

Compfil™ PC

Sterile Depth Filter for Process Air and Gases



Compfil™ PC is a pleated depth filter with inner and outer guard and end caps made of stainless steel. Consisting of a three-dimensional borosilicate depth media, the PC achieves a void volume of 95%, ensuring a high containment capacity at high flow rates and low differential pressure. A retention rate of $>99.99999995\%$ related to $0.2\mu\text{m}$ and $>99.99999995\%$ related to $0.02\mu\text{m}$ is achieved during operation. The retention for nano-sized particles ($0.003\mu\text{m}$) is larger than 99.999999991% as verified in a DIN EN 1822 adopted test.

All components meet the FDA requirements for indirect contact with food in accordance with the CFR requirements (code of federal regulations) title 21 and EC/1935/2004 for indirect food contact use.

Ordering Information

| Product Code: 1 2 3 4 | | | |
|-----------------------|--------------|--------------------|--|
| Compfil™ type | Element size | Media construction | Connection |
| PC | 0310 | P Pleated depth | U Plug Connections |
| | 0410 | | For any non-standard connections please enquire with our Sales Team. |
| | 0420 | | |
| | 0520 | | |
| | 0525 | | |
| | 0725 | | |
| | 0730 | | |
| | 1030 | | |
| | 0530 | | |
| | 2030 | | |
| | 3030 | | |
| | 3050 | | |

Typical Applications

- Aseptic packing
- Biotechnology
- Fermentation
- Chemicals
- Pharmaceutical
- Food and beverage (brewery, dairies)

Features and Benefits

- **Outer guard and endcaps made of stainless steel**
High mechanical and thermal stability, good durability against chemicals and numerous aggressive gases. Temperature range from -20°C (-4°F) up to 200°C (392°F).
- **Three-dimensional borosilicate depth filter media**
High waste containment capacity, low differential pressure, high flow rate.
- **Biologically and chemically inert**
No breeding ground for separated microorganism.
- **200 sterilisation cycles guaranteed**
High economical efficiency and low filtration costs.
- **100% integrity tested**
Guaranteed quality
- **Available in 13 sizes**
Optimum filter size for individual application.

Specifications

Materials of Manufacture

| | |
|------------------|--------------|
| Filter media | Borosilicate |
| Impregnation | PTFE |
| Outer core | SS 1.4301 |
| Inner core | SS 1.4301 |
| Inner layer | SS 1.4301 |
| End caps | SS 1.4301 |
| Bonding material | Silicone |

Bacterial retention

LRV > 9/cm² for viruses and phages.

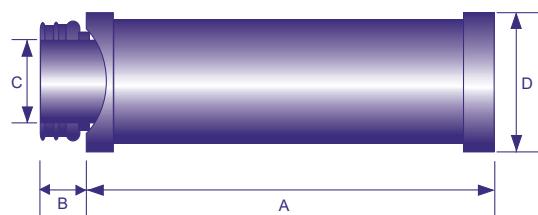
Temperature range

-20°C (-4°F) up to 200°C (392°F).

Filtration surface

8,400cm² per 10" element (10/30) (254mm).

Dimensions



Sterilisation

In-line sterilisation with slow speed saturated steam:

max. 121°C (250°F) for 30 minutes

max. 131°C (277°F) for 20 minutes

max. 141°C (286°F) for 10 minutes

Autoclave: 125°C (257°F) for 30 minutes

PC filter elements are guaranteed for 200 sterilisation cycles without loss of integrity.

Retention rate

99.9999995% related to 0.2µm

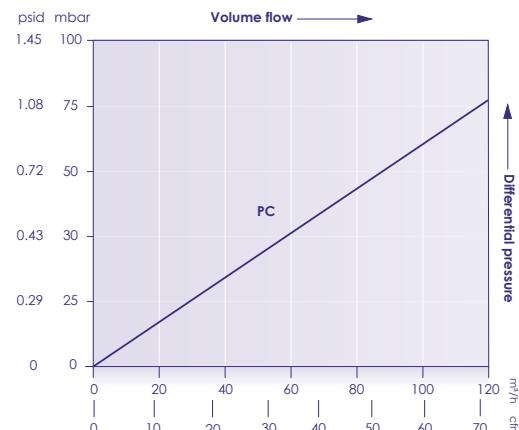
99.9999995% related to 0.02µm

99.99999991% related to 0.003µm

Max. differential pressure

5bar (73psi), independent of operating pressure of flow direction.

Flow rate of a 10" PC element at 8 bar abs



| Element size (inch) | A mm (in) | B mm (in) | C Ø mm (in) | DØ mm (in) | Correction factor |
|---------------------|-------------|--------------|--------------|--------------|-------------------|
| 03/10 | 76mm (3") | 12mm (0.47") | 19mm (0.75") | 42mm (1.6") | 0,12 |
| 04/10 | 104mm (4") | 12mm (0.47") | 19mm (0.75") | 42mm (1.6") | 0,17 |
| 04/20 | 104mm (4") | 14mm (0.55") | 25mm (1") | 52mm (2.0") | 0,19 |
| 05/20 | 104mm (4") | 14mm (0.55") | 25mm (1") | 52mm (2.0") | 0,19 |
| 05/25 | 128mm (5") | 14mm (0.55") | 25mm (1") | 62mm (2.5") | 0,32 |
| 05/30 | 128mm (5") | 16mm (0.62") | 51mm (2") | 86mm (3.4") | 0,46 |
| 07/25 | 180mm (7") | 14mm (0.55") | 25mm (1") | 62mm (2.5") | 0,47 |
| 07/30 | 180mm (7") | 16mm (0.62") | 51mm (2") | 86mm (3.4") | 0,68 |
| 10/30 | 254mm (10") | 16mm (0.62") | 51mm (2") | 86mm (3.4") | 1,00 |
| 15/30 | 381mm (15") | 16mm (0.62") | 51mm (2") | 86mm (3.4") | 1,55 |
| 20/30 | 508mm (20") | 16mm (0.62") | 51mm (2") | 86mm (3.4") | 2,10 |
| 30/30 | 762mm (30") | 16mm (0.62") | 51mm (2") | 86mm (3.4") | 3,28 |
| 30/50 | 762mm (30") | 16mm (0.62") | 51mm (2") | 140mm (5.5") | 5,89 |