Fleetguard® Extended Service Intervals The 1000-Hour Solution

Your filters can last 1,000 hours or more between service intervals and still provide the best protection possible for your equipment. Here's how.

For additional service information, please reference Cummins service bulletin #4388840.

1,000-HOUR SOLUTIONS: The Fleetguard family of products

Our filters and coolant provide the best engine protection, lowest total cost of ownership and the longest service intervals —1,000 hours or more — of any filtration package.

AIR

NanoForce[®]

Fleetguard NanoForce air filters combine an innovative filter pleat design with a nanofiber media to give you:

- Up to 5x longer service intervals
- 30% lower annual expenditure
- 99.99% filtration efficiency

Longer Air Filter Life with Fleetguard

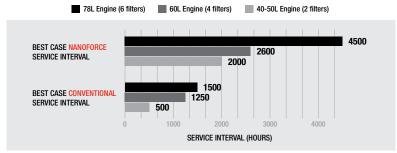


Chart shows typical results achieved in real-world testing of conventional and competitor nanofiber media filters vs. NanoForce[®] air filters in haul trucks.

Service life assumes 6~10" H20 (1.5~2.5 kPa) clean filter restriction and a maximum of 25" (6.2 kPa) filter restriction.

LUBE

For engines equipped with the Eliminator oil system, the Fleetguard SpiraTec[™] drop-in rotor (CS41018/CS41019) replaces the 84-piece cone stack with a disposable single assembly, reducing service time by nearly 2 hours per change and total cost of ownership by up to 44%.

Fleetguard Centrifuge Rotor Application Info

Fleetguard Rotor Part Number	Cummins Engine Applications	Eliminator™ Compatible	Rotor/Element Cross References	Remote Mount Housings
CS41018	Cummins QST30, QSK38, QSK45, QSK50, QSK60, QSK95* (requires 2 units)	Yes	Cummins 4331734, Alfa Laval 1800-17767	Fleetguard CH44105, CH44120, Mann + Hummel Spinner II-200, FM200, GL200
CS41019	Cummins QSK78 Only	Yes	Cummins 3649569, Alfa Laval 0565933-04	Not Applicable

Saves Time and Money

- All-in-one component
- Low cost
- Disposable, environmentally friendly
- Safer design with no sharp edges
- · Removes soot and contaminants to help maintain oil quality

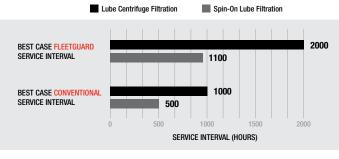
-	Fleetguard Part Numbe
	AF27698
MANTE IT AND	AF27696
478 Pr. N.	AF879M
	AF899M

Conventional Fleetguard Part Number	NanoForce Upgrade Part Number	Secondary Filter	Typical Applications
AF27698	AF25149NF*	AF25150**	Haul Trucks: Caterpillar 789D, 794 AC, 797F, MT5300DAC and Liebherr T282
AF27696	AF27993NF*	AF27994**	Haul Trucks: Belaz, Caterpillar, Euclid, Komatsu Liebherr and Terex Excavators: Hitachi and Komatsu
AF879M	AF879NF	AF857	Haul Trucks: Belaz, Caterpillar, Euclid, Komatsu and Terex Excavators: Hitachi and Komatsu
AF899M	AF899NF	AF880	Haul Trucks: Caterpillar, Komatsu and Liebherr Excavators: Komatsu and Liebherr Drills: Atlas Copco (Pit Viper)
AF1605M	AF1605NF	AF1604	Hitachi Dumpers and Excavators Terex Loaders and Trucks
	AF4216NF	N/A	P&H Rope Shovels with Air Scrub System
AF891M	AF891NF	N/A	Cranes, Drills, Backhoes, etc.

*Use with service cover SP1307 at time of conversion

**Simplify service events, order primary and secondary filters together. AA2990NF includes AF27993NF + AF27994 and AA2998NF includes AF25149NF + AF25150 AK15524NF includes AF27993NF + AF27994 + SP1307 and AK15545NF includes AF25149NF + AF25150 + SP1307.

Longer Lube Filter Life with Fleetguard



Remote Mount Centrifuge Bypass

For engines not equipped with the Eliminator oil system, Fleetguard offers the Centriguard remote mount centrifuge bypass option, which cuts oil soot levels and oil consumption up to 50% while increasing the service life of full-flow lube filters. It also better protects bearings, cylinder liners and valve train from wear particles, which increases time to overhaul, improves fuel economy and protects against mechanical failures.



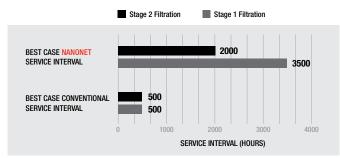
FUEL

NanoNet

Fleetguard fuel filters with NanoNet media are specifically designed for the higher pressures and tighter tolerances of an MCRS engine and provide:

- Up to 13x cleaner fuel for Cummins Tier 4 engines
- Up to 14x longer service life
- Unmatched fuel injection protection over the service life of the filter

Longer Fuel Filter Life with Fleetguard



On MCRS engines (Tier 2 and above) with 2-stage fuel filtration, the first stage can be replaced with the Industrial Pro unit and the second stage upgraded to our Fleetguard FF256 NanoNet spin-on.





	Stage 1 Filtration			
Engine Fleetguard Size Housing Part Number		Product Description	Fleetguard Element Part Number	
19L-38L	FH23903	FH239 Series Industrial Pro Single Tall	FS53014	
45L-78L	FH23908	FH239 Series Industrial Pro Dual Tall	FS53014 (Qty 2)	

Stage 2 Filtration			
Engine Size	Tier 2	Tier 4	Filter Qty
19L	FF63044NN	FF255	2
23L-45L	FF63042NN	FF256	2
50L-78L	FF63042NN	FF256	3

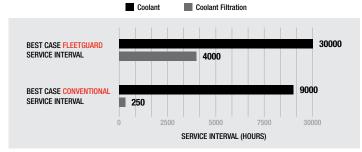
You can bypass inline spin-on filters on EPA non-certified and Tier 1 HPI engines by using our Fleetguard FH239 Series Industrial Pro® fuel housing with NanoNet filter elements, which can reduce the cost of fuel filter elements by 50% or more and extend the service interval on the fuel system beyond 1,000 hours.

. The FH239 Series also increases uptime through extended service intervals. Plus, our new FH239 Series duplex models allow for fuel filter changes without shutting down your equipment.

COOLANT

For extended service, Fleetguard recommends ES Compleat Organic Acid Technology, a "life of the engine" coolant that does not have to be flushed and replaced like conventional coolants. Just top it off as needed. Plus, Fleetguard offers a range of extended-service filters which provide superior protection for up to 4,000 hours.

Longer Coolant and Filter Life with Fleetguard



*The user is responsible for ensuring proper additive levels and coolant pH through coolant testing and the addition of extender if necessary. Testing your coolant every 300,000-miles or 6,000-hours is recommended to identify system contamination and to screen for engine problems.



OAT Coolant

Protects critical cooling system components from radiator corrosion, metal pitting and cavitation caused by high-pressure vapor bubbles, hot spots caused by scale formation, and gasket or hose failures caused by material incompatibilities.

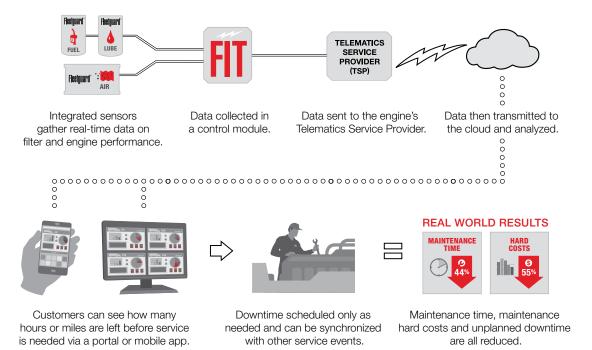


OAT Coolant Filters

Our solutions for high-horsepower applications are capable of 4,000hour service intervals. Note: Filters with additives should not be used with ES Compleat OAT coolant and/ or with ES Compleat coolant with additives already mixed in.

Maximize filter life with FleetguardFIT — Filtration Intelligence Technology

FleetguardFIT is a real-time filtration monitoring system that allows you to take full advantage of our 1000-hour solutions. Because it provides full visibility into filter and oil life through intelligent sensing and advanced data analytics, FleetguardFIT gives you proactive problem detection. Maintenance can be scheduled only as needed based on true usage, not manufacturer's service recommendations, or it can be synchronized with other service events. FleetguardFIT not only reduces maintenance downtime and expenses, but it also can reduce or eliminate the costs of catastrophic engine damage.



Built by the Best Name

Fleetguard products are designed by engineers at Cummins Filtration, the only filter company that's part of an engine company. We know what it takes to maximize your investment in your equipment. And the quality of our products is matched only by the quality of our sales, service and support. Our worldwide distribution network can find the right solution to meet your needs, quickly and efficiently.

Backed by the Best Warranty

Unlike our competitors who offer pro-rated coverage, our full warranty protection extends from the point of purchase throughout the recommended service life of the product. **Nothing Guards Like Fleetguard!**

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Filtration

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