

The background of the image shows three large, dark-colored industrial filter vessels standing vertically in a factory setting. They have various pipes, valves, and a pressure gauge attached. In the foreground, there are several white, cylindrical filter elements. One is standing upright with a handle, while others are lying horizontally, showing their pleated internal structure and end caps.

# High Flow Filter Elements and Vessels

**DV**TCH  
FILTRATION

**Experience & Innovation**

# HIGH FLOW FILTERS & HOUSINGS BENEFITS

High-flow filters and housing systems offer exceptional benefits compared to multi-cartridge systems.

## High flow capability; compact design

For large industrial applications or municipal water plants you need to install multiple filters to handle the flow and or the contaminant load. In this cases it is better to use high flow cartridges. With high flow filter elements you can handle high flow rates and you need less space. For example just one 6.3 inch (160mm) diameter UltraFlow High Flow filter element can handle flow rates up to 110 m<sup>3</sup>/hr (484 GPM). The dirt load is also much higher so a greater performance can be attained with a much smaller system then the conventional pleated filters, sometimes two or four times smaller.

## Lower disposal and maintenance costs

To change the cartridges in a conventional system it takes an immense amount of time and manpower. A high flow filter system contains fewer elements and so the time to change the filters is much shorter. Another benefit is the longer lifetime of the high flow filter elements, this means fewer changeouts. Because of the shorter change out time and the longer service life the disposal costs of high flow filter elements are much lower.

## Features High flow filter elements Dutch Filtration

- Fully thermal bonded offering chemical compatibility for most fluids, solvents and chemicals
- 99.98% absolute rated efficiency filter equates to a beta ratio of 5,000
- High flow capacity allows for smaller houses
- O-ring seal assures filtration integrity
- Quick and easy changeout with integrated handle
- Choice of polypropylene media expands fluid compatibility also available in glassfiber.
- High-flow capacity allows for smaller housings and less time to change out cartridges

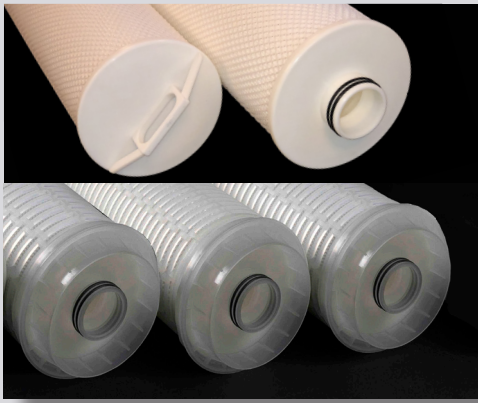


We design, innovate, engineer and fabricate high quality equipment and consumables in-house. We can supply filter elements that are functionally and dimensionally interchangeable with industrial filter elements from a.o. Cuno 3M, Pall, Parker.

## Applications:

- Completion Fluids
- Produced Water
- Workover Fluids
- Gravel Pack Fluids
- Oily Waste Water
- Stimulation Fluids / Acids
- (Bio) Diesel
- Surface / Sea Water Intake
- Injection Water
- Frac Fluids
- Waste Water / Slop Water
- Industrial Process Water
- Pre Filtration RO
- Pipeline Flushing
- Cooling Water filtration
- Liquid – Gas Coalescing
- (Dry) Gas Filtration
- Liquid-Liquid Coalescing
- Amine and Glycol Filtration
- Decommissioning Water Clean Up
- Geothermal Re-injection
- Membrane Pre Filtration UF/RO
- Food and Beverage





## MegaFlow740 / MegaFlow

The MegaFlow is an excellent replacement for bag filtration but is also ideal for high flow filter applications. The big surface area ensures a bigger holding capacity and high flow capacity (35m<sup>3</sup>/hr /154 GPM). This high flow element ensures a longer life cycle than most filter bags. The MegaFlow is available in glassfiber or polypropylene. We offer different options, different caps and nettings. The MegaFlow high flow absolute pleated filter is an excellent replacement for 3M cuno 740B, 7000.

## UltraFlow

The UltraFlow is especially designed for High flow and high capacity applications. The bayonet endcap combined with the rigid case construction and thermally bonded construction ensures a high strength and a secure and safe sealing. The change out of the UltraFlow is very easy thanks to the integrated handle. The high flow filter element can operate at flowrates up to 80 m<sup>3</sup>/hr (352 GPM). The Ultraflow is available in fiberglass or polypropylene. The UltraFlow is available in a range of 0.5 – 100 microns. The UltraFlow high flow absolute pleated filter is an excellent replacement for 3M cuno High Flow HF and Parker Magnum



## GigaFlow

The high flow absolute rated cartridge is designed for high flow applications. The GigaFlow can handle flow rates up to 40m<sup>3</sup>/hr (176 GPM). The integrated handle and positive o-ring seal makes this high flow filter element easy to change. The GigaFlow is available in glassfiber and polypropylene so it can be used in a wide variety of fluids. There is also a version for high temperatures. The GigaFlow is available in a range of 1 – 150 microns and a length of 40 inches. The GigaFlow is an excellent replacement for Parker MegaFlow Plus.

## Max Flow High Temperature

Especially for use at high flow and high temperatures we designed the MaxFlow High Temperature. This element is designed to withstand temperatures up to 135 °C (275°F).



## MaxFlow

The high flow absolute pleated filter element is designed for high flow rates (114 m<sup>3</sup>/h) and has a high contaminant holding capacity. The high flow filter element is available in polypropylene and borosilicate glassfiber material. The MaxFlow has a wide range of micro ratings (0,5-100 micron) and is excellent for microfiltration. The rigid case construction combined with the unique layered construction and the thermally bonded construction it provides a high strength and security to withstand harsh requirements. MaxFlow is an excellent replacement for Pall ultipleat.

# HIGH FLOW FILTER VESSELS & HOUSINGS

Dutch Filtration also offers high flow filter vessels and units. The vessels can be executed with 6" connections to offer a high flowrate. Especially for applications with high temperature, we offer filter vessel who can withstand temperatures

## High flow filter houses; compact design

High flow filter elements are larger in diameter and can be made in lengths up to 80". The filter houses for this elements can be vertically as well as horizontally. The benefit of a horizontal filter is easier change out of filters. Together with the other benefits (less cartridges, longer lifetime, easy change out with integrated handle) change out time can become minutes instead of a few hours.

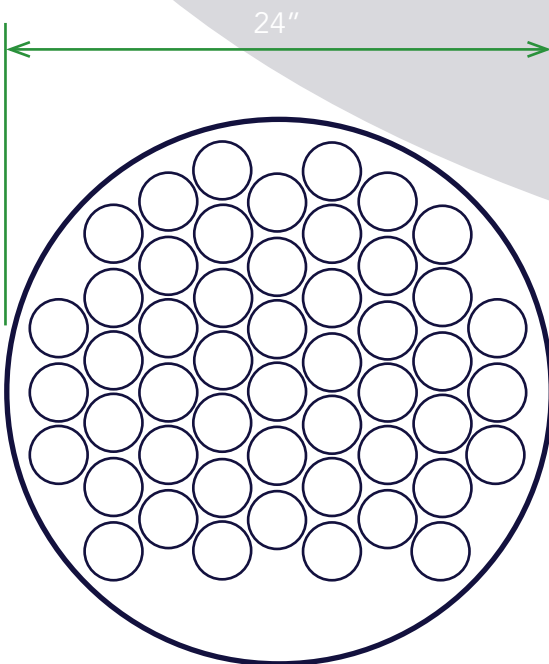
Dutch Filtration offers a wide variety of filter housings and units. As already mentioned, high flow filter elements can handle a higher flow compared to normal pleated cartridges. For example if you need a system that can handle 1000 GPM, three 6.5" high flow cartridge can handle the flow. If you want to achieve this with normal pleated cartridges it would take approx. 50 cartridges. To complete the package we also offer high flow filter vessels or units with 6" connections.

Because of the fewer amount of high flow cartridges the size of a high flow filter unit can be much smaller. The footprint can be as much as 35% smaller than the traditional housings. Another benefit is the price, because of the smaller diameter the price will be lower than a conventional filter house.

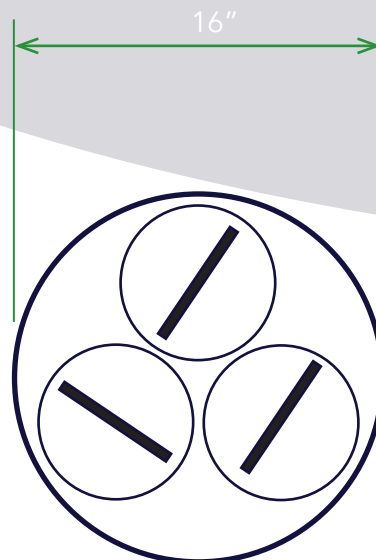
For large applications the benefits of higher efficiency and lower costs are very strong. So for new applications or upgrading systems, high flow filter systems must be taken in consideration.



## Smaller vessel diameter = less CAPEX



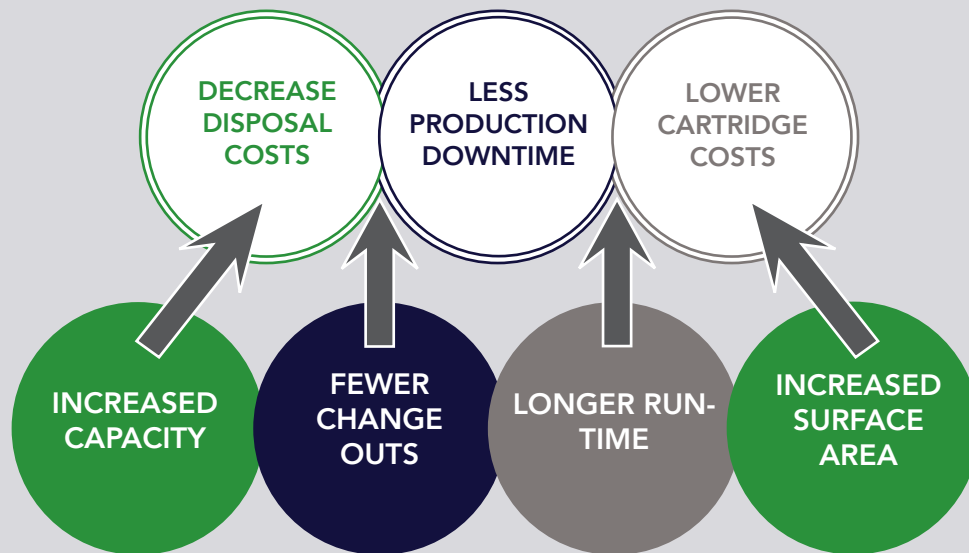
50 x 2.5" cartridges in 24" vessel



3 x 6.5" cartridges in 16" vessel

# OVERVIEW BENEFITS HIGH FLOW FILTER

- Smaller-diameter vessels reduce capital cost and system footprint
- High Flow configuration increases filter life
- Safe, quick and easy change out
- Standard and flexible design
- Higher flow rates
- Optimal design lowers filtration cost per gallon/liter of water



## DESIGN CODES HIGH FLOW FILTER VESSELS

All filter vessels are designed and fabricated in our the The Netherlands. All our filter vessels meet the demands of the Pressure Equipment Directive (PED 2014/68/EU). For the oil and gas industry most filter housings are designed and manufactured according ASME VIII but other codes like EN13445, PD5500 are also used. The standard housing are rated for 7, 10 and 16 bar but we design and manufacture housing up to 400 bar (6000 psi).

### Vessels built to industry standards

PED 2014/68/EU

EN13445

ASME

AD2000

ATEX

NACE

ASTM

DIN

ISO





# COMPARISON HIGH FLOW FILTER CONSUMABLES

We offer various lengths van 20, 40 and 60 inch. Our range High Flow Filter cartridges is available in different connections; 338 o-ring with bayonet, 226 o-ring, 435 o-ring, single open end (with internal o-ring). All connections are thermally welded, allowing operations at higher pressures and higher temperatures. The material of the cartridge is Pure PP or glass filled PP caps and cores. In addition this makes the High Flow Filter cartridges compatible with most fluids, solvents, alkali and other chemicals in the industry.

	DHFPA	DHFPA-HT	DHCPA	DF740	DHFPCA	DHFPCA-HT	DGFPA
Inside out flow			X	X			
Outside in flow	X	X			X		X
Normal temperature up to 80°C (176°F)	X (85°C)		X	X	X		X
High temperature up to 100 °C (212°F)		X (135 °C)				X	
Glassfiber	X	X	X	X	X		X
Polypropyleen	X	X	X	X	X		X
Flow tot 35m3/hr			X	X			X
Flow tot 80 m3/hr	X	X			X		
Micron rating 0,5 - 100	X	X	X	X	X		
Micron rating 1- 150							X
Rigid cage	X	X	X		X		
Soft netting				X			X
Cartridge length 20, 40 , 60, 80	X	X	X	X	X	X	X

DHFPA = MaxFlow  
DF740 = MegaFlow740

DHFPA-HT = MaxFlow-HT  
DHFPCA = UltraFlow

DHCPA = MegaFlow  
DHFPCA-HT = UltraFlow

DGFPA = GigaFlow

## Experience & Innovation

**DUTCH  
FILTRATION**

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