



# PARTS PRO CLASSIC

## CLASSIC EDITION #26

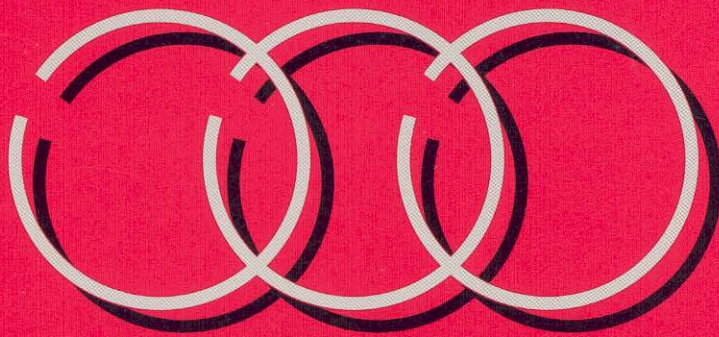
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Cummins



# Parts Professional 26



**INVEST IN THE BEST**



## Parts Professional 26 Quiz

**Current Address**  Check here if this is a new address

Name \_\_\_\_\_  
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 City \_\_\_\_\_  
 State \_\_\_\_\_ Zip \_\_\_\_\_

**Old Address** (if Applicable)

Name \_\_\_\_\_  
 Street \_\_\_\_\_  
 City \_\_\_\_\_  
 State \_\_\_\_\_ Zip \_\_\_\_\_  
 Distributor Code \_\_\_\_\_ Dealer Code \_\_\_\_\_

## Quiz

- |     |   |   |   |   |
|-----|---|---|---|---|
| 1.  | A | B |   |   |
| 2.  | A | B |   |   |
| 3.  | A | B | C | D |
| 4.  | A | B |   |   |
| 5.  | A | B | C | D |
| 6.  | A | B | C | D |
| 7.  | A | B | C | D |
| 8.  | A | B |   |   |
| 9.  | A | B |   |   |
| 10. | A | B |   |   |
| 11. | A | B |   |   |
| 12. | A | B | C | D |

## Parts Professional 26 Reply Card

Check here if this is a new address

**Current Address**

**Old Address** (if applicable)

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 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Distributor Code \_\_\_\_\_ Dealer Code \_\_\_\_\_  
 (if applicable) (if applicable)

Comments or Suggestions: \_\_\_\_\_  
 Dealer Name \_\_\_\_\_  
 \_\_\_\_\_  
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## Welcome to Parts Professional 26!

This issue covers a wide range of useful information concerning Fleetguard products. After reading this issue, please take the quiz located in the back of the book. Tear out the answer card in the front of the book and circle the correct answers. We are giving you a year to return the quiz card. This way everyone will have a chance to take the test. Remember to use the peel-off address label to return your quiz card. If you score 100% on your test you will receive a Parts Professional gift.

If you have a *Success Story* or a *TIP from the Professional*, you can use the reply card to send in the information. Please remember that all *Success Stories* and *TIPS* must be compatible with Cummins standard practices and must relate to a sale of Cummins or Cummins ReCon® genuine parts. The top winner for both the *TIPS from the Professional* and the *Success Story* will receive a Cummins Parts Professional Jacket.

If you need additional copies of Parts Professional 26, please contact your local distributor. In addition, all previous issues are available. However, the incentives associated with the past issues are no longer available.

Thanks to everyone who responded to the Parts Professional 25 survey. The Parts Professional program is for you. We will not know the topics you want us to cover unless you tell us.

I look forward to hearing from you!

Shawn Wasson  
Advertising & Promotions Manager

**Editor's note: Special thanks to Doug Griffin, Erika Motlow, John Scheuren, Dave Peterson, Peggy Harmann, Tom Veron and Fred Bohlen.**

# TIPS

## from the Professionals

### Win a Parts Professional Jacket with your "Success Story" or "Tips from the Professionals" Entry

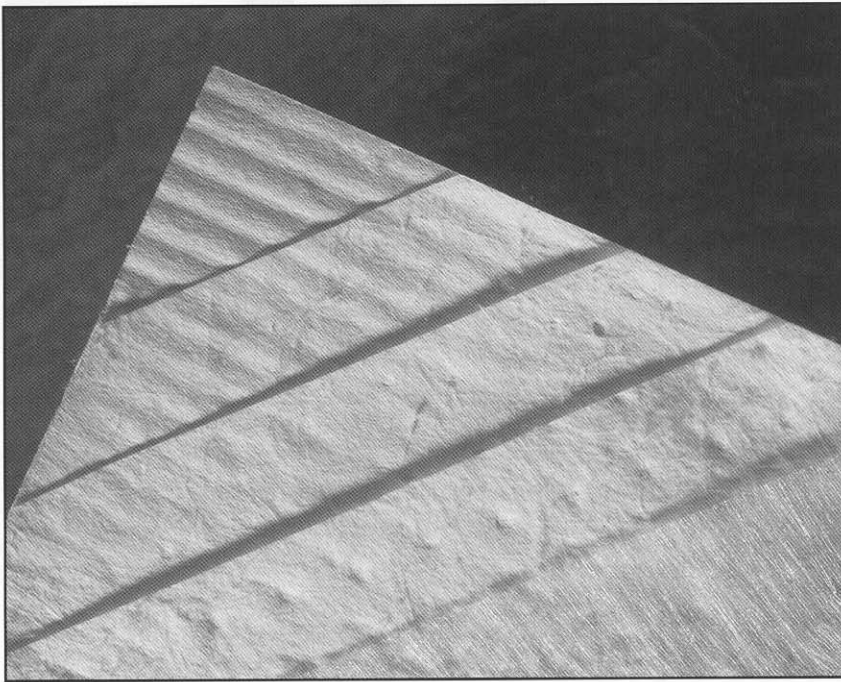
If you have a TIP that has been helpful to you or a Success Story that could spark ideas throughout the Cummins network, please write it on the postage-paid comment card and send it to us. Remember to follow the guidelines outlined in the letter from the editor at left.

This is your chance to share your knowledge with the entire Cummins organization so that we can all serve our customers better. The top four Tips or Success Stories will be printed in the next issue of Parts Professional. The four winners will receive Parts Professional caps and patches for their contributions.

In addition, the top Tip or Success Story will also receive a Parts Professional jacket.

*Send in your entry today!*

## StrataPore™



**StrataPore™**  
*Inside*

Fleetguard's next generation filtration media, StrataPore, was specifically designed to meet the higher performance demands of modern, complex engine systems. StrataPore is a composite of bonded layers of synthetic filter media with each layer designed to meet the specific application needs of today's equipment. The layers are formed from continuous fibers selected to provide advantages not offered by traditional filter media. StrataPore's unique gradient density composite structure provides superior protection through improved filtration performance and resistance to pleat rupture. Fiber breakage and structural degradation of the media are not a concern, even in extremely harsh conditions.

While other media are made from either cellulose or glass fibers, StrataPore is produced from a blend of polymers selected for strength, durability, and dimensional stability. Unlike short cellulose and glass fibers which are held together with extra binders, StrataPore fibers are continuous and not dependent on additional material to create a bond that could deteriorate in harsh applications or extended service intervals. The key features of filters with StrataPore inside are

the polymeric composition and gradient density of the media, continuous fiber media construction, bonded layers, hot oil stability of the media, and high efficiency throughout. These features provide the following product benefits:

- . Cleaner System
- . Reduced Wear
- . Improved Filter Integrity
- . Reduced Resistance to Fluid Flow
- . Improved Performance at Extended Service Intervals
- . High Efficiency Throughout

Engine systems utilizing Fleetguard filters with StrataPore inside receive the best filtration performance

available today. Look for the StrataPore Inside logo on Fleetguard filters to be assured of maximum performance and complete equipment protection.

## ES System™ Coolant Protection



In today's competitive environment, reducing maintenance costs and increasing equipment uptime is critical. Fleetguard designed its Cummins-approved extended service coolant maintenance program to meet these increasing demands with easy maintenance and superior performance at low operating costs. The ES System components are: ES Coolant™, ES Filter™ and ES Liquid™.

**ES Coolant™** is a high performance, fully formulated coolant that offers the maximum liner pitting protection using nitrite, molybdate, and organic acids. Through the use of low silicates and solids reduction, ES Coolant offers the best water pump protection, and with the use of soluble phosphate buffering, it provides the best aluminum and solder protection. ES Coolant is compatible with other coolants and supplemental coolant additives and is available with Ethylene Glycol or less toxic Propylene Glycol base.

**ES Filter™** is a slow chemical release filter with multi-layered StrataPore media for increased life and durability. The WF2121, designed for cooling systems of 10 to 20 gallons, features a patented slow-release mechanism to ensure only chemicals depleted by engine use are added to the cooling system. The filter has an improved mechanical design for increased durability and corrosion resistance, and features StrataPore media which provides increased durability, efficiency, capacity, and oil removal properties. Conventional cellulose media will soften and can disintegrate with extended use. Fleetguard recommends coolant filtration to reduce wear, corrosion, liner pitting and plugging and to reduce scale formation to maintain effective heat transfer.

**ES Liquid™** is a liquid chemical replacement for the end of service interval. It's used to extend coolant protection if the ES System slow chemical release filter (WF2121) is not used. ES Liquid part numbers are CC2840 (1 quart) and CC2841 (55 gallons).

Fleetguard also offers non-chemical ES Filters for use with ES Liquid. For standard applications, use the WF2122 and for severe/large capacity applications, use the WF2123. Both non-chemical filters offer the same mechanical design as the WF2121 and feature StrataPore media.

The ES System is easy. Simply follow 2 easy steps for a total coolant maintenance program:

1. Top off correctly. Any time make-up coolant is added to equipment, top off with ES Coolant mixed 50/50 with good quality water.

2. Replenish spent chemicals. After 1 year, or 150,000 (250,000km), or 4,000 hours of

operation, install a WF2121 ES Filter or add ES Liquid and a WF2122 or WF2123 at each change interval.

ES Coolants are approved by Cummins Engine Company for extended service use. For additional information, refer to Cummins Service Bulletin 3666209.

## Fleetguard's Improved LF3000



In 1986, Fleetguard and Cummins developed the patented LF3000, which introduced the first combination full flow and bypass lube filter and revolutionized the filtration industry. Technical study SAE 790089 shows that the wear on some engine components is reduced by 50% when full flow and bypass filtration are used together. The full flow filter removes contaminant particles of 30 microns and larger which can be suspended in the engine oil and cause immediate bearing damage. The bypass filter receives approximately 10% of the total pump output, filters it, and returns it to the oil pan. The purpose of the bypass filter is to remove the smaller abrasive particles, down to 10 microns, which the full flow filter does not capture, and to maintain the oil contaminant at a level low enough to prevent engine wear.

Except for B series models, Cummins requires bypass filters on all turbocharged engines and strongly recommends using a bypass filter on all naturally aspirated engines.

Now, Fleetguard and Cummins have upgraded the LF3000 family to offer better protection providing a cleaner system resulting in decreased wear and longer engine life. Key features of the new elements are a louvered center tube, improved media performance and improved media support.



The improved louvered center tube provides 150% more open area for better flow and reduced parasitic losses. The new center tube also provides decreased resistance to flow at all rated conditions, both hot and cold. StrataPore media is used in the elements, offering double the media strength and more consistent media performance. StrataPore's continuous fibers also provide greater resistance to pleat rupture and the three layers of media provide the maximum protection required for the engine. The improved media support improves fluid flow characteristics and stabilizes the media to eliminate "pleat pinch-off" during high pressure differentials.

The performance upgrades to the LF3000 family of filters ensures the best available lube filtration package to protect the engine in all duty cycles and applications.

## NG5900 for Natural Gas Engines Available

Fleetguard has added natural gas filtration to its product line with the NG5900, which is original equipment on Cummins natural gas engines. Natural gas may have oil contaminants that will plug the screens and cause turbulence in gas flows. The special coalescing media in the NG5900 is specifically designed to remove oil and moisture which is normally present in compressed natural gas. The NG5900 provides superior filtration for maximum engine performance and protection of this special engine application.



The NG5900 can be retrofitted to existing natural gas engines by ordering part number 3893691S, which contains the head, element and fittings.

## FS1005 and FS1016 Fuel Filters

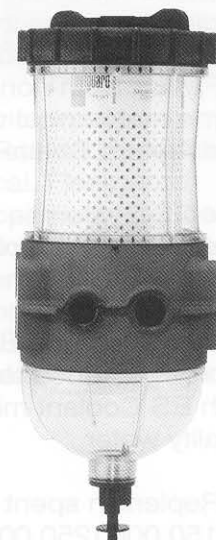
Fleetguard has introduced two new fuel filters that offer StrataPore media's upgraded performance for the Davco 380 Fuel Pro. The FS1005 and FS1016 provide 10 micron filtration (98.7% minimum efficiency) and improved water separation. These two new fuel filters have grommets packaged with the filter element to seal on the different threaded inserts Davco supplies with the 380 unit.

The FS1005 is a Stratapore upgrade for the Davco 380 applications using Detroit Diesel replacement element 380087 or Fleetguard FF5315. These Davco 380 units have a threaded insert with 1" threads.

The FS1016 is a Stratapore upgrade for the Davco 380 applications using Detroit Diesel replacement element 23514049 or Fleetguard FF5314. These Davco 380 units have a threaded insert with 13/16" threads.

## FS1010 Remote Mount Fuel Conditioner

Fleetguard's new remote mount fuel/water separator conditioning unit features StrataPore multi-layered media which offers finer filtration, improved water separation and increased service life. The FS1010 offers a self venting/self closing drain valve for easy removal of contaminants and a top-load element design which does not require fuel to be drained for servicing. An optional 180 watt electric heater with thermostat (FS1010E) heats the fuel when the engine has been shut down for long periods of time in cold climates. The clear sump allows a window into the system to detect the presence of water and debris to troubleshoot maintenance problems before they become disastrous. The clear filter housing provides a window to view the filter element while the engine is operating, and mounting holes are incorporated into the housing for quick and easy mounting.



Because of its size, the Fleetguard FS1010 contains 25% more StrataPore media than was introduced in the FS1000 fuel/water separator for Cummins CELECT™ and Quantum™ engines, allowing for extended service intervals.

Part number FS1010 contains the entire fuel/water separator conditioning unit. Part number FS1011 is the StrataPore replacement element for the FS1010 unit.

## www.fleetguard.com

The Fleetguard web site is a helpful tool with information on Fleetguard products and services, as well as useful industry links, to help you in your business. Plus, the 24-hour e-mail response system is available worldwide for answers to all filtration questions. The FleetRef system, an electronic cross reference system with thousands of cross references, is also available on the Fleetguard web site in one easy location.



Have fun while you learn! Visit [www.fleetguard.com/pong.htm](http://www.fleetguard.com/pong.htm) and play StrataPong, the game that shows how multi-layered StrataPore media catches contaminants before they reach the engine and cause damage.

Visit [www.fleetguard.com](http://www.fleetguard.com) today—or e-mail [fleetmaster@fleetguard.com](mailto:fleetmaster@fleetguard.com) 24 hours a day.

## FleetRef™

### Cross References at your fingertips

Imagine having hundreds of thousands of worldwide filter cross references at your fingertips! Fleetguard's convenient cross reference is now available electronically on PC diskettes. FleetRef is easy to install and even easier to use with our simple inquiry process.

Improve your responsiveness to customers and increase sales of existing and new products by using FleetRef. Cross reference diskettes, installation instructions and quarterly updates are available for a low subscription fee.

## Fleetguard FAX™ Information in Seconds!

Because information needs are critical to your business, FleetguardFAX allows you to receive Fleetguard information around the clock. Just call the convenient, 24-hour Customer Assistance Center at 1-800-22FILTER (1-800-223-4583) and press "4". Follow the prompts and within minutes, the document you request will be faxed to you.



The FleetguardFAX library contains numerous product, service and information bulletins, as well as U.S. and Canadian Material and Safety Data Sheets. Most documents are available in English, French and Spanish for your convenience. For a complete listing of the document library, call FleetguardFAX today.

## Fleetguard Customer Assistance:

### As Easy as 1-2-3!

By calling 1-800-22FILTER (1-800-223-4583) any hour, any day of the week, you can access a friendly, courteous and knowledgeable



Fleetguard representative to help you with all your filtration needs. By pressing "1", you will be connected to a Customer Assistance Representative who will help you with orders, cross reference, availability, EDI, pricing, shipment information, distributor/dealer locations, maintenance kits, equipment surveys, invoicing, or any concerns you have about Fleetguard products or services.

Press "2" to receive a technically trained Service Engineering Representative who will assist with product specifications, product performance, coolant information, applications, troubleshooting, end user training and distribution seminars, and Fleetguard warranty questions. For all other calls, press "3" and an assistant will help you.

You can also fax Fleetguard with orders or questions through the convenient toll-free fax at 1-800-999-8664.



## 3-Way™ Heavy Duty Coolant Test Kit

Measuring the freeze point and chemical protection in a cooling system is essential for protection against liner pitting, corrosion and coolant dilution. Fleetguard's state-of-the-art 3-Way heavy duty coolant test strips provide a simple and effective means of checking your coolant system. The strips measure three critical coolant readings (freeze point, molybdate level, and nitrite level) and totally eliminate the need for coolant dilution and chemical measuring.

To use the 3-Way Test Strip, simply take a sample of coolant and dip the 3-Way Test Strip. Within 45-75 seconds, read the freeze point and molybdate/nitrite levels to reach supplemental coolant additive units. Record the readings and continue coolant maintenance practices according to OEM recommendations.

Other test strips cannot provide an accurate reading of coolant freeze point because some coolant dyes can mask the color change on freeze point pads. Fleetguard's 3-Way test strips are designed to prevent masking by these dyes and provide an accurate reading of coolant freeze point. Additionally, other test strips are unable to provide accurate readings in coolants with greater than 80% glycol concentration. The 3-Way test strips provide accurate readings even in solutions of 100% glycol.

3-Way test strips are available in several packaging options, as follows:

Part Number	Description
CC2602	50 Pack
CC2602M	50 Pack Metric
CC2602A	4 Pack
CC2602AM	4 Pack Metric
CC2602B	1 Pack

One strip does it all: no fuss, no coolant dilution and no chemical mixing!

## WF2131: A Slow Chemical Release to Protect Equipment

Fleetguard's slow release chemical coolant filter adds supplemental coolant additives like a time-released prescription for the cooling system. The filter contains pellets that release slowly over 120,000 miles or 3,000 hours of engine operation. Fleetguard's patented non-soluble coating controls the supplemental coolant additive release similar to capsule coatings used in the medical industry. It does not add contaminants to the cooling system. The competitive products control chemical release through corrosion of magnesium plates. These plates add contaminants to the cooling system that can build up on hot surfaces and reduce heat transfer.

The WF2131 provides a more reliable chemical release, because the chemical release mechanism is not affected by oil contamination in the coolant. Oil contamination can prevent the release of chemical inhibitors in other filter designs leaving the system without sufficient liner pitting protection.

Improved media performance is provided by the patented StrataPore media, which helps keep the cooling system clean and extends coolant life by removing contaminants and small amounts of oil from the cooling system. Additionally, the WF2131 contains highly durable components that provide increased filter reliability and performance. Interior key filter components are epoxy coated to provide added corrosion protection for extended service intervals.

The WF2131 takes a step beyond other slow release filters by providing chemical cooling system protection at extended service intervals with improved product performance.

## FS1000 for CELECT™ and Quantum™ Engines



The demands of today's electronic fuel injection engines require extremely tight tolerances in fuel system injection equipment. Maintaining optimum performance requires protecting these clearances from dirt in the 10 - 25 micron particle size range and from water which can cause wear and corrosion. The FS1000 fuel/water separator was

designed specifically to offer extra protection to fuel injectors in Cummins CELECT and Quantum engines and provides:

- . Improved Water Removal
- . Cleaner System
- . Longer Life

The new StrataPore technology in the FS1000 outperforms competitive filters. Dirt is filtered from the fuel system progressively: an outer protective layer of media removes large debris, then 3 layers of meltblown polyester take out smaller debris, and an outer cellulose layer adds more protection.

The FS1000 also features a self-venting drain valve. With 4 simple turns, the valve drops approximately 1" and allows all water to drain freely from the system. The new design also accommodates a valve catch that keeps the drain valve attached to the filter at all times, even during draining.

For those applications with interference due to clearance restrictions, the FS1001 is available. It is 7.80" in height compared to the FS1000, which is 9.68" in height. For applications requiring a metal drain valve, the FS1009 is available. Both filters contain StrataPore media.

The FS1000 filter is specified by Cummins and is required for all CELECT and Quantum engines as of December, 1995. For additional information refer to Cummins Service Parts Topic 96T6-5.

## Fleetguard Filter Master Catalog

The latest Fleetguard filter catalogs are now available. Several improvements have been incorporated into the new catalogs, including a new product selection guide, a filter listing by thread size, and an easy-to-read format in the applications section.

Book 1 (part number LT19457) contains the latest filter cross reference (by manufacturer and part number), product guide, service parts, air cleaner guide, maintenance kits, cold weather products and hydraulics information. The Book 1 catalog is updated annually.

Book 2 (part number LT19458) contains information by manufacturer, type of equipment and model for medium and heavy duty applications, light truck and van applications and passenger car applications. The Book 2 catalog is updated biannually.



# Parts Professional Quiz 26

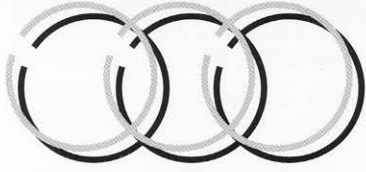
To win this issue's prize, all you have to do is answer the following 12 questions correctly. Your answers must be received by **August 31, 1998**.

1. Fleetguard's Customer Assistance and Service Engineering is available 24 hours a day at 1-800-22FILTER.
  - a. true
  - b. false
2. StrataPore is a conventional paper media with an extra protective layer.
  - a. true
  - b. false
3. The 3-Way heavy duty coolant test kit measures for
  - a. freeze point, contaminants, and nitrite levels
  - b. molybdate levels, nitrite levels, and sludge
  - c. nitrite levels, freeze point, and magnesium
  - d. freeze point, molybdate levels, and nitrite levels
4. ES Coolant is only available in Ethylene Glycol.
  - a. true
  - b. false
5. The bypass filter on a Cummins engine receives approximately \_\_\_\_\_ percent of the total pump output.
  - a. 3%
  - b. 7%
  - c. 10%
  - d. 15%
6. The improved louvered center tube on the new LF3000 provides \_\_\_\_\_ percent more open area for improved flow and reduced parasitic losses.
  - a. 75%
  - b. 100%
  - c. 125%
  - d. 150%
7. The WF2121 is designed for cooling systems of
  - a. 5 to 15 gallons
  - b. 25 to 35 gallons
  - c. 10 to 20 gallons
  - d. none of the above
8. The chemical release mechanism in the WF2131 is similar to capsule coatings used in the medical industry.
  - a. true
  - b. false
9. Used in extended cooling systems, traditional cellulose media will soften and can disintegrate with use.
  - a. true
  - b. false
10. Cummins requires the use of the FS1000 on all CELECT and Quantum engines as of December, 1995.
  - a. true
  - b. false
11. To view the condition of the FS1010 filter element, the filter must be removed due to the opaque housing.
  - a. true
  - b. false
12. The FS1000 fuel/water separator with StrataPore media was specifically designed to offer extra protection to:
  - a. high pressure fuel pumps
  - b. fuel transfer pumps
  - c. fuel injectors
  - d. fuel filters





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Bulletin 3401643  
Printed in U.S.A. 8/97  
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