

SHIELDED VENTS AND FILTER PANEL PERFORMANCE

Shielding Effectiveness

The shielding effectiveness of various Chomerics honeycomb ventilation panels is shown in Figures 1-4. In Figure 1, note that single layer honeycomb (SHIELD CELL) is extremely dependent on the orientation of the honeycomb foil seams (which are bonded with a non-conductive adhesive). A difference of 40 dB can be demonstrated between seams oriented vertically and horizontally. OMNI CELL designs eliminate the effect of orientation by

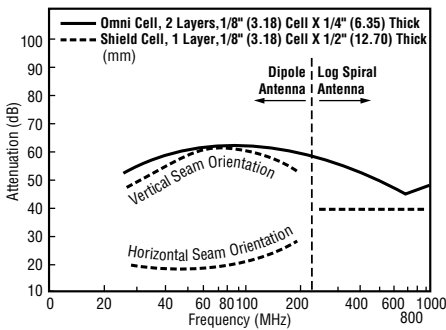


Figure 1 Shielding Effectiveness of SHIELD CELL and OMNI CELL Ventilation Panels

incorporating two separate honeycomb panels at 90° to one another.

Figure 2 gives the shielding performance of Chomerics' highest performance CHO-CELL vent panel. Shielding data for a typical Steel Honeycomb shielded vent panel and SLIMVENT air ventilation panel is provided in Figures 3 and 4.

For shielding data on VIP and SHIELDSCREEN air filters, contact Chomerics' Applications Engineering Dept.

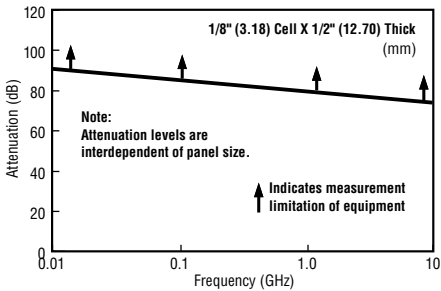


Figure 2 Shielding Effectiveness of CHO-CELL Vents

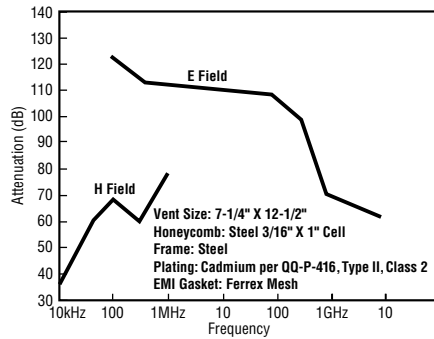


Figure 3 Shielding Effectiveness of Steel Honeycomb Shielded Vent Panel

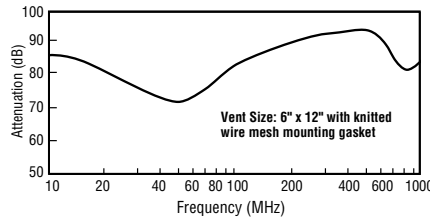


Figure 4 Shielding Effectiveness of SLIMVENT EMI Shielding Vent Panel

Air Flow

Figures 5 and 6 provide data on air flow characteristics of SHIELD CELL and OMNI CELL ventilation panels. Note that slant honeycomb (for drip-proof designs) increases the pressure drop across the panel.

Figures 7-9 show the filtering performance of wet and dry SHIELDSCREEN filter panels and VIP filters.

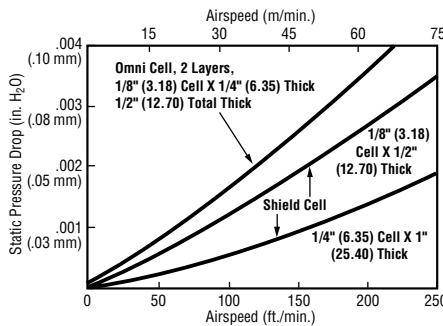


Figure 5 Static Pressure Drop vs. Airspeed (Note: Pressure drop for steel and brass honeycomb is approximately double the value for aluminum honeycomb.)

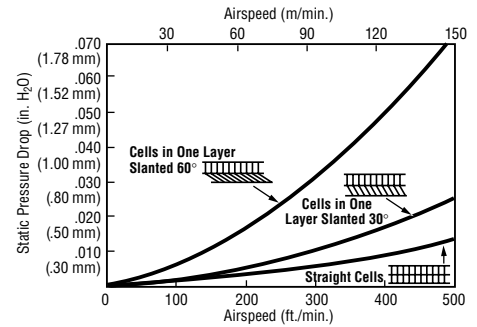


Figure 6 Static Pressure Drop vs. Airspeed OMNI CELL Honeycomb

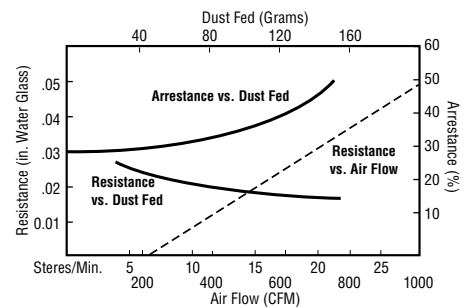


Figure 7 Dry-Type SHIELDSCREEN Filtering Performance

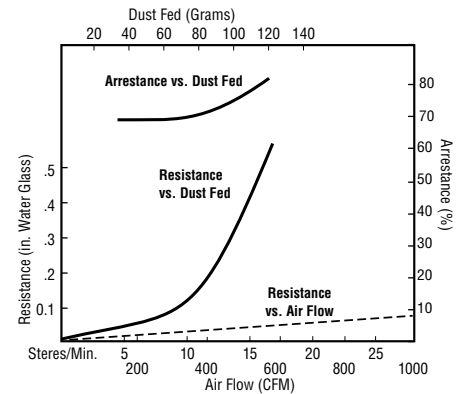


Figure 8 Wet-Type SHIELDSCREEN Filtering Performance

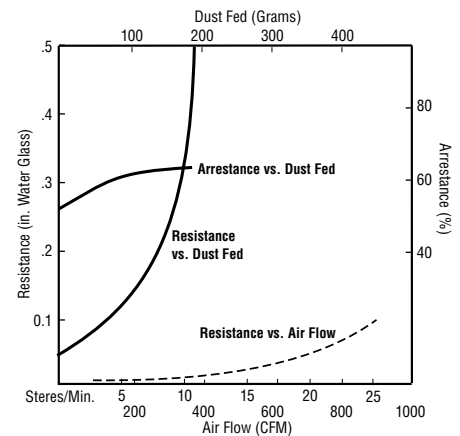


Figure 9 Arrestance and Airflow Resistance of VIP Filters

(mm dimensions in parentheses)