

Facilities Management Freezer Maintenance Program

The freezer department in facilities management at the Anschutz Medical Campus provides our customers with Quality freezer maintenance services. Our services include both preventive and corrective maintenance to keep your unit running efficiently and to extend the useful life of the unit. Our department services a variety of freezers including -80 ultra-low freezers, -20 freezers, +4 refrigerators, -20C freezer/+4 refrigerator combos, and Ice machines. Our hourly rate is \$108 an hour with no trip fees. We do charge a 7% overhead recovery fee for all materials and parts used.

To schedule maintenance on your equipment, you will need to create a work order through Maximo or by calling customer service at 303-724-1777. When creating a work order, please include the location of the equipment, alarm number (If connected to the building alarm system), description of work requested or the problem the equipment is experiencing, contact information, and speed type to be used.

We have multiple options for freezer preventive maintenance (PM) including an annual PM, a semi-annual PM, and a quarterly PM. The PM that we highly recommend is the Annual PM. We can also adjust PM's according to your needs and abilities.

Please refer to the information below for different freezer preventive maintenance options

Annual Preventive Maintenance: 3-6 Hours (Highly recommended)

Customers Responsibility

- The customer will remove all content from the equipment
- The customer will conduct a 72-hour defrost on the equipment
- The customer will clean equipment and have the equipment green tagged by EH&S

Technicians' Responsibility

- Verify Green Tag on equipment
- Schedule preventive maintenance with the customer.
- Turn equipment on and monitor equipment until it reaches the desired temperature (can take up to 24 hours [multiple visits])
- Make an initial check of frost/ice build-up, including around the door gasket and vacuum relief port. Request owner to defrost unit.
- Check and record controller diagnostics for a history of problems. _____
- Make a general inspection of the unit for unusual conditions (noisy compressor, loose access panels, leaking connections, loose wire connections, etc.).
- Check and clean door gaskets.
- Check and clean the vacuum relief port; Check the operation of the vacuum relief port heater.

- Clean or change the air filter if applicable, and vacuum and clean the condenser coil and fan blades.
- Inspect and lubricate condenser and cooler fan motors as applicable.
- Check for signs of refrigerant leaks; Check the condition of system insulation.
- Check Voltage Compensation if available: Line: _____ V, Buck: _____ V, Boost: _____ V, Setpoints: _____
- Record condenser fan & cooling fan motor amps: Cond: _____, Cool: _____.
- Check condition of compressor start components; Perform 500V insulation test on compressors, record results: 1st Stage: _____, 2nd Stage: _____.
- Inspect the condition of contactors: 1st stage: _____ mV, 2nd stage _____ mV
- Record compressor amps: 1st stage _____, 2nd stage _____
- Check operational temps: Amb _____; 10-Min 1st stage only: T1: _____, T2: _____, HXG: _____
- 20-min pull-down: T1: _____, T2: _____, T3: _____, T4: _____, T5: _____; HXG: _____, Cabinet: _____
- Check the performance of the monitor/Alarm battery.
- Zero Condenser Sensor where available.
- Check calibration and operation of cabinet temperature and alarm sensors, and calibrate if needed.
- Check safeties; Check the operation of the system.
- Test dry-contact alarms: High Temp Alarm: _____, Low Temp Alarm: _____, Loss of Power Alarm: _____.
- Notify the customer when work is complete and to ensure that Alarm Contact details are up-to-date.

Annual Filter, Condenser, Visual Overview: .25-.5 Hours (Minimum Recommendation)

Technicians' Responsibility

- Contact customer to see if they want the work performed
- Conduct a visual inspection of the unit for any abnormal sights, sounds, or smells
- Check to see if there is excessive ice build-up
- Check display for any alarms
- Clean the filter
- Clean the condenser
- Contact customer and notify them when the work is complete
- Recommend any further maintenance that is required or suggested to keep the equipment operating efficiently and effectively.

Semi-Annual Preventive Maintenance: 2-4 Hours

Technicians' Responsibility

- Schedule preventive maintenance with the customer.
- Check and clean door gaskets
- Check and record controller diagnostics for the history of problems. _____
- Make a general inspection of the unit for unusual conditions (noisy compressor, loose access panels, leaking connections, loose wire connections, etc.).
- Clean or change the air filter if applicable, vacuum clean, and check the condenser coil.
- Check for signs of refrigerant leaks.
- Record condenser fan & cooling fan motor amps: Cond: _____, Cool: _____
- Inspect the condition of all contactors: 1st stage: _____ mV, 2nd stage _____ mV
- Record compressor amps: 1st stage _____, 2nd stage _____
- Check operational temps: Amb _____; 10-Min 1st stage only: T1: _____, T2: _____, HXG: _____
- 20-min pull-down: T1: _____, T2: _____, T3: _____, T4: _____, T5: _____; HXG: _____, Cabinet: _____
- Check the performance of the monitor/Alarm battery.
- Check safeties; Check the operation of the system.
- Test dry-contact alarms: High Temp Alarm: _____, Low Temp Alarm: _____, Loss of Power Alarm: _____.
- Notify the customer when work is complete and to ensure that Alarm Contact details are up-to-date.

Quarterly Preventive Maintenance: 1-2 Hours

Technicians Responsibility

- Schedule preventive maintenance with the customer.
- Check and clean door gaskets
- Check and record controller diagnostics for the history of problems. _____
- Make a general inspection of the unit for unusual conditions (noisy compressor, loose access panels, leaking connections, loose wire connections, etc.).
- Clean or change the air filter if applicable, vacuum clean, and check the condenser coil.
- Check for signs of refrigerant leaks.
- Check the operation of the condenser fan & cooling fan
- Check operational temps: Amb _____; 10-Min pull-down: T1: _____, T2: _____, T3: _____, T4: _____, T5: _____; HXG: _____, Cabinet: _____
- Test dry-contact alarms: High Temp Alarm: _____, Low Temp Alarm: _____, Loss of Power Alarm: _____.
- Notify the customer when work is complete and to ensure that Alarm Contact details are up-to-date.

If you have any questions, please feel free to contact the department supervisor Jason Smith at jason.d.smith@cuanschultz.edu