

# Installation, Operation and Maintenance Instructions

A large graphic consisting of a vertical grey bar on the left and a larger black rectangle on the right. The text "DRUM TOP MIXER" is centered in the black rectangle.

## DRUM TOP MIXER

**ERIEZ** HEADQUARTERS: 2200 ASBURY ROAD, ERIE, PA 16506-1402 U.S.A.  
*WORLD AUTHORITY IN SEPARATION TECHNOLOGIES*

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# Introduction

This manual details the proper steps for installing, operating and maintaining the Drum Top Mixer.

Careful attention to these requirements will assure the most efficient and dependable performance of this equipment.

If there are any questions or comments about the manual, please call Eriez at 814-835-6000 for assistance.

Part Number	Model Number	Water Inlet (C) (NPT)	Shut Off Valve Size (NPT)	Discharge Hose Size (ID)
84-1000	3 GPM	3/8"	3/8"	1/2" (13 mm)
84-1020	10 GPM	1/2"	1/2"	3/4" (19 mm)

## Installation

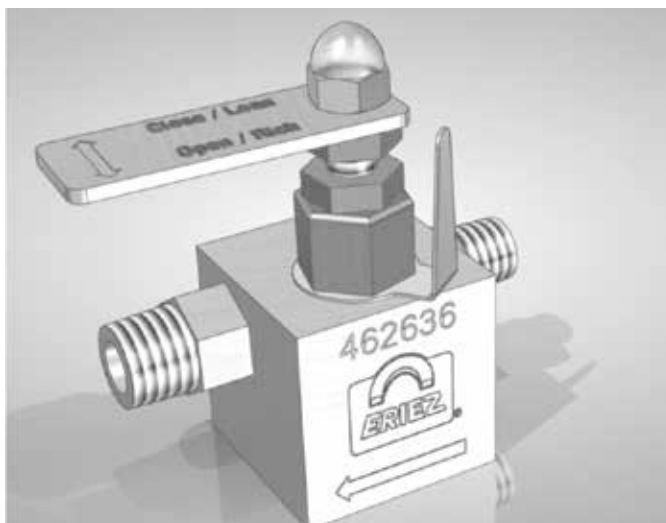
1. Remove 2" bung cap from drum.
2. Insert Drum Top Mixer into drum and thread pump bushing (A) into 2" NPT female thread in drum bung.
3. Make sure the bottom foot valve on the mixer stand pipe is slightly above the bottom of the drum. Tighten set screw (B) on pump bushing (A).
4. Attach the supplied 1/4 turn ball valve with the attached swivel garden hose fitting to inlet (C) (NOTE THE FLOW ARROW ON THE SIDE OF THE MIXER). Connect the feed water line to the garden hose fitting. Do not use a screw-type water valve on the water inlet line. Do not use a quick-disconnect water coupling with a built-in check valve on the water inlet line. The static water pressure must be 31 PSI (2.2 bar) minimum to achieve the required 25 PSI while in operation.
5. Attach the supplied discharge hose to the mixed coolant outlet (D) (NOTE THE FLOW ARROW ON THE SIDE OF THE MIXER).

**NOTE:** Maximum hose length is four feet, unrestricted. Use a heavy duty hose that will not kink. Do not use rigid piping, a longer hose, a kinked hose, or any other device that will restrict or shut off flow; the result is that restrictions will cause excess back pressure and the unit will malfunction and not mix properly. Shutting off flow in the discharge line will cause the feed water to be diverted into the drum, possibly resulting in an overfull condition. A kinked hose can be aided by slipping a long spring or special hose protector over the outside of the hose.

6. To prevent siphoning when the Drum Top Mixer is not in use, keep the discharge hose above the fluid level in the concentrate drum. Attach a "hose hanger" (easily made from a piece of wire or string) to the end of the hose to make it easy for the operator to store the hose above the fluid level.
7. Varying water pressures will vary the concentration. If your desired mixing ratio is critical, add a water pressure regulator on the inlet side of the Drum Top Mixer.
8. **NOTE:** To use these units in a 270 gallon tote of concentrate, you can lengthen the stand pipe to allow the foot valve to be close to the bottom of the tote when installed in the fill cap bung on top of the tote. Remove the foot valve on the bottom of the tank pipe, install a black iron pipe coupling on the pipe, then add a 4-6" pipe nipple (no longer than 6") into the coupling. Screw the foot valve onto the pipe nipple. Always use the foot valve for proper operation.
9. **NOTE:** To use these units with 5 gallon pails, remove the foot valve and stand pipe from the Mixer head. Install a 12-16" pipe nipple into the Mixer head and install the foot valve on the opposite end of the pipe nipple.

### SAFETY

1. Be sure to read and understand all instructions before operating the Drum Top Mixer.
2. Wear appropriate safety glasses or goggles and protective clothing.



## Operation

1. Turn on the water inlet valve.
2. Check concentration of mixture and adjust handle (E) as necessary. Turning the handle clockwise makes a leaner mixture and turning the handle counterclockwise makes a richer mixture. Full rich is when the handle has been turned counterclockwise four full turns.
3. Concentration can be determined by refractometer (industrial fluid tester) or by titration. Contact your local coolant provider to find out the preferred method for the coolant in use.
4. After determining final concentration setting, tighten jam nut (F) to secure the setting.

## Maintenance

1. Periodically inspect the check valve (G) at the base of the stalk to ensure proper operation.
2. Inspect the unit for physical damage each time unit is moved or inserted into a new drum of concentrate.

## Troubleshooting

1. PLAIN WATER DISPENSED (no oil in mixture)
  - B. Check oil viscosity. Maximum usable is 550 SSU @ 100°F (120 cSt @ 40°C).
  - C. Check oil level in drum. Replace empty drum with a full one.
  - D. Check inlet water pressure. 25 PSI minimum required while in operation. Static pressure of 31 PSI required to maintain 25 PSI operating pressure.
  - E. Check discharge hose. Maximum allowable length is four feet.
  - F. Check foot valve and be sure it is not plugged with solids
2. FLUID DISCHARGED AFTER INLET VALVE TURNED OFF

Check discharge hose. Elevate end of hose above fluid level in drum. Use a "hose hanger" to keep hose elevated when not in use.
3. CONCENTRATE DRUM OVERFLOWING

Check discharge hose for restrictions. Maximum allowable length is four feet. Do not have any valves or restrictive devices in the discharge hose. Check for kinks. Repair or replace hose.

Note: Some safety warning labels or guarding may have been removed before photographing this equipment.  
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