



# Liebert Piggyback Drycooler Warranty Inspection Check Sheet

**The following information must be fully completed and forwarded to your local Liebert sales office to establish your equipment warranty.**

Installer \_\_\_\_\_ Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Owner \_\_\_\_\_ Address \_\_\_\_\_

\_\_\_\_\_

Owner e-mail address \_\_\_\_\_

Installation Date \_\_\_\_\_

Was the unit received in good condition?  Yes  No

If no, has the carrier been notified?  Yes  No

Have the manuals been kept with unit?  Yes  No

## **PRE-START-UP**

**Drycooler Serial Number:** \_\_\_\_\_

**Drycooler Model Number:** \_\_\_\_\_

**Evaporator Unit Serial Number:** \_\_\_\_\_

**Evaporator Unit Model Number:** \_\_\_\_\_

**Pump No. 1**      HP: \_\_\_\_\_

Model number: \_\_\_\_\_ Serial number: \_\_\_\_\_

**Pump No. 2**      HP: \_\_\_\_\_

Model number: \_\_\_\_\_ Serial number: \_\_\_\_\_

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## **WARNING**

**Arc flash and electric shock hazard. Open all local and remote electric power disconnect switches, verify with a voltmeter that power is off and wear personal protective equipment per NFPA 70E before working within the electric control enclosure or any hazardous voltage electric connection enclosure. Failure to comply can cause serious injury or death.**

**With the electric power to the unit OFF check the following items as noted:**

- All piping secured and isolated for vibration reduction.
- Field piping properly supported and secure.
- ALL electrical connections are tight and properly terminated on Evaporator and Drycooler.
- Heat Rejection Interlock wiring has been correctly installed between Evaporator and Drycooler (70 & 71).
- Equipment is installed level.
- Remove all debris from unit area.
- Drycooler fans are secure, with blades rotate freely with no obstructions.
- All panels are securely fastened to unit?
- Vents are installed at the high point of the system to ensure venting of trapped air.
- Verify Proper Water/Glycol Maintenance/Treatment has been performed.
  - Yes       No (if no, conformation available please inform end user)

**Check the following items, if supplied:**

- Strainers                       Shut off valves                       Filters
- Alternate water source connections                       Water treatment
- Bleed valves in expansion tank                       Check valves (if applicable)
- System filled with proper amount mixture of Glycol solution.

**Gallons \_\_\_\_\_**

**Glycol Solution % \_\_\_\_\_**

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## Drycooler Inspection



### WARNING

Risk of electric shock, contact with high speed moving parts and hot surfaces, Can cause serious injury or death. Use extreme caution when working inside the unit cabinet of an energized unit near bare live hazardous voltage terminals, high speed moving parts such as fan blades and hot surfaces such as motors, hot gas lines

1. Check voltage at disconnect and record.

L1-L2 \_\_\_\_\_ L2-L3 \_\_\_\_\_ L1-L3 \_\_\_\_\_

2. Close all local and remote electric power disconnect switches. Verify with a voltmeter that power is on and the supply voltage matches the marked unit voltage rating.



### WARNING

Arc flash and electric shock hazard. Wear personal protective equipment per NFPA 70E before working within the electric control enclosure or any hazardous voltage electric connection enclosure. Use extreme caution when checking the status of live hazardous voltage circuits. Failure to comply can cause serious injury or death.

- Check unit electrical phasing with a phase meter. If phasing is incorrect, change wiring at input source to unit. Do not change any unit or component phasing.

3. Check and record control voltage transformers for proper output. (Secondary voltage should not be under 23 VAC or exceed 27 VAC under load, change tap if necessary).

T1 \_\_\_\_\_ Volt

1. Enable the fan and record amps.

L1 \_\_\_\_\_ L2 \_\_\_\_\_ L3 \_\_\_\_\_ Fuse \_\_\_\_\_

2. Adjust the aquastat on the electrical panel to drive the valve actuator. Drive the valve fully open and closed and verify the linkage is set-up properly. Adjust linkage is necessary.
3. With the valve open and the compressors operating, record pressures across the fluid pumps.

PUMP #1 Discharge Pressure \_\_\_\_\_ Suction Pressure \_\_\_\_\_

PUMP #2 Discharge Pressure \_\_\_\_\_ Suction Pressure \_\_\_\_\_

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4. Record pump amps.

**PUMP #1** L1 \_\_\_\_\_ L2 \_\_\_\_\_ L3 \_\_\_\_\_ Fuse \_\_\_\_\_

**PUMP #2** L1 \_\_\_\_\_ L2 \_\_\_\_\_ L3 \_\_\_\_\_ Fuse \_\_\_\_\_

5. Check operation of pump switchover function. (If applicable.)

6. Record entering and leaving fluid temperatures below.

Entering fluid temperature \_\_\_\_\_

Leaving fluid temperature \_\_\_\_\_

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*Your Start-up is now complete.*

Your input is important to us. Did you encounter any factory or field issues? If YES, please check the YES box and supply detailed description below. If NO, please check the NO box; however please feel free to provide any additional comments or suggestions.

YES

NO

Comments:

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START-UP

PERFORMED BY \_\_\_\_\_

(Please print name)

START-UP DATE \_\_\_\_\_

COMPANY \_\_\_\_\_

PHONE # \_\_\_\_\_

### IMPORTANT:

This form must be properly completed and returned to your local Liebert Sales office. If you do not know who your local Liebert sales office is, call 1-800-Liebert or check our website at:

<https://www.vertivco.com/en-us/products/brands/liebert/>