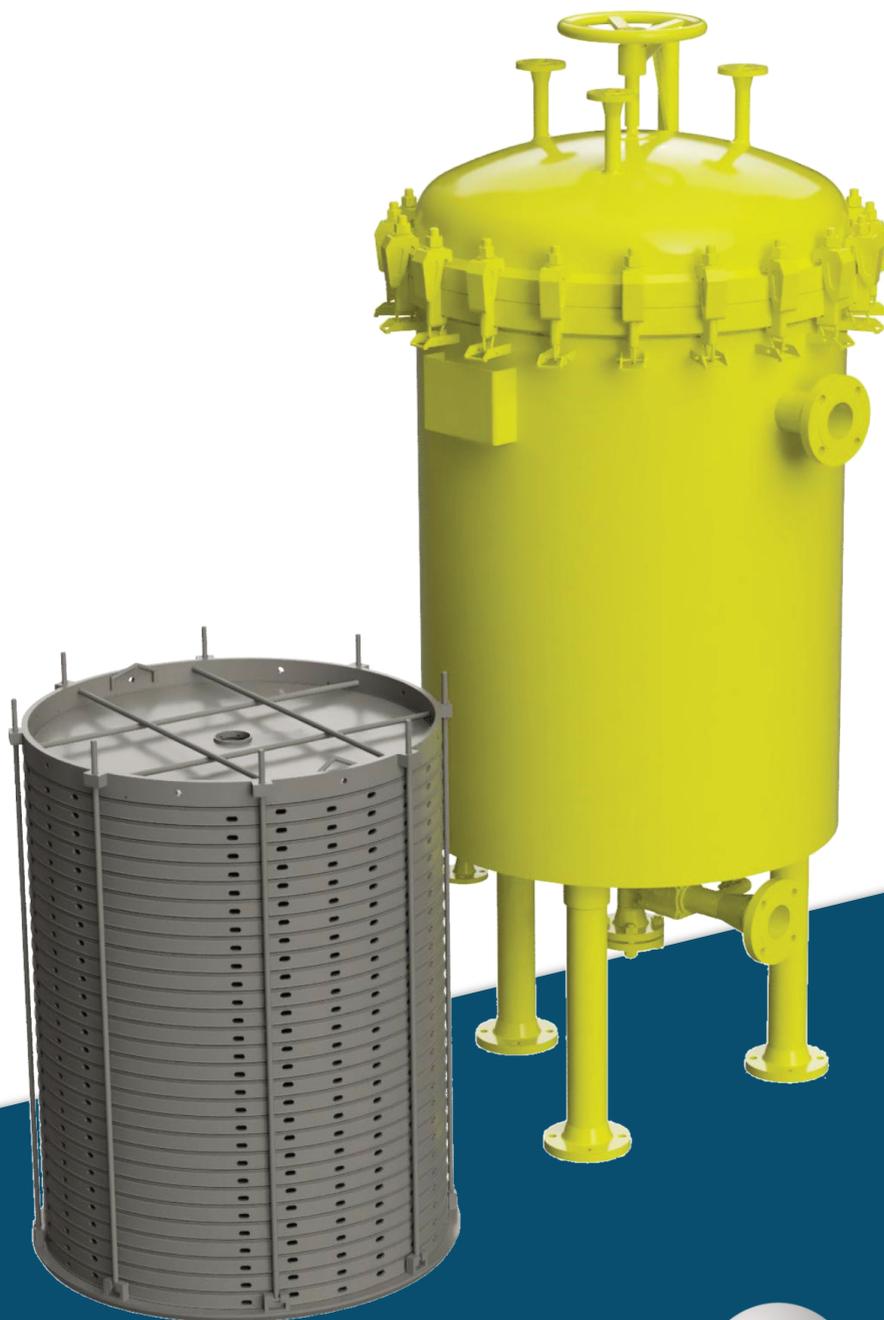


# HORIZONTAL PLATE FILTER

**DEFS**  
by Sulphurnet

Dutch  
Engineered  
Filtration  
Systems



# HORIZONTAL PLATE FILTER

Sulphurnet offers a full range of Dutch Engineered Horizontal Plate Filters (Sparkler / Seitz type).

DEFS Horizontal Plate Filters are high-quality systems which **can be used for numerous batch and continuous filtration processes**. The systems comprises of a vertical tank, which contains a number of horizontally positioned filter plates. The fluid to be filtered is passed over the filter medium that is positioned between the filter plates. The collected solids in the form of a filter cake remain on the filter medium and the polished liquid flows through the filter plates to the filtrate outlet.

DEFS Horizontal Plate Filters are applied in the **Chemical Process Industry for a variety of applications**, in accordance with the clients specifications and requirements. It can be applied for either primary filtrations involving relatively high solid contents or for polishing filtration operations with a low solids load.

## Easy maintenance

DEFS Horizontal Plate Filters are easy to maintain. Neither of these systems contain any moving parts, and the **filter cartridges can be quickly and easily removed and replaced** with a spare cartridge.

## Proven technology

The principle of DEFS Horizontal Plate Filters is a technology that has proven itself in a wide range of application. Sulphurnet can develop a Horizontal Plate Filter for any filtration process, which will meet all your specifications and requirements.

## Flexibility in application and operation

Due to various plate depths, we can supply several variations in terms of the filtration surface and cake volume. Furthermore, all horizontal plate filters can be fitted with a wide range of filter media, from paper and textiles to stainless steel meshes. This feature makes the plate filters suitable for an **immense range of applications in the chemicals, food and pharmaceutical industries**.

## Quick closures

To reduce the cleaning cycle we offer 2 or 3 segment quick cover closures for all filter systems. **Quick cover closures can be operated or utilized with hydraulics for automated processes**. The application of quick closures is beneficial for applications with high as well as low pressure operations.

## Security

Thanks to the horizontally positioned filter plates, **the cake is evenly distributed over the filter medium**. Therefore, the cake is unaffected in the event of interruption of the filtration process or pressure fluctuations. On completion of the filtration process, the filter cake can be subjected to as many consecutive processes as required, such as washing, extraction or drying.

## Heating possibilities

For high or low temperature operations, Sulphurnet offers the choice between **conventional heating jackets, half pipe or the Therm-Plate system**. The low volume Therm-Plate offers investment benefits when working with high pressure steam or when complete stainless steel equipment is required.

## Coating and linings

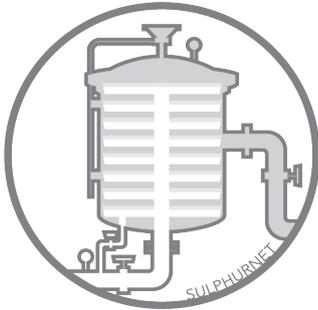
When aggressive products are involved, **special corrosion resistance alloys** (hastelloy, nickel) can be applied. Alternatively a wide range of linings and coating can be used offering complete chemical inert filter systems. Examples are various grades of rubber linings, HALAR or PFA coating, PVDF or PTFE linings.

## Applications

**Chemical industry:** removal of activated carbon, filtration of varnishes, paints and resins, removal and recovery of catalysts, purification of chemicals, removal and recovery of precious metals.

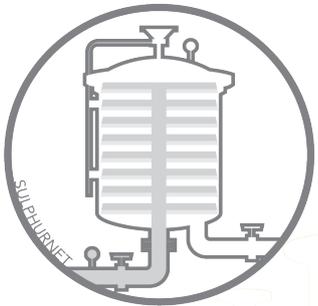
**Foods and beverages industry:** edible oils, juices, glucose and other sugar-manufacturing industries, etc.

**Pharmaceutical industry:** production lots can be registered by batch. System is also ideal for sterile and bacteriological filtration processes.



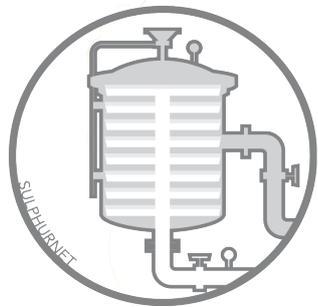
### DEFS - HPF Scavenger

The HPF Scavenger is **designed for batch-wise filtration without leaving a heel**. This is accomplished with a specially designed scavenger plate, that filters the heel remaining in the tank at the end of a batch. In addition, complete product recovery can be obtained by washing and drying the cake.



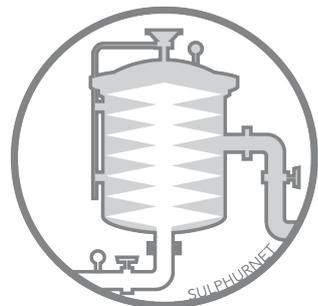
### DEFS - HPF Reverse Flow

The Reverse Flow Filter **combines the advantages of horizontal plate orientation with clean filter tank operation**. In this model the contaminated fluid is pumped into the filter through the centre column, then evenly distributed to the filter plates for filtration after which the clean fluid flows into the tank and out a drain. All filter cake or solids remain inside the cartridge bundle.



### DEFS - HPF Wash off

Wash Off Horizontal Plate Filters are designed for applications allowing the use of synthetic cloth or wire mesh filter media. The advantage to this filter is that the **cartridge can be cleaned without disassembling**. Cartridges are cleaned by removing them from the tank, pivoting them on a frame leaving the plates in a vertical orientation, permitting cake removal by vibration, tapping or washing.



### DEFS - HPF Dual Disc

The Dual Disc offers **double filtration area compared with standard horizontal plate filters**. The large filtration area is suitable for high flow rates, with low concentration of contaminations and high efficiencies. The dual disc version is available in scavenger as well as in reverse flow filter.



## Dutch Engineering - Sulphurnet

Our strengths include a **skilled and dedicated team focused on filtration and process engineering.**

Sulphurnet is able to supply a **complete process concept**, with our knowledge and understanding we minimise the time from the outset to completion of projects while offering a competitive advantage to our clients.

Our network of engineers and manufacturers are experienced in planning, design and engineering of many types of complex projects.

Sulphurnet's goal is to provide clients with a single point of contact and responsibility for all project needs.

**Sulphurnet understands the importance of providing clients with the highest quality of design, documentation and management services and we strive to maintain project schedules.**

### Certifications, manufacturer approvals

ISO 9001 / ISO 3834-2

PED (EN13445 / AD-2000)

ASME (U-Stamp, Code Section VIII Div.1)

China Stamp (A1), China License

TP TC 032/2013, Customs Union

In addition to the existing manufacturing approvals, we are experienced to perform the respective approval procedures for almost all the countries in the world.

## Contact us

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