



BY EQUIPMENT UNIT MANUFACTURER

1. Air Terminal Unit
2. Control Box
3. Inlet (Return)
4. Outlet (Discharge)

BY ACOUSTICAL MANUFACTURER

5. HUSHCORE™ **PREMIUM™** System - Removable Acoustical Enclosure for Air Terminal Unit Casing

HVAC CONTRACTOR

6. SA/RA Duct Work
7. Isolated Hanger Rods
8. Flex Connections (Not Shown)

AIR TERMINAL UNIT NOISE REDUCTION SYSTEM

HUSHCORE® **PREMIUM™** Noise Reduction System: Shall consist of HUSH FLEX™ or HUSH GUARD™ Acoustical Panels

- A. HUSH FLEX™ Acoustical Panels shall consist of a sandwich construction of loaded vinyl barriers and acoustical insulation absorbers all sewn together to make panels sized to fit the Air Terminal Unit as indicated in the detailed installation drawings. The system shall be designed using factory fabricated custom sized panels to be easily removable for periodic maintenance and service needs with panel attachment and removal by Velcro only.
 1. HUSH FLEX™ Acoustical Panel Models No.'s are as follows:
 - a. PWE-200
 - b. PWN-250
 - c. PWR-350*
 - d. PWA-500*
 - e. PWA-750*

*- indicates the HUSHCORE® panels shall be Class "A" flammability per ASTM E-84 for units installed in a plenum rated ceiling.
- B. HUSH GUARD™ Acoustical Panels shall consist of a sandwich construction of galvanized outside and inside steel barriers with acoustical insulation fill. The acoustical panels shall be sized to completely encapsulate the Air Terminal Unit.
 1. HUSH GUARD™ Acoustical Panel Model No.'s are as follows:
 - a. PHD-800*
- C. Field fabricated enclosures using roll good composite materials shall not be approved.
- D. In-Duct Fan noise sound attenuation shall be as scheduled on the drawings or as listed in the specifications.
- E. The complete system shall meet all environmental conditions such as temperature and moisture.
- F. OEM Factory Acoustical Packages by the Air Terminal Unit Manufacturer are not acceptable.
- G. Products and Systems shall be by BRD Noise and Vibration Control, Inc., Wind Gap, PA - (610) 863-6300, www.HUSHCORE.net.

ACOUSTICAL PERFORMANCE

- a. To assure optimized aerodynamic and acoustic performance as well as proper integration and coordination of the final installation, the HUSHCORE® System shall be supplied by the Air Terminal Unit manufacturer as part of a complete package.
- b. All Noise Control Materials Manufacturer's shall deliver a complete submittal of the HUSHCORE® System in compliance with the acoustical performance as listed in this specification. Please contact BRD Noise and Vibration Control, Inc. (610) 863-6300 for acoustical compliance and noise reductions as listed below for the applicable project.
 1. The specified HUSHCORE® HUSH FLEX™ System shall provide the following ASHRAE 130 tested Octave Band Noise Reduction Levels:

| Freq. (Hz) | <u>125</u> | <u>250</u> | <u>500</u> | <u>1000</u> | <u>2000</u> | <u>4000</u> | <u>8000</u> |
|----------------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| Noise Reduction (dB) | 3.7 | 1.0 | 3.1 | 9.1 | 16.4 | 15.7 | 14.0 |

2. The specified HUSHCORE® HUSH GUARD™ System shall provide the minimum ASTM-E90-13 Tested Octave Band Noise Transmission Loss Levels as listed below:

| Freq. (Hz) | <u>125</u> | <u>250</u> | <u>500</u> | <u>1000</u> | <u>2000</u> | <u>4000</u> | <u>STC</u> |
|------------------------|------------|------------|------------|-------------|-------------|-------------|------------|
| Transmission Loss (dB) | 17 | 23 | 34 | 47 | 55 | 57 | 37 |



AIR TERMINAL UNIT NOISE CONTROL DETAIL