Division 23 Heating, Ventilating, and Air Conditioning (HVAC) pre-submittal checklist

PROJECT	SPEC SECTION	SUBMITTAL NO.

CHECKED BY	DATE

1. Before you start

These apply to every submittal, whatever the trade.

- [ ] Pull the exact spec section this package answers to, including addenda that changed it.
- [ ] Read the submittal articles in Part 1 and list every item they ask for.
- [ ] Confirm the transmittal names the right section number, and that each product is tagged to the paragraph it answers.
- [ ] Mark any deviation from the spec yourself on the transmittal. A declared deviation gets reviewed; a hidden one gets the package rejected.
- [ ] Keep a copy of exactly what you sent, with the date, for your submittal log.

2. Named manufacturers and products match the spec **Blocker**

Compare every product in the package to the manufacturer and model the spec names. If anything differs, attach the approved substitution or or-equal letter, or swap back before you send. Tick each item once you have checked it and nothing below applies without written approval.

- [ ] Chiller, RTU, or AHU manufacturer/model substitutions
- [ ] VAV box manufacturer changes (Titus, Price, Krueger, Nailor)
- [ ] Controls manufacturer substitutions (Honeywell, Johnson Controls, Siemens, Distech)
- [ ] Duct insulation or pipe insulation brand changes
- [ ] Pump manufacturer substitutions (Bell & Gossett, Grundfos, Armstrong)

3. Performance values meet the spec numbers **Blocker**

Put the data sheet next to the spec and compare the actual values, not just the test method. A sheet that says "tested per ASTM" without the number is not proof. Tick each value once it meets or beats the spec.

- [ ] **Cooling capacity** - tons, MBH, or BTU/hr must meet or exceed spec at stated conditions
- [ ] **Heating capacity** - MBH input and output at specified entering conditions
- [ ] **SEER / SEER2 / EER / IEER** - efficiency ratings for cooling equipment (must meet or exceed minimum)
- [ ] **COP (Coefficient of Performance)** - for heat pumps at specified conditions

- [ ] **AFUE (Annual Fuel Utilization Efficiency)** - for boilers and furnaces
- [ ] **Airflow (CFM)** at specified external static pressure (ESP)
- [ ] **External static pressure capability** - AHUs and fans must meet spec ESP at design CFM
- [ ] **Sound ratings** - NC (Noise Criteria) level, sones, or dBA at specified distance
- [ ] **AHRI certified capacity** vs catalog/non-certified ratings
- [ ] **Minimum outside air percentage** or CFM
- [ ] **Refrigerant type** - R-410A vs R-32 vs R-454B (environmental/code compliance)
- [ ] **Motor horsepower and efficiency** (NEMA Premium per ASHRAE 90.1)
- [ ] **Fan BHP (Brake Horsepower)** at design conditions
- [ ] **Water flow rate (GPM)** and pressure drop for coils, chillers, boilers
- [ ] **Entering/Leaving water or air temperatures** at design conditions
- [ ] **Duct leakage class** (CL 6, CL 3 per SMACNA)
- [ ] **Pipe pressure rating** (ANSI class, schedule)
- [ ] **Insulation R-value or thickness** per ASHRAE 90.1 Table 6.8.2
- [ ] **Filtration efficiency** - MERV rating (MERV 8, 13, 14, 16)

4. Certifications and test reports are attached

Fix and Resubmit

Reviewers want the report itself, not a line on the data sheet saying one exists. Tick each document that the spec requires and the package actually contains. Skip lines that do not apply to your section.

- [ ] **AHRI (Air-Conditioning, Heating, and Refrigeration Institute) certification** - the gold standard for HVAC equipment capacity verification. Absence of AHRI certified rating is a common blocker.
- [ ] **UL listing** (UL 1995 for HVAC equipment, UL 181 for duct systems, UL 555/555S for fire/smoke dampers)
- [ ] **ASHRAE 90.1 compliance** (energy efficiency requirements)
- [ ] **ASHRAE 62.1 compliance** (ventilation/IAQ)
- [ ] **AMCA (Air Movement and Control Association)** certification for fans and dampers
- [ ] **SMACNA (Sheet Metal and Air Conditioning Contractors' National Association)** compliance for duct construction
- [ ] **NFPA 90A** compliance (air conditioning and ventilation systems)
- [ ] **Seismic certification** (IBC Chapter 13, ASCE 7, OSHPD for California)
- [ ] **Sound test reports** per AHRI Standard 260/270/370
- [ ] **Factory performance test** reports for chillers, AHUs, cooling towers
- [ ] **TAB (Testing, Adjusting, and Balancing)** agency certification (AABC, NEBB, or TABB)
- [ ] **EPA Section 608** certification for refrigerant handling
- [ ] **Buy America / Buy American** compliance documentation
- [ ] **LEED documentation** - refrigerant GWP calculations, energy modeling inputs

- [ ] **Warranty documentation** - compressor warranty terms, parts/labor coverage period

5. Colors, finishes, and profiles match the selection Fix and Resubmit

Match each visible attribute to the spec text and the architect's approved sample or color schedule. Tick each one you have confirmed.

- [ ] Exposed ductwork finish (spiral duct color in exposed-ceiling designs)
- [ ] Diffuser and grille face style, color, or pattern
- [ ] Thermostat/sensor color and style for occupied spaces
- [ ] Equipment screen/louver color for rooftop equipment visible from grade
- [ ] Decorative return air grille patterns

6. Details and installation match the spec and drawings Fix and Resubmit

These are the mismatches reviewers catch most in this division. Check your shop drawings and installation data against the spec and the contract drawings, and tick each line once you have confirmed it does not apply to your package.

- [ ] **Duct gauge** lighter than spec (e.g., 22ga where spec requires 20ga for high-pressure duct)
- [ ] **Duct connection type** (flanged vs slip-and-drive vs welded)
- [ ] **Pipe material** mismatch (Type L vs Type M copper, Schedule 40 vs 80 steel)
- [ ] **Pipe joining method** (brazed vs soldered, press-fit vs threaded vs welded)
- [ ] **Hanger/support spacing** exceeds spec or SMACNA maximums
- [ ] **Insulation type** (closed-cell vs fiberglass, vapor barrier presence)
- [ ] **Drain piping** size or material differs
- [ ] **Vibration isolation** type or deflection rating differs from schedule
- [ ] **Refrigerant line sizing** differs from manufacturer requirements
- [ ] **Controls wiring** type or protocol differs (BACnet vs Modbus vs proprietary)
- [ ] **Access door** size or location differs from spec requirements
- [ ] **Seismic bracing** method or spacing differs

7. Every required item is in the package Fix and Resubmit

Open the submittal articles in Part 1 of your spec section (often split into action and informational submittals) and confirm each required item is present. The list below is what this division's specs most often require.

- [ ] Equipment schedules with all performance data at design conditions
- [ ] AHRI certified ratings certificates
- [ ] Electrical data (MCA, MOP, FLA for each unit)
- [ ] Wiring diagrams and control schematics

- [ ] Dimensional/weight data for structural coordination
- [ ] Sound data at design operating point
- [ ] Refrigerant piping diagrams (for split systems)
- [ ] Duct layout/fabrication drawings (shop drawings)
- [ ] Pipe material and fitting schedule
- [ ] Insulation schedule
- [ ] Seismic anchorage/bracing calculations and details
- [ ] Vibration isolation schedule
- [ ] Balancing device schedule (measuring stations, balancing valves)
- [ ] Controls sequence of operations
- [ ] Controls points list (BAS integration)
- [ ] Warranty terms
- [ ] O&M (Operation and Maintenance) manuals
- [ ] Start-up procedures and checklists

Free checklist from deviationcheck.com/checklists/23-hvac/. Want the package checked against your spec? Deviation Check reviews it for $35 at deviationcheck.com.