

**STORAGE, INSTALLATION, OPERATION,  
MAINTENANCE AND SERVICE MANUAL OF SERIES  
ALG-ST AND ALG-DT LIQUID LEVEL GAUGES**

**WARNING:** Only properly trained personnel should install and maintain water gauge glass and connections. Remember to wear safety gloves and glasses during installation. Before installing, make sure all parts are free of chips and debris. Improper installation/maintenance of gauge glass and connections can cause immediate or delayed breakage resulting in bodily injury and/or property damage.

**INSTALLATION:** Install gauge on tank flanges, making sure tube holders are not removed or allowed to slip down during installation. Bolt gauge flanges to matching flanges with correct size bolts for flange size used. Tighten bolts according to the following bolt torques:

Flange size	Torque
1" 150#	15 Ft-Lbs
1½" 150#	20 Ft-Lbs
2" 150#	25 Ft-Lbs
3" 150#	40 Ft-Lbs
4" 150#	45 Ft-Lbs

The gauge should be installed with valves. Once installed, valves must be opened slowly so that temperature and pressure changes do not break the glass.

To clean gauge glass, close valves and open drain plugs to drain excess fluid off. Remove all but one of the flange bolts. Loosen this flange bolt and rotate gauge so that the glass may be cleaned or replaced.

**GLASS REPLACEMENT:**

Remove harp pins from clevis pins on end gauge.

Carefully remove Teflon tube holder insert from each end of gauge.

Remove o-rings from glass and slide glass out of unit (for units with sight tube splicer, it will be necessary to remove one of the Teflon sight tube holders in order to remove the glass).

If unit has a sight tube splicer, it will be necessary to unscrew the sight tube splicer assembly in order to replace the glass.

Slide glass back into unit and reinstall o-rings (if unit has sight tube splicer re-assemble splicer).

Replace Teflon tube holder inserts on both ends.

Re-align tube holder with holes in housing and install clevis pin in each end of gauge and re-install harp pins into clevis pins

**USE AND CARE:**

**DO NOT** use glass if it contains any scratches, chips, or any other visible signs of damage.

**DO NOT** reuse any tubular glass or seals.

**DO NOT** subject gauge glass to bending or torsion.

**DO NOT** over tighten glass packing nuts.

**DO NOT** allow glass to touch any metal parts.

**DO NOT** exceed the recommended pressure.

**DO NOT** clean the gauge or gauge glass while in use

**DO** verify proper gauge has been supplied.

**DO** examine gauge glass and seals.

**DO** inspect the gauge glass daily, keep maintenance records, and conduct routine replacements.

**DO** protect glass from sudden changes in temperature, such as drafts, water spray, etc.

**MAINTENANCE:** Examine the gauge glass regularly for any signs of clouding, scratching, erosion, or corrosion. The glass should be inspected daily until the need for replacement becomes apparent. This will help establish the routine inspection and routine replacement schedules.

**CLEANING:** Use commercial non-abrasive glass cleaners to keep glass clean. Use diluted acids such as Hydrochloric (muriatic) acid when regular cleaners do not seem to work. Do not use wire brushes or any other abrasive materials which could scratch the glass.

**INSPECTION:** Examine the surface of the glass for scratches, corrosion, chips, cracks, surface flaws, or nicks. To do this, shine a very bright concentrated light at an angle of about 45 degrees. A defective glass will glisten as the light strikes imperfections. Glass which appears cloudy or roughened and will not respond to cleaning should be replaced.

**STORING:** Keep gauge glass in original packaging until ready to install.