



**ultrafilter high-performance filter
FF / MF / SMF with
ultra fibre technology**

Ultrafilter filter elements FF / MF / SMF

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 ultra fibre 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.

| 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 ³ | 10 mg/m ³ | |
| FF | <0,1 ppm | 0,2 ppm | 99,6 % |
| MF | <0,03 ppm | 0,03 ppm | 99,7 % |

Validation:

Validation of ultrafilter high-performance filters by University Amberg

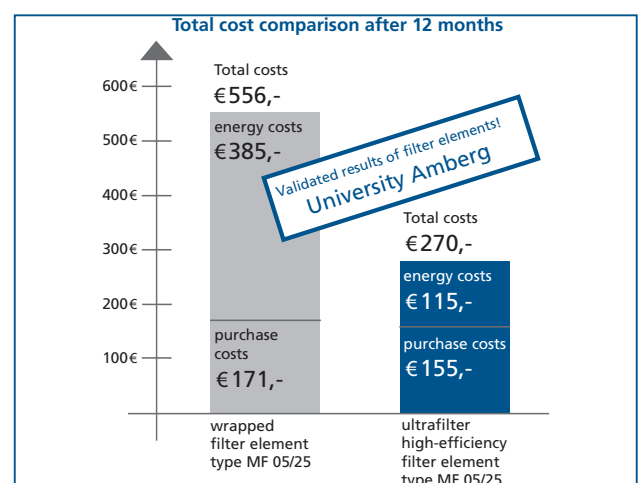
Advantages and benefits

- 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

| Materials | |
|-------------------------------|--|
| Outer foam sock: | <ul style="list-style-type: none"> • blue polyurethane foam sock up to +80 °C • HT/CR sock up to 120 °C • HT/NX sock up to 180 °C |
| Support sleeves inner/outer: | stainless steel 1.4404 / 316L / V4A |
| Pre- and after filter medium: | pleated Cerex |
| Filter medium | binderfree ultra fibres of borosilicate |
| Bonding: | Polyurethane |
| End caps: | Aluminium |
| O-Rings: | Perbunan, silicon free and free of parting compounds |



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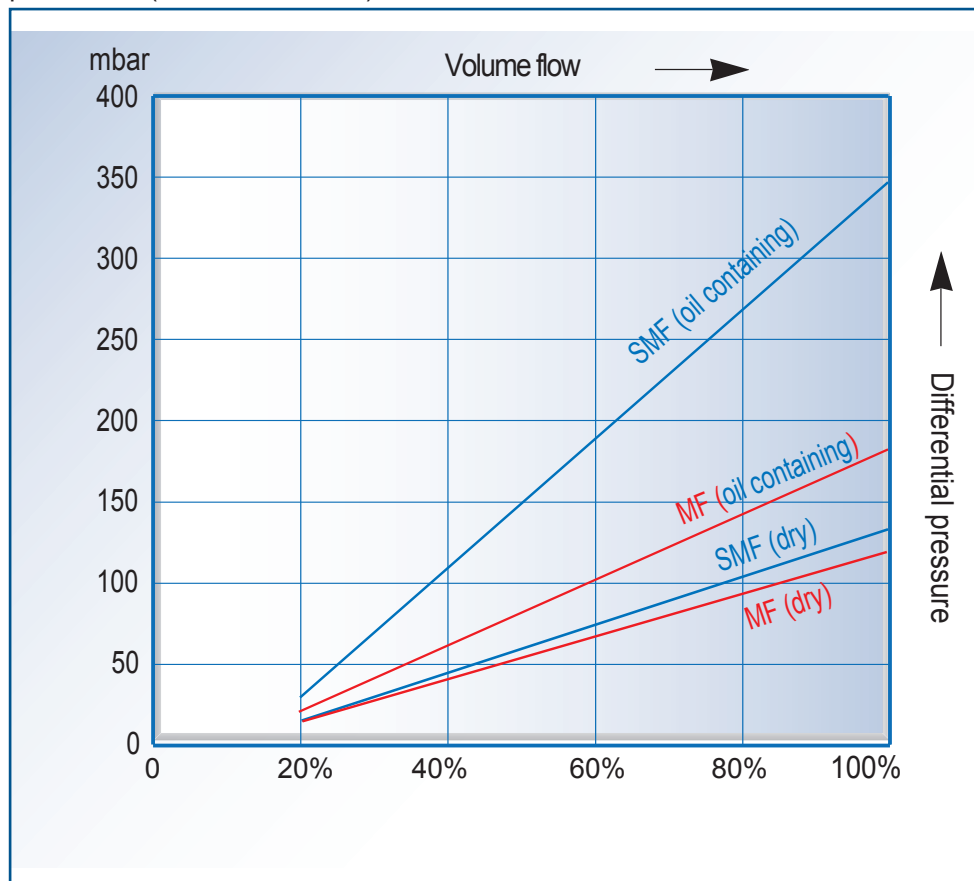
| Retention rate at a particle size of 0,01 µm: | |
|---|------------|
| FF | 99,999 % |
| MF | 99,99998 % |
| SMF | 99,99999 % |

| Start-up differential pressure: | |
|---------------------------------|----------|
| FF | 0,04 bar |
| MF | 0,08 bar |
| SMF | 0,09 bar |

| Max. differential pressure: | |
|---|--|
| 5 bar at 20 °C, independant from operation pressure | |

| 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 | 5,90 |

Differential pressure of a MF/SMF filter element at trockner und oil containing compressed air (acc. ISO 12500-1).



Technical alterations reserved.



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