## MODEL

- 1900 - Aluminum, linear slot diffuser

## FEATURES

- Extruded aluminum construction
- Numerous frame styles available for varying applications
- Slots reveal black adjustable, removable blades which snap into several positions for airflow volume and pattern control
- Linear appearance complements ceilings and walls with continuous architectural lines
- Matching plenum (1900BOOT) and mitered corner (1900MC) models
- Sections range from 12” to 72” long; units longer than 72” will consist of sections butted together for continuous runs
- Inactive sections may be blanked-off using optional blank-off strips, which ship separately in 72” lengths to be field cut

## SLOTS

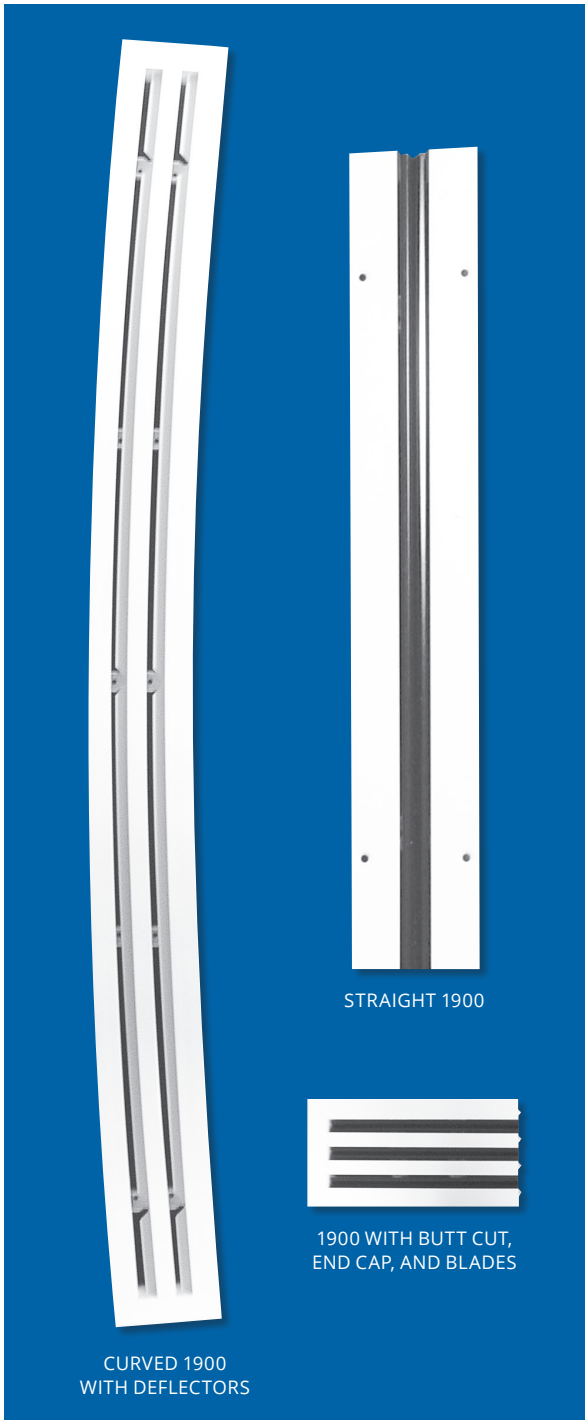
- Slot Quantity: 1 - 8 [1]
- Slot Width:
  - Model 1950 = 1/2”
  - Model 1910 = 1”
  - Model 1920 = 2” [1]
  - Model 1975 = 3/4”
  - Model 1915 = 1 1/2”
- Slot Length: 12” - 999” (1/8” increments)

## FRAME STYLES

- A - T-bar ceiling mount [2]
- B - Surface mount with screw fastening
- C - Surface mount with concealed fastening
- D - Plaster tile mount with concealed fastening
- E - Surface mount with sub-frame and concealed fastening
- F - Plaster and tile mount with concealed flush face
- I - Spline ceiling
- J - Surface mount with no screw holes
- K - Narrow-T ceiling mount
- L - Exposed spiral duct mount
- M - Mud-in mount with concealed flush face
- N - TechZone 9/16” Narrow-T tegular ceiling mount [3]
- S - TechZone standard T-bar ceiling mount [3]

## COMPATIBLE OPTIONS AND ACCESSORIES

- Removable blades
- Matching plenum (1900BOOT)
- Matching mitered corner model (1900MC)
- End caps, end plate, or butt cut end borders
- Custom curving available upon request [4]
- BOS - Blank-off strip




NOTES: Not all options available with all configurations or one another. See website for complete compatibility.

1 Slot quantities 5, 6, 7, and 8 not available with 1 ½” or 2” slot widths.

2 Frame A automatically undersized, regardless of end border, to fit nominal grid size. Ordered length = nominal grid length.

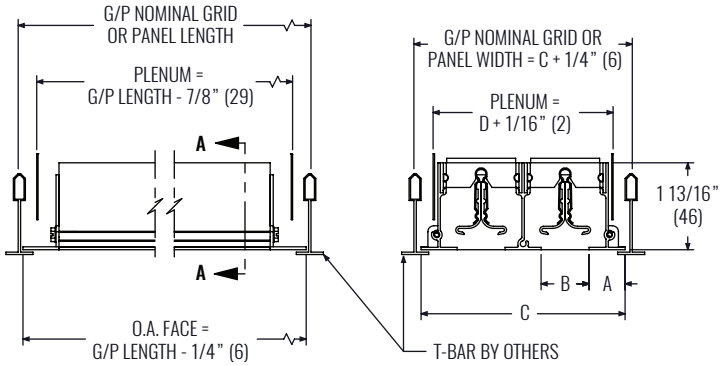
3 TechZone™ is a registered trademark of Armstrong®.

4 Curved units do not have adjustable deflection.

**WEB SEARCH: 1900**

## DIMENSIONAL DATA - FRAME STYLES

### FRAME STYLE A




**FRAME A, T-BAR CEILING MOUNT SIDE VIEW SHOWN WITH END BORDER E**

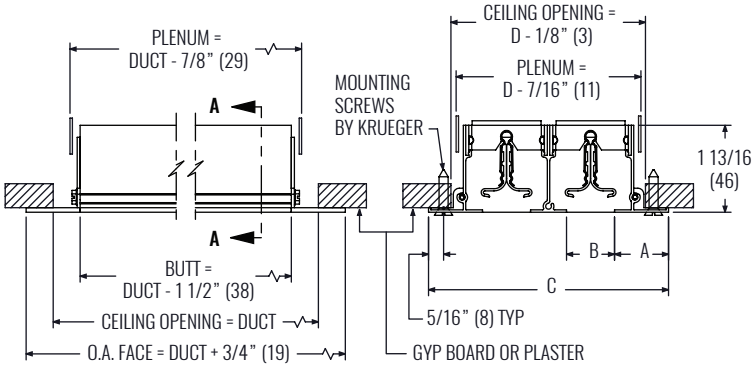
**SECTION A-A WITH BLADES**

NOTES: Dimensions in parentheses are millimeters (mm).

**DIMENSIONS - FRAME A, T-BAR CEILING MOUNT**

| SLOT | A | B | C | D |
|---|---|---|---|---|
| **1975 (3/4" SLOT WIDTH)** | | | | |
| 1 | 3/4" (19) | 3/4" (19) | 2 1/4" (57) | 1 5/8" (41) |
| 2 | 3/4" (19) | 3/4" (19) | 3 3/4" (95) | 3 1/8" (79) |
| 3 | 3/4" (19) | 3/4" (19) | 5 1/4" (133) | 4 5/8" (117) |
| 4 | 3/4" (19) | 3/4" (19) | 6 3/4" (171) | 6 1/8" (156) |
| **1910 (1" SLOT WIDTH)** | | | | |
| 1 | 3/4" (19) | 1" (25) | 2 1/2" (64) | 1 7/8" (48) |
| 2 | 3/4" (19) | 1" (25) | 4 1/4" (108) | 3 5/8" (92) |
| 3 | 3/4" (19) | 1" (25) | 6" (152) | 5 3/8" (137) |
| 4 | 3/4" (19) | 1" (25) | 7 3/4" (197) | 7 1/8" (181) |

### FRAME STYLE B




**FRAME B, T-BAR CEILING MOUNT SIDE VIEW SHOWN WITH END BORDER E**

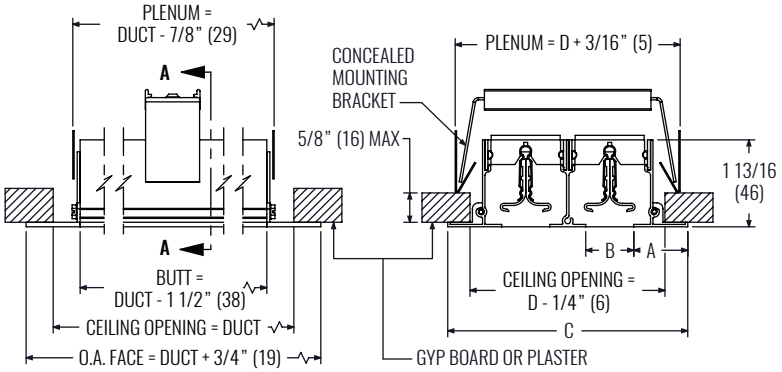
**SECTION A-A WITH BLADES**

NOTES: Dimensions in parentheses are millimeters (mm).

**DIMENSIONS - FRAME B, T-BAR CEILING MOUNT**

| SLOT | A | B | C | D |
|---|---|---|---|---|
| **1975 (3/4" SLOT WIDTH)** | | | | |
| 1 | 1 1/8" (29) | 3/4" (19) | 3" (76) | 2 1/8" (54) |
| 2 | 1 1/8" (29) | 3/4" (19) | 4 1/2" (114) | 3 5/8" (92) |
| 3 | 1 1/8" (29) | 3/4" (19) | 6" (152) | 5 1/8" (130) |
| 4 | 1 1/8" (29) | 3/4" (19) | 7 1/2" (191) | 6 5/8" (168) |
| **1910 (1" SLOT WIDTH)** | | | | |
| 1 | 1 1/8" (29) | 1" (25) | 3 1/4" (83) | 2 3/8" (60) |
| 2 | 1 1/8" (29) | 1" (25) | 5" (127) | 4 1/8" (105) |
| 3 | 1 1/8" (29) | 1" (25) | 6 3/4" (171) | 5 7/8" (149) |
| 4 | 1 1/8" (29) | 1" (25) | 8 1/2" (216) | 7 5/8" (194) |

### FRAME STYLE C




**FRAME C, SURFACE MOUNT, CONCEALED FASTENING SIDE VIEW SHOWN WITH END BORDER E**

**SECTION A-A WITH BLADES**

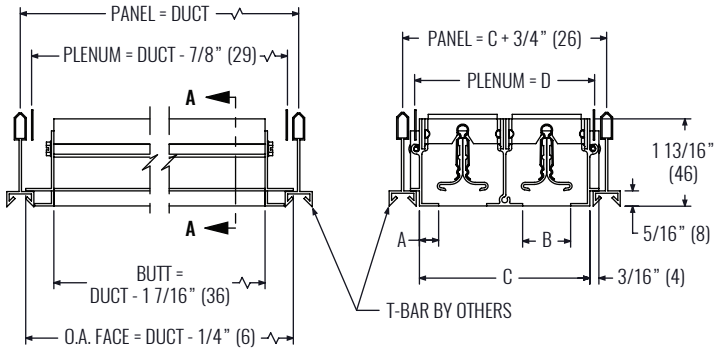
NOTES: Dimensions in parentheses are millimeters (mm).

**DIMENSIONS - FRAME C, SURFACE MOUNT, CONCEALED FASTENING**

| SLOT | A | B | C | D |
|---|---|---|---|---|
| **1975 (3/4" SLOT WIDTH)** | | | | |
| 1 | 1 1/8" (29) | 3/4" (19) | 3" (76) | 2 1/4" (57) |
| 2 | 1 1/8" (29) | 3/4" (19) | 4 1/2" (114) | 3 3/4" (95) |
| 3 | 1 1/8" (29) | 3/4" (19) | 6" (152) | 5 1/4" (133) |
| 4 | 1 1/8" (29) | 3/4" (19) | 7 1/2" (191) | 6 3/4" (171) |
| **1910 (1" SLOT WIDTH)** | | | | |
| 1 | 1 1/8" (29) | 1" (25) | 3 1/4" (83) | 2 1/2" (64) |
| 2 | 1 1/8" (29) | 1" (25) | 5" (127) | 4 1/4" (108) |
| 3 | 1 1/8" (29) | 1" (25) | 6 3/4" (171) | 6" (152) |
| 4 | 1 1/8" (29) | 1" (25) | 8 1/2" (216) | 7 3/4" (197) |

## DIMENSIONAL DATA - FRAME STYLES

### FRAME STYLE K



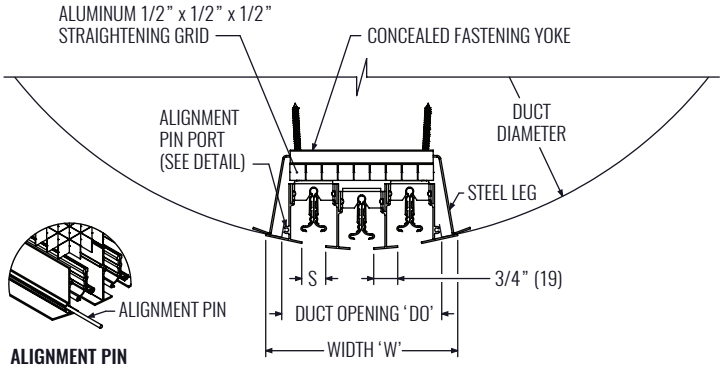

**FRAME K, NARROW-T CEILING MOUNT SIDE VIEW SHOWN WITH END BORDER E**

**SECTION A-A WITH BLADES**

NOTES: Dimensions in parentheses are millimeters (mm).

| DIMENSIONS - FRAME K, NARROW-T CEILING MOUNT | | | | |
|---|---|---|---|---|
| SLOT | A | B | C | D |
| 1975 (3/4" SLOT WIDTH) | | | | |
| 1 | 13/32" (10) | 3/4" (19) | 1 9/16" (40) | 1 11/16" (43) |
| 2 | 13/32" (10) | 3/4" (19) | 3 1/16" (78) | 3 3/16" (81) |
| 3 | 13/32" (10) | 3/4" (19) | 4 9/16" (116) | 4 11/16" (119) |
| 4 | 13/32" (10) | 3/4" (19) | 6 1/16" (154) | 6 3/16" (157) |
| 1910 (1" SLOT WIDTH) | | | | |
| 1 | 13/32" (10) | 1" (25) | 1 13/16" (46) | 1 15/16" (49) |
| 2 | 13/32" (10) | 1" (25) | 3 9/16" (90) | 3 11/16" (94) |
| 3 | 13/32" (10) | 1" (25) | 5 5/16" (135) | 5 7/16" (138) |
| 4 | 13/32" (10) | 1" (25) | 7 1/16" (179) | 7 3/16" (183) |

### FRAME STYLE L



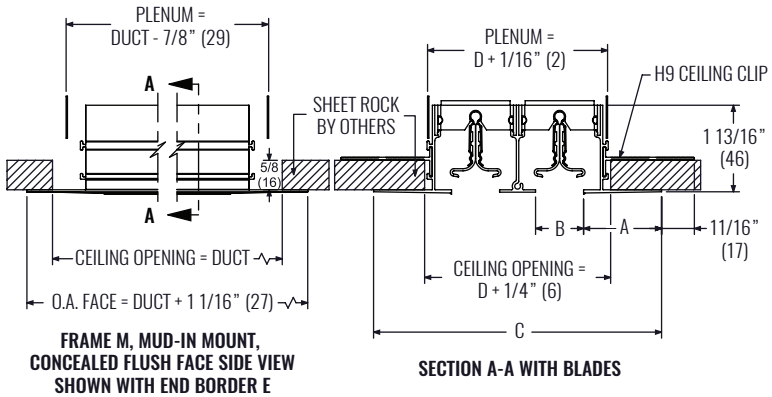

**ALIGNMENT PIN DETAIL**

**CROSS SECTION VIEW WITH BLADES (3-SLOT SHOWN)**

NOTES: Dimensions in parentheses are millimeters (mm).

| DIMENSIONS - FRAME L, EXPOSED SPIRAL DUCT | | | | |
|---|---|---|---|---|
| SLOTS | DUCT DIAMETER Ø | W | DO | S |
| 1975 (3/4" SLOT WIDTH) | | | | |
| 1 | 10" (254) - 24" (610) | 3" (76) | 2" (51) | 0.75" (19) |
| 2 | 12" (305) - 24" (610) | 4.5" (114) | 3.5" (89) | 0.75" (19) |
| 3 | 14" (356) - 30" (762) | 6" (152) | 5" (127) | 0.75" (19) |
| 4 | 20" (508) - 30" (762) | 7.5" (191) | 6.5" (165) | 0.75" (19) |
| 1910 (1" SLOT WIDTH) | | | | |
| 1 | 10" (254) - 24" (610) | 3.25" (83) | 2.25" (57) | 0.75" (19) |
| 2 | 12" (305) - 28" (711) | 5" (127) | 4" (102) | 0.75" (19) |
| 3 | 16" (406) - 32" (813) | 6.75" (171) | 5.75" (146) | 0.75" (19) |
| 4 | 26" (660) - 48" (1219) | 8.5" (216) | 7.5" (191) | 0.75" (19) |

### FRAME STYLE M




**FRAME M, MUD-IN MOUNT, CONCEALED FLUSH FACE SIDE VIEW SHOWN WITH END BORDER E**

**SECTION A-A WITH BLADES**

NOTES: Dimensions in parentheses are millimeters (mm).

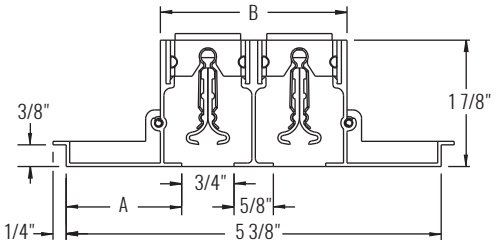
| DIMENSIONS - FRAME K, NARROW-T CEILING MOUNT | | | | |
|---|---|---|---|---|
| SLOT | A | B | C | D |
| 1975 (3/4" SLOT WIDTH) | | | | |
| 1 | 1 5/8" (41) | 3/4" (19) | 4" (102) | 1 5/8" (41) |
| 2 | 1 5/8" (41) | 3/4" (19) | 5 1/2" (140) | 3 1/8" (79) |
| 3 | 1 5/8" (41) | 3/4" (19) | 7" (178) | 4 5/8" (117) |
| 4 | 1 5/8" (41) | 3/4" (19) | 8 1/2" (216) | 6 1/8" (156) |
| 1910 (1" SLOT WIDTH) | | | | |
| 1 | 1 5/8" (41) | 1" (25) | 4 1/4" (108) | 1 7/8" (48) |
| 2 | 1 5/8" (41) | 1" (25) | 6" (152) | 3 5/8" (92) |
| 3 | 1 5/8" (41) | 1" (25) | 7 3/4" (197) | 5 3/8" (137) |
| 4 | 1 5/8" (41) | 1" (25) | 9 1/2" (241) | 7 1/8" (181) |

KRUEGER



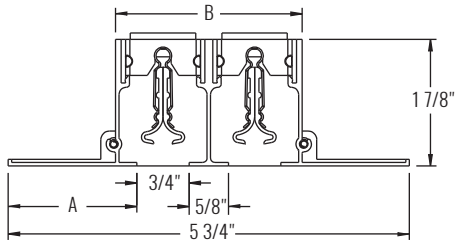
## DIMENSIONAL DATA - FRAME STYLES AND END BORDERS

### TECHZONE™ FRAMES N and S




FRAME N, NARROW-T MOUNT
CROSS SECTION

| DIMENSIONS - TECHZONE™ FRAME N, NARROW-T CEILING | | |
|---|---|---|
| SLOT | A | B |
| 1920 (3/4" SLOT WIDTH) | | |
| 1 | 2 3/8" (60) | 1 3/8" (35) |
| 2 | 1 5/8" (41) | 2 5/8" (67) |
| 3 | 1" (25) | 4" (102) |
| 4 | 3/8" (10) | 5 1/4" (133) |

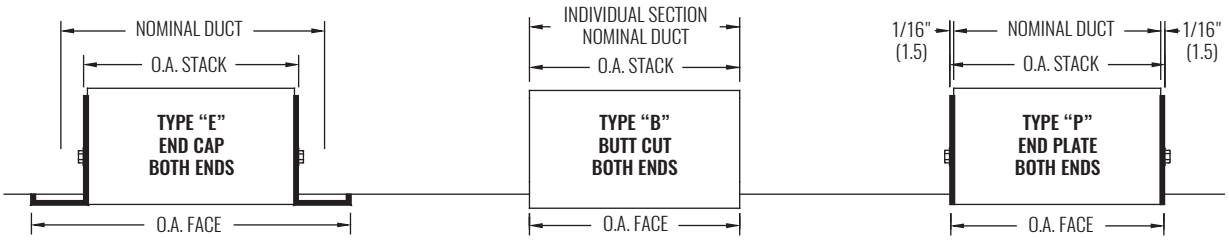



FRAME S, STANDARD 15/16" CEILING MOUNT
CROSS SECTION

| DIMENSIONS - TECHZONE™ FRAME S, STANDARD 15/16" CEILING | | |
|---|---|---|
| SLOT | A | B |
| 1975 (3/4" SLOT WIDTH) | | |
| 1 | 2 1/2" (64) | 1 3/8" (35) |
| 2 | 1 7/8" (48) | 2 5/8" (67) |
| 3 | 1 1/4" (32) | 4" (102) |
| 4 | 1 /2" (13) | 5 1/4" (133) |

NOTES: Dimensions in parentheses are millimeters (mm). Frames designed to fit into Armstrong TECHZONE Standard Ceiling Grid Systems. Available in 3 and 4-slot configurations. Available in 30", 36", 48", 60", 72", and 96" nominal lengths. TECHZONE™ is a registered trademark of Armstrong®.

### END BORDERS



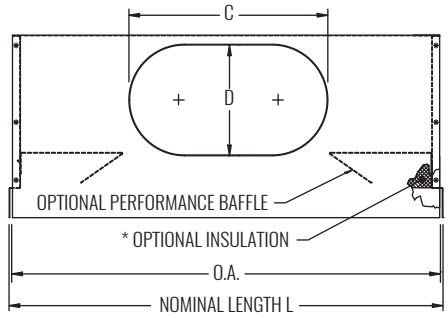

| DIMENSIONS - LENGTHS | | | | | | |
|---|---|---|---|---|---|---|
| FRAME STYLE | END TYPE "E" | | END TYPE "B" | | END TYPE "P" | |
| | OA STACK [1] | OA FACE | OA STACK | OA FACE | OA STACK [1] | OA FACE |
| A | G/P - 1 5/8" (41) | G/P - 1/4" (6) | G/P - 1/4" (6) | G/P - 1/4" (6) | G/P - 1/2" (13) | G/P - 1/2" (13) |
| B | D - 1 3/8" (35) | D + 3/4" (19) | DUCT | DUCT | D + 1/8" (3) | D + 1/8" (3) |
| C | D - 1 3/8" (35) | D + 3/4" (19) | DUCT | DUCT | D + 1/8" (3) | D + 1/8" (3) |
| K | D - 17/16" (27) | D - 1/4" (6) | DUCT | DUCT | N/A | N/A |
| L | D - 1 3/8" (35) | D + 3/4" (19) | DUCT | DUCT | N/A | N/A |
| M | D - 1 13/16" (21) | D + 1 1/16" (2) | DUCT | DUCT | N/A | N/A |
| N | N/A | N/A | N/A | N/A | D - 3/4" (19) | D - 5/8" (16) |
| S | D - 1 1/2" (38) | D - 3/16" (5) | N/A | N/A | N/A | N/A |

NOTES: Dimensions in parentheses are millimeters (mm). 'D' is nominal duct length. 'OA' is overall length. 'G/P' is grid/panel size.

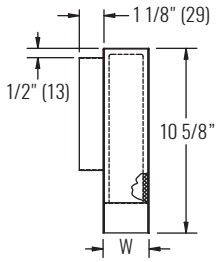
[1] Screw used to secure end caps and plates has head which sticks out approximately 1/8" further than stack. To ensure a proper fit, opening or duct must be a minimum of 1/4" larger than stack when these end borders are used. For end plate end borders this screw sticks out past the face, resulting in an overall footprint larger than the OA face.

## DIMENSIONAL DATA - 1900BOOT

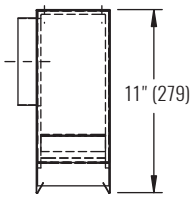
### 1900BOOT




1900BOOT INLET VIEW




FRAMES
A, B, D, E, J, F, I, K, M
SIDE VIEW




FRAME C,
CONCEALED
FASTENING
SIDE VIEW

| OVAL INLET DIMENSIONS | | |
|---|---|---|
| INLET SIZE | C | D |
| 6" OVAL | 6 1/4" (159) | 5 1/4" (133) |
| 8" OVAL | 9 3/8" (238) | 5 1/4" (133) |
| 10" OVAL | 12 1/2" (318) | 5 1/4" (133) |
| 12" OVAL | 14 1/8" (359) | 7 7/8" (200) |
| TECHZONE™ 12" OVAL | 15 5/8" (397) | 5 1/4" (133) |

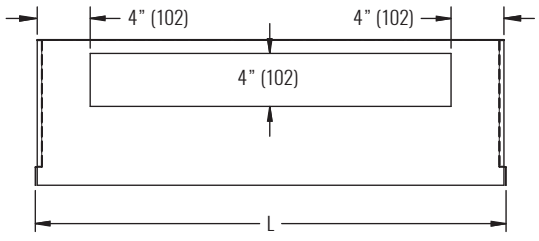
| AVAILABLE INLET SIZES | | |
|---|---|---|
| MODEL | NOMINAL LENGTH L | NOMINAL INLET |
| 1950, 1975, 1910, 1915, 1920 | 24" (610), 36" (914) | 6", 8", 10" |
| | 48" (1219), 60" (1524), 72" (1829) | 6", 8", 10", 12" |

| PLENUM LENGTHS | | |
|---|---|---|
| END BORDER | O.A. FOR FRAME STYLES | |
| | A, B, C, F, I, J, AND K | D AND E |
| "E" (2) END CAPS | L - 7/8" (22) | L - 1/4" (6) |
| "B" (2) BUTT CUT | L - 1/4" (6) | L - 1/4" (6) |
| "P" (2) END PLATES | L - 1/4" (6) | L - 1/4" (6) |

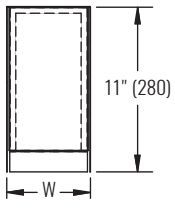
| WIDTH DIMENSIONS | | | | |
|---|---|---|---|---|
| MODEL | 1-SLOT | 2-SLOTS | 3-SLOTS | 4-SLOTS |
| W DIMENSION FOR FRAMES A, B, F, I, J, AND K | | | | |
| 1975 | 1 11/16 (43) | 3 3/16 (81) | 4 11/16 (119) | 6 3/16 (157) |
| 1910 | 1 15/16 (49) | 3 11/16 (94) | 5 7/16 (138) | 7 3/16 (183) |
| W DIMENSION FOR FRAMES C, D, AND E | | | | |
| 1975 | 2 7/16 (62) | 3 15/16 (100) | 5 7/16 (138) | 6 15/16 (176) |
| 1910 | 2 11/16 (68) | 4 7/16 (113) | 6 3/16 (157) | 7 15/16 (202) |
| W DIMENSION FOR TECHZONE™ FRAMES N AND S | | | | |
| 1975 | 1 7/16" (37) | 2 11/16" (68) | 4 1/8" (105) | 5 7/16" (138) |

NOTES: Dimensions in parentheses are millimeters (mm).

### 1900BOOT RETURN SLOT PLENUM




1900BOOT RR, RETURN SLOT FACE VIEW



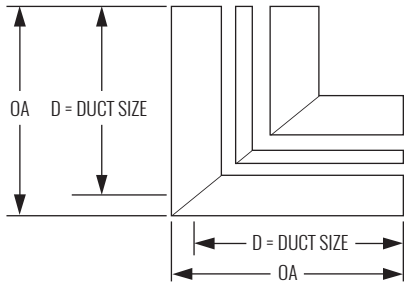

SIDE VIEW

| DIMENSIONS - AVAILABLE WIDTHS | |
|---|---|
| NOMINAL LENGTH | L |
| 24" (610) | 23 1/8" (587) |
| 30" (762) | 29 1/8" (740) |
| 36" (914) | 35 1/8" (892) |
| 48" (1219) | 47 1/8" (1199) |
| 60" (1524) | 59 1/8" (1502) |
| 72" (1829) | 71 1/8" (1807) |

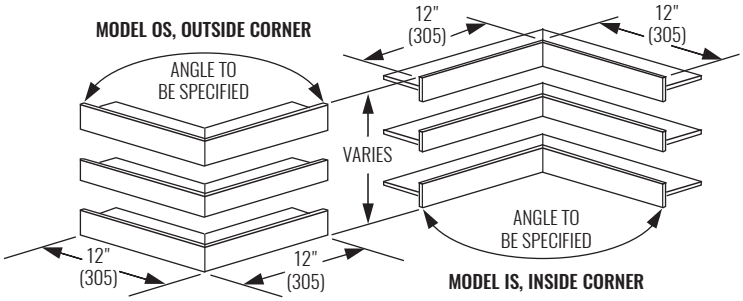
NOTES: Dimensions in parentheses are millimeters (mm). 24 gauge galvanized steel construction. Mill finish is standard. End caps are not insulated (standard). Insulation not available with inlet size RR.

## DIMENSIONAL DATA

**MITERED CORNERS**




STANDARD FLAT FACE (SD) MITER FOR CEILING MOUNT




OUTSIDE (OS) AND INSIDE (IS) CORNER FOR WALL MOUNT

| DIMENSIONS - OA BY FRAME | | | | | | | |
|---|---|---|---|---|---|---|---|
| SLOT QTY | A | B, J | C, D, E | F, I, K | M | N, S | NOMINAL DUCT D |
| 1 | 12 5/16" (313) | 12 7/16" (316) | 12 3/8" (315) | 12" (305) | 13 3/16" (335) | 14 3/16" (361) | 12" |
| 2 | 12 5/16" (313) | 12 7/16" (316) | 12 3/8" (315) | 12" (305) | 13 3/16" (335) | 13 9/16" (345) | 12" |
| 3 | 24 5/16" (618) | 24 7/16" (621) | 24 3/8" (620) | 24" (610) | 25 3/16" (640) | 24 7/8" (632) | 24" |
| 4 - 8 | 24 5/16" (618) | 24 7/16" (621) | 24 3/8" (620) | 24" (610) | 25 3/16" (640) | 24 3/16" (615) | 24" |

NOTES: Dimensions in parentheses are millimeters (mm). Table applies to standard flat face (SD) mount only. OA dimensions measured at face, except for frame N which is measured flange to flange. For some frames (F, I, K, and the sub-frame of D), the face is not the widest part of the unit, therefore the OA dimension is not indicative of overall footprint. For Frame F, I and K, OA= nominal duct. Miters are inactive and come standard with butt cut ends, no blades, and with blank offs installed at factory. Custom angles are available upon request.

## PERFORMANCE DATA

| SIZE | | | PERFORMANCE - HORIZONTAL THROW, 48" UNIT LENGTH | | | | DESIGN | | |
|---|---|---|---|---|---|---|---|---|---|
| SLOT WIDTH | SLOT QTY | NOMINAL INLET | NC (< 25) | | NC (25 - 40) | | CFM @ NC=30 | SPACING @ 0.6 CFM/sf (ft) | MINIMUM CFM/sf |
| | | | CFM | THROW (ft) | CFM | THROW (ft) | | | |
| 3/4" | 2 | 6" | 70 - 125 | 13 - 17 | 135 - 235 | 18 - 24 | 165 | 23 | 0.25 |
| 3/4" | 2 | 8" | 100 - 150 | 16 - 19 | 165 - 285 | 20 - 26 | 190 | 26 | 0.25 |
| 3/4" | 2 | 10" | 120 - 165 | 17 - 20 | 180 - 315 | 21 - 28 | 220 | 31 | 0.25 |
| 3/4" | 3 | 8" | 95 - 195 | 15 - 22 | 210 - 360 | 23 - 30 | 250 | 35 | 0.25 |
| 3/4" | 3 | 10" | 100 - 220 | 16 - 23 | 235 - 410 | 24 - 31 | 280 | 39 | 0.25 |
| 3/4" | 4 | 10" | 110 - 240 | 13 - 24 | 260 - 440 | 25 - 33 | 300 | 42 | 0.25 |
| 1" | 2 | 6" | 70 - 125 | 10 - 17 | 135 - 235 | 18 - 24 | 160 | 22 | 0.25 |
| 1" | 2 | 8" | 80 - 150 | 12 - 19 | 160 - 275 | 20 - 26 | 190 | 26 | 0.25 |
| 1" | 2 | 10" | 90 - 165 | 13 - 20 | 180 - 330 | 21 - 28 | 220 | 31 | 0.25 |
| 1" | 3 | 10" | 100 - 215 | 12 - 23 | 230 - 400 | 24 - 31 | 280 | 39 | 0.25 |
| 1" | 4 | 10" | 110 - 260 | 11 - 25 | 280 - 510 | 26 - 35 | 335 | 47 | 0.25 |
| 1" | 4 | 12" | 130 - 310 | 13 - 27 | 330 - 600 | 28 - 38 | 390 | 54 | 0.25 |

NOTES: Information shown is abbreviated. See website for complete information. Dimensions in parentheses are millimeters (mm). Throw value ranges are given for isothermal conditions, unless otherwise noted, and a terminal velocity of 50 FPM (0.25 m/s). NC ranges are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re $10^{-12}$ Watts. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. Design spacing is recommended distance between diffusers in an open plan office based on ADPI > 80%, 9ft ceiling, and 55°F discharge at 30 NC and 0.6 CFM/sf. Minimum CFM/sf is based on recommended spacing at 80% ADPI. Design recommendations not applicable to vertical throw. "N/A" in design table denotes situations which do not result in ADPI>80% and are therefore not recommended.