

## Hydro-Guard® CoLD R Series Filter Cartridges

### Continuous Length, Backflushable, Precoat, Condensate Filter

Hydro-Guard CoLD R filter elements are manufactured using the CoLD Melt™ fiber production process. The CoLD Melt process permits the creation of multiple filtration zones within a single filter cartridge. The reverse graded pore density, multi-zone design provides customers with even precoating, efficient backflushing, and long filter life. Many power plants around the world have switched from string wound technology to Hydro-Guard CoLD R products for improved condensate polishing.



| Product Feature                       | Product Benefit   | Customer Benefit  |
|---------------------------------------|---|---|
| Continuous Length Element             | <ul style="list-style-type: none"> <li>• Uniform resin precoat</li> </ul>   | <ul style="list-style-type: none"> <li>• Improved deionization performance</li> <li>• Optimized resin capacity utilization</li> </ul>   |
| Co-Located Large Diameter Melt Fibers | <ul style="list-style-type: none"> <li>• Resists collapse or compression under increasing differential pressure</li> <li>• Rigid pore structure results in more consistent, reliable and reproducible filtration compared to string wound configurations</li> </ul> | <ul style="list-style-type: none"> <li>• Reduced possibility of resin bleedthrough</li> <li>• Stable filtration performance over the life of the element</li> </ul>   |
| Reverse Graded Pore Density Structure | <ul style="list-style-type: none"> <li>• Enhanced surface filtration</li> <li>• High-efficiency backflushing</li> </ul>   | <ul style="list-style-type: none"> <li>• Longer element service life reduces number of filter change-outs and filter disposal costs</li> <li>• Minimizes worker exposure in radioactive applications</li> </ul> |
| All Polypropylene Construction        | <ul style="list-style-type: none"> <li>• Reduced extractables - free of adhesives, binders and surfactants</li> <li>• No rinse-up required</li> <li>• Incinerable</li> </ul>  | <ul style="list-style-type: none"> <li>• No filtration related chemistry excursions</li> <li>• Reduced start-up costs</li> <li>• Reduced filter disposal costs</li> </ul>                                       |

## Performance Specifications

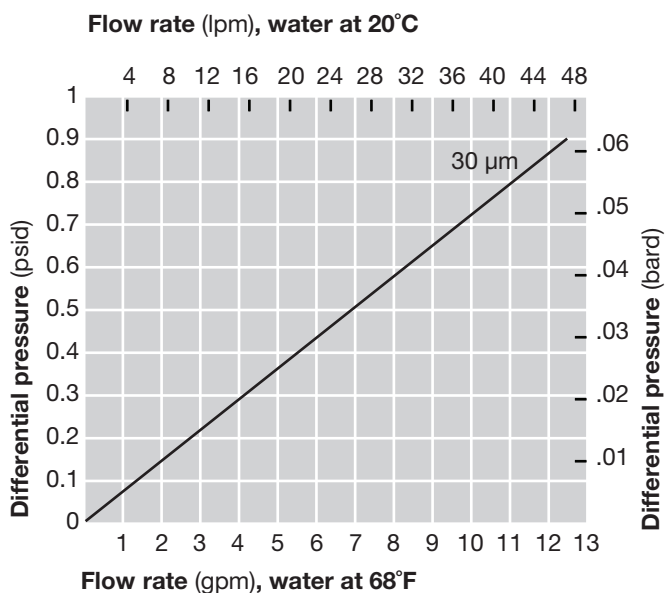
### Maximum operating temperature

65°C (150°F)

### Maximum differential pressure

2.07 bar (30 psid) @ 65°C (150°F)

## Typical Flow vs. Differential Pressure for Application Sizing<sup>1</sup>



Unit conversion: 1 bar = 14.5 psi

<sup>1</sup> Flow rate is for a 152 cm/60 inch 30 µm cartridge. For liquids other than water, multiply differential pressure by fluid viscosity (cP).



## Product Specifications

### Materials of construction

|                         |                             |
|-------------------------|-----------------------------|
| Filter media:           | Polypropylene               |
| End caps:               | Polypropylene               |
| Sealing:                | Thermal bond                |
| Gasket/O-ring material: | Sulfur-free EPDM (standard) |

## Ordering Information

Pall Part Number = HGCOLDR 1 - 2 - P - 3 - 4 - 5

Table 1

| Code | Filter grades (µm) |
|------|--------------------|
| 5    | 5                  |
| 30   | 30                 |

Table 2

| Code | Cartridge lengths cm/in |
|------|-------------------------|
| 50   | 127/50                  |
| 60   | 152/60                  |
| 70   | 178/70                  |
| 80   | 203/80                  |

Table 3

| Code | Seal material    |
|------|------------------|
| E    | Sulfur-free EPDM |

**Table 4**

| Code  | End configurations - bottom   |
|-------|---|
| COOP  | Fine threaded connection for bottom tube sheet vessels  |
| M8TVO | Extended neck, double O-ring seal for top tube sheet vessels                                      |
| PAK-F | One turn, easy install/remove connection with double seal integrity for bottom tube sheet vessels |
| PBQ   | Double-open-end filter for bottom tube sheet vessels  |

**End configurations - bottom**



COOP



M8TVO



PAK - F

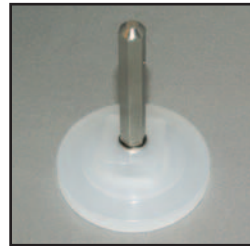


PBQ

**Table 5**

| Code | End configurations - top   |
|------|--|
| H    | ½ HEX - 2.5 inch elongated hex nut and cotter pin for connection with vessel lattice strips            |
| S    | ½ STUD - 1.5 inch threaded stud and either nut or cotter pin for connection with vessel lattice strips |
| FIN  | SPEAR - Bottom retaining devise for top tube sheet filters   |
| DOE  | Double-open-end filter for top tube sheet vessels  |

**End configurations - top**



½ HEX (H)



½ STUD (S)



FIN



DOE



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