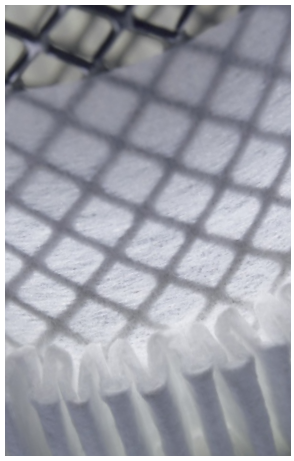
Medical Vacuum depth filter FFMV

The pleated, medical depth filter with NANO-technology for the removal of water and oil aerosols as well as solid particles from vacuum air.



Cross section of the pleated depth filter with NANO-technology

Product description:

The industrial depth filter employs the pleated, binder free, three dimensional NANO fiber fleece.
A prefilter medium 1 µm is integrated and realizes an effective two sage filtration.
The 450% greater filter area ensures a greater dirt-capturing capacity and a low differential pressure, that reduces the energy costs massively!

Characteristics:

By utilizing various filtration mechanisms, such as retention by direct impact, sieve effect and diffusion effect. Liquid aerosols and solid particles down to 0,2 µm are being retained in the filter.

Applications:

The industrial depth filter is for example being utilised in the following industries

- Chemical industry
- Petrochemical industry
- Pharmaceutical industry
- Plastic industry
- General machine fabrication
- Air conditioning technology
- Food industry
- Paint industry
- Beverage industry
- Process industry for instrumentation and control air

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Technical Data

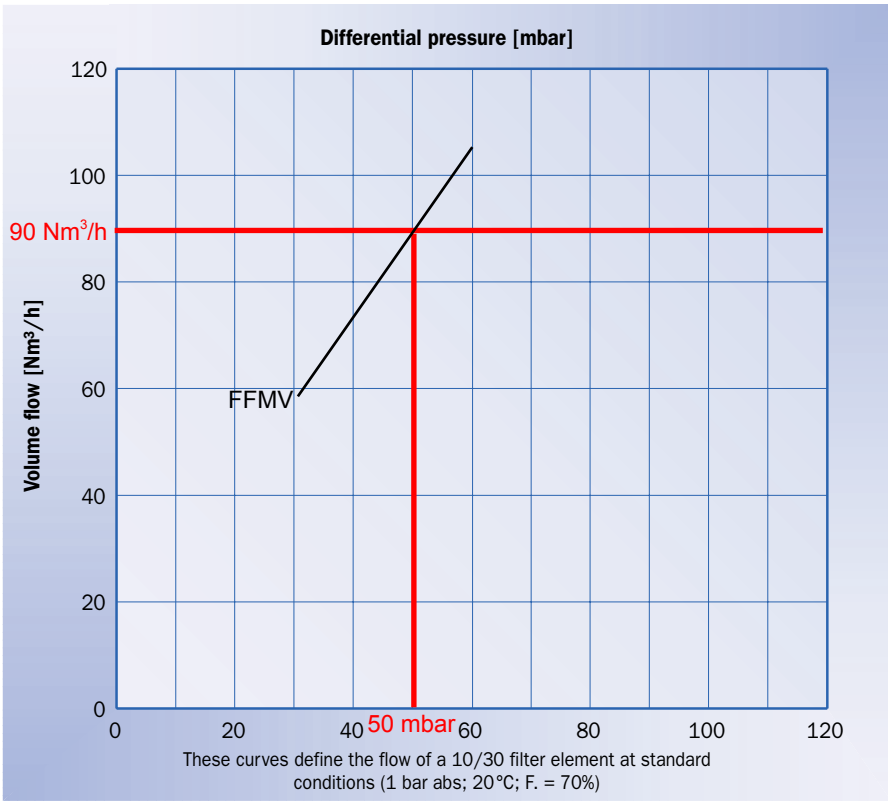
ultra.air GROUP
ultra.air ultrafilter

Element type FFMV

Features:	Benefits:
Expanded inner and outer stainless steel sleeves for the secure hold of the filter medium	No danger of corrosion - large openings ensure low differential pressure drop and high throughput
Binder free depth filter medium made out of pleated NANO fiber fleece	Low differential pressure drop; high throughput - reduces energy costs!
Removal of liquid aerosols and solid particles down to 0.2 µm	Validated retention effiency, high level of security and safety
Large surface area - 450% large void volume (> 98%)	High dirt holding capacity; guaranteed service life time

Materials:	
NO outer foam sock	
Support sleeves - inner and outer	Stainless steel 1.4404 / 316L
Pre-and after filter medium	Binder free Nano fiber fleece
Filter medium	Pleated, binder free Nano fiber fleece
Bonding	Polyurethane
End caps	Stainless steel 1.4301 / 304
2 O-Rings	Viton

Performance or FFMV - vacuum air



These curves define the flow of a 10/30 filter element at standard conditions (1 bar abs; 20 °C; F. = 70%)

Validation:
Validation of high-effiency filters by Technical University of Amberg

Retention rate related to particles 0,2 µm:		
FFMV	=	99,999%

Residual oil content at an inlet concentration of 3mg/ m³		
FFMV	=	0,1 mg/ m³

Max. differential pressure:
5 bar at 20°C, irrespective of system pressure

Initial differential pressure at nominal flow:		
FFMV	=	0.05 bar (50 mbar)

Elemente type	Correction factor Filter surface KF
02/05	0.08
03/05	0.10
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	3.20
30/50	5.65

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