

HAFFMANS CPM®-PVF PRE-FILTER

GENERAL PRODUCT INFORMATION

Haffmans CPM pre-filters feature an innovative design that offers significant advantages over traditional filter cartridges used in food, beverage, and other process applications. Each CPM filter is rigorously tested to ensure exceptional performance, delivering maximum reliability, extended service life, and cost-effective operation.

Effective pre-filtration is an essential part of your production process and serves as protection for the air and gas line instruments.

The CPM pre-filter, type PVF, is a validated pre-filter for up to 100 percent particle-free filtration of all types of compressed air, carbon dioxide (CO_2) and other gases. Equipped with the patented, flexible Ecofilter element, consisting of filter membranes in between segmented stainless steel disks, the PVF offers the highest filtration efficiency and security.

The PVF's filter membranes are made of woven stainless steel threads that assure absolute filtration. CPM pre-filter membranes can be supplied in a variety of pore sizes to meet your special requirements and allow for high flow capacities against very little pressure loss. The innovative filter design makes up to 100 percent reverse flow filtration possible.



CUSTOMER BENEFITS

- Robust design: Stainless steel segmented elements ensure long-lasting durability.
- Quick maintenance: Cost-effective filter membranes are easy to replace, minimizing downtime.
- Lower costs: Reduced inventory and waste cut both expenses and environmental impact.
- Sustainable: Only the membrane is replaced, reducing material waste.
- CIP-compatible: Clean-in-place design eliminates the need for disassembly.

APPLICATIONS

 Particle-free filtration of compressed air, CO₂, and other gases for a wide range of industrial applications.

HAFFMANS CPM®-PVF

PRE-FILTER

FEATURES

- Unique and flexible modular filter design.
- Robust stainless steel construction, including stainless steel membranes, results in no damage or aging of the filter element.
- Only the filter element is replaced as a wear part.
- Easy up- and downscaling of filter capacity.
- · High filter capacities possible.
- Filter elements can be retrofitted within conventional filter housings.
- CPM standard filter housings are equipped with condensate release connections for both the inlet and outlet that can also be used for filter element testing.
- Up to 100 percent reverse flow filtration and sterilization possible.
- Absolute pore size of woven stainless steel thread membranes provides absolute filtration.
- Filter membranes can be chemically and/or mechanically cleaned.



SUPERIOR MEMBRANE TECHNOLOGY

CPM pre-filters use an innovative membrane technology that allows for up to 100 percent particle-free filtration of all types of compressed air, $\rm CO_2$ and other gases. The filter membranes are available in various sizes. Standard pore size delivered is 32 μ m. Other pore sizes are dependent on availability.

MAXIMUM FLEXIBILITY

All CPM pre-filters with standard filter housings can be used for primary and secondary sampling, and to drain condensate. CPM pre-filters are optionally delivered with valves for condensate release connections.

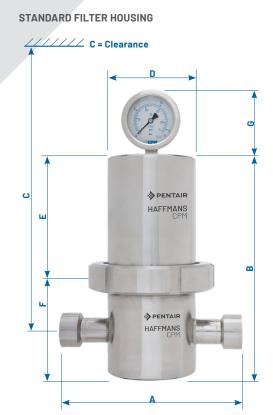




HAFFMANS CPM®-PVF PRE-FILTER

TECHNICAL DATA

| PRE-FILTER TYPE, DIMENSIONS IN MM | | | | | | | | | | | | |
|-----------------------------------|-----|-----|------|-----|-----|-----|----|--|--|--|--|--|
| Туре | А | В | С | D | Е | F | G | | | | | |
| 6002 | 160 | 235 | 310 | 70 | 143 | 100 | 85 | | | | | |
| 6004 | 160 | 235 | 330 | 70 | 143 | 100 | 85 | | | | | |
| 6006 | 160 | 235 | 350 | 70 | 143 | 100 | 85 | | | | | |
| 8202 | 210 | 248 | 320 | 104 | 143 | 115 | 85 | | | | | |
| 8204 | 210 | 248 | 340 | 104 | 143 | 115 | 85 | | | | | |
| 8206 | 210 | 248 | 360 | 104 | 143 | 115 | 85 | | | | | |
| 8208 | 210 | 293 | 430 | 104 | 188 | 115 | 85 | | | | | |
| 8210 | 210 | 293 | 450 | 104 | 188 | 115 | 85 | | | | | |
| 1008 | 330 | 397 | 500 | 154 | 237 | 170 | 85 | | | | | |
| 1010 | 330 | 397 | 520 | 154 | 237 | 170 | 85 | | | | | |
| 1012 | 330 | 397 | 540 | 154 | 237 | 170 | 85 | | | | | |
| 1014 | 330 | 397 | 560 | 154 | 237 | 170 | 85 | | | | | |
| 1408 | 330 | 392 | 500 | 154 | 234 | 170 | 85 | | | | | |
| 1410 | 330 | 392 | 520 | 154 | 234 | 170 | 85 | | | | | |
| 1412 | 330 | 392 | 540 | 154 | 234 | 170 | 85 | | | | | |
| 1414 | 330 | 455 | 610 | 154 | 234 | 185 | 85 | | | | | |
| 1416 | 330 | 455 | 630 | 154 | 234 | 185 | 85 | | | | | |
| 1418 | 330 | 508 | 710 | 154 | 335 | 185 | 85 | | | | | |
| 1420 | 330 | 508 | 730 | 154 | 335 | 185 | 85 | | | | | |
| 1426 | 330 | 657 | 940 | 154 | 484 | 185 | 85 | | | | | |
| 1432 | 330 | 657 | 1000 | 154 | 484 | 185 | 85 | | | | | |



CPM standard filter housings are designed for upstream and downstream sampling as well as in-line testing of the filter element with a suitable filter tester.

Filter housing material: Stainless steel AISI 304

Segmented filter

element material: Stainless steel AISI 304
Filter membrane material: Stainless steel AISI 304

Standard pore size: 32 µm

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TECHNICAL DATA

| Filter | | azität /Gas | | ehäuse, ndung | Gewicht | | Einzelne Filterelemente | | satz- branen | Filtergehäuse, max. Druck | |
|----------|--------|----------------|--------|------------------|---------|-----|----------------------------|----------|-----------------|------------------------------|------|
| Туре | 7 barg | 100 psig | BSP | DIN-11851 | | | Туре | Quantity | Туре | | |
| | Nm³/h | scf/m | G | DN | kg | lbs | | | | barg | psig |
| PVF-6002 | 40 | 24 | 1/2" | 15 | 3.8 | 8 | SF-60/02 | 2 | EM-60/32S | 20 | 290 |
| PVF-6004 | 80 | 48 | 1/2" | 15 | 4.0 | 9 | SF-60/04 | 4 | EM-60/32S | 20 | 290 |
| PVF-6006 | 120 | 72 | 1/2" | 15 | 4.2 | 9 | SF-60/06 | 6 | EM-60/32S | 20 | 290 |
| PVF-8202 | 120 | 72 | 1" | 25 | 6.4 | 14 | SF-82/02 | 2 | EM-82/32S | 20 | 290 |
| PVF-8204 | 240 | 144 | 1" | 25 | 6.6 | 15 | SF-82/04 | 4 | EM-82/32S | 20 | 290 |
| PVF-8206 | 360 | 216 | 1 1/2" | 40 | 6.8 | 15 | SF-82/06 | 6 | EM-82/32S | 20 | 290 |
| PVF-8208 | 480 | 288 | 1 1/2" | 40 | 7.2 | 16 | SF-82/08 | 8 | EM-82/32S | 20 | 290 |
| PVF-8210 | 600 | 360 | 1 1/2" | 40 | 7.4 | 16 | SF-82/10 | 10 | EM-82/32S | 20 | 290 |
| PVF-1008 | 680 | 408 | 2" | 50 | 14.4 | 32 | SF-100/08 | 8 | EM-100/32S | 16 | 232 |
| PVF-1010 | 850 | 510 | 2" | 50 | 13.8 | 30 | SF-100/10 | 10 | EM-100/32S | 16 | 232 |
| PVF-1012 | 1020 | 612 | 2" | 50 | 14.2 | 31 | SF-100/12 | 12 | EM-100/32S | 16 | 232 |
| PVF-1014 | 1190 | 714 | 2" | 50 | 14.6 | 32 | SF-100/14 | 14 | EM-100/32S | 16 | 232 |
| PVF-1408 | 1360 | 816 | 2" | 50 | 20.0 | 44 | SF-140/08 | 8 | EM-140/32S | 16 | 232 |
| PVF-1410 | 1700 | 1020 | 2" | 50 | 20.5 | 45 | SF-140/10 | 10 | EM-140/32S | 16 | 232 |
| PVF-1412 | 2040 | 1224 | 2" | 50 | 21.5 | 47 | SF-140/12 | 12 | EM-140/32S | 16 | 232 |
| PVF-1414 | 2380 | 1428 | 2 1/2" | 65 | 22.5 | 50 | SF-140/14 | 14 | EM-140/32S | 16 | 232 |
| PVF-1416 | 2720 | 1632 | 2 1/2" | 65 | 24.5 | 54 | SF-140/16 | 16 | EM-140/32S | 16 | 232 |
| PVF-1418 | 3060 | 1836 | 2 1/2" | 65 | 25.5 | 56 | SF-140/18 | 18 | EM-140/32S | 16 | 232 |
| PVF-1420 | 3400 | 2040 | 3" | 80 | 26.5 | 58 | SF-140/20 | 20 | EM-140/32S | 16 | 232 |
| PVF-1426 | 4420 | 2652 | 3" | 80 | 28.0 | 62 | SF-140/26 | 26 | EM-140/32S | 16 | 232 |
| PVF-1432 | 5440 | 3264 | 3" | 80 | 29.5 | 65 | SF-140/32 | 32 | EM-140/32S | 16 | 232 |

| Arbeitsdruck | barg | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-------------------|------|------|------|------|------|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| | psig | 14.5 | 29 | 43.5 | 58 | 72.5 | 87 | 101.5 | 116 | 130.5 | 145 | 159.5 | 174 | 188.5 | 203 | 217.5 | 232 |
| Umrechnungsfaktor | | 0.25 | 0.38 | 0.50 | 0.63 | 0.75 | 0.9 | 1.0 | 1.1 | 1.3 | 1.4 | 1.5 | 1.6 | 1.8 | 1.9 | 2.0 | 2.1 |

| Pore sizes in µm | 3 | 10 | 25 | 32 | 50 | 75/100 | |
|-------------------|-----|-----|-----|-----|-----|--------|--|
| Conversion factor | 0.5 | 0.6 | 0.8 | 1.0 | 1.5 | 2 | |



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