

Fleetguard

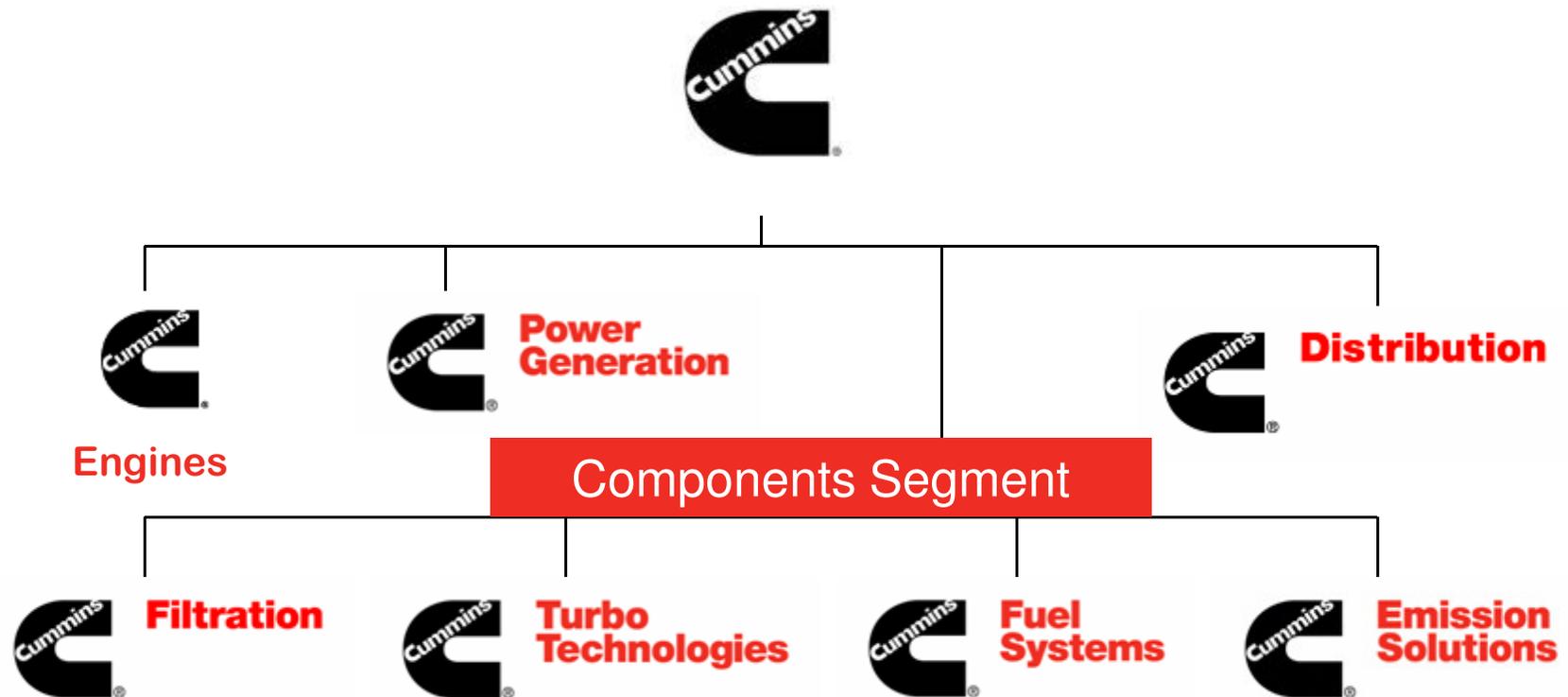
The Power of Legitimacy



**Power
Systems**

Cummins Business Units

- Cummins seven complementary business units design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems.



- **Cummins Filtration is the global Filtration, Coolant and Fuel Additive specialist for all engine-powered systems.**



Cummins Filtration Global Customers



Partnering with our customers for Success

Fleetguard is Cummins Filtration



About Fleetguard

- The Fleetguard product offering is the most comprehensive in the industry and includes filters, coolant and chemical additive products.
- Fleetguard products are distributed globally in over 160 countries at over 30,000 distribution points.
- Fleetguard products are sold across a wide customer base including on-highway, transit, school bus, off-highway, oil and gas, agriculture, mining, marine, industrial and light-duty automotive applications.
- Latest Independent Research by MacKay reports the Fleetguard brand as the most preferred in the industry for air, fuel, lube and coolant filters.

Fleetguard®

A solid red square graphic positioned below the Fleetguard logo.

Celebrating

1958

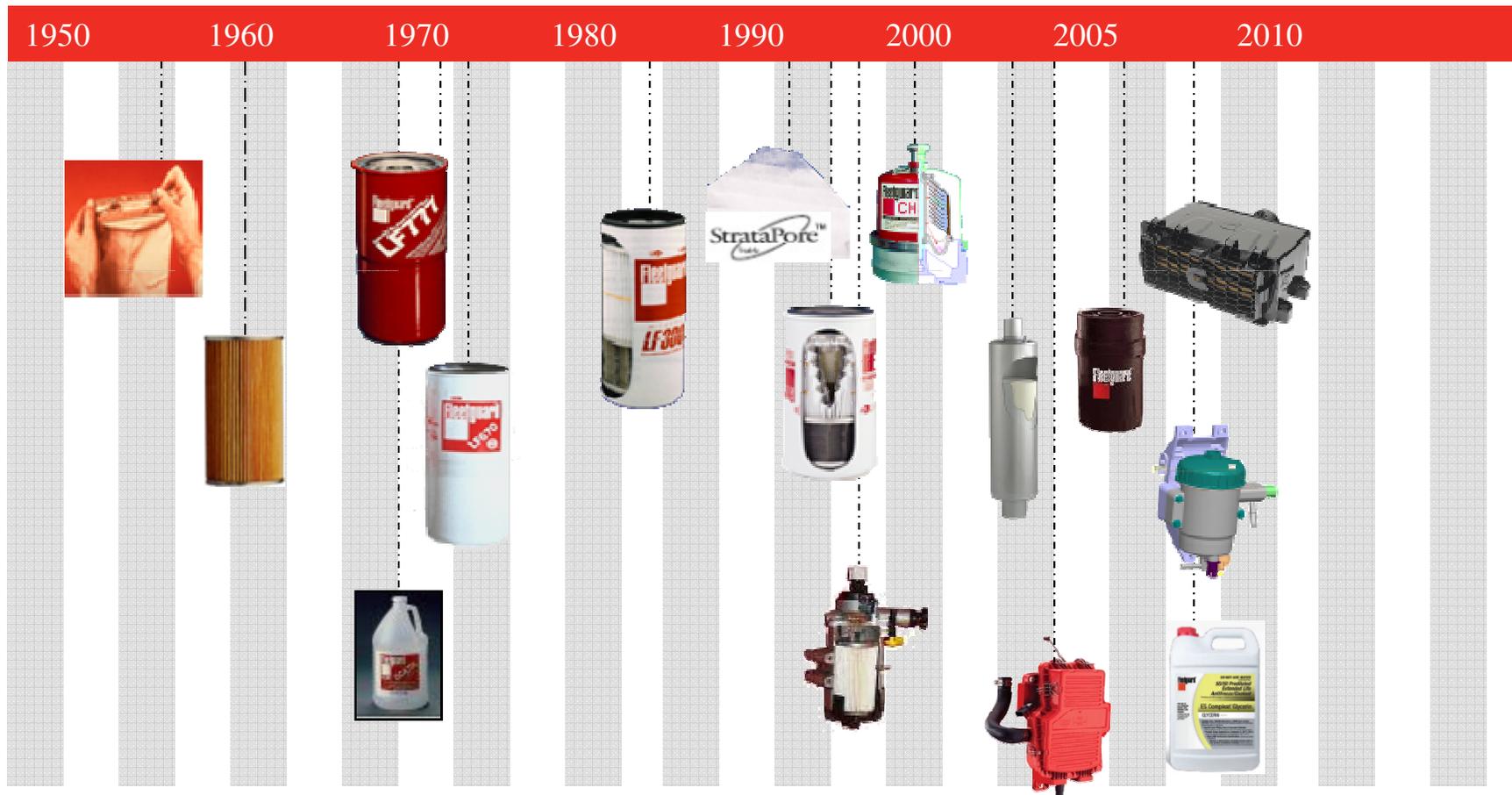


2008

Cummins Owned

- Started by Cummins in 1958
- Only Filter Manufacturer Owned by an Engine Company
- Involved in Emerging Diesel Engine Trends
- History of Specialized Development

Fleetguards History of Innovation



Cummins Relationship

Experience drives new product development.

- 1st Spin-on diesel engine lube filter
- 1st Spin-on bypass filter
- 1st Spin-on fuel filter
- 1st Spin-on coolant filter
- 1st Filter to use synthetic media
- 1st Combo filter - LF3000
- 1st Combo filter with single flow - Venturi

Our Warranty – The Best in the Industry

■ When you buy a Cummins Filtration product, you are assured superior warranty protection from the point of purchase throughout the recommended life of the product. Unlike industry competitors, our warranty coverage is not pro-rated, which means you are fully protected through the recommended service life of the product. These factors make the Cummins Filtration warranty one of the best in the industry.



What Can Fleetguard Offer?



**Power
Systems**

Benefit Maximization Strategy:

“Here is the issue: Customers don’t care about our stuff; they care about their stuff.”

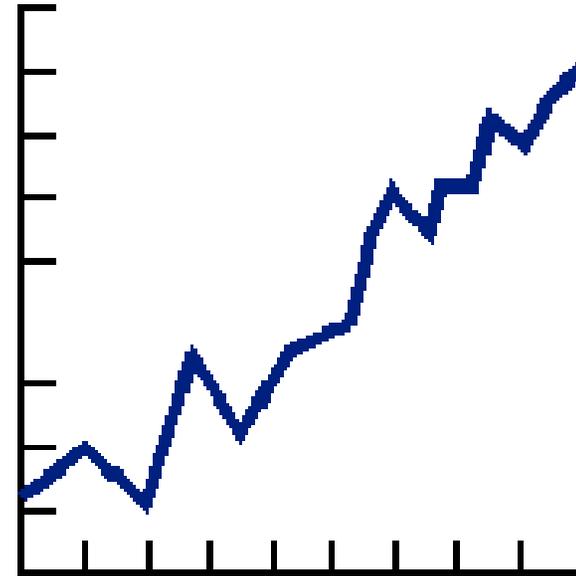
Ed Horowitz, Corporate Executive Vice President, Citibank

Fleetguard Offers Advanced Technologies that Improve the Performance of your Equipment and Dramatically Lower your Business Operating Costs.

Benefit Maximization Strategy:



**Time
Money**



**Time
Money**

Lower Total Cost of Ownership (TCO)

The Fleetguard Way

- *Products that Perform*
- +
- *Services that Excel*
- +
- *Integration that Works*
- =
- **MAXIMUM UPTIME**



Fleetguard Capabilities

- Maximize/Extend Equipment Life Span
- Reduce Maintenance Costs
- Reduce Environmental Impacts
- Simplified Universal Filtration Maintenance Program
- ***All Tailored to Meet Your Organization's Specific Goals & Objectives***

Our Commitment to the Environment

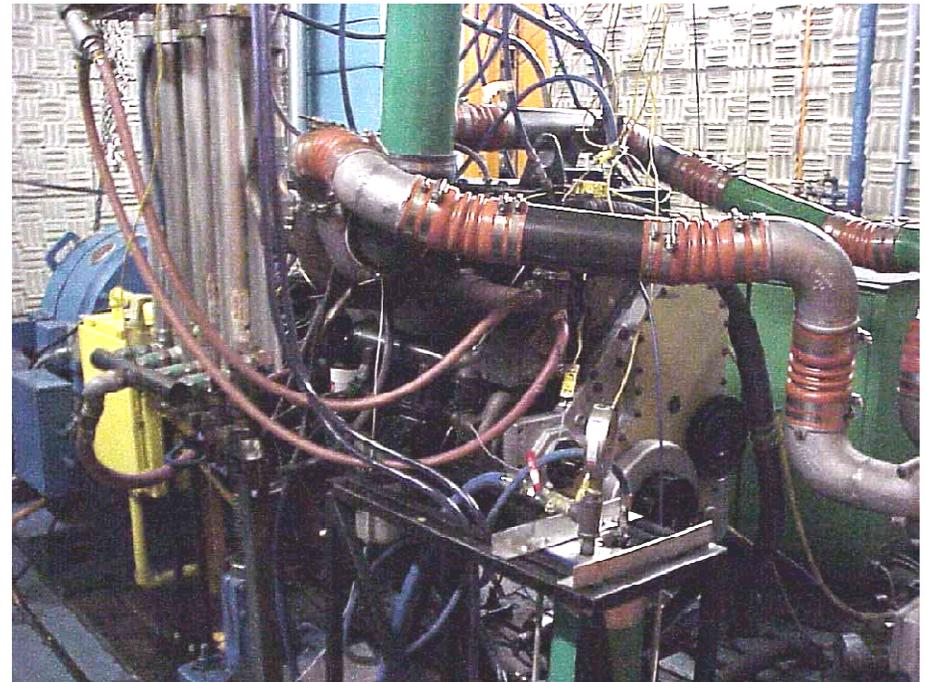


Doing More to Use Less

- Cummins Filtration cares about maintaining a cleaner, healthier, safer environment. Going beyond compliance, Cummins Filtration proactively seeks improvements to products and processes and offers environmentally friendlier product choices for all major engine systems.

Real World Testing

- Increased engine life
- Proper performance for desired service intervals
- Time saving products for ease of servicing



Fleetguard Advantage



**Power
Systems**

Single Source Supplier

One Stop Shopping!



- Over 7000 Products Available

- ✓ Coolants / Chemicals
- ✓ Fuel Additives
- ✓ Filtration
 - ✓ Lube
 - ✓ Hydraulic
 - ✓ Fuel, Fuel Processors
 - ✓ Air
 - ✓ Water
- ✓ CV (Crankcase Ventilation)
- ✓ Fluid Analysis
- ✓ Depth Filtration (Winslow)
- ✓ Diesel Exhaust Fluid (DEF)



The Fleetguard Advantage



- OEM Relationships
 - First Fit
 - Genuine OE Quality
 - Meet or Exceed OEM Specifications
- Not a “will-fit” or jobber”
- Specific Application
- Product Coverage
- Best In Class Warranty
 - Not Prorated



The Fleetguard Advantage

- Up-to-date information on changing and new technologies.
- Technologies that Improve Your Bottom Line



Real World Contamination Filtration Challenge

- Remove wear causing, microscopic contamination - *Efficiency*
- Last for Extended Service Intervals while removing contamination – *Capacity*
- Be able to flow adequate amounts of oil – *Cold Flow Ability*
- Effective water removal ability – *Especially for emulsified water*

StrataPore Media



- The gradient density means higher overall filter efficiency – *smaller particles of contamination are removed*
- The gradient density also means higher contaminant capacity – *it has the ability to last for longer service intervals*
- The StrataPore synthetic fibers are much stronger than cellulose (paper) or other synthetic medias, leading to longer service intervals without media deterioration



StrataPore Media



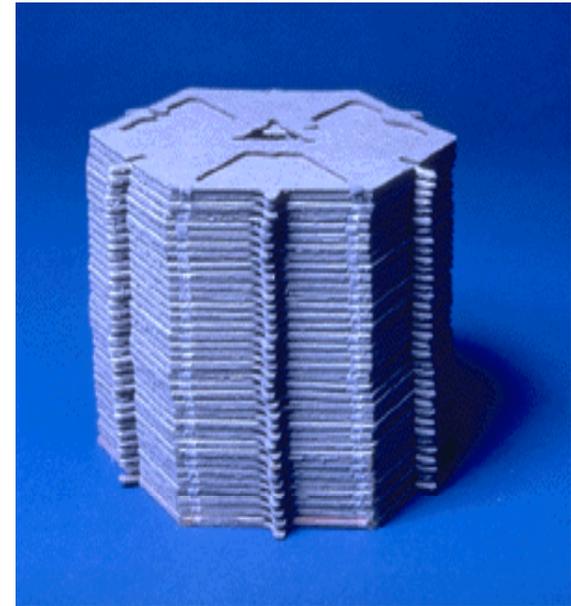
- StrataPore's high efficiency which reduces wear, high capacity which increases service intervals, and water removal ability and strength, ensures:
 - Increased up-time - *benefit*
 - Increased revenue generating potential - *benefit*
 - Longer component life - *benefit*
 - Lower operating costs - *benefit*
 - Decreased down-time - *benefit*

StrataPore™
inside



Stacked Disc Media

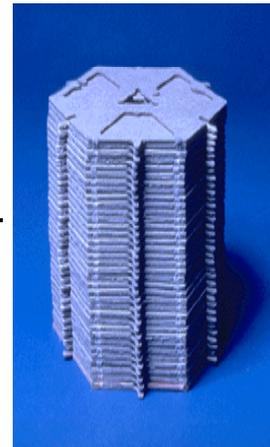
- Stack Disc media has a very high efficiency - *smaller contamination removal*
- Stack Disc media also has a very high contaminant capacity – *longer service interval*
- Stack Disc media has a high attraction for sludge – *absorbs sludge easily*
- Stack Disc media has a high capacity for sludge – *longer service interval*



REAL World Testing
Sludge, contributing up to, 75%
of the contamination in the lube
filter, leads to filter plugging.

Stack Disc Media

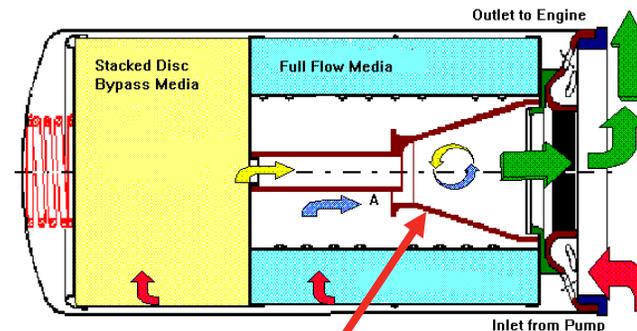
- Stack Disc's high efficiency which reduces wear and high capacity which increases service intervals, ensures:
 - Increased up-time - *benefit*
 - Increased revenue generating potential - *benefit*
 - Longer component life - *benefit*
 - Lower operating costs - *benefit*
 - Decreased down-time - *benefit*



Venturi Center Tube

The Venturi center tube directs more oil flow through the Stack Disc media section of the lube filter.

More oil flow through the Stack Disc section means increased sludge removal, or sludge control



Venturi Center
Tube

ES Compleat™ OAT (Organic Acid Technology) Lifetime – Heavy Duty – Fully Formulated



Extended service - lifetime coolant

3 Years, 300,000 miles, 6000 hours service intervals.

Provides antifreeze and antiboil protection.

Superior liner pitting, cavitation, and corrosion protection

Superior aluminum and solder protection.

NOAT, minimal levels, reduced TDS

Compatible with gaskets, elastomers, and other non-metallic in the engine.

Optimizes cooling system performance and water pump life.

Contains proprietary scale inhibitors.

For all diesel, gasoline, and natural gas engines.

Additive easily maintained with OAT extender.

Lasts a lifetime – good for the life of the engine to overhaul – Does not need to be replaced except in unusual circumstances.

ES Compleat™

Lifetime – Heavy Duty – Fully Formulated



Extended service - lifetime coolant

150,000 miles, 4000 hours service intervals.

Provides antifreeze and antiboil protection.

Best liner pitting, cavitation, and corrosion protection

Best aluminum and solder protection.

Compatible with gaskets, elastomers, and other non-metallic in the engine.

Optimizes cooling system performance and water pump life.

Contains proprietary scale inhibitors.

For all diesel, gasoline, and natural gas engines.

Easy to use test strips monitor glycol and

levels providing protection against coolant additives dilution.

Additives levels easily maintained via ES Extender, liquid, or chemically charged filters.

Lasts a lifetime – good for the life of the engine to overhaul – Does not need to be replaced except in unusual circumstances.

Fleetcool™

Lifetime – Heavy Duty – Fully Formulated



Extended service - lifetime coolant

150,000 miles, 4,000 hours service intervals.

Provides antifreeze and antiboil protection.

Excellent liner pitting, cavitation, and corrosion protection

Excellent aluminum and solder protection.

Phosphate free to meet the requirements of OEM's.

Compatible with gaskets, elastomers, and other non-metallic in the engine.

Optimizes cooling system performance and water pump life.

Contains proprietary scale inhibitors.

For all diesel, gasoline, and natural gas engines.

Easy to use test strips monitor glycol and

levels providing protection against coolant additives dilution.

Additives levels easily maintained via DCA 2 or

charged filters.

Lasts a lifetime – good for the life of the engine to overhaul – Does not need to be replaced except in unusual circumstances.

Compatibility



ES Compleat™, ES Compleat OAT™, Fleetcool™ EX, Fleetcool™ Recycled, DCA 2 and DCA 4 are coolants and supplemental coolant additives that are known to us to be compatible with the following (but not all inclusive) list of coolant products:

Fleetcharge® Antifreeze, Caterpillar® Diesel Engine Antifreeze Coolant, Prestone® Heavy-Duty Coolant, Final Charge®, Detroit Diesel POWERCOOL® and POWERCOOL® Plus Coolant, Caterpillar® ELC, ChevronTexaco Delo™ ELC, Shell Rotella® ELC, Zerex® Extended Life Extreme 3/300, DEX-COOL®, Zerex® G-05, Motorcraft® Premium Gold Coolant, DaimlerChrysler® / Mopar® 2003 Coolant.

Asphaltene Conditioner

■ Detergent

- Removes injector deposits
- Prevents deposit formation
- Stabilizes fuel – prevents asphaltene agglomeration which can lead to premature filter plugging and viscosity increase
- Optimizes Fuel Economy
- Reduces Emissions
- Restores Power

■ Lubricity Enhancer

- Protects fuel system components from wear and damage
- Provides engine protection lost with the transition to ULSD
- Prolongs fuel pump and injector life
- Anti-corrosion protection



Asphaltene Conditioner

- Asphaltene Conditioner is formulated to provide deposit removal and prevention, as well as lubricity improvement.
- Asphaltene Conditioner should be used for:
 - Treatment of traditional or asphaltene deposits, commonly indicated by filter plugging and power loss
 - Fuel system maintenance (continued use), not a ‘One-Tank’ clean-up product
 - Applications with low lubricity and deposit concerns
 - Engines with high levels of wear
 - Indicated by fuel pump failure or fuel analysis
 - Low Lubricity Fuel Applications
 - JP-8, Jet A, bulk storage fuel



Winter Conditioner

- Winter Conditioner is formulated to:
 - Prevent the formation of large paraffin lattices in the fuel system and filter by nucleating multiple small crystals
 - Prevent contaminant water from freezing
- Primary Benefits
 - Reduces Cold Filter Plug Point by up to 30 °F
 - Reduces Pour Point by up to 38 °F
 - Prevents:
 - Fuel Filter Gelling
 - Fuel Line Freeze Up
 - Fuel System Damage



Water Contamination and Microbial Growth

- Even in closed systems with good maintenance, water can be present
 - Fuel is heated as it passes through the engine, when the hot fuel enters back in the tank it meets cool air and leads to condensation on tank walls
 - This condensation then enters the fuel and drops out in the bottom of the tank
- The Fuel Water Separator performance is critical!!
- Microbial growth is more predominant with ULSD
- Microbes live in the fuel/ water interface in tanks
- Microbes are most common in dormant storage tanks and fuels containing biodiesel
- If untreated, this can lead to corrosion, filter plugging, injector plugging, and even storage tank replacement.

Microbicide



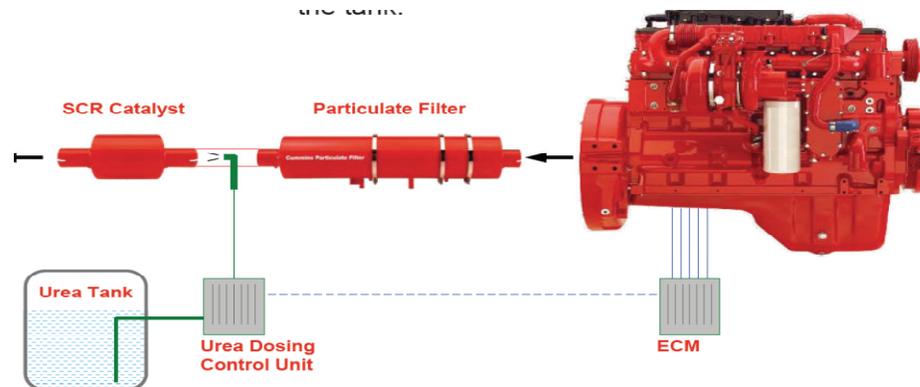
- Microbial growth can lead to premature filter plugging, corrosion, and fuel system damage if left untreated.
- Microbicide kills micro-organisms, including bacteria and fungi
 - Formulated to concentrate in the water phase yet also partition into the fuel phase to treat and prevent microbial growth in both the tank and the fuel lines and system
- Should be used in storage tanks twice yearly to effectively prevent and eliminate microbes
- 1 Quart treats 2500 gallons of fuel



Diesel Exhaust Fluid (DEF)

Diesel Exhaust Fluid (DEF) is the reactant necessary for the function of the SCR system

DEF is injected into the hot exhaust gas stream where it vaporizes and decomposes to form ammonia and carbon dioxide. The ammonia (NH_3) is the desired product which in conjunction with the SCR catalyst, converts the Nox to Nitrogen (N_2) and water (H_2O).



Diesel Exhaust Fluid DEF

- 1 gallon jug
- 2.5 gallon jug
- 55 gallon drums
- 330 gallon plastic totes
- Bulk

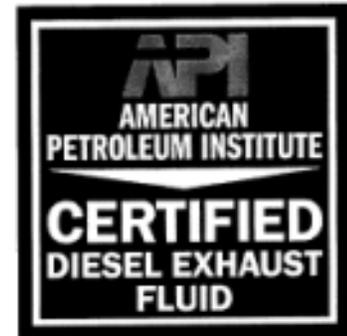


DEF Specifications

■ ISO 22241

- **1 Quality and handling requirements: Standard used for bidding** specifies the quality characteristics of DEF needed to operate the SCR system on your vehicle. It is a final, published International Standard.
- **2 Test methods**, specifies test methods required for determination of the quality characteristics of DEF. It is also a published International Standard.
- **3 Handling, transportation and storing**, describes how to deal with DEF in practice. It is much like the CEFIC QAGD above. It is also a published International Standard.
- **4 Refilling interface**, describes elements relating to refilling components.

■ American Petroleum Institute (API)



MONITOR™ Fluid Analysis Program

What can the MONITOR Fluid Analysis Program Do For You?

- **Extend oil drain intervals** – Partnering MONITOR Fluid Analysis with Cummins Extended Service Interval technologies maximizes uptime and minimizes maintenance costs.
- **Extend equipment life** – Monitoring system cleanliness and filtration efficiency gets more out of the equipment you have and can significantly reduce equipment replacement costs.
- **Identify minor problems before they become major failures** – State-of-the-art fluid analysis identifies dirt, wear particles, fuel dilution and coolant – contaminants that can cause catastrophic failure or significantly shorten equipment life.
- **Maximize asset reliability** – Testing and analysis expands your Extended Service environment to ensure that units are up, running and making money.
- **Increase resale value** – Analysis results provide valuable sampling history documentation that can easily justify higher equipment resale values.

MONITOR Sampling Intervals & Methods		
	Sampling Interval	Suggested Method & Location
Diesel Engines-Oil	Monthly or at 250 hours	By sample extraction pump through dipstick retaining tube or sampling valve installed in filter return
Diesel Engines-Coolant	Quarterly	By vacuum pump through radiator
Diesel Engines-Fuel	Quarterly	By vacuum pump through gas tank
Hydraulics	250 – 500 hours	By vacuum pump through oil fill port or system reservoir at mid-level
Automatic Transmissions	500 hours / 25,000 miles	By vacuum pump through dipstick retaining tube or sampling valve installed in filter return
Manual Transmissions & Differentials	750 hours / 50,000 miles	By vacuum pump through oil level plug or dipstick retaining tube

Why MONITOR?

High Quality Testing

With HORIZON®, you can be confident you're testing with a laboratory that knows your equipment better than anyone. MONITOR's independent testing laboratories are ISO 17025 A2LA accredited – the highest level of quality attainable by a testing laboratory backed by the most stringent accrediting body on the industry. This means that your fluid analysis program is supported by a documented quality system you can depend on to deliver superior testing and customer services.



Key Message to our Customers

All the features and functions of Cummins Filtration products provide considerable benefits for owners of new and older engines alike, including;

- *Increase up-time*
- *Decrease down-time*
- *Ensure long trouble free engine and component life*
- *Reduce operating costs*



Fleetguard – Transit Value Package



**Power
Systems**

Cummins Power Systems

Fleetguard Transit Value Package

- Cummins Power Systems LLC offers an array of products, services, support, and programs to our Fleetguard customers. Every service we provide designed to make your business life easier.
- Through our Fleetguard® brand of filtration, exhaust, coolant, fuel additives, and chemical products, we offer dependability and reliability beyond OEM specifications and customer requirements.



Cummins Power Systems

Fleetguard Transit Value Package

- Supported Accounts— 63% off of USMRP
 - LF9080
 - USMRP: \$53.45
 - Transit End-User: \$19.78
 - Specials
 - Additional discount
 - Quoted parts pricing
- Comprehensive Product Line
 - Filtration
 - Air, Crankcase, Fuel, Hydraulic, Lube, Transmission, Water
 - Coolant/Antifreeze
 - Extended Life
 - Additives
 - Testing
 - Fuel Additives
 - Diesel Exhaust Fluids
 - Service Parts
 - Fluid Analysis



Cummins Power Systems

Fleetguard Transit Value Package

- **Dedicated Staff**
- **Technical Support**
- **Up-to-date information on changing and new technologies.**
 - ***Cross-Reference Service**
 - ***Equipment survey**
 - ***Equipment maintenance spreadsheets**
 - ***On-site training**
 - ***E-updates**
 - ***Product Literature**
 - ***Customized maintenance kits**
 - ***Free Delivery for \$300 + orders.**

Cummins Power Systems Fleetguard Transit Value Package

- QSOL (QuickServe on Line): Easy access to parts and service information with daily updates with the most current information. Engine specific by engine serial number.
- Free with \$7,500 a year Cummins Filtration / Fleetguard purchases.



Cummins Power Systems

Fleetguard Transit Value Package

QSOL offers:

- **Parts:**

- Breakouts with pictures and part numbers.
- Parts supersession's.
- Technical service bulletins.

- **Service:**

- Review open campaigns per engine serial number.
- Troubleshoot and repair manuals.
- Shop manuals.
- Wiring diagrams.
- Technical service bulletins.
- Operations owner manual.

Cummins Power Systems

Fleetguard Transit Value Package

Our on-line ordering program, Web Cumpas, is free as part of the QSOL and offers the following:

- Pricing and availability .
- Ordering direct from our Central Parts warehouse
- Ease of use.
- On-line tutorial or download for self training.

Cummins Power Systems

Fleetguard Transit Value Package

Cummins Filtration – Fleetguard® Customer Assistance Centers are there when you need them:

- 24/7 - Coverage – 1-800-223-4583
- Interactive web site updated daily with new product and service information. (www.cumminsfiltration.com)
- FleetMaster email system guarantees response within 24 hours.
- Complete online catalog with interactive information support.
- Fleetguard Master Catalog on CD with Fleet Manager.
- On-line training tutorials.

Cummins Power Systems Cummins Filtration/Fleetguard

Creating a Genuine Partnership for Future Success

Thank You !!!!

