

## AFL Suggested Specification & Configuration

### A. General:

1. Furnish and install Krueger AFL ceiling mounted lay-in displacement diffuser with the sizes, capacities, and options as indicated on the plans and air outlet schedule.
2. The displacement diffuser shall deliver air to the occupied space at low noise levels, with uniform, low velocity across the diffuser face in all ducting configurations without the use of nozzles.

### B. Construction:

1. The ceiling mounted displacement diffuser shall include an equalization baffle behind the perforated diffuser face for uniform, low velocity distribution of supply air. Both the equalization baffle and the face shall be securely retained in the diffuser frames.
2. The diffuser plenum shall be 20 gauge [steel] or [aluminum] diffuser frame shall be constructed of high strength [aluminum extrusion] or [steel] for rigidity and protection of the perforated face and side panels. The perforated front panel shall be constructed of 20 gauge perforated [steel] or [aluminum], and the frame shall be painted 20 gauge [steel] or [aluminum].
3. The diffuser shall not have visible fasteners on the frame and border.
4. The diffuser inlet shall be available for duct connection at the top of the plenum assembly.
5. Plastic nozzle arrays are not acceptable.
6. The diffuser shall be available in the following module sizes:
  - 12"x24" with 6" or 8" diameter inlet
  - 12"x36" with 6" or 8" diameter inlet
  - 12"x48" with 6" or 8" diameter inlet
  - 12"x60" with 6" or 8" diameter inlet
  - 12"x72" with 6" or 8" diameter inlet
  - 24"x24" with 8", 10", 12", 14", 16", or 18" diameter inlet
  - 24"x36" with 8", 10", 12", 14", 16", or 18" diameter inlet
  - 24"x48" with 8", 10", 12", 14", 16", or 18" diameter inlet
  - 24"x60" with 8", 10", 12", 14", 16", or 18" diameter inlet
  - 24"x72" with 8", 10", 12", 14", 16", or 18" diameter inlet
  - 36"x36" with 8", 10", 12", 14", 16", 18", or 20" diameter inlet
  - 36"x48" with 8", 10", 12", 14", 16", 18", or 20" diameter inlet
  - 36"x60" with 8", 10", 12", 14", 16", 18", or 20" diameter inlet
  - 36"x72" with 8", 10", 12", 14", 16", 18", or 20" diameter inlet

### C. Diffuser finish shall be (select one):

1. All steel components shall have #44 White baked-on powder coat finish. Visible non-metallic components shall not be acceptable.
  - The paint film thickness shall be a minimum of 0.002".
  - The finish shall have a minimum hardness of H.
  - The finish shall withstand a minimum salt spray exposure of 1000 hours with no measurable creep in accordance with ASTM D1654, and 1000 hours of exposure with no rusting or blistering as per ASTM D610 and ASTM D714.
  - The finish shall have an impact resistance of 80 inch-pounds.
2. All stainless steel face components shall have #90 mill finish on exposed surfaces.

### 1. MODEL: (XXX)

AFL - Flat-faced, Lay-in, Ceiling Mount, Low-Velocity Displacement Diffuser

### 2. PANEL SIZE: (XXxXX)

12"x24"	24"x24"	36"x36"
12"x36"	24"x36"	36"x48"
12"x48"	24"x48"	36"x60"
12"x60"	24"x60"	36"x72"
12"x72"	24"x72"	

### 3. INLET: (XX)

6" to 20" in 2" Increments \*

### 4. FRAME STYLE: (XXX)

F22 - Surface Mount  
F23 - Lay-in T-bar

### 5. MATERIAL: (X)

GS - Galvanized Steel  
SS - 316 Stainless Steel

### 6. FRONT PANEL THICKNESS: (XX)

20 - 20 Gauge

### 7. INSULATION: (X)

0 - None  
W - 1" External Foil Faced Insulation

### 8. FINISH: (XX)

01 - Mill  
1A - Antimicrobial Alumican  
4A - Antimicrobial British White  
10 - Alumican  
44 - British White  
49 - Off White  
35 - Black  
90 - Polished  
07 - Custom

\* See page D3-42 for inlet size availability for panel sizes.

### D. Mounting/Fastening:

1. The diffuser shall integrate into a standard T-bar ceiling and shall have no visible fasteners.

### E. Options:

1. Insulation: AFL – The diffuser shall be externally insulated with 1 inch fiberglass with foil/scrium vapor barrier which meets the requirements of UL 181 and NFPA 90A.

**SAMPLE CONFIGURATION:** AFL - 24x24 - 10 - F23 - GS - 20 - 0 - 44