

P

# Cylindrical Sintered Metal Powder Filter Elements



P is a robust material manufactured from sinterbonded metal powders. Primarily produced in 316L grade for use in temperatures up to 420°C (788°F), depending on process conditions, and offering resistance to most chemicals, P media can also be produced in other grades of stainless steel and alloys such as Inconel®, Hastelloy® and Monel®.

P powder media can be manufactured in both disc format or in cylinder format.

Our isostatic pressing ensures greater media uniformity with no welds, leading to increased corrosion resistance. Available in wall thickness of 1.6mm (0.07") and 3mm (0.12").

# **Features and Benefits**

- Extremely robust construction
- Smooth surface finish preferable for backwash applications
- Self supporting construction eliminating the need for additional hardware
- Broad range of fixed, uniform pore sizes
- Ability to withstand varying process conditions

# **Typical Applications**

- · Catalyst recovery and retention
- Polymer melt
- Chemical production
- Steam filtration (culinary and process)
- Liquids and liquid backwash

# **Ordering Information**

**Product Code:** CF- 1 - 2 3 - 4 - 5 - 6 7 8

## 1. Media Type

P (powder)

## 2. End Fitting

226	226 fitting
222	222 fitting
DOE	Double open ended fitting
NP1	1" NPT
NP5	1.5" NPT
NP2	2" NPT
BS1	1" BSP taper
BS4	1.25" BSP taper
BS5	1.5" BSP taper
BS2	2" BSP taper

## 3. Cartridge Type

C Cylindrical

# 4. Micron Rating

0006	6µт
0010	10μm
0015	15µm
0025	25µm
0030	30μm
0040	40μm
0060	60um

## 5. Cartridge Length

05	5" (125mm)
10	10" (250mm)
20	20" (498mm)
30	30" (745mm)
40	40" (1012mm)

Note:

Other non-standard lengths, ratings and end pin options are available on request.

### 6. Seal Material

	E	EPDM
	N	Nitrile
	S	Silicone
	Р	PTFE (DOE only)
	٧	Viton
	F	FEP encap. Viton (222/226 only)
	Т	FEP encap. Silicone (222/226 only)
	Υ	FEP encap. EPDM (222/226 only)
	С	Chemraz
	Х	No seal supplied

## 7. Guard/Support Option

N None

## 8. Fin Option

F	Fin (226/222 only)
N	No fin

# **Specifications**

### **Materials of Manufacture**

316L stainless steel standard. 304L stainless steel, Inconel®, Hastelloy®, Monel® on request or by process selection. Additional alloys are available on request.

#### **Element Dimensions\***

Diameter:	66mm (2.6") standard	d
Length:	05:	125mm (5")
	10:	250mm (10")
	20:	498mm (20")
	30:	745mm (30")
	40:	1012mm (40")

<sup>\*</sup> Other diameters and lengths available on request.

### **Effective Filtration Area**

0.05m2 (0.55ft2) per 250mm (10") element

## **Gaskets and O-Rings\***

EPDM as standard. Chemraz®, nitrile, PTFE, silicone, Viton®, FEP coated EPDM, FEP coated silicone, FEP coated Viton® available on request or by process selection.

## Typical Maximum Differential Pressure (all lengths)

Normal flow direction (out to in): 25bar (363psi)
Reverse flow direction: 10bar (145psi)

## **Operating Temperature**

Maximum continuous:

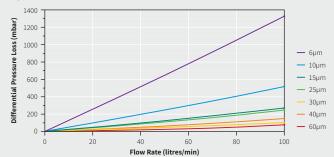
From -195°C (-319°F) to 340°C (644°F) seal

imiting

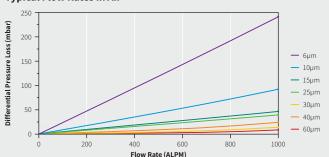
From -269°C (-452°F) to 925°C (1,697°F)

alloy limiting

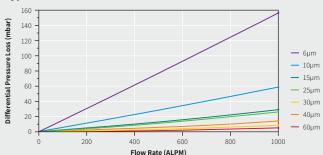
### Typical Flow Rates in Water\*



#### Typical Flow Rates in Air\*



### Typical Flow Rates in Steam\*



<sup>\*</sup> Using a 10" element. Water and air at ambient temperature and 1 bar (A). Steam is dry saturated

#### P Stainless Steel Media Grades

Stainless Steel Grades	Micron Rating (μm) (micron code)	Liquids (μm)* (99.9% efficiency)	Gases (µm) (99.99% efficiency)
S10	6 (0006)	6	0.7
S20	10 (0010)	10	0.8
S30	15 (0015)	15	4
S36	25 (0025)	25	5
S40	30 (0030)	30	6
S41	40 (0040)	40	8
S60	60 (0060)	60	15

 $<sup>^{\</sup>star}$  Single Pass Efficiency Test in accordance with ASTM795 ACFTD.

<sup>\*</sup> FDA approved and USP Class VI.