

## ENGINEERING SPECIFICATION & CONFIGURATION

### S80, S580

The return grille shall be a Krueger model S80 (steel) or S580 (aluminum). This grille must have 35° deflection (H and V models) or 0° deflection (HZ and VZ models) blades on 3/4" centers made of 22 gage steel (S80) or roll formed aluminum (S580). The blades must be held in place by mullions placed behind the grille and welded to the frame. The frame of the grille must be constructed of 22 gage steel (S80) or roll formed aluminum with minimum 0.032" thickness (S580) for sizes less than and equal to 24"x24" and extruded aluminum with nominal thickness 0.040 - 0.050" for sizes greater than 24"x24" with countersunk screw holes. This frame must also produce a border of 1 1/4" around all sides of the grille with mitered corners.

Optional damper shall be available made of heavy gage steel (OBD) or aluminum (5OBD) and operable from the face of the return grille.

### S85, S585

The return grille shall be a Krueger model S85 (steel) or S585 (aluminum). This grille must have 35° deflection (H and V models) or 0° deflection (HZ and VZ models) blades on 1/2" centers made of 22 gage steel (S85) or roll formed aluminum (S585). The blades must be held in place by mullions placed behind the grille and welded to the frame. The frame of the grille must be constructed of 22 gage steel (S85) or roll formed aluminum with minimum 0.032" thickness (S585) for sizes less than and equal to 24"x24" and extruded aluminum with nominal thickness 0.040 - 0.050" for sizes greater than 24"x24" with countersunk screw holes. This frame must also produce a border of 1 1/4" around all sides of the grille with mitered corners.

Optional damper shall be available made of heavy gage steel (OBD/POBD) or aluminum (5OBD) and operable from the face of the return grille.

### 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.

### 1. SERIES: (XXXX)

- S80 - Single fixed deflection, 3/4" spacing, steel return grille
- S580 - Single fixed deflection, 3/4" spacing, aluminum return grille
- S85 - Single fixed deflection, 1/2" spacing, steel return grille
- S585 - Single fixed deflection, 1/2" spacing, aluminum return grille

### 2. PATTERN: (XX)

- H - 35° horizontal front blades
- V - 35° vertical front blades
- HZ - 0° horizontal front blades
- VZ - 0° vertical front blades

### 3. WIDTH: (XX)\*

- 6" - 240" in 1/4" increments

### 4. HEIGHT: (XX)\*

- 4" - 240" in 1/4" increments

### 5. FRAME: (XXX)

- F22 - Surface mount
- F23 - Lay-in T-bar
- F98 - Narrow-T \*\*

### 6. PANEL: (XX)x(XX)

- |         |         |
|---------|---------|
| NONE    | 24"x12" |
| 24"x24" | 48"x24" |

### 7. FASTENING METHOD: (XX)

- 00 - No screw holes
- 01 - Standard screw holes
- 02 - Concealed fastening
- 03 - Knurled knob \*\*\*
- 08 - 1/4 turn fasteners \*\*\*

### 8. DAMPER: (XX)

- 00 - No damper
- 01 - Steel opposed blade damper (model OBD)
- 13 - Painted opposed blade damper (model POBD)
- 15 - Aluminum opposed blade damper (model 5OBD)

### 9. ACCESSORIES: (XX) (XX)

- 00 - No accessories
- 01 - Plaster frame
- 04 - 1" filter \*\*\*
- 05 - 2" filter \*\*\*

### 10. FINISH: (XX)

- |            |                    |
|------------|--------------------|
| 01 - Mill  | 10 - Alumican      |
| 35 - Black | 44 - British White |

\* Maximum single piece unit size is 240"x96" or 96"x240".

\*\* Frame 98 only available with 24"x24" and 24"x12" panel.

\*\*\* Knurled knob and 1/4 turn fastening methods are only available with filter frame accessories.

**SAMPLE CONFIGURATION:** S80 - HZ - 10x12 - F22 - NONE - 01 - 15 - 00 - 00 - 01