

MEP – SITE WORKS CHECKLIST

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# THE CHECKLIST

  

## FOR

  

# M.E.P - SITE WORKS



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**A. DOCUMENTATION**

- Manufacturer's performance data (fan curves, coil, etc.).
- Installation and startup manual.
- Sequences and control strategies.
- Manufacturer's manuals.
- Successful deflection test.
- Successful leakage test.

**B. CABINET INSTALLATION**

- Permanent labels affixed (including fans).
- Exterior casing in good condition (no dents, scratches, etc.)
- Interior casing in good condition (no dents, rust, etc.)
- Access door gaskets installed and doors close tightly.
- Access doors swing fully open with no obstruction.
- Boot between duct and AHU tight and in good condition.
- Vibration isolation equipment installed and functional.
- Maintenance access acceptable for unit and components.
- Instrumentation installed according to specification (thermometers, pressure gauges, flow meters, etc.)
- Equipment is clean and debris removed.
- Clean filters installed and filter replacement type, efficiency, and size permanently affixed to housing.
- Filters tight fitting.
- Filter differential pressure measuring device functional.

**C. COIL AND PIPING INSTALLATION**

- Pipe fittings complete and pipes properly supported.
- Pipes properly labeled and painted.
- Pipes and fittings properly insulated.
- Pipe strainers in place and clean.
- Pipe systems properly flushed.

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- Pipes leak tested and have no leaking, dripping, or seeping.
- Coils connected correctly.
- Coils are clean and fins are in good condition.
- Coil headers of specified material.
- Condensate drain pans properly piped, trapped, and sloped.
- Valves properly labeled.
- Valves installed in proper direction.
- Valves stroke fully and easily and spanning is calibrated.
- Valves not leaking when closed at normal operating pressure.
- Isolation valves installed per drawings.
- P/T plugs installed per drawings.

**D. SHEET METAL INSTALLATION**

- Ducts visibly sound, clean, sealed and in good condition.
- Ducts have no apparent flow restrictions.
- Ducts have sound attenuators installed if required.
- Ducts have turning vanes in square elbows.
- Duct balancing dampers installed per drawings and site visit.
- Duct balancing and control dampers operable.
- Dampers stroke fully and close tightly without binding.
- Damper linkages have minimum play.
- Damper spans calibrated and verified.
- Smoke and fire dampers installed properly and accessible.

**E. CONTROLS INSTALLATION**

- Thermometers and gauges visible from floor.
- Control system interlocks hooked up and functional.
- Smoke detectors in place.
- Low limit freeze stat sensor located properly.
- All control devices, pneumatic tubing and wiring complete.
- Static pressure or other controlling sensors properly located.

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- Static pressure or other controlling sensors calibrated.
- Installation of system and balancing devices allowed balancing to be completed following specified procedures and contract documents.
- The HOA switch properly activates and deactivates the unit.
- OAT, MAT, SAT, RAT, chilled water supply sensors properly located and secure (related OAT sensor shielded.)
- Inlet vanes aligned in housing, actuator spanned, modulate smoothly and proportional to input signal and EMS readout.

**F. FAN INSTALLATION**

- Supply fan and motor alignment correct.
- Supply fan belt tension and condition good.
- Supply fan protective shrouds for belts in place and secure.
- Supply fan and motor properly lubricated.
- Supply fan rotation correct.
- Supply fan has no unusual noise or vibration.
- Return/exhaust fan and motor aligned.
- Return/exhaust fan belt tension and condition good.
- Return/exhaust fan and belt protective shrouds in place and secure.
- Return/exhaust fan and motor lube lines installed and lubed.
- Return/exhaust fan rotation correct.
- Return /exhaust fan has no unusual noise or vibration.
- Vibration isolators leveled and shipping blocks removed.

**G. ELECTRICAL INSTALLATION**

- Pilot lights are functioning.
- Power disconnects in place and labeled.
- All electric connections tight.
- Proper grounding installed for components and unit.

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**H. FINAL INSTALLATION**

- Smoke and fire dampers are open.
- Startup report completed with this checklist attached.
- If unit was running during construction are the ducts and coils clean.
- Pressure variations between rooms match those indicated in contract documents.
- Pressure difference between building and OA match those indicated in contract documents.
- Specified sequences of operation and operating schedules have been implemented with all variations documented.
- Specified point-to-point checks have been completed and documentation record submitted for this system.

**I. SENSOR AND ACTUATOR CALIBRATION VERIFICATION**

- All field-installed temperature, relative humidity, CO, CO2 and pressure sensors and gages, and all actuators (dampers and valves) on this piece of equipment shall have the calibration accuracy verified using a calibrated reference.
- Sensors installed in the unit at the factory with calibration certification provided need not be field verified.
- Have all test instruments had a certified calibration within the last 12 months.