

Ultraporex B Particle Filter Element

Prefilter element for the removal of particulate contaminants in gases.

Donaldson Ultraporex B prefilter

elements utilize a highly porous sintered media for absolute filtration of particles down to 25 µm in size. The primary filtration mechanism of this media is sieving, which captures most particles near the surface allowing for regeneration of the element and reduced operating cost through fewer element change-outs. Although the Ultraporex B is primarily used as a particulate prefilter, a simple reversal of flow through the element allows the Ultraporex B to be used as an effective coarse coalescing filter element, removing bulk quantities of water and oil from an air or gas stream (standard housings are equipped with an internal float drain, so no special equipment is required).

The high-grade sintered bronze media ensures not only a high load capacity of contaminants, but also long life through its resistance to aggressive condensates and its ability to be regenerated many times.

Applications

The Donaldson Ultraporex B filter element is ideal in the following industries and applications:

- Particulate prefilters upstream of final filters
- Centralized prefiltration in compressor rooms
- Coarse coalescing after cyclone separators and before fine coalescers
- Installations with aggressive condensates



Ultraporex Type B Prefilter Element

Operating Pressure psi	Conversion Factor f _p
15	0.25
30	0.36
45	0.50
60	0.60
75	0.75
90	0.90
100	1.00
115	1.10
130	1.20
150	1.40
160	1.50
175	1.60
190	1.75
200	1.90
220	2.00
250	2.10

Element Type	Flow Rate 100 psi (cfm)*
0035	20
0070	41
0120	70
0210	123
0320	188
0450	264
0600	353
0750	441
1100	647

Sizing example for pressure which deviates from nominal pressure:

$$V_{nom} = 200 \text{ cfm, operating pressure} = 130 \text{ psi}$$

$$V_{corr} = V_{nom} / f_p$$

$$V_{corr} = 200 \text{ cfm} / 1.25 = 165 \text{ cfm}$$

Calculated Size: Type 0320

*cfm related to 15 psi abs. and 68°F

Ultraporex B

Features

Void volume - porosity grade larger than 60%
Regenerative - repeatable regeneration possible, combined with exact rates

Benefits

High dirt holding capacity
Lower differential pressure
Economical, longer service lifetime

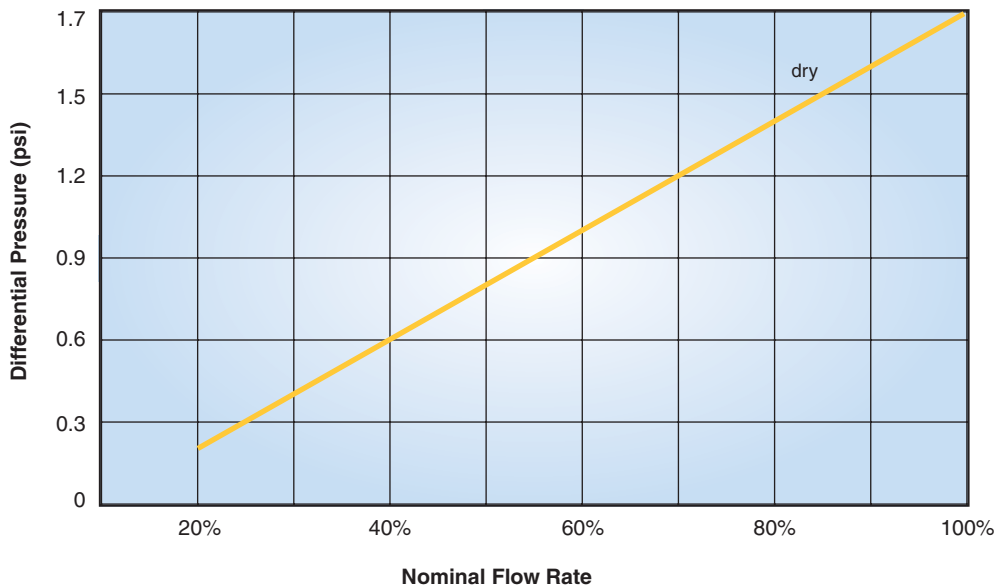
Specifications

Retention Rate	100% in gases; defined rate of particles larger than the pore size (25 µm)
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Materials

Filter Medium	Pure sintered bronze material no. 2-1052
Bonding	Polyurethane
End Caps	Glass fiber reinforced polymer
O-Rings	Perbunan®: silicone free and free of compound (Standard)

Differential pressure of B - filter element including filter housing in dry condition at 116 psi absolute



* Perbunan® is a registered trademark of LANXESS Deutschland GmbH.



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Bulletin No. UFSB0144
Ultraporex B 11-07