Camus Boiler – Water Heater Pre-startup Checklist

The installer should complete this checklist before calling Hydro-Flo Products to schedule start up of the boiler or water heater. Please check each item carefully for completion. Contact Hydro-Flo if you have questions on any item.

A pre-startup visit may be available/scheduled to review the installation with one of our sales engineers. Please contact your Hydro-Flo salesman for his or her availability.

The project manager or supervisor on site should sign and date this agreement and fax it to Hydro-Flo Products' service department: **Attention Service Dispatcher**.

Please check the one appropriate box

The unit is applied in one of the heating applications listed below

- **¤** Hydronic heat application
- **¤** Domestic water application
- **¤** Radiant heat application
- **¤** Heat Pump application
- ¤ Other _____

Please check each box as they are complete

- **¤** Water connections made to unit in full pipe diameter (no reduction from the header connection size). This may require a reducer at the unit connections.
- ^a Unions and isolation valves to the piping connections to the unit.
- ^a All waterways filled, pressurized and completely purged of air.
- System expansion tank is charged and connected to point of lowest pressure in the system or before the system supply pumps.
- ^{**p**} System has an automatic air eliminator and automatic or manual air vents at the highest points of the piping.
- Pressure Relief Valve installed before any service valve with full size pipe. Relief discharge piped to drain. Additional relief valves may be installed on tanks.
- ^a All pumps & associated controls properly installed and wired.
- **¤** System will not violate "cold start" requirement. Inlet temperatures kept above minimum required in manufacturer's literature.
- ^a Sufficient load available for high fire of unit
- Installed clearances as specified in the manufacturers Installation Manual and all code requirements.
- ^{**p**} Unit installed with back of unit facing nearest wall, full unrestricted clearance to all parts of the boiler.
- ^a Clear floor drain near unit. Floor pitched down from unit to floor drain.
- ^a Unit installed on a housekeeping pad equal to or larger than the footprint of the unit and made from non-combustible material.

- ^a Power connected to the boiler with adequate wire gauge and circuit breaker capacity for the equipment's total load.
- Verify all voltages are correct and proper grounding. Some units require 115 and 230 volt power. All voltages must be checked before powering up the unit. Observe all line to neutral and line to line references when checking voltages.
- ^{**m**} Lights installed and operating in equipment area.
- Circuit breakers energized or easily accessible for power up at start-up. Note: Pumps that require 230 volts cannot operate on 208 volts. Verify with electrician or installer that 208 volts has not been applied to any product with a 230 volt nameplate.
- Gas supply piped to unit including shut off valve, dirt leg and union.
 Note: Gas piping should have adequate dynamic capacity for the unit. This includes sizing the gas pressure regulator(s) and gas meter per manufacturer's instructions and the National Fuel Gas Code.
- Properly sized lock-up type gas pressure reducing valve (one for each boiler/water heater) installed per manufacturers instructions including vent lines to outside of equipment room.
- **¤** Gas valve bleed and vent lines run from equipment jacket to outside of equipment room as required by codes or manufacturers' requirements.
- ^a Air purged from the gas line to the boiler's closest shut-off valve.
- p Operating control located and wired as specified in Camus manual. Notes:
 - Contact Hydro-Flo technical support for help with systems that utilize external operating controls (on site building automation system or energy management system) other than those supplied by Camus.
 - If a BAS or EMS system will control the start-stop function and firing rate signal these must be wired to the boiler before the time of start-up, those functions should be operable and tested by control contractor.
- Exhaust venting and air intake installed including any required drains and drain loops.

Note: The size and type of the venting material must meet manufacturers & code requirements for the specific venting category of the unit installed. Check the manual or consult with the factory for suggested vent terminations.

- ^a Permanent test ports installed in venting.
- Combustion air and ventilation openings meet specified and applicable code requirements for an indoor installation.
 Note: The Camus manual contains sizing charts and tables. The National Fuel Gas Code also contains information about combustion and venting.
- Manual and wiring diagrams supplied with heater are available at jobsite.
 Note: If you cannot locate the original manual, please call Hydro-Flo Products.

Installing contractor is responsible for all safety related access including a safe, clear, well lit service area and any required tie off or restraint equipment. Hydro-Flo reserves the right to refuse service in any area not deemed safe by our personnel.

Please verify that the equipment and the site are ready prior to the time that Hydro-Flo's technician arrives to do the startup. It may be necessary to schedule one or more return visits. Hydro-Flo charges \$115 per hour, plus all expenses and travel time for any return visits that may result from lack of preparation of the boiler or jobsite. Such charges are invoiced if a return trip is necessary.

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By signing this agreement below the signing party agrees to pay for services by Hydro-Flo Products, Inc. as incurred; should a second or further return visits be required.

Job site name
Job site address
Contact name, phone no. (& title) on site
Boiler/Water Heater Model Number(s)
Quantity of units to start
Serial Numbers #1
Comments or notes regarding access or start times:
Project manager, contractor or supervisor's name Date Signature (Person authorized to agree to the terms and conditions of this agreement)

Please sign, date and complete this form, then fax it to Hydro-Flo's service dispatcher at 262-781-2228. Someone from Hydro-Flo will respond to have the work scheduled. A minimum of one week notice is required.