



INSTALLATION INSTRUCTIONS

REPLACEMENT OF UMP (UNIT - MOTOR PUMP) ASSEMBLIES

The following defined terms are used throughout the literature to bring attention to the presence of hazards of various risk levels, or to important information concerning the life of product.

DANGER

indicates presence of a hazard which *will* cause *severe* personal injury, death or substantial property damage if ignored.

CAUTION

indicates presence of a hazard which *will* or *can* cause *minor* personal injury, death or substantial property damage if ignored.

WARNING

indicates presence of hazard which *can* cause *severe* personal injury, death or substantial property damage if ignored.

NOTICE

indicates special instructions on installations, operation, or maintenance which are important but not related to personal injury hazards.

WARNING Red Jacket 4” diameter non-CPT UMPs are interchangeable except that the lengths vary dependent upon the model. When changing the model of the installed UMP, be sure to check the length so that proper clearance off the tank bottom is maintained. (5” for standard and TRAPPER™ UMPs and 14” for UMPs with a floating suction adapter.)

WARNING Red Jacket CPT UMP models (UMP200U20-2 and AGUMP20T20-2) can only replace non-CPT models if the entire system is upgraded to include the CPT controller and pressure transducer.

NOTICE Red Jacket replacement UMPs are designed to be compatible with 100% gasoline or diesel and gasoline with up to 20% methanol, ethanol, TAME, ETBE or MTBE added. All UMPs having the model number including the AG prefix are designed to be compatible with 100% gasoline, diesel, methanol or ethanol and gasoline with up to 20% methanol, ethanol, TAME, ETBE or MTBE added. The entire system must also be compatible with the product being pumped.

| UMP MODEL | HP | LENGTH | | WEIGHT | |
|------------------------------|-------|--------|-----|--------|------|
| | | in | mm | lb | kg |
| UMP33U1 AGUMP33R1 | 1/3 | 15.0 | 380 | 24.0 | 11.0 |
| UMP75U1 AGUMP75S1 | 3/4 | 17.6 | 447 | 28.0 | 12.7 |
| UMP75U3-3 AGUMP75S3-3 | 3/4 | 20.0 | 507 | 30.5 | 13.9 |
| UMP75U17-3 AGUMP75U17-3 | 3/4 | 19.0 | 532 | 28.0 | 12.7 |
| UMP150U1 AGUMP150S1 | 1 1/2 | 20.4 | 519 | 34.0 | 15.5 |
| X3UMP150U1 X3AGUMP150S1 | 1 1/2 | 21.3 | 541 | 35.0 | 15.8 |
| X5UMP150U1 X5AGUMP150S1 | 1 1/2 | 30.9 | 785 | 38.0 | 17.2 |
| UMP150U3-3 AGUMP150S3-3 | 1 1/2 | 22.1 | 560 | 34.0 | 15.5 |
| X4UMP150U3 X4GUMP150S3 | 1 1/2 | 22.7 | 576 | 35.0 | 15.9 |
| UMP150U17-3 AGUMP150S17-3 | 1 1/2 | 20.9 | 532 | 31.0 | 14.1 |
| X4UMP150U17 X4AGUMP150S17 | 1 1/2 | 21.5 | 547 | 32.0 | 14.5 |
| UMP200U20-2 AGUMP200T20-2 | 2 | 20.1 | 510 | 30.0 | 13.6 |

NOTICE The weights and lengths listed above are approximate values and will vary due to manufacturing tolerances.

NOTICE The optional TRAPPER intake screen is available as a field installed accessory. TRAPPER options will change the length of the UMP by 3 5/8 inches (92mm). For installation instructions, see Red Jacket instructions #051-256-1. For models with a floating suction adapter, add 2 3/8 inches (59mm) and 4.0 pounds (1.8 kg).

Removing the Pump

DANGER Always **DISCONNECT** and **LOCK** or **TAG OUT** the power before starting to service the pump.

1. Back out the electrical yoke disconnect bolt.
2. Swing the electrical connector aside.
3. If a siphon system is in place, disconnect the siphon tubing. If ball valves are installed, close them.
4. Remove the two lock-down bolts on the packer. To relieve pressure, rock the pump to allow excess pressure to flow into the tank or back out Pressurstat™/functional element screw.
5. Lift out the extractable unit.
6. Allow pump to drain into the tank before complete extraction.

CAUTION **DO NOT** damage the surface above the discharge port. The o-ring below the leak detector port seals on this surface.

NOTICE Before installing the extractable portion, make sure that the packer o-ring and discharge o-ring seals surfaces are clean. New o-rings should be installed.

Replacing the UMP

7. Remove the old UMP by removing the four bolts holding the discharge head.
8. Rock the unit while pulling away from the discharge head until it is free.
9. Replace the old gasket with the new one provided.

CAUTION Visually inspect the pigtail connector in the discharge head. Replace the pigtail if it is damaged. Be certain the indexing tab of the pigtail is seated in the notch of the discharge head.

10. Lubricate the o-ring and pigtail with petroleum based jelly.
11. Align the positioning dowel of the new UMP into the hole in the discharge head.
12. Push the new UMP as far as possible against the discharge head.
13. Install the four new bolts with lock washers and torque to 20 ft lb (27 N•m).

Reinstalling the Pump

14. Replace the packer o-ring and discharge o-ring seals.
15. Reinstall the extractable portion into the tank, aligning the positioning dowels of the manifold with the holes in the packer.
16. Push the packer down as far as possible against the manifold.
17. Insert the lock-down bolts and torque to 45-55 ft lb (61 to 75 N•m).
18. Loosen the bolts that hold the conduit box to the manifold. Do not remove it.
19. Swing the electrical connector into position.
20. Torque the electrical connector bolt to 25-50 ft lb (34-68 N•m).
21. Torque the conduit box bolts to 30-45 ft lb (41 to 61 N•m).
22. Reconnect the siphon tubing and open the ball valves if these items are used.

Test the Piping

23. Block lines at each dispenser by tripping dispenser shear valve. Remove line test plug on the packer for this test.
24. Close pump check valve by turning the vent closing screw on the Pressurstat/functional element as far down as possible.
25. Apply line test pressure at line test port. (50 psi (345 kPa) maximum.)

CAUTION Excessive pressure (above normal test pressure of 50-55 psi (345-380 kPa)) may damage check valve seat and other system components.

26. After completion of line test, release pressure by turning the vent closing screw on the Pressurstat/functional element as far up as possible.
27. Reconnect power to the pump.
28. Purge the system of air by pumping at least 15 gallons (57 liters) through each dispenser. Begin with the dispenser furthest from the pump and work toward the pump.



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