

Ultrair FF, MF, SMF

The depth filter for the removal of water and oil aerosols as well as solid particles from compressed air and gases with absolute retention efficiency.

Product description:

The Ultrair depth filter employs the three dimensional micro fibre fleece Ultrair made out of binderfree glassfibre. A pre-filter medium 1 µm is integrated and realises an effective two stage filtration.

Characteristics:

By utilising various filtration mechanisms such as retention by direct impact, sieve effect and diffusion effect, liquid aerosols and solid particles down to the size of 0.01 µm are being retained in the filter.



Cross section of the Ultrair depth filter

Applications:

The Ultrair 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

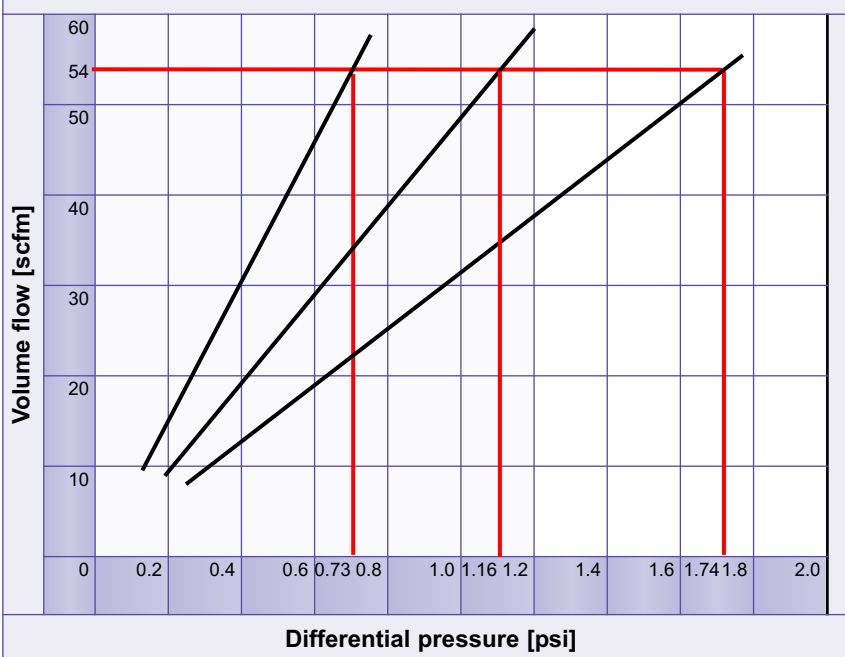
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Features:	Benefits:
Expanded inner and outer stainless steel sleeves for the secure hold of the filter medium	No danger of corrosion - large openings ensure low differential pressure drop and high throughput
Binderfree depth filter medium made out of borosilicate	Low differential pressure drop; high throughput
Removal of liquid aerosols and solid particles down to 0.01 µm	Validated retention efficiency, high level of security and safety
Large surface area, large void volume (> 94%)	High dirt holding capacity; guaranteed service life time

Materials:	
Outer foam sock	Blue polyurethane foam sock up to 176°F HT/ CR sock up to 250°F HT/ NX sock up to 350°F
Support sleeves - inner and outer	Stainless steel 304
Pre-and after filter medium	Cerex®
Filter medium	Binderfree borosilicate
Bonding	Polyurethane
End caps	Aluminium (with HT/ NX: Stainless steel)
2 O-Rings	Perbunan - silicon free and free of parting compound (Standard)

Performance of FF-, MF-, SMF-elements - compressed air

These curves define the flow of a 10/30 filter element at standard conditions (14.5 psi; 68°F; R.H. = 70%)



Retention rate related to particles 0.01 µm:		
FF	=	99.999%
MF	=	99.99998%
SMF	=	99.99999%

Residual oil content at an inlet concentration of 3 ppm		
FF	=	0.1 ppm
MF	=	0.03 ppm
SMF	=	< 0.01 ppm

Max. differential pressure:	
72.5 psi at 68°F, irrespective of system pressure	

Initial differential pressure at nominal flow:	
FF	= 0.73 psi
MF	= 1.16 psi
SMF	= 1.74 psi

Elemente type	Correction factor Filter surface KF
02/05	0.06
03/05	0.09
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	5.73