



**ULTRAFILTER**  
THE FILTRATION MANUFACTURER

*Kronsbein ultrafilter*®



**Ultrafilter High Performance Filter**  
**P-FF | P-MF | P-SMF**  
With Nanotechnology

# P-FF | P-MF | P-SMF With Nanotechnology

## High Performance Filter Ultrafilter

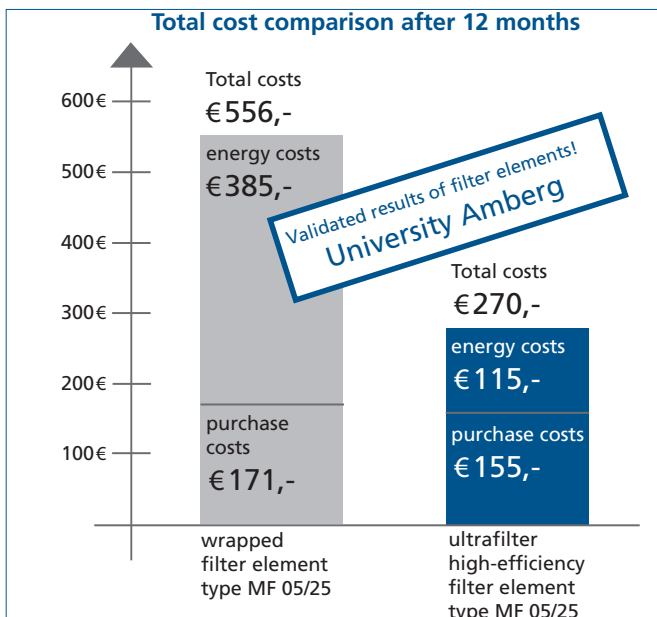
- Ultrafilter high performance depth filter for removal of water and oil aerosols as well as particles from compressed air and gases.
- Thanks to the unique combination of binderfree, non-woven ultra fibre filter media and pleating technology, a reduction in energy costs of 70 % is achieved, as well as an improved filtration performance.
- The new nanofibre material from Ultrafilter is oleophobic, which means oil and water are actively rejected, so the differential pressure drop and therefore operation costs are reduced to a minimum compared with a conventional filter element.

## Advantages and Benefits

- 450 % greater filter media compared to standard elements
- Lower differential pressure
- Improved filtration efficiency
- Greater dirt-capturing capacity
- 70 % less energy costs

## Applications

- Chemical and petrochemical industry
- Pharmaceutical industry
- Food & beverage
- Plastic industry
- Process filtration
- Instrumentation air



Features	Benefits
Binderfree, thermally welded ultra filter media	Low differential pressure and high particle load
Oleophobe filter media	Rejects oil and water
Pleated filter media	450 % more filtration surface, higher particle load capacity, low air flow speed
Support sleeves of stainless steel (316L)	Extremely large free flow, secure and long operation

Type	Residual Oil Content at an Inlet of		Residual Oil Content acc. ISO 12500-1
	3 mg/m <sup>3</sup>	10 mg/m <sup>3</sup>	
P-FF	<0,1 ppm	0,2 ppm	99,6 %
P-MF	<0,03 ppm	0,03 ppm	99,7 %
P-SMF	<0,01 ppm	0,02 ppm	99,8 %

Retention Rate at a Particle Size of 0,01 µm:	
P-FF	99,999 %
P-MF	99,99998 %
P-SMF	99,99999 %

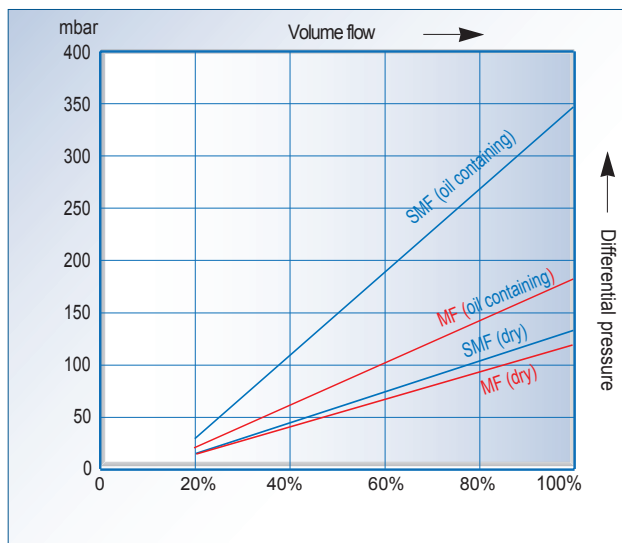
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Materials	
Outer foam sock:	<ul style="list-style-type: none"> <li>• HT/CR sock up to 120 °C</li> <li>• HT/NX sock up to 180 °C</li> </ul>
Support sleeved inner/outer:	Stainless steel 1.4301
Pre- and after filter medium:	Pleated Cerex
Filter medium	Binderfree nanofibres
Bonding:	Polyurethane
End caps:	Stainless steel
O-Rings:	Perbunan, silicon free and free of parting compounds

Max. Differential Dressure:
5 bar at 20 °C, independant from operation pressure

Operating Temperature:	
T <sub>min</sub>	-85°C
T <sub>max</sub>	180°C

## Differential Pressure of a P-MF/P-SMF Filter Element Including Filter Housing and Oil-moistened Condition (acc. ISO 12500-1).



Technical alterations reserved.

Element Size	Correction Factor
02/05	0,04
03/05	0,08
03/10	0,12
04/10	0,17
04/20	0,19
05/20	0,25
05/25	0,32
07/25	0,47
07/30	0,68
10/30	1,0
15/30	1,55
20/30	2,10
30/30	3,28
30/50	5,89

Validation:
Validation of ultrafilter high-performance filters by University Amberg

Start-up Differential Pressure:	
P-FF	0,04 bar
P-MF	0,08 bar
P-SMF	0,09 bar