

Duramax® HNK Hydraulic Spin-On Filter For Mid-Pressure Applications



Our next generation Duramax filter takes the mid-pressure hydraulic spin-on filter that has become the industry standard to the next level. The all new Duramax contains our breakthrough Synteq™ XP filter media to deliver the highest filtration performance available for mobile hydraulic applications today.

It features a unique, dual purpose design that allows customers to choose between a spin-on or bowl cartridge style filter without changing heads.

Donaldson®

The future is here!

New Duramax[®] Mid-Pressure Solution

The Donaldson Duramax has been completely redesigned to provide unsurpassed high performance filtration and flexibility. It features 5 micron Synteq™ XP filter media which allows customers to improve filter efficiency to meet ever-increasing system cleanliness requirements and, at the same time, increase filter dust holding capacity and extend filter life. A new o-ring seal design makes servicing easier and provides reliable sealing without having to torque to specification. A patented head-to-filter interface ensures that only the correct replacement filter is always used in the Duramax assembly.

Working Pressures

- Up to 500 psi / 3448 kPa / 34.5 bar

Rated Static Burst

- 1000 psi / 6895 kPa / 69 bar

Flow Ranges

- 0-35 gpm / 0-132 l/mi

Vibration

- 1 million cycles, 10G input at resonance frequency, @ -20 °F to 250 °F / -29 °C to 121 °C

Beta Rating

- Performance to (2)=75 (absolute)

Porting Sizes

- SAE -16 O-Ring Face Seal
- SAE -12 O-Ring Face Seal

Standard Bypass Ratings

- 25 psi / 172.5 kPa / 1.7 bar
- 50 psi / 345 kPa / 3.4 bar

Assembly Weight

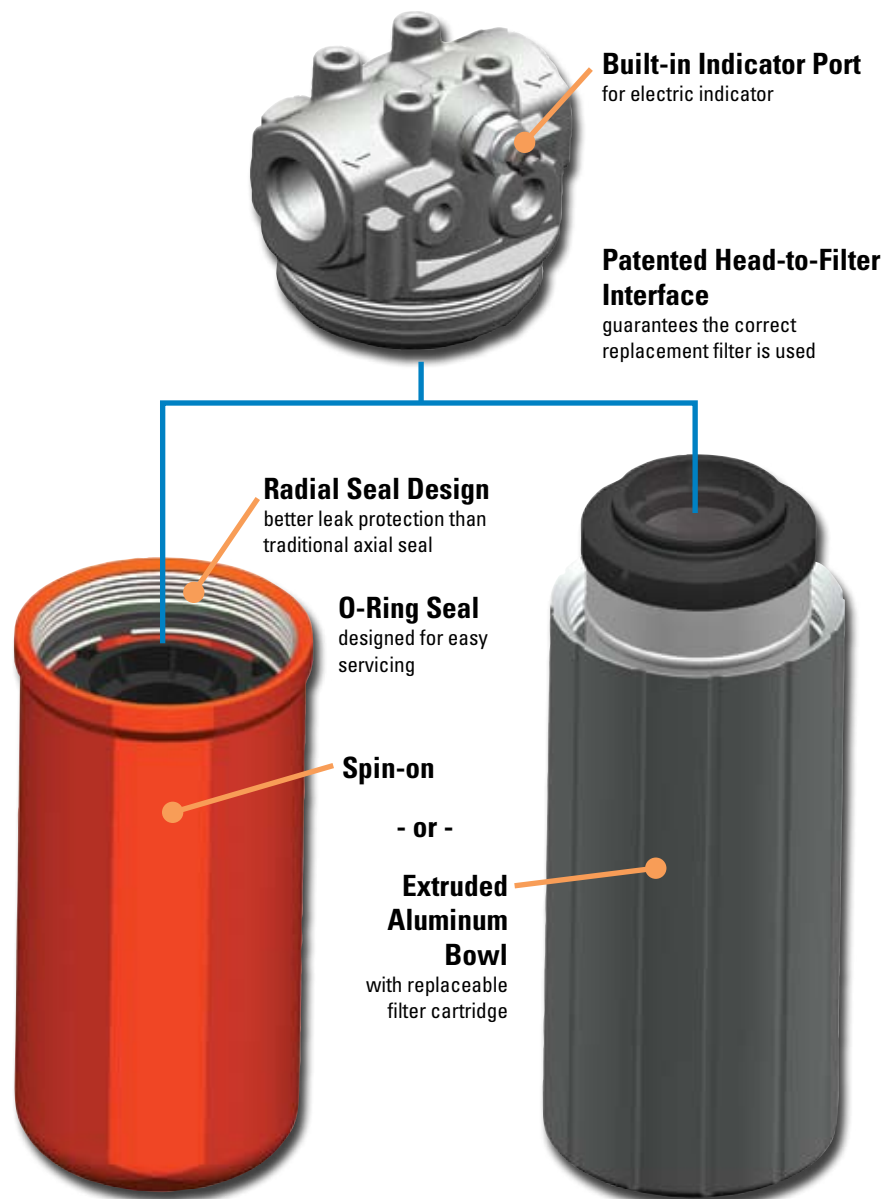
- 3.9 lbs / 1.8 kg -or- 4.8 lbs / 2.2 kg

Operating Temperatures

- -20 °F to 250 °F / -29 °C to 121 °C

Collapse Ratings

- 200 psid / 1379 kPa / 13.8 bar

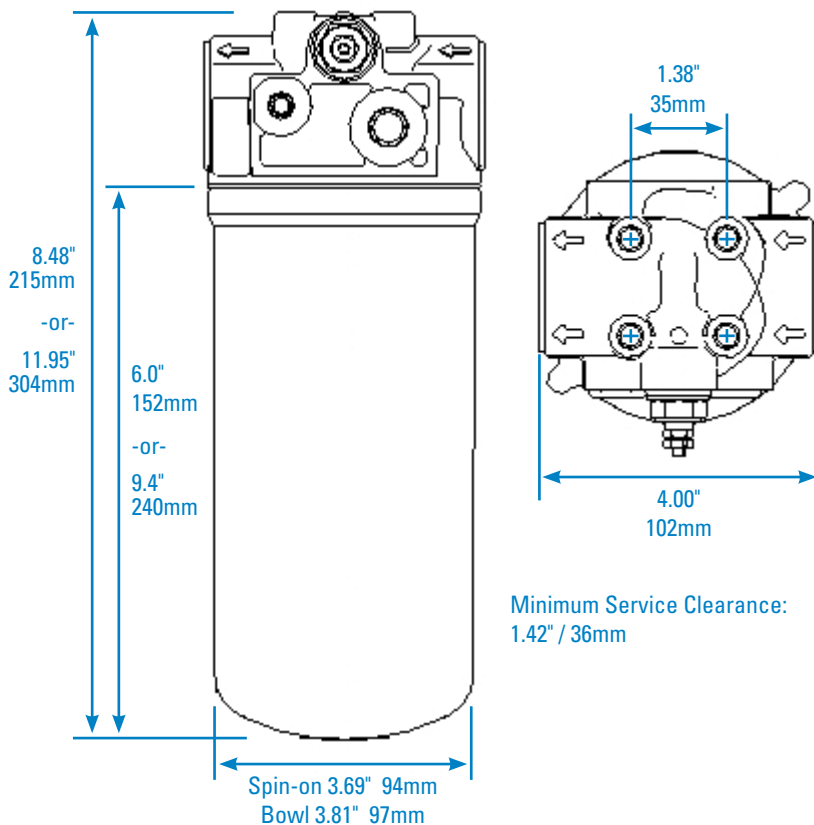




Typical Duramax HNK applications include:

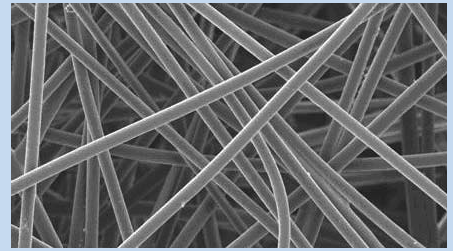
- Hydrostatic charge filtration
- Pilot circuits
- Powershift transmissions
- Mid-pressure kidney loops
- Return line with cold start spikes

HNK Assembly Dimensions



Synteq™ XP Filter Media

Synteq XP is a new choice in filter media for the highest performing hydraulic filtration. The next generation Duramax contains 5 micron Synteq XP, which has the dirt holding capacity of a 15 micron filter. This allows customers to standardize on one filter from two without sacrificing performance.



Scanning electron microscope image of Synteq XP at 300 magnification shows the uniform synthetic fiber structure that allows increased filtration performance and higher dust holding capacity.

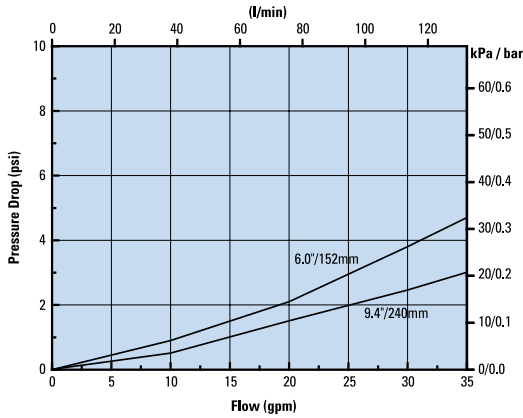
Synteq XP's uniform synthetic fiber structure delivers higher filtration efficiency and has the ability to hold more contaminant and extend filter life. Standard cellulose and synthetic filter media requires customers to sacrifice capacity for efficiency or efficiency for capacity, but Synteq XP allows customers to achieve both high efficiency and high capacity because of its unique structure.

Synteq XP delivers:

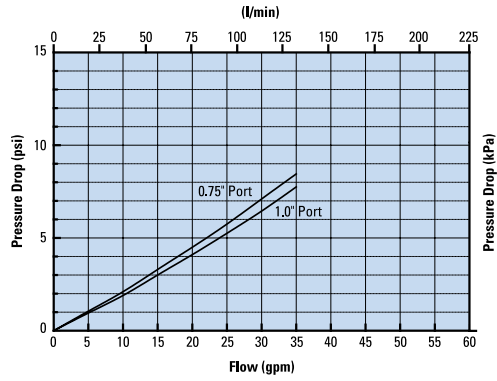
- 5 micron absolute efficiency
- Capacity of a 15 micron filter
- Extended filter life and capacity
- Low pressure drop

HNK Hydraulic Filter and Head Pressure Drop Curves

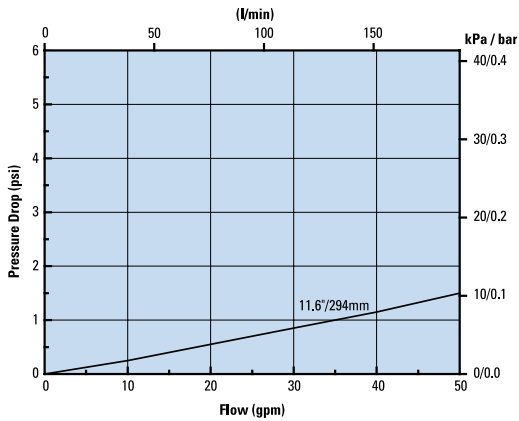
HNK04 Filters



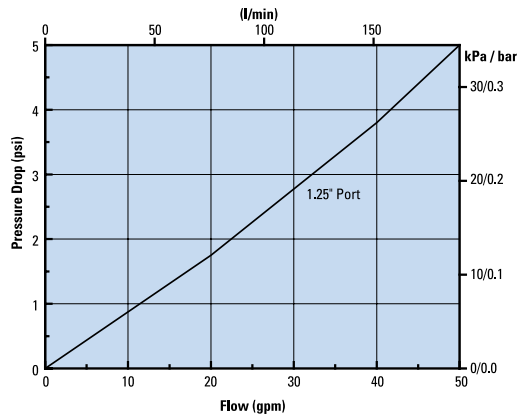
HNK04 Heads



HNK05 Filter



HNK05 Head



- All flow measurements were made with 150 SSU hydraulic oil at 100°F (37.7°C)
- The numbers on the curve refer to specific Donaldson media formulations
- Contact your Donaldson representative for additional information and details



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