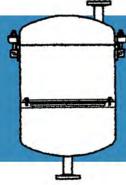
SPARKLER FILTERS INC.

Allaying separation anxiety since 1927

101 N. LOOP 336 E. CONROE, TEXAS 77301-1446 PH. (936) 756-4471 FAX (936) 539-1165



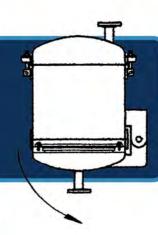
TYPES OF NUTSCHE FILTERS



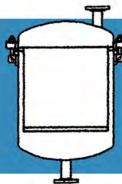
A. "Standard Nutsche" - Vertical tank with filter plate support and filter plate mounted into tank, manual clean out or filter cake is dissolved in place.



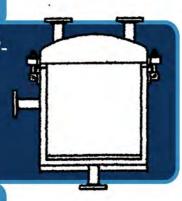
B. "Bottom Drop Nutsche"- Vertical tank with bottom drop door of full diameter with filter plate built into bottom drop door. Filter cake drops when bottom swings open.



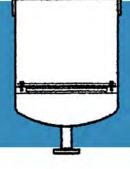
C. "Basket Nutsche"- Vertical tank with filter plate mounted into bottom of basket insert. Basket is suspended inside a dished bottom tank. Basket cylinder attaches to plate by side tie rods.



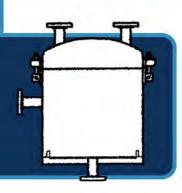
D. "Basket/Standard Horizontal Plate Fitler Nutsche"-Vertical tank with flat bottom to use either a basket insert with single filter plate in bottom or standard horizontal plate cartridge. This is limited only to the standard horizontal plate filter. Tank diameters for standard cartridges 8", 14", 18" and 33".



E. "Open Top Vacuum Nutsche Filter"- Vertical tank with filter plate support and filter plate built into the tank, no swing bolted cover, vacuum operation only. Manual clean out of filter cake or cake is dissolved in place.



F. "Built-In Single Plate HPF Tank Filter"- Filter tank is a standard horizontal plate filter tank with filter plate machined into bottom tank which is the only filter plate used.



Nutsche Filter Definitions

Request for quote- definitions and additional information.

Wetted Material- Portion of the filter that comes into contact with the liquid being filtered. Example: inside of filter tank, filter cartridge.

Non-Wetted Material- Portion of the filter that is not intended to come into contact with the liquid being filtered. Example: outside of filter tank.

Sidewall Height- The height of the filter from the bottom of the tank to the top of the rim of the tank only, excluding the cover.

Scavenger Plate- A Scavenger Plate minimizes unfiltered product in applications where it is essential to recover as much filtrate as possible. Unnecessary on Reverse Flow Filters.

Jacket- Jackets are primarily used to regulate temperature.

Cover Mechanism- Standard cover mechanism varies depending on the size of the filter. Alternative designs can be furnished if requested. Example: Handles are standard on 14" and 18" filters while a hand wheel and davit arm are standard on 33" and 44" filters.

Differential Pressure- Pressure drop across filter plates. Standard drop is 50 PSIG. Higher pressure drops can be furnished on request.

Filter Internals- Refers mainly to the filter cartridge including filter plates.

Filter Mounting- Standard mounting includes three pipe legs with floor flanges. Alternative portable designs can be furnished if requested.

Required Micron Retention- What micron retention does your application require? This will help us determine what type of filter media would best fit your particular application.

Spare Cartridge- In some applications, the time that it takes to clean the cartridge causes lost production. Many customers prefer a second cartridge for their filter. Having a spare cartridge allows you to quickly replace the cartridge and reduce downtime.

Spare Bottom Equipment- Reduces cleaning time, allowing operators to un-stack one cartridge by stacking the plates directly onto the waiting spare bottom equipment.

Sight Glass Port- A sight glass port can be used to view the inside of the filter while in operation. Often times, two sight glass ports are requested; one as a light source and the other to use as a view port to monitor operation.