



Quartz Immersion Heaters

INSTALLATION, OPERATING & MAINTENANCE INSTRUCTIONS

BEFORE INSTALLING HEATERS PLEASE READ AND FOLLOW THESE INSTRUCTIONS TO ENSURE SAFE AND PROPER OPERATION!

VERIFY THE FOLLOWING:

- Check to make sure that the heater received is the same as ordered.
- Available voltage and phase agree with nameplate ratings – Do **NOT** install especially if on-site voltage exceeds rated voltage.
- Quartz material and Watt density rating must be compatible with chemistry of environment – Consult with Heatmax or Chemistry provider's (MSDS) as necessary.
- Thermostatic, high limit (over temperature) and liquid level controls are in place as required (Please refer to "Danger-Warning" tag found on heater).
- That operational personnel are adequately trained in all key safety facets surrounding the use and maintenance of electric immersion heaters and controls.
- Installation is performed by qualified personnel in accordance with National Electric Code and other electrical codes as they apply.

Failure to verify these installation criteria may result in premature heater and equipment failure and may present a HAZARD to personnel and/or property as electric heaters are an ignition source in certain situations. Consult with Heatmax Heaters with any questions.

INSTALLATION:

- Quartz heaters are breakable. Handle with extreme care: Insert replaceable heating element in quartz tube(s) slowly and carefully. Do NOT drop element into quartz tube as this action may lead to cracks or breakage.
- Inspect tube for cracks and mount heater assembly securely, especially in agitated tanks. Available polypropylene guards are highly recommended.
- Wire in accordance with National Electrical Code and secure terminal covers and conduit connections. Do not seal end of conduit as pressure exits there.
- Connect thermostatic control, over temperature safety switch and liquid level control.

OPERATION:

- **NEVER** energize or operate heater unless solution covers the heated zone of the quartz tube.
- Set thermostat to desired operating temperature and observe thermostatic control at start-up. **NEVER** circumvent safety circuit for any reason.
- Test all safety interlocks at start-up to assure they deactivate power to heater.
- Avoid racks or parts from coming into contact with quartz heater assembly.
- Avoid excessive splashing or dripping onto heater terminal boxes.
- Do not place heater terminal boxes under cover.
- Do not place heater terminal boxes in the direct flow path of tank fume ventilation system.

MAINTENANCE:

- **ALWAYS** disconnect power when performing any maintenance or service.
- **NEVER** remove an energized or connected heater out of tank; allow at least a 15 minute stabilization period before removing.
- Periodically inspect quartz for cracks and breakage and **NEVER** return a damaged tube or element to service.
- Periodically inspect for leaks and re-tighten accordingly.
- The removal of scale build-up from quartz tube should never involve tapping or hammering as breakage will occur. Consult the chemical provider for suggestions as to how to remove and dispose of particulate scales.
- **NEVER** operate a heater that exhibits any sign of physical or electrical damage. Consult with Heatmax Heaters for recommendations