



# HAFFMANS CPM<sup>®</sup> STEAM FILTERS



## INTRODUCTION

CPM steam filters feature a revolutionary design that provides advantages over conventional filter cartridges for food, beverage, and other process applications.

## GENERAL PRODUCT INFORMATION

Effective particle filtration of steam, to prevent contamination, spoilage and product loss, is an essential part of your production process. In addition, it serves as protection for the steam line instruments and valves.

The CPM steam filter, type PDF, is a validated steam filter for 100 percent particle-free steam filtration. Equipped with the patented, flexible Ecofilter® element, consisting of filter membranes in between segmented stainless steel disks, the PDF offers the highest filtration efficiency and security.

The PDF's filter membranes are made of woven stainless steel threads that assure absolute filtration. CPM steam 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 100 percent reverse flow filtration possible.

With the PDF MINI there is also a solution available that offers all the advantages of the CPM steam filters at a lower cost.

## APPLICATIONS

Particle-free steam filtration in all industries

# ADVANCED MODULAR DESIGN

CPM steam filters have the most advanced design of filters for steam filtration on the market today. All CPM filters have been thoroughly tested and proven effective with the greatest reliability and longest life at an economical cost.

## FEATURES

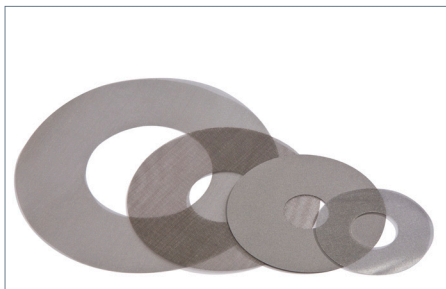
- Unique and flexible modular filter design
- Robust stainless steel construction, including stainless steel membranes, results in no damage or aging of the filter element
- Only the filter membrane is replaced as a wear part
- Easy up- and downscaling of filter capacity
- High filter capacities possible
- 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
- 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

## BENEFITS

- Up to 50 percent of Total Cost of Ownership savings due to:
  - Robust stainless steel segmented filter elements
  - Use of easy-to-exchange cost-effective filter membranes
  - Reduced inventory and disposal costs
- High filtration security
  - Easy control of proper filter performance, easy detection of filter damages
- Sustainable Solution, less waste due to replacement of just the filter membrane, filter membrane is 100% recyclable



## SUPERIOR MEMBRANE TECHNOLOGY



CPM steam filters use an innovative membrane technology that allows for 100 percent particle-free steam filtration. The filter membranes are available in various sizes. Standard pore size delivered is 32 µm. Other pore sizes available are 3, 10, 25, 50, 75 and 100 µm.

## OPTIMAL PRODUCTION CONTROL



The CPM Ecofilter's all stainless steel construction guarantees high temperature resistance. CPM steam filters come standard with a glycerine-filled pressure gauge (except MINI series).

## MAXIMUM FLEXIBILITY



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

TECHNICAL DATA

Filter		Capacity steam 121°C		Filter housing, connection		Weight		Segmented filter element	Replacement membranes		Filter housing, max. pressure	
Type				BSP	DIN-11851			Type	Quantity	Type		
	kg/h	pds/m	G	DN	kg	lbs					barg	psig
PDF-602 MINI	25	1	½"	15	2.2	5		SF-60/02	2	EM-60/32S	10	145
PDF-604 MINI	50	2	½"	15	2.5	6		SF-60/04	4	EM-60/32S	10	145
PDF-606 MINI	75	3	½"	15	2.8	6		SF-60/06	6	EM-60/32S	10	145
PDF-6002	25	1	½"	15	3.8	8		SF-60/02	2	EM-60/32S	16	232
PDF-6004	50	2	½"	15	4.0	9		SF-60/04	4	EM-60/32S	16	232
PDF-6006	75	3	½"	15	4.2	9		SF-60/06	6	EM-60/32S	16	232
PDF-8202	90	4	1"	25	6.4	14		SF-82/02	2	EM-82/32S	16	232
PDF-8204	180	8	1"	25	6.6	15		SF-82/04	4	EM-82/32S	16	232
PDF-8206	270	11	1 ½"	40	6.8	15		SF-82/06	6	EM-82/32S	16	232
PDF-8208	360	13	1 ½"	40	7.2	16		SF-82/08	8	EM-82/32S	16	232
PDF-8210	450	16	1 ½"	40	7.4	16		SF-82/10	10	EM-82/32S	16	232
PDF-1008	500	20	2"	50	14.4	32		SF-100/08	8	EM-100/32S	16	232
PDF-1010	625	23	2"	50	13.8	30		SF-100/10	10	EM-100/32S	16	232
PDF-1012	750	30	2"	50	14.2	31		SF-100/12	12	EM-100/32S	16	232
PDF-1014	875	33	2"	50	14.6	32		SF-100/14	14	EM-100/32S	16	232
PDF-1408	1000	40	2"	50	20.0	44		SF-140/08	8	EM-140/32S	16	232
PDF-1410	1250	50	2"	50	20.5	45		SF-140/10	10	EM-140/32S	16	232
PDF-1412	1500	60	2"	50	21.5	47		SF-140/12	12	EM-140/32S	16	232
PDF-1414	1750	70	2 ½"	65	22.5	50		SF-140/14	14	EM-140/32S	16	232
PDF-1416	2000	80	2 ½"	65	24.5	54		SF-140/16	16	EM-140/32S	16	232
PDF-1418	2250	90	2 ½"	65	25.5	56		SF-140/18	18	EM-140/32S	16	232
PDF-1420	2500	100	3"	80	26.5	58		SF-140/20	20	EM-140/32S	16	232
PDF-1426	3250	130	3"	80	28.0	62		SF-140/26	26	EM-140/32S	10	145
PDF-1432	4000	160	3"	80	29.5	65		SF-140/32	32	EM-140/32S	10	145

Steam temperature	°C	121	140	160	180
Conversion factor		1.0	1.5	2	3

Pore sizes in µm	3	10	25	32	50
Conversion factor	0.5	0.6	0.8	1.0	1.5

Filter housing material

Stainless steel AISI 304

Segmented filter element material

Stainless steel AISI 304

Filter membrane material

Stainless steel

Guaranteed retention rate

100% for specific pore size

Standard pore size

32 µm

Available pore sizes

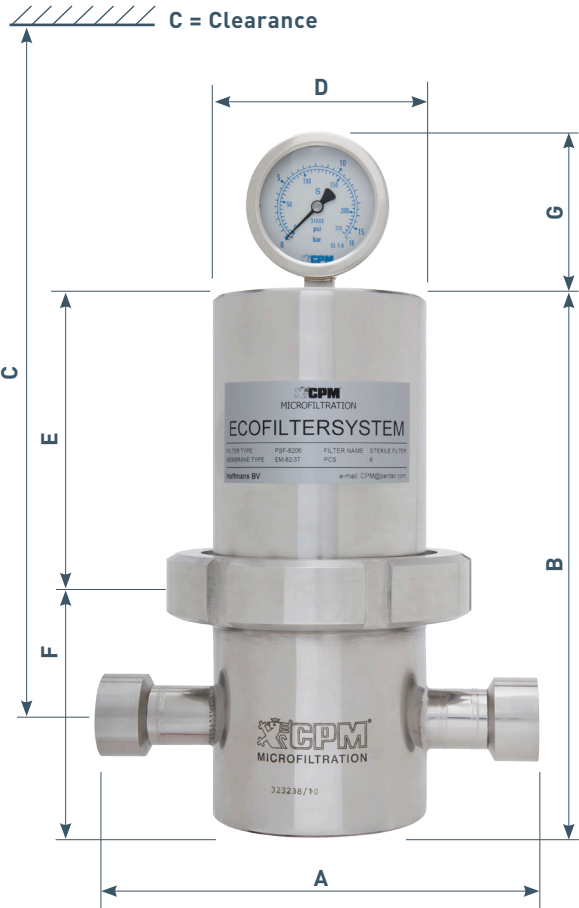
3, 10, 25, 32, 50, 75, 100 µm

# STANDARD FILTER HOUSINGS

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, dimensions in mm							
Type	A	B	C	D	E	F	G
602 MINI	160	x	320	70	175	45	x
604 MINI	160	x	340	70	175	45	x
606 MINI	160	x	360	70	175	45	x
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

STANDARD FILTER HOUSING



MINI FILTER HOUSING







**HAFFMANS BV**

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