



EMAIL: FILTRATION@JOHNBROOKS.CA



# HDA Series Filter Cartridges

## Absolute Rated Melt Blown Filters

HDA Series melt blown depth filters deliver 99.9% efficiency at the stated micron for the most demanding applications. By utilizing ultra fine fibers and controlled thermal bonding, the HDA Series retains captured contaminant even at higher differential pressures.

### Product Specifications

**Media:** Polypropylene

**End caps/Center Core:** Polypropylene

**Gaskets/O-Rings:**

Buna-N, EPDM, Santoprene, Silicone, Teflon Encapsulated Viton (O-Rings only), Viton

**Micron rating:**

0.3, 0.5, 1, 3, 5, 10, 20, 30, 50, 70  $\mu$ m

### Dimensions

**Nominal lengths:**

5", 9.75", 10", 19.5", 20", 29.25", 30", 39", 40"  
(12.7, 24.8, 25.4, 49.5, 50.8, 74.3, 76.2, 99.1, 101.6 cm)

**Outside diameter:** 2.5" (6.35 cm)

**Inside diameter:** 1.0" (2.54 cm)

### Operating Parameters

**Maximum differential pressure:**

150 psid @ 68°F (10.3 bar @ 20°C)

90 psid @ 150°F (6.2 bar @ 66°C)

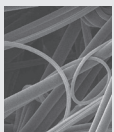
35 psid @ 176°F (2.4 bar @ 80°C)

**Recommended change-out pressure:**

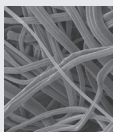
35 psid (2.4 bar)

**Steam Sterilization:**

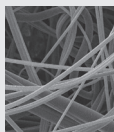
Stratum single open end style filters may be autoclaved under no end load conditions for 30 minutes at 121°C. Filters should be cooled to normal operating temperatures prior to use.



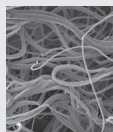
Outer pre-filter zone



Inner pre-filter zone



Final pre-filter zone



Final filtration zone

### FEATURES & BENEFITS

- Absolute retention ratings from 0.3 to 70 microns
- Multi-zone melt blown depth filter with a graded pore structure for maximum dirt holding capacity
- Thermally bonded fibers for high void volume and long on-stream life
- Lot traceable filters come with certificate of conformance
- 100% pure virgin polypropylene
- Molded center core for higher temperature and pressure capability
- Free of surfactants, binders and adhesives

### CERTIFICATIONS

- USP Class VI: Meets USP Class VI Biological Test for Plastics
- FDA Listed Materials: All materials comply with FDA Title 21 of the Code of Federal Regulations Sections 174.5, and 177.1520, as applicable for food and beverage contact.
- NSF 61: Certified to NSF/ANSI STD 61 for materials requirements only — Component
- European Directive for Direct Food Contact: European Regulation No. 1935/2004 and European Regulation 10/2011: Tested for migration behavior and is suitable for contact with all kinds of foodstuffs with minimal rinse-up. Data available upon request.

### TYPICAL APPLICATIONS

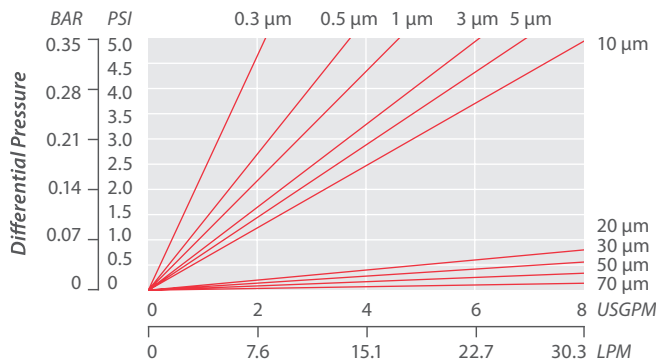
- Chemicals
- Food and beverages
- Plating
- Pharmaceuticals
- Water
- Cosmetics
- Paint/Inks
- Microelectronics
- CMP Slurry

## HDA NOMENCLATURE INFORMATION

| Product Series               | Retention Rating (microns) |    | Nominal Length (inches) |        | End Configuration  | Gasket or O-Ring                                |
|------------------------------|----------------------------|----|-------------------------|--------|--|---|
| HDA Series                   | 0.3                        | 10 | -5                      | -29.25 | P Double Open End (Hard Endcaps)   | B Buna-N  |
|                              | 0.5                        | 20 | -9.75                   | -30    | P2 226/Flat Single Open End  | E EPDM  |
|                              | 1                          | 30 | -10                     | -39    | P3 222/Flat Single Open End  | N None  |
|                              | 3                          | 50 | -19.5                   | -40    | P6 Self-Seal Spring on One End   | S Silicone                                      |
|                              | 5                          | 70 | -20                     |        | P7 226/Fin Single Open End<br>P8 222/Fin Single Open End<br>PX Extended Core<br>N None (Cut Ends)<br>DBG Direct Bond Santoprene Gaskets<br>AM Single Open End, Internal O-Ring | T Teflon encap. Viton (O-Rings only)<br>V Viton |
| <b>Example: HDA 0.5-30NN</b> |                            |    |                         |        |  |   |
| HDA                          | 0.5                        |    | -30                     |        | N  | N   |

### HDA FLOW RATE

**Typical Flow Rate Clean Water at Ambient Temperature (per 10" cartridge)**



*For liquids other than water, multiply pressure drop by the fluid viscosity in centipoise*

The micron ratings shown at various efficiency and beta ratio value levels were determined through laboratory testing, and can be used as a guide for selecting cartridges and estimating their performance. Under actual field conditions, results may vary somewhat from the values shown due to the variability of filtration parameters.

Testing was conducted using the single-pass test method, water at 3 gpm/10" cartridge. Contaminants included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.



Certified to  
NSF/ANSI Standard 61 for  
materials requirements only.  
**COMPONENT**

### REMOVAL EFFICIENCY

| Beta Ratio Efficiency | Beta 1000 99.9% | Beta 100 99% | Beta 10 90% |
|-----------------------|-----------------|--------------|-------------|
| 0.3 µm                | 0.5             | 0.4          | 0.3         |
| 0.5 µm                | 0.6             | 0.5          | 0.4         |
| 1 µm                  | 1.0             | 0.8          | 0.5         |
| 3 µm                  | 3.0             | 2.3          | 1.4         |
| 5 µm                  | 5.0             | 4.0          | 2.7         |
| 10 µm                 | 10.0            | 7.0          | 4.0         |
| 20 µm                 | 20.0            | 15.0         | 12.0        |
| 30 µm                 | 30.0            | 20.0         | 14.0        |
| 50 µm                 | 50.0            | 34.0         | 25.0        |
| 70 µm                 | 70.0            | 50.0         | 39.0        |

$$\text{Beta Ratio} = \frac{\text{Upstream particle counts}}{\text{Downstream particle counts}}$$



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