

A2L Refrigerant Chiller Installation & Pre Startup Checklist

Document:	Doc # F-M011.3 Rev Date 03/24/2026, Rev 3
Purpose:	Define the items that need to be completed by the installation team(s) hired by the site.
Scope:	Applicable to all field personnel participating in installation and pre-startup of defined equipment.
Related Documents:	ENG-SVC-0066 – (W/G)O2 Series Installation Guidelines - Siting ENG-SVC-0065 – (W/G)O2 Series Installation Guidelines - Plumbing ENG-SVC-0064 – (W/G)O2 Series Installation Guidelines - Electrical ENG-SVC-0089 – GO2 Flammable Refrigerant Specific Installation Guidelines

Affected Equipment:

All versions of the following product lines:

Table 1: Affected Equipment

WO2-3000	WO2-2-3000
WO2-5000	(W/G)O2-2-5000
(W/G)O2-7500	WO2-2-7500
WO2-10000	(W/G)O2-2-10000

SECTION 1 — PROJECT / SITE INFORMATION

Mounting

- Chiller mounting location identified (ground / roof / platform)
- Visible damage or repairs/modifications needed?
- Roof load capacity verified for new chiller (if roof install)
- Adequate clearance?
- Safety rails, curbing or landings needed?

Plumbing

- Distance of plumbing to mechanical room measured (horizontal + vertical)
- Pipe size documented
- Visible leaks or issues?
- Existing plumbing insulated?
- Condition of insulation

Electrical

- Electrical supply sufficient (voltage/phase/hertz)?
- Existing Breaker size sufficient?
- Fuse size sufficient?
- Does site have conduit in place to run remote display cable?
- Remote display cable run >150' requires Long distance kit
- Visible damage or repairs needed?

Miscellaneous

- Any equipment in conjuncture (filters, bypass, etc)?
- Does any componentry need to be removed?
- Space available for SEP cabinet confirmed
- Further considerations:
 - Rigging/Cranes
 - Permits, fees, approvals needed, tool approvals etc.
 - Local ordinances and codes
 - Downtime

SECTION 2 — GO2 - A2L REFRIGERANT GUIDELINES

Disclaimer: These guidelines are required by UL 60335 to be included with this product. ASHREA 15 and the (AHJ) Authority Having Jurisdiction supersede the guidelines listed below. If any guidelines cannot be met consult ASHREA 15 and the AHJ.

Storage & Installation Practices

- Unit stored and handled in area free of ignition sources
- Installation team aware of A2L flammability classification
- Technicians understand refrigerant may be odorless

Code Compliance & Authority Requirements

- Installation complies with ANSI/ASHRAE 15
- Installation complies with all applicable local codes and regulations
- Authority Having Jurisdiction (AHJ) identified (fire marshal, inspector, etc.)
- AHJ approvals/permits obtained where required

Installation Location Requirements

- Unit installed OUTDOORS ONLY
- Installation area allows natural ventilation (no enclosed or restricted airflow areas)
- Unit is NOT installed under structures that trap or restrict airflow
- Unit located in restricted access area OR mounted ≥ 8.2 ft (2.5 m) above ground
- Area prevents access by general public
- Unit located ≥ 20 ft (6.1 m) from all building openings (i.e. windows, doors, air intakes/exhausts, emergency exits)
 - If located ≤ 20 ft, consult AHJ

Pressure Relief Valve (PRV) Venting

- PRV outlets connected to refrigerant-rated piping
- Discharge piping NOT reduced below outlet size
- Discharge location ≥ 15 ft above ground
- Discharge ≥ 20 ft from any opening

- Outlet piping points DOWNWARD to prevent rain intrusion
- Discharge location does NOT expose personnel to refrigerant release
- Do not route piping over fans

A2L Environmental Safety

- Installation area prevents refrigerant stagnation in event of leak
- No continuous ignition sources nearby
- Vent openings free of obstruction
- Unit stored/handled with no ignition sources present
- Technicians aware refrigerant may be odorless

SECTION 3 — CHILLER SITING & MOUNTING

Delivery & Handling

- Shipment inspected for damage
- Unit moved via forklift / proper rigging

Mounting Requirements

- Installed on concrete pad 5' x 12' x 4" minimum
- Pad level within 1/2" per 10 ft
- Unit anchored at all mounting points
- Security fencing installed if required

Minimum Clearance Requirements

- 3 ft clearance door side
- 6 ft clearance filter side
- 8 ft vertical clearance
- Adequate airflow confirmed
- Ambient conditions within rating limits

SECTION 4 — PLUMBING INSTALLATION VERIFICATION

System Type

- Open-to-atmosphere system – NOT pressurized
- DO NOT install bladder or expansion tanks, shot feeders, pressure sensors, booster pumps, auto water makeup systems or any other equipment on the plumbing for chiller without Dimplex expressed instruction

Recommendations

- Copper piping recommended (NO PVC / carbon steel / black pipe)

Flow & Layout

- Pipe size appropriate for flow rate
- Total equivalent piping length ≤ 500 ft OR factory approved
- For chillers more than 75' above the process, a booster pump is recommended.
- Calculate plumbing pressure drop – Acceptable?
- Chiller isolated during pressure testing

Process

- Complete plumbing connections.
- Leak check piping installation. Ensure chiller is isolated from site piping before putting plumbing under any pressure.
- Site piping flushed to remove any installation debris.

Filling the Plumbing Lines and Fluid Tank

- Complete rigging and setting of chiller at end user location.
- Ensure site plumbing has been flushed clean and has no residual installation debris. DO NOT FLUSH PLUMBING THROUGH CHILLER OR PROCESS EQUIPMENT AS DAMAGE MAY RESULT.
- If needed, source glycol and water for mixture.
- Add correct fluid mixture to chiller reservoir.
- Remove air filters from chiller.

- Pump directly into the tank until the appropriate level is reached, sight glass should show fluid at "Max" level.
- Reinstall reservoir cap once system is full and free of air.
- Reinstall chiller air filters.
- If the plumbing system has fill ports or other ways to backfill the piping, add the same concentration of fluid mixture used in the reservoir to fill the pipe lines.
- Wait for startup of chiller to verify correct concentration and fluid level is achieved with system fully operational.
- Make any corrections necessary.
- When installing a chiller outdoors, the water to glycol mix must be 50%. If the chiller is indoors, the water to glycol mix must be 30% glycol to 70% water.
- When utilizing 100% glycol concentration, the fluid must be diluted to the correct concentration mixture. This must be accomplished with demineralized water. i.e. distilled water, Deionized water, reverse osmosis water, etc. TAP WATER MAY NOT BE USED TO MIX WITH GLYCOL.
- The water and glycol can be premixed prior to filling the system or can be added separately to the reservoir and self-mix when the fluid circulates through the system.
- After the system has been filled, test the mixture with a refractometer or hydrometer to ensure correct concentration level.
- DTS recommends that the chillers be filled with an industrial inhibited propylene glycol. If this cannot be sourced in your local area, reach out to DTS' Parts Department for information on sourcing.
- You cannot backfill the chiller reservoir through the piping. The system utilizes check valves or anti-backflow solenoids to prevent this. The pipes and chiller reservoir need to be filled separately.
- Note what brand, type, concentration of glycol was used to fill the system, and date of system filling on the inside of the electrical panel door with permanent marker. This will ensure that the correct type of glycol is used going forward when the system requires refilling.

SECTION 5 — ELECTRICAL INSTALLATION VERIFICATION

- Refer to machine specific data tag for electrical requirements.
- Always exercise safety measures when working with high voltage systems.
- Wear appropriate PPE and follow all safety steps when working with the chiller system.
- Review all state and local electrical codes prior to making any electrical installations. These codes will supersede direction in this document. If any standards or codes in your geographical area conflict with directions from this document, reach out to Dimplex Thermal Solutions for support.
- Review electrical schematics in the manual that comes with the chiller unit.
- Size breaker or disconnect appropriately. See chiller name plate for additional info.
- Land main power on chiller.
- Verify phasing is correct. This can be checked at the phase monitor that is mounted in the chiller electrical panel
- Run 3/4" conduit with pull string from chiller down to MRI Suite or MR mechanical room for the remote display cable

- Pull remote display cable through conduit. Standard cable is a 150' phone-like cable.
- Connect and mount Carel remote display on wall per manufacturer instructions
- Once chiller installation is complete, turn chiller disconnect "ON" to allow crankcase heaters to run for a minimum of 8 hours prior to startup.
- If you need a chiller to run in anything other than above mentioned voltages, phasing, or Hz, consult factory.
- If distance from chiller to where the remote display will be mounted is greater than 150', a Long Distance Remote Kit is required. Call DTS for information.
- DO NOT SPLICE THE REMOTE DISPLAY CABLE TO INCREASE LENGTH. This will not work and can cause a cable short that will affect the operation of the chiller.
- The system is disabled in the control parameters. When turning the electrical disconnect on, the system will not begin circulating. It will provide power to the system heaters only until a startup technician enables the system operation.

SECTION 6 — PRE-STARTUP READINESS CONFIRMATION

- ☐ Installation complies with ANSI/ASHRAE 15
- ☐ AHJ approvals/permits obtained where required

- ☐ Chiller installation location allows proper airflow and accessibility for maintenance
- ☐ Chiller is anchored and supported
- ☐ Chiller is not located near a heat source
- ☐ Chiller is plumbed into the process equipment, or a temporary loop has been created until process equipment arrives.
- ☐ Field piping sized and installed according to spec.
- ☐ Fluid plumbing has been flushed clean.
- ☐ Chiller reservoir and field plumbing with the correct glycol and water concentration.
- ☐ Glycol concentration validated with a **refractometer**
 - Glycol concentration level _____%
- ☐ Electrical service to the chiller is connected and matches the chiller power requirements per the data tag.
- ☐ Field wiring is correct and to print. All connections and terminations are tight.
- ☐ Chiller remote display has been installed and mounted inside the MR suite.
- ☐ Chiller power disconnect turned on to chiller for a minimum of 8 hours before for start-up.
- ☐ Email Checklist and any photos of chiller and location to MedScheduling@dimplexthermal.com.
- ☐ Checklist submitted ≥ 5 business days prior

SECTION 7 — FINAL SIGNOFF

Required Signatures & Information:

This checklist must be fully completed and submitted to DTS before a startup visit can be scheduled. The installation team(s) hired by the site are responsible for completing all items on the checklist. The completed form should be emailed to MedScheduling@dimplexthermal.com.

DTS and our techs are not responsible for any of the checklist items listed below. If the DTS startup technician arrives and finds that the checklist items have not been completed, they will leave the site without completing the startup. In this case, the signatory of this form will be responsible for an immediate flat-rate fee.

Submit the fully completed checklist at least 5 business days in advance to MedScheduling@dimplexthermal.com. This is necessary before a startup technician can be scheduled to perform the service. For installation specifications, please refer to the chiller manual or contact the DTS Medical Service Department directly.

By signing below: I hereby acknowledge that all items on this list have been completed in accordance with the chiller manual installation specifications and that I agree to the terms listed above. I also acknowledge that any delays in the startup not due to fault of the chiller, DTS, or the local service representative of DTS and their resulting cost are my responsibility. Please contact the DTS Medical Service Team at 1-800-968-5665 with any questions or concerns.

_____ Site Name		_____ Site Address	
_____ Site Contact Name or Department Name		_____ Department Phone #	
_____ Chiller Serial #	_____ Chiller Model	_____ Requested Startup Date	
_____ Signature of Install Manager (GC)		_____ Phone	_____ Printed Name
_____ Install Manager (GC) Company Name		_____ Install Manager (GC) Email	

*Chillers located in remote rural areas may require additional time for startup assistance. DTS will communicate immediately if the area requires additional time. DTS factory technician startup visits require a minimum two weeks' notice for travel coordination and scheduling.

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