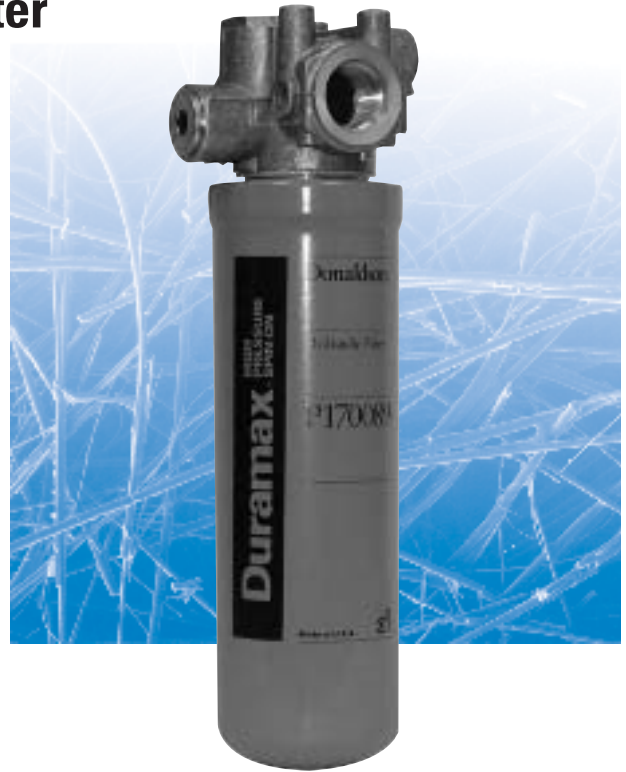


HMK03 DURAMAX® Spin-On Filter

Working Pressures to: 1000 *psi*
6895 kPa
69 bar

Rated Static Burst to: 2000 *psi*
13790 kPa
138 bar

Flow Range to: 25 *gpm*
95 *l/min*



Features

HMK03 Series Duramax® spin-on filters offer twice the capacity of competitive filters, yet they are physically smaller than traditional housing/cartridge filter assemblies. It features a die cast aluminum head and a unique radial seal O-Ring gasket design that eliminates leakage.

Take advantage of Donaldson's Mix 'n Match system of in-stock heads, housings and media choices—so you can get exactly what you need! A full range of media options are available, including: natural-fiber cellulose and Donaldson's exclusive Synteq® synthetic media designed especially for liquid filtration. Likewise, select the exact indicator types and bypass options to suit your application.

Beta Rating

- Performance to $\beta_{6(c)}=1000$

Porting Sizes

- 3/4" SAE O-Ring (standard)

Assembly Weight

- Short: 3.3 lbs / 1.5 kg
- Long: 4.2 lbs / 1.9 kg

Replacement Filter Lengths

- 5.5" / 140mm
- 9.5" / 242mm

Standard Bypass Ratings

- 50 *psi* or No Bypass

Operating Temperatures

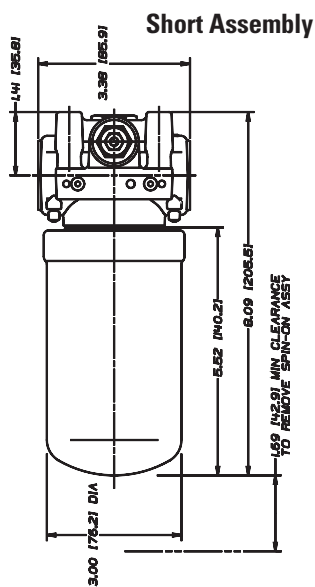
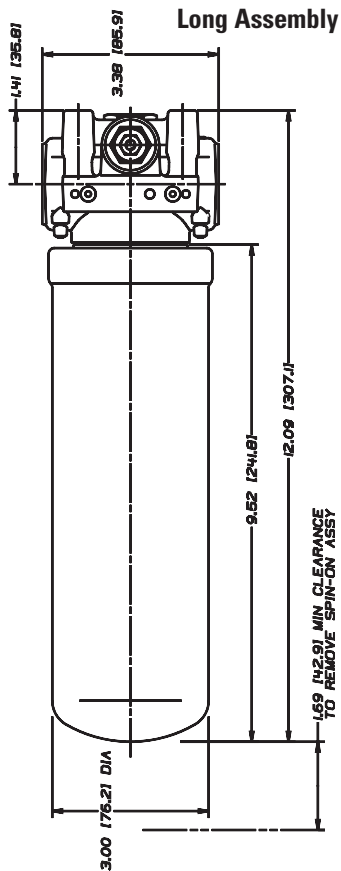
- -20°F to 250°F / -29°C to 121°C

Housing Fatigue Strength Ratings

- 100,000 Cycles: 0-1000 *psi* / 0-6895 kPa / 68 bar
- 300,000 Cycles: 0-800 *psi* / 0-5516 kPa / 55 bar
- 1,000,000 Cycles: 0-700 *psi* / 0-4826 kPa / 48 bar
- Standard Head Construction Cast Aluminum

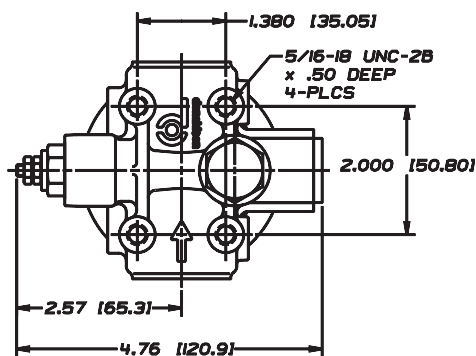
Assembly - Side View

for: Pilot Control Circuits
 Refrigeration Compressor Circuits
 Hydrostatic Transmission —
 Charge Pumps

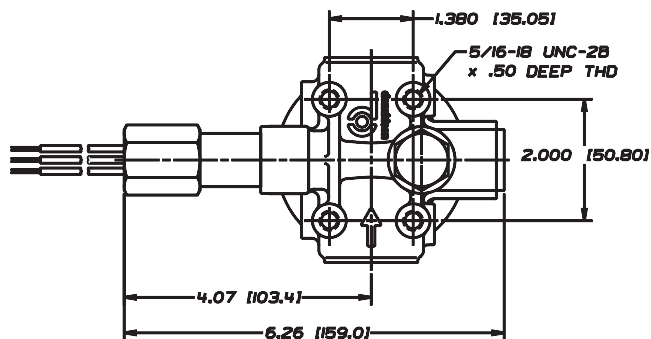


Head with Indicators

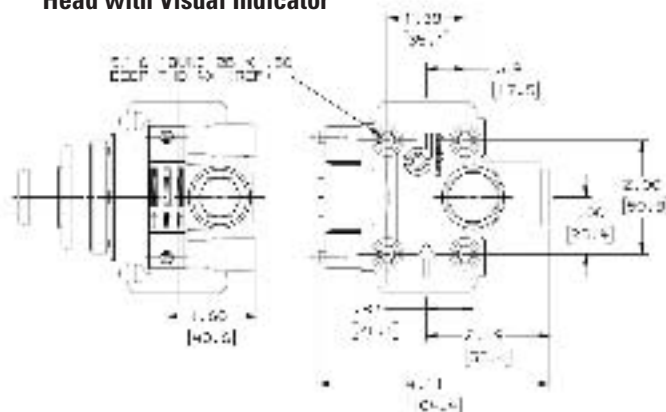
Head with DC Electrical Indicator



Head with AC/DC Electrical Indicator



Head with Visual Indicator



All dimensions above are shown in inches [millimeters]

Duramax® Spin-Ons

HMK03 Components

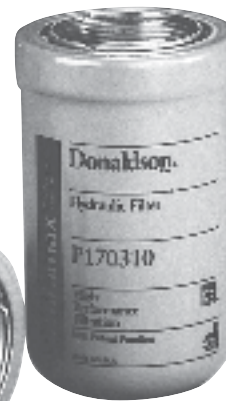
Element Choices

Media No.	Media Tech	B ₁₀₀ = 1000 Rating	Length (in.) (mm)		Part No.	Seal Material
No. 1	Synteq®	6µm	5.5	140	P170306	BunaN
			9.5	242	P170307	BunaN
No. 2	Synteq®	9µm	5.5	140	P170308	BunaN
			9.5	242	P170309	BunaN
No. 2½	Synteq®	10µm	9.5	242	P176107	BunaN
No. 3	Synteq®	14µm	9.5	242	P173702	BunaN
No. 4	Synteq®	20µm	5.5	140	P170310	BunaN
			9.5	242	P170311	BunaN
No. 9	Synteq®	23µm	5.5	140	P170312	BunaN
			9.5	242	P170313	BunaN
No. 10	Cellulose	23µm	5.5	140	P170480 ¹	BunaN
			9.5	242	P170089 ¹	BunaN

¹ This filter not recommended for use with the "No Bypass" head assembly P170327

Filter Notes

- Synteq® filter media is compatible with petroleum based fluids, most phosphate esters, water oil emulsions, and HWCF (high water content fluids).



HMK03 Head

Port Size	Bypass Rating	Indicator	Head Part No.
¾" SAE-12 O-Ring	No Bypass	None*	P170327
		None*	P170773
	50 psi 345 kPa	Visual*	P179460

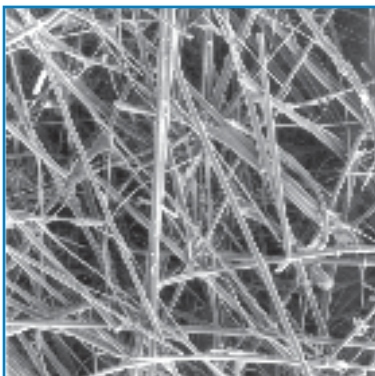
*Head is machined to accept optional electrical indicators. See Indicator list at right for the available choices.

In-Oil Service Indicator Choices

Use with Bypass Valve Pressure of:	Part No.	Style ²	Description ¹
25 psi / 172.5 kPa	P171143	B	Electric 2-wire DC
	P173944	C	Electric 3-wire AC/DC
50 psi / 345 kPa	P165194	A	Electric Single post DC
	P171087	B	Electric 2-wire DC
	P174396	C	Electric 3-wire AC/DC
	P165965	D	Visual

¹ All electric models have a maximum operating temperature of 250°F/121°C.

² See illustration of indicator styles on next page and complete details on all service indicators on page 56-57.

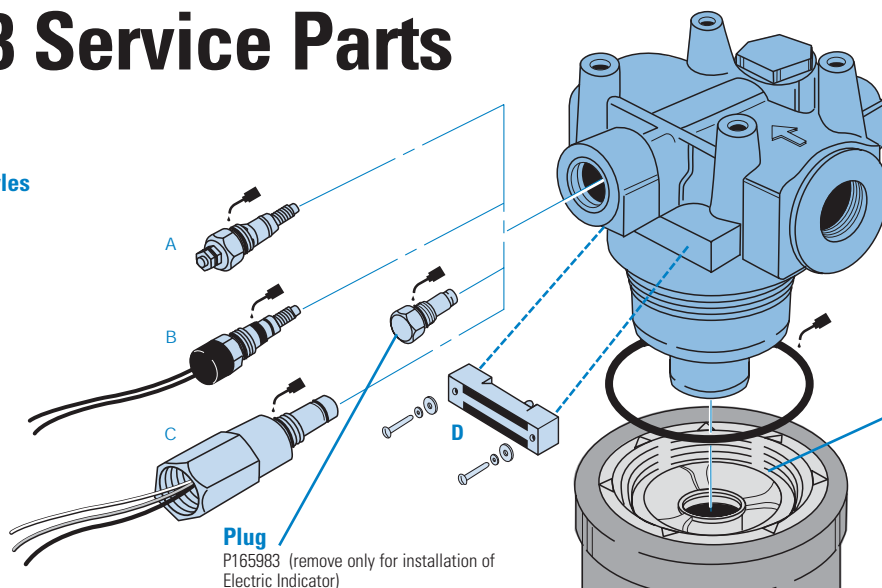


Synteq® is Donaldson's synthetic filter media that was specially developed for liquid filtration. Its low-friction, high-flow properties result in consistently low differential pressure over the life of the filter.

Note the smooth rounded fibers in this photo from the scanning electron microscope. Donaldson designed this consistently-shaped fiber pattern to control fiber size, pore size, and flow patterns throughout the media mat. The result is a media with predictable filtration efficiencies, maximum dirt holding capacity, and low pressure drop.

HMK03 Service Parts

Service Indicator Styles
(See table on opposite page)



Plug
P165983 (remove only for installation of Electric Indicator)

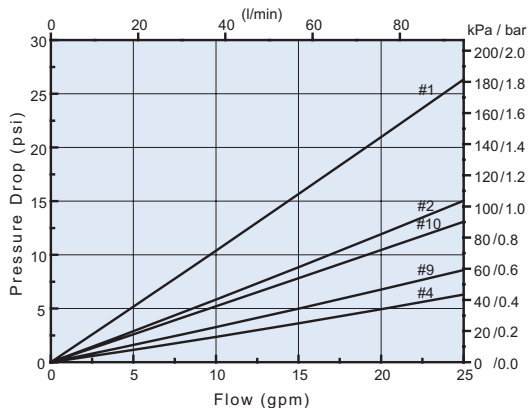
Lubricate filter-to-head threads when installing new filter. Heavy weight gear lube, such as SAE 75 moly type grease, is recommended.

Duramax® Spin-Ons

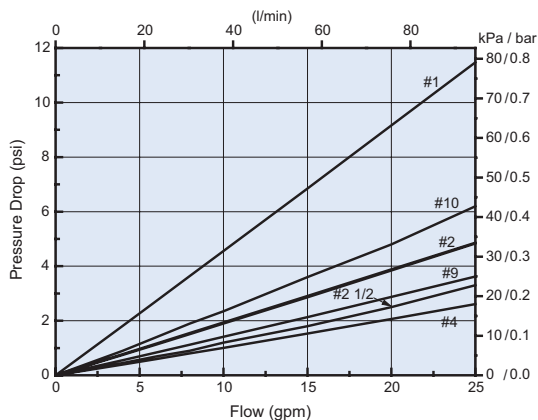
Performance Data

For a full explanation of how our performance curves were derived, see page 150.

HMK03 Element Only (5.5"/140mm)



HMK03 Element Only (9.5"/242mm)



HMK03 Head Only

