

Ultrapoly P Particle Filter Element

Prefilter element for the removal of solid contaminants in gases.

Donaldson Ultrapoly P prefilter

elements utilize a highly porous sintered polyethylene 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 Ultrapoly P is primarily used as a particulate prefilter, a simple reversal of flow through the element allows the Ultrapoly P 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).



Ultrapoly Particle Prefilter
Element Type P

Applications

The Donaldson Ultrapoly P filter element is ideal in the following industries and applications:

- Particulate prefilters upstream of final filters
- Centralized prefiltration in compressor rooms
- Particle filtration after cyclone separators
- Coarse coalescing after cyclone separators and before fine coalescers

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

Ultrapoly P

Features

Void volume: porosity grade 45%	High dirt holding capacity Lower differential pressure
Removal of contaminants down to 25 µm	Guaranteed retention grade
Regenerative	Economical, longer service lifetime

Benefits

Specifications

Particle retention rate related to 25 µm P = 100%

Oil retention rate according to ISO 12500-1 P = 90%

Residual content at an inlet concentration of 10 mg/Nm³ P = 1

Materials

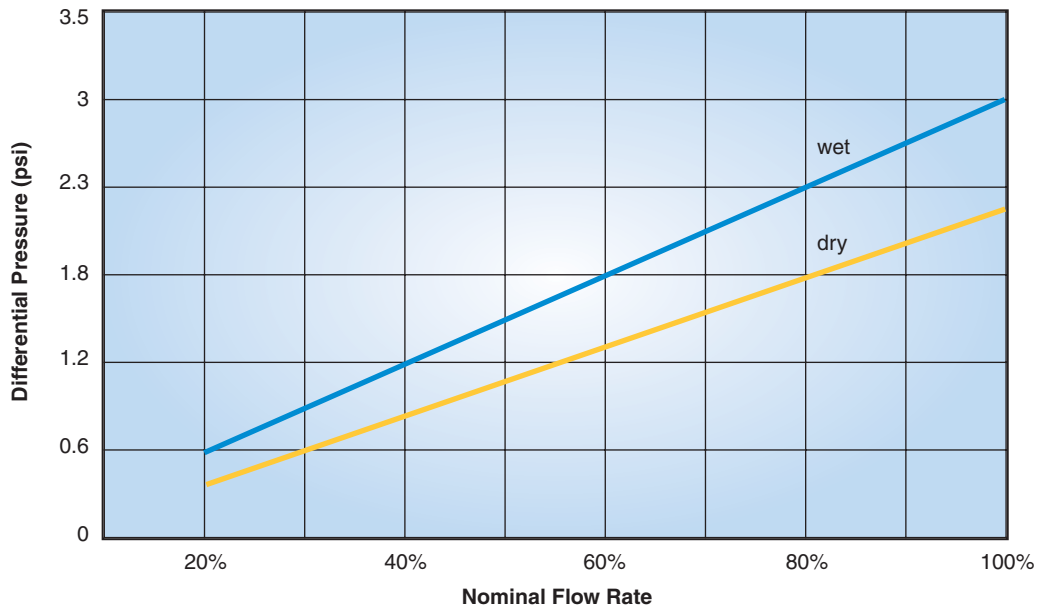
Filter Medium Pure, high molecular polyethylene

Bonding Polyurethane

End Caps Glass fiber reinforced polymer

O-Rings Perbunan®: silicone free and free of compound (Standard)

Differential pressure of P - filter element including filter housing in dry and wet condition at 116 psi absolute



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