

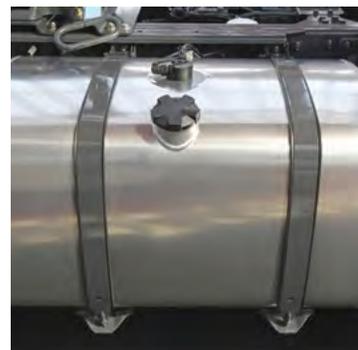


aerospace  
climate control  
electromechanical  
**filtration**  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



## Diesel Fuel Cart

Portable Diesel Fuel Filtration Cart



ENGINEERING YOUR SUCCESS.



## Therapeutic

- off-line and portable
- provides flexibility for removing water and contaminants from fuel
- improves and extends fuel life and system components

# Diesel Fuel Cart

- Filtering new fluid before putting into service
- Transferring fluid from drums or storage tanks to system reservoirs
- Conditioning bulk fluid in storage tanks
- Compliments existing system filtration
- Removes free and emulsified water from a system

Parker's comprehensive asset health management approach extends well beyond traditional methods and brings focus to long term fuel system performance and reliability. Pre-filtration and transfer of diesel and biodiesel fuels is critical in maintaining today's fuel injection systems and extending system component life.

Tight tolerances and higher system pressures require significant improvement in fuel cleanliness and quality. The

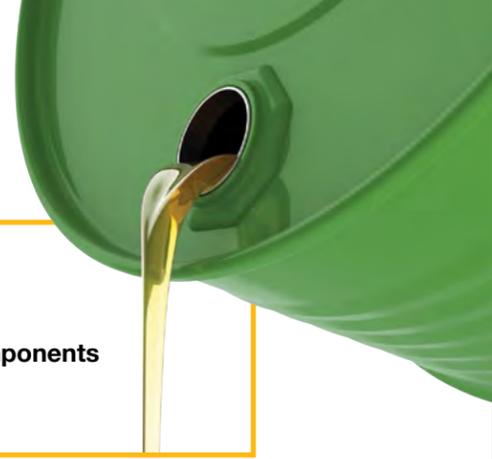
Parker Diesel Fuel Cart delivers on the promise of high efficiency removal of harmful contaminants that impact injector life and compromise engine performance. Like most fuels, diesel requires filtration prior to use and after long periods of storage.

The use of the Parker Diesel Fuel Cart is a practical and economical maintenance tool that contributes to optimum engine performance, regardless of application.

## Applications

- rail
- mining
- marine
- oil & gas
- agriculture
- transportation
- construction
- stand-by power
- equipment rental locations
- **anywhere diesel fuel is used and/or stored**

Features	Advantages	Benefits
Wide variety of elements available	Meets cleanliness standards	Extends component life and improves system performance
Heavy duty frame	Rugged and durable	Built to last
Lightweight and portable	Easy to move from place-to-place	One operator
Eleven-foot hose and wand assemblies included	Additional hardware not necessary	Ready to use as received



The DFC polishes the fuel with the Parker FBO-14 filter, which does not require any tools for filter change outs.



Parker's E-Z Form™ MP Series 7219 Hose provides the DFC a flexible, low pressure suction/return hose and vehicle fuel fill connector line specifically made for diesel.



The DFC utilizes an industrial rated motor and a Parker H series fixed displacement loaded gear pump which has a high tolerance to system contamination.

## Specifications

**Maximum Recommended Fluid Viscosity:**

Diesel – 200 SUS (44 cSt);  
0.85 specific gravity

**Flow Rate:**

16 gpm

**Visual Indicator:**

15 psid Visual differential

**Operating Temperature:**

-8.1°C to +66°C (17.5°F to +150°F)

**Electrical Service Required:**

110/220 volts, 60/50 Hz,  
single phase, 9.6/4.8 amps

**Electrical Motor:**

¾ hp @ 3450 rpm, TEFC

**Construction:**

Cart frame – Steel

Filter head – Die Cast

Filter bowl – Steel

Hoses – Nitrile

Wands - PVC

**Weight:**

48.5 kg (107 lbs.)

**Dimensions:**

A = Height: 1034 mm (40.7 in)

B = Width: 648 mm (25.5 in)

C = Depth: 503 mm (19.8 in)

## Features and Benefits

**Hose & wand assembly:**

Parker's E-Z FORM™ MP Series 7219 kink-resistant nitrile hose

**Visual indicator:**

Tells you when to change element

**Heavy Duty frame:**

Rugged and built to last

**Gear pump:**

Parker H Series, long life

**Element Service:**

FBO-14 fuel filter, which does not require any tools for filter change outs

**110V/220V AC motor:**

Industrial brand name

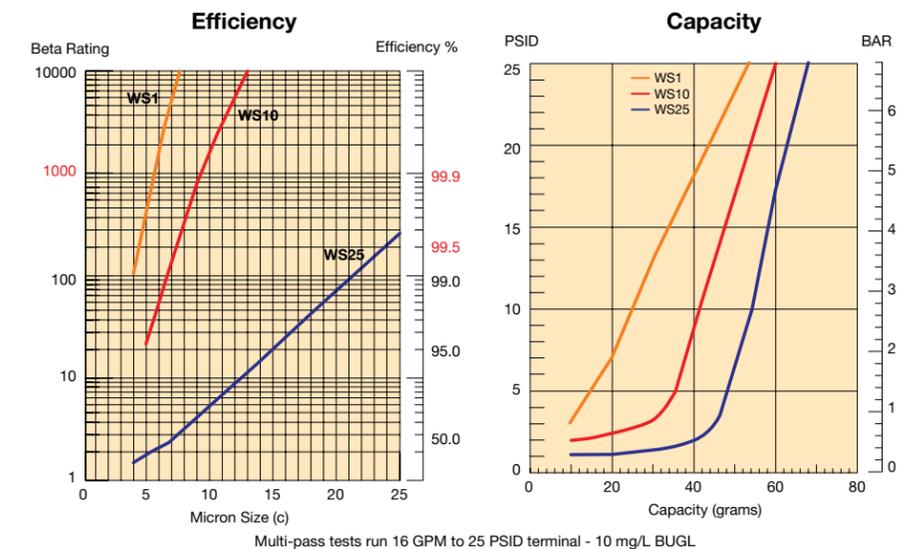
**Drip tray:**

Helps keep the work area safe and clean

## Element Performance

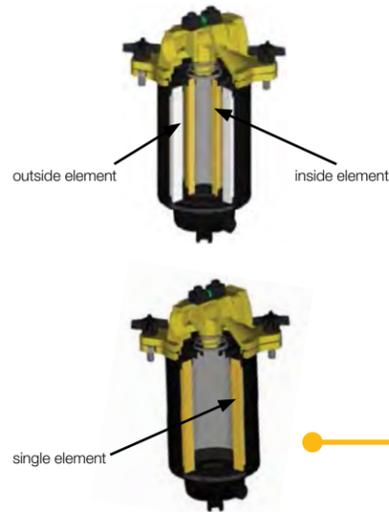
**New Tier 4 Diesel Engines require finer filtration and better performance.**

Typical engine fuel contamination levels, established in 1998 by Worldwide Fuel Charter Committee, required cleanliness of 18/16/13 per ISO 4406. Due to technology advances in High Pressure Common Rail injection systems, the new engines manufactured today require cleanliness levels as low as **12/9/6 or better**. Injector pressures are exceeding 30,000 PSI and smaller nozzle openings are driving the requirements.



# Diesel Fuel Cart

## Element Choices

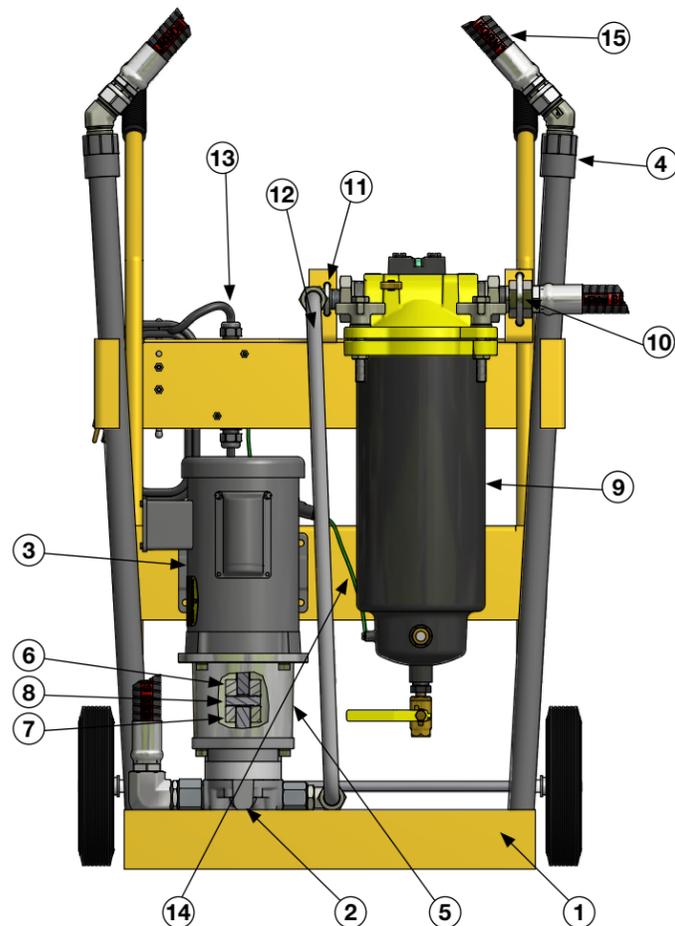


### WS

Water separator elements are critical when there is a need to remove both particulate and water contamination from fuels. Testing has shown the WS 25 micron element is capable of achieving >99.5% single pass particulate removal efficiency.

### ST

Silicone treated elements are ideal for removing particulate contaminants like dust, dirt, rust, sand, scale etc. from fuels. Testing has shown the ST 25 micron elements are capable of achieving >98.8% single pass particulate removal efficiency.



## Parts List

Part Number	Description	QTY.
1	DFC CART FRAME ASSEMBLY	1
2	H49 GEAR PUMP H49AAIAV	1
3	3/4 HP MOTOR 3600 RPM 60 hz CFACE	1
4	BUNA WAND	2
5	PUMP ADAPTER	1
6	COUPLING LOVE-JOY L-075.625	1
7	COUPLING LOVE-JOY L-075.750	1
8	SPIDER BUNA L-075	1
9	FILTER HOUSING FBO-14	1
10	U BOLT SS 5/16-18 THD 2-11/16"	1
11	U BOLT SS 1/4-20 THREAD 2"LONG	1
12	TUBE ASSY 3/4 OD 25.11"LONG	1
	928616 HEATER ELEMENT (not shown)	1
13	928617 MANUAL MOTOR STARTER (on back)	1
14	CF DEUTSCH CONNECTOR ASSEMBLY GROUND WIRE	1
15	945582B HOSE ASSY E-Z FORM SERIES 7219	2

CF = Consult Factory

# Diesel Fuel Cart

## Assembly & Operation

### Assembly

1. Install hoses to filter by threading the hose end with the straight thread o-ring seal fitting into the pump inlet and filter outlet ports.
2. Connect the PVC tube wands to the swivel fitting on the hose end. When servicing the PVC tube wand, do not over-torque the metal fittings going into the PVC coupling. Over-torque will result in cracking the coupling. Generally, 1/4 turn beyond hand-tight is sufficient.

### Operating Instructions

1. Insert the inlet wand assembly into the supply fluid receptacle (drum/reservoir).
2. Insert the outlet wand assembly into the clean fluid receptacle (drum/reservoir).
3. Verify that the ON/OFF switch is OFF and plug the cord into the proper grounded power source (3 wire).
4. Turn switch to ON position and check outlet wand for fuel flow. Allow 30 to 60 seconds for filter to fill with fuel. If repeated attempts to obtain fuel flow fail, check pump inlet fittings for tightness, remove bowl and verify the cover sealing o-ring is in place. It may be necessary to pour 1 or 2 quarts of fluid in to prime pump initially.
5. The condition of the filter element should be monitored by observing the cleanliness indicator on the top of filter. When the indicator is in the CHANGE position filter element MUST be replaced.
 

**Warning:** Do not restrict the outlet hose with a shut-off valve, causing excessive pressure, which may be harmful to personnel or to the filter cart.
6. The 15 psid cleanliness indicator responds to differential pressure changes and will indicate the condition of the element.
 

**NOTE:** The filter cart must be in operation for the indicator to read properly.

### Maintenance Instructions

1. Turn switch to OFF position and unplug cord from electrical outlet.
2. Disconnect Deutsch ground wire from bowl. (See #14 on Parts List)
3. Remove tube wands from fuel to prevent siphoning.
4. Open the vent valve on the head to allow the unit to thoroughly vent before loosening the four (4) head knobs.
5. Open the drain valve on the bottom of the housing to allow all fluid to drain from the unit.
6. Loosen the four (4) knobs attached to the head.
7. Remove the head gasket and discard.
8. Remove and discard the expended cartridge; Note: The used cartridge may become a fire hazard, discard in a fire safe place in accordance with all fire safety laws.
9. Flush the interior of the housing with clean, processed, filtered fuel or solvent; Note: A non-metallic bristle brush may help remove caked-on debris. Rinse the housing and head with a soft, lint-free cloth.
 

**CAUTION:** Due to the toxic effects of some additives in filtered fluids, care should be taken in

Designed for Diesel and Biodiesel blended fuels only.  
Do not use with Gasoline.

10. Lightly lubricate the new O-ring with Vaseline or petroleum jelly and position it on the head. If Vaseline is not available, lubricate gasket with clean fuel or clean oil.
11. Insert a new cartridge into the housing. Position housing (with cartridge) underneath filter head. Push/Twist cartridge on to head spigot. The head conical spring will seat/seal the cartridge into the housing.
12. Rotate housing onto the bolts. Hand tighten knobs until head is snug to the housing.
13. Close the vent valve when a small amount of fluid starts to come out.
14. Reconnect Deutsch ground wire to bowl. (See #14 on Parts List)
15. Examine all connections and seals for leaks, shut down immediately if leaks are present.
 

**NOTE:** Do not tighten head bolts if unit is pressurized, crack open vent valve to relieve pressure then address leaks.

## Troubleshooting

Problem	Cause	Solution
Does not start	ON/OFF Switch	Turn switch ON, replace switch if defective
	No electrical power	Plug in Cart
	Defective motor	Replace
No fuel flow or erratic pump noise	Filter housing not filled with fuel	Allow pump to run 30 to 60 seconds
	Suction Leak	Check tightness of inlet fittings
		Kink or restriction in inlet hose
		Add 1 or 2 quarts of fuel to inlet hose
Indicator Reads BYPASS	Defective Pump	Replace Pump
	Element Dirty	Replace or Clean Element
Indicator does not seem to move	No Element	Install Element
		Check cart model number to verify correct element.

# Diesel Fuel Cart

## How to Order

Select the desired symbol (in the correct position) to construct a model code. Example:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
DFC	14	WS	10	V	V	X	1

### BOX 1: Filter Series

Symbol	Description
DFC	Standard Cart

### BOX 4: Degree of Filtration

Symbol	Description
01	1 micron
10	10 micron
25	25 micron

### BOX 6: Indicator

Symbol	Description
V	Differential Visual

### BOX 2: Model Length

Symbol	Description
14	Double

### BOX 7: Bypass

Symbol	Description
X	No Bypass

### BOX 5: Seals

Symbol	Description
V*	Fluorocarbon (FKM)

\* E-Z Form™ MP 7219 Nitrile Hose

### BOX 3: Media Code

Symbol	Description
WS	Water Separator
ST	Silicone Treated

### BOX 8: Options

Symbol	Description
1	None

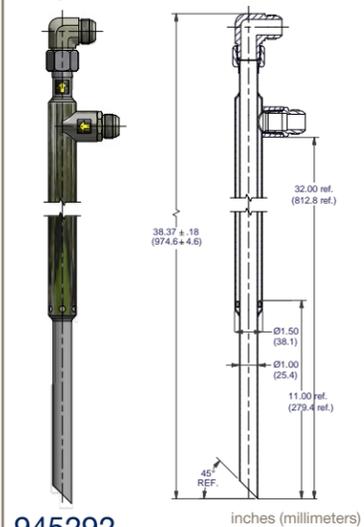
## Replacement Elements

FBO Cartridges	Micron Rating	Water Separator	Silicone Treated
FBO-14	1	945515	945519
	10	945517	945521
	25	945518	945522

## Accessories

Part Number	Description
945292	Concentric Wand

### Single Point Suction & Return



945292

- 1" diameter suction tube
- Fits in openings 1.5 inches and larger
- 32" suction depth
- In-tank filtering
- One port access to the tank
- All steel construction
- Patent pending



## Hydraulic Filter Division

Your prescription for total system health.

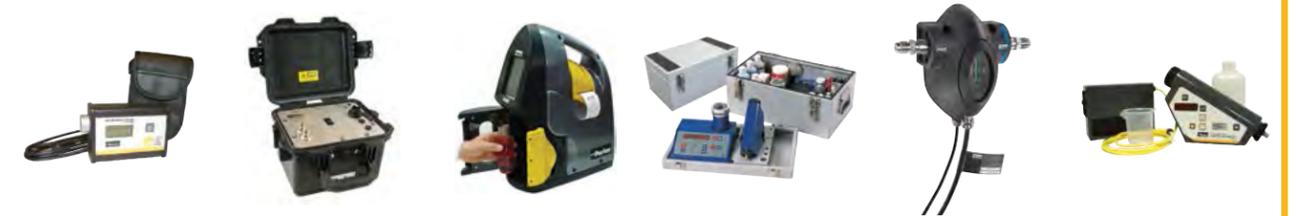


Dedicated to the long term health and reliability of mission critical assets, Parker Hydraulic Filter Division offers you innovative products that cover your diagnostic, therapeutic and preventive needs.

## Total System Health Management



### Diagnostic - Monitors - Detects - Alerts



### Therapeutic - Supports - Improves - Fortifies



### Preventive - Long Term Defense / Value - Reduced Cost of Ownership



Your Trusted Partner  
in Total System  
Health Management



# Worldwide Filtration Manufacturing Locations

## North America

**Compressed Air Treatment  
Filtration & Separation/Balston**  
Haverhill, MA  
978 858 0505  
www.parker.com/balston

**Finite Airtek Filtration  
Airtek/donnick hunter/Zander**  
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716 686 6400  
www.parker.com/faf

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Horizon Reverse Osmosis**  
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www.parker.com/hydraulicfilter

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www.parkerfarr.com

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www.parker.com/processfiltration

Madison, WI  
608 824 0500  
www.scilog.com

Phoenixville, PA  
610 933 1600  
www.parker.com/processfiltration

**Aerospace Filtration  
Velcon Filtration**  
Colorado Springs, CO  
719 531 5855  
www.velcon.com

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www.kittiwake.com

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+44 (0) 1733 232 495  
www.kittiwake.com

**Process Filtration  
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Birtley, England  
+44 (0) 191 410 5121  
www.parker.com/processfiltration

**Parker Twin Filter BV**  
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