



START-UP OF ELECTRIC WATER BOILERS

FOR DETAILED INFORMATION SEE INSTALLATION & MAINTENANCE MANUAL

WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

1. Visually inspect unit and components for damage and proper installation.
2. **Important** - Check all electrical connections for tightness and proper voltage.
3. Check heater to make sure it is full of water. (Remove air through T&P valve).
4. Check the resistance to ground between all element terminals and the element mounting flange (should read infinity).
5. Check for leaks at elements and all tank penetrations (i.e. thermostats, low water cut-off).
6. Energize manual disconnect switch. Check for proper voltage on power circuit. (Should not vary more than 5% from voltage on data plate.)
7. Energize control circuit switch. Check for proper voltage and amperage under full load (should not vary over 5% from voltage on data plate).
8. Check all components for proper operations (i.e. contactors, sequencers).
9. Manual reset high limit opens at 240°F. Set operating thermostat to desired outlet temperature.
10. After unit shuts down, turn water on and let unit cycle on (to check proper thermostat operation).
11. **Important** - After at least 30 minutes of operation, turn off power and retighten all electrical connections.
12. Complete attached startup report.

Note: A complete and proper start-up of this equipment is necessary to ensure its safe and reliable operation. The attached startup form must be filled out completely and immediately provided to your Riverside Hydraulics® representative. Report all discrepancies to Riverside Hydraulics® Customer Service Department at 1-800-990-5918.

START-UP REPORT

ELECTRIC WATER BOILERS

Warning: Startup must be performed by a qualified service installer, service agency or utility company.

Model Number: _____ Serial Number: _____

Job Name: _____

Address: _____

GENERAL INFORMATION

Restart? Yes No Installation is: New Replacement/Renovation Indoor Outdoor
Primary voltage supply: _____ VAC _____ PH Voltage from neutral to earth ground: _____ (should be zero)
Thermostat Setting: _____ °F Thermostat Setting: _____ °F Hi-Limit Setting: _____ °F
Is the T & P Relief Valve plumbed to a suitable drain? Yes No
Energy management System (EMS) Interface? Yes No Mfg./Model: _____
EMS Function(s): Remote On-Off Staged- Firing Outdoor Reset Other: _____
EMS connected to which boiler terminals: _____
EMS Field wiring - Wire Gauge: _____ Distance from EMS panel: _____ Ft.

ELECTRICAL SYSTEM

(Tighten all electrical connections prior to energizing and again after 30 minutes of operation)

Number and size of incoming power cables: _____ Power cables are: Copper Aluminum
Control Circuit Transformer: _____ / _____ Volts _____ kva Primary Transformer Fuse Size: _____ V _____ A
Primary Voltage: _____ Volts _____ PH Total Amps: _____ Amps per Leg: _____
Total Number of Contactors: _____ Contactor Fuse Size: _____ Amps
Total Number of Electric Elements: _____ each _____ KW; _____ each _____ KW
Measured resistance of all elements to ground? Yes No
Re-tightened all electrical connections? Yes No

BOILER INSTALLATIONS (Closed Loop Heating System)

Boiler water supply and return piping size _____
Supply water temperature: _____ °F Return water temperature: _____ °F
What is the GPM of the building loop circulator pump? _____ VFD? Yes No
What is the location of the circulator pump? Downstream from boiler Upstream from boiler
Is there a balancing valve (circuit setter) in the secondary loop? Yes No

Comments: _____

Service Company Name: _____ Phone: _____

Service Company Address: _____

Start-up Performed By: _____ Date: _____

Customer Representative: _____ Date: _____