

Air Distribution & Equipment Solutions

DIFFUSERS

AIR NOZZLES

GRILLES AND REGISTERS

CRITICAL ROOM SOLUTIONS

CHILLED BEAMS

DISPLACEMENT VENTILATION

UNDERFLOOR PRODUCTS

TERMINAL UNITS

FAN COILS AND BLOWER COILS







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PRISM

Arcuate Face Architectural Ceiling Diffuser

- · Steel construction.
- 1-piece arcuate face plate, hinged and removable from 1-piece backpan.
- · Nine standard center appliqué colors (custom colors and logo screening available).
- Diffuser available without center appliqué.
- Prism face sold separately for retrofit of most snap-in style perforated diffusers.
- · Round or square inlet.



PLQ, 5PLQ, & PLQR

Plaque Face Ceiling Diffusers

- Steel (PLQ/PLQR) or aluminum (5PLQ) construction.
- Square (PLQ/5PLQ) or round (PLQR) face plate.
- 1-piece, non-folded (PLQ/PLQR) or 2-piece, folded (5PLQ) 16 gage material attached to a 1-piece stamped backpan.
- · Round inlet.
- Optional: Insulated backpan and/or 1, 2, 3-way throw directional blow tabs (DBT).



PLOLT

Plaque Face Diffuser for Low Temp Applications

- · Steel construction.
- R6 rigid fiberglass insulated backpan.
- 1-piece, non-folded, square face plate with 3/8" insulation.
- Plaque attaches to a 1-piece, stamped backpan by hooks.
- · Round inlet.



PLQIMP & 5PLQIMP

Plaque Face Diffuser with Integrated Multi-Port Induction Ring

- Steel (PLQIMP) or aluminum (5PLQIMP) construction.
- 1-piece, non-folded, square face plate with integrated multi-port induction ring.
- Plaque attaches to a 1-piece, stamped backpan by hooks.
- · Round inlet.





KSD

Krueger Swirl Diffuser

- · Aluminum construction.
- · High capacity airflow.
- · Promotes room air mixing.
- · Aesthetically pleasing appearance.



1400 & 1400A SERIES

4-Cone Drop Face Louvered Diffuser

- Steel (1400/1400FR/M1400/1400A) or aluminum (51400/M51400/51400A) construction.
- Available with horizontal to vertical discharge air adjustment (1400A/51400A).
- · Available with UL listed fire damper meeting NFPA 90A requirements (1400FR).
- · Round inlet.
- Discharge Air Pattern: 4-way; 1, 2, or 3 way with a sectorizing baffle (1400SB).
- Available with hard metric lay-in panels (M1400/M51400).
- Optional: R6 rigid fiberglass insulated backpan.



1450 & 1450A SERIES

3-Cone Drop Face Louvered Diffuser

- Steel (1450/M1450/1450A) or aluminum (51450/M51450/51450A) construction.
- Available with horizontal to vertical discharge air adjustment (1450A/51450A).
- · Round inlet.
- Discharge Air Pattern: 4-way; 1, 2, or 3-way with a sectorizing baffle (1400SB).
- Available with hard metric lay-in panels (M1450/M51450).
- Optional: R6 rigid fiberglass insulated backpan.



SH & SHR SERIES

Square/Rectangular Flush Face Louvered Diffuser

- Steel (SH/SHR/SHFR/MSH) or aluminum (5SH/5SHR) construction.
- Available with UL listed fire damper meeting NFPA 90A requirements (SHFR).
- Core is removable from face of diffuser.
- · Square inlet.
- Available with round inlet (SHR/5SHR); factory mounted square to round adapter.
- Available with hard metric lay-in panel (MSH).
- Optional: Ultra-throw, straightening grids, dampers, and 1, 2, or 3-way cores.







Back Detail

SHV & SHRV SERIES

Flush Face Louvered Diffuser with Deflector Vanes

- Steel (SHV/SHRV) or aluminum (5SHV/5SHRV) construction.
- · Core is removable from face of diffuser.
- · Square inlet.
- Available with round inlet (SHRV/5SHRV); factory mounted square to round adapter.
- Optional: Straightening grids, dampers, and 1, 2, or 3-way cores.

SHPC & SHPCR SERIES

SHE & SHE OK SERIES

- Flush Face Louvered Diffuser with Pattern Controllers

 Steel (SHPC/SHPCR) or aluminum (5SHPC/5SHPCR) construction.
- · Core is removable from face of diffuser.
- Pattern controllers are standard and field adjustable.
- · Square inlet.
- Available with round inlet (SHPCR/5SHPCR).
- Optional: Straightening grids, dampers, and 1, 2, or 3-way cores.



Back Detail

SHFB & 5SHFB

Flush Face Louvered Diffuser with Rigid Fiberglass Backpan

- Steel (SHFB) or aluminum (5SHFB) construction.
- · Core is removable from face of diffuser.
- Pre-scored backpan.
- · Round inlet.
- Optional: 1, 2, or 3-way cores.

5SHCAD & 5SHRCAD

Cold Aisle Diffuser

- Aluminum construction.
- · Core is removable from face of diffuser.
- Center downblow adjustable by supplied aluminum OBD.
- Square (5SHCAD) or round (5SHRCAD) inlet.
- Pattern controllers are standard and field adjustable.





SHRPLQ

Louvered Diffuser with Center Plaque

- · Steel construction.
- Core is removable from face of diffuser.
- Available with 1, 2, or 3 slots.
- · Round inlet.
- · Optional: Straightening grid and round damper.



7000

Combination Supply/Return Diffuser

- · Aluminum construction.
- · Anti-sweat gasket.
- Egg crate is 1/2" square and removable.



6100, 56100, 6150, & 56150

Perforated Face Diffuser

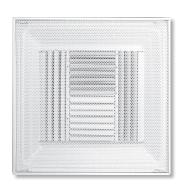
- Steel (6100/6150) or aluminum (56100/56150) face; steel backpan construction.
- 1-piece, stamped core rotates 45° to obtain a 4-corner discharge air pattern.
- Hinged, removable face with 51% perforated open area.
- Square or round inlet.
- Optional: Straightening grid and damper.



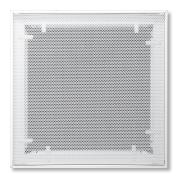
6200, 6200FR, 56200, & 6290FR

Perforated Face Diffuser

- Steel (6200/6200FR/6290FR) or aluminum (56200) face; steel backpan construction.
- Hinged, removable face with 51% perforated open area.
- Individually adjustable curved blade deflectors mounted on backpan.
- Available as UL classified fire rated (6200FR/6290FR).
- · Optional: Straightening grid and OBD.
- Matching return with square inlet (6490/56490).



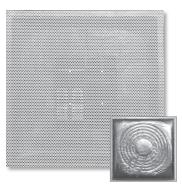




6290F

Perforated Face Return Diffuser with Filter Frame

- · Steel construction.
- Hinged, removable face with 51% perforated open area.
- Uses standard 20"x20"x1" filter.
- · Square inlet.



Back Detail

6300 & 6390

Perforated Face Diffuser with Rigid Fiberglass Backpan

- · Steel construction.
- Perforated face with 51% perforated open area.
- Discharge Air Patterns: 4-way (adjustable for 1, 2, and 3-way patterns).
- Modular pattern deflectors mounted on back of face.
- Round inlet (pre-scored backpan).
- Matching return without pattern deflectors (6390).



6400, 6400FR, 56400, 6490, & 56490

Perforated Face Diffuser

- Steel (6400/6490/6400FR) or aluminum (56400/56490) face; steel backpan construction.
- Hinged, removable face with 51% perforated open area.
- Discharge Air Patterns: 4-way (adjustable for 1, 2, and 3-way patterns).
- Modular pattern deflectors mounted on back of face.
- · Square inlet.
- Available as UL classified fire rated (6400FR).
- · Optional: Straightening grid and OBD.
- Matching return with square inlet (6490/56490).



6500, 6500FR, 56500, & 6590FR

Perforated Face Diffuser

- Steel (6500/6500FR/6590FR) or aluminum (56500) face; steel backpan construction.
- Hinged, removable face with 51% perforated open area.
- Individually adjustable curved blade deflectors mounted on backpan.
- Available as UL classified fire rated (6500FR/6590FR).
- · Round inlet.
- Optional: Straightening grid and round dampers.
- Matching return with round inlet (6690/56690).



6600, 6600FR, 56600, 6690, & 56690

Perforated Face Diffuser

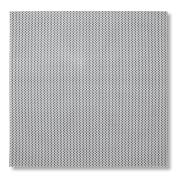
- Steel (6600/6690/6600FR) or aluminum (56600/56690) face; steel backpan construction.
- Hinged, removable face with 51% perforated open area.
- Available as UL classified fire rated (6600FR).
- Modular pattern deflectors mounted on back of face.
- · Round inlet.
- Discharge Air Patterns: 4-way (adjustable for 1, 2, and 3-way patterns).
- · Optional: Straightening grid and round dampers.
- Matching return with round inlet (6690/56690).



6790 & 56790

Perforated Diffuser - Face Only

- Steel (6790) or aluminum (56790) construction.
- 51% perforated open area.



1100, 51100, 1190, & 51190

Architectural Perforated Face Diffuser

- Aluminum face and aluminum backpan (51100/51190) or aluminum face and steel backpan (1100/1190) construction.
- 51% perforated open area face with extruded aluminum border.
- Adjustable curved inlet mounted blades offer twelve discharge air pattern configurations (factory set).
- Matching return available without core blades (1190/51190).



1240, 51240, 1240P, 51240P, & 1240PE

Modular Core Diffuser

- Steel (1240/1240P/1240PE) or aluminum (51240/51240P) construction.
- Available with perforated face (1240P/51240P/1240PE).
- Snap-in, modular cores are field adjustable for 1, 2, 3, or 4-way discharge air patterns.







DESIGNFLO® (DFL)

Architectural Linear Slot Diffuser - Straight or Custom Curved

- Extruded aluminum construction for corrosion resistance.
- Integral horizontal or vertical pattern controllers constructed on 24" centers.
- Number of Slots: 1 or 2.
- Maximum Single Piece Length: 12 ft., joining sections for long, continuous runs.
- Optional: Blank-off strips (DFBO), shipped separately in 48" sections that can be field cut to length; 4-legged miter cross (DFC), 3-legged mitered tee (DFT), 2-legged mitered corner (DFMC), and return hood (DFRH).
- Optional: Combined linear slot and plenum boot (DFB/DFNT) for lay-in T-bar applications.



DFP

Plenum Boot for DesignFlo® Linear Slot Diffuser

- · Oval inlet.
- Optional: Insulation and quadrant damper.

 Note: Plenum type S shown with clip. Type F, concealed with hem is available.



1900

Linear Slot Diffuser - Straight or Custom Curved

- Extruded aluminum construction for corrosion resistance.
- Adjustable, removable blades snap into several positions.
- Armstrong® TechZone™ compatible. *
- Number of Slots: 1 to 8 (dependent on slot width).
- Maximum Single Piece Length: 72"; can be joined for continuous runs.
- Optional: Mitered corners and custom curving.

Note: *TechZone is a registered trademark of Armstrong World Industries.



1900BOOT

Plenum Boot for 1900 Linear Slot Diffuser

- Number of Slots: 1 to 8 (dependent on slot width).
- · Oval inlet.
- Available with internal insulation.
- Optional: Quadrant damper and performance baffle.

 Note: Frame C shown with hem. Other frame types available.





1900SQ Series

Square Supply/Return Linear Slot Diffuser

- Extruded aluminum diffuser with steel backpan construction.
- Adjustable for 1, 2, 3, or 4-way discharge air patterns.
- Number of Slots: 1 to 4.
- Supply available with insulation (1900SQSI) or without insulation (1900SQS).
- Return available with no blades (1900SQR).
- · Ceiling tile supplied by others.



PTBS

Plenum Slot Diffuser with an Adjustable Blade

- Adjustable, gasketed aluminum blade.
- Combination slot diffuser with plenum for lay-in T-bar ceiling systems.
- Inlet collar drawn from diffuser plenum wall eliminates leakage.
- Number of Slots: 1 to 4.
- · Available with insulation.
- Optional: Factory installed T-bars and plaster frame.



PTBA

Plenum Slot Diffuser with "Ice Tong" Blades

- Adjustable, "Ice Tong" extruded aluminum blades.
- Combination slot diffuser with plenum for lay-in T-bar ceiling systems.
- Inlet collar drawn from diffuser plenum wall eliminates leakage.
- · Number of Slots: 1 to 4.
- · Available with insulation.
- Optional: Factory installed T-bars and plaster frame.



PTBT

Plenum Slot Diffuser with Fixed Curved Blades

- · Fixed extruded aluminum curved blades.
- Inlet collar removable/replaceable (ICPTBT).
- Number of Slots: 1 to 4 (1-way deflection) or 2 to 4 (2-way deflection).
- · Available with insulation.







PTBSS & PTBSSFB

Plenum Slot Diffuser with a Fixed Curved Blade

- Steel curved blades, shipped loose for field installation.
- Inlet collar drawn from diffuser plenum wall eliminates leakage.
- Number of Slots: 1 or 2.
- · Oval inlet.
- Available with factory installed blades (PTBSSFB).
- · Available with insulation.
- Optional: Factory installed T-bars and plaster frame (shipped loose).



PTBR

Plenum Slot Return

- · Steel construction.
- Return airflow control for plenum slot supply diffusers.
- Designed for non-ducted return air systems.
- Number of Slots: 1 to 4.
- · Available with insulation.



PFTBS

Plenum Slot Diffuser with Fire Damper

- · Steel construction.
- UL Listed fire damper meets Time vs. Temperature test criteria.
- Meets NFPA 90A requirements.
- Slots: 1 or 2.
- · Oval inlet.
- Center T-bar and optional side T-bars furnished.
- Available with insulation.



PFTBR

Plenum Slot Return with Fire Damper

- · Steel construction.
- Return airflow control for plenum slot supply diffusers.
- UL Listed fire damper meets Time vs. Temperature test criteria.
- Meets NFPA 90A requirements.
- Slots: 1 or 2.
- · Available with insulation.





PTBSC & PTBSRC

Plenum Slot Diffuser

- 24 gage galvanized steel construction.
- Fixed horizontal pattern controller provides constant 1-way airflow (in direction of inlet).
- Inlet collar drawn from diffuser plenum wall eliminates leakage.
- · Oval inlet.
- · Available with external insulation.
- Optional: Non-ducted return slot (PTBSRC).



PTBSCDB & PTBSRCDB

Plenum Slot Diffuser with Center Downblow

- 24 gage galvanized steel construction.
- Fixed horizontal pattern controller provides constant 1-way airflow (in direction of inlet).
- Inlet collar drawn from diffuser plenum wall eliminates leakage.
- · Oval inlet.
- · Available with external insulation.
- Optional: Non-ducted return slot (PTBSRCDB).



RM1 & 5RM1

3-Cone Round Diffuser

- Steel (RM1) or aluminum (5RM1) construction.
- · 3 cones.
- 2 position adjustments and fully removable core.
- 360° discharge air pattern.
- · Round inlet.



RM2 & 5RM2

4-Cone Round Diffuser

- Steel (RM2) or aluminum (5RM2) construction.
- 4 cones.
- 3 position adjustments and fully removable core.
- 360° discharge air pattern.
- · Round inlet.







RM4 & 5RM4

4-Cone Round Diffuser

- Steel (RM4) or aluminum (5RM4) construction.
- 4 cones.
- Deep, 1-piece outer cone improves anti-smudge protection.
- 3 position adjustments and fully removable core.
- 360° discharge air pattern.
- · Round inlet.



RA2

4-Cone Adjustable Round Diffuser

- · Steel construction.
- 4 cones.
- Fully adjustable horizontal to vertical discharge and fully removable core.
- 360° discharge air pattern.
- · Round inlet.



RA4

4-Cone Adjustable Round Diffuser

- Steel construction.
- 4 cones.
- Deep, 1-piece outer cone improves anti-smudge protection.
- Fully adjustable horizontal to vertical discharge and fully removable core.
- 360° discharge air pattern.
- · Round inlet.



RM2PLQ & RM4PLQ

Round Ceiling Diffuser with Center Plaque

- Steel backpan and aluminum plaque face (core is removable from face).
- Deep, 1-piece outer cone improves anti-smudge protection (RM4PLQ).
- · Horizontal and vertical air distribution.
- 360° Discharge air pattern.
- Round inlet.
- Designed for exposed duct or hard ceiling applications.
- · Optional: Straightening grids and round damper.





R1DBR10

Round Diffuser with Center Downblow

- Steel construction.
- Deep, 1-piece outer cone improves anti-smudge protection.
- Ring operator for downblow section adjusted from face of diffuser.
- 360° discharge air pattern.
- · Round inlet.



RPN

Round Punkah Nozzle for Surface Mount

- · Aluminum construction.
- For use in surface mount applications.
- · Foam gasket and mounting screws included.
- Directional air pattern control (70° global rotation).
- · Round inlet.
- Optional: Aluminum aperture damper with stainless steel hardware.



RPNRD

Round Punkah Nozzle with Round Duct Adaptor

- Aluminum construction.
- For use in duct mount applications.
- · Foam gasket and mounting screws included.
- Directional air pattern control (70° global rotation).
- · Round inlet.
- Optional: Aluminum aperture damper with stainless steel hardware.



RPNRR

Round Punkah Nozzle with Round Duct Reducer

- · Aluminum construction.
- For use in stub duct applications.
- · Foam gasket and mounting screws included.
- Directional air pattern control (70° global rotation).
- · Round inlet.
- Optional: Aluminum aperture damper with stainless steel hardware.









RPN2P & RPN4P

2 or 4 Round Punkah Nozzles Mounted in a Panel

- Aluminum construction.
- For use in surface mount applications.
- 2 punkah nozzles mounted in a panel (RPN2P).
- 4 punkah nozzles mounted in a panel (RPN4P).
- · Foam gasket and mounting screws included.
- Directional air pattern control (70° global rotation).
- Optional: Aluminum aperture damper with stainless steel hardware.



RPNLP

Single Round Punkah Nozzle Mounted in a Panel

- · Aluminum construction.
- For use in lay-in T-bar applications.
- Directional air pattern control (70° global rotation).
- Round inlet
- Optional: Aluminum aperture damper with stainless steel hardware.



KJET & KJETA

Nozzle Diffusers with or without Core

- · Spun aluminum construction.
- KJETA concentric rings are steel construction.
- KJET features a supply nozzle with retaining ring.
- KJETA features a supply nozzle with retaining ring and adjustable concentric ring core, providing 60° of adjustment.
- · Round inlet.
- · Optional: Countersunk screw holes in outer flange.



CRN & 5CRN

Concentric Ring Nozzle for Surface Mount

- Steel (CRN) or aluminum (5CRN) construction.
- Directional air pattern control (60° axial adjustment with 360° of rotation).
- · Easy finger tip adjustment.
- For use in surface mount applications.





CRNRD & 5CRNRD

Concentric Ring Nozzle with Round Duct Adaptor

- Steel (CRNRD) or aluminum (5CRNRD) construction.
- Directional air pattern control (60° axial adjustment with 360° of rotation).
- · Easy finger tip adjustment.
- For use in duct mount applications.



CRNRR & 5CRNRR

Concentric Ring Nozzle with Round Duct Reducer

- Steel (CRNRR) or aluminum (5CRNRR) construction.
- Directional air pattern control (60° axial adjustment with 360° of rotation).
- Easy finger tip adjustment.
- For use in duct mount applications.



CRNLP & 5CRNLP

Concentric Ring Nozzle for Lay-in T-bar

- Steel (CRNLP) or aluminum (5CRNLP) construction.
- Directional air pattern control (60° axial adjustment with 360° of rotation).
- Easy finger tip adjustment.
- For use in lay-in T-bar applications.



CRNP & 5CRNP

Concentric Ring Nozzle for Panel Mount

- Steel (CRNP) or aluminum (5CRNP) construction.
- Directional air pattern control (60° axial adjustment with 360° of rotation).
- · Easy finger tip adjustment.
- 1, 2, 3, or 4 nozzles per panel.
- For use in surface mount applications.







R580 & R5880

Round Single/Double Deflection Grille for Concealed Mount

- · Aluminum construction.
- Round single (R580) or double (R5880) deflection airfoil blade grille with 1" blade spacing.
- · Easy finger tip adjustment.
- For use in surface mount applications.
- · Concealed mounting system standard.



R580RD & R5880RD

Round Single/Double Deflection Grille with Round Duct Adaptor

- · Aluminum construction.
- Round single (R580RD) or double (R5880RD) deflection airfoil blade grille with 1" blade spacing.
- Easy finger tip adjustment.
- For use in exposed duct mount applications.
- Frame slides cleanly over end of exposed duct.



R580RR & R5880RR

Round Single/Double Deflection Grille with Round Duct Reducer

- · Aluminum construction.
- Round single (R580RR) or double (R5880RR) deflection airfoil blade grille with 1" blade spacing.
- · Easy finger tip adjustment.
- For use in exposed duct mount applications.
- Frame slides cleanly into end of exposed duct.



REGC5

Round Egg Crate for Concealed Mount

- · Aluminum construction.
- Round 1/2"x1/2"x1/2" egg crate grille.
- For use in surface mount applications.
- · Concealed mounting system standard.



REGC5RD

Round Egg Crate with Round Duct Adaptor

- · Aluminum construction.
- Round 1/2"x1/2"x1/2" egg crate grille.
- For use in exposed duct mount applications.
- Frame slides cleanly over end of exposed duct.



REGC5RR

Round Egg Crate with Round Duct Reducer

- · Aluminum construction.
- Round 1/2"x1/2"x1/2" egg crate grille.
- For use in exposed duct mount applications.
- Frame slides cleanly into end of exposed duct.



180, 5180, 180M, & 5180M

Curved Blade, Multi-Deflection Supply Grilles

- Steel (180/180M) or aluminum (5180/5180M) construction.
- · Individually adjustable blades.
- 1, 2, 2C, 3, 3C, and 4-way discharge air patterns.
- Maximum single piece size is 36"x36".
- Available with multi-louver, gang operated damper (180M/5180M).



80, 580, & 585

Single Deflection Supply Grilles

- Steel (80) or aluminum (580/585) construction.
- Individually adjustable horizontal or vertical front blades.
- Blades spaced on 3/4" (80/580) or 1/2" (585) centers.
- Maximum single piece size is 48"x48".







880, 5880, & 5885

Double Deflection Supply Grilles

- Steel (880) or aluminum (5880/5885) construction.
- Individually adjustable horizontal and vertical blades.
- Blade spacing on 3/4" (880/5880) or 1/2" (5885) centers.
- Maximum single piece size is 48"x48".



480

Heavy Duty Single Deflection Supply Grille

- Steel construction (14 gage blades in 18 gage frame).
- · Adjustable horizontal or vertical front blades.
- Blade spacing on 1/2" centers.
- Maximum single piece size is 48"x48".



4880

Heavy Duty Double Deflection Supply Grille

- Steel construction (14 gage front blades in 18 gage frame).
- Individually adjustable horizontal and vertical blades.
- Front blade spacing on 1/2" centers; rear blade spacing on 3/4" centers.
- Maximum single piece size is 48"x48".



800 & 5800

Single Deflection Supply Registers with Gang-Operated Damper

- Steel (800) or aluminum (5800) construction.
- Individually adjustable horizontal or vertical front blades.
- · Gang-operated rear blades.
- Blade spacing on 3/4" centers.
- Maximum single piece size is 48"x36".



AF80 & AF580

Single Deflection Airfoil Supply Grilles

- Steel (AF80) or aluminum (AF580) frame.
- Extruded aluminum, airfoil shaped, adjustable blades.
- · Horizontal or vertical blades.
- Blade spacing on 3/4" centers.
- Maximum single piece size is 48"x48".
- Optional: Steel or aluminum OBD and plaster frame.



AF880 & AF5880

Double Deflection Airfoil Supply Grilles

- Steel (AF880) or aluminum (AF5880) frame.
- Extruded aluminum, airfoil shaped, adjustable blades.
- · Individually adjustable horizontal and vertical blades.
- Blade spacing on 3/4" centers.
- Maximum single piece size is 48"x48".
- Optional: Steel or aluminum OBD and plaster frame.



5815

Removable Reversible Core Supply Grille

- Aluminum construction with steel core clips.
- Provides several degrees of deflection (5° up, 5° down, 15° up, or 15° down).
- Fixed horizontal front blades on 1/4" centers.
- Adjustable vertical rear blades on 1" centers.
- Maximum single piece size is 72"x24".



5810

Removable Reversible Core Return Grille

- Aluminum construction with steel core clips.
- Provides several degrees of deflection (5° up, 5° down, 15° up, or 15° down).
- Fixed horizontal front blades on 1/4" centers.
- Maximum single piece size is 72"x24".
- · Optional: Core-only.







\$80, \$580, \$85, & \$585

Stationary Blade Return Grilles

- Steel (S80/S85) or aluminum (S580/S585) construction.
- Horizontal or vertical blades fixed on 3/4" (S80/S580) or 1/2" (S85/S585) centers.
- Blades set at 35° or 0° deflection.
- Maximum single piece size is 48"x48".
- Optional: 1" or 2" filter frame.



S80P & S580P

Perforated Return Grilles

- Steel (S80P) or aluminum (S580P) construction.
- 51% open area perforated face.
- Optional: 1" or 2" filter frame.



S480

Heavy Duty Steel Return Grille

- Steel construction (14 gage blades in 16 gage frame).
- Stationary horizontal or vertical blades.
- Blade spacing on 1/2" (38° angle) or 3/8" (0° angle) centers.
- Blades set at 0° or 38° angle.
- Maximum single piece size is 48"x48".
- Optional: 1" filter frame (24"x24" maximum size).



S5480

Heavy Duty Aluminum Return Grille

- Extruded aluminum construction (.11" thick blades and .06" thick frame).
- Stationary horizontal or vertical blades.
- Blade spacing on 1/2" centers.
- Blades set at 0° or 30° angle.
- Maximum single piece size is 48"x48".
- Support mullions included for units larger than 12" (9" maximum spacing).
- Optional: Heavy duty extruded aluminum damper (S5480OBD).



AFCS80 & AFCS85

Curved Blade Return Grilles

- · Steel construction.
- 3/4" blade spacing with 45° deflection (AFCS80).
- 1/2" blade spacing with 30° deflection (AFCS85).
- · Horizontal or vertical front blades.
- Maximum single piece size is 48"x48".
- Optional: Steel or aluminum OBD (5OBD), plaster frame, filter frame, insect screen, and debris screen.



AFS580 & AFS585

Fixed Blade Return Grilles

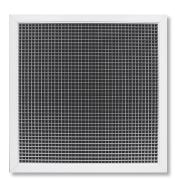
- Extruded aluminum construction.
- 3/4" blade spacing (AFS580).
- 1/2" blade spacing (AFS585).
- 0° or 45° deflection.
- · Horizontal or vertical front blades.
- Maximum single piece size is 48"x48".
- Optional: Steel or aluminum OBD (5OBD), plaster frame, filter frame, insect screen, and debris screen.



EG & EGC Series

Egg Crate Return Grilles

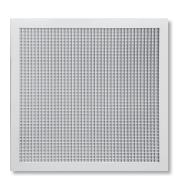
- · Aluminum core construction.
- Aluminum or steel frame construction.
- Maximum single piece size is 48"x48".
- Core Dimensions: 1/2"x1/2"x1/2" (EG5/EGC5), 1"x1"x1" (EG10/EGC10), or 1/2"x1/2"x1" (EG15/EGC15).
- Available with hard metric lay-in panel (MEGC5/MEGC10).



EGC545

45° Deterred Sight Egg Crate Return Grille

- Aluminum core and frame construction.
- 45° deflection core minimizes sight lines into the ceiling space.
- Available Sizes: 10"x10", 10"x22", 22"x22", and 22"x46"







1500

Supply/Return Linear Bar Grille

- Extruded aluminum construction.
- Bars (7/32" thick) on 1/2" or 7/16" (pencil proof) centers.
- Bars set at 0°, 15°, or 30° (pencil proof only) deflection.
- Maximum single piece length is 72"; can be joined for continuous runs.
- Support bars (9" maximum spacing).
- · Optional: Access doors, mitered corners and curving.



1600

Supply/Return Linear Bar Grille

- · Extruded aluminum construction.
- Bars (1/8" thick) on 1/4" or 1/2" centers.
- Bars set at 0° or 15° deflection.
- Maximum single piece length is 72"; can be joined for continuous runs.
- Support bars (9" maximum spacing).
- · Optional: Access doors, mitered corners and curving.



1700

Linear Louver Grille

- · Extruded aluminum construction.
- · Removable core.
- 1-way discharge (1701) or 2-way discharge (1702).
- Maximum single piece length is 72"; can be joined for continuous runs.
- · Optional: Mitered corners.



1800

Linear Bar Floor Grille

- Extruded aluminum construction.
- · Removable core.
- Bars (7/32" thick) on 1/2" or 7/16" (pencil proof) centers.
- Bars set at 0°, 15°, or 30° (pencil proof only) deflection.
- Maximum single piece length is 72"; can be joined for continuous runs.
- Support bars (6" maximum spacing).
- Optional: Mitered corners and curving.



1850

Linear Bar Floor Grille

- Extruded aluminum construction.
- · Removable core.
- Bars (1/8" thick) on 1/4" or 1/2" centers.
- Bars set at 0° or 15° deflection.
- Maximum single piece length is 72"; can be joined for continuous runs.
- Support bars (6" maximum spacing).
- · Optional: Mitered corners and curving.



1310, 1310TF, & 51310

Perforated Security Grilles

- Aluminum, 1/8" thick (51310) or steel, 3/16" thick (1310/1310TF) construction.
- Secondary face plate for transfer grille available (1310TF).
- 5/16" diameter holes on 7/16" staggered centers.
- Maximum single piece size is 30"x30".
- Available with rear or front operated OBD.
- Optional: Angled frame, anchor bars, round security bars and 2 loose angles.



13SD

Perforated, Anti-ligature Security Grille

- Steel, 3/16" thick, all welded construction.
- 3/16" diameter holes on 9/32" staggered centers.
- Maximum single piece size is 30"x30".
- Available with rear operated OBD.
- Optional: Angled frame, anchor bars or round security bars.



1320

Lattice Face Security Grille

- Steel, 3/16" thick construction.
- Square holes (2"x2") with a 1" fret face pattern.
- Wire mesh (10 gage, #2 wire) inserted between face plate and backer plate.
- Maximum single piece size is 30"x30".
- Available with rear or front operated steel OBD.
- Optional: Angled frame, anchor bars, round security bars and 2 loose angles.







1330

Louvered Face Security Grille

- Steel construction (16 gage frame and 14 gage blades).
- Stationary horizontal blades set at 40°.
- Wire mesh (10 gage, #2 wire) inserted between mullion and mesh guard.
- Maximum single piece size is 30"x30".
- Available with front or rear operated steel OBD.
- Optional: Angle frame, anchor bars, round security bars and 2 loose angles.



1340

Lattice Face Diffuser with Louvered Core

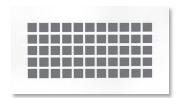
- Steel construction (12 gage lattice face plate).
- Lattice face plate features 13/16" square holes and 3/16" fret.
- Surface mount louvered face diffuser is factory set for 1, 2, 3, or 4-way air pattern.
- Optional: Duct mounted OBD (OBDDM).



51350

Aluminum Supply/Return Security Grille

- · Aluminum construction.
- Bars (3/16"x3/4") set at 0° deflection; bar spacing set on 1/2" centers.
- Tube (5/16" diameter) expanded to lock blades in place; reinforced full length by a 1/4" diameter rod.
- Maximum single piece size is 30"x30".
- Available with rear or front operated aluminum OBD pop-riveted in sleeve.
- Optional: Angle frame, anchor bars, round security bars and 2 loose angles.



1380 & 51380

Lattice or Perforated Face Plate

- 12 gage steel (1380L/1380P) or 1/8" thick aluminum (51380L/51380P) construction.
- 13/16" square holes with 3/16" fret (1380L/51380L).
- 5/16" diameter holes on 7/16" staggered centers (1380P/51380P).
- Sized to lay on face of Krueger grilles and registers.
- Optional: Straight and counter sunk screw holes (3/16" diameter), steel or aluminum plaster frame and front operated OBD.

1390

Barred Ductwork

- Vertical or horizontal round (3/4" diameter) and flat (2 1/2"x1/4") security bars.
- Maximum single piece size is 30"x30".



1390F

Barred Ductwork with Sleeve

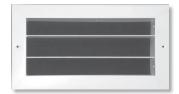
- Horizontal and vertical round security bars (3/4" diameter).
- Maximum single piece size is 30"x30".
- 2 loose angle frames included.



680 & 5680

Industrial Single Deflection Supply Grille

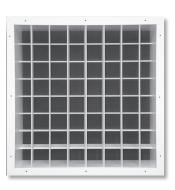
- Steel frame (680) or aluminum frame (5680) construction.
- Adjustable horizontal or vertical front airfoil blades (extruded aluminum construction).
- Maximum single piece size is 48"x48".
- Blade spacing on 1 1/4", 2", or 3" centers.
- Heavy-duty steel damper (OBDHD) easily adjusted through face.



6880 & 56880

Industrial Double Deflection Supply Grille

- Steel frame (6880) or aluminum frame (56880) construction.
- · Adjustable horizontal and vertical airfoil blades (extruded aluminum construction).
- Maximum single piece size is 48"x48".
- Blade spacing on 1 1/4", 2", or 3" centers.
- Heavy-duty steel damper (OBDHD) easily adjusted through face.







680MP & 5680MP

Industrial Pole Operated Multi-Louver

- 20 gage steel (680MP) or aluminum (5680MP) frame construction.
- Adjustable horizontal or vertical front airfoil blades (extruded aluminum construction).
- Blade spacing on 3/4" centers.
- Maximum single piece size is 40"x36".
- Rear pole operated, multi-louver steel blades.



DPL & DPL2

Drum Punkah Louver

- · Aluminum construction.
- Rotating drum with adjustable deflection vanes (DPL).
- Rotating drum with adjustable split deflection vanes (DPL2).
- Rotating drum permits 60° angular adjustment.
- Heavy duty steel damper (DOBHD) easily adjusted through face.



DMD

Duct Mounted Drum Louver

- · Heavy gage aluminum construction.
- 2" louver vane spacing.
- · Curved frame allows for mounting directly to spiral or oval duct.
- · Easy finger tip adjustment.
- Foam gasket to seal unit to duct.
- · Optional: Damper or extractor.



5DMG*R Series

Duct Mounted Supply Grilles with Radius End Cap

- Aluminum construction.
- Radius end caps match curvature of round or oval duct.
- Individually adjustable single (5DMGSR) or double deflection (5DMGDR) blades.
- Blades spaced on 3/4" centers (5DMGDR/5DMGSR).
- 63% free area perforated face (5DMGPR).



5DMG*U Series

Duct Mounted Supply Grilles with Universal End Cap

- · Aluminum construction.
- Foam gasket end caps compress to curvature of round or oval duct.
- Individually adjustable single (5DMGSU) or double deflection (5DMGDU) blades.
- Blades spaced on 3/4" centers (5DMGDU/5DMGSU).
- 63% free area perforated face (5DMGPU).



600 Series

Sight-Proof Door Grilles

- Steel (600/600A/600C/600F) or aluminum (5600/5600A/5600F) construction.
- V-shaped deflection vanes set on 1/2" centers.
- Frame Styles: Single core with flat frame (600/5600), single core with flat frame and auxiliary frame (600A/5600A), single core with channel frame (600C), auxiliary frame only (600F/5600F).
- Maximum single piece size is 30"x30".



980

Stainless Steel Single Deflection Supply Grille

- 304 stainless steel construction (optional 316 stainless steel construction).
- Individually adjustable horizontal or vertical front blades.
- Blades spaced on 3/4" centers.
- Optional: Damper (9OBD), plaster frame (9PF) and square to round adapter (9SRA).



9880

Stainless Steel Double Deflection Supply Grille

- 304 stainless steel construction (optional 316 stainless steel construction).
- Individually adjustable horizontal and vertical blades.
- Blades spaced on 3/4" centers.
- Optional: Damper (90BD), plaster frame (9PF) and square to round adapter (9SRA).







9S80 Series

Stainless Steel Single Deflection Return Grilles

- 304 stainless steel construction (optional 316 stainless steel construction).
- Blades set at 45° or 0° deflection.
- Horizontal or vertical blades fixed on 3/4" centers.
- Optional: Damper (9OBD), plaster frame (9PF) and square to round adapter (9SRA).



9700 Series

Stainless Steel Sight-Proof Door Grilles

- 304 stainless steel construction (optional 316 stainless steel construction).
- Z-shaped deflecting vanes set on 1" centers.
- Frame Styles: Single core with flat frame (9700), single core with flat frame and auxiliary frame (9700A), double core with flat frame (9700D).



91240

Fixed Core Diffuser

- 304 stainless steel construction (optional 316 stainless steel construction).
- Cores are welded at factory for 1, 2, 3, or 4-way discharge air patterns.
- Optional: Damper (9OBD), plaster frame (9PF) and square to round adapter (9SRA).



91610, 91620, & 91520

Heavy Duty Stainless Steel Bar Grilles

- 304 stainless steel construction (optional 316 stainless steel construction).
- Bars are 1/8" thick with 3/8" spacing; set at 15° or 0° deflection (91610).
- Bars are 1/8" thick with 1/2" spacing; set at 15° or 0° deflection (91620).
- Bars are 1/4" thick with 1/2" spacing; set at 0° deflection (91520).
- Maximum single piece size is 60"x24".
- Optional: No screw holes, countersunk screw holes with #6x1 1/4" stainless steel screws, damper (9OBD) and adjustable straightening grid (9SSG).





9180

Curved Blade, Multi-Deflection Stainless Steel Diffuser

- 304 stainless steel construction (optional 316 stainless steel construction).
- Individually adjustable curved blades.
- Several discharge air patterns available.
- Optional: No screw holes, countersunk screw holes with #6x1 1/4" stainless steel screws, damper (9OBD) and square to round adapter (9SRA).



91310

Perforated, Stainless Steel Security Grille

- 304 stainless steel construction (optional 316 stainless steel construction).
- 5/16" diameter holes on 7/16" staggered centers.
- 1/8" continuously welded seams.
- Optional: Front and rear welded damper (93F/93R), security bar grid, angle frame and anchor bars.



9EGC5

Stainless Steel Egg Crate Grille

- 304 stainless steel construction (optional 316 stainless steel construction).
- Core Dimensions: 1/2"x 1/2"x 1/2".
- Optional: No screw holes, countersunk screw holes with #6x1 1/2" stainless steel screws, damper (9OBD) and square to round adapter (9SRA).



VPQ

Square Plaque VAV Diffuser with Thermal Control

- · Steel construction.
- 1-piece, non-folded, square face.
- Plaque face attaches to 1-piece, stamped backpan.
- Available thermal VAV control or no control.
- · Round inlet.



Thermal Control Backpan View





DVD

Square Plaque VAV Diffuser with Digital Control

- · Steel construction.
- Plaque face attaches to 1-piece, stamped backpan.
- · Available as primary with wall-mounted thermostat.
- Available as secondary, connecting up to 20 units to a single thermostat.
- · Round inlet.



TAD, TADSS, & TADBACKPAN

Total Air Diffuser

- Aluminum (TAD) or stainless steel (TADSS) construction.
- Draft free, high volume, low velocity radial diffuser.
- · Lay-in and surface mount options available.
- 2-way (180° air pattern) or 1-way (90° air pattern) deflection.
- Optional: Backpan (TADBACKPAN).
- · Optional: Antimicrobial paint.



TADHF & TADSSHF

Total Air Diffuser with HEPA Filter Capability

- Aluminum (TADHF) or stainless steel (TADSSHF) construction.
- Draft free, high volume, low velocity radial diffuser.
- Backpan includes a knife edge for gel seal HEPA filter (TADFILTER, sold separately).
- 2-way (180° air pattern) or 1-way (90° air pattern) deflection.
- Optional: Antimicrobial paint.



RADIAFLO™

Flush Face Radial Diffuser

- Aluminum (5RF) or stainless steel (9RF) construction.
- Flush face, draft free, high volume, low velocity radial diffuser.
- Available with backpan (5RFHF/9RFHF) that includes a knife edge for gel seal HEPA filter (RFFILTER, sold separately).
- Lay-in and surface mount options available.
- 2-way (180° air pattern) or 1-way (90° air pattern) deflection.
- · Optional: Antimicrobial paint.





STERILFLO®

Operating Room Particulate Control System

- 100% type 304 stainless steel construction.
- Perimeter air curtain with center panels (optimum configuration).
- · Radius corners.
- · Custom layouts and design specific drawings.
- 1/4-turn fasteners for easy face removal and cleaning.
- · Tested during actual surgical procedures.
- Class I Microbiological Clean Air Certification.
- Optional: Factory certifications.



STERILFLEX™

Modular Operating Room Particulate Control System

- · Aluminum construction.
- Best-in-class performance with a modular design.
- Integra-grid ceiling frame insures a fast, accurate installation.
- Compatible with sheetrock and T-bar ceiling types.
- Left, center, and right side plenum inlet location (top centered plenum optional).
- · Lay-in faces.
- Optional: Integrated KleanAire[™] UVC technology.



5000

Laminar Flow Diffuser

- Steel, aluminum, or stainless steel construction (18 gage frame, 20 gage backpan, and 22 gage perforated face and baffle).
- · Quick-open fasteners and hanger tabs.
- Safety wires included for each perforated face panel.
- · Lay-in and surface mount options available.
- · Optional: Antimicrobial paint.



5000HF

Laminar Flow Diffuser with HEPA Filter Capability

- · Aluminum or stainless steel construction.
- For use with gel seal HEPA filter (5FILTER, sold separately).
- · Quick-open fasteners allow room-side access to HEPA filter.
- Safety wires included for each perforated face panel.
- · Lay-in and surface mount options available.
- · Optional: Antimicrobial paint.







CRFF Series

Fan Filter Units with HEPA Filter

- Aluminum construction (optional 304 stainless steel construction).
- PSC motor with Solid State Speed Controller.
- High Efficiency Particulate Air (HEPA) filter and snap-in prefilter.
- Forward inclined centrifugal-type fan.
- · Walkable plenum (excluding prefilter).
- Meets IEST Recommended Practices; UL listed (120V, 277V).
- Optional: ECM motor with universal control card and room side HEPA access.
- Optional: Room side motor access.



ABD

Active Chilled Beam, Recessed, 12" Nominal Grid Installation

- · Steel construction.
- Compatible with 12" on center grid systems.
- Cooling and/or heating.
- Adjustable Velocity Control (HVC).



ABH

Active Chilled Beam, Exposed Wall Installation

- · Steel construction.
- Ideal for hotel guest and other resident rooms.
- Exposed, architecturally friendly installation.
- · Cooling and/or heating.



ABX

Active Chilled Beam, Recessed, 24" Nominal Grid Installation

- · Steel construction.
- Cooling and/or heating.
- 4-way air pattern.
- Available in 24"x24", 24"x36", 24"x48", and 30"x30" configurations.
- · Face can be adjusted to boost performance capacity.





ACE

Active Chilled Beam, Exposed Installation

- · Steel construction.
- Exposed, architecturally friendly installation.
- VAV damper for increased DOAS ventilation air.
- Adjustable Velocity Control (HVC).
- Available integrated lighting for room illumination.
- Available with slotted or perforated induction channels.
- · Available with angular or rounded outer casing.



AHB

Active Chilled Beam, Bulkhead Installation with Boost Option

- · Steel construction.
- Ideal for hotel guest and other resident rooms.
- Good option for fan coil unit renovations.
- · Bulkhead installation.
- · Includes adjustable grille at discharge.
- · Low sound levels.
- Optional boost fan to increase response to space demand adjustments.



AHH

Active Chilled Beam, Bulkhead Installation

- Steel construction.
- Ideal for hotel guest and other resident rooms.
- · Good option for fan coil unit renovations.
- · Bulkhead installation.
- · Includes adjustable grille at discharge.
- · Low sound levels.



ASB

Active Chilled Beam, Recessed, High Capacity

- · Steel construction.
- Ideal for higher capacity applications.
- Optional left or right side inlet.
- 2-way discharge with adjustable velocity control (HVC).
- Available integrated lighting for room illumination.
- Optional VAV damper for increased DOAS ventilation air.







APA

Passive Chilled Beam, Exposed Installation

- · Steel construction.
- · Passive operation.
- · Installation flush or below ceiling.
- · Cooling only.



APT

Passive Chilled Beam, Open Grid or Perforated Ceiling Installation

- · Steel construction.
- · Passive operation.
- Ideal for installation above open ceiling grids.
- · Cooling only.



AFL

Rectangular, Ceiling Mount, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- · Low velocity, vertical discharge from ceiling.
- For lay-in or surface mount applications.
- Ideal for perimeter or unoccupied areas.



AFA

Rectangular, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- Horizontal low velocity discharge at floor level.
- Ideal for high volume applications.
- Round duct connection at the top, bottom, side, or back.
- · Available base and duct cover accessories.





AFB

U-Shaped, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- · Horizontal low velocity discharge at floor level.
- Flow pattern at an angle of 180° enables large airflow rates with low residual velocities in the occupied zone.
- Round duct connection at the top or bottom of the diffuser.
- Available base and duct cover accessories.



AFC

Round, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- Horizontal low velocity discharge at floor level, suitable for mid-space applications.
- Flow pattern at an angle of 360° enables large airflow rates with low residual velocities in the occupied zone.
- Round duct connection on top or bottom of the diffuser.
- · Available base and duct cover accessories.



AFD

Rounded Triangle, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- · Horizontal low velocity discharge at floor level.
- Flow pattern at an angle of 180° enables large airflow rates with low residual velocities in the occupied zone.
- Round duct connection on top or bottom of the diffuser.
- · Available base and duct cover accessories.



AFE

Flat-Faced, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- Horizontal low velocity discharge at floor level.
- · Easy integration into wall structure.
- Detachable panel enables cleaning of the unit and ductwork.
- Rectangular duct connection at top or bottom of the diffuser.







AFR

Flat-Faced, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- Horizontal low velocity discharge at floor level.
- Easy integration into wall or casing structure.
- · Compatible with stair riser installations.



AFF

Half Flat Oval, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- · Horizontal low velocity discharge at floor level.
- · Shallow footprint.
- Large airflow rates with low residual velocities in the occupied zone due to large front plate.
- Rectangular duct connection on top or bottom of the diffuser.
- · Compatible with stair riser installations.
- Available base and duct cover accessories.



AFP

Half Round, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- · Horizontal low velocity discharge at floor level.
- Flow pattern at an angle of 180° enables large coverage with low residual velocities in the occupied zone.
- Round duct connection at the top or bottom of the diffuser.
- Available base and duct cover accessories.



AFO

Corner Round, Low-Velocity Supply Unit

- 20 gage steel front panel (stainless steel available).
- · Horizontal low velocity discharge at floor level.
- Corner installation with a 90° supply angle.
- Round duct connection on top or bottom of the diffuser.
- · Available flat face design.
- Available base and duct cover accessories.





FDR

Round Helical Diffuser for Underfloor Systems

- · Cast aluminum construction with a 1250 lb. load rating.
- 180° or 360° air pattern.
- Up to 130 CFM.
- · Manual airflow adjustment.
- Operates silently at less than 17 NC at 100% capacity.
- Conforms to NFPA 90A fire requirements.
- · Ships completely assembled.
- Optional variable air volume plenum.



FDD

Round Displacement Diffuser for Underfloor Systems

- · Cast aluminum construction with a 1250 lb. load rating.
- 180° or 360° displacement air pattern.
- Up to 90 CFM.
- Manual airflow adjustment.
- Operates silently at less than 17 NC at 100% capacity.
- Conforms to NFPA 90A fire requirements.
- · Ships completely assembled.
- Optional variable air volume plenum.



FDS

Square Diffuser with Plenum for Underfloor Systems

- Cast aluminum construction with a 1250 lb. load rating.
- Removable grille face plates adjust to provide multiple air patterns.
- Up to 190 CFM.
- Operates silently at less than 17 NC at 100% capacity.
- · Conforms to NFPA 90A fire requirements.
- · Optional variable air volume plenum.



FDI

Linear Bar Grille with Plenum for Underfloor Systems

- Extruded aluminum bar grille with a 1250 lb. load rating.
- Up to 225 CFM.
- Operates silently at less than 17 NC at 100% capacity.
- · Conforms to NFPA 90A fire requirements.
- · Ships completely assembled.
- · Optional variable air volume plenum.







FLDS

Linear Bar Grille for Underfloor Systems

- Extruded aluminum construction with a 1250 lb. load rating.
- · Conforms to NFPA 90A fire requirements.
- Operates silently at less than 17 NC at 100% capacity.
- Optional factory installed blank off for inactive sections.



FDT

Trough Unit with Linear Bar Grille for Underfloor Systems

- Extruded aluminum construction with a 1250 lb. load rating.
- 36" to 120" length sections available.
- · Conforms to NFPA 90A fire requirements.
- Operates silently at less than 17 NC at 100% capacity.
- Optional finned electric reheat or hot water coil for heating.
- Ships completely assembled and is available with a variety of ducted or VAV inlet sizes.



KUFS

Underfloor Series Fan Powered Terminal Unit

- 20 gage construction with removable top service panel.
- Dual density, foil faced, and fiber free "Cellular" liners available.
- Analog or factory installed direct digital controls (by others).
- · Hot water or electric heat available.
- PSC fan motor with electronic speed control (optional ECM motor available).
- Unit Height: 10 1/2" or 14 1/8". Airflow Capacities: Up to 1200 CFM.
- ETL listed. Meets NFPA 90A and UL 181 requirements.
- · Tested in accordance to AHRI Standard 880.



KRF

Underfloor Booster Fan Powered Terminal Unit



- Factory installed direct digital controls (by others).
- Hot water or electric heat available.
- PSC fan motor with electronic speed control (optional ECM motor available).
- Airflow Capacities: Up to 2800 CFM.
- ETL listed.
- Tested in accordance to AHRI Standard 880.







KUFM

Underfloor-Mixing Fan Powered Terminal Unit

- 20 gage construction with removable service panel.
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Factory installed direct digital controls (by others).
- ECM motor.
- Airflow Capacities: Up to 6200 CFM.
- ETL listed. Meets NFPA 90 and UL 181 requirements.
- Tested in accordance to AHRI Standard 880.



LMHS

Single Duct Terminal Unit

- 22 gage construction (optional 20 gage).
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- Hot water, electric heat, or LineaHeat™ Solid State Proportional Electric Heat available.
- · Available with removable flow sensor.
- Airflow Capacities: Up to 7000 CFM.
- · Low profile and exhaust unit construction available.
- AHRI listed. Meets NFPA 90A and UL 181 requirements.





LMHD

Dual Duct Terminal Unit

- 22 gage construction (optional 20 gage).
- Applicable when blending of hot and cold air is not required.
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- Airflow Capacities: Up to 7000 CFM (per inlet).
- AHRI listed. Meets NFPA 90A and UL 181 requirements.





LMHDT

Dual Duct Terminal Unit (Variable or Constant Volume)

- 22 gage construction with integral attenuator and mixing baffle (optional 20 gage).
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- 20:1 temperature mixing ratio.
- Discharge Airflow Capacities: Up to 5235 CFM.
- AHRI listed. Meets NFPA 90A and UL 181 requirements.











Ultra Quiet Fan Powered Terminal Units

- 20 gage construction with removable bottom service panel.
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- Hot water, electric heat, or LineaHeat™ solid state proportional electric heat available.
- ECM motor with manual VCU or remote ACU speed controller (PSC motor available).
- Airflow Capacities: KQFS up to 3000 CFM; KQFP up to 3660 CFM.
- AHRI and ETL listed. Meets NFPA 90A and UL 181 requirements.





Ultra Quiet Fresh Air Fan Powered Terminal Unit

- 22 gage construction with removable bottom service panel (optional 20 gage).
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Factory installed direct digital controls (by others).
- Hot water, electric heat, or LineaHeat™ solid state proportional electric heat available.
- · Fresh air inlet to meet minimum ventilation rates.
- ECM motor with manual VCU or remote ACU speed controller (PSC motor available).
- Airflow Capacities: Up to 3660 CFM.
- AHRI and ETL listed. Meets NFPA 90A and UL 181 requirements.





Standard Fan Powered Terminal Units

- 22 gage construction with removable bottom service panel (optional 20 gage).
- Dual density, foil faced, and fiber free "Cellular" liners available.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- Hot water, electric heat, or LineaHeat™ solid state proportional electric heat available.
- Airflow Capacities: Up to 3660 CFM.
- ECM motor with manual VCU or remote ACU speed controller (PSC motor available).
- AHRI and ETL listed. Meets NFPA 90A and UL 181 requirements.





KLPS (Series) & KLPP (Parallel)

Low Profile Fan Powered Terminal Units

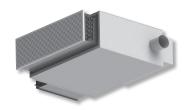
- 20 gage construction with removable bottom service panel.
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- Hot water, electric heat, or LineaHeat™ solid state proportional electric heat available.
- Airflow Capacities: KLPS up to 1970 CFM; KLPP up to 2060 CFM.
- ECM motor with manual VCU or remote ACU speed controller (PSC motor available).
- AHRI and ETL listed. Meets NFPA 90A and UL 181 requirements.



KLPS-D (Series)

Low Profile DOAS Fan Powered Terminal Unit

- 20 gage construction with removable bottom service panel.
- Cooling coil designed to handle sensible cooling load in the space.
- ECM motor with manual VCU or remote ACU speed controller (PSC motor available).
- Dual density, foil faced, dual wall, and fiber free "Cellular" liners available.
- Factory installed direct digital controls (by others).
- Hot water, electric heat, or LineaHeat™ solid state proportional electric heat available.
- Airflow Capacities: Up to 1550 CFM.
- AHRI and ETL listed. Meets NFPA 90A and UL 181 requirements.





RVF

Retrofit and/or Laboratory Exhaust Terminal Unit

- 22 gage construction (optional 20 gage).
- Available in 304 or 316 stainless steel construction.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- · Available with removable flow sensor.
- Airflow Capacities: Up to 3660 CFM.
- Tested in accordance to AHRI Standard 880.



KLB

Bypass Terminal Unit

- 20 gage construction.
- Dual density fiberglass liner.
- Pressure dependent pneumatic or electric controls.
- Airflow Capacities: Up to 4400 CFM.
- Tested in accordance to AHRI Standard 880.
- Meets NFPA 90A and UL 181 requirements.



SVF

Slip-In Retrofit Terminal Unit

- 22 gage construction.
- Multi-blade control damper.
- Pneumatic, analog, or factory installed direct digital controls (by others).
- Unit sized to slide into most square and rectangular ducts.
- Gasketed orifice plate and mounting plate.
- Airflow Capacities: Up to 14500 CFM.
- Tested in accordance to AHRI Standard 880.









KMS

Retrofit In-line Measuring Station

- 22 gage construction (optional 20 gage and/or stainless steel).
- Linear or 4 quadrant center averaging airflow sensor.
- · Available with removable flow sensor.
- Airflow capacities from 40 to 3660 CFM.



KHFH

Horizontal Standard, Concealed Ceiling Fan Coil

- 18 gage steel casing construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 200 to 1,200 CFM.
- Double wall 18 gage steel condensate pan with dual density liner.
- Multi speed motor of the permanent split capacity type (PSC).
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.



KHFP

Horizontal Standard. Concealed with Plenum Fan Coil



- 18 gage steel casing construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 200 to 1,200 CFM.
- Double wall 18 gage steel condensate pan with dual density liner.
- Return air plenum thermally and acoustically insulated covering the motor(s)/blower(s) to reduce noise dissipation from the unit.
- · ECM and PSC motors available.
- 1" thick disposable filters.
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.



KHFE

Horizontal Standard, Exposed Cabinet Fan Coil



- Cabinet components are painted with a powder polyester baked coating in white or beige and are acoustically insulated to reduce noise dissipation from the unit.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- · Airflow Capacities: 200 to 1,200 CFM.
- · ECM and PSC motors available.
- 1" thick disposable filters.
- Stamped discharge grille. Stamped return air/access panel grille.
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.









KHGH

Horizontal High Capacity, Concealed Ceiling Fan Coil

- 18 gage steel casing construction.
- 3 to 6 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 600 to 2000 CFM.
- Double wall 18 gage steel condensate pan with dual density liner.
- Multi speed motor of the permanent split capacity type (PSC).
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.





KHGP

Horizontal High Capacity, Concealed with Plenum Fan Coil

- 18 gage steel casing construction.
- 3 to 6 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 600 to 2000 CFM.
- Double wall 18 gage steel condensate pan with dual density liner.
- Return air plenum thermally and acoustically insulated covering the motor(s)/blower(s) to reduce noise dissipation from the unit.
- 1" thick disposable filters.
- ECM and PSC motors available.
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.





KHGE

Horizontal High Capacity, Exposed Cabinet Fan Coil

- 18 gage steel casing construction.
- 3 to 6 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 600 to 2000 CFM.
- 1" thick disposable filters.
- ECM and PSC motors available.
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.





KVFH

Vertical Standard, Concealed Floor Fan Coil

- 18 gage steel casing construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 200 to 1,200 CFM.
- Double wall 18 gage steel condensate pan with dual density liner.
- 1" discharge air flange.
- 1" thick disposable filter.
- ECM and PSC motors available.
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.













Vertical Standard, Flat Top Cabinet Fan Coil

- Internal and external components fabricated of 18 gage steel casing construction.
- Cabinet components are painted with a powder polyester baked coating in white or beige and are acoustically insulated.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- · Airflow Capacities: 200 to 1,200 CFM.
- Double wall 18 gage steel condensate pan with dual density liner.
- ECM and PSC motors available. Stamped discharge grille.
- Auxiliary condensate with 7/8" OD sweat connection. 1" thick disposable filter.
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.



Vertical Standard, Slant Top Cabinet Fan Coil



- Cabinet components are painted with a powder polyester baked coating in white or beige and are acoustically insulated.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 200 to 1,200 CFM.
- Double wall 18 gage steel condensate pan with dual density liner.
- ECM and PSC motors available. Stamped discharge grille.
- Auxiliary condensate with 7/8" OD sweat connection. 1" thick disposable filter.
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.





Vertical Stack, Recessed Fan Coil

- 18 gage steel casing construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 300 to 1,200 CFM.
- Single wall condensate pan in galvanized steel, thermally protected on the outside.
- 1" discharge air flanges for duct and dry wall applications.
- 1" thick disposable filter.
- Multi speed motor of the permanent split capacity type (PSC).
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.





KVPP

Vertical Stack, Recessed Primary Fan Coil

- 18 gage steel casing construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 300 to 1,200 CFM.
- Single wall condensate pan in galvanized steel, thermally protected on the outside.
- 1" discharge air flanges for duct and dry wall applications.
- 1" thick disposable filter.
- Multi speed motor of the permanent split capacity type (PSC).
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.



KVPS

Vertical Stack, Recessed Secondary Fan Coil

- 18 gage steel casing construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 300 to 1,200 CFM.
- Single wall condensate pan in galvanized steel, thermally protected on the outside.
- 1" discharge air flanges for duct and dry wall applications.
- 1" thick disposable filter.
- Multi speed motor of the permanent split capacity type (PSC).
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.





KVIP/KVIS

Vertical Stack, Recessed Twin Pack Fan Coil

- 18 gage steel casing construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow Capacities: 300 to 1,200 CFM.
- Single wall condensate pan in galvanized steel, thermally protected on the outside.
- 1" discharge air flanges for duct and dry wall applications.
- 1" thick disposable filter.
- Multi speed motor of the permanent split capacity type (PSC).
- Performance AHRI certified to Standard 440; ETL listed per ANSI/UL 1995.





KVPE

Vertical Stack, Exposed Fan Coil

- 18 gage steel cabinet construction.
- 2 to 5 total rows of cooling/heating available for 2-pipe or 4-pipe applications.
- Airflow capacities from 300 to 1,200 CFM.
- 1" discharge air flanges for duct and dry wall applications.
- ECM and PSC motor available in multiple voltages.
- ETL listed per ANSI/UL 1995.
- Performance AHRI certified to Standard 440.





KBH & KBV

Horizontal and Vertical Standard Blower Coil

- 18 gage galvanized steel cabinet construction.
- Airflow capacities from 600 to 4,000 CFM.
- Up to 3" TSP.
- Belt drive fans.
- · Optional water, refrigerant, or steam coils.
- cETL listed in compliance with UL/ANSI Standard 1995.









KSB

Small Footprint, Vertical Blower Coil with Rear Return

- 18 gage galvanized steel cabinet construction.
- Airflow capacities from 800 to 3,000 CFM.
- Up to 2" TSP.
- · Belt drive fans.
- Optional water, refrigerant, or steam coils.
- cETL listed in compliance with UL/ANSI Standard 1995.



KSL

Small Footprint, Vertical Blower Coil with Bottom Return

- 18 gage galvanized steel cabinet construction.
- Airflow capacities from 800 to 3,000 CFM.
- Up to 2" TSP.
- · Belt drive fans.
- Optional water, refrigerant, or steam coils.
- cETL listed in compliance with UL/ANSI Standard 1995.



KBM

Modular Blower Coil

- 18 gage galvanized steel cabinet construction.
- Airflow capacities from 600 to 10,000 CFM.
- Up to 3.5" TSP.
- · Belt drive fans.
- Multiple unit segments with optional configurations.
- · Optional water, refrigerant, or steam coils.
- cETL listed in compliance with UL/ANSI Standard 1995.





PRODUCT FINISHES

Krueger has a broad range of liquid and powder paint solutions available, as well as custom color matching to meet the needs of most air distribution applications. Additionally, we offer a variety of Aluminum anodized colors for customers who may require the aesthetics and surface characteristics which these finishes offer.

Applied in our state-of-the-art paint facilities, Krueger product finishes take full advantage of the most current, cutting-edge technology available. From standard paint finishes, custom color matching, antimicrobial powder paint coatings, and Aluminum anodizing, Krueger has a product finish that is right for you.

STANDARD LIQUID PAINT

Description

Krueger's standard paint selections use an anodic electrocoating process that produces a durable, thorough, controllable, corrosion-resistant finish on all products.

Method of Application

After assembly, products are washed, rinsed, pretreated with zirconium phosphate, and then rinsed again. They are then suspended from an anodic hook and dipped into a high performance electrocoating tank. Following electrocoating, products are dried and baked in a forced air oven at a peak temperature of 310°F until cured.

Film Properties

PROPERTY	TEST METHOD	STANDARD E-COAT VALUE	STANDARD POWDER COAT VALUE	ANTIMICROBIAL Powder Coat Value
Film Thickness	N/A	1.0 - 1.2 mils	2.3 - 3.7 mils	2.3 - 3.7 mils
Gloss: 60-degrees	ASTM D523-89	60 - 70%	60 - 70%	55 - 65%
Pencil Hardness	ASTM D3363-92A	HB - H	H - 2H	H - 2H
Crosshatch Adhesion	ASTM D3359-83	Crosshatch 3B	4A - 5A	4A - 5A
Impact	ASTM D2794-93	Direct: >100 in/lb Reverse: >80 in/lb	N/A	N/A
Salt Spray	ASTM B117-9048	100 Hours	1000 Hours	1000 Hours
Humidity	ASTM D2247-92	> 500 Hours	1000 Hours	1000 Hours
Water Soak	ASTM D870-92	250 Hours	N/A	N/A
Conical Mandrel	ASTM D522	N/A	1/8" Conical Bend No Cracking Shows	1/8" Conical Bend No Cracking Shows

STANDARD POWDER PAINT

Description

Krueger's powder paint coatings are aesthetically pleasing, provide excellent physical and chemical resistance properties, and produce a durable uniform finish. Additionally, they are antiseptically manufactured to meet the increasingly stringent requirements of the commercial, industrial, healthcare and laboratory markets, and are used exclusively on Krueger's world-class critical environment diffusers.

Method of Application

After assembly, products go through a multi-staged wash and pretreat system, are oven dried, then coated with 2.0 to 3.0 mils of powder paint. The products then move through an oven and are baked at a temperature of 425°F until fully cured.

Antimicrobial Powder Coat

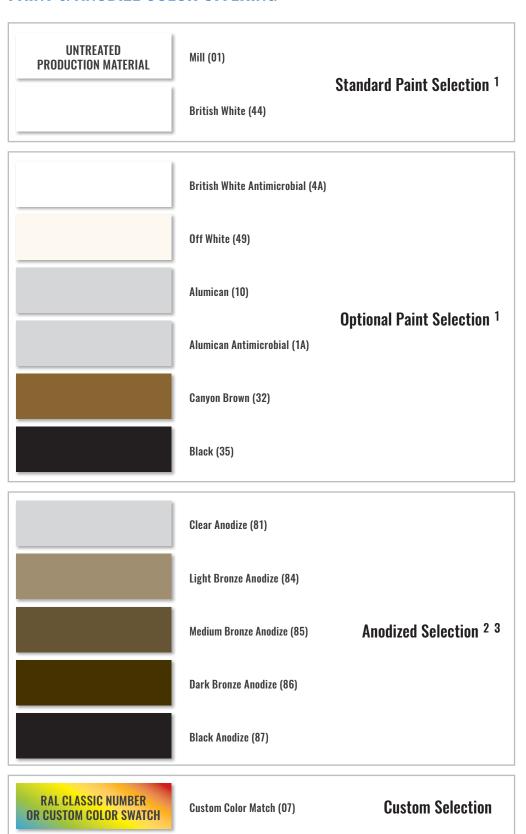
Krueger's antimicrobial powder coat paints help reduce the undesirable effects of odors and stains caused by bacteria, mold, mildew, and fungi on the coating. They also resist fingerprints and smudges, which help them stay cleaner between scheduled routine maintenance. When cleaning is necessary, they can be wiped down with a mild soap and water solution.

Antimicrobials within the paint decrease microbial growth by disrupting the microorganisms when they make contact with the surface. A short period of time after contact, the bacteria levels begin to reduce to unmeasurable levels*. Even better, these coatings are environmentally friendly and are considered to be RoHS and REACH-compliant solutions.

*DISCLAIMER: This product is formulated with antimicrobials to help suppress the growth of odor and stain-causing microorganisms on the coating. It is not intended as a substitute for good hygiene or to prevent foodborne or infectious illnesses.



PAINT & ANODIZE COLOR OFFERING



NOTES:

All finish types shown are <u>NOT</u> available with all products. Please see Krueger's Product Catalog or website for available finishes per product.

Standard finish options are Mill (untreated production material) or British White. For other paint selections or paint matching, additional fees may apply.

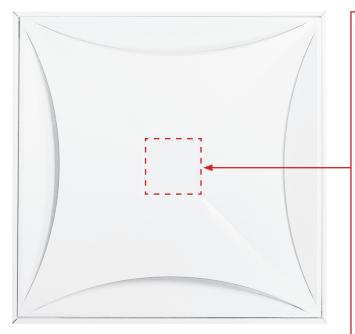
All finishes and colors shown serve as a guide only. Please contact your local Krueger Representative for an actual sample.

- ¹ Powder coat British White and Antimicrobial White are standard with certain critical environment products only. See Krueger for details.
- ² Anodized options are only available with select aluminum products. See Krueger for details.
- ³ Anodized finishes are suggested for high traffic areas where diffusers will be mounted in the floor.

<u>ADVISORY</u>: White can be used as a primer coat. For field finishing, white coating must be sanded lightly.



PRISM APPLIQUÉ COLORS



Prism shown above with appliqué location (red outline).

Prism Appliqué Specifications

The intended use for the appliqué is on the Krueger Prism ceiling diffuser (pg 4). The appliqués consist of a matte substrate with an adhesive backing and are individually die cut for precision and consistency. They are then fitted to a pre-formed square embossment in the center of the faceplate with the purpose of providing color. The appliqué is applied after the diffuser is painted. Appliqué specifications include: 0.017" Polycarbonate substrate with opacity film; 0.002" adhesive with peel-off backing; and 0.019" total thickness.

NOTE: These Prism appliqué colors may be ordered as Finish Code 07 for other GRD products.



NOTES:

A standard Prism diffuser is ordered with no center appliqué.

To add color, select from one of nine appliqué colors or provide artwork with a custom design or logo.

Setup fees will apply for any appliqué selection.

If appliqué color is desired as entire diffuser finish, additional fees will apply. See Krueger for details.











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Let us know how we can assist you in your next building application. For more information, contact your local Krueger representative or visit us on the web at www.krueger-hvac.com.

CRITICAL ROOM SOLUTIONS

CHILLED BEAMS

DISPLACEMENT VENTILATION

UNDERFLOOR

Underfloor Diffusers
Underfloor Terminal Units

TERMINAL UNITS

Single Duct Fan Powered Dual Duct Bypass & Retrofit

FAN COILS & BLOWER COILS

Horizontal
Vertical / Stack

DIFFUSERS

Air Nozzles

Plaque & Architectural
Louvered
Perforated
Modular Core
Linear Slot
Plenum Slot
Round

GRILLES & REGISTERS

Supply
Return
Linear Bar
Security
Industrial
Duct Mounted
Transfer
Stainless Steel



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