



LIQUIDYNAMICS™



FLUID HANDLING  
TECHNOLOGY

## DIESEL EXHAUST FLUID

This latest brochure dedicated to Diesel Exhaust Fluid (DEF) handling products introduces several new items to address the rapidly changing world of DEF. LiquidDynamics continues to be at the leading edge of DEF product development and product offerings. Included in this brochure are several new "2 Wheel DEF Transfer Carts," Gravity Flow Kits, DEF Tank Venting options, a new selection of automatic and manual nozzles, filters, thread sealant and Dry-Mate fittings.

DEF handling products shown in this brochure conform to ISO 22241 specifications and include both "open" and "closed" systems which allows users to choose equipment that best fits their specific requirements. These products are applicable for hand operated applications as well as 12 VDC, 115 VAC, air operated, intermediate as well as bulk transfer requirements.

Please visit our website [www.liquidynamics.com](http://www.liquidynamics.com) for additional information and products not shown in this brochure.

## CLOSED IBC TRANSFER SYSTEMS FOR DIESEL EXHAUST FLUID (DEF)

P/N **970027-06A**

**275 or 330 Gallon DEF IBC Tote system for use with closed system couplers and valves of your choice. This system is designed to be compatible with MicroMatic RSV and EPV series couplers as well as Colder Products "DrumQuick Pro" couplers. Order an appropriate coupler separately to match your system requirements.**

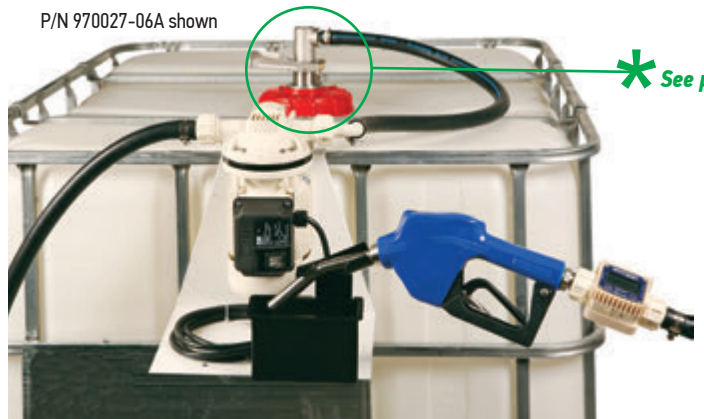
**System includes:**

- 8 GPM, 115 VAC Self Priming Pump, w/ 6 min. timeout feature
- Electronic Digital Turbine Meter
- Stainless Steel Automatic Discharge Nozzle
- 3/4" x 12' Discharge & Pump Connection Hose
- Convenient Pump Hanger Plate w/Nozzle Holder and Drip Cup

P/N **970027-06M**

Same as 970027-06A above, except with manual nozzle.

P/N 970027-06A shown



**Note: IBC Tote Tank and coupler not included**

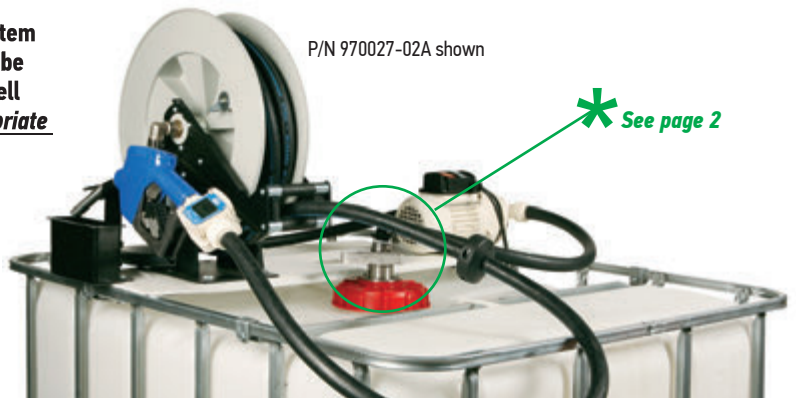
P/N **970027-02A**

**275 or 330 Gallon DEF IBC Tote system for use with closed system couplers and valves of your choice. This system is designed to be compatible with MicroMatic RSV and EPV series couplers as well as Colder Products "DrumQuick Pro" couplers. Order an appropriate coupler separately to match your system requirements.**

**System includes:**

- 8 GPM, 115 VAC Self Priming Pump, w/ 6 min. timeout feature
- Electronic Digital Turbine Meter
- Stainless Steel Automatic Discharge Nozzle
- 3/4" x 25' Hose reel
- Tote Mounting Plate and Hardware
- Nozzle Holder and Drip Cup

P/N 970027-02A shown

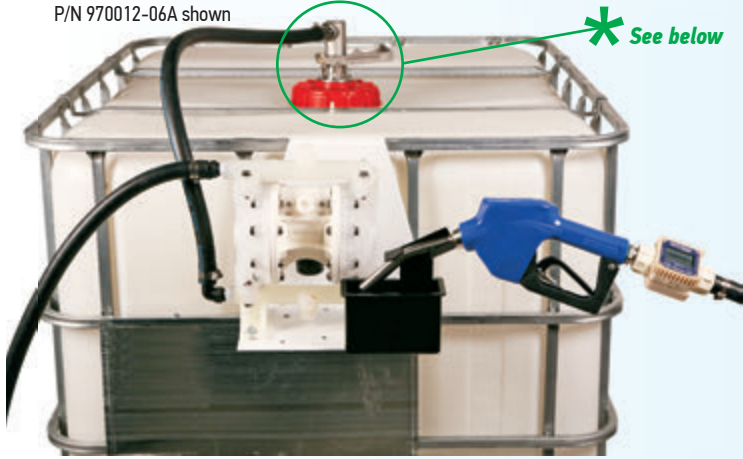


**Note: IBC Tote Tank and coupler not included**

P/N **970027-02M**

Same as 970027-02A above, except with manual nozzle.

P/N 970012-06A shown



**Note: IBC Tote Tank and coupler not included**

### P/N 970012-06A

275 or 330 Gallon DEF IBC Tote system for use with closed system couplers and valves of your choice. This system is designed to be compatible with MicroMatic RSV and EPV series couplers as well as Colder Products "DrumQuick Pro" couplers. Order an appropriate coupler separately to match your system requirements.

#### System includes:

- 14 GPM Air Operated Double Diaphragm Pump
- Electronic Digital Turbine Meter
- Stainless Steel Automatic Discharge Nozzle
- 3/4" x 12' Discharge & Pump Connection Hose
- Convenient Pump Hanger Plate w/Nozzle Holder and Drip Cup

### P/N 970012-06M

Same as 970012-06A above, except the SS automatic nozzle is replaced by a manual nozzle.

### P/N 970020-12A

This simple system is designed to draw from the bottom of the Tote tank, therefore eliminating air pockets which cause DEF crystallization. A separate air vent is required to allow the IBC Tote to breathe, see page 5 for choice of vents, P/N 950391 and P/N 950392. System includes:

- 8 GPM, 115 VAC Self Priming Pump, w/ 6 min. timeout feature
- Electronic Digital Turbine Meter
- Stainless Steel Automatic Discharge Nozzle
- 3/4" x 12' DEF Discharge Hose
- Pump Connection Hose w/2" Tote Connection Fitting
- Convenient Pump Hanger Plate w/Nozzle Holder and Drip Cup

### P/N 970020-12M

Same as 970020-12A above, except the SS automatic nozzle is replaced by a manual nozzle.

**Note: IBC Tote Tank not included**



### P/N 51009C-S9A

55 Gallon Drum Cart system for use with closed couplers and valves of your choice. This system is compatible with MicroMatic RSV and EPV couplers as well as Colder Products "DrumQuick Pro" couplers. Order your choice of coupler separately to match your system requirements.

- 8 GPM, 115 VAC Self Priming Pump, w/ 6 min. timeout feature
- Electronic Digital Turbine Meter
- SS Automatic Discharge Nozzle
- 3/4" x 12' Discharge & Pump Connection Hose
- Heavy Duty Mobile Cart, with 2,600 lb. load rating

### P/N 51009C-S9M

Same as 51009C-S9A above except the SS automatic nozzle is replaced by a manual nozzle.



**Note: Drum and Coupler not included**

P/N 51009C-S9A shown

### Order Coupler Separately



#### P/N 195205D

- Stainless Steel RSV Series Quick Coupler



#### P/N 195206A

- Stainless Steel EPV Dispensing Coupler



#### P/N 195207A

- Polypropylene DrumQuik® PRO Coupler



P/N **33115-S1A**

**115 VAC 55 Gallon Drum Topper System for use with closed couplers and valves of your choice. This system is compatible with MicroMatic RSV and EPV couplers as well as Colder Products "DrumQuick Pro" couplers. Order your choice of couplers separately to match your system requirements. System includes:**

- 8 GPM, 115 VAC Self Priming Pump, w/ 6 min. timeout feature
- Electronic Digital Turbine Meter
- SS Automatic Discharge Nozzle
- 3/4" x 12' Discharge & Pump Connection Hose
- Spring Loaded SS Drum Mounting Bracket w/ Drip Tray

P/N **33115-S1M**

Same as 33115-S1A above except the SS automatic nozzle is replaced by a manual nozzle



P/N 33115-S1A shown

*Note: Drum and coupler not included*

**\*** See page 2

**\*** See page 2



P/N 33115-S2A shown

*Note: Drum and coupler not included*

P/N **33115-S2A**

**12 VDC 55 Gallon Drum Topper System for use with closed couplers and valves of your choice. This system is compatible with MicroMatic RSV and EPV couplers as well as Colder Products "DrumQuick Pro" couplers. Order your choice of couplers separately to match your system requirements. System includes:**

- 8 GPM, 12 VDC Self Priming Pump, w/ 6 min. timeout feature
- 18' Power Cable with Battery Clips
- Electronic Digital Turbine Meter
- SS Automatic Discharge Nozzle
- 3/4" x 12' Discharge & Pump Connection Hose
- Spring Loaded SS Drum Mounting Bracket w/ Drip Tray

P/N **33115-S2M**

Same as 33115-S2A above except the SS automatic nozzle is replaced by a manual nozzle

## DEF SYSTEMS SELECTION CHART

**SYSTEM IDENTIFIER**

- DR** DEF Tote "Closed" System w/ Hose Reel Capability
- DS** DEF Tote "Closed" System (hanger system on side of tote)
- DT** DEF Drum Topper System (not for use with Hose Reels)
- DC** DEF Drum Cart System (can be used with 25' Hose Reel)

**PUMP SELECTION**

- 12 12 VDC Membrane Pump
- 15 115 VAC Membrane Pump
- 20 1/2" DD Air Operated Pump (includes air F/R)

**HOSE/REEL SELECTION**

- H08 3/4" x 8' DEF Hose
- H10 3/4" x 10' DEF Hose
- H12 3/4" x 12' DEF Hose
- H15 3/4" x 15' DEF Hose
- H20 3/4" x 20' DEF Hose
- R25 3/4" x 25' Hose Reel (may be used on DR tote or DC cart systems)
- R50 3/4" x 50' Hose Reel (for use on DR tote system only)

**METER SELECTION**

- X No Meter
- T Digital Turbine Meter

**CONTROL HANDLE SELECTION**

- XX Not Required
- MP Manual Poly Nozzle
- AS Automatic SS Nozzle
- AP Automatic Poly Nozzle
- AM Automatic Poly Nozzle with Meter

**CART SELECTION**

- XX Not Required
- D4 Drum Dolly, 55 Gallon (can not be used with reel)
- C8 Heavy Duty 4 Wheel Cart (will accept 25' reel)

**COUPLER SELECTION**

- XXX Not Required
- COL Colder Products DrumQuick Coupler
- EPV MicroMatic EPV Coupler
- RSV MicroMatic RSV Coupler

**DS 15 H12 T MP XX RSV**



P/N **901081**

6" IBC Tote Cap with two 2" NPS openings

P/N **560101**

Buttress adapter allows use of NPT threaded pumps to be used on drums with buttress threads, 2" NPT female x 2" Buttress male.



P/N **560102**

NPT adapter allows use of buttress threaded pumps to be used on drums with NPT threads, 2" Buttress female x 2" NPT male.



## “OPEN” DRUM SYSTEMS FOR DIESEL EXHAUST FLUID (DEF)

### P/N 51009C-S4A

**55 Gallon Drum Mobile Cart System with in-line meter is a complete transfer system, including:**

- Submersed Impellor Drum Pump, 115 VAC
- Electronic Digital Turbine Meter
- SS Automatic Discharge Nozzle
- 3/4" x 12' Discharge Hose
- 2" Bung Adapter w/filtered air breather
- Heavy Duty Mobile Cart, with 2,600 lb. load rating

### P/N 51009C-S4M

Same as 51009C-S4A above, except the automatic nozzle is replaced by a manual nozzle.



P/N 51009C-S4M shown

*Note: Drum not included*

## “OPEN” DEF IBC TOTE SYSTEMS

### P/N 970019-12A

**Economical pump system designed for use with 275 Gal. IBC Tote tanks, system includes:**

- Two Speed, 115 VAC, DEF Pump w/filtered air vent and sealed bung adapter
- 3/4" x 12' Discharge Hose
- Electronic Digital Turbine Meter
- SS Automatic Discharge Nozzle
- Nozzle Holder, Drip Tray and Mounting Hardware

### P/N 970019-12M

Same as above, except the automatic nozzle is replaced with a manual nozzle.



P/N 970019-12M shown

*Note: IBC Tote Tank not included*



### P/N 195102B-40

Continuous duty drum pump (40" pump length) has 115 VAC/60 HZ, 1/3 HP two speed continuous duty motor with 12' power cord intended for use with diesel exhaust fluid (DEF). Pump is supplied with 2" bung adapter and air breather with filter to allow clean make up air into the drum as fluid is pumped out. Flow rate approximately 10 GPM with high speed setting, has polypropylene pump body and tube with 316 SS drive shaft, 1.25" tube diameter.

### P/N 195102B-48

Same as P/N 195103-40 above, except pump length is 48" to fit 275 gallon IBC tote tanks.



### P/N 195104-40

Continuous duty drum pump (40" pump length) has 115 VAC/60 HZ, 4/5 HP variable speed motor, 12' power cord for use with diesel exhaust fluid (DEF). Pump has polypropylene body and tube with 316 SS drive shaft, flow rates up to 40 GPM, 2" tube diameter. A 2" bung adapter is included to allow pump to be securely mounted into a standard 2" bung opening, customer must supply separate opening to allow make up air into container as fluid is pumped out.

### P/N 195104-48

Same as P/N 195104-40 above, except pump length is 48" to fit 275 gallon IBC tote tanks.

### P/N 195104-60

Same as P/N 195104-40 above, except pump length is 60" to fit 330 gallon IBC tote tanks.

# AIR OPERATED PUMP SYSTEMS AND COMPONENTS FOR DEF

The air operated pump systems offered on this page utilize a 1:1 ratio pump that is rated at up to 6 GPM, flow rate can be controlled via the discharge nozzle or with the included air regulator. These systems provide an economical solution for pumping DEF

fluid and are offered in both "open" and "closed" variations in order to accommodate most any application. These systems offer the added advantage of not having to constantly switch the pump on and off manually, as is the case with electric pumps.

## P/N 560008A-S1A

**Economical "Closed" 1:1 ratio air operated pump system designed for use with 55 gallon drums that are fitted with the MicroMatic RSV drum valve. May also be used with 275 and 330 gallon IBC tote tanks fitted with the MicroMatic RSV valve.**

### System includes;

- 1:1 ratio air operated pump
- 3/4" x 12' DEF discharge hose
- Poly automatic nozzle
- Stainless steel MicroMatic coupler

## P/N 560008A-S1M

Same specification as P/N 560008A-S1A, but supplied with poly manual nozzle.

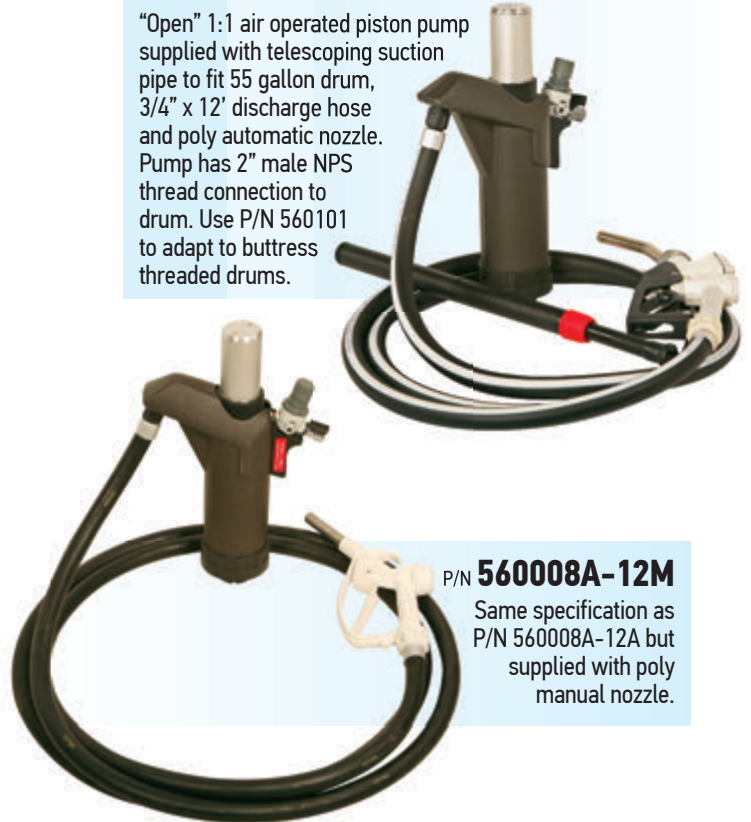
P/N 560008A-S1M shown



**Note: Drum not included**

## P/N 560008A-12A

"Open" 1:1 air operated piston pump supplied with telescoping suction pipe to fit 55 gallon drum, 3/4" x 12' discharge hose and poly automatic nozzle. Pump has 2" male NPS thread connection to drum. Use P/N 560101 to adapt to buttress threaded drums.

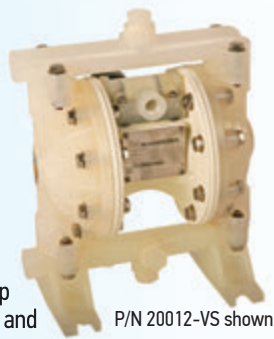


## P/N 560008A-12M

Same specification as P/N 560008A-12A but supplied with poly manual nozzle.

## P/N 20012-VS

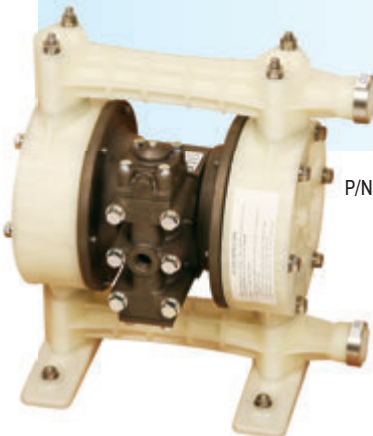
1/2" Double Diaphragm pump has polypropylene construction with Santoprene seals and diaphragm. Pump is rated at up to 14 GPM. Has 1/4" air connection and 1/2" NPTF inlet and outlet.



P/N 20012-VS shown

## P/N 20015-YPS

3/4" Double Diaphragm Pump rated up to 30 GPM, has 3/4" NPTF inlet/outlet and 1/4" air inlet.



P/N 20015-YPS shown

## P/N 20013-YPS

1" Double Diaphragm Pump rated up to 45 GPM, has 1" NPTF inlet/outlet and 3/8" air inlet.



# GRAVITY FLOW KIT FOR TOTES

## P/N 950390-12M

Gravity flow dispensing kit for use with 275 and 330 gallon IBC totes. Kit has 2" poly NPTF adapter to allow connection to bottom of IBC tote tank, 3/4" x 12' EPDM hose and manual shutoff nozzle.

**NOTE:** Use P/N 950391 or 950392 vent kits to allow filtered air into tote as fluid is being drained.

## P/N 950390-25M

Same as P/N 950390-12M above except it has 3/4" x 25' EPDM hose.



In order to adequately vent your IBC tote when using a bottom draw/flooded suction, you must order separately one of two vent kits:

P/N **950392**  
Filtered vent with RSV coupler

P/N **950391**  
Filtered vent with 2" Buttress fitting



# DEF HAND PUMP SYSTEMS

## P/N 560008V-S1A

Economy lever action piston pump system without a cart is designed to maintain product integrity. System includes:

- Lever action piston pump with RSV coupler
- 3/4" x 12' discharge hose
- Poly automatic nozzle
- Stainless steel Micro Matic closure system



*Note: Drum not included*

## P/N 560008V-S1M

Same as 560008V-S1A above, except the automatic nozzle is replaced by a manual nozzle.

P/N 560008V-S1A shown

## P/N 560008V-12M

Lever action piston hand pump with telescoping suction pipe to fit 55 gallon drum, includes 3/4" x 12' discharge hose and manual shutoff nozzle with trigger lock, approx. 12 strokes/gallon.



## DEF Hose

An EPDM hose with polyester braid reinforcement. This hose is processed without any zinc during manufacturing and has been peroxide cured for use with DEF.



**NOTE: Contact Liquidynamics for additional hose lengths and fitting options.**

- P/N 81240-10 3/4" x 10' DEF hose w/ male Poly NPT fittings both ends
- P/N 81240-12 3/4" x 12' DEF hose w/ male Poly NPT fittings both ends
- P/N 81240-15 3/4" x 15' DEF hose w/ male Poly NPT fittings both ends
- P/N 81240-20 3/4" x 20' DEF hose w/ male Poly NPT fittings both ends
- P/N 81240-25 3/4" x 25' DEF hose w/ male Poly NPT fittings both ends
- P/N 81240-50 3/4" x 50' DEF hose w/ male Poly NPT fittings both ends
- P/N 81241-10 1" x 10' DEF Hose w/rigid, male SS NPTM fittings both ends
- P/N 81241-20 1" x 20' DEF Hose w/rigid, male SS NPTM fittings both ends
- P/N 81241-25 1" x 25' DEF Hose w/rigid, male SS NPTM fittings both ends



## P/N 560008V MA-20V

Polypropylene piston pump uses viton seals for use with various industrial chemicals such as mild acids, methyl ethyl ketone, DEF fluid and similar fluids. Complete with telescoping suction pipe to fit drums up to 55 gallon. Approx. 12 strokes/gal.

## P/N 10031 MA-31

Polypropylene construction with nitrile seals and stainless steel piston shaft which allows use with water, water based chemicals, mild acids and mild alkali solutions as well as oils and DEF fluid. Approx. 16 strokes/gal.



## P/N 43002DEF-25

Hose reel utilizes stainless steel hub and swivel to ensure DEF compatibility. Includes 3/4" x 25' hose mounted on reel, has 3/4" NPTM poly discharge fitting, other fittings available.



## P/N 88402DEF-50

This compact and sturdy hose reel has double pedestal and double arm support for rigidity and is powder coated for durability. Reel has stainless steel hub and swivel and is supplied with 3/4" x 50' DEF hose, has 3/4" NPTM poly discharge fitting, other fittings available.



# ACCESSORIES FOR DIESEL EXHAUST FLUID (DEF)

P/N **100389A**

Stainless Steel Automatic Nozzle with 3/4" BSP female inlet threads.



P/N **100389M**

Manual poly discharge nozzle with 3/4" hose barb and manual trigger lock



P/N **100389PA**

Poly automatic shutoff nozzle w/ SS spout has 1" BSPM inlet and supplied with 3/4" hose barb inlet. Provides an economical auto shutoff solution for DEF applications.



P/N **100396**

All poly construction automatic shutoff nozzle has 1" BSP male inlet and includes a 3/4" hose barb inlet fitting. Nozzle is lightweight and easy to handle, flow rate up to 9 GPM.



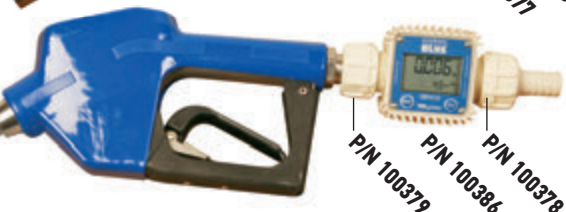
P/N **100398**

This ergonomic, all poly construction automatic nozzle and meter combination is compact, lightweight and offers improved reliability for handling DEF. Has 1" male BSP inlet and is supplied with a 3/4" hose barb for easy connection.



P/N **100386**

In Line Electronic Digital Turbine Meter, 1" BSPP male threads.



P/N **70177-01**

DEF compatible filter assembly includes filter housing and 1 micron filter element. Large 10" element ensures low pressure drop and large dirt holding capacity. Filter wrench included, 3/4" NPTF ports.



P/N **70176-01**

Replacement filter element for above filter assembly, 1 micron



P/N **70178**

Polypropylene, high flow capacity DEF filter housing has 1 1/2" NPTF inlet/outlet ports, uses 20" filter cartridge for maximum contaminant holding capacity. Up to 60 GPM flow rate capacity.



P/N **70179-01**

Replacement filter element for above filter assembly, 1 micron



P/N **100376**

Manual nozzle adapter, 1" BSPPF x 1" NPTF.



P/N **100377**

Couples manual nozzle to adapter, 1" BSPPF x 1" BSPPM.



P/N **100378**

Meter to supply hose, 1" BSPPF x 3/4" hose barb.



P/N **100379**

Couples auto nozzle to meter, 3/4" BSPPM x 1" BSPPF.



P/N **100383**

Stainless Steel 3/4" BSP x 3/4" Hose Barb swivel used to connect P/N 100389A SS auto nozzle to DEF hose.

P/N **904013**

Heron Dripstop 940 pipe thread sealant is third party tested and approved, as specified in ISO-22241-2, for use with diesel exhaust fluid (DEF), 8.25 Fl. Oz. (250 ml) tube for use with NPT threads.



# CLOSED VALVES AND COUPLERS

## Closed Drum Valves and Couplers

P/N **195205A**

Closed stainless steel RSV coupler, self venting with 1" BSP thread.



P/N **195205B**

Closed stainless steel RSV series drum valve, 2" buttress

P/N **195205C**

RSV series drum key for installation and removal of P/N 195205B drum valve.



P/N **195205D**

Closed stainless steel RSV coupler, self venting with 3/4" hose barb connection used to pump DEF from the container.



P/N **195205F**

Stainless steel coupler for filling closed systems using RSV valves. Allows approximately 30 GPM fill rate, coupler is self venting and has 1" NPTM inlet fitting.

P/N **195205E**

MicroMatic RSV dust cover protects RSV valve from dirt and debris when the RSV coupler is disconnected. HDPE construction.



P/N **195206A**

Stainless Steel EPV series coupler, 3/4" hose barb connection.



P/N **195206B**

Plastic EPV series drum valve, 2" buttress.



P/N **195206C**

Keyed tool used to install and remove EPV valves, uses standard 1/2" socket driver.



## Non Sealed Drum Valves and Couplers Polypropylene Couplers and HDPE Drum Valves

P/N **195207A**

DrumQuik PRO coupler, 3/4" hose barb discharge



P/N **195207B**

DrumQuik PRO drum valve, 2" NPS



P/N **195207C**

DrumQuik PRO drum valve, 2" buttress



P/N **195207D**

Torque tool for installation and removal of "DrumQuik PRO" drum valves, P/N 195207B and 195207C



## Suction tubes for RSV series drum valves

P/N **195205-32**

Poly flex suction tube assembly for 55 gallon drums, RSV series

P/N **195205-40**

Poly flex suction tube assembly for 275 gallon totes, RSV series

P/N **195205-46**

Poly flex suction tube assembly for 330 gallon totes, RSV series



## Suction tubes for EPV series drum valves

P/N **195206-32**

Poly flex suction tube assembly for 55 gallon drums, EPV series

P/N **195206-40**

Poly flex suction tube assembly for 275 gallon totes, EPV series

P/N **195206-46**

Poly flex suction tube assembly for 330 gallon totes, EPV series



## Suction tubes for DrumQuik® PRO drum valves

P/N **195207-35**

HDPE suction tube for 55 gallon drums

P/N **195207-39**

HDPE suction tube for 275 gallon totes

P/N **195207-47**

HDPE suction tube for 330 gallon totes

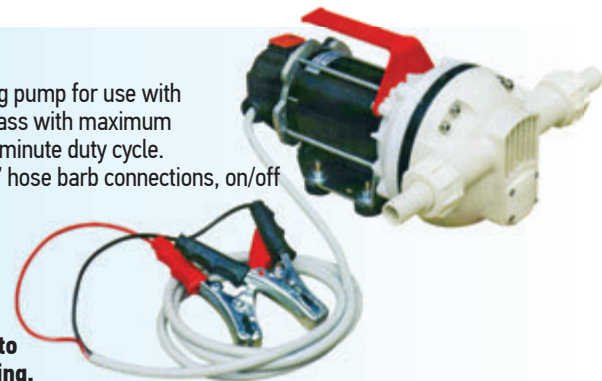
P/N **33101**

115 VAC, 8 GPM self priming pump for use with DEF fluid, has internal bypass with maximum pressure of 22 PSI. Pump is supplied with 3/4" hose barb connections, 6 ft. electrical cable and integrated ON/OFF switch. **Not for continuous duty use, includes automatic 6 minute timeout feature to prevent motor overheating.**



P/N **33102**

12 VDC, 8 GPM self priming pump for use with DEF fluid, has internal bypass with maximum pressure of 28 PSI and 30 minute duty cycle. Pump is supplied with 3/4" hose barb connections, on/off switch, 18 ft. power cable with battery clamps and carrying handle. **Not for continuous duty use, includes automatic 6 minute timeout feature to prevent motor overheating.**





## DEF CART WITH WEIGHTS AND MEASURES METER



### P/N 33296-S2 (Bottom Draw)

This is a very capable and compact two wheel DEF mini transfer cart with features that are normally only found in large skid configurations. The cart includes all stainless steel plumbing and components in conformance with ISO 22241 specifications and features a 1 micron high capacity SS filter, weights and measures approved meter, with ticket printer, and 30 GPM flow capability.

The cart is configured to allow suction via an included 1 1/4" x 15' suction hose with Cam Lock connector that can then easily connect to the bottom of a 275 or 330 gallon IBC tote tank for transfer to 55 gallon drums, bulk tanks or another tote. A MicroMatic fill valve is supplied on the 1" x 20' discharge hose to allow "closed system" transfer of DEF to any mating container such as 55 gallon drums, IBC totes or bulk containers.

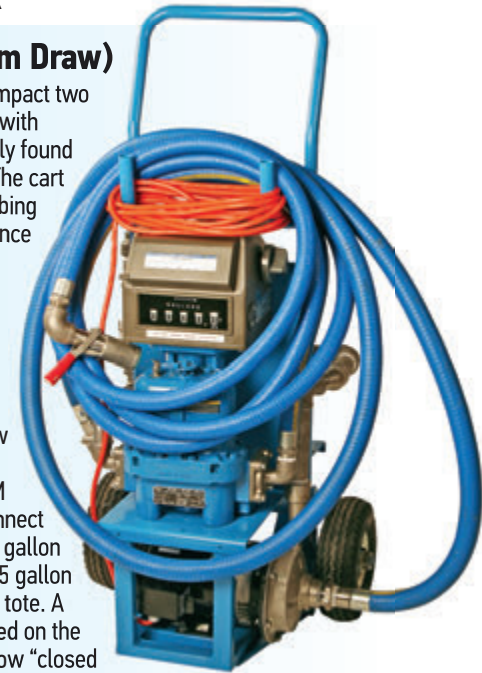
The heavy duty two wheel cart with "no flat" tires is nicely balanced and is easily maneuvered.

### P/N 33296-S3 (Bottom Draw)

This is a very capable and compact two wheel DEF mini transfer cart with features that are normally only found in large skid configurations. The cart includes stainless steel plumbing and components in conformance with ISO 22241 specifications and features a 1 micron high capacity poly filter, weights and measures approved meter, with ticket printer, and 30 GPM flow capability.

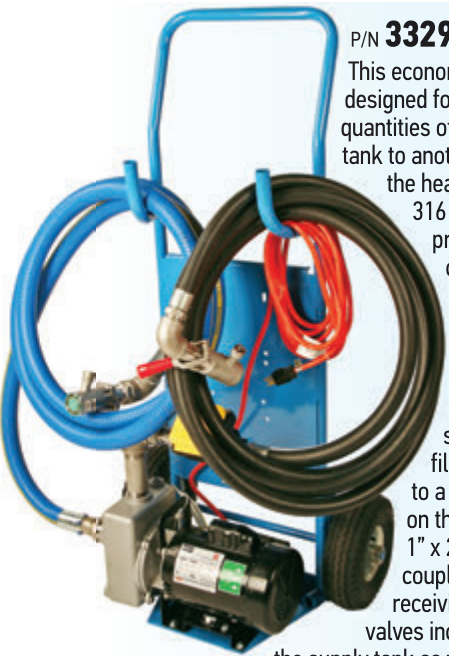
The cart is configured to allow suction via an included 1 1/4" x 15' suction hose with 2"NPTM fitting that can then easily connect to the bottom of a 275 or 330 gallon IBC tote tank for transfer to 55 gallon drums, bulk tanks or another tote. A MicroMatic fill valve is supplied on the 1" x 20' discharge hose to allow "closed system" transfer of DEF to any mating container such as 55 gallon drums, IBC totes or bulk containers.

The heavy duty two wheel cart with "no flat" tires is nicely balanced and is easily maneuvered.



**NOTE:** In order to adequately vent your IBC tote when using a bottom draw/flooded suction you must order separately one of two vent kits: P/N 950392 or P/N 950391. See page 5.

## DEF MINI BULK TRANSFER CART



### P/N 33295P-S4 (Top Draw)

This economical Mini Bulk Transfer Cart is designed for use in transferring intermediate quantities of DEF, such as from one IBC tote tank to another or to fill 55 gallon drums. At the heart of the system is a 115 VAC, 316 stainless steel, 25 GPM, self priming pump (up to 20' lift capability) that allows DEF fluid to be pulled through the MicroMatic RSV valve located at the top of 275 or 330 gallon IBC tote tanks therefore maintaining "closed" system integrity. A 1 1/4" x 15' suction hose with attached RSV fill coupler allows easy connection to a MicroMatic RSV fill valve, while on the discharge side of the pump a 1" x 20' discharge hose with RSV fill coupler allows connection to the receiving tanks' RSV valve. These fill valves include venting capability on both

the supply tank as well as the receiving tank thus ensuring efficient transfer of fluid. An included Electromagnetic flow meter provides flow rate and total indication for inventory purposes. Meter accuracy is approximately +/- 1% and is powered by 6 ea. AA batteries that are field replaceable.

## 1" DOUBLE DIAPHRAGM MINI BULK DEF TRANSFER CART

### P/N 33297-S1 (Top Draw)

A perfect solution when you need to transfer large amounts of DEF in a short period of time. This two wheel Mini Bulk cart is designed for use in transferring intermediate quantities of DEF, such as from one IBC tote tank to another, to fill 55 gallon drums or to fill larger capacity vehicle DEF tanks such as those found on farm and other off road equipment.

This system includes the following;

- 1" Double Diaphragm Pump
- Electronic Digital Meter (for inventory purposes – not for resale use)
- High Flow Polypropylene 1 Micron Filter
- 1" x 15' Suction hose w/MicroMatic Fill Valve
- 1" x 20' Discharge Hose w/Poly Nozzle
- Cam Lock Fittings to allow quick and easy removal of hoses
- Heavy Duty Two Wheel Cart

The double diaphragm pump is rated up to 45 GPM and requires an air supply of up to 40 cfm.



# DEF MINI BULK TRANSFER CART SELECTION GUIDE FOR BOTTOM DRAW

The BD mini transfer cart is intended for use where the primary purpose of the cart will be to draw DEF fluid from the bottom/flooded suction of an IBC tote, typically through a shutoff valve and Cam & Groove adapter, and then transfer to another tank or drum.

**NOTE:** This system is designed to maximize flow rate when used with Weights and Measures Meters.

## Example of cart with Weights and Measures approved meter with bottom draw capability:

This system is a two wheel DEF Mini Bulk Cart Bottom Draw system (BD) that uses a (P1) 30 GPM non self-priming pump, a 15' suction hose (S15) with a 2" NPTM fitting (BF), Filtered Tank Vent with RSV Coupler (V2), One micron poly filter assembly (F2), a Weights & Measures approved meter w/o printer (M2), 20' discharge hose (H20) with RSV fill coupler (FM).

### SYSTEM IDENTIFIER

**BD** DEF Mini Transfer Cart System for bottom draw

### PUMP SELECTION

**P1** 30 GPM Non Self Priming

### SUCTION HOSE SELECTION

XXX No Suction Hose  
 S10 1 1/4" x 10' Suction Hose  
**S15** 1 1/4" x 15' Suction Hose  
 S20 1 1/4" x 20' Suction Hose

### SUCTION HOSE FITTING SELECTION

**BF** 2" NPTM fitting (order Cam Lock or IBC adapter fitting separately)  
 SV MicroMatic RSV Suction/Fill Valve

### TANK VENT

XX No Vent  
 V1 Filtered Vent with 2" Buttress Fitting  
**V2** Filtered Vent with RSV Coupler

### FILTER SELECTION

XX No Filter  
 F1 1 Micron SS Filter Assembly  
**F2** 1 Micron Poly Filter

### METER SELECTION

XX No Meter  
 M1 Electromagnetic Meter  
**M2** Weights and Measures Approved Meter w/o printer  
 M3 Weights and Measures approved Meter w/printer

### DISCHARGE HOSE SELECTION

XXX No Discharge Hose  
 H10 1" x 10' Discharge Hose  
 H15 1" x 15' Discharge Hose  
**H20** 1" x 20' Discharge Hose  
 H25 1" x 25' Discharge Hose

### DISCHARGE HOSE FITTING SELECTION

XX No Fitting  
**FM** MicroMatic RSV Fill Coupler

Example: **BD P1 S15 BF V2 F2 M2 H20 FM**

# DEF MINI BULK TRANSFER CART SELECTION GUIDE WITH TOP DRAW

The TD mini transfer cart is intended for use where the primary purpose of the cart will be to draw DEF fluid via the top of an IBC tote, typically through a MicroMatic RSV fill coupler, and then transfer to another tank or drum.

## Example of cart without a Weights and Measures approved meter:

In this case the system is a two wheel DEF Mini Bulk Cart Top Draw system (TD) with a 25 GPM self-priming pump (P2), a 15' suction hose (S15) with RSV coupler (SV), 1 micron poly filter assembly (F2), an electromagnetic meter (M1), 20' discharge hose (H20) with a RSV coupler at the discharge end (FM).

**\*NOTE:** This system will result in reduced flow rates when used with Weights and Measures Meters.

### SYSTEM IDENTIFIER

**TD** DEF Mini Transfer Cart for top draw capability

### Pump Selection

**P2** 25 GPM Self Priming Pump

### SUCTION HOSE SELECTION

XXX No Suction Hose  
 S10 1 1/4" x 10' Suction Hose  
**S15** 1 1/4" x 15' Suction Hose  
 S20 1 1/4" x 20' Suction Hose

### SUCTION HOSE FITTING SELECTION

XX No Fitting  
 BF 2" NPTM fitting (order Cam Lock or IBC adapter fitting separately)  
**SV** MicroMatic RSV Suction/Fill Valve

### FILTER SELECTION

XX No Filter  
 F1 1 Micron SS Filter Assembly  
**F2** 1 Micron Poly Filter

### METER SELECTION

XX No Meter  
**M1** Electromagnetic Meter  
 M2\* Weights and Measures Approved Meter w/o printer  
 M3\* Weights and Measures approved Meter w/printer

### DISCHARGE HOSE SELECTION

XXX No Discharge Hose  
 H10 1" x 10' Discharge Hose  
 H15 1" x 15' Discharge Hose  
**H20** 1" x 20' Discharge Hose  
 H25 1" x 25' Discharge Hose

### DISCHARGE HOSE FITTING SELECTION

XX No Fitting  
**FM** MicroMatic RSV Fill Coupler

Example: **TD P2 S15 SV F2 M1 H20 FM**

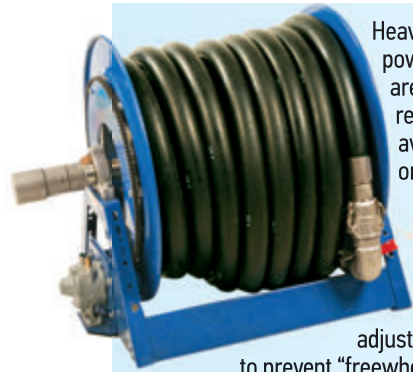
## DEF BULK TRANSFER SKIDS

DEF Bulk Transfer Skids can be easily configured to meet customer requirements. These skids are configured to pump either 40 or 70 GPM via gasoline engine or 115/230 VAC motor driven pumps. Various hose reel configurations are available as well as "for-resale" meters, high flow filters and other accessories to help make the transfer of bulk DEF as easy and efficient as possible.

The selection guide found on the next page is a great tool to help you configure your skid to your own specifications. Part number S1 P3 R10 A6 H1 FH M5 XXXX is shown at the right.



## DEF BULK TRANSFER COMPONENTS



Heavy duty hose reel with one piece welded steel frame and durable powder coated finish ensures long trouble free operating life. Reels are available for use with 50', 75' or 100' of 1½" DEF hose. These reels have stainless steel swivels with EPDM seals and are available with 12 VDC, 115 VAC or air operated motor drives.

All reels are supplied with an integral hand crank system as backup if power is unavailable, which also serves to provide an

adjustable tension on the reel spool to prevent "freewheeling."

- P/N 195158A-50** Air motor driven hose reel with 1½" x 50' DEF hose
- P/N 195158B-50** 12 VDC motor driven hose reel with 1½" x 50' DEF hose
- P/N 195158C-50** 115 VAC motor driven hose reel with 1½" x 50' DEF hose
- P/N 195158D-50** Hand crank hose reel with 1½" x 50' DEF hose
- P/N 195159A-75** Air Motor driven hose reel with 1½" x 75' DEF hose
- P/N 195159B-75** 12 VDC motor driven hose reel with 1½" x 75' DEF hose
- P/N 195159C-75** 115 AC motor driven hose reel with 1½" x 75' DEF hose
- P/N 195159D-75** Hand crank hose reel with 1½" x 75' DEF hose
- P/N 195160A-100** Air motor Driven hose reel with 1½" x 100' DEF hose
- P/N 195160B-100** 12 VDC motor driven hose reel with 1½" x 100' DEF hose
- P/N 195160C-100** 115 VAC motor driven hose reel with 1½" x 100' DEF hose
- P/N 195160D-100** Hand crank motor driven hose reel with 1½" x 100' DEF hose



These stainless steel meters are weights and measures approved for use with DEF fluid. Meters are supplied standard with an air eliminator, 40 mesh inlet strainer and 5 digit reset-able mechanical register (8 digit non-reset totalizer). Inlet/outlet fittings are 1½" NPTF. The meter can also be configured to include a ticket printer as well as pre-set capability.

**P/N 195260A**

40 GPM SS Meter, 1½" w/mechanical register

**P/N 195260B**

40 GPM SS Meter, 1½" w/mechanical register and printer

**P/N 195261A**

40 GPM SS Meter, 1½" w/preset and mechanical register

**P/N 195261B**

40 GPM SS Meter, 1½" w/preset, mechanical register and printer

**P/N 195250**

Gasoline engine driven pump for bulk transfer of DEF fluid. This pump is constructed of polypropylene with EPDM static seal, uses a 10 pole magnetically driven impellor to eliminate shaft seal problems.

Pump is self priming after initial filling of the pump housing reservoir. It is rated up to 50 GPM with 25' lift capability (water), with maximum discharge pressure of 90 PSI and is driven by a high quality 4 HP Honda engine. 1½" NPT inlet and outlet.

**P/N 195254**

Same as 195250 above, except that it is powered by a 2 HP, 115 VAC motor.



**P/N 195195**

High flow stainless steel filter housing is rated to 105 GPM, uses 30" long, 1 micron cartridges (5 ea.) with 2" NPTM inlet/outlet, filter elements not included.

**P/N 195194-01**

Replacement 1 micron filter cartridge for 195195 filter housing, 5 ea. required



Polypropylene Dry-Mate fittings use cam levers for positive connection and provide an economical way to minimize leaks and eliminate accidental spillage when disconnecting hoses. These fittings provide unrestricted 1½" flow, are light weight and are easy to use, maximum operating pressure is 100 PSI. The Dry-Mate fittings are available in two sizes, part numbers shown below, and are supplied with dust covers and lanyard to protect balls and seals when not in use:

**P/N 900580A**

1½" female Dry-Mate x 1½" NPTF

**P/N 900581A**

1½" male Dry-Mate x 1½" NPTF

**P/N 900580**

2" female Dry-Mate x 2" NPTF

**P/N 900581**

2" male Dry-Mate x 2" NPTF

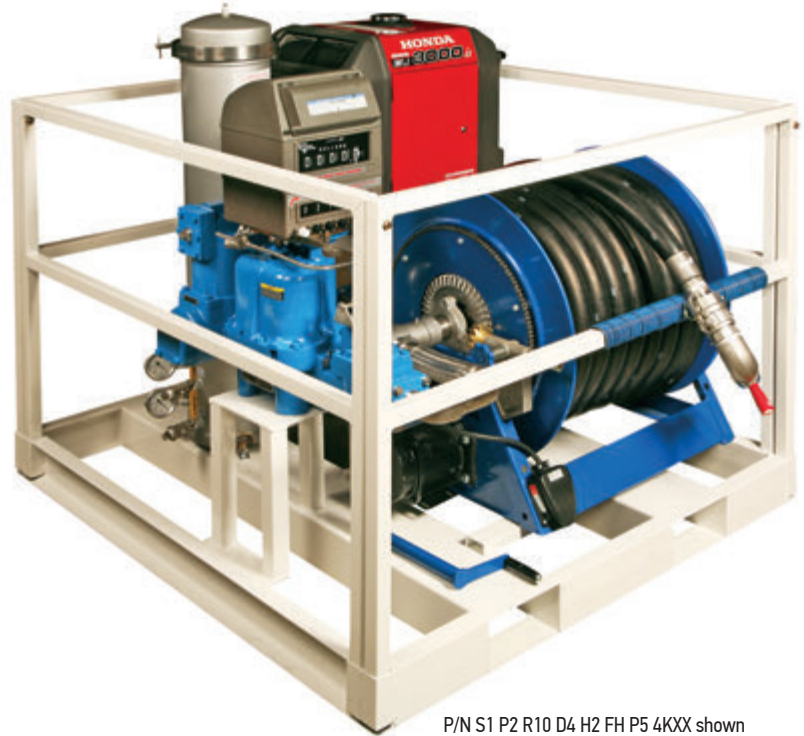


# DEF BULK TRANSFER SKIDS

Liquidynamics offers a unique combination of DEF Bulk Transfer Skids that can be easily customized to fit your specific application via this easy to use Selection Guide.

This guides you through the selection process with the end result being a unique model number detailing your specific system configuration.

The model S1 P2 R10 D4 H2 FH P5 4KXX shown includes a 40 GPM gasoline engine driven pump, 1½" x 100' AC motor powered hose reel with a 1½" x 15' suction hose, MicroMatic Fill Head w/Cam Lock and Ball Valve on the discharge side, pre-settable meter with air eliminator, counter and printer. The system also includes the four sided guard rail option along with the poly dry break suction valve kit and the 115 VAC, 23 amp generator.



P/N S1 P2 R10 D4 H2 FH P5 4KXX shown

## DEF BULK TRANSFER SKID SELECTION GUIDE

### SYSTEM IDENTIFIER

- S1 45 GPM DEF Skid
- S2 75 GPM DEF Skid

### PUMP SELECTION

- P2 115/230 VAC Motor Drive
- P3 Gasoline Engine Drive

### REEL SELECTION

- R50 1½" x 50' Hose Reel
- R75 1½" x 75' Hose Reel
- R10 1½" x 100' Hose Reel

### HOSE REEL DRIVE

- D1 Hand Crank
- D2 12 VDC Motor
- D4 115 VAC Motor
- A6 Air Operated Motor

### SUCTION HOSE OPTIONS

- XX No Suction Hose
- H1 1½" x 10' Suction Hose
- H2 1½" x 15' Suction Hose
- H3 1½" x 20' Suction Hose

### DISCHARGE OPTIONS

- BV 1½" SS Ball Valve w/Cam Lock Set
- FH MicroMatic Fill Head w/Cam Lock and Ball Valve

### METER SELECTION

- XX No Meter
- M3 Meter w/Air Eliminator, Register
- M5 Meter w/Air Eliminator, Register, Printer
- P3 Preset Meter w/Air Eliminator, Register
- P5 Preset Meter w/Air Eliminator, Register, Printer

### ACCESSORIES

- X X X X No Accessories
- 4 Four Sided Guard Rail
- K 115/230 VAC, 23/11 Amp Generator
- - A Air Eliminator Recovery container
- - - T Hose Storage Tray

S1

P3

R75

D1

H1

BV

M3

XXXX

**Example:** Bulk transfer DEF skid system with 45 GPM Gasoline Engine driven pump, 1½" x 75; Hand Crank Hose Reel, 1½" x 10' Suction Hose (includes Dry Mate dry disconnect set at each end of hose), 1½" Stainless Steel Ball Valve shutoff with Cam Lock at discharge hose and weights and measure approved meter with air eliminator and register. No additional accessories are selected in this example.

