

HARMSCO®

Poly-Pleat™ Series Filter Cartridges

Absolute Rated

Designed for Filter Housings That Utilize 2-1/2", 2-3/4", 4-1/2" and 7-3/4" O.D. High Flow Cartridges.

CERTIFIED: NSF/ANSI STANDARD 61

Drinking Water System Components - Health Effects

- **Substantially removes:**
 - Cryptosporidium
 - Giardia cysts
 - Harmful organisms
 - Sediment
 - Silt
 - Turbidity



Certified to
ANSI-NSF 61



Harmsco® Poly-Pleat™ Series Filter Cartridges

Features

- ▶ Absolute rated one micron filter media removes cyst-sized particles for safe, cyst-free drinking water
- ▶ Pleated polypropylene filter media provides more surface area for longer filter life and increased particle removal
- ▶ FDA listed materials for use in potable water and liquid food applications
- ▶ End caps, center tubes and media are thermally bonded as one integral component for added strength and to provide superior end sealing
- ▶ Full product line for standard, Big-Blue* and Hurricane® filter housings

*Big-Blue is a registered trademark of Plymouth Products, Inc.

Applications

- ▶ Reverse Osmosis Pre-filtration
- ▶ Municipal Drinking Water Filtration
- ▶ Commercial/Residential Drinking Water Filtration
- ▶ Desalination Pre-filtration
- ▶ Industrial Water Filtration
- ▶ Chill Water Loop Filtration
- ▶ Food & Beverage Filtration
- ▶ Marine/Aquatic Filtration



HARMSCO® Filtration Products



Made in USA

Specifications

- ▶ **Micron rating** - One micron absolute for cryptosporidium and giardia cysts
- ▶ **Filter media** - Meltblown polypropylene inner layer with outer layers of polypropylene scrim material for support
- ▶ **Shrink Wrap** - Standard for all Poly-Pleat™ cartridges
- ▶ **Temperature** - 140°F (60°C) max*
- ▶ **Center tubes** - Rigid PVC with perforations or molded polypropylene
- ▶ **Netting** - Polypropylene netting standard for 2-3/4" O.D.; 10" and 20" cartridges use polyethylene netting
- ▶ **Flow Rates** - Up to .5 gpm ft² media
- ▶ **End Caps** - Pliable PVC, sealing surface built in

* Temperature limits vary and depend on pressure and time under load.

Independent Lab Validated

To verify the performance of Poly-Pleat™ cartridges and Harmsco® filter housings, Pace Analytical*, a highly respected independent testing facility, was selected to conduct challenge tests to the NSF 53-2007 protocol for cysts reduction. The NSF 53-2007 protocol consists of two side-by-side systems operating on a 10-minute on/10-minute off cycle. Polystyrene 3-micron beads were injected after the 8th cycle and at 25%, 50% and 75% reduction in flow rate. Results are listed on right:

* Pace Analytical is State Certified (CA, IA, MA, WI). Results are accepted by Water Quality Association (WQA), Underwriters Laboratory (UL) and Canadian Standards Association (CSA) for product label or seal programs.

Results of Challenge Tests

Sample Point	Particle Size (microns)	Percent Reduction
8th Cycle	3	99.92
25% Reduction	3	99.95
50% Reduction	3	99.96
75% Reduction	3	99.95



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Cartridge Selection/Sizing Guide

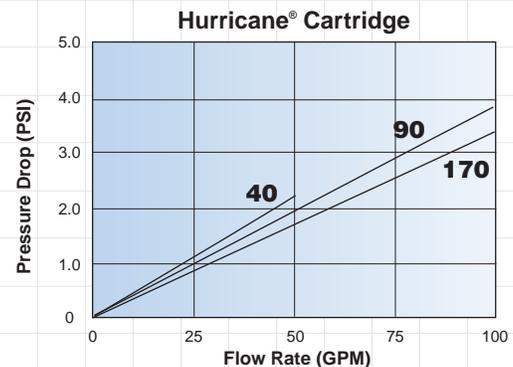
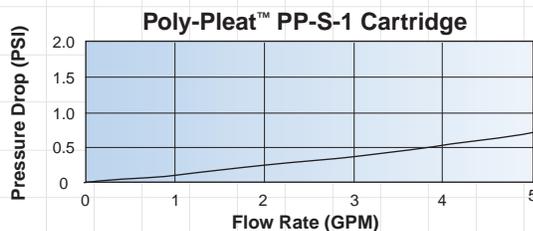
2-1/2", 2-3/4", 4-1/2" and 7-3/4" O.D. - Harmsco® HIF filter housings use 9-3/4", 19-1/2" and 29-1/4" lengths only

Cartridge O.D.

Product Code	Pleated Media Area (sq ft)	Type	Length (in.)	O.D. (in.)	Recommended Flow Rate (GPM) for 2 log removal	No./Carton
Poly-Pleat™ - 1 micron absolute, multi-layered media						
PP-701-1/10	3	Standard	10	2-1/2	1.5	28
PP-701-1/20	7	Standard	20	2-1/2	3.5	28
PP-701-1/30	11	Standard	30	2-1/2	5.5	28
PP-701-1/40	15	Standard	40	2-1/2	7.5	28
PP-S-1	3.7	Standard	9-3/4	2-3/4	1.85	24
PP-D-1	7.5	Standard	19-1/2	2-3/4	3.75	24
PP-T-1	11	Standard	29-1/4	2-3/4	5.5	24
PP-20E-1	7.5	Standard	20	2-3/4	3.75	24
PP-BB-10-1	8	Calypso Blue™	9-3/4	4-1/2	4	8
PPFS-BB-10-1	8	Calypso Blue™	9-3/4	4-1/2	4	8
PPFS-BB-20-1	20	Calypso Blue™	20	4-1/2	10	4
PP-BB-20-1	20	Calypso Blue™	20	4-1/2	10	4
PP-BB-20-1	20	Calypso Blue™	20	4-1/2	10	4
PP-HC-40-1	27	Hurricane®	9-5/8	7-3/4	13.5	1
PPFS-HC-40-1	27	Hurricane®	9-5/8	7-3/4	13.5	1
PP-HC-90-1	58	Hurricane®	19-1/2	7-3/4	29	1
PPFS-HC-90-1	58	Hurricane®	19-1/2	7-3/4	29	1
PP-HC-170-1	100	Hurricane®	30-3/4	7-3/4	50	1
PPFS-HC-170-1	100	Hurricane®	30-3/4	7-3/4	50	1

Low Pressure Drop

Initial pressure drop using Poly-Pleat™ cartridges is exceptionally low due to our pleated design and increased surface area. Pressure drop data is shown here, calculated for new cartridges in clear water.



Note: This publication is to be used as a guide. The data within has been obtained from many sources and is considered to be accurate. Harmsco does not assume liability for the accuracy and/or completeness of this data. Changes to the data can be made without notification. Temperature, Pressure, Flow Rates, Differential Pressures, Chemical Combinations and other unknown factors can affect performance in unknown ways. **Limited Warranty:** Harmsco warrants their products to be free of material and workmanship defects. Determination of suitability of Harmsco products for uses and applications contemplated by Buyer shall be the sole responsibility of Buyer. The end user/installer/buyer shall be liable for the product's performance and suitability regarding their specific intended applications. End users should perform their own tests to determine suitability for each application.



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