

KENCO ENGINEERING COMPANY

88M50/88M75, 88F50/88F75 INSTALLATION / OPERATING INSTRUCTIONS

INSTALLATION / OPERATING INSTRUCTIONS

Only qualified personnel who are familiar with tubular gauges and their operation should undertake installation of this product. Failure to properly install could result in serious personal injury and property damage.

1. Apply teflon tape, or equivalent, to male vessel connection threads on each end of gauge and mount to vessel. We recommend using a union type pipe fitting and isolation valves between gauge valves and vessel connections.
2. Check vessel connections as well as 1/4" NPT vent/drain connections on each end of gauge to ensure that they are pressure tight.
3. Open isolation valves very slowly to avoid excessive thermal shock and mechanical stress on tubular gauge glass sight tube contained inside gauge frame.
4. Allow gauge temperature and pressure to slowly equalize with vessel.
Note: Failure to slowly bring gauge into service will cause rapid pressurization of sight tube, which could result in serious personal injury and property damage.
5. Inspect gauge to ensure that there are no leaks prior to proceeding with installation.

Maintenance Instructions

1. During system shutdown, gauge valves are to be left open to allow gauge to lose pressure and cool to ambient temperature with vessel.
2. Should gauge need maintenance while vessel is still in service, valves on each end of gauge are to be closed completely to allow gauge to cool to ambient temperature if necessary. Liquid can then be carefully drained by using 1/4" NPT connection port on lower end of gauge.
Note: Do not proceed with any maintenance unless gauge has been relieved of all pressure or vacuum and has been allowed to reach ambient temperature. Gauge should also be flushed out to remove any hazardous liquids before handling if applicable.
3. Cleaning inside of sight tube can be done without removal of tube itself. This can be accomplished by using a tube brush with access through 1/4" FNPT vent/drain connection ports on each end of gauge.
4. Removal of sight tube contained inside gauge frame is as follows:
 - a. Remove existing clear polycarbonate or expanded metal shield by bending crimped portion of gauge frame on each end away from shield so it can easily slide out.
 - b. Remove wire from around sight tube splicer if one exists.
 - c. Remove (2) hex socket head cap screws in blocks on each end of gauge holding 1-1/4" square x 1/4" thick o-ring compression plates in place.
 - d. Push sight tube up into upper block as far as is required to enable lower end of sight tube to swing out from inside gauge frame.
 - e. Carefully lower sight tube out of block in upper end of gauge frame. (Note: if sight tube has a splicer, extra care should be taken so sight tube assembly does not disassemble.)
 - f. Remove o-ring compression plates and seals from sight tube.

5. Installation of sight tube is as follows:

- a. Insert sight tube into splicer if one exists. If a teflon shrink-tube type splicer exists, it will be necessary to place teflon o-ring cushion between adjoining sight tubes and heat-shrink teflon splicer in place.**
- b. Slide 1-1/4" square x 1/4" thick o-ring compression plates onto each end of sight tube.**
- c. Slide o-ring seals onto each end of sight tube.**
- d. Push end of sight tube into hole in block inside frame on upper end of gauge as far as is required to enable lower end of sight tube to swing over and into hole in block inside frame on lower end of gauge.**
- e. Install hex socket head cap screws into blocks on each end of gauge and thread into holes in 1-1/4" square x 1/4" thick o-ring compression plates and tighten securely.**