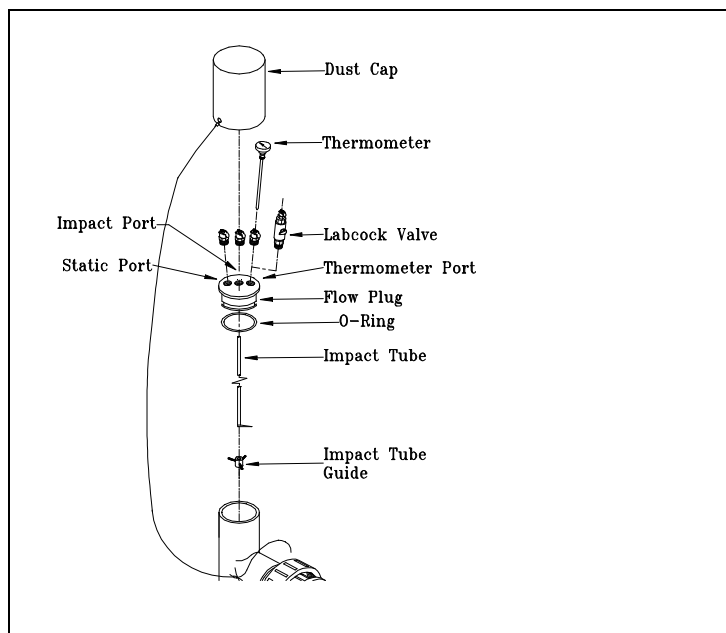


Accu-Flo™ Wellhead Maintenance Procedures

Accu-Flo™ wellheads are designed to be virtually maintenance free. However, unforeseen catastrophic events, human error and extreme weather conditions can cause problems.

All Accu-Flo™ Models are virtually the same except for the diameter of the measurement tube assembly and the length of the Impact tube.

Tube Cap, Impact Tube and Pressure Ports Assembly



Drawing 4

Drawing 4 shows how the flow plug, impact tube and pressure ports can be disassembled. The following provides more details:

1. **Static Pressure Port:** Consists of 1/8" (flow ID) quick connect coupling with automatic shutoff and latching mechanism. It is screwed into the flow plug to create the Static Pressure Port.

Recommended Maintenance: Periodically lubricate the O-ring with a light coating of vacuum grease and inspect coupling for corrosion or brittleness caused by extreme weather conditions and UV damage. Replace O-ring or coupling as necessary.

2. **Impact Pressure Port:** This pressure port has a 1/8" (flow ID) quick connect coupling with automatic shutoff and latching mechanism. It is screwed into the

center of the flow plug. The impact tube is connected to the same port on the underside of the plug.

Recommended Maintenance: Periodically lubricate the O-ring with a light coating of vacuum grease and inspect coupling for corrosion or brittleness caused by extreme weather conditions and UV damage. Replace O-ring or coupling as necessary.

3. **Thermometer Port:** The thermometer port has two configurations. Both use a 1/8" (flow ID) quick connect straight through coupling with automatic latching mechanism. The first configuration has the quick connect screwed directly into the flow plug. The port is plugged with a thermometer assembly or a blank plug. In the second configuration a labcock valve used to shutoff the port. The thermometer port is 180° from the static pressure port.

Recommended Maintenance: Periodically lubricate the o-ring with a light coating of vacuum grease and inspect coupling and labcock valve for corrosion or brittleness caused by extreme weather conditions and UV damage. Replace O-ring, coupling or labcock valve as necessary.

4. **Thermometer Assembly:** The thermometer is mounted on a quick coupling insert. The thermometer has a range of 0 to 220 degrees Fahrenheit.

Recommended Maintenance: Verify thermometer calibration, if suspect, using a known temperature standard. The thermometer can be calibrated. Periodically lubricate the O-ring with a light coating of vacuum grease. Replace O-ring as necessary.

5. **Flow Plug:** The plug above the measurement tube that contains the static, impact pressure and thermometer ports. The impact tube is mounted on the underside of the plug below the impact port. The horizontal wellhead has two plugs. One plug in a horizontal position that contains the impact tube and impact pressure port and a second plug in a vertical position that contains the thermometer and static pressure ports. The plug is sealed with an O-ring and retained by two screws.

Recommended Maintenance: To remove the plug and provide access to the impact tube: First mark the orientation of the plug in the tee, then remove the two retaining screws and lift the plug out of the tee using a rotating motion. Before reassembling the plug into the tee, lubricate the O-ring with a light coating of vacuum grease. Replace O-ring as necessary.

6. **Impact Tube:** The stainless steel impact tube is housed inside of the measurement tube assembly and affixed to the underside of the flow plug with a tube fitting. A guide stabilizes and positions the tube inside the measurement tube.

Recommended Maintenance: Traces of smoke residue have been noted on impact tubes in wells that had nearby landfill fires. Otherwise there is little build up on the stainless steel tube. To disassemble the impact tube, remove the flow plug and then unscrew the retaining nut. Take care not to lose the retaining washer or the seal behind the retaining nut. Reverse this step when replacing the impact tube. Lubricate the seal with a light coating of vacuum grease.

7. **Dust Cap:** The elastomeric PVC dust cap and wire cord are located at the top of the measurement tube assembly to protect the pressure ports from the weather, dust, and UV Exposure.