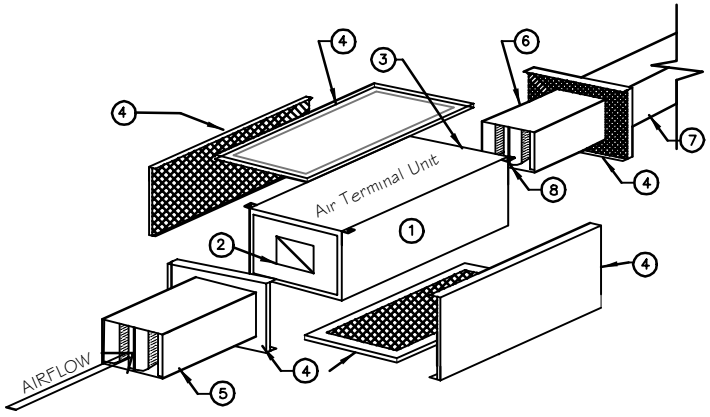
HUSHCORE™ *ZENITH*™ SYSTEM FOR
AIR TERMINAL UNITS REQUIRING CABINET RADIATED, INLET AND DISCHARGE SOUND CONTROL



BY EQUIPMENT UNIT MANUFACTURER

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

BY ACOUSTICAL MANUFACTURER

4. HUSHCORE™ ZENITH System Velcro ™ Removable Acoustical Enclosure
5. HUSHCORE™ Inlet/Return HUSH DUCT silencer
6. HUSHCORE™ Outlet/Discharge HUSH DUCT ™ silencer

BY HVAC CONTRACTOR

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

APPLICATION: Recommended for horizontal hung Air Terminal Units located above space or where indicated on the Schedule/Drawings to address casing radiated, Inlet/Return, andOutlet/Discharge noise.

HUSHCORE™ ZENITH™ SYSTEM

HUSHCORE™ ***ZENITH***™ System consists of Velcro removable composite acoustical panels to form an enclosure to reduce the cabinet radiated noise levels of air terminal units as in the project scheduled drawings and equipment notes. The HUSHCORE™ panels shall be Model PWN-250 unless Class "A" flammability per ASTM E-84 is required for units installed in a plenum rated ceiling. The Class "A" product is Model PWA-500. The system shall be designed using factory fabricated custom sized panels to be easily removable on all sides for periodic maintenance and service needs with side panel attachment and removal by Velcro only. Only the enclosure bottom panel shall be pinned to the cabinet in addition to Velcro support. Field fabricated enclosures using roll good composite materials shall not be approved. The manufacturer or their local authorized agent shall inspect the system and issue a letter of certification stating that the products have been properly installed. Further fan noise sound attenuation shall be as scheduled on the drawings or as listed in the specifications. Products and systems shall be by BRD Noise and Vibration Control, Inc., Wind Gap, PA. (610) 863-6300, www.HUSHCORE.Net

HUSHCORE™ Inlet/Return & Outlet/Discharge HUSH DUCT™ silencers shall be supplied for Air Terminal Units that have open returns such as, water source heat pumps (WSHP), blower coils (BCU), dual inlet variable air volume units (FPVAV), etc. HUSH DUCT aerodynamic performance shall be a pressure drop rating not exceeding 0.25" w.g.

PERFORMANCE

HUSHCORE™ ***ZENITH***™ System Acoustical Performance shall be as follows. The panel enclosure PWN-250/PWA-500 shall meet or exceed the ⅓ Octave insertion loss (IL) values listed below in accordance with procedure ASTM E-1222 for the cabinet/casing sound radiation path. The overall radiated performance is based on previously tested installations with a typical dBA reduction in the 4 to 6 dBA range @ 3' from any point away from the system enclosure.

The HUSHCORE™ ***ZENITH***™ System Inlet/Return & Outlet/Discharge HUSH DUCT™ silencers shall be tested in accordance with the latest version of ASTM E-477. Octave band Insertion Loss values shall be equal to or greater than the values listed below or as separately scheduled.

HUSHCORE ZENITH System – (Insertion Loss) in accordance with ASTM E-1222 for PWN-250/PWA-500													
Freq. (Hz)	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
Insertion Loss (dB)	2	2	8	13	11	23	27	28	30	30	27	31	32

HUSHCORE ZENITH System – (Dynamic Insertion Loss) in accordance with ASTM E-477								
Freq. (Hz)	63	125	250	500	1000	2000	4000	8000
SA/Outlet DIL (dB)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
RA/Inlet DIL (dB)	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]