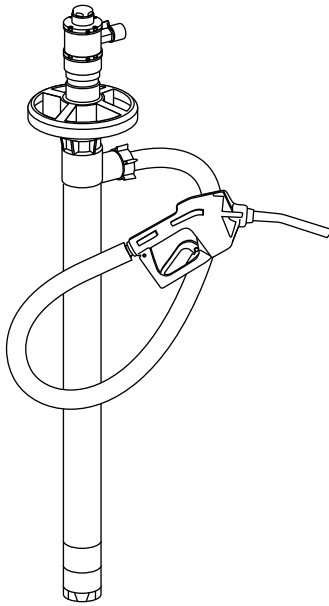


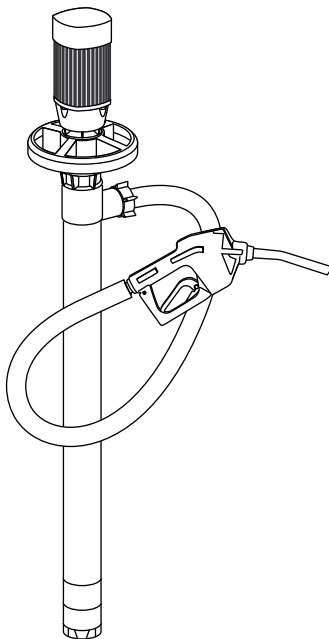


Pneumatic and Electric Diesel Exhaust Fluid (DEF) Pumps Installation Instructions

Pneumatic DEF Pump



Electric DEF Pump



Ordering Information

Description	Length	Part Number
Drum Air Pump Kit	39" (1000 mm)	3970402
Tote Air Pump Kit	50" (1270 mm)	3974950

Note: Kit includes Electric Motor, 39" (1000 mm) or 50" (1270 mm) Pump, 20 ft (6.1 m) Hose, Stainless Steel Automatic Nozzle and Barrel Adapter.

Option: Digital LCD Flow Meter is available separately (see below).

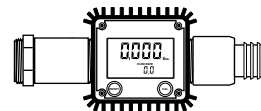
Ordering Information

Description	Length	Part Number
Drum Electric Pump Kit	39" (1000 mm)	3970403
Tote Electric Pump Kit	50" (1270 mm)	3974949

Note: Kit includes Electric Motor, 39" (1000 mm) or 50" (1270 mm) Pump, 20 ft (6.1 m) Hose, Stainless Steel Automatic Nozzle and Barrel Adapter.

Option: Digital LCD Flow Meter is available separately (see below).

Optional Flow Meter



Ordering Information

Description	Part Number
Flow Meter Kit with LCD Display	3970397

Note: Kit includes Swivel Fitting, Fitting Bridge, Flow Meter, and Hose Barb.

CAUTION: These instructions are intended for use by professional mechanics who are trained in the proper use of power and hand tools, using appropriate safety precautions (including eye protection).

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain. Protect yourself and others by observing all safety information. Failure to comply with the Operating Instructions could result in personal injury and/or property damage.

Safety Precautions

1. Before operating this pump, read and understand these operating instructions.
2. The operator should wear suitable protective clothing.
3. Do not use any Diesel Exhaust Fluid (DEF) Pump to transfer flammable or combustible liquids or any other unapproved fluids. See manufacturer for list of approved fluids.

⚠ WARNING: Failure to use approved equipment to transfer flammable or combustible materials may result in serious injury or death. Consult local and Federal safety regulations before operating in a Hazardous Duty environment.

4. Before operation, confirm all pump connections are securely fastened.
5. Before starting the pump, confirm the discharge hose or pipe is securely fastened to the receiving vessel.
6. Never leave pump unattended.
7. Do not submerge the motor in any liquid.
8. Do not pump materials that exceed a viscosity of 1,000 cP (mPa·s).

The responsibility for safe assembly, installation and operation ultimately rests with the operator. Read and understand all safety precautions and operating instructions before use. Careless operation may result in serious injury.

Installing DEF Pumps Into Drums and Totes

A DEF Pump can be installed into a 330 gal (1249 L) tote or 55 gal (208 L) drum using a barrel adapter. (A barrel adapter is included with each pump ordered. Contact customer assistance to order an additional barrel adapter.)

⚠ CAUTION: Always transfer the DEF pump directly from used container to new container. DO NOT allow the pump to come in contact with any foreign matter.

⚠ WARNING: Secure the drum to avoid tipping. As DEF is pumped from the drum, and especially when there are only a few gallons remaining, the unit will be top-heavy.

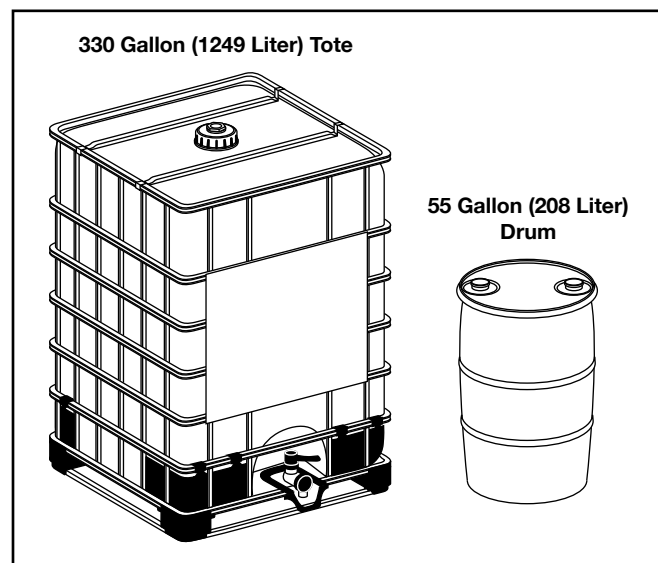


Figure 1: DEF Drum and Tote

1. Cut the seal on the cap. (If the seal is already broken, contact Cummins Filtration immediately for a replacement.) Ensure that the entire surface area is clean and free of debris or any type of product before proceeding with installation. Retain the cap to re-cap when tote is empty.

2. Thread the barrel adapter carefully into the cap (see Figure 2).

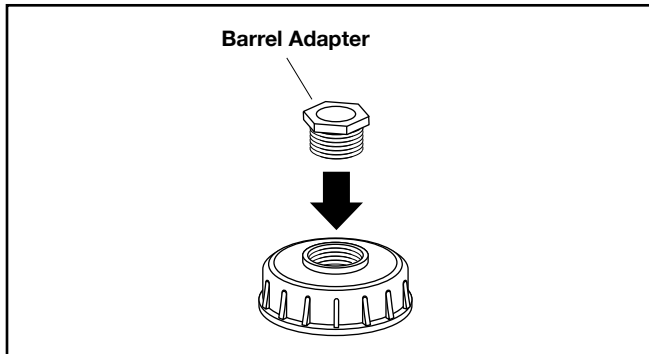


Figure 2: Installing the Barrel Adapter

3. Lift the pump and slide it into the barrel adapter (see Figure 3).

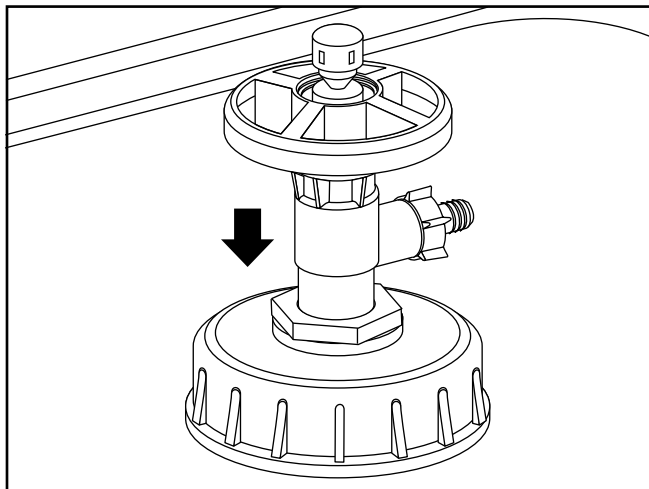


Figure 3: Installing the Pump

4. Take the Motor (Pneumatic or Electric) and carefully place it on top of the pump. Turn the paddle wheel counter-clockwise to thread into the motor. Rotate until tight but do not over tighten with force or tools (see Figure 4).

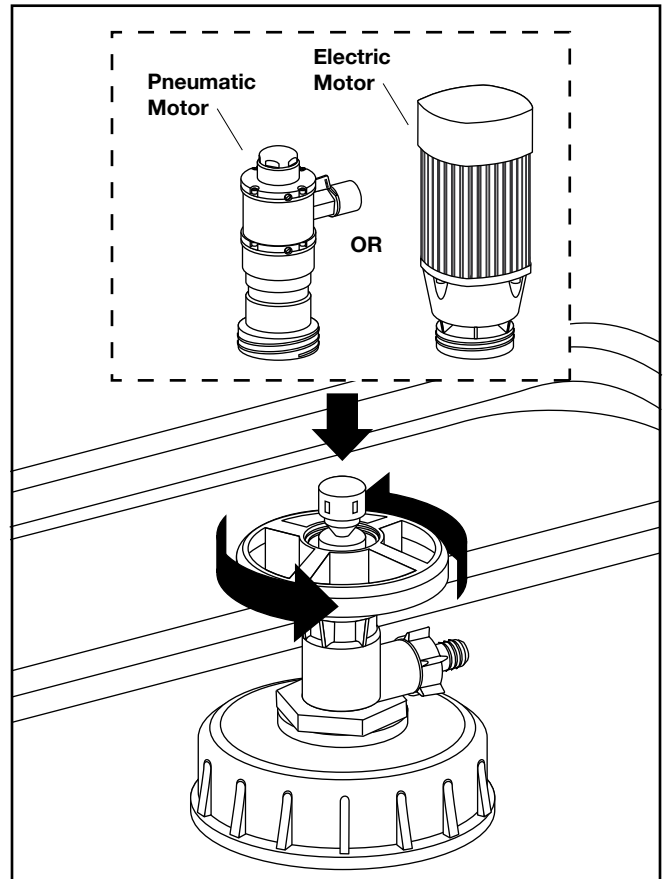


Figure 4: Installing the Motor

5. Slide the hose over nozzle hose barb. Fasten hose securely to hose barb with enclosed hose clamp (see Figure 5).

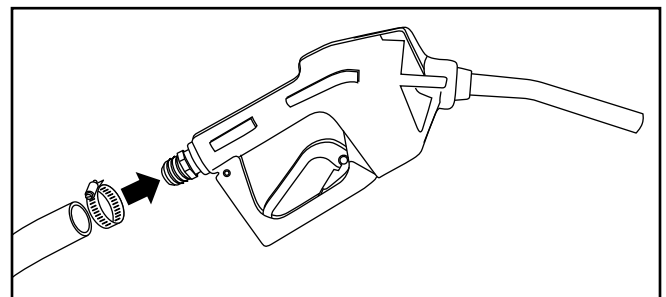


Figure 5: Installing the Hose on the Nozzle

6. Take the opposite end of the hose and attach it to the discharge hose barb on the pump (see Figure 6).

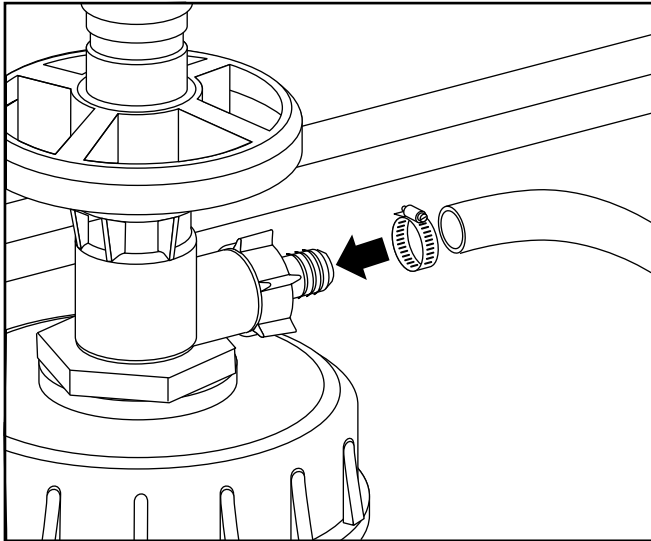


Figure 6: Installing the Hose on the Pump

⚠ CAUTION: DO NOT OVER TIGHTEN the hose barb on the pump. Over tightening can cause breakage of the polypropylene barb.

7. **On a pneumatic pump:**
 - a. Thread in an air motor chuck to the threaded ball valve and connect to shop air.
 - b. Adjust the air pressure ball valve for regulating air flow. When motor is on, the variable speed dial needs to be turned UP to get the motor speed above zero. All motors arrive with speed dial set at zero.
8. **On an electric pump,** plug in the electric motor and adjust the variable speed dial to the desired speed.

Installing a Flow Meter

An optional Flow Meter (part number **3970397**) can be installed to monitor the volume and flow rate of the exhaust fluid being pumped from the DEF drum or tote.

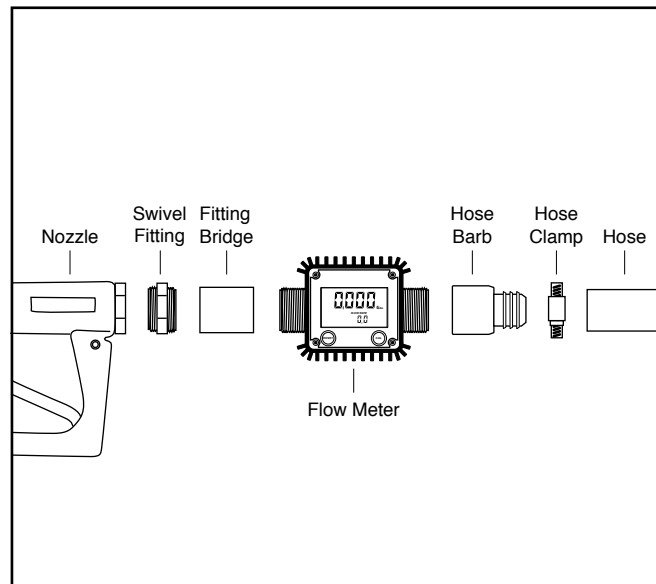


Figure 7: Flow Meter Installation

1. Tighten the fitting bridge to the swivel fitting and the swivel fitting to the nozzle. See Figure 7.
 2. Tighten the fitting bridge to the Flow Meter.
 3. Thread the hose barb onto the Flow Meter.
- ⚠ CAUTION: DO NOT OVER TIGHTEN the hose barb on the Flow Meter. Over tightening can cause breakage of the polypropylene barb.**
4. Slide the hose clamp onto the hose, slide the hose onto the barb, and tighten the clamp.

Specifications – Pneumatic DEF Pump

Specification	Pneumatic
Height Overall	39" (1000 mm) or 50" (1270 mm)
Air Inlet	0.25" (6.4 mm)
Max. Inlet Pressure	100 lb/in ²
Consumption	22 ft ³ /min @ 90 lb/in ²
Outlet	1/2 hp
Wetted Parts	Polypropylene, 316 Stainless Steel, Carbon

Specifications subject to change without notice.

Specifications – Electric DEF Pump

Specification	Electric
Height Overall	39" (1000 mm) or 50" (1270 mm)
Horsepower	1
Voltage	110-120 V
Power	825 W
Phase	Single
Outlet	3/8" NPTF (M16 x 1.5)
Wetted Parts	Polypropylene, 316 Stainless Steel, Carbon

Specifications subject to change without notice.

Specifications – Nozzle

Specification	Nozzle
Flow Capacity	19 gal/min (72 L/min)
Inlet (with swivel, hose barb)	0.75" (19 mm)
Spout Exterior Diameter	0.75" (19 mm)

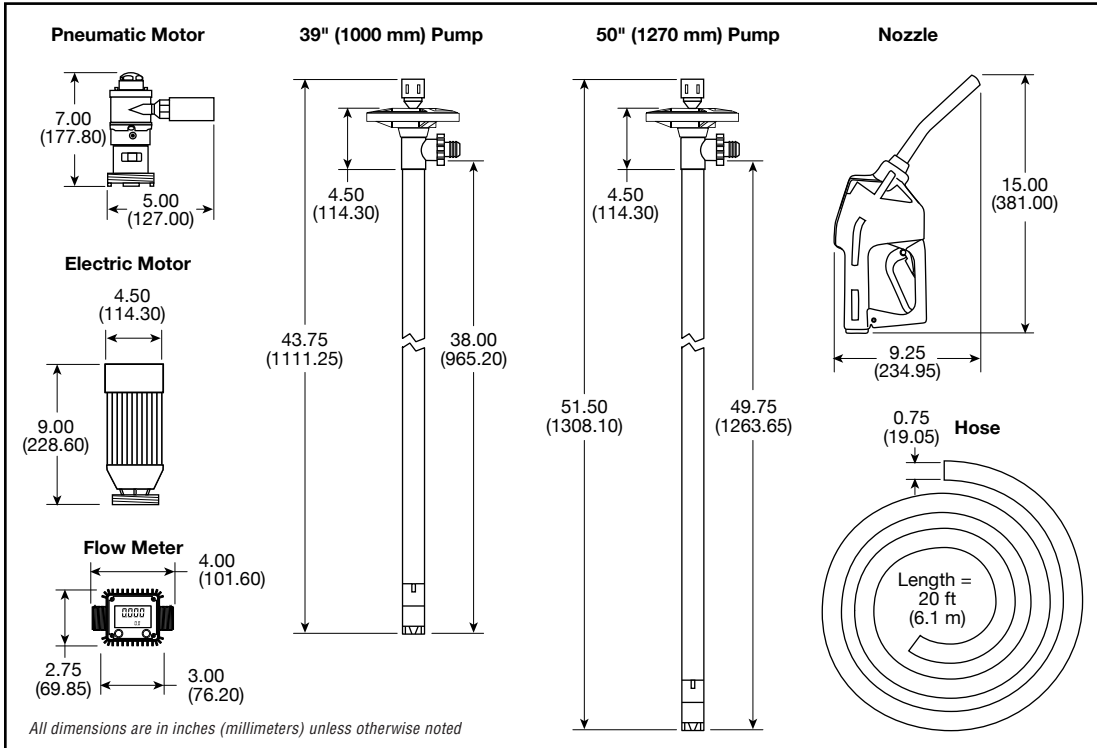
Specifications subject to change without notice.

Specifications – Flow Meter

Specification	Nozzle
Precision	± 1% flow range
Repetitiveness	0.2%
Max. Flow Rate	31.7 gal/min (120.00 L/min)
Working Temperature	14-122 °F (-10-50 °C)
Pressure Loss	< 2.18 lb/in ² (< 0.15 bar)

Specifications subject to change without notice.

Dimensions



Filtration

**For more information, visit
cumminsfiltration.com**

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