VPQ Suggested Specification & Configuration

1. SERIES: (XXX)
VPQ - Steel VAV Diffuser with Square Backpan and Square Plaque Face

2. CONTROL: (X)
0 - Constant Volume (No Controls)
4 - Thermal (Wax) VAV Controls

3. INLET: (XX)
06 - 6" Inlet
08 - 8" Inlet
10 - 10" Inlet
12 - 12" Inlet

4. FRAME: (XXX)
F22 - Surface Mount *
F23 - Lay-in T-Bar
F24 - Snap-in T-Bar
F98 - Narrow-T

5. PANEL: (XX)x(XX)
24"x24"

6. ACCESSORIES: (XX)
00 - No Accessories
EQ - Earthquake Tabs

7. FINISH: (XX)
44 - British White

** Surface mount (F22) ships with a hard ceiling frame (5HCF23) for mounting.*

VPQ-0: CONSTANT VOLUME DIFFUSER Furnish and install Krueger model VPQ constant volume architectural square panel ceiling diffusers of the sizes and mounting types shown on the plans or outlet schedule. The diffuser shall have a one piece square face plaque not exceeding 18"x18" for 24x24 panel size and be constructed of 16 gage steel with rounded corners that have a minimum radius of 3/4". Face plaques that have a secondary wrapper are not acceptable. The face plaque shall not extend below the ceiling more than 3/8" and shall be removable from the backpan for access to the optional damper. The diffuser backpan shall be one piece stamped construction of 22 gage steel and have an integrally drawn round neck.

VPQ-4: THERMAL VAV DIFFUSER
Furnish and install Krueger model VPQ thermally powered VAV diffusers with heating / cooling changeover. The diffuser shall be thermally powered to infinitely vary the supply of air into the space, in either heating or cooling mode, by means of regulating a variable aperture damper vertically within the diffuser. Supply air from the variable geometry diffusers will discharge horizontally in a 360° pattern and will maintain constant air movement in the space throughout the range of volume variation from 100% down to 30% of design CFM.

The thermal room sensing element shall be located behind an induction cap in the center of the diffuser panel and shall provide no more than 1°F thermal deadband between induced temperature and zone temperature.

Each diffuser shall be individually adjustable to sense room temperature within the space between 68°F and 77°F and be individually adjustable for minimum airflow from 0 to 30%. Each diffuser is to be fitted with a single thermal supply air sensing element to automatically change from and to a cooling and heating mode and be able to infinitely vary the supply of air into the space in either mode. Each diffuser shall be self-contained and require no external power source to maintain space temperature throughout the range of operation.

The diffusers shall be square panel type with an architectural square plaque face. The diffuser shall have a one piece square face plaque not exceeding 18"x18" for 24x24 panel size and be constructed of 16 gage steel with rounded corners that have a minimum radius of 3/4". Face plaques that have a secondary wrapper are not acceptable. The face plaque shall not extend below the ceiling more than 3/8" and shall be removable from the backpan for access to the digital components. The diffuser backpan shall be one piece stamped construction of 22 gage steel and have an integrally drawn round neck.

PERFORMANCE
The manufacturer shall provide published (printed or electronic) performance data for the diffuser. Performance data shall include 2 - 7 octave band sound power levels. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

FINISH
The paint finish shall be #44 British White and be an anodic acrylic paint, baked at 315°F for 30 minutes. The paint thickness shall be 0.8 – 1.0 mils, gloss at 60° per ASTM D523-89 of 50 – 85%, pencil hardness per ASTM D3363-92A of HB – H, crosshatch adhesion per ASTM D3359-83 of 4B – 5B, impact per ASTM D2794-93 of direct impact >100 in/lb and reverse impact >80 in/lb, salt spray per ASTM B117-9048 of 96 hours, humidity per ASTM D2247-92 of >500 hours and water soak per ASTM D870-92 of 250 hours.

SAMPLE CONFIGURATION: VPQ - 4 - 10 - F23 - 24x24 - 00 - 44