Caution: Wear goggles, gloves, and coveralls when servicing this system.

Note: The Ultra 4.0 uses non-stick finishes on the float and discharge tube. To protect these finishes, never use any type of abrasive pad, wire brush, steel wool or sandpaper to clean these two components.

## **Removing the Pump's Casing**

- 1. Disconnect the air supply from the pump.
- 2. Remove the bolt at the bottom of the pump which holds the inlet screen in place (bottom loading pumps only).
- 3. Remove the three bolts at the bottom of the pump which hold the inlet in place.
- 4. Remove the inlet from the pump's casing by pulling it out.
- **5.** Twist and slide the casing down off the pump's frame.

## **Cleaning the Pump Interior**

The inner workings of the pump should now be exposed for inspection and cleaning. Gently brush off built-up solids from the float, discharge tube, pump casing and control rod.

## Mineral Build-up Cleaning Procedure

- 1. The bottom "spider" casting should be removed by unthreading it from the discharge pipe.
- 2. Visually inspect the fluid discharge tube for scale build-up or debris. Also, do the same with the float that slides up and down on the discharge tube.
- 3. Should there be scale deposits on either the discharge tube or float, remove the float from the discharge tube as follows: Remove the small steel hairpin from the bottom spring cup. Removing the hairpin and spring cup will allow you to remove the spring, sliding stop and float from the SS discharge tube.
- **4.** The fluid discharge tube can now be cleaned using a damp cloth. To aid in cleaning, the discharge tube can be soaked in vinegar. To remove tougher build-up, scour pads that are made for non-stick cookware can be used.
- 5. Both the internal and external surfaces of the float can be cleaned using a damp cloth. To aid in cleaning, the float can be soaked in vinegar. To remove tougher build-up, scour pads that are made for non-stick cookware can be used. The float end plates can be removed to ease cleaning. After cleaning, the plates should be replaced on the same end of the float from which they came.
- **6.** The white plastic square control rod is the next component to be cleaned. The control rod is the item that fits through the smaller hole in the float plate and is adjacent to the discharge tube in the assembled pump. To clean the control rod, use an abrasive pad or a razor or utility knife (not sandpaper).
- 7. The final component to be cleaned is the outer casing. The fastest and most effective way to clean out the inside surface of the pump casing is to use a three-stone honing tool. The technique is to move the hone in and out a half dozen times or so, through each end of the casing. The time for the casing cleaning should take no longer than 5 minutes.

The AutoPump is now ready for re-assembly by following the steps above in reverse order.

**Note:** Before threading the bottom "spider" casting onto the pump's discharge tube, be sure to wrap the discharge tube's threads completely with Teflon tape.

**Note:** Before inserting the two assemblies back into the pump's casing, apply PTFE grease to the two casing o-rings to make the next disassembly easier.