

Bulletin: RJ-23-46
Revision: B
Product: 4" Submersible Pump
Reference: Packer-Discharge Seal
Date: March 1994

In October 1993, a new two inch Packer-Discharge Seal, part number 144-193-1, was made available as a repair part for standard submersible pumps. In March 1994, this seal will be available as a repair part for the AG series pumps, part number 144-196-1. These new seals are 1/32 inch greater in height than the standard seals, and are mainly for use in older model submersible pumps. Seals are marked with a color coated stripe or dot (indicated below) for identification.

WHEN TO USE THE NEW SEAL:

It has come to our attention that service personnel sometimes encounter difficulty making a tight two inch discharge seal between the packer and manifold assemblies of our older submersible pumps. In some instances, a gasket material is used along with an old style o'ring to seal this area. Sealing methods such as these can overfill the packing gland and are not recommended. Please use the new "taller" seals, as listed below, whenever a newly installed standard seal fails to hold line pressure:

	Standard Part Number	AG Part Number
Standard Two Inch Packer-Discharge Seal	076-382-1 (blue)	076-370-1 (red)
Taller Two Inch Packer-Discharge Seal	144-193-1 (green)	144-196-1 (yellow)

HOW TO DIAGNOSE A DEFECTIVE PACKER-DISCHARGE SEAL:

1. Shut off all power to the submersible pump and lock out the circuit breaker.
2. Install a pressure gauge in the line test port of the submersible pump.
3. Turn on power, energize the pump, and observe the pressure reading on the gauge.
4. Close the vent screw on the functional element while the pump is running.
5. Observe the gauge for fifteen minutes.
6. If pressure drops off, this is an indication that there is a leak down-stream of the functional element, possibly in the product line or the two inch Packer-Discharge Seal.
7. Replace the seal with a new taller height seal and repeat steps one through five above.

8. If you suspect a line leak you must test the line independent of the submersible pump. Close off the line at the discharge outlet of the submersible pump and monitor pressure at the impact valve beneath one of the dispensers.

PACKER/MANIFOLD SEAL INSTALLATION INSTRUCTIONS:

Before installing a new Packer-Discharge Seal, first inspect the seal mating surfaces on the packer and the manifold assemblies. Thoroughly clean in and around these seating surfaces with a fine emery cloth. Any damage, mars, scratches or rust will prevent a good seal.

When installing the seal, first lay the seal flat. The seal has two different degrees of thickness. The thickest part of the seal, angled inward with a retaining lip, is the top of the seal. The narrowest or thinnest part of the seal is the bottom (see drawing below.) To install the seal, place the top part of the seal with the retaining lip into the bottom of the packer. Be sure the top of the seal faces toward the packer and away from the pump motor. A mating recess in the retaining sleeve will hold the seal in place while the pump is being lowered onto the manifold.

Test the integrity of the new seal by utilizing the diagnostic procedure detailed above. For more information concerning this bulletin, contact our Technical Support Group at 800-262-7539. Please route or copy this information to all installation, service and parts personnel in your organization.

Thank you for your support of Red Jacket products.

