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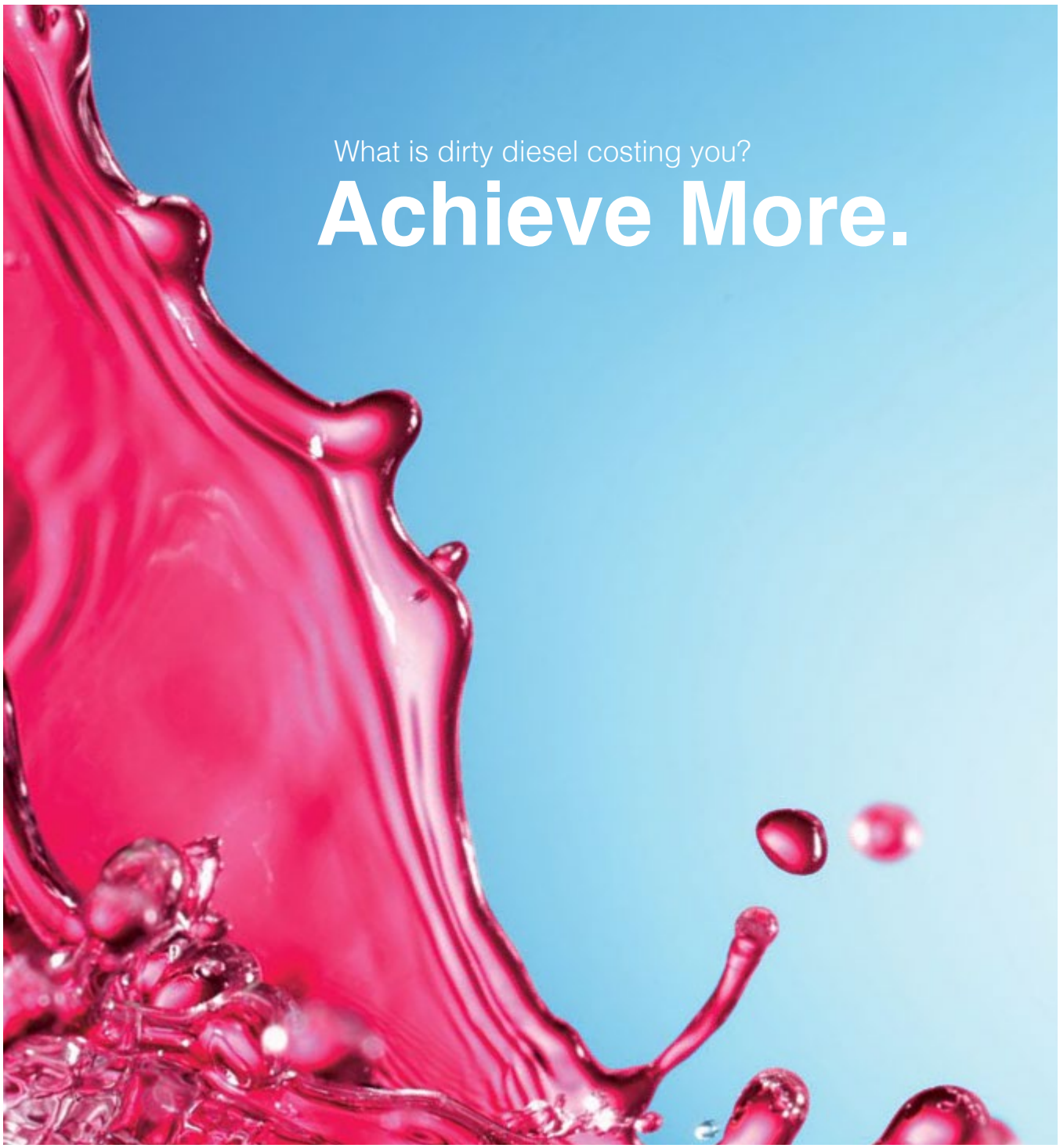
Filtration made easy...

Donaldson Delivers Clean Fuel Solutions™

Clean Diesel Kits

Filters | Filter Heads | Manifolds | Kits | hP Filters & Heads | DEF | TRAP



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The kit you need

Clean Diesel Is Easier Than You Think...

Changing the filter on your clean diesel kit is much more efficient than changing the filters on board your vehicle.

On-board filters can plug at unpredictable times, which means unpredictable downtime.

Once the kit is installed on your pump, clogged filters can be swapped out in minutes.

Each Kit:
Provides filtration to ISO 14/13/11 diesel cleanliness in a single pass

Is recommended for all diesel and biodiesel blends

Installation In Minutes...

A pump without a Clean Diesel Kit installed

Minimal tools or expertise required

It only takes minutes to start pumping clean diesel

Filter Service In Seconds...

Loosen used or clogged filter

Line up threads

Hand-tighten

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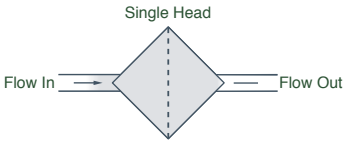
Compact

X011745

For flow rates up to 32 GPM / 122 LPM

The Compact Clean Diesel Kit is designed for use on mobile service trucks, slip tanks, inside fuel dispensers and other tight locations

Dirty diesel flows down into the filter then emerges spotlessly clean before dispensing into your equipment



Kit contents:

- Compact diesel filter (service part number DBB5333)
- Single-filter head (NPT 1.25)
- Pressure gauge
- Gauge adapter

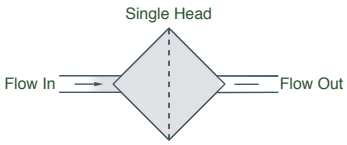
Standard

X011448

For flow rates up to 65 GPM / 246 LPM

The Standard Clean Diesel Kit is perfect for smaller operations that need clean fuel delivered efficiently in any enviornment

Dirty diesel flows down into the filter then emerges spotlessly clean before dispensing into your equipment



Kit contents:

- Diesel filter (service part number DBB8666)
- Single-filter head
- Pressure gauge
- Gauge adapter

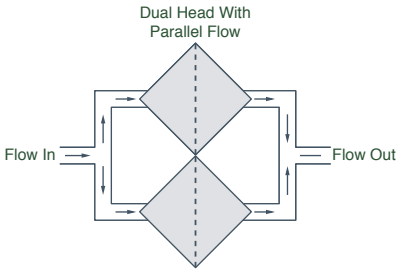
High-Capacity

X011450

For flow rates up to 125 GPM / 473 LPM

The High-Capacity Clean Diesel Kit works for operations with high-flow delivery systems that regularly need large quanitities of clean diesel delivered efficiently

The high capacity kit uses parallel filtration to increase flow. A dual head is fitted with two identical diesel filters. The diesel is split between the two filters. Half passes through one filter and half passes through the other filter. This doubles total capacity



Kit contents:

- 2 diesel filters (service part number DBB8666)
- Dual-filter head
- Pressure gauge
- Gauge adapter
- Flange adapters
- Connecting bolts

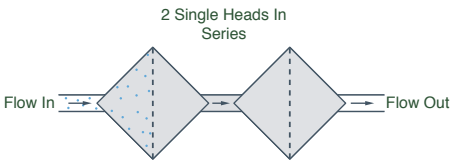
Clean and Dry

X011449

For flow rates up to 50 GPM / 189 LPM

The Clean and Dry Diesel Kit removes fuel contamination, stops water as it leaves the bulk tank and provides extra protection for your fuel in storage with the T.R.A.P Breather

The Clean & Dry Kit uses two single heads hooked up in series to accomplish two different jobs. The first head holds a particulate filter that cleans the fuel. The second head holds a water absorber that removes free water, ensuring only clean, dry diesel reaches your equipment



Kit contents:

- Diesel filter (service part number DBB8666)
- T.R.A.P Breather and installation hardware
- Water-absorbing filter (DBB 0248)
- Two single-filter heads
- Pressure gauge
- Two gauge adapters
- Connecting nipple

The Donaldson T.R.A.P. (Thermally Reactive Advanced Protection) Breather protects the fuel in your bulk tank by stripping moisture and removing particulate from the incoming air without affecting flow rates of fluid into and out of the tank

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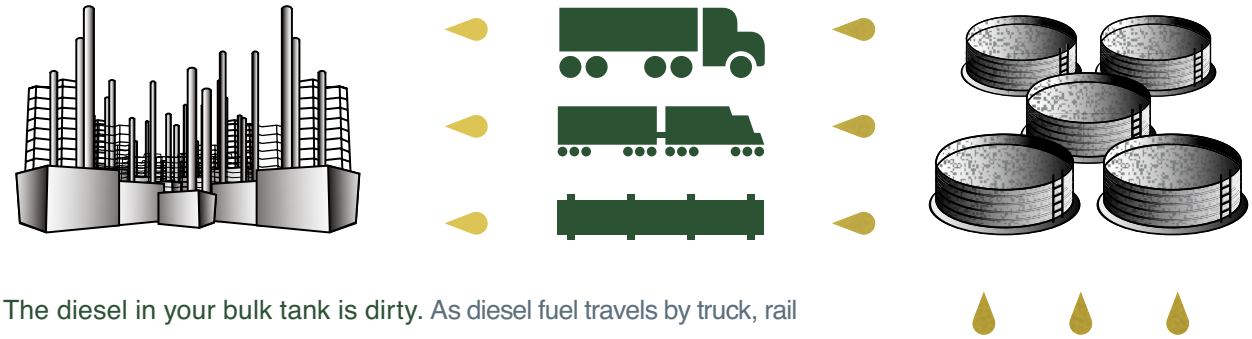
Choosing The Right Filters For Your System Is As Easy As...

1 Select the right filter to achieve targeted ISO cleanliness. Proper design of the system will help avoid unnecessary costs.

2 Determine the working pressure of the system and select the filter line compatible with that pressure.

3 Different types of fluids have different properties. Fluid viscosity plays an important role in restricting the flow through filters. Select a filter that has compatible media-to-fluid properties and will maintain adequate flow and avoid excessive pressure drops.

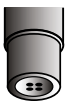
Dirty Diesel...



The diesel in your bulk tank is dirty. As diesel fuel travels by truck, rail or pipeline from refinery to terminal locations, then to local bulk storage and then to your bulk tank, it picks up dirt particles and free water that are deadly to today's engines.

Microscopic particles will ruin your injectors and cost you thousands in downtime and replacement parts!

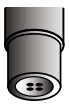
...And the Damage It Can Do



30,000 PSI!

Dirty diesel means costly downtime

Today's sophisticated diesel engines require cleaner fuel than ever before to operate efficiently, due to injection pressures of more than 30,000 PSI and extremely tight tolerances.



In engines where precision is everything, you can't risk the damage done by high-velocity contaminant. At 30,000 PSI, microscopic particles act like a tiny sandblaster, gouging the injector and creating inefficient spray-patterns.

A fouled injector doesn't spray fuel efficiently and can lead to improper idle, irregular fuel distribution, unsuitable exhaust emissions and poor fuel economy.

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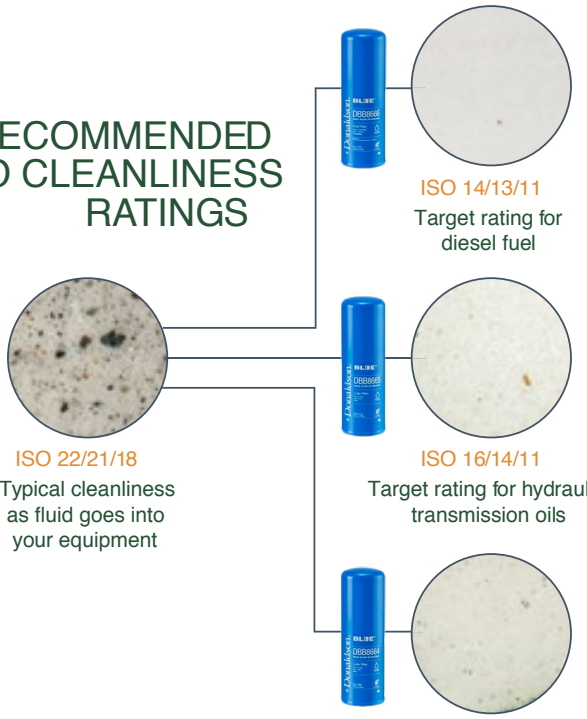
Let's Achieve The Target Cleanliness...

ISO 4406 contamination codes are a way to express fluid cleanliness.

The three numbers correspond to the number of particles 4 microns and larger, 6 microns and larger, and 14 microns and larger, present in 100 milliliters of fluid

RECOMMENDED ISO CLEANLINESS RATINGS



ISO 14/13/11
Target rating for diesel fuel

ISO 22/21/18
Typical cleanliness as fluid goes into your equipment

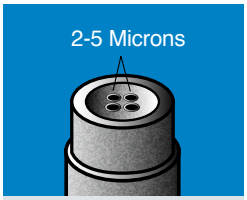
ISO 16/14/11
Target rating for hydraulic/ transmission oils

ISO 18/16/13
Target rating for heavy gear/engine oils

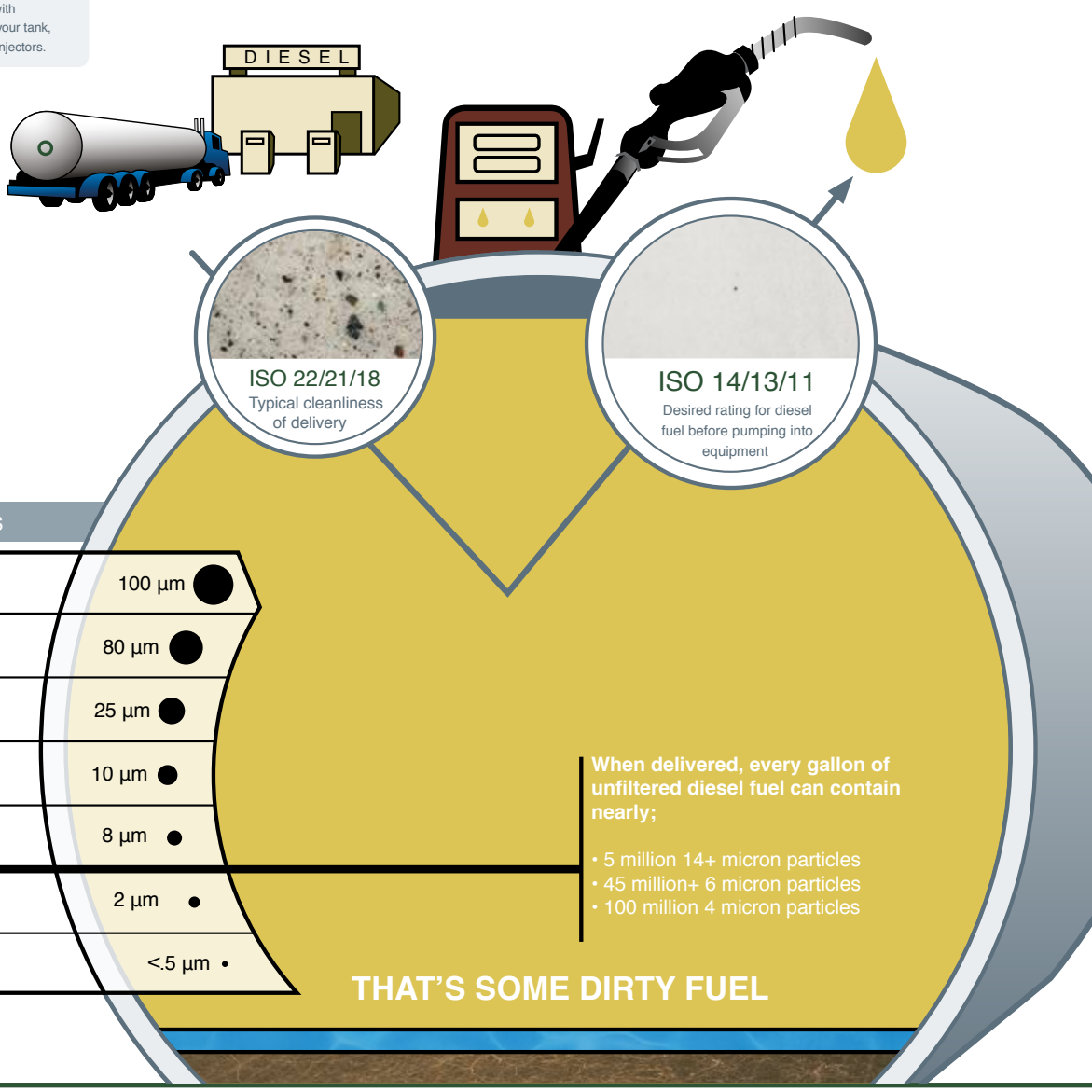
Tiny particles, big problems

A typical 10,000 gallon bulk delivery can contain more than 1.5 pounds of dirt and other particles (the equivalent of a 24 oz. soda bottle, packed with dirt!), and that's before it mixes with whatever contamination is lurking in your tank, waiting to cause problems with your injectors.

FUEL INJECTOR CLEARANCE



The typical clearance for a high pressure common rail fuel injector is less than 5 microns, and some injectors feature a clearance of less than 2 microns, so even the tiniest particles can cause problems.



SIZE OF FAMILIAR PARTICLES

Grain of table salt	100 µm
Human hair	80 µm
White blood cell	25 µm
Talcum powder	10 µm
Red blood cell	8 µm
Bacteria	2 µm
Silt	<.5 µm

When delivered, every gallon of unfiltered diesel fuel can contain nearly;

- 5 million 14+ micron particles
- 45 million+ 6 micron particles
- 100 million 4 micron particles

THAT'S SOME DIRTY FUEL

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Fuel & Lube Filters

Our filters incorporate the best technology and construction to handle all fuels and lubricants in all as operating environments. Using Donaldson Electrostatic Reduction Technology (DERT) to prevent filter media damage from electrostatic discharge.

Epoxy is used in filter construction for increased fluid compatibility. E-coating provides maximum corrosion resistance and epoxy adhesion. Viton® O-rings provide reliable sealing and maximum fluid compatibility.

Features

- Highly efficient, state-of-the-art filter media and design
- Unsurpassed filter efficiency
- Cleans to target ISO cleanliness in a single pass
- Modular design can be configured for virtually any flow rate or usage level
- Fast and easy to service

Benefits

- Single pass filtration for clean fluid transfers
- High efficiency kidney looping
- Inlet and outlet filtration at bulk storage tanks
- Dispenser “polishing” filtration on fuel pumps and hose reels
- Mobile and stationary applications

	Compact Fuel Filter	Compact Winter Fuel Filter	Fuel Filter	Winter Fuel Filter	Light Oil Filter	Heavy Oil Filter	Water Absorbing Filter
Part Number	DBB5333	DBB7733	DBB8666	DBB8777	DBB8665	DBB8664	DBB0248
Target ISO Cleanliness*	14/13/11 or better	16/14/11	14/13/11 or better	16/14/11	16/14/11	18/16/13	Not Applicable
Efficiency	4 micron @ Beta 2000	7 micron @ Beta 2000	4 micron @ Beta 2000	7 micron @ Beta 2000		25 micron @ Beta 2000	Not Applicable
Fluid Compatibility	All diesel fuels				Transmission and hydraulic oil	Engine and gear oil	Ethanol-free fluids
Recommended Viscosity Range	<100 cSt				<500 cSt	<6000 cSt	<1500 cSt
Working Pressure	350 psi / 2413 kPa / 24.1 bar						
Element Collapse Pressure	150 psi / 1034 kPa / 10.3 bar						
Rated Static Burst	800 psi / 5516 kPa / 55.2 bar						
Max. Flow Range**	32 gpm / 121 lpm		65 gpm / 246 lpm				
D.E.R.T.***	Yes				No		
Nominal Dimensions	5" x 7.5" / 12.7 cm x 19.1 cm		5" x 14.25" / 12.7 cm x 36.2 cm				
Operating Temperature	-40 to 245 °F / -40 to 118 °C				-40 to 190 °F / -40 to 88 °C	-40 to 245 °F / -40 to 118 °C	

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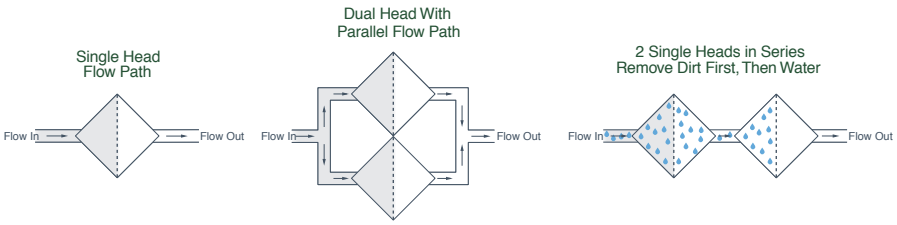
Working Together

Filter Heads

Clean Solutions filter heads feature robust, aluminum construction with steel inserts to minimize metal-to-metal galling between the head and the filter, even when used with diesel fuel.

The threaded insert contains an O-ring seal to completely seal the clean side of the filter from the dirty side for maximum protection. Viton® seals are compatible with a wide range of fluids and maintain their integrity in cold weather.

For maximum cleanliness, use Clean Solutions filter heads with Clean Solutions filters.



Features

- Steel inserts are safe to use with diesel fuel
- Threads contain O-Ring to completely Seal the clean side from the dirty side
- Heads are pre-ported for optional pressure gauges and service indicators

Applications

- For use with Clean Solutions filters
- Compatible with all diesel fuels & lubricants

Single Filter Head

Single Filter Head 1¼" NPTF

Dual Filter Head

Part Number	P570329	P570330	P568583
Connection	SAE-20 O-ring	1¼" NPTF	1½" SAE 4-Bolt Code 61 Flange
Filter Quantity *	1	1	2
Max. Flow Range **	65 gpm / 246 lpm		125 gpm / 473 lpm
Fluid Compatibility	All diesel fuels and lubricants		
Working Pressure	350 psi / 2413 kPa / 24.1 bar		
Rated Static Burst	800 psi / 5516 kPa / 55.2 bar		
Operating Temperature	-40 to 245 °F / -40 to 118 °C		
Indicator Port	Use to adapt pressure gauges or samping ports (sold separately)		
Mat erials	Aluminum head with threaded steel inserts and Viton® seals		
Compatible Filters	DBB8664, DBB8665, DBB8666, DBB5333, DBB0248, DBB8777, DBB7733		

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Manifolds

Clean Solutions Filter Manifolds expand capacity or increase flow rate beyond the capability of a single or dual filter head. Two or more manifolds can be plumbed together to accommodate even larger flow rates.

Manifolds split flow evenly between the individual filters. Fluid passes through only one of the filters on its way across the manifold. Dividing the flow between multiple filters plumbed in parallel reduces the pressure drop through each filter.

The combination of Clean Solutions manifolds and filters ensure that your equipment receives the cleanest possible fuel and oil.

	4 Filter Manifold	8 Filter Manifold	10 Filter Manifold	Inline 8 Manifold *	Inline 12 Manifold *
Part Number	P561880	P568932	P568933	1KDFF1008	1KDFF1012
Filter Quantity **	4	8	10	Up to 8	Up to 12
Mounting Connection	2" ANSI 150 Flange	4" ANSI 150 Flange			
Max. Flow Range ***	250 gpm / 946 lpm	500 gpm / 1893 lpm	600 gpm / 2271 lpm	400gpm / 1500 lpm	700 gpm / 2650 lpm
Shipping Weight	140 lbs / 64 kg	310 lbs / 141 kg	390 lbs / 177 kg	66 lbs / 30 kg	128 lbs / 58 kg
Pressure Gauges	2 pcs 0-160 psi / 0-11 bar gauges included			Accessories Sold Separately	
Sampling	Includes up-stream and down-stream mini-mess sampling ports with M16 x 2 thread				
Fluid Compatibility	All diesel fuels and lubricants				
Working Pressure	ANSI B16.5 flange rating 290 psi / 1999 kPa / 20.0 bar up to 100 °F / 38 °C			145 psi / 1000 kPa / 10 bar	150 psi / 1034 kPa / 10.3 bar
Construction	Painted carbon steel pipe with aluminum heads			No external aluminum	
Compatible Filters	DBB8664, DBB8665, DBB8666, DBB8777, DBB0248				
Operating Temperature	-40 to 245 °F / -40 to 118 °C				

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Bulk hP Filters & Heads

Filtering oil prior to dispensing into equipment is critical to meet the ISO cleanliness specifications demanded by today's OEM's.

Bulk hP filters provide high efficiency filtration in a single pass. Service shops use high pressure pumps to force oil through long lengths of piping and hose reels prior to dispensing into equipment.

Bulk hP filters remove contaminants delivered in oil and picked up in storage or delivery lines during final transfer. They ensure the required ISO cleanliness level is met every time.

Features

- Up to 1000 psi / 6894 kPa / 68.9 bar working pressure
- Extended life filters with high dirt holding capacity
- Easy disposal with recyclable can and incinerable element
- Compact design requires only 1.5" / 38 mm clearance for servicing

Applications

- Lube shops
- Mobile service trucks
- Other higher pressure single pass applications

hP Single Head

hP Head with Bypass

Part Number	P566023	P566024
Working Pressure	1000 psi / 6894 kPa / 68.9 bar	
Indicator	Yes	
Bypass Valve	No	Yes - 50 psi / 345 kPa / 3.4 bar
Connections	SAE-16 O-ring	

Bulk hP Filter

Bulk hP Filter

Bulk hP Filter

Part Number	P565184	P565185	P565183
Target ISO Cleanliness	14/13/11	16/14/11	18/16/13
Fluid Compatibility	Petroleum based oils		
Max. Flow Range	50 gpm / 189 lpm		
Efficiency	4 micron @ Beta 2000	8 micron @ Beta 2000	14 micron @ Beta 2000
Working Pressure	1000 psi / 6894 kPa / 68.9 bar		
Element Collapse Pressure	300 psi / 2068 kPa / 20.7 bar		
Application	Hydraulic, gear, transmission and engine oils		
Rated Static Burst	2200 psi / 15,168 kPa / 151.7 bar		

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Clean DEF Filter

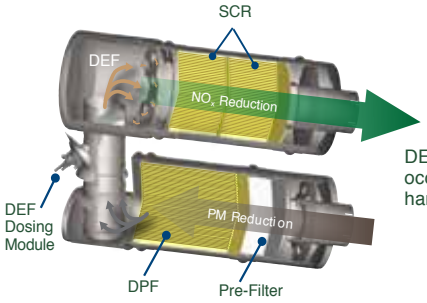
Clean Solutions Filter Manifolds expand capacity or increase flow rate beyond the capability of a single or dual filter head. Two or more manifolds can be plumbed together to accommodate even larger flow rates.

Manifolds split flow evenly between the individual filters. Fluid passes through only one of the filters on its way across the manifold. Dividing the flow between multiple filters plumbed in parallel reduces the pressure drop through each filter.

The combination of Clean Solutions manifolds and filters ensure that your equipment receives the cleanest possible fuel and oil.

Features

- Up to 1000 psi / 6894 kPa / 68.9 bar working pressure
- Extended life filters with high dirt holding capacity
- Easy disposal with recyclable can and incinerable element
- Compact design requires only 1.5” / 38 mm clearance for servicing



DEF must be clean for proper dosing to occur and turn NOx from exhaust into harmless nitrogen and water vapor.

	DEF Filter
DEF Filter Housing (Choice of Connection)	P575057 1" NPT P575058 1" BSPT Both models include mounting bracket and filter wrench
DEF Filter Element	P575059 sold separately
DEF Housing O-ring	P575060 replacement part
Efficiency	1 micron @ Beta 5000 (99.98%)
Max. Flow Range	10 gpm / 38 lpm
Working Pressure	300 psi / 2068 kPa / 20.7 bar
Operating Temperature	12 to 122 °F / -11 to 50 C°
Housing Construction	316 stainless, EPR O-ring
Filter Material	Polypropylene, EPDM gaskets
Indicator Port	¼" NPT, upstream and downstream
Drain Plug	¼" NPT

Applications

- DEF dispensers up to 10 GPM

Part Numbers

- P575057 DEF Filter Housing 1” NPT
- P575058 DEF Filter Housing 1” BSPT
- P575059 Clean DEF Filter
- P575060 DEF Housing Replacement O-ring

Working Together

T.R.A.P. Breather

The Thermally Reactive Advanced Protection (T.R.A.P.) Breather assembly protects the fluids in your storage tank from airborne particulate moisture contamination and ambient moisture.

It combines a high capacity 3 micron air filter with a deliquescent breather that dries itself when air is expelled from the tank. This self-regenerating capability of T.R.A.P. enables extended life and functionality.

Keep your fluids clean and dry with a Donaldson T.R.A.P. Breather.

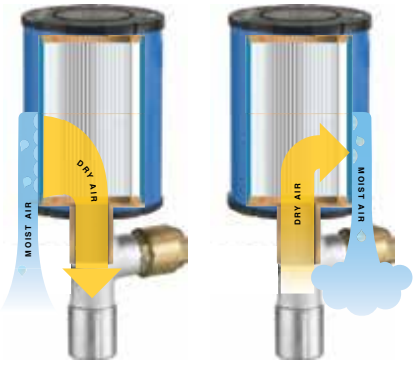
Features

- High efficency air filtration
- Longer life and lower airflow restriction than typical silica gel breathers
- Self-regenerating moisture adsorption
- Easy to service

Applications

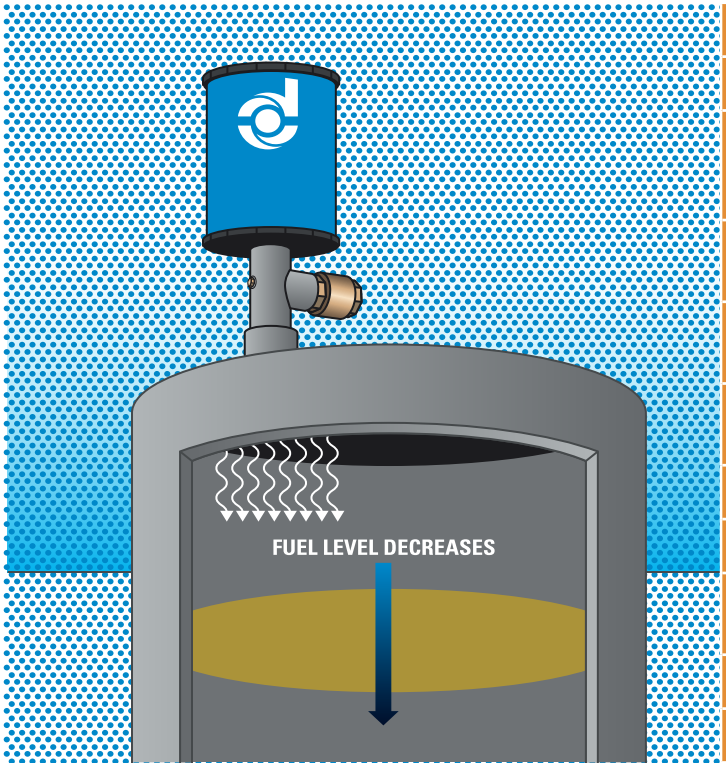
- For use with all diesel fuels and lubricants
- Above and below ground tanks
- Mobile service trucks
- Indoor or outdoor applications
- Most tanks up to 10,000 gal. / 37,854 liters (large tanks may require multiple units)

Tanks sizes above 10,000 gal. / 37,854 l. may require multiple units and pressure vaccum relief valves.



Always locate your tank's name plate and cross check against the flow chart above to ensure safety.
Use maximum flow INTO tank for validating pressure rating and flow OUT OF tank for vacuum ratings.

DO NOT EXCEED TANK PRESSURE OR VACUUM.



	T.R.A.P. Breather
Assembly Part Number	DFF0078
Efficiency	97% efficient @ 3 microns
Max. Flow Range	Combined inlet and outlet flow up to 400 gpm / 1500 lpm maximum
Overflow Check Valve	Opens at 10 mbar / 4" H_2O
Operating Temperature	-40 to 200 °F / -40 to 93 °C
Fluid Compatibility	Safe for use with all fuels and lubricants
Indicat or	Standard mechanical
Height	16" / 410 mm
Construction	ABS housing, Urethane end caps
Connection	1½" NPT female
Replacement filter	P923075 spin on

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Reservoir Air Dryer

The Donaldson Reservoir Air Dryer eliminates the need to continually replace conventional desiccant breathers, enhancing reservoir breathing systems by continuously purging and dehydrating reservoir headspace.

With no electrical requirements, the Donaldson Reservoir Air Dryer combats ambient ingression of moisture by introducing a steady stream of clean, dry air to the reservoir. This constant airflow helps sustain optimal conditions and prevents the formation of condensation and rust in the reservoir, minimizing the potential for particulate and water ingression through reservoir access points.

When combined with a T.R.A.P. Breather, the complete system keeps moisture and contamination out, even if fluid flow rate out of the tank surpasses the Reservoir Air Dryer flow rate into the tank.

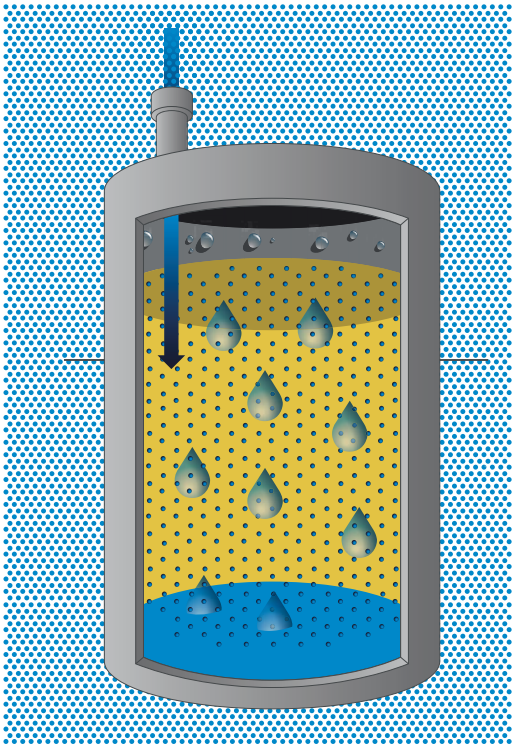
Features

- The clean, dry air sweep dehydrates the reservoir headspace and removes dissolved moisture from exposed oils and fuels*
- Operates with standard plant air; instrument quality air is not required
- Submicron coalescing air filter collects oil and water droplets and fine particles from inlet air
- Automatic drain purges captured liquid with no intervention required
- Visual indicator monitors filter condition
- Membrane air dryer reduces plant air dew point by as much as 150 °F (83 °C)
- Pressure regulator depressurizes the air and ensures that the proper flow rate of air is introduced into the reservoir

Applications

- Lubricant system reservoirs
- Diesel storage tanks
- Oil storage tanks
- Gear boxes
- Hydraulic system reservoirs

Reservoir Air Dryer



Assembly Part Number	P575852
Efficiency	Reduces dew point as much as 150 °F (83 °C)
Outlet Flo w Volume @100 psi and dew point suppression	0.5 scfm (14.2 slpm) maximum
Inlet Air required @ 100 psi	0.8 scfm (22.7 slpm) maximum
Pre-Filter Condition	Visual Indicator (Green/Red)
Pressure Regulator	Dial Gauge
Coalescer Drain	Automatic Float Type
Max Working Pressure	116 psi (800 kPa / 8.00 bar)
Max Operating Temperature	125°F (52°C)
Fluid Compatibility	Petroleum and Phosphate Ester Fluids, Diesel Fuels*
Inlet/Outlet Connection	¼" NPT
Mounting Bracket	3/8" - 16 UN Threaded Nut
Weight	<5 lbs (<3 kgs)
Replacement	Coalescing Pre-Filter

Don't let fuel related issues slow your business down!

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