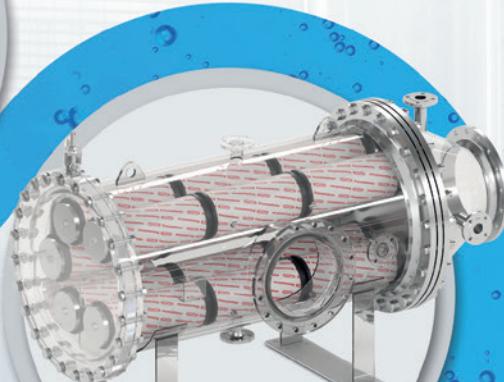


## HYDAC Process Technology Inline Filter Product Overview



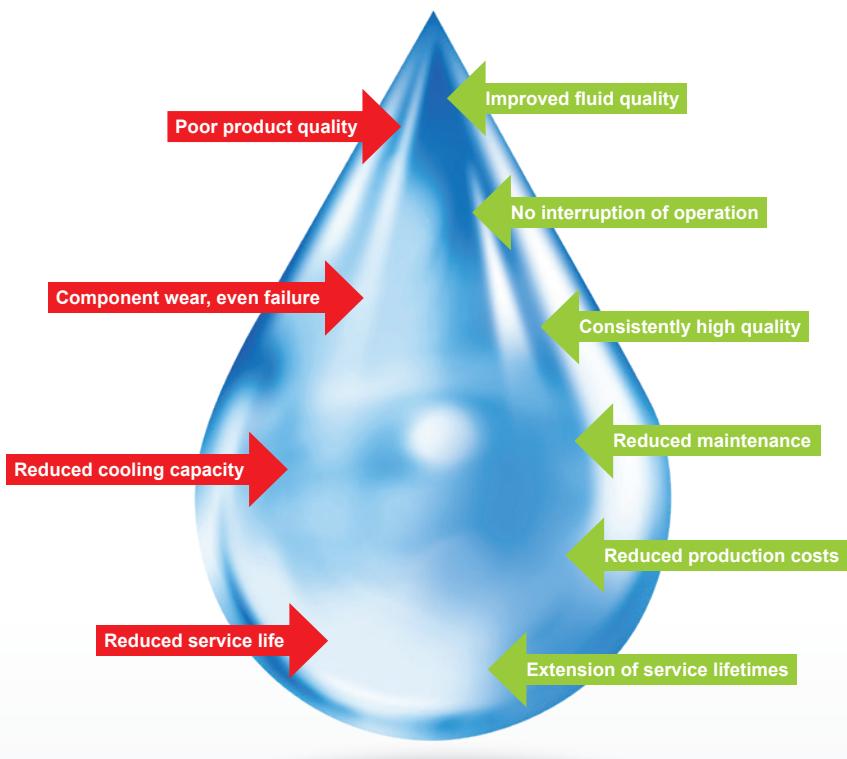
## Leading by Filtration

### You too can benefit by installing HYDAC inline process filters!

HYDAC filters are high quality products which make a significant contribution to the safe function and to the extension of the service life of components, system and machines.

HYDAC inline filters provide effective filtration of all types of solid contamination. Numerous designs and filter materials ensure the best fit to the filtration task and the given process conditions:

- Temperatures up to 400 °C
- Pressures of up to 1000 bar
- Filtration ratings from 1 µm (absolute) to 10000 µm
- Flow rates up to 3600 m<sup>3</sup>/h
- Skid and system solutions as well as special customised solutions



### Certified quality



**ISO 9001**  
QUALITÄT  
MIT SYSTEM

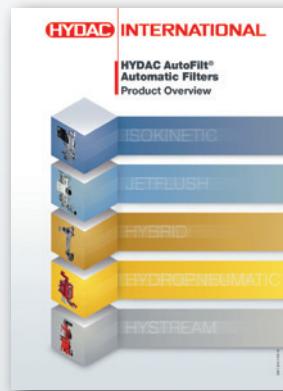
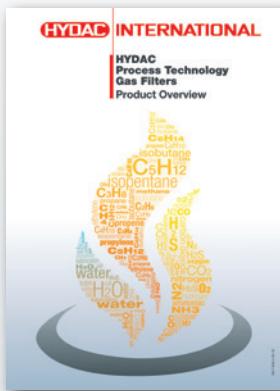
**DNV·GL**

#### Note

The information in this brochure relates to the operating conditions and applications described. For fields of application and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

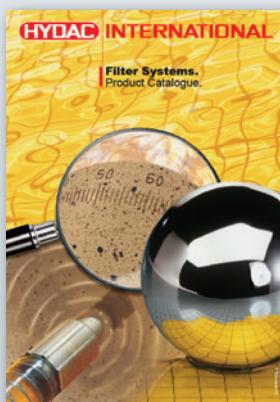
### Gas filters & self-cleaning automatic filters



Many of our inline filters are also available as gas filter variant with particle or coalescence filter elements. More information can be found in brochure 7.816.

Information on our self-cleaning automatic filters AutoFilt® can be found in our brochure 7.814.

### Filter systems / hydraulic & lubrication technology filters



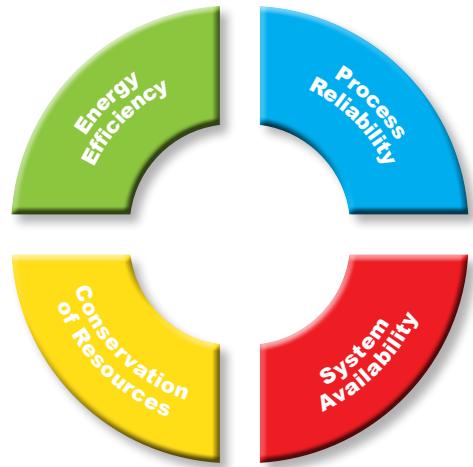
Information on fluid conditioning, fluid monitoring and technical cleanliness can be found in our product catalogue 79.000.

Information on filters for hydraulic and lubrication technology can be found in our product catalogue 70.000.

# Efficient System Protection

## Components to be protected

- Nozzles
- Pumps
- Seals
- Valves
- Heat exchangers
- Pipes
- and much more



## Exploit potential savings

Practical example: protecting high pressure deburring nozzles in a machine tool

Initial situation	The high pressure deburring nozzles on a machine tool have a service life of roughly two days (costs €36/piece)	
Problem definition	High levels of limescale on upstream valves cause blocking and functional failure of the deburring nozzles	
HYDAC solution	Unit cost of deburring nozzle:	€ 36
	Nozzles required per month at a service life of two days:	15 units per month
	Costs of changing nozzles before using HYDAC process filter:	€ 540 / month
	Costs of changing after using HYDAC process filter:	€ 18 / month
→ Roughly 97 % reduction in nozzle changing costs		

## Diverse possible applications in almost all industrial areas

Steel industry



Paper industry



Plastics industry



Power industry



Automotive



Machine tools



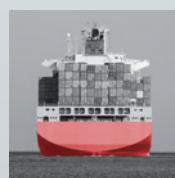
Mining



Offshore



Marine



Chemical industry



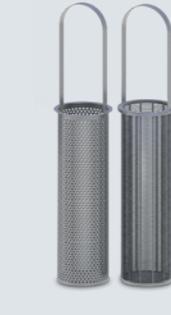
Artificial snow



Water- / waste water treatment



# HYDAC Inline Filters – the Various Types

Inline filters	PLF1	PLF2	PFM(D)/PFH(D)*	EDFR*	PMAG	PBF	PRFL(D)*	PRFS(D)*
								
Port size	DN 40 – DN 150	DN 200 – DN 600	G1" / SAE 1"	G1½" – G2" SAE 1½" – SAE 2"	G1" – G2"	DN 50	DN 50 – DN 400	DN 50 – DN 700
Q <sub>max</sub>	200 m <sup>3</sup> /h	3000 m <sup>3</sup> /h	8 m <sup>3</sup> /h	25 m <sup>3</sup> /h	24 m <sup>3</sup> /h	30 m <sup>3</sup> /h	3600 m <sup>3</sup> /h	3600 m <sup>3</sup> /h
P <sub>max</sub>	16 bar	16 bar	100 bar	400 bar	10 bar	10 bar	40 bar	16 bar
Filtration rating	1 – 90 µm	1 – 90 µm	1 – 2000 µm	1 – 250 µm	Dependent on fluid and particle characteristics	1 – 1000 µm	1 – 3000 µm	25 – 10000 µm
Typical areas of application	<ul style="list-style-type: none"> <li>Industrial part washers</li> <li>Test benches</li> <li>Polishing for washing emulsions</li> <li>Protective filters for sensitive plant components</li> <li>Bypass filtration for fluid conditioning</li> </ul>	<ul style="list-style-type: none"> <li>Sea water</li> <li>Injection water</li> <li>Condensate</li> <li>Pre-filter diaphragm analysis</li> <li>Boiler feed water</li> </ul>	<ul style="list-style-type: none"> <li>Coolant</li> <li>Chemicals filtration</li> <li>Filtration of organic solvents</li> <li>Circuit protection</li> <li>Protection of heat exchangers</li> <li>Nozzle protection</li> <li>Protection of high pressure pumps</li> </ul>	<ul style="list-style-type: none"> <li>Nozzle protection</li> <li>Protection of high pressure components</li> </ul>	<ul style="list-style-type: none"> <li>Coolants</li> <li>Industrial part washers</li> <li>Return line filters upstream from tank</li> <li>Pre-separators to relieve other filters</li> <li>Bypass filters</li> </ul>	<ul style="list-style-type: none"> <li>Coolants</li> <li>Industrial part washers</li> <li>Processing oils</li> <li>Protective filters for downstream plant components</li> <li>Bypass fluid conditioning</li> </ul>	<ul style="list-style-type: none"> <li>Nozzle protection</li> <li>Bypass filtration</li> <li>Heat transfer oil</li> <li>Condensate treatment</li> <li>Resin traps</li> </ul>	<ul style="list-style-type: none"> <li>Cooling water treatment</li> <li>River water</li> <li>Bypass filtration</li> <li>Component protection</li> <li>Waste water</li> </ul>
Filter element model								
Type of contamination								
Solid contamination								
Liquid contamination								

## Solid contamination

**Cause:** Installation contamination, ambient dirt, recharging of pressure fluid, internal wear processes, oil degradation.

**Effects:** Abrasive wear, increased leakage, component failure, inaccurate control, blockage of regulator spools, short fluid service life.

## Liquid contamination

**Cause:** Moisture from ambient air, cooler leakage, process water / process steam, seal leakage, high-pressure cleaners, chemical processes (combustion, oxidation, neutralisation).

**Effects:** Corrosion, reduction in dynamic viscosity, reduction in lubricating film thickness, wear, change in oil properties, generation of acidic oil degradation products, formation of sludge, increase in speed of oil degradation, cavitation damage.

## Magnet technology

\* Also available under different type designation as gas filter variant with particle and coalescence filter elements (except for PRFS). Information in brochure 7.816 or after consultation with Head Office.

\*\* Version DR with radial sealing suitable for EDFR, version DA suitable for EDFA, version DH suitable for hydraulic filters.

NOTICE:

Technical data may vary depending on size. Subject to technical modifications.

# Process Inline Filter PLF1



## Product description

- Continuous separation of solids from low viscosity fluids
- Multi-station filter housing for up to two filter elements
- Flow rates up to 200 m<sup>3</sup>/h

## Filter element technology

- High quality filter elements made of polyester or polypropylene
- Multi-layer filter mat construction
- Staged (graduated) depth filtration
- Protection of the clean side

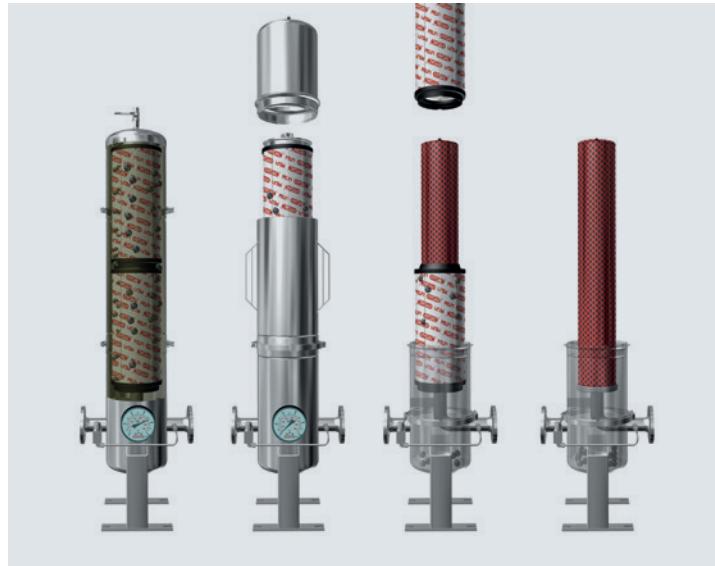
## Product advantages

- Excellent deposition rates
- Low pressure losses due to large cross sections and filter areas
- Very large filter area per filter element
- Compact design with high flow rates
- Flow-optimised design
- Protection of the clean side during element change
- High contamination retention capacity
- Modular design for a perfect fit in every application



Processmicron® filter elements

Technical data	PLF1
Port size	<ul style="list-style-type: none"><li>● DN 40 to DN 150</li></ul>
Flow rate $Q_{\max}$	<ul style="list-style-type: none"><li>● 200 m<sup>3</sup>/h</li></ul>
Design pressure $p_{\max}$	<ul style="list-style-type: none"><li>● 16 bar</li></ul>
Filtration rating	<ul style="list-style-type: none"><li>● 1 to 90 µm</li></ul>



PLF1 sectional and functional drawing



PLF1 with clamp connection and replaceable support tube



## Function

- Flow through the filter element is from the outside to the inside
- The particles are deposited on the outside of the filter element
- The filter elements should be replaced once the maximum permitted differential pressure is reached

## Replaceable support tube

- More flexibility – its modular design allows the filter to be extended to meet individual customer requirements
- Optimal adaptation to the particular application
- Particularly suited to meet the requirements of industrial part washers
- Retroactive optimisation when upgrading the system – doubling of maximum service life

## Economy version PLF1-2

- Compact and cost-optimised design specially adapted to the requirements of industrial part washers
- Flow rates up to 25 m<sup>3</sup>/h with compact dimensions and highest filtration performance
- Simplified handling – more convenient and safer than with bag filters and conventional cartridge filters

## Locking technology



**V-clamp  
for 10 bar filter housing**



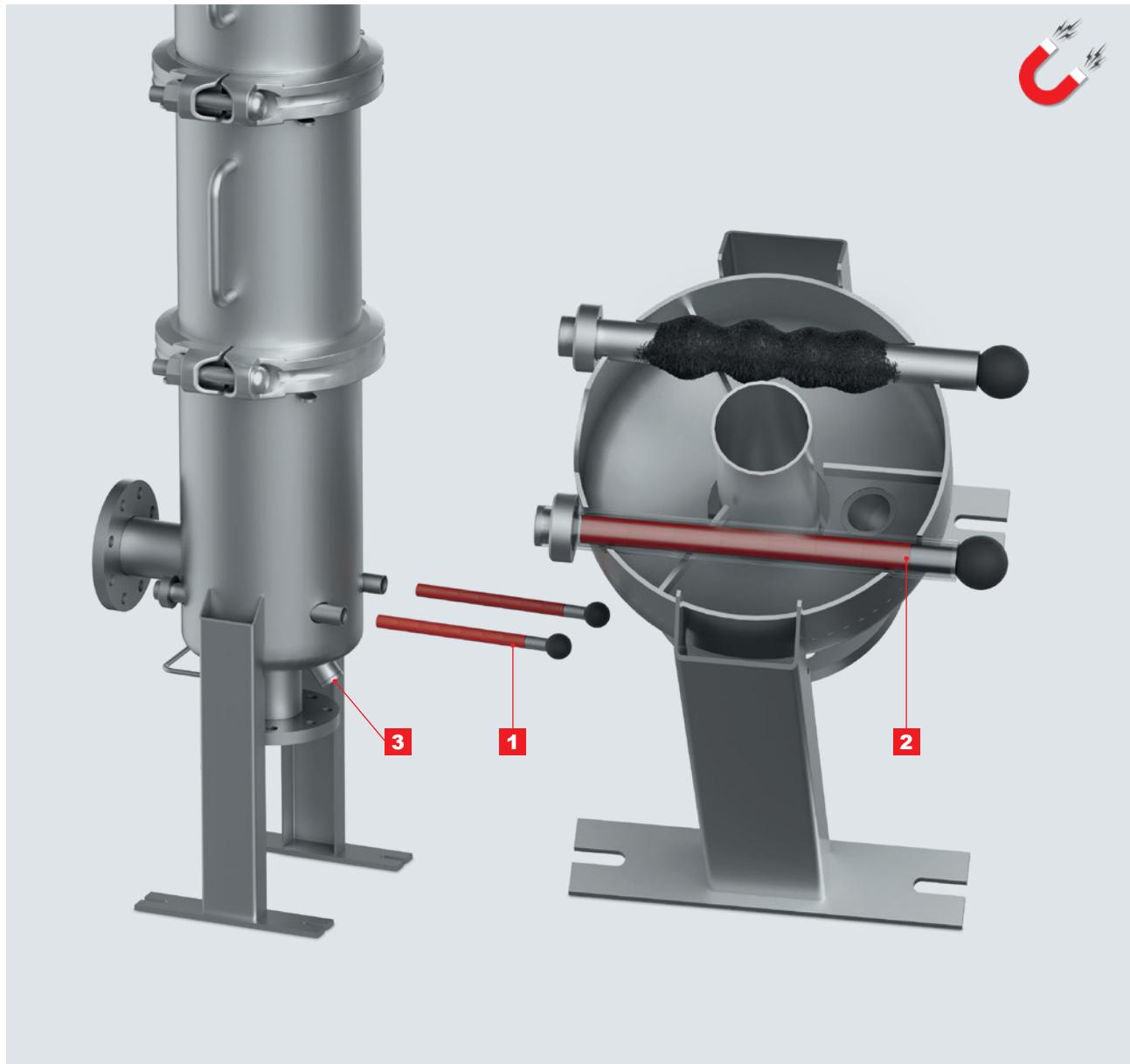
**Clamp connection  
for 10 bar filter housing  
or 16 bar filter housing**

- Reduction in installation time when changing the filter element, compared with a flange port
- Convenient alignment to user side
- Sealing materials preferably EPDM or NBR (FKM also available)
- Particularly suitable for use in industrial part washers



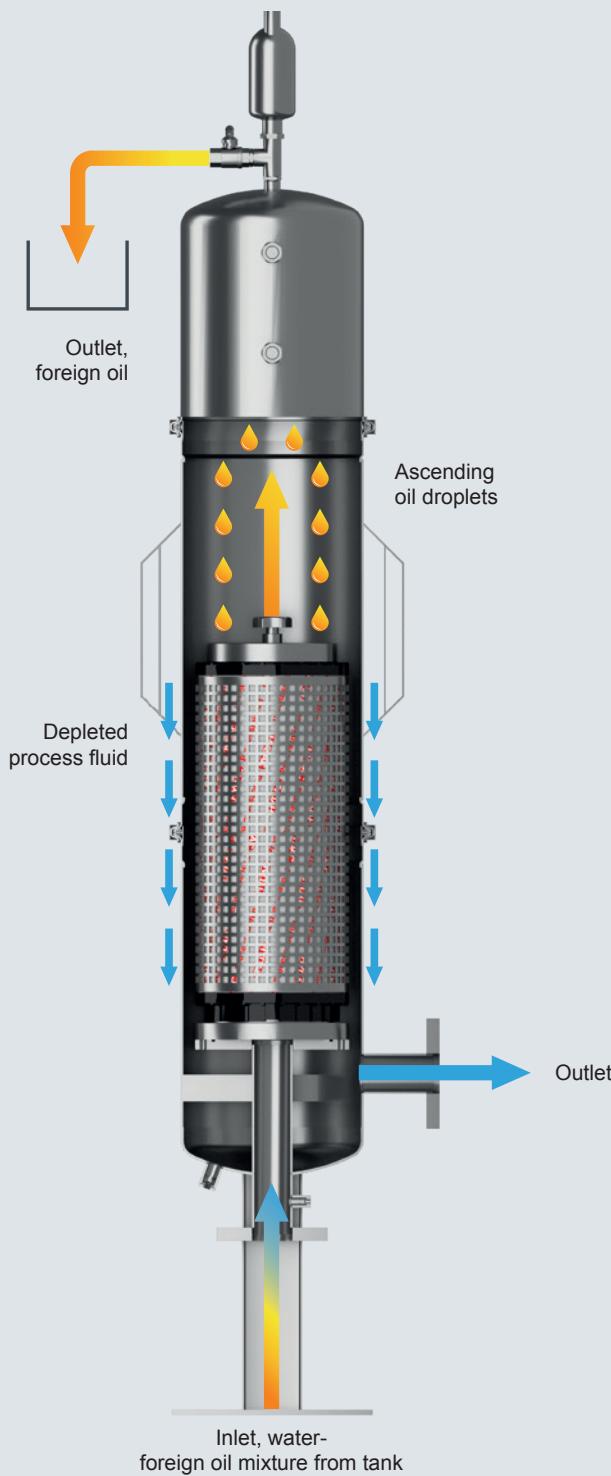
**Flange connection  
for 10 bar or 16 bar filter housing**

- Used for special design requirements (e.g. ASME Design)



### **Magnet technology to increase service life of the filter elements in fields of application with ferritic contamination**

- 1** Bar magnets integrated into the filter housing – filter housing does not need to be opened to clean the bar magnets
- 2** No contact with the magnet surface thanks to special tube-in-tube design – no contact with contamination/medium and magnet during handling
- 3** Reliable discharge of dirt through drain line



## Process coalescer-filter PLF1C for separating foreign oil

Efficient alternative to gravity oil separators

### Product description

- Combination of coalescence and gravity oil separators in one compact PLF1 housing
- Continuous bypass conditioning of the fluid during plant operation by removing a partial flow from the filtered process fluid
- Perfect for retrofitting, as it uses existing plant peripherals

### Application range

Specially developed to **remove foreign oil** from various fluids  
 → Efficient alternative to gravity oil separators

### Product advantages

- Increase in bath service life
- Continuous separation in partial flow reduces plant downtime  
 → no contact with water bath necessary
- Increase in circulation indexes in comparison with conventional gravity oil separators
- Less floor space needed than for gravity oil separator
- Fewer scrap parts
- Reduced man hours for maintenance because of greater system availability

### Technical data

- Required pre-filtration:  $\leq 10 \mu\text{m}$
- $Q_{\max} = 6 \text{ m}^3/\text{h}$   
 → greater efficiency at  $Q < 3 \text{ m}^3/\text{h}$
- $p_{\max} = 10 \text{ bar}$
- Filtration rating 1 – 90  $\mu\text{m}$
- Filter material Processmicron®
- Dimensions (L x W x H):  
 $450 \text{ mm} \times 360 \text{ mm} \times 2100 \text{ mm}$

# Process Inline Filter PLF2



## Product description

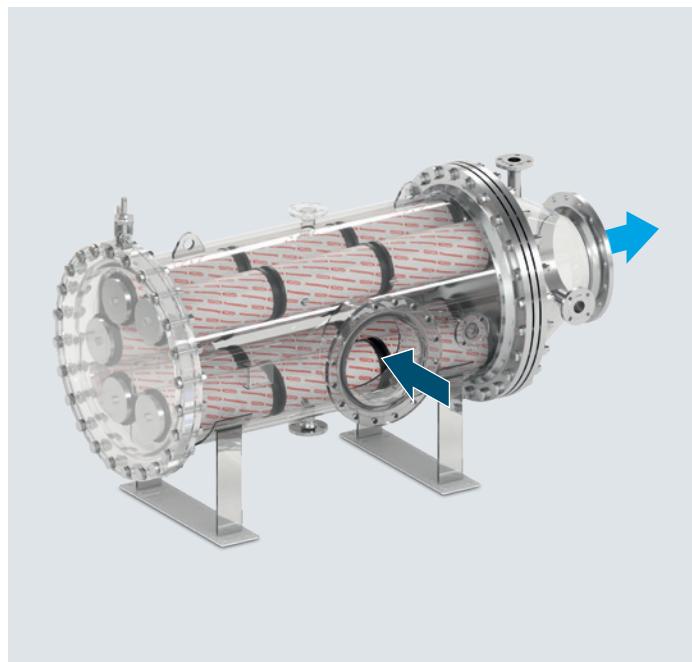
- Continuous separation of solids from low viscosity fluids
- Multi-station filter housing for up to 36 filter elements
- Flow rates up to 3000 m<sup>3</sup>/h

## Filter element technology

- High quality filter elements made of polyester or polypropylene
- Multi-layer filter mat construction
- Staged (graduated) depth filtration
- Protection of the clean side

## Product advantages

- Excellent deposition rates
- Low pressure losses due to large cross sections and filter areas
- Very large filter area per filter element
- Compact design with high flow rates
- Space-saving horizontal filter design
- Flow-optimised design
- Protection of the clean side during element change
- High contamination retention capacity
- Modular design for a perfect fit in every application



Sectional view PLF2

Technical data	PLF2
Port size	<ul style="list-style-type: none"><li>• DN 200 to DN 600</li></ul>
Flow rate $Q_{\max}$	<ul style="list-style-type: none"><li>• 3000 m<sup>3</sup>/h</li></ul>
Design pressure $p_{\max}$	<ul style="list-style-type: none"><li>• 16 bar</li></ul>
Filtration rating	<ul style="list-style-type: none"><li>• 1 to 90 µm</li></ul>

# Process Filter Medium and High Pressure PFM(D)/PFH(D)



## Product description

- Stainless steel inline filters for universal use
- Also available as a change-over double filter for flow rates up to 8 m<sup>3</sup>/h
- Separation of solid particles from fluids

## Filter element technology

- Chemicron® metal fibre fleece: 1 to 20 µm
- Wire mesh: 25 to 250 µm
- Wedge wire: 50 to 2000 µm

## Product advantages

- Optimum adaptation to the application thanks to different sizes, materials and seal materials
- Clogging monitoring by means of a clogging indicator attached to the filter
- Self-venting filter
- Pleated filter elements with large filter area (Chemicron® metal fibre fleece and wire mesh)
- Regenerable filter elements save costs for disposal and replacement



Sectional drawing PFM/PFH

Technical data	PFM(D) / PFH (D)
Port size	● G 1" / SAE 1"
Flow rate Q <sub>max</sub>	● 8 m <sup>3</sup> /h
Design pressure p <sub>max</sub>	● 100 bar
Filtration rating	● 1 to 2000 µm

# Stainless Steel Pressure Filter EDFR



## Product description

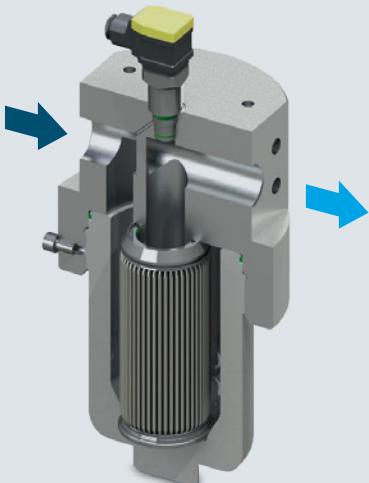
- Stainless steel pressure filter
- Separation of solid particles from fluids
- 400 bar at 200 °C

## Filter element technology

- Chemicron® metal fibre fleece: 1 to 20 µm (absolute)
- Betamicron® glass fibre fleece: 3 to 20 µm (absolute)
- Wire mesh: 25 to 250 µm (nominal)
- 210 bar differential pressure stability

## Product advantages

- Optimum adaptation to the application thanks to six different sizes, materials and seal materials
- Easier and quicker filter element changing without removing the filter from the pipeline – size 660 / 990 without removal of the filter bowl by means of a screw-in cover
- Clogging control with clogging indicator
- Pleated filter elements with large filter area (Chemicron® metal fibre fleece and wire mesh)
- Regenerable filter elements save costs for disposal and replacement (Chemicron® metal fibre fleece, wire mesh)



Sectional view EDFR

Technical data	EDFR
Port size	<ul style="list-style-type: none"><li>● G 1/2" – G 2"</li><li>● SAE 1 1/2" – SAE 2"</li></ul>
Flow rate $Q_{\max}$	<ul style="list-style-type: none"><li>● 25 m³/h</li></ul>
Design pressure $p_{\max}$	<ul style="list-style-type: none"><li>● 400 bar</li></ul>
Filtration rating	<ul style="list-style-type: none"><li>● 1 to 250 µm</li></ul>

# Process Magnet Filter PMAG



## Product description

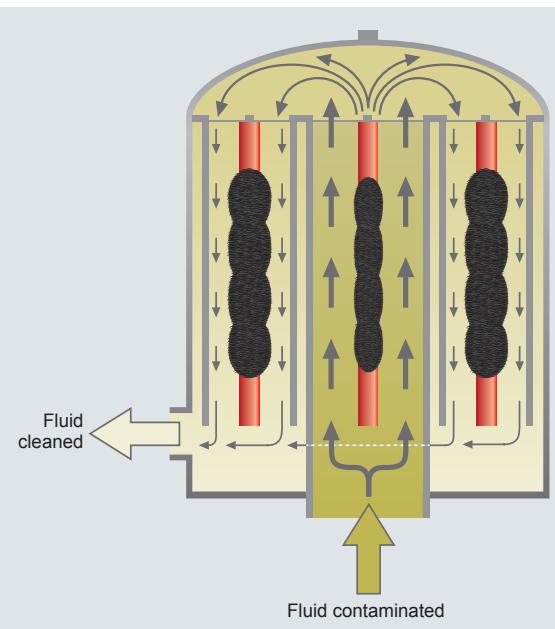
- Particle filter
- Applications with ferritic contaminations
- Available as single or double filter
- Return line filter upstream from tank
- Pre-separator to relieve other filters
- Bypass filter

## Magnet technology

- Bar magnet with magnetic flux density of 13200 GS
- Retention rate is dependent on the flow velocity

## Product advantages

- Optimises filter performance of downstream filters, such as automatic and inline filters
- Stainless steel materials are ideally suited for use in industrial part washers
- Bar magnet can be removed easily without having to detach the filter from the pipeline
- High magnetic field strength for effective retention of ferritic contamination
- Economical and environmentally friendly as not a consumable



Magnet technology

Technical data	PMAG
Port size	<ul style="list-style-type: none"><li>● G 1" to G 2"</li></ul>
Flow rate $Q_{\max}$	<ul style="list-style-type: none"><li>● 24 m<sup>3</sup>/h</li></ul>
Design pressure $p_{\max}$	<ul style="list-style-type: none"><li>● 6 bar / 10 bar</li></ul>
Magnet technology	<ul style="list-style-type: none"><li>● Bar magnet with magnetic flux density of 13200 GS, retention rate is dependent on the flow velocity</li></ul>

# Process Bag Filter PBF



## Product description

- Continuous separation of solid particles from low-viscosity fluids
- Flow from inside to outside
- Sealing lip for bypass-free sealing
- Sealing collar made of polypropylene
- Optional: stainless steel backup ring

## Filter bag

- Filter bag made of polypropylene, polyester or nylon monofil: 1 to 1000 µm

## Product advantages

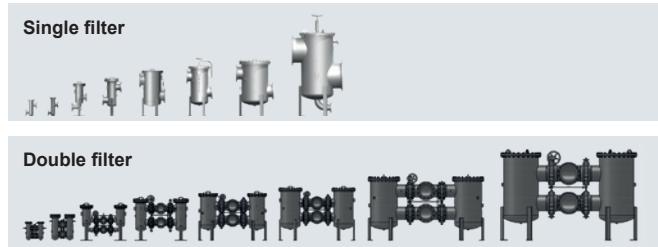
- Separated contamination can be disposed of with the filter bag
- The bag filters can be connected in parallel to tackle large flow rates
- The bag filters can optionally be blocked individually to operate continuous filtration
- Standard adjustable foot stand



Filter bag

Technical data	PBF
Port size	<ul style="list-style-type: none"><li>● DN 50</li></ul>
Flow rate $Q_{\max}$	<ul style="list-style-type: none"><li>● 30 m<sup>3</sup>/h</li></ul>
Design pressure $p_{\max}$	<ul style="list-style-type: none"><li>● 10 bar</li></ul>
Filtration rating	<ul style="list-style-type: none"><li>● 1 to 1000 µm</li></ul>

# Process Inline Filter PRFL / PRFLD



## Product description

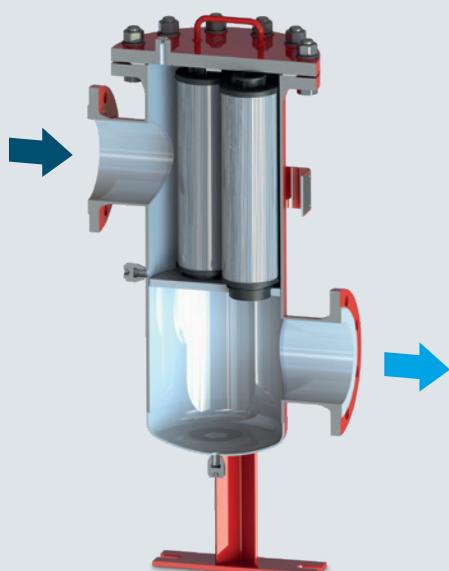
- Separation of solid contamination from water-based media
- Also available as a change-over double filter for flow rates up to 3600 m<sup>3</sup>/h

## Filter element technology

- Inline filter element, flow from outside to inside
- Wire mesh (regenerable): 25 to 500 µm
- Wedge wire (regenerable): 50 to 3000 µm
- Processmicron® polyester (disposable): 1 to 90 µm (absolute)
- Chemicron® metal fibre fleece (regenerable): 1 to 20 µm (absolute)

## Product description

- High filtration performance
- Easy to operate
- Robust filter materials are ideally suited to long-term operation
- Regenerable or disposable filter elements possible as options
- Low operating costs
- Numerous equipment options



Sectional view PRFL

Technical data	PRFL/PRFLD
Port size	<ul style="list-style-type: none"><li>● DN 50 to DN 700</li></ul>
Flow rate Q <sub>max</sub>	<ul style="list-style-type: none"><li>● 3600 m<sup>3</sup>/h</li></ul>
Design pressure p <sub>max</sub>	<ul style="list-style-type: none"><li>● 40 bar</li></ul>
Filtration rating	<ul style="list-style-type: none"><li>● 1 to 3000 µm</li></ul>

# Process Screen Basket Filter PRFS / PRFSD



## Product description

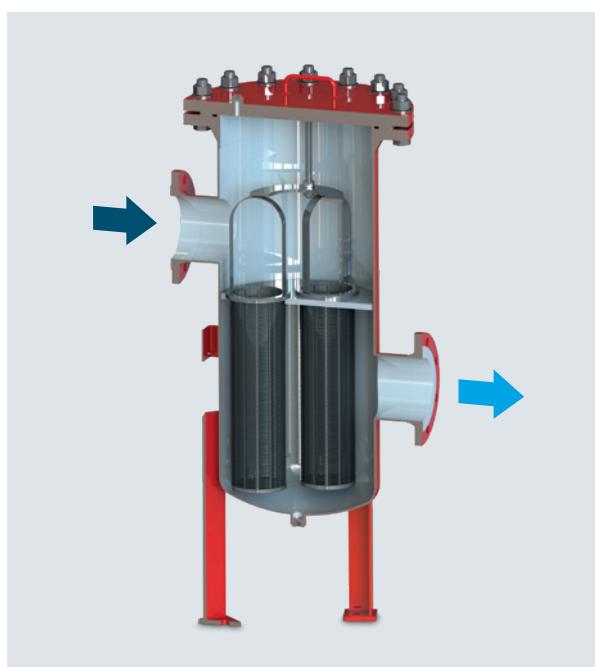
- Screen basket filter – also available as switchable double filter
- Used as coarse filter, bypass filter or pre-separator

## Filter element technology Screen basket insert with bracket

- Wire mesh: 25 to 1000 µm
- Wedge wire: 50 to 3000 µm
- Perforated plate: 3000 to 10000 µm

## Product description

- High filtration performance
- Easy to operate
- Robust filter materials – ideal for long-term operation
- Regenerable filter materials
- Low operating costs
- Particles cannot enter the clean side when changing the basket



Sectional view PRFS

Technical data	PRFS/PRFSD
Port size	<ul style="list-style-type: none"><li>● DN 50 to DN 700</li></ul>
Flow rate $Q_{\max}$	<ul style="list-style-type: none"><li>● 3600 m<sup>3</sup>/h</li></ul>
Design pressure $p_{\max}$	<ul style="list-style-type: none"><li>● 40 bar</li></ul>
Filtration rating	<ul style="list-style-type: none"><li>● 25 to 10000 µm</li></ul>

# Innovative Filter Element Technology

Filter type	PELF	SZ	DR/DH	Bar magnet	L elements	Screen baskets SK	Filter bag
Filter element							
Features	<ul style="list-style-type: none"> <li>For filter type: PLF1 and PLF2</li> <li>Differential pressure stability: 2.5 bar</li> <li>Element length 20"</li> <li>HighFlow (HF) 9": protective filtration</li> <li>HighLoadCascade (HLC) 9": working filtration</li> <li>HighFlow (HF) 6": working filtration</li> </ul>	<ul style="list-style-type: none"> <li>For filter type: PFM(D), PFH(D)</li> <li>Differential pressure stability: 40 bar</li> <li>Chemicron® metal fibre fleece with crimped end caps</li> <li>Wedge wire with glued or welded end caps</li> <li>Wire mesh with crimped end caps</li> </ul>	<ul style="list-style-type: none"> <li>For filter type: EDFR (DR elements with radial sealing), hydraulic filter DF / LF (DH elements)</li> <li>Differential pressure stability: 210 bar</li> <li>Version DR optionally with glued or welded end caps</li> <li>Version DH with crimped end caps</li> </ul>	<ul style="list-style-type: none"> <li>For filter type: PMAG</li> <li>Bar magnet with magnetic flux density of 13200 GS</li> </ul>	<ul style="list-style-type: none"> <li>For filter type: PRFL(D)</li> <li>Bar magnet with magnetic flux density of 13200 GS</li> <li>Wire mesh with glued or crimped end caps</li> <li>Wedge wire with glued or welded end caps</li> <li>Chemicron® metal fibre fleece with glued or crimped end caps</li> <li>Processmicron® with glued end caps</li> </ul>	<ul style="list-style-type: none"> <li>For filter type: PRFS(D)</li> <li>Differential pressure stability: 6 bar</li> <li>Screen basket inserts with bracket</li> </ul>	<ul style="list-style-type: none"> <li>For filter type: PBF</li> <li>Differential pressure stability: 2.5 bar</li> <li>Sealing lip for bypass-free sealing</li> <li>Sealing collar made of polypropylene</li> <li>Separated contamination can be disposed of with the filter bag</li> </ul>
Material and filtration rating	<ul style="list-style-type: none"> <li>Processmicron® polyester PES (disposable): 1 to 90 µm</li> <li>Processmicron® polypropylene PP (disposable): 1 to 90 µm</li> </ul>	<ul style="list-style-type: none"> <li>Chemicron® metal fibre fleece (regenerable): 1 to 20 µm</li> <li>Wire mesh (regenerable): 25 to 250 µm</li> <li>Wedge wire (regenerable): 50 to 200 µm</li> </ul>	<ul style="list-style-type: none"> <li>Chemicron® metal fibre fleece (regenerable): 1 to 20 µm</li> <li>Wire mesh (regenerable): 25 to 250 µm</li> </ul>	<ul style="list-style-type: none"> <li>Neodymium magnets encapsulated in stainless steel</li> <li>Retention rate in accordance with flow velocity</li> </ul>	<ul style="list-style-type: none"> <li>Chemicron® metal fibre fleece (regenerable): 1 to 20 µm (absolute)</li> <li>Wire mesh (regenerable): 2 to 500 µm</li> <li>Wedge wire (regenerable): 50 to 3000 µm</li> <li>Processmicron® polyester (disposable): 1 to 90 µm (absolute)</li> </ul>	<ul style="list-style-type: none"> <li>Wire mesh strengthened with perforated plate shell on one or two sides (regenerable): 25 to 1000 µm</li> <li>Wedge wire (regenerable): 50 to 3000 µm</li> <li>Perforated plate (regenerable): 3000 to 10000 µm</li> </ul>	<ul style="list-style-type: none"> <li>Polypropylene (PP) needle felt: 1 to 1000 µm</li> <li>Polyester (PE) needle felt: 1 to 1000 µm</li> <li>Nylon monofil (NY): 1 to 1000 µm</li> </ul>

## Regenerable filter materials

Regenerable filter materials are used in a large number of our filters, which minimises waste of natural and financial resources over the long term.

The elements can be cleaned by high-pressure washing, ultrasound or specific solvents, for example.

## Disposable filter materials

Our disposable filter materials display long service lives, robust and high-quality filter layer structures and optimum contamination retention capacities and complete incinerability, and thus make a sustainable contribution to efficient and low-waste system use.

# Special Features of the Filter Element Technology for PLF1 and PLF2

## Processmicron® filter elements

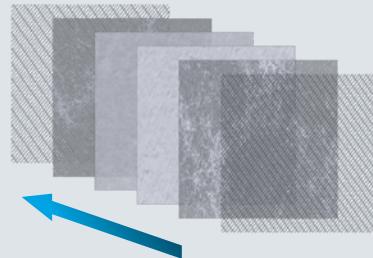


The high-quality filter elements made from polyester or polypropylene are used in the inline filter series PLFx.

They are suitable for the separation of solid particles from low viscosity fluids, such as:

- Coolants
- Washing media
- Processing oils
- Water

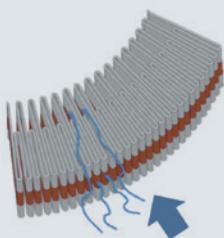
The special filter element geometry prevents dirt from being discharged to the clean side and is significantly easier to handle the conventional cartridge filter elements.



### Graduated depth filtration and multi-layer filter mat construction

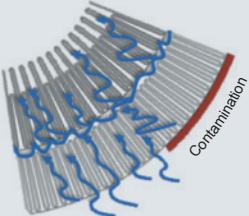
- High level of cleanliness in a single pass
- High layer thickness of filter medium → high retention volume for contamination
- Robust and high-quality layer structure → filter layers do not fold over
- High contamination retention
- Low pressure drops due to large cross sections and filter areas

## Filter element types



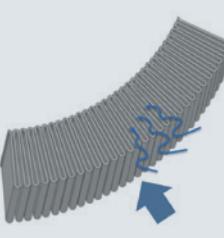
### 1) Working filtration:

Larger inflow area for high dirt loads  
→ HighFlow 6"



### 2) Extensive working filtration:

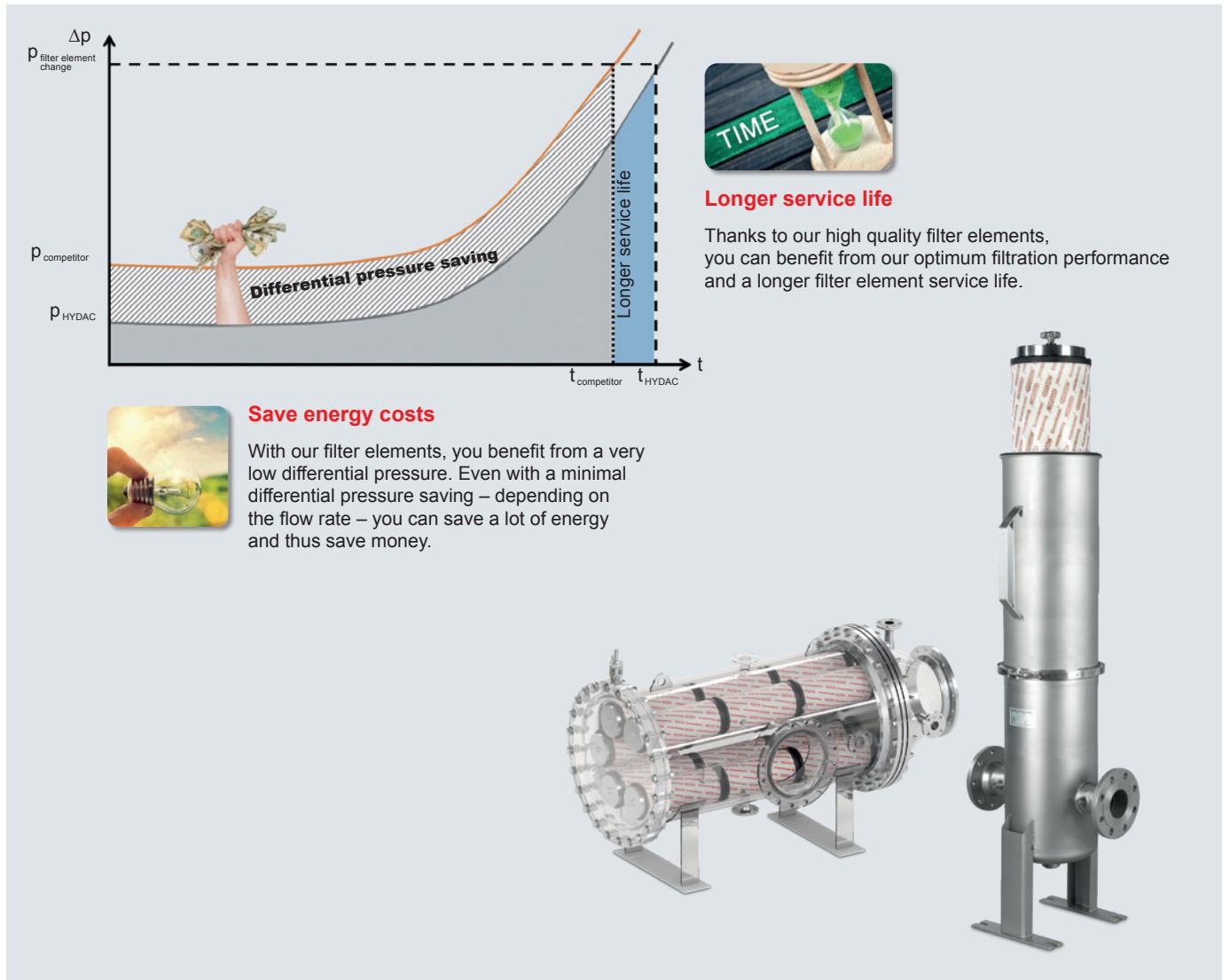
Double reliability even for dirt surges thanks to cascade effect  
→ HighLoadCascade 9"



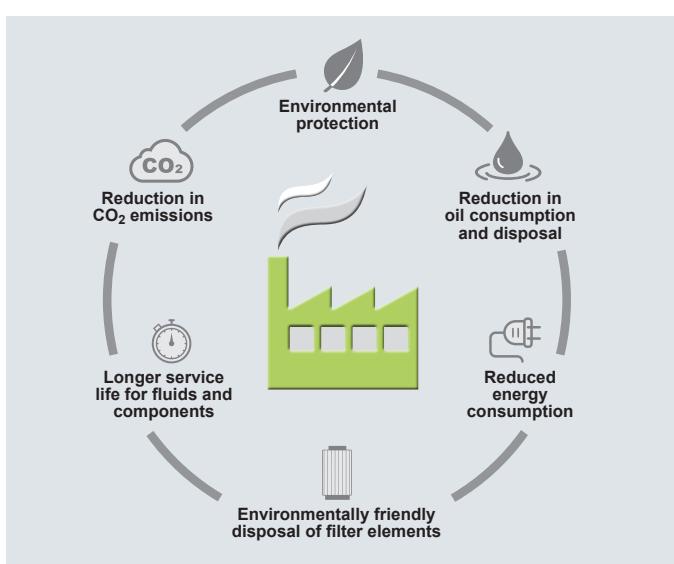
### 3) Dirt filtration:

High flow rates  
→ HighFlow 9"

## Ultra-fine filtration – inline process filters PLF1 and PLF2 ensure reduced differential pressure and extended service life



## Conservation of resources



# Filter Media Chemicron® and Processmicron®

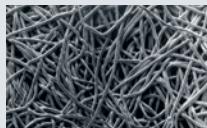
## Chemicron®

### Special features:

- Extremely high chemical, mechanical and thermal stability
- Very large filter area with filter materials folded in a star-shaped arrangement

- Minimum pressure loss thanks to very high porosities
- Longer element service lives
- Very long service life possible thanks to cleaning

### Metal fibre fleece



#### Technical data:

- Filter material: stainless steel (1.4404)
- Filtration ratings, absolute:  
Liquid filtration 1–100 µm  
Gas filtration 0.1–25 µm
- Temperature: up to max. +400 °C

#### Advantages:

- Depth filtration material (absolute retention rate)
- Filter material with graduated structure  
→ Particles of different sizes are embedded in the depth structure of the filter layers with minimal influence on the flow behaviour
- Porosity up to 80 %
- No electrostatic charging
- No fibre migration
- Very high pressure stability
- Pleatable
- Good resistance to oxidation agents and solvents
- Chemical/thermal cleaning possible

### Wire mesh



#### Technical data:

- Filter material: stainless steel wire mesh acc. to DIN ISO 9044
- Material (standard): 1.4401\*
- Nominal filtration ratings: 25 – 500 µm\*
- Various weave types available for different applications
- Temperature: up to max. +400 °C

#### Advantages:

- Surface filter material (nominal retention rate)
- With multi-layer or single-layer support
- No electrostatic charging
- Very high pressure stability
- Pleatable
- Good resistance to oxidation agents and solvents
- Chemical/thermal cleaning possible
- Inexpensive alternative to metal fibre fleece

\* Alternative materials and ratings on request

## Processmicron®

### Special features:

- Large selection of various filter media for wide range of process applications
- Surface-modified filter media available for special applications
- Graduated element structures for long element service lives

- Excellent retention capacity
- Optimised element structure with large filter area thanks to innovative folding technology
- High contamination retention capacity with minimum pressure loss

### Glass fibre fleece (GF)



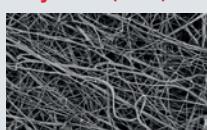
#### Technical data:

- Filter material: microglass fibre
- Filtration ratings (standard):  
Gas filtration: 0.1 – 20 µm
- Temperature: up to max. +100 °C

#### Advantages:

- Depth filtration material (absolute retention rate)
- High flow fatigue strength
- Good chemical resistance
- Very good retention capacity

### Polyester (PES)



#### Technical data:

- Filter materials:  
polyester fleece and meltblowns
- Filtration ratings (standard):  
Fluid filtration 1 – 90 µm
- Temperature: up to max. +90 °C

#### Advantages:

- Depth filtration material (absolute retention rate)
- High resistance to oxidation agents
- Very high chemical resistance to solvents

### Polypropylene (PP)



#### Technical data:

- Filter materials:  
Polypropylene fleece/meltblowns
- Filtration ratings (standard):  
Fluid filtration 1 – 90 µm
- Temperature: up to max. +60 °C

#### Advantages:

- Depth filtration material (absolute retention rate)
- Very high acid and alkali resistance
- Good resistance to oxidation agents and solvents

# HYDAC FluidCareCenter

## Rely on the highest level of quality and innovation

For us, development means designing application-based filter systems, on the basis of measurement results from our research and testing labs and on-site studies of use in practice, in compliance with the requirements profiles of users and filters.



- **Laboratory services/technical cleanliness**
- **Multi-pass test bench**
  - Separation performance and dirt retention
  - Determination with multi-pass test ISO 16889
- **Single-pass test bench**
  - Separation performance and dirt retention
  - Determination for water-based substance systems acc. to in-house standard in single pass

### Hydromechanical test facility / universal test bench

Measurement of:

- Collapse-burst pressure acc. to ISO 2941
- Flow change fatigue strength acc. to ISO 3724
- Flow characteristics acc. to ISO 3968

### ● Bubble-point test bench

- Quality check for filter elements acc. to ISO 2942

### ● Testing and characterisation of filter elements for gas filtration acc. to ISO 12500

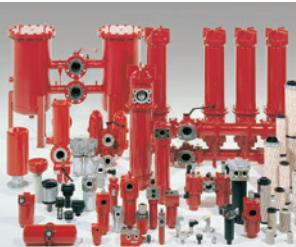
- Fractional separation efficiency / distribution measurement: Determination of aerosol percentage in raw and clean gases
- Characterisation of coalescence filter media
- Automated test sequences

## More information on filtration and process media is available on our microsites for the following topics:

- **Water:**  
<https://waterfiltration.hydac.com/>
- **Gas:**  
<https://gasfiltration.hydac.com/>
- **Marine water filtration:**  
<https://marinewater.hydac.com/>
- **Coolants & part washing:**  
<https://coolantfiltration.hydac.com/>



Accumulator Technology 30.000



Filter Technology 70.000



Process Technology 77.000



Filter Systems 79.000



Compact Hydraulics 53.000



Accessories 61.000



Electronics 180.000



Cooling Systems 57.000

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**INTERNATIONAL**

**HYDAC PROCESS TECHNOLOGY  
GMBH**

Industriegebiet Grube König  
Am Wrangelflöz 1  
66538 Neunkirchen  
Germany

Tel.: +49 6897 509-1241  
Fax: +49 6897 509-1278

E-mail: [prozess-technik@hydac.com](mailto:prozess-technik@hydac.com)  
Internet: [www.hydac.com](http://www.hydac.com)