

Hurricane® Filter Housings

Two Technologies in One

Lower Operation Cost

- Harmsco® HP Hurricane® filters provide unsurpassed performance. Our unique design separates dense solids prior to cartridge filtration for extended filter life, increased dirt holding capacity and reduced maintenance costs.

Features

- ▶ Combination cyclone separator and cartridge filter in a single compact design
- ▶ Patented Up-flow design with tangential entry - prevents air entrapment
- ▶ Rotational flow “flutters” media pleats - improving loading performance
- ▶ Electropolished 304 stainless steel housing
- ▶ Fail-Safe lid closure, rated for 150 psi
- ▶ Three sizes for greater media surface area
- ▶ CPVC standpipe (standard) - stainless steel optional
- ▶ Extensive choice of cartridge micron ratings and media, including carbon block
- ▶ NSF 61 listed



Certified to
ANSI-NSF 61



Applications

- ▶ Commercial/Residential Drinking Water
- ▶ Cooling Tower Filtration
- ▶ Desalination Pre-filtration (316 and coated options)
- ▶ Surface Water Treatment Rule (SWTR) LT2
- ▶ Process Water
- ▶ Whole House Filtration
- ▶ Industrial Waste Water Treatment
- ▶ Reverse Osmosis Pre-filtration
- ▶ Small Community Compliance LT2
- ▶ Well Water
- ▶ Ground Water Remediation
- ▶ Ground Water Under Direct Influence (GUDI)



The Revolutionary **HURRICANE** Filter!

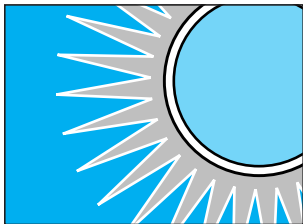
Combines three filtration technologies in a single compact design.

It's a Separator & Cartridge Filter in One

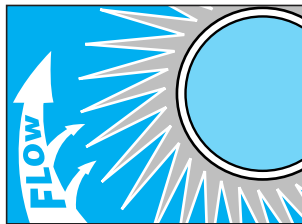
Hurricane filters provide unsurpassed performance because they separate dense solids prior to cartridge filtration for extended filter life, increased dirt holding capacity and reduced maintenance costs. In many respects Hurricane filters are two filters in one! Components include outer chamber for particle separation, inner chamber for cartridge filtration and built-in drain for purge, if required.

Deep, angled pleats are directed toward rotational flow for increased dirt holding capacity.

Unlike conventional designs, Hurricane's patented cartridges are made with deep, angled pleats to direct the flow into the pleated area for increased solids removal.



Conventional straight pleat



Angled Hurricane pleat

It's a Single "Jumbo Cartridge" Filter, Making Maintenance a Snap!

The rotational flow improves the Hurricane filter's performance, making it a favored choice over conventional filter designs, regardless of the need for pre-separation. The single "jumbo" cartridge design makes installation and maintenance a snap!



Single "Jumbo" Cartridge is Easy to Install, Remove, Clean and Service!

Hurricane cartridges are available in a wide assortment of micron ratings and may be used in a wide range of applications. Activated carbon Hurricane cartridges are also available!

Check out these features and benefits!

Outer chamber for particle separation

Centrifugal separation occurs in the filter's outer chamber by rotational flow and centrifugal force. Heavy solids accumulate at the bottom of the filter's outer chamber which may be purged manually or automatically.

Inner chamber for cartridge filtration

Liquid flows from the outer chamber into an inner chamber where the single cartridge is located. Here, the liquid is filtered, and subsequently flows out of the filter through the standpipe and outlet fitting.

Tangential entry

Liquid enters the filter tangentially to provide rotational flow and centrifugal force for particle separation.

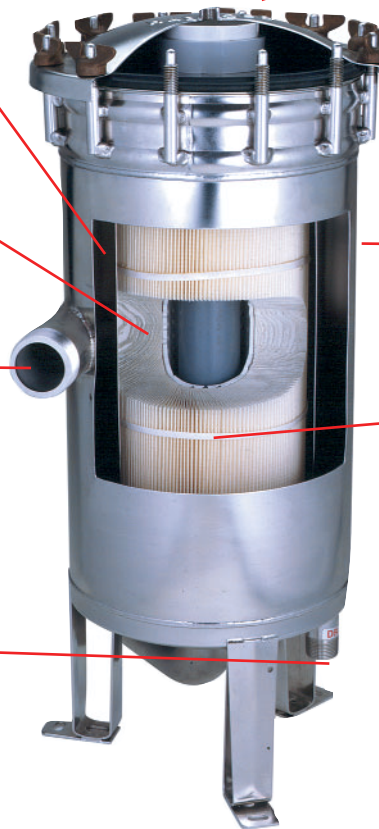
Rotational flow pattern

Continuously "fluffs" filter cake to increase dirt and debris holding capacity to extend filter life and time between cleaning.

Drain for manual or automatic purge

In heavy solids applications, manual or automatic valves may be used to purge solids from the outer chamber to extend filter life. (Valves not provided by Harmsco.)

Tests demonstrate approximately half of the heavy solids, such as sand, separate prior to the filtration chamber at 50 GPM.



Fail safe lids with wing nuts for easy closure without tools

Lids come standard with wing nuts for easy operation. Individual studs are provided for added security. No single bolt v-clamp closures are used!

Note: Hex nuts are recommended above 100 psi pressures, tightened to 75 inch lbs. of torque for best results.

304 electro polished stainless steel

Solid, stainless steel construction and electro polishing are standard for added resistance to corrosion. (Special coatings available for chemical resistance.)

Single "Jumbo" cartridge

Easy to install, remove, clean and replace!

Couplers for pressure gauges provided

1/4" FPT couplers are installed in inlet and outlet fittings for pressure gauges.

Hurricane cartridges are cleanable and reusable in most applications and micron ratings.



Cartridge Selection

Hurricane® Cartridge Family

Sediment Removal, Turbidity Reduction, Chlorine Removal, Taste & Odor Reduction, Cyst Removal, Pre-Filtration, Post-Filtration, Antimicrobial, Absolute Rated, Nominal Rated, 100% Synthetic, Non Potable Use Only, Course Filtration, High Temperature, All Polypropylene, NSF Listed, Cleanable/ Reusable

Polyester-Plus™ - engineered for high efficiency, low pressure drops; **NSF 61 Listed**

Part #	Description	Sediment Removal	Turbidity Reduction	Chlorine Removal	Taste & Odor Reduction	Cyst Removal	Pre-Filtration	Post-Filtration	Antimicrobial	Absolute Rated	Nominal Rated	100% Synthetic	Non Potable Use Only	Course Filtration	High Temperature	All Polypropylene	NSF Listed	Cleanable/ Reusable
HC/40-0.35	Hur 40 Cartridge - 0.35 Micron	●	●				●			●							●	
HC/40-1	Hur 40 Cartridge - 1 Micron	●	●					●		●							●	
HC/40-5	Hur 40 Cartridge - 5 Micron	●	●				●	●		●							●	●
HC/40-10	Hur 40 Cartridge - 10 Micron	●	●				●	●		●							●	●
HC/40-20	Hur 40 Cartridge - 20 Micron	●	●				●	●		●			●				●	●
HC/40-50	Hur 40 Cartridge - 50 Micron	●	●				●	●		●			●				●	●
HC/40-100	Hur 40 Cartridge - 100 Micron	●	●				●	●		●			●				●	●
HC/40-150	Hur 40 Cartridge - 150 Micron	●	●				●	●		●			●				●	●
HC/90-0.35	Hur 90 Cartridge - 0.35 Micron	●	●					●		●							●	
HC/90-1	Hur 90 Cartridge - 1 Micron	●	●					●		●							●	
HC/90-5	Hur 90 Cartridge - 5 Micron	●	●					●		●							●	●
HC/90-10	Hur 90 Cartridge - 10 Micron	●	●				●	●		●							●	●
HC/90-20	Hur 90 Cartridge - 20 Micron	●	●				●	●		●			●				●	●
HC/90-50	Hur 90 Cartridge - 50 Micron	●	●				●	●		●			●				●	●
HC/90-100	Hur 90 Cartridge - 100 Micron	●	●				●	●		●			●				●	●
HC/90-150	Hur 90 Cartridge - 150 Micron	●	●				●	●		●			●				●	●
HC/170-0.35	Hur 170 Cartridge - 0.35 Micron	●	●					●		●							●	
HC/170-1	Hur 170 Cartridge - 1 Micron	●	●					●		●							●	
HC/170-5	Hur 170 Cartridge - 5 Micron	●	●					●		●							●	●
HC/170-10	Hur 170 Cartridge - 10 Micron	●	●				●	●		●							●	●
HC/170-20	Hur 170 Cartridge - 20 Micron	●	●				●	●		●			●				●	●
HC/170-50	Hur 170 Cartridge - 50 Micron	●	●				●	●		●			●				●	●
HC/170-100	Hur 170 Cartridge - 100 Micron	●	●				●	●		●			●				●	●
HC/170-150	Hur 170 Cartridge - 150 Micron	●	●				●	●		●			●				●	●

High Temperature - up to 200°F (93°C)* *250°F (121°C) with metal end caps, using suffix "HTM"

Part #	Description	Sediment Removal	Turbidity Reduction	Chlorine Removal	Taste & Odor Reduction	Cyst Removal	Pre-Filtration	Post-Filtration	Antimicrobial	Absolute Rated	Nominal Rated	100% Synthetic	Non Potable Use Only	Course Filtration	High Temperature	All Polypropylene	NSF Listed	Cleanable/ Reusable
HC/40-20HT	Hur 40 Cartridge - 20 Micron High Temp	●	●				●			●				●	●		●	
HC/40-50HT	Hur 40 Cartridge - 50 Micron High Temp	●	●				●			●				●	●		●	
HC/90-5CPHT	Hur 90 Cartridge - 5 Micron High Temp	●	●					●		●		●		●	●		●	
HC/90-5HT	Hur 90 Cartridge - 5 Micron High Temp	●	●					●		●				●	●		●	
HC/90-10HT	Hur 90 Cartridge - 10 Micron High Temp	●	●					●		●				●	●		●	
HC/90-20HT	Hur 90 Cartridge - 20 Micron High Temp	●	●				●	●		●				●	●		●	
HC/90-50HT	Hur 90 Cartridge - 50 Micron High Temp	●	●				●	●		●				●	●		●	
HC/170-5CPHT	Hur 170 Cartridge - 5 Micron High Temp	●	●					●		●		●		●	●		●	
HC/170-5HT	Hur 170 Cartridge - 5 Micron High Temp	●	●					●		●				●	●		●	
HC/170-10HT	Hur 170 Cartridge - 10 Micron High Temp	●	●					●		●				●	●		●	
HC/170-20HT	Hur 170 Cartridge - 20 Micron High Temp	●	●				●	●		●				●	●		●	
HC/170-50HT	Hur 170 Cartridge - 50 Micron High Temp	●	●				●	●		●				●	●		●	

Harmsco-Free - 100% synthetic composite media; **NSF 61 Listed**

Part #	Description	Sediment Removal	Turbidity Reduction	Chlorine Removal	Taste & Odor Reduction	Cyst Removal	Pre-Filtration	Post-Filtration	Antimicrobial	Absolute Rated	Nominal Rated	100% Synthetic	Non Potable Use Only	Course Filtration	High Temperature	All Polypropylene	NSF Listed	Cleanable/ Reusable
HC/40-1W-HF	Hur 40 Cartridge - 1 Micron	●	●					●		●	●						●	
HC/40-5W-HF	Hur 40 Cartridge - 5 Micron	●	●					●		●	●						●	●
HC/40-20W-HF	Hur 40 Cartridge - 20 Micron	●	●				●	●		●	●		●				●	●
HC/90-1W-HF	Hur 90 Cartridge - 1 Micron	●	●					●		●	●						●	
HC/90-5W-HF	Hur 90 Cartridge - 5 Micron	●	●					●		●	●						●	●
HC/90-20W-HF	Hur 90 Cartridge - 20 Micron	●	●				●	●		●	●		●				●	●
HC/170-1W-HF	Hur 170 Cartridge - 1 Micron	●	●					●		●	●						●	
HC/170-5W-HF	Hur 170 Cartridge - 5 Micron	●	●					●		●	●						●	●
HC/170-20W-HF	Hur 170 Cartridge - 20 Micron	●	●				●	●		●	●		●				●	●

Poly-Pleat™ - 1 micron absolute, multi-layered media; **NSF 61 Listed**

Part #	Description	Sediment Removal	Turbidity Reduction	Chlorine Removal	Taste & Odor Reduction	Cyst Removal	Pre-Filtration	Post-Filtration	Antimicrobial	Absolute Rated	Nominal Rated	100% Synthetic	Non Potable Use Only	Course Filtration	High Temperature	All Polypropylene	NSF Listed	Cleanable/ Reusable
PP-HC-40-1	Poly Pleat Hur 40 Cartridge - 1 Micron	●	●			●		●		●	●						●	
PPFS-HC-40-1	PP-Fail Safe Hur 40 Cartridge - 1 Micron	●	●			●		●		●	●						●	
PP-HC-90-1	Poly Pleat Hur 90 Cartridge - 1 Micron	●	●			●		●		●	●						●	
PPFS-HC-90-1	PP-Fail Safe Hur 90 Cartridge - 1 Micron	●	●			●		●		●	●						●	
PP-HC-170-1	Poly Pleat Hur 170 Cartridge - 1 Micron	●	●			●		●		●	●						●	
PPFS-HC-170-1	PP-Fail Safe Hur 170 Cartridge - 1 Micron	●	●			●		●		●	●						●	

All-Poly - 100% polypropylene media with polypropylene end caps and components; also available in 10, 20 and 50 micron ratings

Part #	Description	Sediment Removal	Turbidity Reduction	Chlorine Removal	Taste & Odor Reduction	Cyst Removal	Pre-Filtration	Post-Filtration	Antimicrobial	Absolute Rated	Nominal Rated	100% Synthetic	Non Potable Use Only	Course Filtration	High Temperature	All Polypropylene	NSF Listed	Cleanable/ Reusable
HC-PP-40-0.2	Hur 40 High Purity Pleated PP - 0.2 Mic	●	●			●		●		●							●	
HC-PP-40-0.45	Hur 40 High Purity Pleated PP - 0.45 Mic	●	●			●		●		●							●	
HC-PP-40-1	Hur 40 High Purity Pleated PP - 1 Mic	●	●			●		●		●							●	
HC-PP-40-5	Hur 40 High Purity Pleated PP - 5 Mic	●	●			●		●		●							●	
HC-PP-90-0.2	Hur 90 High Purity Pleated PP - 0.2 Mic	●	●			●		●		●							●	
HC-PP-90-0.45	Hur 90 High Purity Pleated PP - 0.45 Mic	●	●			●		●		●							●	
HC-PP-90-1	Hur 90 High Purity Pleated PP - 1 Mic	●	●			●		●		●							●	
HC-PP-90-5	Hur 90 High Purity Pleated PP - 5 Mic	●	●			●		●		●							●	
HC-PP-170-0.2	Hur 170 High Purity Pleated PP - 0.2 Mic	●	●			●		●		●							●	
HC-PP-170-0.45	Hur 170 High Purity Pleated PP - 0.45 Mic	●	●			●		●		●							●	
HC-PP-170-1	Hur 170 High Purity Pleated PP - 1 Mic	●	●			●		●		●							●	
HC-PP-170-5	Hur 170 High Purity Pleated PP - 5 Mic	●	●			●		●		●							●	

Sediment Removal
 Turbidity Reduction
 Chlorine Removal
 Taste & Odor Reduction
 Cyst Removal
 Pre-Filtration
 Post-Filtration
 Antimicrobial Rated
 Absolute Rated
 Nominal Rated
 100% Synthetic
 Non Potable Use Only
 Coarse Filtration
 High Temperature
 All Polypropylene
 NSF Listed
 Cleanable/ Reusable

SureSafe™ Antimicrobial - reduces growth of bacteria and mold on media

HC/40-20-AM	Hur 40 Cartridge - 20 Micron	●	●					●								●
HC/40-50-AM	Hur 40 Cartridge - 50 Micron	●	●					●								●
HC/90-20-AM	Hur 90 Cartridge - 20 Micron	●	●					●								●
HC/90-50-AM	Hur 90 Cartridge - 50 Micron	●	●					●								●
HC/170-20-AM	Hur 170 Cartridge - 20 Micron	●	●					●								●
HC/170-50-AM	Hur 170 Cartridge - 50 Micron	●	●					●								●

Carbon Block - includes pleated 5 micron nominal pre-filtration

HC/40-AC-5	Hur 40 Cart. Carbon + 5 Mic Pre-filt	●	●	●	●			●								●
HC/90-AC-5	Hur 90 Cart. Carbon + 5 Mic Pre-filt	●	●	●	●			●								●
HC/170-AC-5	Hur 170 Cart. Carbon + 5 Mic Pre-filt	●	●	●	●			●								●

EZ Clean - 100% synthetic composite 50 micron media

HC/40-EZ-CLEAN	Hur Cartridge - EZ CLEAN - 50 Micron	●	●							●	●					●
HC/90-EZ-CLEAN	Hur Cartridge - EZ CLEAN - 50 Micron	●	●							●	●					●
HC/170-EZ-CLEAN	Hur Cartridge - EZ CLEAN - 50 Micron	●	●							●	●					●

Poly-Mesh - 100% synthetic composite 250 micron media

HC/170-PM	Hur 170 Cartridge Poly Mesh - 250 Micron	●	●							●	●					●
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Cartridge Sizing Guide

Cleanable/ Reusable Hurricane® cartridges are cleanable and reusable in most applications and micron ratings (5 micron and up).

For Harmsco® Hurricane® and WaterBetter® Single-cartridge Filter Housings

Harmsco® recommends operation at 70% of maximum flow rate for optimum performance.

Polyester, High Temperature, Harmsco Free, SureSafe, EZ Clean, Poly-Mesh

Filter Model	Pleated Media Area (sq.ft.)	Length (in.)	O.D. (in.)	Max Flow Rate (GPM)	Recommended Flow Rate (GPM)	Max Flow Rate (LPM)	Max Flow Rate (M ³ /HR)	No./ Case	Carton Size
HUR 40 HP	40	9-5/8	7-3/4	Up to 50	35	Up to 189	Up to 12	1	9x9x11
HUR 90 HP	90	19-1/2	7-3/4	Up to 100	70	Up to 378	Up to 24	1	9x9x21
HUR 170 HP	170	30-3/4	7-3/4	Up to 150	105	Up to 568	Up to 36	1	9x9x32

Poly-Pleat

HUR 40 HP	25	9-5/8	7-3/4	-	15	-	-	1	9x9x11
HUR 90 HP	50	19-1/2	7-3/4	-	25	-	-	1	9x9x21
HUR 170 HP	100	30-3/4	7-3/4	-	50	-	-	1	9x9x32

All-Poly

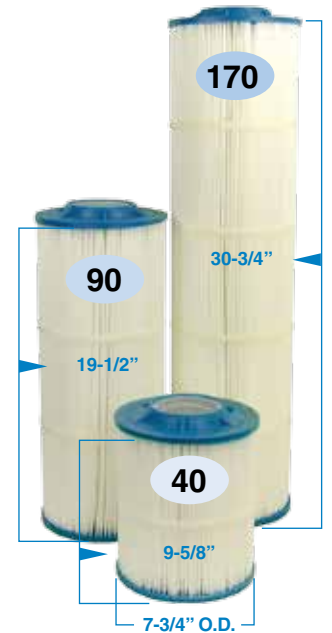
HUR 40 HP	25	9-5/8	7-3/4	25	17	19	Up to 12	1	9x9x11
HUR 90 HP	50	19-1/2	7-3/4	50	35	38	Up to 24	1	9x9x21
HUR 170 HP	75	30-3/4	7-3/4	100	60 ^a	76	Up to 36	1	9x9x32

Carbon Block

^a based on 1, 5, 10, 20 and 50 micron ratings

HUR 40 HP	25	9-5/8	7-3/4	-	5 ^b	-	-	1	9x9x11
HUR 90 HP	55	19-1/2	7-3/4	-	10 ^b	-	-	1	9x9x21
HUR 170 HP	90	30-3/4	7-3/4	-	15 ^b	-	-	1	9x9x32

^b recommended flow for maximum chlorine removal



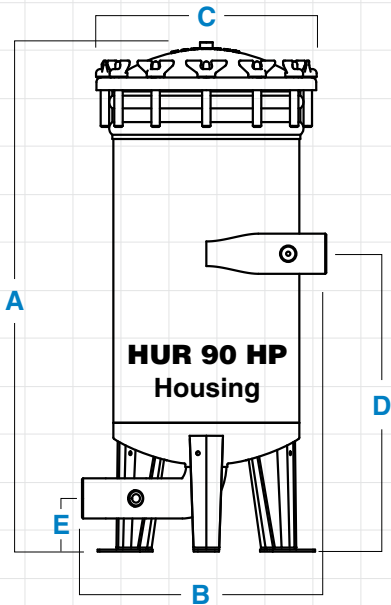
Hurricane® Cartridges
Length and O.D.

Cartridge Sizing Guide

Media Options

<p>Polyester-Plus™</p> <p>NSF 61 Listed</p>	<p>High Temperature</p>	<p>Harmsco-Free</p> <p>NSF 61 Listed</p>	<p>Poly-Pleat™ (multi-layer)</p> <p>NSF 61 Listed</p>	<p>All-Poly (multi-layer)</p>
<p>SureSafe™ (antimicrobial)</p>	<p>Carbon Block (5 Micron Pleated Pre-filter)</p>	<p>EZ Clean</p>	<p>Poly-Mesh</p>	

cartridges in the industry for all your filtration needs.



HUR 40 HP



HUR 90 HP



HUR 170 HP

Ordering Information

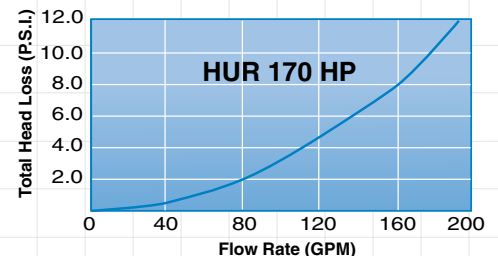
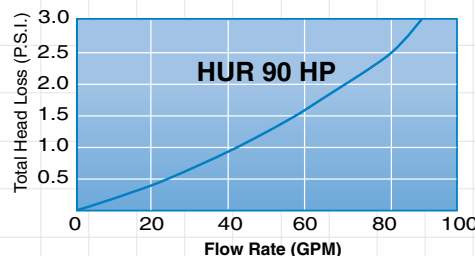
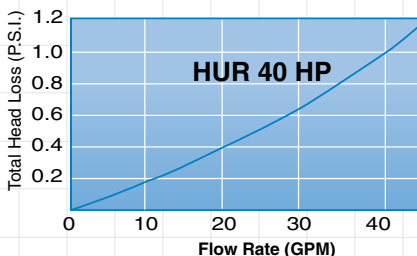
Filter Model	A Filter Height	B Width	C Diameter	D Inlet	E Outlet	Pipe Size NPT	Drain Size NPT	Floor Space	Service Ht.	Shipping Wt. Lbs.	Carton Size In.
HUR 40 HP	19-1/2"	14-3/8"	13"	12-3/4"	3-7/16"	2"	1"	15"x15"	35"	40	14x16x21
HUR 90 HP	29-7/8"	14-3/8"	13"	17-3/4"	3-7/16"	2"	1"	15"x15"	51"	52	14x16x38
HUR 170 HP	40-1/2"	14-3/8"	13"	23-5/8"	3-7/16"	2"	1"	15"x15"	72"	64	14x16x42

Filter Specifications

- ▶ Electropolished 304 stainless steel
- ▶ Standpipe - CPVC
- ▶ Temperature - 140°F (60°C) max. Up to 250°F (121°C) with optional stainless steel standpipe and high temperature cartridges installed
- ▶ Wing nuts - brass
- ▶ Rim gaskets - EPDM (Buna-N, Viton available)
- ▶ BSTP optional
- ▶ Gauge sample ports (1/4"), inlet and outlet
- ▶ Pressure - 150 psi (10 bar) max.

All stainless steel housings are 304; 316 available upon request. Stainless steel standpipe for high temperature also available.

Pressure Drop



The total head loss data shown above was developed by NSF International and indicates pressure drop with Hurricane® filter housings and 20 micron filter cartridges in clean water.

For additional information, please refer to the "Installation & Operation Manual" for Hurricane® Filters.

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.



HARMSCO® Filtration Products

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