**This Prefunctional Checklist should be completed as part of startup and initial checkout of the equipment in preparation for Functional Performance testing.**

|  |  |
| --- | --- |
| PC: | **23 90 00** |
| **ITEM:** | **Produce – Medium Temperature Case** |
| **ID:** |  |
| **AREA SERVED:** |  |

Form Filled Out By:

|  |  |  |
| --- | --- | --- |
|  | Name & Company | Date |
| GC |  |  |
| FS |  |  |
| EC |  |  |
| MC |  |  |
| OR |  |  |
| A/E |  |  |
| CA |  |  |

GC = General Contractor; FS = Food Contractor; EC = Electrical Contractor; BC = Balancing Contractor; OR = Owner Representative; A/E = Architect/Engineer; CA = Commissioning Agent; MC = Mechanical Contractor

XX = No Initials Required

# DOCUMENTATION VERIFICATION

Check if OK. Enter note number if deficient.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Item** | **GC** | **FS** | **EC** | **MC** | **CC** | **OR** | **A/E** | **CA** |
| Product information submitted |  |  |  |  |  |  |  |  |
| Shop drawings submitted |  |  |  |  |  |  |  |  |
| Manufacturer’s installation instructions submitted |  |  |  |  |  |  |  |  |
| Manufacturer’s startup instructions submitted |  |  |  |  |  |  |  |  |
| O & M Manuals submitted |  |  |  |  |  |  |  |  |
| Factory test report submitted if applicable |  |  |  |  |  |  |  |  |
| Manufacturer’s representative start-up and check out complete and report submitted. |  |  |  |  |  |  |  |  |

# MODEL VERIFICATION

Fill in requested information.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Installed | **Submitted** | **Specified** |
| Manufacturer |  |  |  |
| Model |  |  |  |
| Refrigerant type |  |  |  |

# INSTALLATION VERIFICATION

**This checklist does not take the place of the manufacturer’s recommended checkout and startup procedures or report.**

Check if OK. Enter Outstanding Item Note number if deficient.

| **No** | **Item** | **GC** | **FS** | **EC** | **MC** | **CC** | **OR** | **A/E** | **CA** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Unit in good condition with no damage present |  |  |  |  |  |  |  |  |
| 2 | Unit is level (side to side and front to back) |  |  |  |  |  |  |  |  |
| 3 | Unit interior/exterior cleaned |  |  |  |  |  |  |  |  |
| 4 | Gasket and seals are in good condition |  |  |  |  |  |  |  |  |
| 5 | Confirm a minimum of 3” of space is present between the rear of the case and wall for proper air circulation |  |  |  |  |  |  |  |  |
| 6 | Before refrigeration connection - Depress the universal line valve to ensure that coils have maintained factory pressurization |  |  |  |  |  |  |  |  |
| 7 | Confirm protective shroud is in place at merchandiser refrigeration connection |  |  |  |  |  |  |  |  |
| 8 | Refrigerant Suction Line – Confirm line is pitched in the direction of flow |  |  |  |  |  |  |  |  |
| 9 | Refrigerant Suction Line – Confirm merchandiser suction lines enter at the top of the branch line |  |  |  |  |  |  |  |  |
| 10 | Refrigerant liquid line – Confirm take-offs to merchandiser liquid lines exit the bottom of the branch liquid line |  |  |  |  |  |  |  |  |
| 11 | Refrigerant liquid line – Confirm an expansion loop for each evaporator take-off is present. Minimum 3in loop |  |  |  |  |  |  |  |  |
| 12 | Confirm caps on the TEV’s are securely fastened. (Removal of cap will result in refrigerant loss unless the system is first isolated and refrigerant is recovered). |  |  |  |  |  |  |  |  |
| 13 | Defrost can be terminated by either temperature or time. Verify the method selected is appropriate for the installation. (Temperature termination is for parallel systems with EPR’s or suction stop solenoids and Single compressor units without pump-down cycles. Time terminations should be used for Parallel systems with thermostat and liquid solenoid, single compressor units with pump-down) |  |  |  |  |  |  |  |  |
| 14 | Confirm water seal and waste outlets are installed at each end of the merchandiser to prevent air leakage and insect entrance into merchandiser |  |  |  |  |  |  |  |  |
| 15 | Drip piping is pitched in the direction of flow. (Minimum pitch of 1/4in per foot) |  |  |  |  |  |  |  |  |
| 16 | Ensure drip piping is supported to relieve any stress on pipe connectors and drain hub. |  |  |  |  |  |  |  |  |
| 17 | Confirm drip piping support is within 24” from drain hub tee. |  |  |  |  |  |  |  |  |
| 18 | Confirm drip pipes are protected against freezing |  |  |  |  |  |  |  |  |
| 19 | Splashguards and cover trim are properly installed. |  |  |  |  |  |  |  |  |
| 20 | Confirm trim is lying flush with the floor but is not sealed to the floor |  |  |  |  |  |  |  |  |
| 21 | Confirm air discharge and return opening are free of obstructions to provide proper refrigeration and air curtain performance |  |  |  |  |  |  |  |  |

# OUTSTANDING ITEMS

Note outstanding items in table below. Use numbers referenced above.

|  |  |  |
| --- | --- | --- |
| Resolved (Initial / Date) | **Note** | Description |
|  | **1.** |  |
|  | **2.** |  |
|  | **3.** |  |
|  | **4.** |  |
|  | **5.** |  |
|  | **6.** |  |
|  | **7.** |  |
|  | **8.** |  |
|  | **9.** |  |
|  | **10.** |  |

# FIELD NOTES

Fill in as appropriate.

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

# SIGN OFF

System / Equipment has been installed in accordance with the Contract Documents and is ready for Functional Testing.

|  |  |  |
| --- | --- | --- |
|  | **Signature** | **Date** |
| **Contractor’s Representative** |  |  |
| **A /E Representative** |  |  |
| **Commissioning Agent** |  |  |
| **Owner’s Representative** |  |  |

##### END OF CHECKLIST