



Donaldson Delivers

# Duramax<sup>®</sup> Generation 2 Hydraulic Filter Series



# Duramax<sup>®</sup>

# Reliable Hydraulic Filtration Solution

Donaldson Duramax® Generation 2 has been redesigned to provide a new standard of high performance filtration. The leak-resistant RadialSeal™ design makes servicing easier and provides foul-proof sealing. By moving the threads outward, the RadialSeal interface increases the surface area – creating a robust connection with superior vibration resistance, a common challenge in heavy-duty applications. A unique head-to-filter interface ensures that the correct replacement filter is always used. It features Synteq™ filter media technology, which delivers superior filter efficiency to meet ever-increasing system cleanliness requirements.

Our Duramax® Generation 2 filters take the hydraulic spin-on filter that has become the industry standard to a whole new level.

## Working Pressures

- HNK04: 500 psi / 3448 kPa / 34.5 bar
- HNK05: 350 psi / 2415 kPa / 24.1 bar

## Rated Static Burst

- HNK04: 4" dia. - 1000 psi / 6895 kPa / 69 bar
- HNK05: 5" dia. - 1000 psi / 6895 kPa / 69 bar

## Flow Ranges

- 4" dia. - 0-35 gpm / 0-133 l/mi
- 5" dia. - 0-50 gpm / 0-189 l/mi

## Vibration

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

## Beta Rating

- Media performance up to Beta  $6\mu\text{m}_{(c)}$  = 1000

## Porting Sizes

- 4" dia. - SAE-12 O-Ring, SAE-16 O-Ring
- 5" dia. - SAE-20 O-Ring

## Standard Bypass Ratings

- 50 psi / 345 kPa / 3.4 bar
- No Bypass

## Assembly Weight

- 4" dia. / 5.97" length - 3.95 lbs / 1.8 kg
- 4" dia. / 9.44" length - 4.7 lbs / 2.1 kg
- 5" dia. / 11.63" length - 7.35 lbs / 3.3 kg
- 5" dia. / 14.24" length - 8.0 lbs / 3.6 kg

## Operating Temperatures

- -20°F to 250°F / -29°C to 121°C

## Collapse Ratings

- 235 psid / 1621 kPa / 16.2 bar



**Optional Electric Indicator**  
built-in indicator port standard

**Unique Head-to-Filter Interface**  
ensures the correct replacement filter is used



**RadialSeal™ Design**  
more robust seal provides the best leak protection and superior vibration resistance

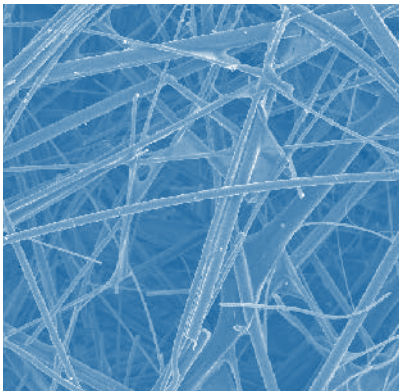
**O-Ring Seal**  
designed for foul-proof servicing

**Synteq™ Media Technology**  
low pressure drop and high dust-holding capacity



# Synteq™ Media Technology

Donaldson-developed Synteq filter media provides superior filtration performance. Synteq's synthetic, uniform fiber structure allows for exceptionally low flow resistance – delivering high filtration efficiency with the ability to hold more contaminant and extend filter life.



Scanning electron microscope image of Synteq at 200x magnification shows the uniform synthetic fiber structure that allows high dust holding capacity and increased filtration.

## Synteq Media Delivers:

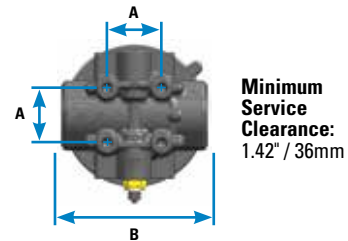
- Extended filter life
- High dust-holding capacity
- Low pressure drop
- Consistent performance throughout filter life



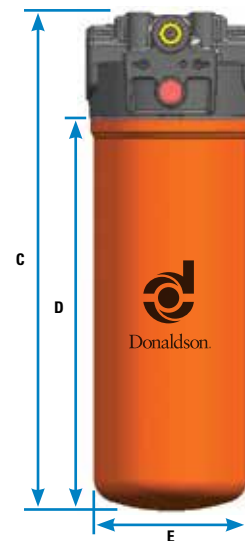
## Typical Duramax Generation 2 applications:

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

## Assembly Specifications



	HNK04 4" Diameter	HNK05 5" Diameter
<b>A</b>	1.4" (35mm)	1.9" (48mm)
<b>B</b>	4.0" (102mm)	5.0" (127mm)



	HNK04 4" Diameter	HNK05 5" Diameter
<b>C</b>	Short Assembly	
	8.5" (216mm)	15.5" (394mm)
<b>D</b>	Long Assembly	
	14.8" (376mm)	18.0" (457mm)
<b>E</b>	Short Assembly	
	6.0" (152mm)	11.6" (295mm)
<b>D</b>	Long Assembly	
	9.4" (239mm)	14.2" (362mm)
<b>E</b>	3.7" (94mm)	4.5" (115mm)

# Duramax<sup>®</sup> Proven, Reliable & Easy to Install

## Head Choices

**MOUNTING THREADS** 3/8-16 UNC

**BUILT-IN INDICATOR PORT** for optional electric indicator

Model	Port Size	Bypass Rating	Part No.
<b>HNK04</b>	SAE-12	50 psi / 3.5 bar	<b>P568856</b>
	SAE-12	No bypass	<b>P568857</b>
	SAE-16	50 psi / 3.5 bar	<b>P568858</b>
	SAE-16	No bypass	<b>P568859</b>
<b>HNK05</b>	SAE-20	50 psi / 3.5 bar	<b>P568860</b>
	SAE-20	No bypass	<b>P568861</b>

## Optional Indicator

Set Point/Type	Part No.	Description
50 psi / 345 kPa	<b>P165194</b>	Electric Single Post DC
25 psi / 172 kPa	<b>P575334</b>	Visual Indicator, Pop up
50 psi / 345 kPa	<b>P575335</b>	Visual Indicator, Pop up

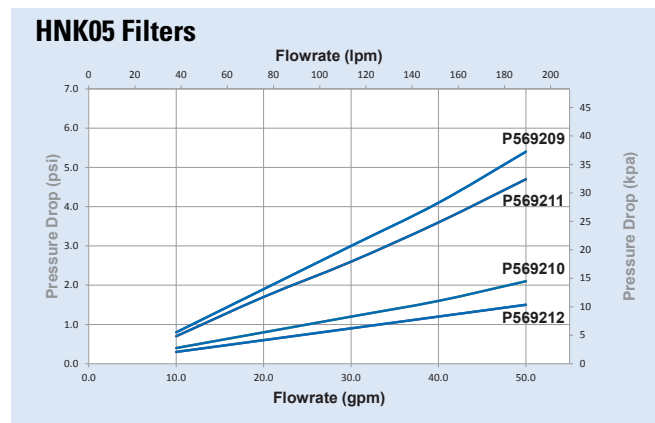
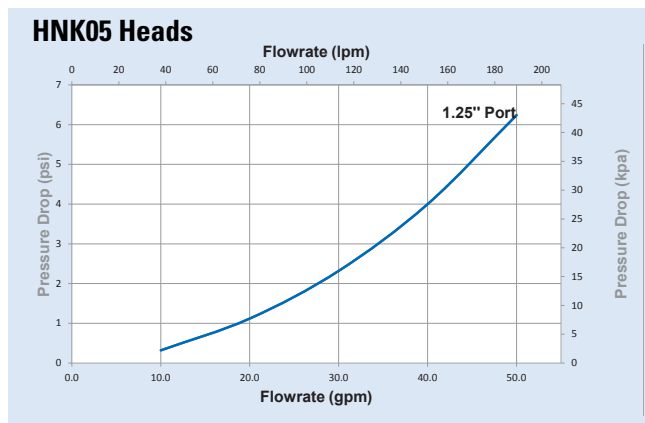
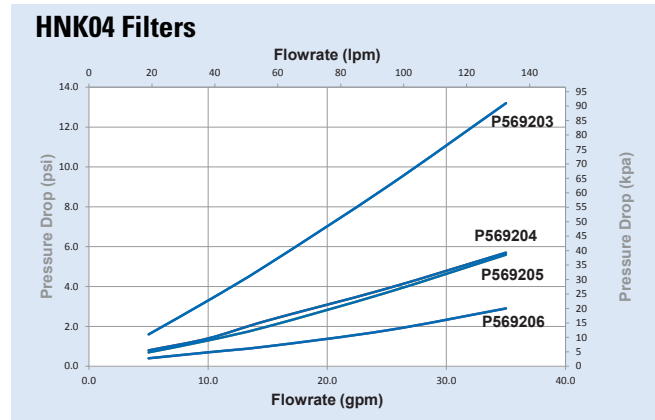
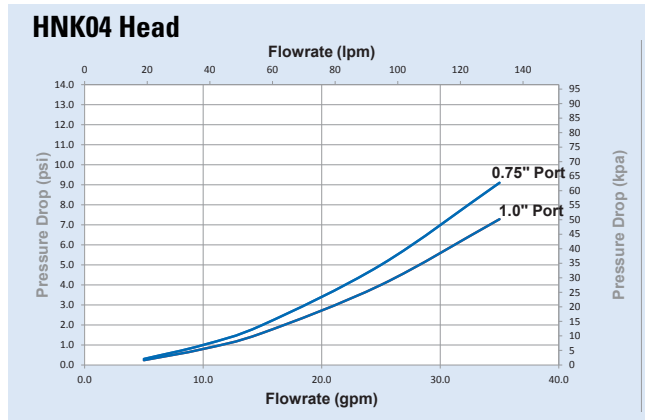
## Filter Choices

**FILTER MEDIA**

Synthetic Synteq™ Media Technology

Model	Beta $\alpha_{(e)}$ = 1000 Rating	Length (in./mm)	Part No.
<b>HNK04</b>	6 $\mu$ m	5.97 / 151.7	<b>P569203</b>
	6 $\mu$ m	9.44 / 239.8	<b>P569204</b>
	11 $\mu$ m	5.97 / 151.7	<b>P569205</b>
	11 $\mu$ m	9.44 / 239.8	<b>P569206</b>
<b>HNK05</b>	6 $\mu$ m	11.63 / 295.4	<b>P569209</b>
	6 $\mu$ m	14.24 / 361.7	<b>P569210</b>
	11 $\mu$ m	11.63 / 295.4	<b>P569211</b>
	11 $\mu$ m	14.24 / 361.7	<b>P569212</b>

## Performance Data



Donaldson Company, Inc.  
PO Box 1299  
Minneapolis, MN  
55440-1299

[www.donaldson.com](http://www.donaldson.com)  
[www.donaldsonfilters.com](http://www.donaldsonfilters.com)

Brochure No. F111211 ENG (11/15)

© 2015 Donaldson Company, Inc. All rights reserved. Donaldson Company, Inc. reserves the right to change or discontinue any model or specification at any time and without notice. Printed in the U.S.A.

North America 800-374-1374  
Mexico 52-449-910-6150  
Latin Am. & Caribbean 52-449-910-6150  
Brazil 55-11-2119-1604  
Europe 32-16-38-3811

South Africa 27-11-997-6000  
South East Asia 65-6311-7373  
Greater China 852-2405-8388  
Japan 81-42-540-4112  
Korea 82-2-517-3333  
Australia 61-02-4350-2033  
India 91-124-2290060