DryGair Dehumidification Systems

Maintenance & Cleaning Manual

Consolidated Reference — Routine Checkup, Annual Maintenance, and Coil & Drainage Basin Cleaning Protocol

2026 Edition

This document is organized by maintenance frequency. Each section is self-contained and can be followed on its own; cross-references point to the detailed cleaning procedures shared across sections so that steps are documented once and referenced wherever they apply.

General Safety Information

The following safety notices apply throughout this manual and must be observed before performing any procedure described in the sections that follow.

WARNING

High voltage is present at points throughout the system. Contact can result in injury or death. Before opening the system's electrical compartment, ensure you are familiar with the location of the external circuit breaker to the system.
All work on the electrical panel shall be carried out by a qualified electrician.

CAUTION

Avoid direct water contact with the unit sensors. Do not immerse them in water and/or spray direct water at them.

CAUTION

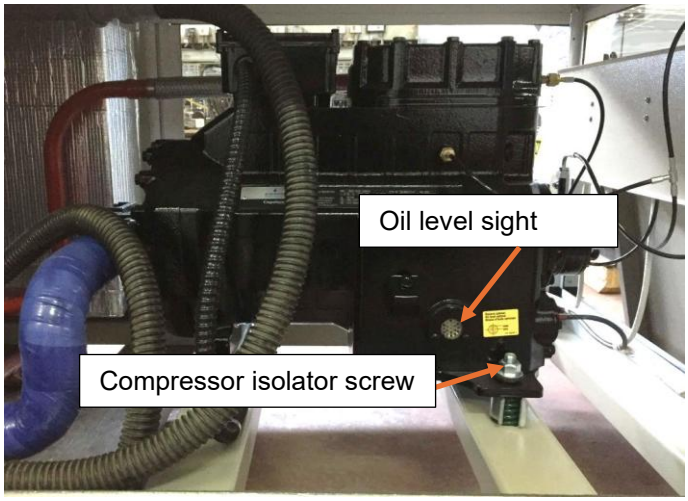
Do not use gasoline or solvents, especially acidic detergents, as they might damage the paintwork, transparent parts, cable insulation, etc.

All procedures in this manual should be performed by a qualified person who is familiar and trained in working with DryGair dehumidification systems. For yearly inspection and maintenance, it is recommended to also have an HVAC technician or/and electrician available to assist.

Section 1 — Routine Checkup

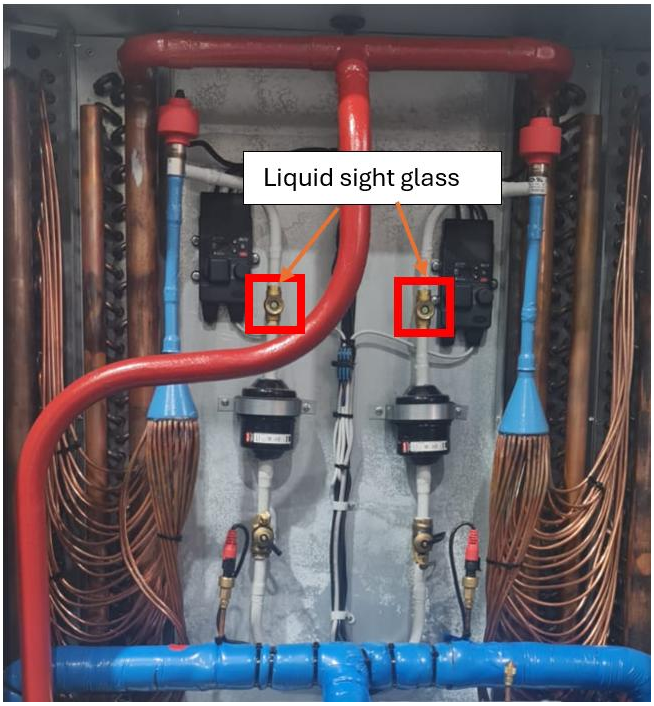
Perform the following checks at every routine checkup.

- ☐ Visually inspect the unit, verifying the unit is operating properly and noticing if there is anything unusual.
- ☐ Clean the unit and its surroundings from any foreign material.
- ☐ Check to see if there are any oil stains or residues. If found, identify the origin. If excessive or unusual oil residue is detected, please contact your local DryGair representative or submit a service call for further inspection.
- ☐ Check the compressor oil level. If oil is missing, check again after the unit has been operating for at least 30 minutes.



Compressor isolator screw and oil level sight glass

- ☐ Check that the compressor isolator screws have not become loose.
- ☐ Check the refrigerant charge:
  - Run the unit for about 15 minutes.
  - Approach the unit's side panel (on the right) and open the service door.



Liquid sight glass

- Remove the side cover and check that there are no bubbles at the sight glass.
- Check that the evaporator coil is evenly wet across its surface. Partial wetness indicates a loss of refrigerant or a low charge.



Oil, high-pressure, and low-pressure switches

- Make sure the main circuit is off, then check all wiring connections and tighten the screws, if necessary, especially in the electrical panel.
- Inspect the electrical panel door seals. Ensure that the seals are in good shape.
- If this is a unit equipped with **Sulphur Protection**, ensure that the coating remains intact (free of cracks or peeling) and has not been damaged during the service period. If any defects are found, touch-up repairs may be carried out using EnergyGuard or Blygold coating products. In the case of extensive coating damage or widespread paint issues, we recommend contacting EnergyGuard or Blygold directly for further guidance. For EnergyGuard maintenance, refer to the document linked in Appendix B.

Support Resources

For questions, troubleshooting, and further guidance:

- Support videos: DryGair website — service & support
- Operation manual: DryGair operation manual
- Direct contact: DryGair service & support contact

Section 2 — Annual Maintenance

Periodic cleaning and maintenance of the unit ensures efficient, long-term operation. It is recommended that the yearly inspection and maintenance be performed by a qualified DryGair person or representative, with an HVAC technician or electrician available to assist.

WARNING
Before performing the following procedures, power down the unit and disconnect the power cord.

Annual Checklist

General

- ☐ Visually inspect the unit, verifying the unit is operating properly and noticing if there is anything unusual.
- ☐ Clean the unit and its surroundings from any foreign material.
- ☐ Touch up any damaged or chipped body paint to preserve the unit body.
- ☐ Check to see if there are any oil stains or residues. If found, identify the origin. If excessive or unusual oil residue is detected, please contact your local DryGair representative or submit a service call for further inspection.
- ☐ Due to vibrations generated during unit operation, tighten all screws and electrical/mechanical connections once a year.

Coils and center of the unit

- ☐ Clean the evaporator and condenser coil surfaces. See Section 3 — Coil & Drainage Basin Cleaning Protocol for full instructions.
- ☐ Clean the drainage basin. See Section 3 — Coil & Drainage Basin Cleaning Protocol for full instructions.
- ☐ Check the refrigerant charge: run the unit for about 15 minutes, remove the side cover, and confirm there are no bubbles at the sight glass; the evaporator coil should be evenly wet across its surface (partial wetness indicates a loss of refrigerant or low charge).
- ☐ Make sure the humidity sensor is calibrated.

Fans

- ☐ Check that the fans are firmly secured to the motor shaft and rotate freely. The fan motor is sealed for life and does not need lubrication.
- ☐ Check the electric currents of the fans.

Compressor

- ☐ Check that the compressor isolators have not become loose.
- ☐ Tighten the compressor taps and pressure switches to prevent refrigerant leaks.
- ☐ Check the electric currents of the compressor.

Electric panel

- ☐ Check all wiring connections and tighten screws, if necessary, especially in the electrical panel.

- Inspect the electrical panel door seals. Ensure the seals are made of closed-cell foam rubber to provide optimal sealing.

Special Addons

- If this is a unit equipped with **Sulphur Protection**, ensure that the coating remains intact (free of cracks or peeling) and has not been damaged during the service period. If any defects are found, touch-up repairs may be carried out using EnergyGuard or Blygold coating products. In the case of extensive coating damage or widespread paint issues, we recommend contacting EnergyGuard or Blygold directly for further guidance. For EnergyGuard maintenance, refer to the document linked in Appendix B.

Internal Coil Access (If needed)

Accessing the internal coils requires dismantling and removing the fans on the roof of the unit. Without removing the fans, only the external half of the unit can be accessed. For the cleaning steps themselves, see Section 3.

1. Check that the electrical power cabinet door is closed and sealed.
2. Remove the screws attaching the fans to the roof of the unit.



Figure 1 — Fans on roof top

3. Remove the fans to gain access to the internal coils and fins, as shown below.



Figure 2 — Internal view from roof, fans removed

4. Clean and inspect the internal coils and fins following the procedure in Section 3 — Coil & Drainage Basin Cleaning Protocol.
5. Inspect the aluminum coil fins for damage and carefully straighten any bent fins with the supplied fin comb.
6. Reconnect the fans to the roof.

Section 3 — Coils & Drainage Basin Cleaning Protocol

This section is the detailed cleaning reference used by both the routine and annual maintenance procedures above (Sections 1 and 2). It applies whenever the checklist calls for coil cleaning, drainage basin cleaning, or disinfection.

NOTE
The cleaning order is important. First clean the evaporation/condensation coils. Then clean the drainage basin.

Online video can be found: https://drygair.com/maintenance/

Preliminary Procedures

- Visually inspect the system, verifying it is operating properly and noticing if there is anything unusual.
- Clean the system and its surroundings from any foreign material.
- Disconnect the unit from the power source.
- Seal the electrical compartment door, to ensure no debris or moisture enters the electrical compartment during the cleaning process. (For added safety, seal the electrical panel and any exposed electrical components, including sensors with a plastic bag prior to cleaning operations).
- Check that the electrical compartment door is closed tightly. If not, tighten it.
- Disconnect the drainage pipe from the drainage system.
- Remove oil and sludge with a clean cloth. If necessary, use a paintbrush dipped in oil, or a suitable cleaning material.

CAUTION
Do not use gasoline or solvents, especially acidic detergents, as they might damage the paintwork, transparent parts, cable insulation, etc.

Cleaning the Coils

Coil cleaning and disinfection should be performed along the entire coil area.

NOTE
Before you begin, check that the electrical compartment door is closed and sealed and that the unit is disconnected from the drainage system.

CAUTION
An adequate safe distance from the coils must be maintained during the cleaning process to ensure the coil fins will not be damaged.

WARNING
Steam cleaning must only be performed by a qualified person to prevent damage to the coil cooling fins.

Cleaning the External Coils and Fins

- Clean the evaporator and condenser coil surfaces by gently blowing the dirt out from behind the fins with low-pressure compressed air. To avoid damaging the fins, avoid aiming the air nozzle directly at the coils. Alternatively, gently vacuum clean the coils.
- Gently wipe the coils with a semi-wet cloth.
- Further cleaning can be done by steam (by a qualified person only, per the warning above) or by using a cleaning substance designed for air conditioning systems — for example, ACE® Foam N' Clean® Coil Cleaner.
- If using ACE ECO-KLEEN (EKC): (see manufacturer's instructions) dilute 1:4 with water (4 liters of water per liter of cleaning fluid), spray the coil with a low-pressure sprayer, leave the material on the coil for 5–20 minutes (as instructed), then rinse with water.
- After washing, wait 30 minutes, then remove any protective wrap from the sensors and electrical panel before turning the unit back on.
- If any aluminum fins on the coil are bent or crooked, straighten them using a fin comb / fin straightener.
- Keep a record of the cleaning fluid's serial number and technical details for maintenance documentation.
- After cleaning, leave all unit doors open to let all internal parts dry.
- Check the electrical compartment to ensure nothing got wet and that there is no moisture.

Cleaning the Internal Coils and Fins

Accessing the internal coils requires dismantling and removing the fans on the roof of the unit; access is from the top of the unit. Otherwise, only the external half of the unit can be accessed. See Section 2 — Internal Coil Access for the fan removal procedure (Figures 1 and 2).

- Check that the electrical power cabinet door is closed and sealed.
- Once the fans are removed and the internal coils are accessible, follow the same cleaning procedure described above for the external coils.
- Inspect the aluminum coil fins for damage and carefully straighten any bent fins with the supplied fin comb.
- Reconnect the fans to the roof once cleaning is complete.

Cleaning the Drainage Basin

NOTE

Before you begin the cleaning procedure, disconnect the drainage pipe from the drainage basin.

- Remove the unit's coil access covers and doors, located on the right and left sides of the unit beside the coils.
- Prepare the cleaning substances as detailed in the manufacturer's instructions.
- Apply or spray the material along the drainage basin at a slow flow.
- After completing the basin cleaning, leave the unit covers and doors open to ensure all internal parts are dry.
- Check the electrical compartment to ensure nothing got wet and that there is no moisture.

Antibacterial and Antifungal Treatment

It is possible to apply antibacterial and antifungal materials approved for air conditioning systems to disinfect the coils and drainage basin — for example, ACE® Evap-Guard or ACE® Evap-Guard Plus. Always follow the manufacturer's instructions to guarantee the integrity of the unit.

- ACE® Foam N' Clean® Coil Cleaner
- ACE® Evap-Guard
- ACE® Evap-Guard Plus

Professional HVAC Cleaning Companies

If you choose to hire an external cleaning service, make sure the company is professionally trained and certified for cleaning and handling coils and similar components as found in DryGair dehumidification systems, and that they have reviewed this cleaning protocol and the operation manual before starting work.

Appendix A — Maintenance Frequency at a Glance

The table below summarizes which checklist each task belongs to, for quick reference.

Task	Routine	Annual	Coils Cleaning
Visual inspection of unit	X	X	
Clean unit & surroundings of foreign material	X	X	
Check oil stains / residues	X	X	

Task	Routine	Annual	Coils Cleaning
Check compressor oil level	X		
Check compressor isolators	X	X	
Check refrigerant charge / sight glass	X	X	
Check fan security & free rotation	X	X	
Tighten compressor taps & pressure switches	X	X	
Check wiring connections / tighten screws	X	X	
Sulphur Protection coating check	X	X	
Inspect electrical panel door seals	X	X	
Touch up body paint		X	
Check compressor & fan electric currents		X	
Tighten all screws / connections (vibration)		X	
Calibrate humidity sensor		X	
Clean evaporator / condenser coils		X	X
Clean drainage basin		X	X
Internal coil access (fan removal)		X	X
Antibacterial / antifungal treatment			X

Appendix B — References & External Resources

DryGair Resources

- DryGair Service & Support (videos)
- DryGair Operation Manual
- ENERGYGUARD (Sulphur Protection) maintenance document

Components & Cleaning Products

- CAREL IR33 humidity controller
- ACE® Foam N' Clean® Coil Cleaner
- ACE® Evap-Guard
- ACE® Evap-Guard Plus

Note on Source Discrepancy

NOTE

The annual maintenance source document contains an embedded warning image stating “Do not steam-clean the heat exchanger coils,” which conflicts with the steam-cleaning allowance described in the main text of all three source documents (steam cleaning permitted if performed by a qualified person). This manual follows the main text of the source documents, consistent across all three; the conflicting embedded image was not carried over. Please confirm the correct guidance with DryGair before steam-cleaning coils.