ultrafilter high-performance filter FF / MF /SMF with nanotechnology

High performance filter ultrafilter

n ultrafilter high-performance depth filter for removal of water and oil aerosols as well as particles from compressed air and gases.

n Thanks to the unique combination of binderfree, non-woven nanofibre filter media and pleating technology, a reduction in energy costs of 70 % is achieved, as well as an improved filtration performance.

n 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 a minmum compared with a conventional filter element.

Advantages and benefits

- n 450 % greater filter media compared to standard elements
- n lower differential pressure
- n improved filtration efficiency
- n greater dirt-capturing capacity
- n 70 % less energy costs

Applications

- n chemical and petrochemical industry
- n pharmaceutical industry
- n food & beverage
- n plastic industry
- n process filtration
- n instrumentation air

ULTRAFILTER
THE FILTRATION MANUFACTURER

ultrafilter nanofilters FF, MF, SMF

Features:	Benefits:
Binderfree, thermally welded nanofilter 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

Materials:	
outer foam sock	• blue polyurethane foam sock up to 80 °C • HT/CR sock up to 120 °C • HT/NX sock up to 180 °C
Support sleeved inner/outer	Stainless steel 1.4301
Pre- and after filter medium	pleated Cerex
Filter medium	binderfree nanofibres of borosilicate
Bonding	Polyurethane
End caps	Aluminium
O-rings	Perbunan, silicon free and free of parting compounds

Validation

Validation of ultrafilter high-performance filters by University Amberg

Retention rate at a particle size of 0,01 µm

FF = 99,999 %
MF = 99,99998 %
SMF = 99,99999 %

Residual oil content at an inlet of 3 mg/m³

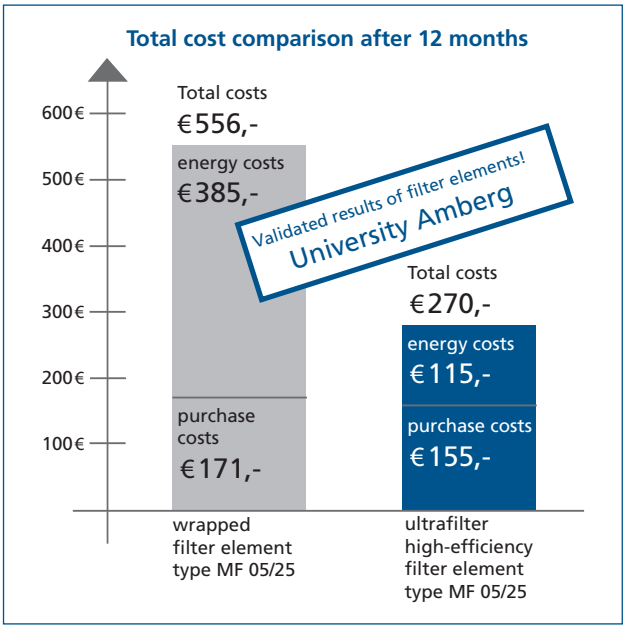
FF = 0,1 mg/m³
MF = 0,03 mg/m³
SMF = <0,01 mg/m³

Max. differential pressure

5 bar at 20 °C, independant from operation pressure

Start-up differential pressure

FF = 0,04 bar
MF = 0,08 bar
SMF = 0,09 bar



element	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

Technical alterations reserved.

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