Ultrapoly P

The prefilter for the removal of solid contaminants in gases.

Prefilter Ultrapoly P

Product description:

The Ultrapoly prefilter contains the high porous, sintered polyethylene filter medium.

Even finest dust particles and other contaminants in compressed air and gases are being removed effectively on the surface and in the depth of the filter medium.

Characteristics:

By utilising various filtration mechanisms – such as direct impact and sieve effect – contaminants down to the size of 25 µm particles, are being retained in the filter.

Applications:

The Ultrapoly prefilter is for example being utilised in the following industries:

- Particle filtration downstream cyclonic separators
- Central pre-filtration in compressor stations
- Removal of larger amounts of condensate
- Pre-filter upstream filter grades “M” and “S”

Element Type	Flowrate at 7 bar g m^3/h *
0035	35
0070	70
0120	120
0210	210
0320	320
0450	450
0600	600
0750	750
1100	1100

Sizing example for pressure which deviates from nominal pressure:

$\dot{V}_{nom}$ = 350 m^3/h, operating pressure = 9 bar (g)

$$\dot{V}_{corr} = \frac{\dot{V}_{nom}}{f_p}$$

$$\dot{V}_{corr} = \frac{350\ m^3/h}{1.25} = 280\ m^3/h$$

Calculated Size: Type 0320

Operating Pressure bar g	Pressure conversion factor f_p
1	0.25
2	0.38
3	0.50
4	0.63
5	0.75
6	0.88
7	**1.00**
8	1.13
9	1.25
10	1.38
11	1.50
12	1.63
13	1.75
14	1.88
15	2.00
16	2.13

* m^3/h related to 1 bar abs. and 20°C

Donaldson Filtration Deutschland GmbH · Industrial Filtration Solutions · Büssingstraße 1 · D-42781 Haan · Telefon +49/2129/569-0 · Telefax +49/2129/569-100

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Features:	Benefits:
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 life time

Materials :	
Filter medium	Pure, high molecular Polyethylene
Bonding	Polyurethane
End caps	GRP
O-Rings	Viton: silicone free and free of compound (Standard)

Particle retention rate related to 25 µm	Oil retention rate acc. to ISO 12500-1	Residual oil content at an inlet concentration of	
			10 mg/Nm³
η (P) = 100%	η (P) = 90%	m_{Oil} (P) [mg/Nm³]	1