



BY EQUIPMENT UNIT MANUFACTURER

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

BY ACOUSTICAL MANUFACTURER

5. HUSHCORE[®] **PREMIUM™** System Fan Coil Unit Casing Removable Acoustical Enclosure
6. HUSHCORE[®] **HUSH DUCT™** Acoustical Intake & Discharge Silencers

HVAC CONTRACTOR

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

ATU NOISE REDUCTION SYSTEM

HUSHCORE[®] **ZENITH™** Noise Reduction System:

The HUSHCORE System shall consist of **PREMIUM™** HUSH FLEX™ or HUSH GUARD™ Acoustical Composite Panels and a HUSH DUCT™ "Intake & Discharge" Silencers.

- 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 VAV/FPB 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 Panels shall be model as follows:
 - a. PWE-200, PWN-250, PWR-350, PWA-500, PWA-750
 (NOTE: PW-"A" designation 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. HUSH GUARD™ Acoustical Panels shall consist of a sandwich construction of galvanized steel skins and acoustical insulation absorbers.
 1. HUSH GUARD™ Acoustical Panels shall be model as follows:
 - a. PHD-800
- C. HUSH DUCT™ Acoustical Silencer (Intake) shall be constructed of galvanized outside skins with perforated "baffle" skins filled with acoustical insulation. The silencers shall be mounted to the intake & discharge of the Air Terminal Unit.
- D. Field fabricated enclosures using roll good composite materials shall not be approved.
- 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.

Basis of Design: 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[®] **PREMIUM™** HUSH FLEX™ System shall provide the following Sound Transmission Loss (dB) Octave Band Levels:

Freq. (Hz)	125	250	500	1000	2000	4000	8000
Noise Reduction (dB)	3.7	1.0	3.1	9.1	16.4	15.7	14.0

2. The specified HUSHCORE[®] **PREMIUM™** HUSH GUARD™ System shall provide the following ASHRAE 130 tested Octave Band Noise Reduction Levels:

Freq. (Hz)	125	250	500	1000	2000	4000	STC
Transmission Loss (dB)	17	23	34	47	55	57	37

3. The specified HUSHCORE[®] **HUSH DUCT™** Acoustical Intake Silencer shall provide the following Octave Band Insertion Loss as per ASTM E477-13:

Freq. (Hz)	63	125	250	500	1000	2000	4000	8000
HUSH DUCT™ Silencer Insertion Loss (dB)	[]	[]	[]	[]	[]	[]	[]	[]

** - Galvanized, 2" slip inlet and outlet, Pressure drop max - 0.10 in.wg.

4. The specified HUSHCORE **HUSH DUCT™** Acoustical Discharge Silencer shall provide the following Octave Band Insertion Loss as per ASTM E477-13:

Freq. (Hz)	63	125	250	500	1000	2000	4000	8000
HUSH DUCT™ Silencer Insertion Loss (dB)	[]	[]	[]	[]	[]	[]	[]	[]

** - Galvanized, 2" slip inlet and outlet, Pressure drop max - 0.10 in.wg.