Cat® Ultra High Efficiency Fuel Filters

Maximum Engine Performance, Maximum Engine Life
Cat® Ultra High Efficiency (UHE) Fuel Filters provide unsurpassed contamination control to ensure that only clean fuel reaches your engine. Clean fuel is important because diesel engines now have advanced designs and emissions reduction technologies that use fine tolerances between parts and pressures up to 30,000 psi. Under these conditions, even smaller, micron-sized, contaminates can cause premature component wear, reduced performance, and/or emissions compliance issues.

Lower Operating and Ownership Cost

Unsurpassed Component Protection – With the ability to capture particles four microns in size and smaller, Cat Ultra High Efficiency Fuel Filters trap and hold contaminates to provide the protection necessary to achieve the designed life of components.

Maximize Engine Performance – High filtration efficiency is important because contaminated fuel can rob your engine of its rated power and cause hard starts.

Easier Serviceability – Cat Ultra High Efficiency Fuel Filters have a positive stop, so they can’t be overtightened, and, in most cases, can be changed without the need for tools. Less maintenance time means more uptime.

Lower Cost – The filter housing is reusable so only the cartridge needs to be changed. Less waste is created which reduces disposal costs.
Designed to Deliver the Best Protection

Fuel systems are sensitive to damage by contaminants carried in diesel fuel. To minimize this type of damage, Cat Ultra High Efficiency Fuel Filters are designed to maintain a tight separation between the “dirty” and “clean” sides of the filter. All the fuel is forced through the media, where more than 98% of the particulates four microns in size and larger are captured, before entering the clean side. During testing, the efficiency of these filters remained steady with particles smaller than four microns as well.

**Prefill Deterrent** – The top end cap prevents dirty fuel from entering the clean side of the fuel system, even during prefill.

**Advanced Filter Media** – A layer of cellulose/synthetic media is combined with a second layer of melt-blown polypropylene media to increase dirt-holding capacity and take filtration efficiency of the secondary filter to the sub-four micron level.

**Spiral Roving** – A fiberglass spiral roving is used to prevent the pleats from flexing. This keeps contaminants locked in the filter.
Cat Engines are equipped with aftertreatment devices that lower emissions levels. Filters are an important part of this emissions treatment process. The Primary and Secondary Fuel Filters work together to remove nearly all contaminates and water before combustion.

It is important to use the correct filter for each and every change because using the wrong filter can jeopardize the performance of the emissions reduction system taking your engine out of emissions compliance as a result.

**Integrated Seals** – A number of integrated filter seals maintain a tight separation between the “clean” and “dirty” sides of the fuel system.

**Non-metallic Center Tube** – Center tubes are made out of fiberglass-reinforced nylon that is 30% stronger than typical metal tubes to help prevent collapse during pressure spikes and cold starts. Non-metallic center tubes also eliminate a common source of metal contamination.

**Acrylic Beads** – Pleat spacing is rigidly maintained by acrylic beads that prevent bunching and provide maximum filtration surface area throughout the life of the filter.

**Reusable Housing** – A reusable housing reduces waste and disposal costs.

**Clean Drain Valve** – The patented Clean Drain Valve lets you drain the fuel before removing the filter. The valve also locks the filter in place and makes it possible to change the filter without using tools.

**Consistent Quality**
Cat Filters are made with a standard of consistent quality that is unmatched by competitive filters. This is possible because Cat Filters are built in automated manufacturing facilities where quality is continuously verified through multiple layers of computerized monitoring, testing, and inspection.

**Supporting Sustainable Progress**
Cat Filters help support your sustainability efforts. The filter housing was designed for the life of the machine, reducing waste. The element can be incinerated after use. And because the correct filter is used change after change, your machine continues to operate at its designed levels of performance.
The Cat Fuel Water Separator removes more than 98% of the particles 10 microns in size and larger, while removing virtually all the free water and 87% of the dispersed water. This is important because with the fine tolerances between parts in today’s engines, diesel fuel acts as a lubricant. Removing the water also eliminates the biggest source of pitting damage to fuel injectors.

Next, the Secondary Fuel Filter removes more than 98% of the remaining particles down to four microns in size. Testing has shown that the filter remains highly efficient with particles below four microns in size as well.

**Cat Fuel Water Separator**
- Sub-ten Micron Efficiency
- Reusable Housing
- Integrated Seals
- Easy-disposal Element

**Cat Secondary Fuel Filter**
- Sub-four Micron Efficiency
- Reusable Housing
- Integrated Seals
- Easy-disposal Element