

# HYDRO-GUARD® PPB-R Series Backflushable Filter Cartridges

## The most extensively used backflushable pleated filter in power plant condensate.

- Backflushable pleated filter designed specifically for use in power plants
- The Hydro-Guard PPB-R is used in condensate applications with resin precoat
- Constructed with the highest purity materials (no fillers, talcs, TiO<sub>2</sub> or surfactants) for minimal rinse-up time
- Surface area exceeds that of conventional condensate filters by a 20:1 ratio for lower pressure drops, increased filter life and longer backflush cycles
- Eliminates costs associated with use and disposal of powdered resins
- Iron oxide and suspended copper are typically reduced by 98%
- Constructed to retain the resin precoat on the surface for efficient backflushing and particle removal.

#### **Performance Specifications**

**Maximum Operating Temperature:** 180 °F (82.2 °C)

### Maximum Differential Pressure:

40 psid (2.8 bar) @ 150 °F (65 °C)



HYDRO-Guard PPB-R Series Cartridges.

Product Feature	Product Benefit	Customer Benefit
Backflushable filter element	Longer on stream life Reduced number of filter changeouts	Lower disposal costs Reduced personnel exposure to radiation during filter changeouts
High surface area	Longer run times Higher dirt holding capacity	Lower operating costs Fewer backflushes for reduced disposal costs
All Polypropylene	Virtually no extractables Incinerable Radiation Resistant No rinse-up required	Concerns eliminated with regard to chemistry changes Reduced startup costs (i.e. downtime rinse-up water, etc.)
Modular design	High structural integrity	Easy retrofit into existing pressure vessels
Absolute rated filter media	Highly efficient particle removal	Less damage from iron and copper in boiler and turbine Quicker plant startups Fewer boiler cleanings

#### **Product Specifications**

#### Materials of Construction

Filter Media: Polypropylene Support Material: Polypropylene Polypropylene Hardware: Thermal Bond Sealing: Gasket/O-ring Materials: EPDM (standard),

Others available

#### Pressure Drop/Flow Data

Model	Delta Pressure $\Delta P = (k)$ (Flow Rate)	
HGPPBR4	$\Delta P = (0.05)$ Flow Rate	
HGPPBR10	$\Delta P = (0.03)$ Flow Rate	

This information is with water at ambient temperatures. Differential pressures are in PSID based on flow in GPM through a 10" (25.4 cm) element.



HGPPB-R also offered in tubesheet and cage designs.

#### Part Numbers/Ordering Information

HGPPB-R - ■ - ● - P - ◆ - ▼ (e.g. HGPPB-R-4-40-P-E-DOE) Code

Code	Filter Grades*	
4	4 μm	
10	10 µm	

<sup>\*</sup> Based on typical application usage.

•	Lengths (nominal)	
10	10" (25.4 cm)	
20	20" (50.8 cm)	
30	30" (76.2 cm)	
40	40" (102 cm)	
50	50" (127 cm)	
60	60" (152.4 cm)	
70	70" (178 cm)	
80	80" (203.2 cm)	
Code Gasket/O-ring Materials		
S	Silicone	
N	Buna N	
V	Viton <sup>1</sup> A	
E	EPDM	

Cartridge

Code	End Configurations
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DOE	DOE with elastomer gasket seal and endcaps
M3	SOE flat closed end, external 222 O-rings (retrofits other manufacturers' Code 0)**
M6	SOE flat closed end, external 226 O-rings (retrofits other manufacturers' Code 6)**
M7	SOE fin end, external 226 O-rings (retrofits other manufacturers' Code 7)**
M8	SOE fin end, external 222 O-rings (retrofits other manufacturers' Code 5)**
COOP	Fine thread direct screw in
TVO	Extended neck for better sealing
PAK	Easy installation and removal; double seals for high integrity
PEA	Retrofit for 2" (5.1 cm) seat cups
AERO	Connects directly to tube sheet without additional hardware



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<sup>\*\*</sup> For details, contact Pall Corporation.

<sup>1 -</sup> Registered trademark of DuPont Dow