



**BY RTU UNIT MANUFACTURER**

- 1. RTU Base
- 2. SA/RA Unit Openings

**BY ACOUSTICAL MANUFACTURER**

- 3. 2" Deflection Fully Assembled HUSH CURB™
- 4. HUSHCORE® DECK™ Model DS-49 System - In-Curb Acoustical Treatment
- 5. Plenum Divider

**BY HVAC CONTRACTOR**

- 6. Duct Work
- 7. Roof Deck Flashing to within 1/4" of all Duct Drops & penetrations, but not
- 8. Submit letter of certification from acoustical supplier following inspection.

**BY GENERAL CONTRACTOR**

- 9. Building Steel
- 10. Built-up Roof or Concrete
- 11. Insulation and Cant Strip
- 12. Curb Slope requirements where applicable

**RTU NOISE REDUCTION SYSTEM**

HUSHCORE® WHISPER™ "P" Model HPC-DS-49-P System

**a. ISOLATED CURB**

- 1. The isolated curb shall be 2" deflection, fully adjustable and fully assembled HPC-2 HUSH CURB™.
- 2. The HUSH CURB™ shall be completely isolated with top and bottom steel structural frames and shall have a continuous flexible weather-seal.
- 3. The HUSH CURB™ system shall be capable of serving as a blocking device during installation.
- 4. The HUSH CURB™ springs shall have built-in limit stops to snub out wind resistance.
- 5. Model HSPC-2 HUSH CURB™ incorporates seismic construction (wind and seismic detailed connections, stamped by a licensed professional engineer).
- 6. The HUSH CURB™ system shall be MINIMUM 24" High and shipped completely assembled.
- 7. MINIMUM offset from unit openings to building duct work openings shall be 24".
- 8. Factory Curbs with a secondary vibration isolation system SHALL NOT be acceptable.

**b. IN-CURB SYSTEM**

- 1. The HUSH CURB™ shall have a factory installed in-curb DECK™ Model DS-49 system sound package for radiated noise.
- 2. The DECK™ system shall be a multi-layered acoustical composite for placement inside the HUSH CURB™.
- 3. The overall installed thickness of the composite panels shall be a maximum of 14" thick.
- 4. Decking shall be maintained inside the RTU roof curb to a clearance of 1/4" maximum around all duct drops but never contact the duct.

Basis of bid: BRD Noise and Vibration Control, Inc., Wind Gap, PA - (610) 863-6300, www.HUSHCORE.net.

**PERFORMANCE**

- a. To assure optimized aerodynamic and acoustic performance as well as proper integration and coordination of the final installation, the complete HUSHCORE® system shall be supplied by the rooftop unit manufacturer as part of a complete package.
- b. The HUSH CURB™ shall provide minimum 85% vibration isolation efficiency.
- c. HUSHCORE® DECK™ Model DS-49 System In-Curb Acoustical Treatment Performance shall be tested in accordance with procedure ASTM E-90-10 with material seams and layering present in the test specimen representing actual field contractor installed conditions. Pre-assembled test specimen data shall not be acceptable as it overstates performance that is not reproducible in field conditions. The in-curb composite panel assembly shall be rated with 1/3 octave performance values as listed below for sound radiation through the deck inside the curb.

HUSHCORE® In-Curb Composite - (Transmission Loss) in accordance with ASTM E-90-10																					
Freq. (Hz)	80	100	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K	5K	6.3K	8K
Transmission Loss (dB)	13	13	12	14	15	17	20	24	28	35	39	39	41	41	45	45	45	53	55	55	57

- d. The complete WHISPER™ "P" Model HPC-DS-49-P shall provide a radiated space noise criteria of NC35 to NC45 directly below the unit (Flanking noise is excluded).
- e. For specific radiated noise contribution, in-duct noise contribution and duct break-out noise contribution, please consult with a BRD representative for specification compliance.
- f. The noise control supplier shall submit combined acoustical calculations to demonstrate resultant radiated, in-duct and duct break-out contributions to a given space will not exceed NC levels scheduled.