



Driving  
**TECHNOLOGICAL**  
EXCELLENCE

**HYDRAULIC FILTER**

Hydraulic filters are equipment components for removing contaminants such as dirt, micro dust particles, impurities, and other foreign particles from hydraulic and mineral oils. Utilizing hydraulic filters extends the service life of components, safety devices, instruments, and fittings. Their compact design ensures easy handling during installation and conserves space within the system.

## KEY FEATURE

PETRONASH hydraulic filters are engineered for superior performance and reliability:

- ▶ **Optimal Filtration:** Ideal for hydraulic and lubricating fluid filtration.
- ▶ **High Pressure Endurance:** Capable of withstanding working pressures up to 700 Bar.g.
- ▶ **Fine Filtration:** Filter elements available with fineness as low as 3 microns.
- ▶ **Fluid Compatibility:** Suitable for all petroleum-based fluids, mineral oil, hydraulic fluids and lubrication oils.
- ▶ **ISO Standard Compliance:** Compatible with hydraulic fluids as per ISO 2943.
- ▶ **Clogging Indicator:** Optional visual clogging indicator for monitoring filter status.



## Technical Specification

SPECIFICATION	DETAILS
Process Connection Size	1/4", 3/8", 1/2", & 3/4"
Working Pressure	150/450/700 Bar.g
Working Temperature	-10°C to 100°C
Filtration Levels	3µm, 5µm, 10µm, 20µm
Clogging Indicator DP Setting	5.0 Bar standard (others on request)

## Performance Specification

SPECIFICATION	DETAILS
Flow Rate	15 & 30 LPM
Pressure Rating	150/450/700 Bar.g
Testing Pressure	225/675/1050 Bar.g
Filter Element Collapse Pressure	210 Bar.g
Flow Direction	Out to In
Beta Ratio	> 200

## Detailed Description

### Filter Element

SPECIFICATION	DETAILS
Micron Rating	3µm, 5µm, 10µm, 20µm
Material	Glass Fiber for high stability and excellent filtration
Flow Direction	Fluid flows from outside to inside
Beta Ratio	Greater than 200, ensuring high dirt-retaining capacity and long service life

*The filter elements are designed for superior performance*

### Clogging Indicator

SPECIFICATION	DETAILS
Micron Rating	3µm, 5µm, 10µm, 20µm
Material	White/Green: Clean condition Red: Clogged condition
Flow Direction	Fluid flows from outside to inside

### Filter Body Material

SPECIFICATION	DETAILS
Filter Head	Duplex SS (S31803/S32205), SS316L
Filter Bowl	SS316L
Seals	FKM (Viton), PTFE

### Drain Plug Connection

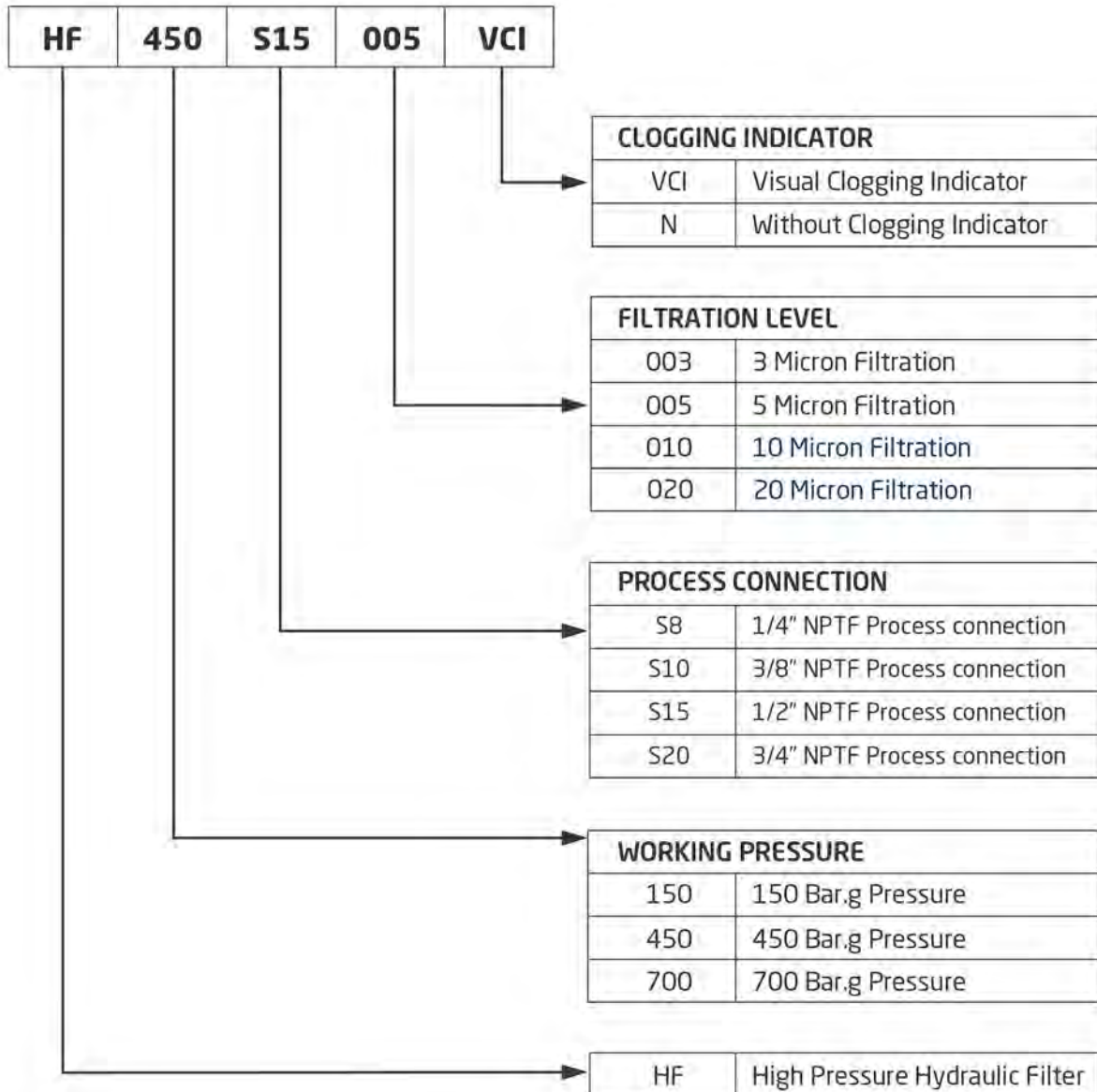
The filter features a 7/16" UNF and 1/4" NPT threaded plug for easy draining and maintenance.

### Connection Sizes

The inlet and outlet are NPT female threaded as standard:

- **Inlet/Outlet:** Available in 1/4", 3/8", 1/2", & 3/4" NPT female threads.
- Other connection sizes can be provided upon request.

## ORDERING INFORMATION AND MODEL DECODIFICATION



### Pressure Drop Curves

The total pressure drop of a Hydraulic filter at a specific flow rate Q is the sum of the housing pressure drop and the filter element Pressure drop and is calculated as shown below:

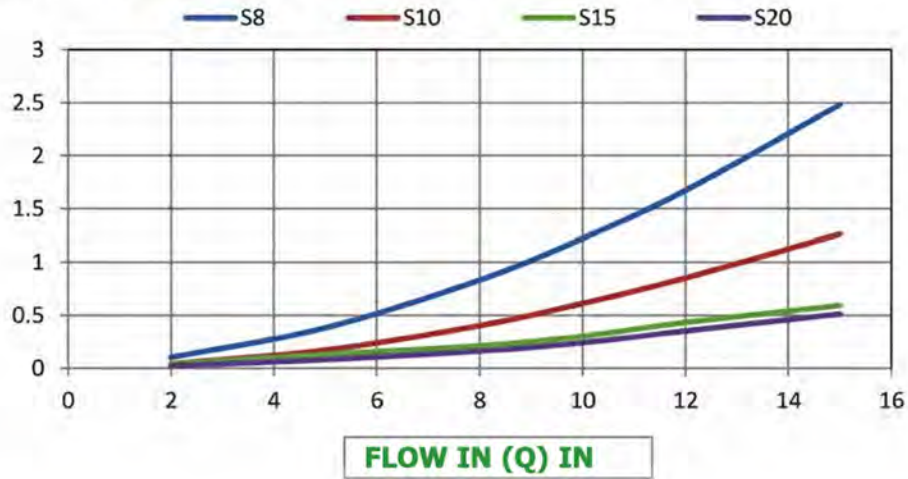
**Total Pressure drop = Pressure drop in filter housing + pressure drop in the filter element**

The filter element pressure drop depends on the flow rate, fluid viscosity, and the micron rating of the filter element. The following graph illustrates the typical pressure drop for various filter elements at a standard viscosity of 30 cSt:



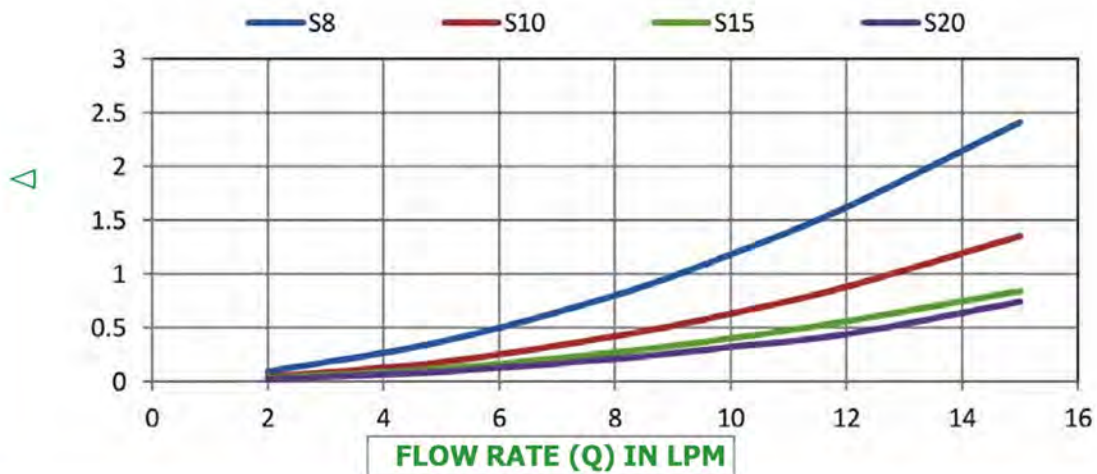
### FILTER HOUSING PRESSURE DROP - MODEL - HF-H150

The clean pressure drop of filter housing with mineral oil having viscosity of 30 cst @ 40°C with density of 860 Kg/m<sup>3</sup> is shown below



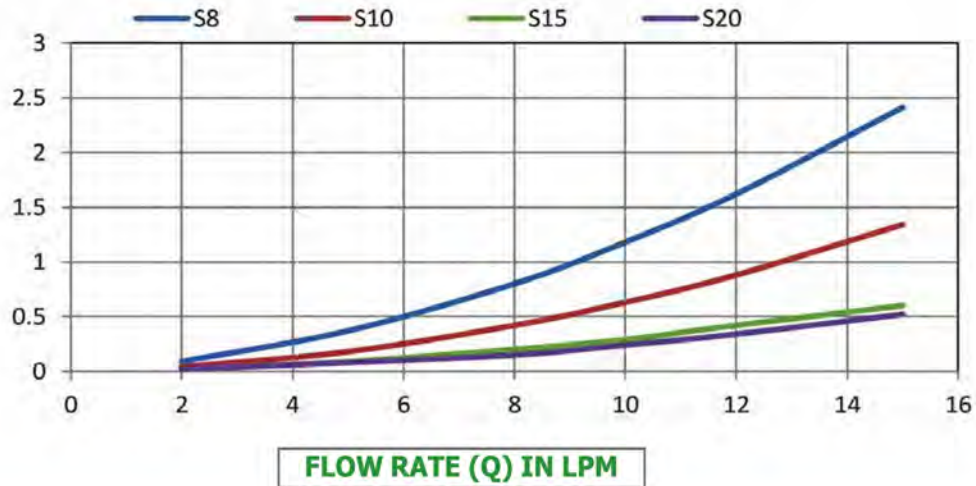
### FILTER HOUSING PRESSURE DROP - MODEL - HF-H450

The clean pressure drop of filter housing with mineral oil having viscosity of 30 cst @ 40°C with density of 860 Kg/m<sup>3</sup> is shown below



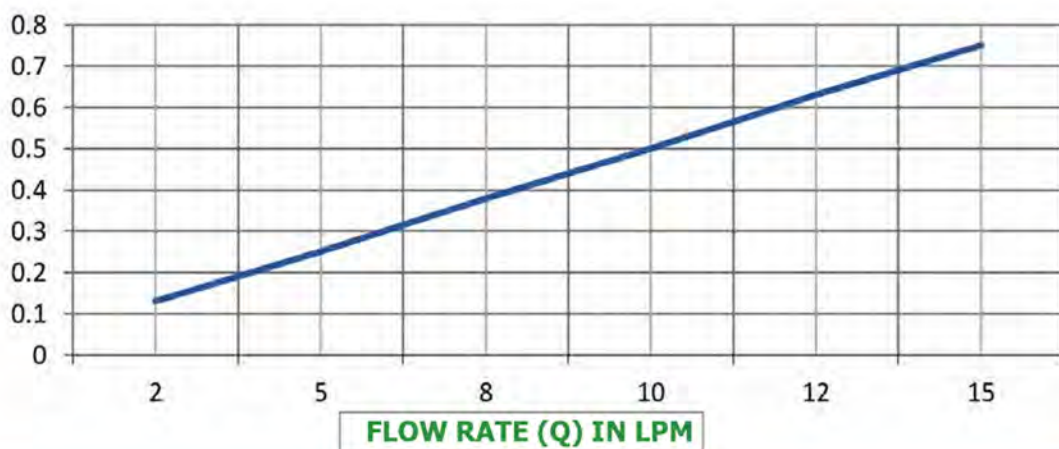
## FILTER HOUSING PRESSURE DROP - MODEL PET - HF-H700

The clean pressure drop of filter housing with mineral oil having viscosity of 30 cst @ 40°C with density of 860 Kg/m<sup>3</sup> is shown below



## FILTER ELEMENT PRESSURE DROP

The clean pressure drop of the filter element Model no. DHD30H05B is in accordance to ISO 3968 with 30 cst viscosity and 860 Kg/m<sup>3</sup> density mineral oil.



**Note:** Customised models and materials are available based on requirements.

Above data are only for reference purpose and subject to change without any prior notice due to constant efforts on product improvement.





## CONTACT US:



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