

WhisperSoft Air Vent

SECTION 23 37 13

DIFFUSERS, REGISTERS, AND GRILLES

Part 1 – GENERAL

1.1 SUMMARY

- A. This section specifies components for high velocity vents and registers which connect to conventional HVAC systems for residential and light commercial use.
- B. Components of the system to include:
 - 1. Decorative vents (nozzles)
 - 2. Decorative mounting screws
 - 3. Mounting clips
 - 4. Boot brackets
 - 5. Elbow connections
 - 6. Reducers

1.2 RELATED SECTIONS

- A. Section 23 30 00 HVAC Air Distribution
- B. Section 23 31 00 HVAC Ducts and Casings
- C. Section 23 33 00 Air Duct Accessories
- D. Section 23 33 46 Flexible Ducts
- E. Section 23 37 00 Air Vents and Inlets

1.3 REFERENCE STANDARDS

- A. NFPA (Fire) 90B – Installation of Warm Air Heating and Air-Conditioning Systems
- B. UL 94 – Tests for Flammability of Plastic Materials for Parts in Devices and Appliances
- C. UL 181 – Standards for Factory-Made Air Ducts and Air Connectors

1.4 SUBMITTALS

- A. Manufacturer's product data for each component indicated.

1.5 WARRANTY

- A. 10-Year Manufacturer's Limited Warranty against part defects.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. The WhisperSoft Co., St. Louis, Missouri www.whispersoft.net or approved equal.

2.2 MATERIALS

- A. Acrylonitrile Butadiene Styrene (ABS) 20-25% recycled material.
- B. Natural oak wood, unfinished.

2.3 HVAC SYSTEM PARAMETERS

- A. Static Pressure – 0.2" to 2.0" water column
- B. Air Velocity – 300 ft/min to 3,000 ft/min
- C. Air Volume – 20 CFM to 200 CFM, 80 CFM to 100 CFM recommended range
- D. Ambient Temperature Range – 0° F to 150° F
- E. Relative Humidity Range – 10% to 100%

2.4 ASSEMBLY COMPONENTS

- A. Vent (nozzle) 5 ½" diameter. White or brown ABS and natural unfinished oak wood.
- B. #6 Phillips screws, two per vent. White heads for ABS vents, black heads for oak vents.
- C. Mounts – Galvanized metal J-Clips for retrofitting existing conditions, ABS Boot Brackets for new construction.
- D. Elbow Couplers, ABS, 45° bend, minimum, one per vent.
- E. Reducers – 6" to 3" or 4" to 3" depending on duct size, ABS.

2.5 SIZING

- A. Conventional systems require four vents per ton (80 – 100 CFM per vent).
 1. Eight vents per ton with 4" diameter ducts.
- B. For 8" duct systems, 8"x6" duct reducers supplied by others.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Connect assemblies to air supply with quality flex duct. WhisperSoft assemblies may be installed on round metal duct via a flex duct transition or directly on trunk lines.
- B. ABS components employ slight taper (3/1000") to connect with each other without mechanical fasteners, glue, or tape.
- C. Use Boot Brackets in new construction. Use J-Clips in retrofits.
- D. Multiple Elbows create bends (e.g. 2 for 90°) in tight conditions.