

**SUMMER 2020 ONLY**  
 PREVENTIVE MAINTENANCE CHECK SHEET

Technician:		<b>Make a copy and leave visible in motor room and send a copy to Miller Construction Services, Inc. Email to Service@millerconstructionservices.com</b>
Date:		
Warehouse:		

**Manager Signature** \_\_\_\_\_

ITEM	PREVENTATIVE MAINTENANCE	Complete Yes/No	Extra Work Required	Notes
1	Check in with Warehouse Manager			
2	Inspect and tighten all electrical connections on racks and check compressor contactors for wear			
3	Check all oil safety contacts, high/low pressure controls and other compressor controls for proper settings. Verify that they function properly			
4	Check all compressors for signs of short cycling. Note any compressors that are short cycling.			
5	Check and record suction set points: Rack A: _____ Rack B: _____ Rack C: _____ Rack D: _____			
6	Check and record power supply voltage for each rack: Rack A L1-L2: _____ L2-3: _____ L1-L3: _____ Rack B:L1-L2 _____ L2-3: _____ L1-L3: _____ Rack C:L1-L2 _____ L2-3: _____			
7	Verify phase monitor settings if present			
8	Verify proper heat reclaim operation and check for leaks on tank. Heat reclaim#1 temp out _____ Heat reclaim#2 temp out _____			
9	Check compressor oil levels. Rack A oil resevoir level: _____ Rack B oil resevoir level _____ Rack A oil condition & color _____ Rack B oil condition & color _____			
10	Check and record refrigerant levels: Rack A:R- _____ Level: _____ Rack B:R- _____ Level: _____ Rack C:R- _____			
11	Verify that all schrader valves have caps in place and that all service valves have caps on valve stems. NO PLASTIC CAPS on Schrader valves.			
12	Inspect all hydrozorb, vibration eliminators, and super hoses. Note if any could be refrigerant leak issues in the future and if so, write up to be replaced. All super hoses are to be replaced using the braided hose (not the rubber)			
13	Check and record color of moisture indicator on each rack: Rack A: _____ Rack B: _____ Rack C: _____ Rack D: _____			
14	Check crankcase heater operation if applicable.			

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15	Check transducer calibration. If less than 10psi off, then calibrate transducer. If more than 10psi off, mark it for replacement on T & M.			
16	Check head fan motor operation. Clean fan guards and oil coolers.			
17	Check condenser fan contactors			
18	Inspect condensers and verify that all fans function. Check condenser settings in controller.			
19	Check settings on split condenser and verify operation.			
20	Check for proper air flow through condensers.			
21	On systems, check and record condenser subcooling: Rack A _____ Rack B: _____ Rack C _____ Rack D: _____			
22	Check condenser fans, fan blades, brackets and where it attaches to the frame for vibration and stress cracks. Check the first two banks on each condenser.			
23	Check all systems for floodback and note.			
24	Inspect cases for proper airflow and case operation.			
25	Brush off all case return air grills as needed.			
26	Inspect trim on all cases. Secure loose pieces and eliminate hazardous and sharp edges. Make sure there are no safety issues for customers or employees.			
27	Check all glass doors to ensure they close properly. Also check gaskets.			
28	Check anti-sweat controls, if applicable for proper operation.			
29	Clean radiators on pumps (if applicable)			
30	Inspect walk in cooler/freezer evaporator coils and fan guards for dirt and ice. Check that all fans are operating			
31	Confirm All alarm settings and temperature settings in refrigeration controller are to Costco specification. Note any adjustments or changes and notify MCS.			
32	Check all circuit temperatures in controller. Verify that all systems are maintaining proper temperatures.			
33	Check alarm logs. Identify recurring alarms that need attention.			
34	Test and verify that local alarm lights and horn function properly. Also test and verify that refrigeration alarm connection is hooked up by simulating a rack alarm and confirming warehouse receives notification of that alarm from the alarm company.			
35	Check entire warehouse for leaks with electronic leak detector, including rooftop condensers. This needs to be noted on a separate service ticket with the hours spent leak checking			

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36	Check refrigerant piping clamps and hangers. Tighten loose connections.			
37	Check all refrigeration room doors for proper sealing and operation (POS boxes, Prep rooms, Coolers, Shop-In's, etc.)			
38	Check all lighting in Cases, Prep rooms, POS boxes, Coolers, Shop-Ins, etc. Note those that need replacement.			
39	Visually check refrigerant piping insulation for missing sections or splits.			
40	Check operation of machine room ventilation room. Verify that exhaust fan/damper works.			
41	Clean compressor room. Empty any garbage cans. Remove oil from racks, compressors, frames, rack pans and lines.			
42	Inspect all self contained refrigerated units in store for proper operation and clean condensers.			
43	If Required: Inspect Cooling Tower (If Tower requires cleaning, then perform cleaning on T & M). Check overall function of Tower. Grease or lube bearings, check belts.			
44	Check HCR Air Door/s for proper function and calibration using ribbon test. Also check belts for wear.			
45	Leave a copy of this inspection report in machine room file box.			
46	Test Freon Leak Detector(s) to confirm proper function and that they properly communicate with Micro Thermo if present or the rack controller.			
47	Check operation of all exhaust fans in pizza, chicken, bakery, meat, and deli prep areas.			
48	Clean condensers on Ice O Matic ice machine in meat area.			
49	Clean Meat Department ice machines using nickel safe cleaner and sanitizer.			
50	Complete electrical check on floral cases (drains cleaned, pan and heater checked for corrosion, float for operation). If new style floral case (on a pump) change out filters for condensers.			
51	Complete Alarm form and signature by warehouse manager.			
52	<b>If Glycol System is Present</b>			
53	Check Pump Controls to insure proper operation (low temp thermostat, Pump differential pressure switches, system relief valves), note any issues			
54	Verify the pump cycling sequence is operating correctly			
55	Check the low temperature (freeze stat) turns off the liquid line solenoid valve(s)			
56	If pump bearings are not sealed (grease if needed)			
57	Visually inspect pumps/piping/exchangers for signs of leaks, note any leaks for repair.			

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58	Leak check glycol system for refrigerant leaks. At valve station on top of Meat/Dairy Cooler, crack a valve to check for refrigerant being present in glycol system. If noticed, get sample and notify MCS immediately.				
59	Check Glycol concentration percentage to make sure it is 35%- Check Glycol Temperature with refractometer. Take a picture and send to MCS.				
60	Check for visible Glycol level in overflow tank				
61	Wipe down pan for pump station				
62	<b>Check the pressure differential across Coalescing Oil Separators. Need to check and record pressure difference and replace filter pressure difference if 5 psi or greater.</b>				
63	<b><u>Cleaned motor room photos sent to MCS. Please email photos to Service@millerconstructionservices.com</u></b>				
64	<b><u>Check electrical panels on Refrigeration mezzanine or Electrical mezzanine and ensure they are properly secured to the wall.</u></b>				
<b><u>Items that Require Additional Work</u></b>		Reason for Follow-Up			
		Product	Refrigerant	Energy	Maintenance
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					