**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:** | **Air Cooled Condensing Units** |
| **ID:** |  |
| **AREA SERVED:** |  |

Form Filled Out By:

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

GC = General Contractor; MC = Mechanical Contractor; EC = Electrical Contractor; RMCS = Refrigerant Management Control System Contractor, OR = Owner Representative; A/E = Architect/Engineer; CA = Commissioning Agent

XX = No Initials Required

# DOCUMENTATION VERIFICATION

Check if OK. Enter note number if deficient.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Item** | **GC** | **MC** | **EC** | **RMCS** | **OR** | **A/E** | **CA** |
| Product information submitted |  |  |  |  |  |  |  |
| Shop drawings submitted |  |  |  |  |  |  |  |
| Manufacturer’s installation instructions submitted |  |  |  |  |  |  |  |

# MODEL VERIFICATION

Fill in requested information.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Specified | **Submitted** | **Installed** |
| Brand |  |  |  |
| Model Number |  |  |  |
| Mark No |  |  |  |
| System No |  |  |  |
| Refrigerant Type |  |  |  |
| Capacity |  |  |  |
| Fan Motor Data – HP/RPM |  |  |  |
| Fan Motor Data – Volts |  |  |  |
| Fan Motor Data - FLA |  |  |  |

# 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** | **Checks** | **GC** | **MC** | **EC** | **RMCS** | **OR** | **A/E** | **CA** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Unit is in good condition with no damage present |  |  |  |  |  |  |  |
| 2 | Unit is delivered to site with pressurized nitrogen gas holding charge. Confirm unit is still pressurized |  |  |  |  |  |  |  |
| 3 | Unit is installed on a firm, level base to assure optimum unit performance |  |  |  |  |  |  |  |
| 4 | Confirm adequate space is present to allow unrestricted ambient airflow in to and out of the fan section |  |  |  |  |  |  |  |
| 5 | Verify unit operations will not be effected by heated air exhausts, steam vents, or corrosive airflow from the job site or from another nearby source |  |  |  |  |  |  |  |
| 6 | Confirm unit location will not cause noise or vibration to be transmitted into sensitive spaces |  |  |  |  |  |  |  |
| 7 | Check fan blade clearances within the venturies so that each fan is horizontally centered in the venture. |  |  |  |  |  |  |  |
| 8 | Refrigerant piping is properly supported at proper intervals |  |  |  |  |  |  |  |
| 9 | (Field Piping) Confirm nitrogen is used to purge air from the connecting tubing during brazing in order to prevent copper oxide formations |  |  |  |  |  |  |  |
| 10 | A pressure tap valve is installed at the highest point in the condenser inlet piping run to facilitate the removal of inadvertently trapped non-condensable gases from the system. |  |  |  |  |  |  |  |
| 11 | “P” traps are installed at the base of all vertical discharge riser lines to facilitate proper oil return to the compressor. |  |  |  |  |  |  |  |
| 12 | Pressure testing of the refrigerant pipe has been completed after all field piping has been completed and before any refrigerant charging is done. |  |  |  |  |  |  |  |
| 13 | Field and factory joints have been leak tested using an electronic type leak tester before charging the system |  |  |  |  |  |  |  |
| 14 | Confirm electrical termination are correct to fan motor(s) and disconnects |  |  |  |  |  |  |  |
| 15 | Confirm wiring terminations are securely fastened and supported |  |  |  |  |  |  |  |
| 16 | Confirm fuses are properly sized an in place before operating fan motors |  |  |  |  |  |  |  |
| 17 | Confirm each fan rotation is correct during start up. *(Airflow should pass through the coil surface first, flow through the fan and away from the unit)* |  |  |  |  |  |  |  |

# 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 have 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