



Davco Fuel Filter Technical Information



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**Volvo Service Training
Introduction to DAVCO®
Fuel Filtrations Systems**



This Module will provide a basic overview of the Davco fuel filtration system. In addition to gaining a basic understanding of the fuel processors (Fuel Pro® and Diesel Pro®), technicians will also learn:

- **Benefits of the Fuel Processor**
- **Function of the Fuel Processor**
- **Servicing and Filter Changes on the Fuel Processor**
- **Troubleshooting the Fuel Processor**



Fuel Pro®

Diesel Pro®



Fuel Pro Models



321



380



382 Collar Type



382 Bolt-on Type

Fuel Pro Filter Wrenches

3093385 – Metal

382002DAV – Plastic



Diesel Pro Models



210



230



232



233

Diesel Pro Filter Wrenches

232007DAV – Metal

232002 – Plastic



Why so many trucks have a DAVCO Fuel Pro:

- All-in-one unit - water separator, fuel heater (engine coolant, return fuel, 12V or 120V), fuel filter
- “Seeing is Believing®” – know when **not** to change the fuel filter
- Longer filter life - patented Elemax® filter technology
- Fewer filters to stock, lower disposal cost – less filters used
- Emergency spin-on filter stud
- Optional: fluid heat, 12v-250w, and/or 120v-75w pre-heater
- Remote mounting
- Serviceability
- Increased resale value
- No spill filter changes
- Manual water drain
- Visual troubleshooting capabilities

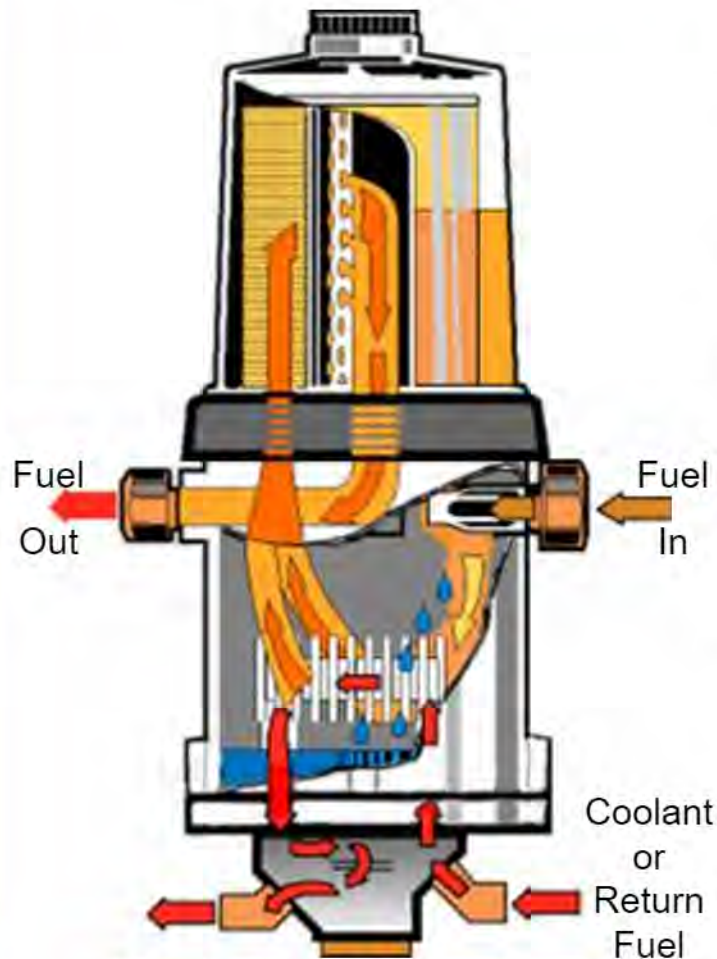


Why Technicians prefer a DAVCO Fuel Pro:

- “Seeing is Believing”, no more unnecessary filter changes
- Quick 5 minute No Spill filter changes
- Only one unit to service (many applications)
- Clear cover, allows for quicker troubleshooting



Flow Diagram



Fuel flows through the inlet check valve into the Fuel Pro body

Water Separator

Water and large contaminants fall to the bottom of the Fuel Pro body and can be drained away.

Fuel Heater (optional)

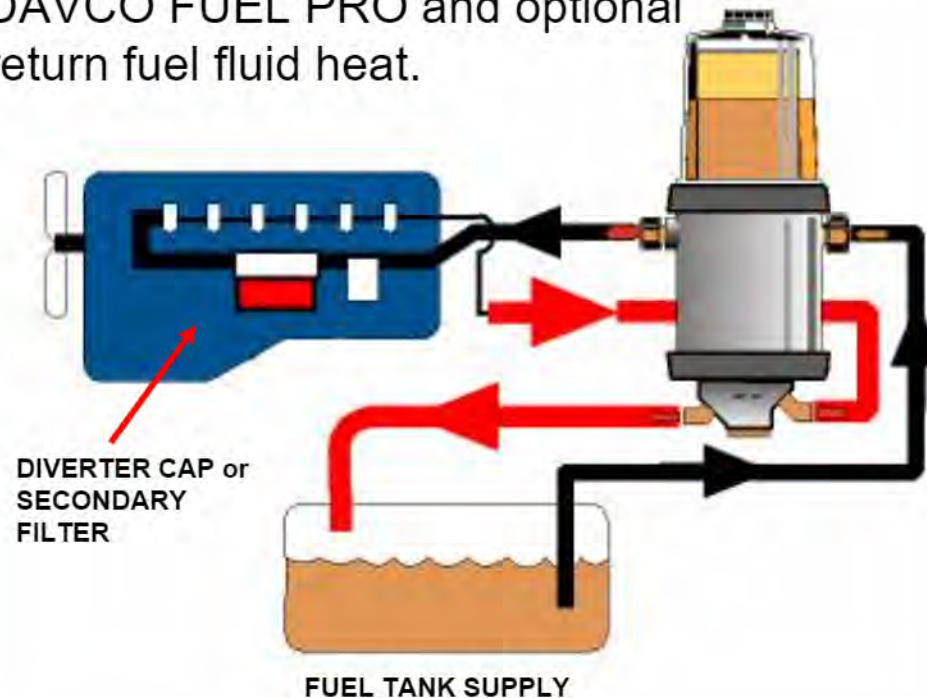
The fuel flows through the heated chamber and up to the "Seeing is Believing" clear cover filter area.

Fuel Filter

Clean and warm fuel rises to the filter. Only a portion of the filter paper is used as needed, "Seeing is Believing".

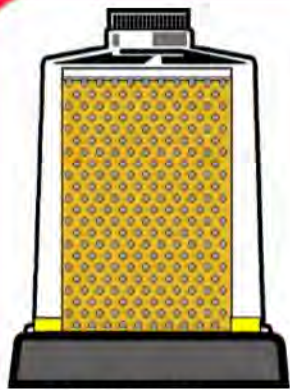
With Davco Fuel Pro Installed

DIESEL FUEL SYSTEM with
DAVCO FUEL PRO and optional
return fuel fluid heat.



How it Works “Seeing is Believing”

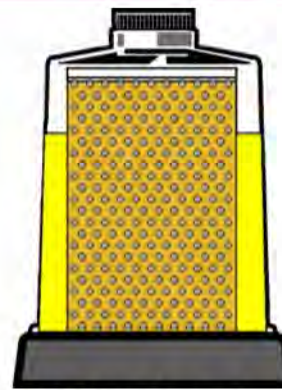
7/16/2004



New Filter



50% Used



75% Used



**Time to Replace
Filter**

With a new or clean element, the fuel level in the Fuel Pro will be very low under 2.5 inches above the collar. As the media starts to collect contaminants the fuel rises to a level of less restriction. The fuel will continue to rise to the unused portion of the media, keeping restriction low until the filter media is used up.

This allows low restriction until the fuel level is at the top of the fuel filter and extends filter life. “Seeing is Believing”. **For maximum filter life and lowest cost, change the filter only when fluid level reaches the top of the element or the indicator line.**

Elemex Design – Visit www.DavcoTec.com for an animated instructional presentation on the patented Elemex Filter that extends filter life through the use of a non-perforated filter wrap and a vapor pressure relief valve.



Parts Diagram 382 Volvo Part Numbers

7/16/2004

Fuel Pro Filter Wrenches

3093385 - 382 Metal

382002DAV - 382 Plastic

***Filter**

Replace with applicable filter per engine spec

See [Form 3105](http://www.DavcoTec.com) at www.DavcoTec.com

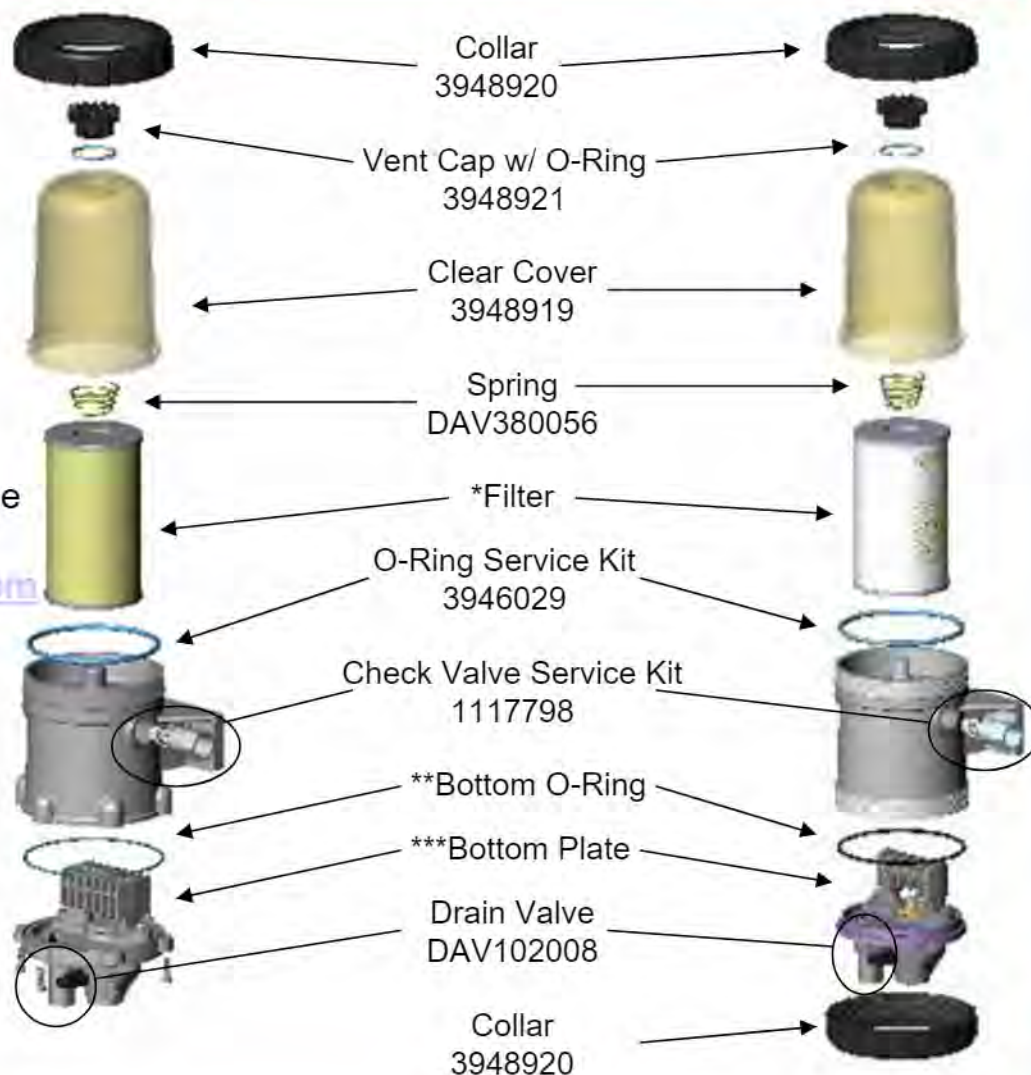
**** Bottom Plate O-Ring**

DAV101994 - O-ring (Collar Type)

910005 - O-ring (Bolt-on Type)

***** Bottom Plate**

Varies due to heater options desired





Recommended Filter Guide and Emergency Spin-ons Fuel Pro® 382, 380 & 233

				Application											
				Caterpillar	Cummins				ISM	M11 & N14	Detroit Diesel	International	Mack	Mercedes Benz	Volvo
				Acert & Non-Acert All Engines	10/02 to Present	ISX 1998 to 10/02	Pre 1998	All Engines	All Engines	Series 50 & 60 All Engines	DT444, DT466 & VT365 All Engines	ASET - Series & E7 All Engines	MBE900 & MBE4000 All Engines	VDE All Engines	
Brand	Part #	Micron	Elemax												
Fleetguard	FS19729	50	X	2 Filter System	X - Rec										
Fleetguard	FS19728	25	X			X - Rec								X - Rec	
Fleetguard	FF5369V	25				X								X	
Fleetguard	FS19727	10	X				X - Rec	X - Rec	X						
Fleetguard	FS1029V	10					X	X	X						
Fleetguard	FS19624	7	X						X - Rec	X - Rec	X - Rec	X - Rec	X - Rec		
Fleetguard	FS19558	7		X					X	X		X	X		
Fleetguard	FS19761	2	X	Coming Soon X - Rec 1 Filter System											
Fleetguard	FS19536	2													
Detroit Diesel	23533816	7	X							X - Rec			X - Rec		
Detroit Diesel	23521528	See Note							This filter fits the 382, 380 & 233 Housing - Rated as 12-16 micron @ 98%						
Mack	301SD19B	7										X			
Mack	301SD19C	7										X			
Donaldson	P550969	7							X	X	X	X	X		
Donaldson	P550463	5							This filter fits the 382, 380 & 233 Housing						
Donaldson	P550467	7	X						This filter fits the 382, 380 & 233 Housing						
Donaldson	P550737	50							This filter fits the 382, 380 & 233 Housing						
Baldwin	PF7680	See Note							This filter fits the 382, 380 & 233 Housing - Rated as 2-3 micron @ 91% efficiency						
Baldwin	PF7744	See Note							This filter fits the 382, 380 & 233 Housing - Rated as 4 micron @ 85% efficiency						
Baldwin	PF7746	7	X						This filter fits the 382, 380 & 233 Housing						
Baldwin	PF7755	50							This filter fits the 382, 380 & 233 Housing						
CarQuest	86651	N/A							This filter fits the 382, 380 & 233 Housing - Micron rating unknown						
Hastings	FF1066	N/A							This filter fits the 382, 380 & 233 Housing - Micron rating unknown						
Luberfiner	L3578FN	N/A							This filter fits the 382, 380 & 233 Housing - Micron rating unknown						
NAPA	3651	N/A							This filter fits the 382, 380 & 233 Housing - Micron rating unknown						
Wix	33651	N/A							This filter fits the 382, 380 & 233 Housing - Micron rating unknown						
				Rec = Recommended Filter											

Emergency Spin-on Filters

Part #	Standard Use	Color	Stud Size	382	380	233	Emergency Filter & Part Number	
320626	CAT / Cummins	Silver	1" - 14	X	X	X	Fleetguard - FF185 or Equivalent	Put clear cover back on over Spin-on Filter
320620	Detroit Diesel	Yellow Zinc	13/16" - 12	X	X	X	Fleetguard - FF5206 or Equivalent	Put clear cover back on over Spin-on Filter
101923	Mack		M30 X 1.5	X	X		Fleetguard - FF5382 or Equivalent	
320624	Mack	Red	1-1/16" - 16		X		Fleetguard - FF5348 or Equivalent	



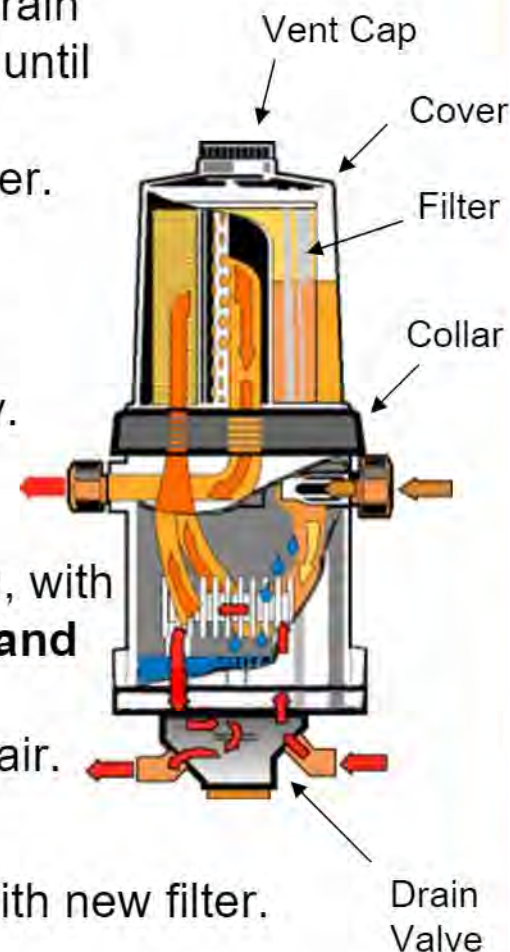
How to change filter in 5 minutes

1. Using a collar wrench, remove the vent cap, open drain valve and drain fuel into approved container, until fuel level is below collar level.
2. Using a Davco collar wrench remove collar and cover.
3. Remove filter (and bottom grommet). Dispose of properly.
4. Install new filter (ensure new grommet is in place).
5. Clean the clear cover mounting surface on the body.
6. Replace cover o-ring, install cover and collar.

Hand Tighten only.

7. Fill Fuel Pro half-way, through the vent cap opening, with clean fuel. Replace o-ring on vent cap and **Hand Tighten**.
8. Start engine and raise rpm for one minute to purge air. Fuel level will lower upon normal operation.

Note: New o-rings and grommet should be included with new filter.



Suggested Preventive Maintenance Fuel Pro®

Weekly

Drain water from Fuel Pro

Every filter change

*Change o-rings and grommet

Every 12 months

Check all electrical connections
for corrosion

Check all fuel fittings for leaks

*Should be included with the new filter

Extreme winter or salt corrosion environments
may require lubrication of the top collar threads
with Loctite® 76747 antisieze every 180 days.

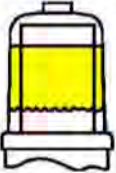
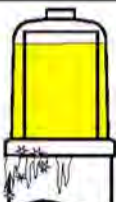


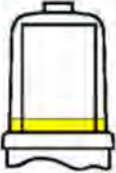
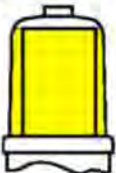
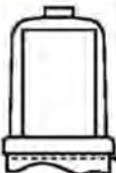
Diesel Pro®



The clear cover makes troubleshooting Quick and Easy. Listed are some of the things you may see in the clear cover and possible solutions.

NOTE: When using an emergency spin-on filter, install clear cover over spin-on if possible.

Fuel Pro®	Problem	Possible Solution
	Fuel filter is missing or cover is damaged.	Use a spin-on fuel filter to get the tractor back to the shop. Replace the filter/cover.
	There is water in the cover.	Turn the engine off. Drain six ounces (1 cup) from the water separator and restart the engine. Repeat this process until ALL water is removed.
	Fuel drains back to the fuel tank when changing the fuel filter or draining the separator.	Remove the check valve assembly. Clean or replace as necessary.
	No heat to the Fuel Pro.	Check for closed cutoff valves at the coolant lines to the Fuel Pro. Make sure the cab heater valve is open.

Fuel Pro®	Problem	Possible Solution
	Fuel level is not to the top of the fuel filter.	Normal. Do not change the filter
	Fuel level is at the top of the filter. Low power.	Change the filter at the first available opportunity.
	Fuel level is at the top of the filter and appears to be full of wax.	Change the filter. Run the engine for a minimum of 25 minutes at idle. Do not run at full RPM.
	Air bubbles are flowing in with the fuel.	Check all fittings and lines from the fuel tank to the Fuel Pro. Check lower and upper collar O-rings.
	There is a power complaint and the fuel level is below the collar.	Check for a missing grommet at the lower end of the filter, or missing / broken spring at the top of the filter.

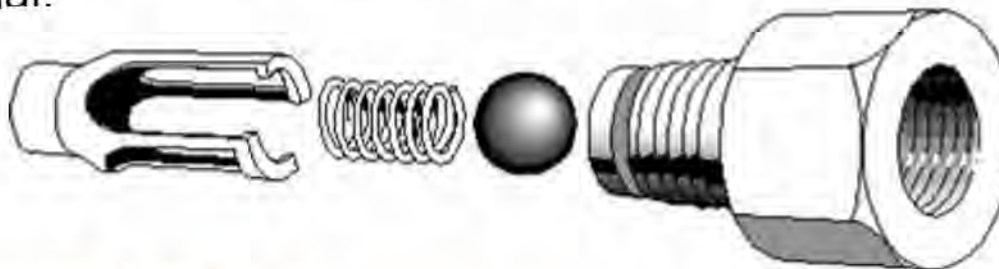


Check Valve Service

When air is introduced into the fuel system, (i.e. draining water from the Fuel Pro and when replacing the fuel filter), the check valve is needed to keep the fuel system primed from the fuel tank to the Fuel Pro.

If fuel drains back to the fuel tank, remove the check valve assembly at the fuel inlet fitting. Disassemble the check valve assembly; clean, inspect and replace if any cuts, grooves, or nicks are in the ball or seat of the body. Reinstall the check valve assembly.

To test for proper check valve operation, remove the fuel inlet hose; open the vent cap. Fuel should not flow out of the Fuel Pro; a slight seepage of fuel is normal.



Air Leak Concerns

All Fuel Pros are 100% tested at Davco. Most field issues are related to loose fittings, or connections and are eliminated by checking/tightening all fuel system fittings.

Note: The clear cover acts as a sight gauge.

If air bubbles are present in the clear cover the air leak source is between the fuel tank and fuel outlet of the Fuel Pro.

If no bubbles are present in the clear cover but the air symptoms exist, the air leak source is between the fuel outlet port of the Fuel Pro and lift pump inlet port.



Pressure Testing for Air Leaks

Plug openings as shown. Do not remove filter, filter cover or any optional pre-heaters. Make sure drain valve is closed, and the collar and vent cap are hand tight.

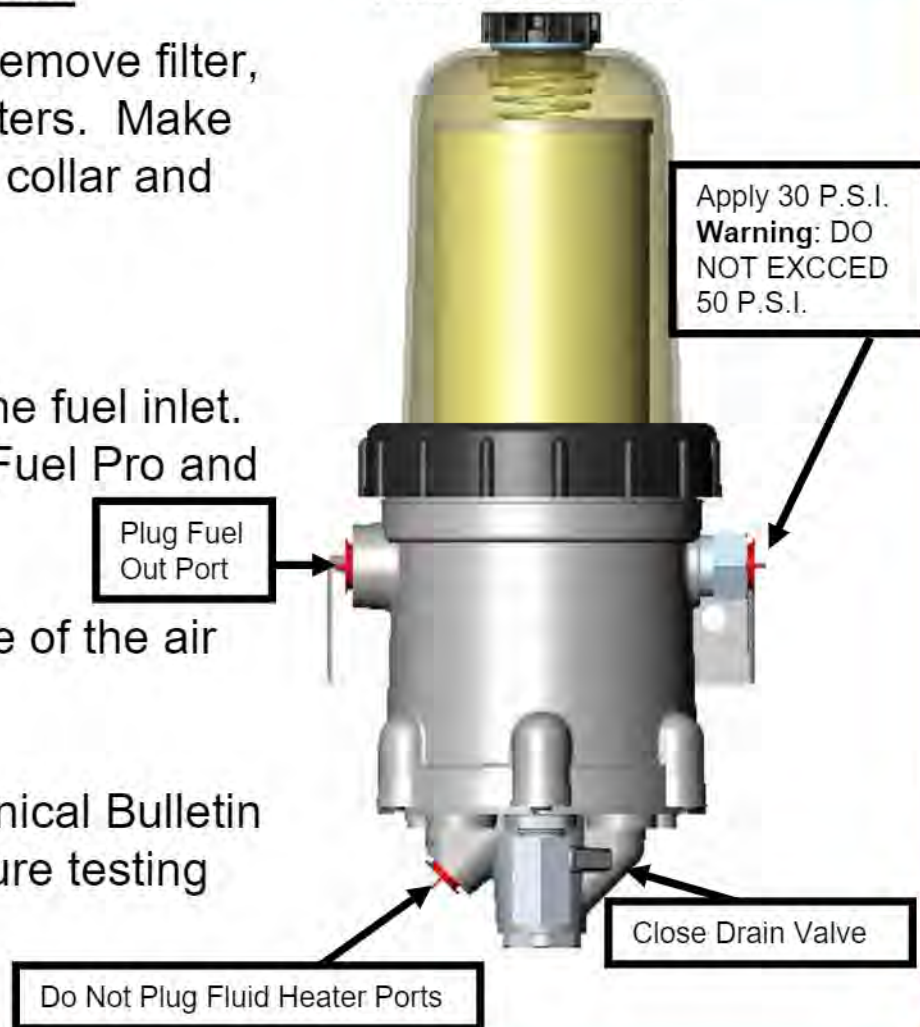
* Do not plug fluid heater ports.

Apply 30 P.S.I. of air pressure at the fuel inlet. Spray water/ soap mixture on the Fuel Pro and look for air bubbles.

If no leaks are detected, the source of the air leak is not at the Fuel Pro.

See www.DavcoTec.com for Technical Bulletin 3089 which contains further pressure testing procedures.

Fuel Pro® 382



To Test Pre-Heaters

Note: For 12V heaters, precision low resistance ohm meter is recommended!

12V 150W heater should have resistance 0.8 Ohms to 1.1 Ohms (single pin).

12V 250W heater should have resistance 0.4 Ohms to 0.5 Ohms (single pin).

12V 250W heater should have resistance 0.6 Ohms to 0.8 Ohms (two pins).



12V Single Pin



12V Two Pin



120V Pre-Heater

120V 37W Pre-heater should have resistance 369 Ohms to 411 Ohms.

120V 75W Pre-heater should have resistance 173 Ohms to 203 Ohms.



To Test Two-Pin Thermo-Switch:

Disconnect the thermo-switch from the harness.

Set a multi-meter to a resistance reading.

Connect the test leads to pins of the thermo-switch.

Make sure that thermo-switch sees temperature **below 55 deg F.**

Read the value of the resistance.

12V thermo-switch should read less than 10 Ohms.

Now make sure that thermo-switch sees temperature **above 65 deg F.**

Read the value of the resistance again.

All units should read open circuit.

Any readings significantly different from the specified values, indicates possible problem with the specific device.



Two-Pin Thermo-Switch



To Test Three-Pin Thermo-Switch:

Please refer to the technical bulletins at www.DavcoTec.com for any non-pictured or non-referenced electrical components including the Three-Pin Thermo-Switch.



Three-Pin Thermo-Switches



To Test Combination Heater / Thermo-Switch (Combo Unit)

Note: For combo units, precision low resistance ohm meter is recommended!

Disconnect the combo unit from the harness.
Set a multi-meter to a resistance reading.
Connect the test leads to pins of the heater.
Make sure that combo unit sees temperature
below 40 deg F.

Read the value of the resistance.

12V 150W heater/thermo-switch should read
resistance 0.8 Ohms to 1.1 Ohms.

Now make sure that combo unit sees temperature
above 62 deg F.

Read the value of the resistance again.

All combo units should read open circuit.



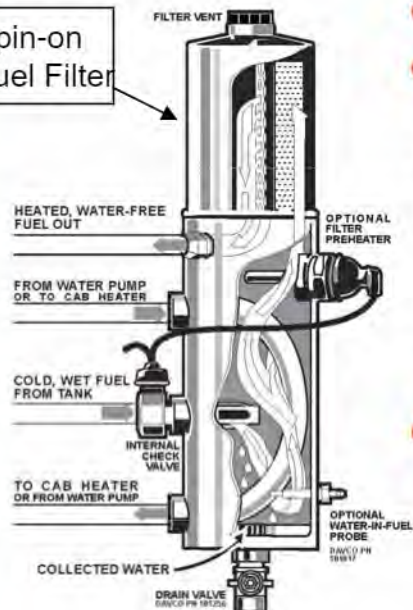
Heater / Thermo-Switch
Combo Unit



DAVCO SERVICE BULLETIN

FUEL PRO. 321

Spin-on
Fuel Filter



SERVICE:

- DRAIN WATER AT LEAST ONCE A WEEK.
- ENGINE MUST BE OFF.

1. OPEN FILTER VENT (IF PRESENT).
2. OPEN THE DRAIN VALVE.
3. COLLECT WATER INTO A CUP.
4. WHEN FUEL FLOWS OUT OF THE DRAIN, CLOSE THE VALVE.
* IF REPLACING THE FILTER, REMOVE THE FILTER, FILL THE FUEL PRO TO THE TOP OF THE FUEL PORT BEFORE INSTALLING THE NEW FILTER.
5. CLOSE THE FILTER VENT.
6. START THE ENGINE.
RAISE R.P.M. FOR 2-3 MINUTES TO PURGE AIR.

SERVICE IS NOW FINISHED

- USE A BACK-UP WRENCH ON THE CHECK-VALVE WHEN INSTALLING OR REMOVING THE FUEL FITTING.

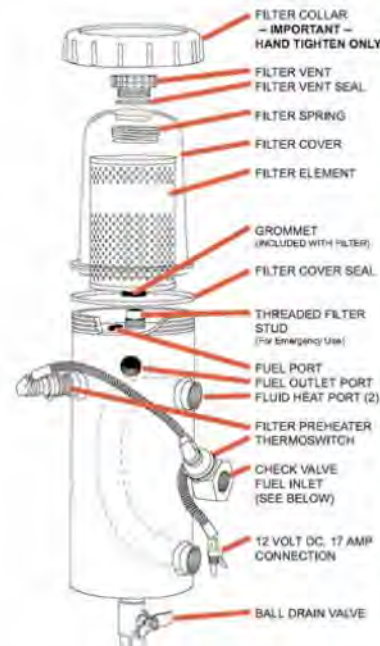


As technical advancements are made, specifications may change without notice.

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DAVCO SERVICE BULLETIN

FUEL PRO. 380



FILTER CHANGE:

1. DRAIN FUEL BELOW COLLAR LEVEL.
2. REMOVE COVER. USE DAVCO WRENCH 380134 TO REMOVE COLLAR.
3. REMOVE FILTER AND DISPOSE OF PROPERLY.
4. FILL FUEL TO TOP OF FUEL PORT OF FUEL PRO.
5. INSTALL CLEAN FILTER. BE SURE GROMMET IS IN PLACE ON THREADED STUD.
6. INSTALL COVER SEAL ON COVER. INSTALL COVER. HAND TIGHTEN COLLAR.
7. REMOVE FILTER VENT. FILL WITH FUEL UNTIL FUEL IS ONE (1) INCH ABOVE COLLAR. REPLACE FILTER VENT.
8. START ENGINE. RAISE R.P.M. FOR ONE MINUTE TO PURGE AIR.

EMERGENCY -- TEMPORARY FILTER REPLACEMENT

1. FOLLOW STEPS 1 TO 4 ABOVE.
2. REMOVE FILTER GROMMET IF ON FILTER STUD.
3. INSTALL STANDARD ENGINE SPIN-ON FILTER ON THREADED STUD.
4. INSTALL COVER, SEAL AND COLLAR OVER FILTER FOR LATER RE-USE AND TO GUARD AGAINST LOSS.
5. START ENGINE. RAISE R.P.M. FOR ONE MINUTE TO PURGE AIR.

DRAIN:

1. TURN OFF ENGINE. OPEN FILTER VENT.
2. OPEN THE DRAIN VALVE.
3. COLLECT WATER INTO A CUP.
4. WHEN FUEL FLOWS OUT OF THE DRAIN, CLOSE THE VALVE. (DRAIN MINIMUM AMOUNT OF FUEL POSSIBLE)
5. CLOSE THE FILTER VENT.
6. START THE ENGINE.
RAISE R.P.M. FOR ONE MINUTE TO PURGE AIR.



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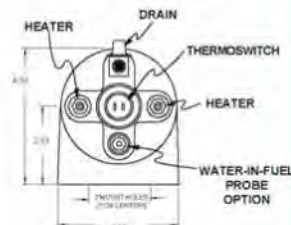
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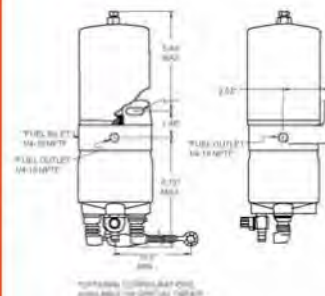
DAVCO TECHNICAL BULLETIN

DIESEL PRO® 210

WIRING CONNECTIONS & DRAIN



DIMENSIONS



BOTTOM VIEW

DIESEL PRO 210

A Combined WATER SEPARATOR, FUEL WARMER and FUEL FILTER.

- **WATER SEPARATOR** traps free, suspended and emulsified water. A sensitive water sensor signals the operator when service is needed. A quick-acting, high quality drain allows no-mess service.
- **ELECTRICAL FUEL WARMER** is controlled by a long-life thermostat to heat fuel only when needed. Eliminates wax and ice crystals that clog filters.
- **FUEL FILTER** is a long-life replaceable, spin-on type which includes a special vent valve. Or use any favorite factory brand filter.
- **SIMPLE INSTALLATION** using normal mechanic's tools and complete instructions.
- **WARRANTED** for 5 years. Electrical for 2 years.

SPECIFICATIONS

Linear Dimensions in Inches

Height Overall (Typical)	12.43
Depth Overall	4.50
Width	3.89
Mount Bracket Centers	2.00
Weight (Dry)	4 lbs
Fuel Connections	1/4" NPTF
Fuel Capacity (excluding filter)	15.2 fl. oz.
Recommended Application	Light and Medium Duty Engines
Water Trap Capacity	11.0 fl. oz.
Filter Dimensions	Max 6.2" Hi x 3.75" Diam
Filter Service Clearance	Max 1.5 in
Mounting Bracket	Cast in Head
Electrical Heater	150 Watts
	Fluid Heater Optional

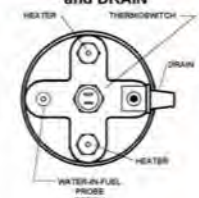
As technology advances, optimum performance may change without notice.

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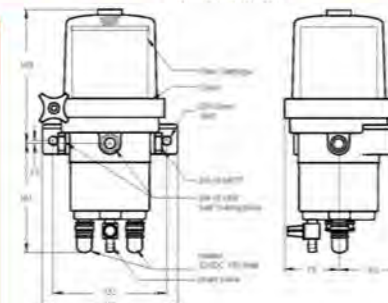
DAVCO TECHNICAL BULLETIN

DIESEL PRO® 230

WIRING CONNECTIONS and DRAIN



DIMENSIONS



BOTTOM VIEW

DIESEL PRO 230

A combined FUEL FILTER, WATER SEPARATOR and FUEL WARMER.

- **FUEL FILTER** is a long-life replaceable, element type developed for easy disposal. In an emergency, a factory spin-on brand filter may be used.
- **WATER SEPARATOR** traps free, suspended and emulsified water. A quick-acting, high quality drain allows no-mess service. An optional sensitive water sensor signals the operator when service is needed.
- **ELECTRICAL FUEL WARMER** is controlled by a long-life thermostat to heat fuel only when needed. Eliminates wax and ice crystals that clog filters.
- **BUILT IN CHECK VALVE** at the fuel inlet holds prime when changing filters and is protected from freezing by Davco's fuel heater.
- **SIMPLE INSTALLATION** using normal mechanic's tools and complete instructions.
- **WARRANTED** for 3 years. Electrical warranted 90 Days.

SPECIFICATIONS

Linear Dimensions in Inches, unless noted in notes

Height Overall	330 (13)
Depth Overall	137 (5.38)
Width, max.	159 (6.25)
Mount Bracket Centers	133.4 (5.25)
or Rear Mount Centers	76.2 (3.0)
Weight (Dry)	2.14 Kg (4.72 lbs)
Fuel Connections (Inlet)	3/8" NPTF Inlet
Fuel Connection (Outlet)	3/4-16 O-ring Boss
Fuel Capacity (w/o filter)	0.45 L (15.2 oz.)
Recommended Application	Light and Medium Duty Engines
Water Trap Capacity	0.32 L (11.0 fl. oz.)
Filter Replacement	Davco 230029
Filter Service Clearance	Max 81mm (3.2")
Mounting Bracket	Cast in Head
Electrical Heater	150 Watt, 12.5 amp
	Fluid Heater Optional

As technology advances, optimum performance may change without notice.

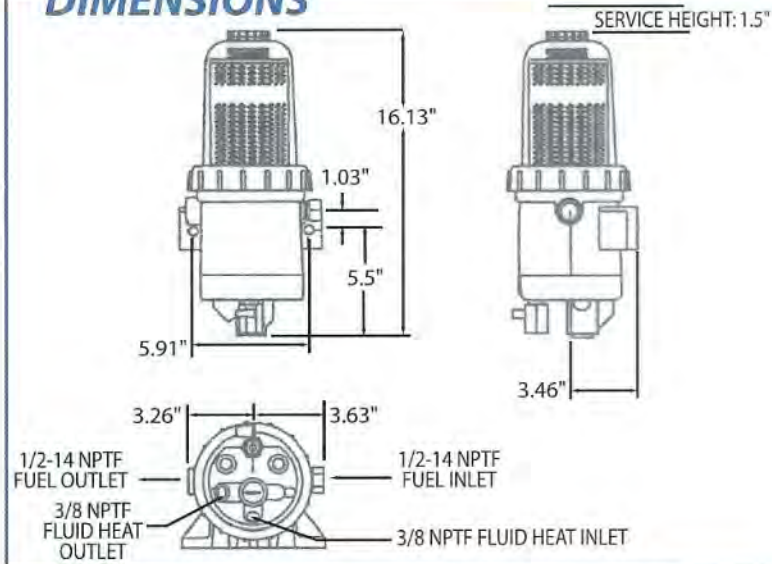
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Fuel Pro 382 – Bolt-on Type

In March of 2003 the bottom of the Fuel Pro 382 was improved to the bolt-on style bottom plate.

DIMENSIONS



Fuel Pro 382 Collar Type

DAVCO SERVICE BULLETIN

FUEL PRO. 382



FILTER CHANGE:

1. DRAIN FUEL BELOW COLLAR LEVEL.
2. REMOVE COVER. USE DAVCO WRENCH 389134 TO REMOVE COLLAR.
3. REMOVE FILTER AND DISPOSE OF PROPERLY.
4. INSTALL CLEAN FILTER. BE SURE GROMMET IS IN PLACE ON THREADED STUD.
5. INSTALL COVER SEAL ON COVER. INSTALL COVER WITH SPRING. HAND TIGHTEN COLLAR.
6. REMOVE FILTER VENT. FILL WITH FUEL UNTIL FUEL IS ONE (1) INCH ABOVE COLLAR. REPLACE FILTER VENT.
7. START ENGINE. RAISE R.P.M. FOR ONE MINUTE TO PURGE AIR.

EMERGENCY — TEMPORARY FILTER REPLACEMENT

1. FOLLOW STEPS 1 to 4 ABOVE.
2. REMOVE FILTER GROMMET IF ON FILTER STUD.
3. INSTALL STANDARD ENGINE SPIN-ON FILTER ON THREADED STUD.
4. INSTALL COVER, SPRING, SEAL AND COLLAR OVER FILTER FOR LATER RE-USE AND TO GUARD AGAINST LOSS.
5. START ENGINE. RAISE R.P.M. FOR ONE MINUTE TO PURGE AIR.

DRAIN CONTAMINANTS:

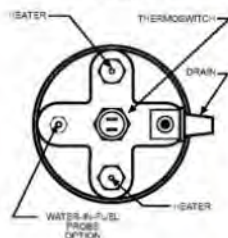
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2. OPEN THE DRAIN VALVE.
3. COLLECT WATER INTO A CUP.
4. WHEN FUEL FLOWS OUT OF THE DRAIN, CLOSE THE VALVE. (DRAIN MINIMUM AMOUNT OF FUEL POSSIBLE)
5. CLOSE THE FILTER VENT.
6. START THE ENGINE. RAISE R.P.M. FOR ONE MINUTE TO PURGE AIR.

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All rights reserved. 4/03/04. 4421000. 4421001. 4421002. 4421003. 4421004. 4421005. 4421006. 4421007. 4421008. 4421009. 4421010. 4421011. 4421012. 4421013. 4421014. 4421015. 4421016. 4421017. 4421018. 4421019. 4421020. 4421021. 4421022. 4421023. 4421024. 4421025. 4421026. 4421027. 4421028. 4421029. 4421030. 4421031. 4421032. 4421033. 4421034. 4421035. 4421036. 4421037. 4421038. 4421039. 4421040. 4421041. 4421042. 4421043. 4421044. 4421045. 4421046. 4421047. 4421048. 4421049. 4421050. 4421051. 4421052. 4421053. 4421054. 4421055. 4421056. 4421057. 4421058. 4421059. 4421060. 4421061. 4421062. 4421063. 4421064. 4421065. 4421066. 4421067. 4421068. 4421069. 4421070. 4421071. 4421072. 4421073. 4421074. 4421075. 4421076. 4421077. 4421078. 4421079. 4421080. 4421081. 4421082. 4421083. 4421084. 4421085. 4421086. 4421087. 4421088. 4421089. 4421090. 4421091. 4421092. 4421093. 4421094. 4421095. 4421096. 4421097. 4421098. 4421099. 4421100. 4421101. 4421102. 4421103. 4421104. 4421105. 4421106. 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DAVCO TECHNICAL BULLETIN

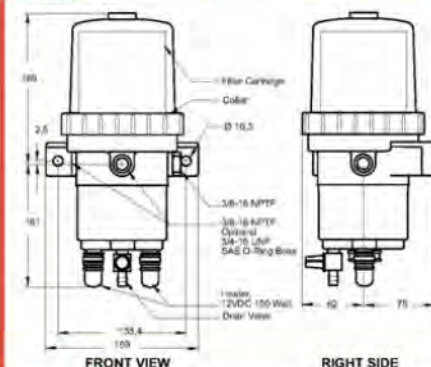
DIESEL PRO 232

WIRING CONNECTIONS and DRAIN



BOTTOM VIEW

DIMENSIONS



DIESEL PRO 232

A combined FUEL FILTER, WATER SEPARATOR and FUEL WARMER.

- FUEL FILTER** is a long-life replaceable, element type developed for easy disposal. In an emergency, a factory spin-on brand filter may be used.
- WATER SEPARATOR** traps free, suspended and emulsified water. A quick-acting, high quality drain allows no-mess service. An optional sensitive water sensor signals the operator when service is needed.
- ELECTRICAL FUEL WARMER** is controlled by a long-life thermostat to heat fuel only when needed. Eliminates wax and ice crystals that clog filters.
- BUILT IN CHECK VALVE** at the fuel inlet holds prime when changing filters and is protected from freezing by Davco's fuel heater.
- SIMPLE INSTALLATION** using normal mechanic's tools and complete instructions.
- WARRANTED** for 3 years.

SPECIFICATIONS

Linear Dimensions in Millimeters (parenthetical)

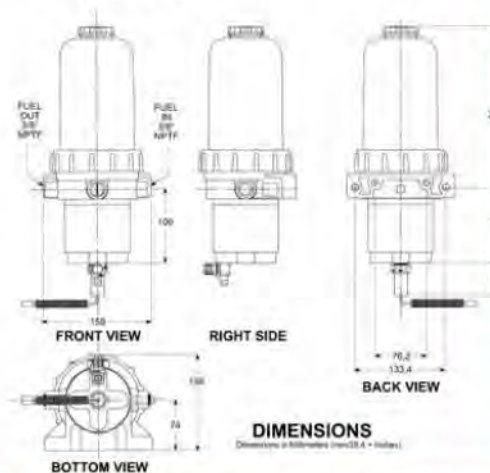
Height Overall	330 (13)
Depth Overall	137 (5.38)
Width, max.	159 (6.25)
Mount Bracket Centers	133.4 (5.25)
or Rear Mount Centers	76.2 (3.0)
Weight (Dry)	2.14 Kg. (4.72 lbs)
Fuel Connections (Inlet)	3/8" NPTF Inlet
Fuel Connection (Outlet)	3/8" NPTF
Optional Fuel Outlet	3/4"-16 O-ring Boss
Fuel Capacity (w/o filter)	0.45 L (15.2 oz.)
Recommended Application:	
Light and Medium Duty Engines	
Water Trap Capacity	0.32L (11.0 fl. oz.)
Filter Replacement	Davco 232006
Filter Service Clearance	Max 81mm (3.2")
Mounting Bracket	Cast in Head
Electrical Heater	12 VDC, 150 Watt, 12.5 amp
Fluid Heater Optional	

As technical drawings evolve, corrections, modifications may change without notice.

DAVCO Technology P.O. Box 487 Saline, MI 48176 Call 1-800-328-2611 www.DavcoTec.com 31128

DAVCO TECHNICAL BULLETIN

DIESEL PRO 233



DIESEL PRO 233

- FUEL FILTER** is a long-life replaceable, element type developed for easy disposal. In an emergency, a factory spin-on brand filter may be used.
- WATER SEPARATOR** traps free, suspended and emulsified water. A quick-acting, high quality drain allows no-mess service. An optional sensitive water sensor signals the operator when service is needed.
- ELECTRICAL FUEL WARMER** is controlled by a long-life thermostat to heat fuel only when needed. Eliminates wax and ice crystals that clog filters.
- BUILT IN CHECK VALVE** at the fuel inlet holds prime when changing filters and is protected from freezing by Davco's fuel heater.
- SIMPLE INSTALLATION** using normal mechanic's tools and complete instructions.
- WARRANTED** for 3 years.

SPECIFICATIONS

Linear Dimensions in Millimeters (parenthetical)

Height Overall	419 (16.5)
Depth Overall	150 (5.90)
Width, max.	159 (6.25)
Mount Bracket Centers	133.4 (5.25)
or Rear Mount Centers	76.2 (3.0)
Weight (Dry)	2.24 Kg. (4.94 lbs)
Fuel Connections (Inlet)	3/8" NPTF Inlet
Fuel Connection (Outlet)	3/8" NPTF
Optional Fuel Outlet	3/4"-16 O-ring Boss
Fuel Capacity (w/o filter)	0.45 L (15.2 oz.)
Recommended Application:	
Light and Medium Duty Engines	
Water Trap Capacity	0.32L (11.0 fl. oz.)
Filter Replacement	Donatdon P5550467
Filter Service Clearance	Min 38mm (1.5")
Mounting Bracket	Cast in Head
Electrical Heater	12 VDC, 150 Watt, 12.5 amp
Fluid Heater Optional	

As technical drawings evolve, corrections, modifications may change without notice.

DAVCO Technology LLC P.O. Box 487 Saline, MI 48176 Call 1-800-328-2611 www.DavcoTec.com 31122



1. How long should it take to change a DAVCO fuel filter?
 - A. 5 seconds
 - B. 5 minutes
 - C. 5 hours
 - D. 5 days
2. When do you replace the fuel filter?
 - A. When fuel level is low
 - B. Not until the fuel level reaches the top of the filter
 - C. Every 15,000 miles
 - D. Never
3. The water should be drained from the Fuel Pro?
 - A. Every fuel fill
 - B. Once a year
 - C. Once a week
 - D. Never
4. More info on the DAVCO Fuel Pro can be found at?
 - A. www.DavcoTec.com
 - B. 1-800-328-2611
 - C. customerservice@davcotec.com
 - D. All of the above



Answers 1-B, 2-B, 3-C, 4-D

More information, technical bulletins, and service procedures can be found at www.DavcoTec.com

You can also call Customer Support at 1-800-328-2611



1600 Woodland Drive Saline, MI 48176

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7/16/2004

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