

Allround cost-efficiency and performance: Depth-loading Filter Cartridges, TFP 60 range

The application

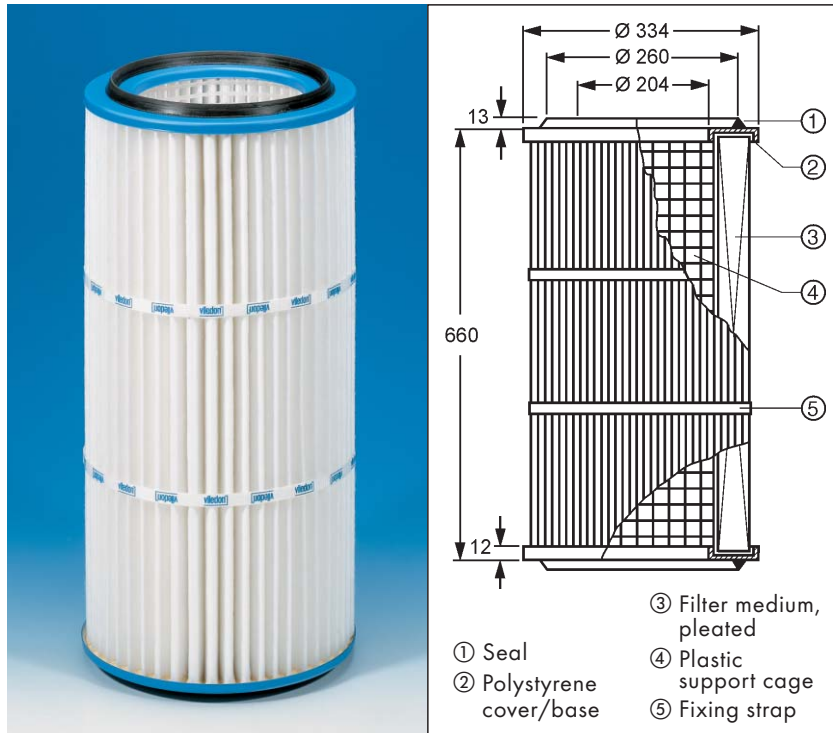
Depth-loading filter cartridges are used in supply air filtration systems for gas turbines and turbo-compressors both on and off-shore.

The concept

The patented Viledon depth-loading filter cartridges, with their optimum pressure drop characteristics and maximized useful life-times, significantly enhance the cost-efficiency of turbo-machinery. They are particularly successful whenever the cleaning of surface filter cartridges does not produce any effective reduction in pressure drop, because the dust concentrations are too low and/or the dusts concerned are too sticky. Depth-loading filter cartridges are not designed for pulse-jet cleaning.

The filter medium and the design

► We use high-quality, high-performance non-wovens from in-house production, made of synthetic-organic fibers.
► The medium is progressive in structure, i.e. the layers of fibers become finer and denser towards the clean-air side, thus achieving an optimum in filter performance.



viledon®

Result: high arrestance, high dust holding capacity, low pressure drop, high cost-efficiency.

► The filter cartridges provide an optimized ratio between filtering area, fold depth and number of folds. The filter medium is sufficiently rigid to prevent the folds from collapsing even at high pressure drops. **Result:** the active filtering area remains fully effective throughout the entire period of operation.
► The pleated medium and the support cage are cast into the polystyrene cover and base for a leak-proof configuration.

Technical data for Type TFP 60 P 66 P 2

Filtering area	2.9 m ²
Thermal stability	70 °C
Temporary peaks	80 °C
Moisture resistance / rel. humidity	up to 100 %

Technical filter data in broad conformity with EN 779*

Average arrestance	99 %
Average efficiency	65 %
Filter class	F 6
Nominal volume flow rate	1000 m ³ /h
Initial pressure drop	approx. 110 Pa
Recommended final pressure drop	800 Pa

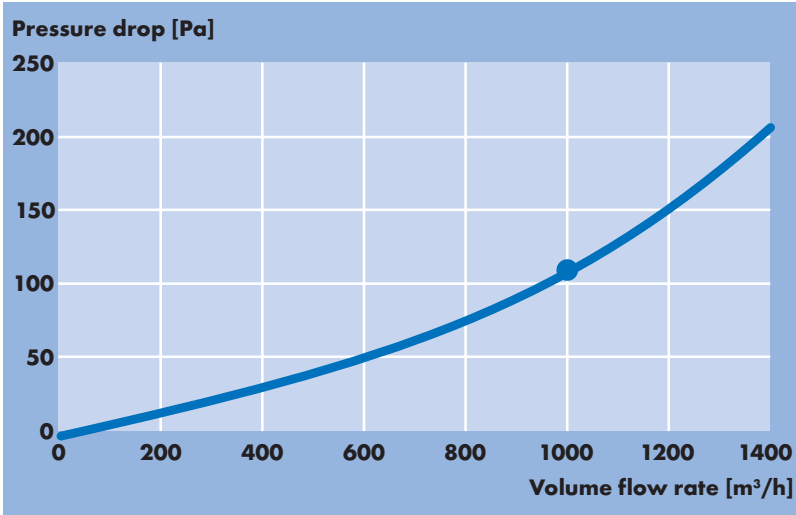
► The foamed-on polyurethane seal ensures optimized sealing against the mounting plate.

* Contrary to the standard, the cartridge is installed in the test channel using an adapter, which fits the cylindrical cartridge into the rectangular test channel.

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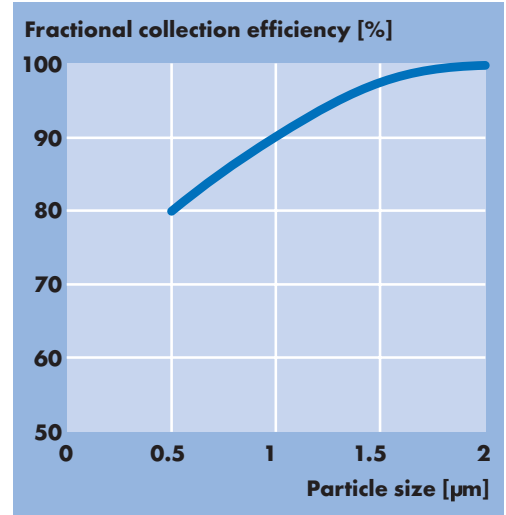
Technical filter test data for Type TFP 60 P 66 P 2

Initial pressure drop *



* These initial pressure drop values can differ from values measured in installations, as deflectors, diffusors or venturi-nozzles create an additional pressure drop.

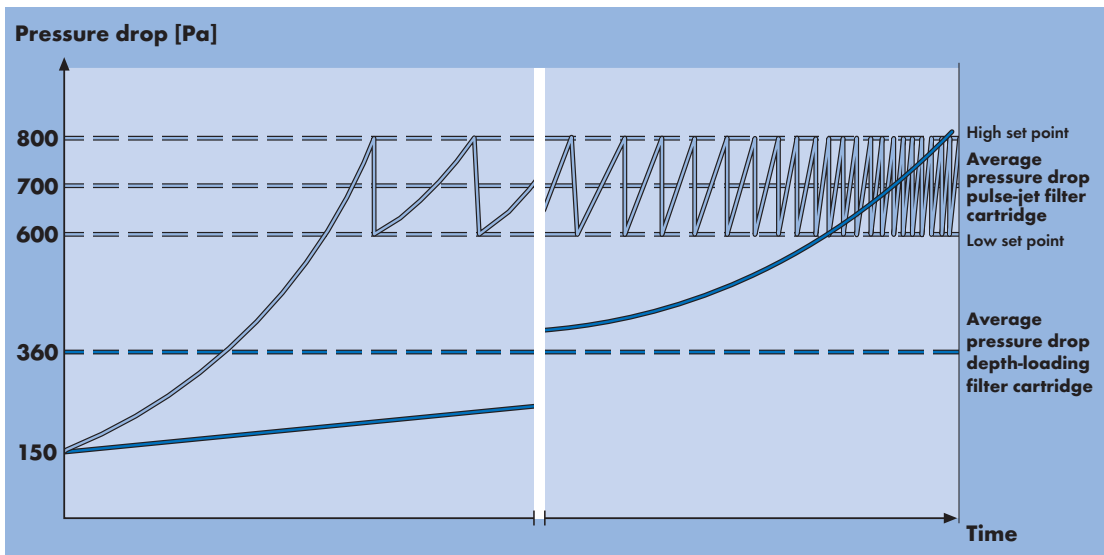
Fractional collection efficiency **



** Test conditions:
Test at nominal volume flow rate
Operational pressure drop: 300 Pa
Test aerosol: DEHS

Test with laser particle counter in test channel according to EN 779
Deposited dust: ASHRAE

Comparison of pressure drop: Pulse-jet filter cartridge – Viledon depth-loading filter cartridge



The figures given are mean values subject to tolerances due to the normal production variations. The accuracy of the data given when applied to individual cases requires our express written confirmation. Viledon® is a registered and protected trademark of Carl Freudenberg.

Further variants (e.g. metal version) and adapters (bayonet, tenkay etc.) are available on request.

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