The Inside Story

Cat® Fuel, Oil, and Transmission Filters

CATERPILLAR®

Visibly Better

Cat® Fuel, Oil, and Transmission Filters

The consistent quality of Cat® Filters is your best protection.

When you see inside a Cat Filter, the difference is clear. The advanced design features found in Cat Filters combine to deliver maximum filtration efficiency and the protection you need to get the most out of your machine.

All filters are not the same. Cat Filters have:

- Acrylic beads to prevent pleat bunching
- Spiral roving for greater pleat stability
- A nylon center tube to prevent metal contamination
- Molded end caps to prevent leaks

Cat Filters have a one-piece canister. During the manufacturing process the edge of the canister is folded down onto the base plate. This gives Cat Filters the ability to withstand greater pressures and virtually eliminates leaks.

The acrylic beads in Cat® Filters keep the pleated filter media evenly spaced.

Other brands of filters commonly experience pleat bunching, which leads to clogging and shorter change intervals. Bunching can also trigger bypass allowing contaminants to circulate through the system and cause additional wear.

With Cat Filters it is easy to see the difference. Acrylic beads rigidly maintain pleat spacing to prevent bunching and to maximize the surface area throughout the life of the filter. This helps Cat Filters capture and hold contaminates until the next change interval. This can mean fewer oil changes per year, decreased downtime, and lower owning and operating costs.

Cat Filters have acrylic beads to keep the pleated filter media rigid and evenly spaced.

Acrylic Beads

CAT® FUEL, OIL, AND TRANSMISSION FILTERS

Spiral Roving

Cat® Fuel, Oil, and Transmission Filters

The fiberglass spiral roving in Cat® Filters keeps filter media pleats from flexing as fluid travels through the media.

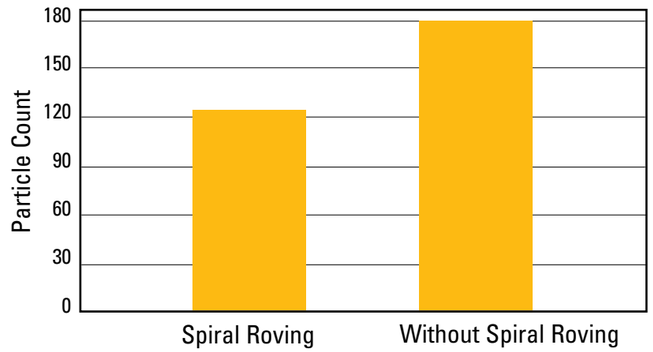
With other brands of filters, pleats often flex releasing contaminants through the filter media into the "clean" side where they cause additional component wear.

The spiral roving in Cat Filters eliminates pleat movement ensuring that contaminates are captured and held. This is particularly important during machine cold start and machine shutdown.

Cat® Filters have a fiberglass cord wrapped around the cylinder of filter media. This spiral roving keeps pleats in place, allowing for better filtration.

Filtration efficiency is directly impacted by pleat movement because the motion of pleats can allow contaminates to work their way through the media into the clean side of the filter.

During testing, particle counts of filters with spiral roving were 45% lower than similar filters without spiral roving.



Center Tube

CAT® FUEL, OIL, AND TRANSMISSION FILTERS

Cat® Filters use non-metallic center tubes to add strength and to eliminate a source of contamination.

Non-metallic center tubes make Cat Filters stronger.

Other brands of filters use metal center tubes, which often carry metal contaminants leftover from the manufacturing process. These are picked up by the fluid from the clean side of the media and continue through the system to cause component wear.

The center tubes in Cat Filters are made out of fiberglass-reinforced nylon, eliminating a common source of metal contamination. Plus, Cat non-metallic center tubes are 30% stronger than typical metal tubes to help prevent collapse during pressure spikes and cold starts.

Molded Endcaps

CAT® FUEL, OIL, AND TRANSMISSION FILTERS

Cat Filters eliminate the potential for gaps by inserting the filter media directly into the end caps as they are formed.

The molded end caps in Cat® Filters completely seal the clean side of the filter from the dirty side.

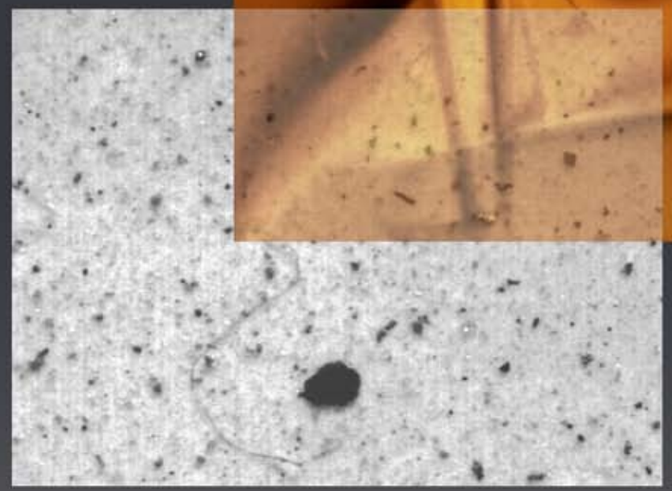
With competitive filters, metal end caps are glued on top of the filter pleats. This can leave gaps that allow contaminants to reenter the clean side of the filter.

The molded end caps in Cat Filters eliminate the possibility of gaps. During the manufacturing process, the filter media is inserted into the polyurethane before it hardens creating an impregnable bond that keeps contaminates confined to the dirty side of the filter.

An aluminum base plate is joined to the molded end cap and enclosed within the one-piece canister. This gives Cat Filters greater burst strength and eliminates a potential source of metal contamination.

Out of Sight

Is Not Out of Mind

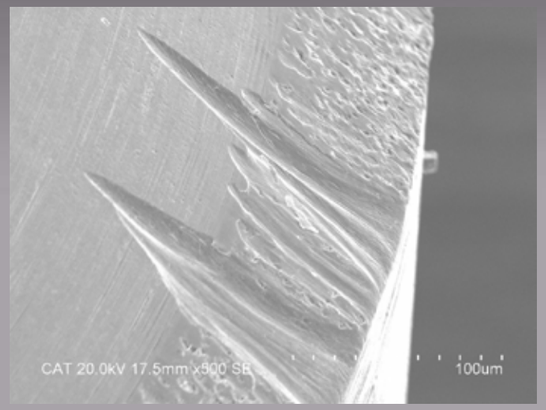


Contamination, even by particles too small to see, costs you money. As contaminates move through the system they cause component wear.

For example, are you replacing fuel injectors too often? This may be due to fuel system contamination.

Where Does Contamination Come From?
Fuel can become contaminated at many places: directly from the distributor, during operation, and/or through maintenance work. Contamination can even be found inside a brand new filter. This is why it is important to choose the consistent quality delivered only by Cat® Filters.

The advanced design features of Cat Filters combined with the automated manufacturing process maintain the integrity of the clean side of each and every Cat Filter: from when it leaves the factory, all the way until the next change interval.



Invisible Threat, Real Damage
Even the smallest contaminates are destructive because the drive to lower emissions has resulted in higher pressures and very tight clearances. For example, fuel injector openings can be as small as five microns in size (table salt ranges from 100 - 300 microns). When contaminates larger than four microns pass through the filter, micro-abrasion occurs (pictured left). Cat Advanced High Efficiency Filters are able to remove 98% of all particulates four microns in size, and larger, from the fuel system before damage occurs.

Consistent Quality

Cat® Fuel, Oil, and Transmission Filters

Cat® Filters achieve 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.

Save Cents?

Not all filters are equal. While other filters may initially cost less, they will quickly end up costing you more through lower productivity, shorter filter/fluid change intervals, and faster component wear.

Make Sense.

Choosing the consistent quality of Cat® Filters makes sense. Only Cat Filters provide the protection needed to give you the lowest owning and operating costs.

Cat Filters are made better. While other filter brands may fit your machine, only Cat Filters deliver the best protection for your engine, hydraulic, and transmission systems.

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