

## Industrial Pleated Phenolic Cartridges

Industrial Grade

### Designed for Hurricane® and WaterBetter® Housings

Manufactured with premium grade phenolic impregnated cellulosic fiber media, Harmsco® Industrial Pleated Phenolic Cartridges are the filters of choice for critical filtration applications.

- Lower overall operating cost  
Longer filter runs for fewer change outs  
Increased contaminant removal  
Temperature rating up to 250°F (121°C)

### Features

- ▶ Fewer cartridges for lower maintenance cost
- ▶ Pleated filter media provides higher flow rates with lower pressure drop
- ▶ Pleated surface area provides higher loading capacity for longer filter life and increased particle removal
- ▶ Designed for aqueous and oil based fluid applications
- ▶ Offered in three sizes (40, 90 and 170) and two micron ratings (5 and 20)

*Not for use with potable water.*



Industrial Pleated Phenolic  
Metal Cage Cartridges  
40, 90 and 170

### Applications

- ▶ Quench Oils
- ▶ Water Soluble Coolants
- ▶ Petrochemical
- ▶ Lubricating Oil
- ▶ Cutting Fluids
- ▶ Solvents
- ▶ Distillate Fuel
- ▶ Fuel Oil
- ▶ Hydraulic Fluids
- ▶ Bio Fuels



# Industrial Pleated Phenolic Cartridges

## Specifications

- ▶ **Filter media:** cellulose phenolic
- ▶ **End Caps:** powder coated metal
- ▶ **Change Out:** 35 PSI  $\Delta$ P (2.4 bar)
- ▶ **Temperature:** up to 250°F (121°C)
- \* Temperature ratings based on pressure and time under load.
- ▶ **Potting Material:** epoxy
- ▶ **pH:** 6.5 to 9.5
- ▶ **Center Core:** powder coated perforated metal
- ▶ **Outer Cage:** perforated metal (not powder coated)
- ▶ **O-Rings & Sealing Grommet:** Buna N standard, optional Viton available

## Cartridge Selection/Sizing Guide

### 7-3/4" O.D.

Cartridge Length

9-5/8"

19-1/2"

30-3/4"

Product Code	Nominal Micron Rating	Media (sq ft)	Recommended Flow Rate* (GPM)	Length (in)	No./Carton
<b>Cellulose Phenolic</b> - rated up to 250°F (121°C)					
HC/40-PMC-5	5	40	20	9-5/8	1
HC/40-PMC-20	20	40	20	9-5/8	1
HC/90-PMC-5	5	80	40	19-1/2	1
HC/90-PMC-20	20	80	40	19-1/2	1
HC/170-PMC-5	5	125	60	30-3/4	1
HC/170-PMC-20	20	125	60	30-3/4	1

\* Recommended flow rates are based on fluid viscosity of 1.13 cps. Flow rate and head loss will change based on the type of fluid being filtered.

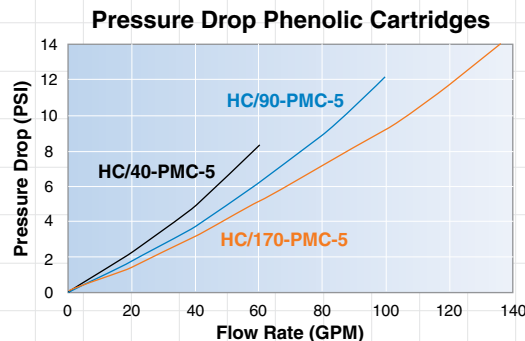
## Viscosity of Common Liquids

Liquid	Viscosity (CPS*)	Viscosity (SSU*)	Temperature (°F)
Asphalt, virgin	539 - 2,810	2,500 - 12,000	250
Bone oil	47.5	220	130
Carbolic acid, phenol	11.83	65	65
Castor oil	259.8 - 324.7	1,200 - 1,500	100
Coconut oil	29.8 - 31.6	140 - 148	100
Cod oil	32.1	150	100
Cottonseed oil	37.9	176	100
Linseed oil, raw	30.5	143	100
Molasses, C	2,630 - 5,500	17,000 - 250,000	100
Oil, Fuel N° 2	3.0 - 7.4	36 - 50	70
SAE N° 30	86.6 - 125.5	400 - 580	100
Olive oil	43.2	200	100
Peanut oil	42	195	100
Printer's ink	550 - 2,200	2,500 - 10,000	100
Turpentine	2.11	33	60
Varnish, spar	143	650	100
Water, fresh	1.13	31.5	60

\* CPS = Centipoise; SSU = Saybolt Seconds Universal

## Pressure Drop

Pressure drop shown at right is for filter housing and 5 micron cartridge in clean water at start up.



**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**

P.O. Box 14066, North Palm Beach, FL 33408

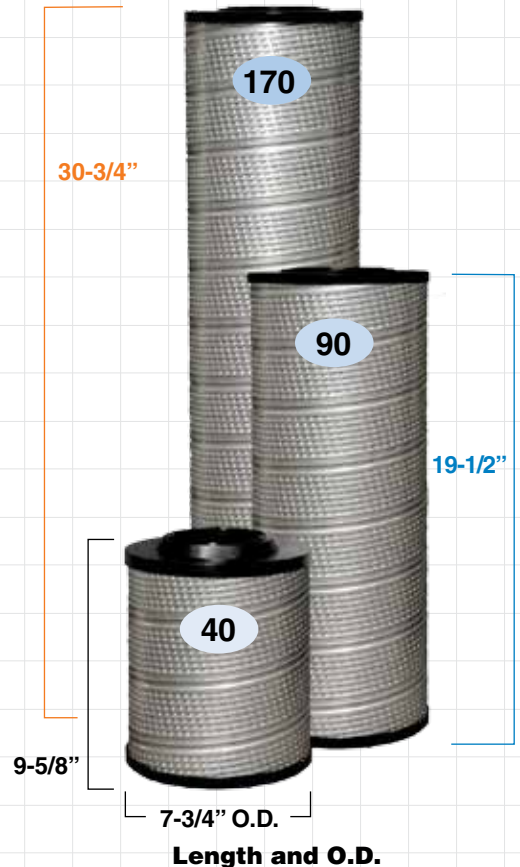
(561) 848-9628 • Toll-free: (800) 327-3248 • Fax: (561) 845-2474 • E-mail: sales@harmsco.com

[www.harmsco.com](http://www.harmsco.com)



Made in USA

© Harmsco, Inc. 26A 05 8/12



**Industrial Pleated Phenolic Metal Cage Cartridges**