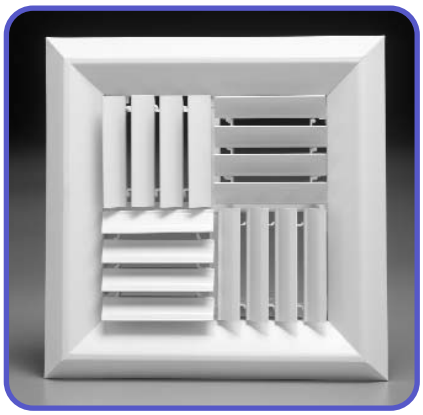
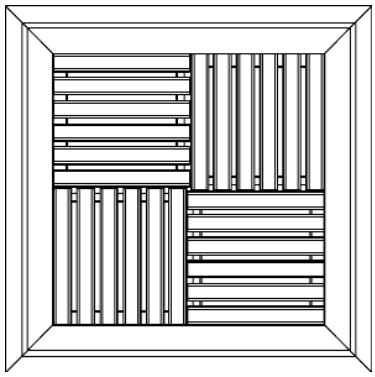




## Application

This is used in commercial spaces where the room dimensions change and require a change in the air distribution plan. The cores are field adjustable without tools to all blow patterns.

## Standard Features

- Formed steel or aluminum construction.
- Core blades have hemmed edges for durability after repeated blow pattern changes.
- Square inlet sizes 6” x 6” through 24” x 24” in 2” increments.
- Inlet is undersized to fit inside duct or premade/preinstalled transitions.
- The standard finish is electrocoat acrylic baked enamel.
- The standard color is #11 bright white.
- Choice of T-bar, surface mount or exposed stub duct frames. Following are the maximum inlet sizes for each T-bar panel size.

| T-bar Grid Size | Max. Inlet Size |
|---|---|
| 12” x 12” | 8” x 8” |
| 12” x 24” | 8” x 8” |
| 24” x 24” | 20” x 20” |
| 24” x 48” | 20” x 20” |

## Optional Features

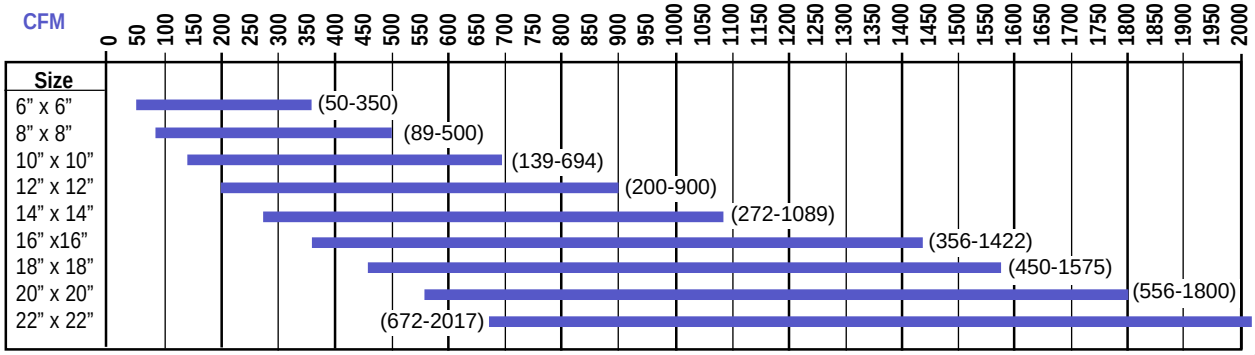
- Factory-mounted square-to-round transitions (p. A65).
- Gasket Option G around edge of frame (p. A65).

## Accessories

- For a damper for the square inlet models, use damper KXAB (p. A436).
- For a damper for the round neck models, use damper model KXMB (p. A429).

## Quick Select Chart

This shows units with:
- A maximum NC/RC of 35.
- A minimum face velocity of 200 FPM.




## Model Numbering System

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | OPTIONS 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | M | S | B | 4 | 0 | 0 | 8 | 0 | 8 | 1 | 1 | | | | |

**1:** S - Diffuser

**2:** M - Louvered Face Modular Core; G - Ceiling Plate Only; V - Inner Assembly Only

**3 MOUNTING FRAME:** E - Steel, Exposed Stub Duct; F - Steel, Flange Surface Mount; S - Steel, Beveled Surface Mount; T - Steel, T-bar Panel; A - Aluminum, Exposed Stub Duct; B - Aluminum, Flange Surface Mount; C - Aluminum, Beveled Surface Mount; D - Aluminum, T-bar Panel

**4 DESIGN SERIES:** B

**5, 6 BLOW PATTERN:** 10 - 1-Way; 20 - 2-Way Opposite; 25 - 2-Way Corner; 30 - 3-Way; 40 - 4-Way

**7, 8, 9, 10 INLET SIZE:** 0606 - 6” x 6”; 0808 - 8” x 8”; 1010 - 10” x 10”; 1212 - 12” x 12”; 1414 - 14” x 14”; 1616 - 16” x 16”; 1818 - 18” x 18”; 2020 - 20” x 20”; 2222 - 22” x 22”; 2424 - 24” x 24”

**11, 12 FINISH:** 11 - Bright White (Default); 01 - White; 04 - Gray

**13, 14 TRANSITION ROUND INLET SIZE:** 04 - 4”; 05 - 5”; 06 - 6”; 07 - 7”; 08 - 8”; 10 - 10”; 12 - 12”; 14 - 14”; 15 - 15”; 16 - 16”; 18 - 18”; 20 - 20”; 22 - 22”; 24 - 24”

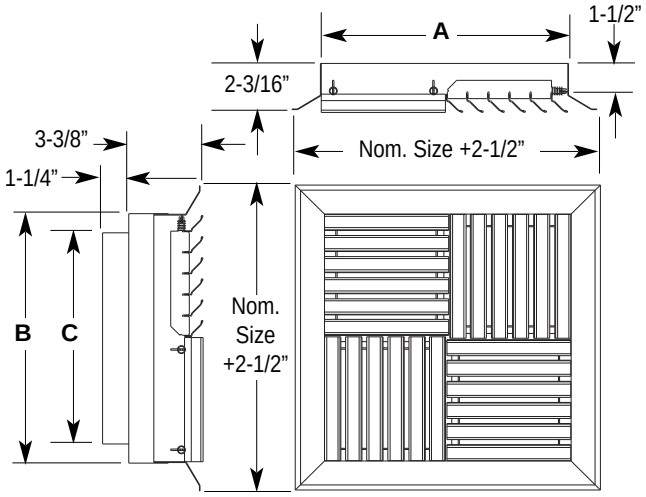
**15 T-BAR PANEL NOMINAL SIZE:** A - 12” x 12”; B - 12” x 24”; C - 24” x 24”; D - 24” x 48”; E - 48” x 48”

**16:** G - Gasket

## Exposed Stub Duct Frame
**(Mounting Frames E and A)**

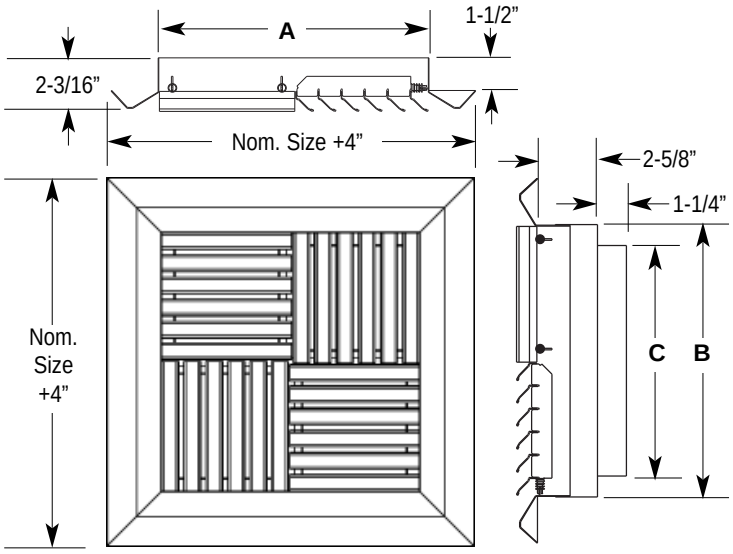
- Used primarily when attaching to exposed stub duct.

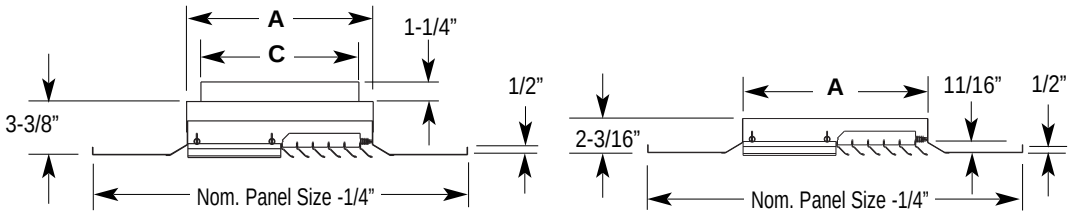
| Nom. Square Inlet Size (A x B) | Nominal Round Neck Sizes (C) |
|---|---|
| 6” x 6” | 4”, 5”, 6” |
| 8” x 8” | 6”, 8” |
| 10” x 10” | 6”, 8”, 10” |
| 12” x 12” | 8”, 10”, 12” |
| 14” x 14” | 10”, 12”, 14” |
| 16” x 16” | 12”, 14”, 16” |
| 18” x 18” | 14”, 16”, 18” |
| 20” x 20” | 16”, 18”, 20” |
| 22” x 22” | 18”, 20”, 22” |
| 24” x 24” | 20”, 22”, 24” |




## Beveled Surface Mount Frame
**(Mounting Frames S and C)**

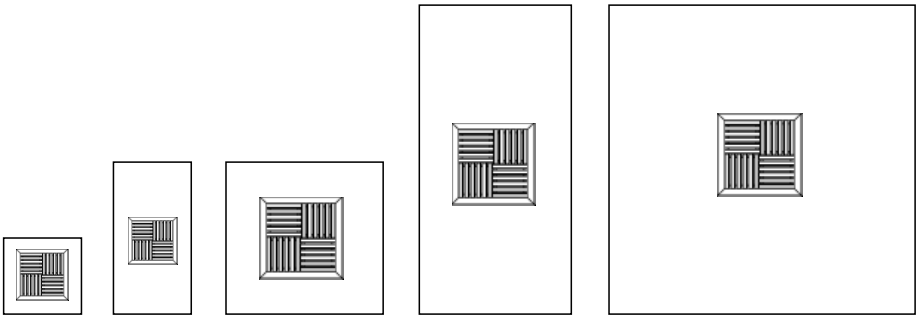
- Used in plaster ceilings.
- Because the square inlet is nominal size minus 1/8”, this will fit readily inside premade/ preinstalled transitions, allowing the plastering and painting of the ceiling to proceed without waiting for the diffuser.




## T-bar Panel
**(Mounting Frames T and D)**

- Fits 15/16” flat-face T-bar.
- Fits 9/16” flat-face T-bar.
- Fits 9/16” reveal-face T-bar.
- Other nominal panel sizes available on request.
- Other suspended ceiling style panels are available on request.



| Panel Size Option: | A | B | C | D | E |
|---|---|---|---|---|---|
| Nom. Panel Size | 12” x 12” | 12” x 24” | 24” x 24” | 24” x 48” | 48” x 48” |
| Max. Sq. Neck Size | 8” x 8” | 8” x 8” | 20” x 20” | 20” x 20” | 24” x 24” |

| | Duct Velocity (fpm) | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Static Pressure | 0.010 | 0.022 | 0.040 | 0.064 | 0.092 | 0.126 | 0.165 | 0.210 | 0.259 |
| | Total Pressure | 0.013 | 0.028 | 0.050 | 0.080 | 0.114 | 0.157 | 0.205 | 0.216 | 0.321 |
| **6" x 6"** | Air Flow (CFM) | **50** | **75** | **100** | **125** | **150** | **175** | **200** | **225** | **250** |
| | Sound (NC/RC) | —/— | 10/— | 14/10H | 16/12H | 19/17H | 21/20N | 23/24N | 25/ 27N | 27/31N |
| | 4-Way | 1-2-5 | 2-4-8 | 3-5-10 | 4-6-12 | 5-8-13 | 6-9-14 | 7-10-15 | 8-11-16 | 8-12-17 |
| Throw | 3-Way | 1-2-7 | 2-5-10 | 4-7-14 | 6-8-15 | 7-10-17 | 8-12-18 | 9-13-19 | 10-14-21 | 11-15-22 |
| (Feet) | 2-Way Corner | 1-2-7 | 2-5-10 | 4-7-14 | 6-8-15 | 7-10-17 | 8-12-18 | 9-13-19 | 10-14-21 | 11-15-22 |
| | 2-Way Opposite | 1-2-7 | 2-5-10 | 4-7-14 | 6-8-15 | 7-10-17 | 8-12-18 | 9-13-19 | 10-14-21 | 11-15-22 |
| | 1-Way | 1-3-11 | 3-8-16 | 6-11-21 | 10-13-25 | 11-16-27 | 12-19-29 | 14-21-31 | 16-23-33 | 17-24-35 |
| **8" x 8"** | Air Flow (CFM) | **89** | **133** | **178** | **222** | **267** | **311** | **356** | **400** | **444** |
| | Sound (NC/RC) | 10/— | 11/— | 15/11H | 17/14H | 21/19N | 24/22N | 26/27N | 29/30N | 31/34N |
| | 4-Way | 2-4-8 | 4-6-10 | 5-8-12 | 6-10-14 | 8-10-15 | 9-11-16 | 9-12-17 | 10-13-18 | 10-14-19 |
| Throw | 3-Way | 2-6-11 | 5-9-14 | 7-11-16 | 9-13-18 | 10-14-20 | 11-15-21 | 12-16-22 | 13-17-24 | 13-18-25 |
| (Feet) | 2-Way Corner | 2-6-11 | 5-9-14 | 7-11-16 | 9-13-18 | 10-14-20 | 11-15-21 | 12-16-22 | 13-17-24 | 13-18-25 |
| | 2-Way Opposite | 2-6-11 | 5-9-14 | 7-11-16 | 9-13-18 | 10-14-20 | 11-15-21 | 12-16-22 | 13-17-24 | 13-18-25 |
| | 1-Way | 4-9-17 | 9-14-22 | 12-18-25 | 15-20-28 | 17-22-31 | 18-23-34 | 19-25-36 | 20-27-38 | 21-28-40 |
| **10" x 10"** | Air Flow (CFM) | **139** | **208** | **278** | **347** | **417** | **486** | **556** | **625** | **694** |
| | Sound (NC/RC) | 10/— | 12/— | 15/12H | 19/16N | 23/20N | 26/24N | 30/29N | 32/33N | 34/36N |
| | 4-Way | 3-5-9 | 5-7-12 | 6-10-14 | 8-11-16 | 9-12-17 | 10-13-19 | 11-14-20 | 12-15-21 | 12-16-22 |
| Throw | 3-Way | 3-7-13 | 6-10-15 | 8-13-18 | 11-14-20 | 12-15-22 | 13-17-24 | 14-18-25 | 15-19-27 | 16-20-29 |
| (Feet) | 2-Way Corner | 3-7-13 | 6-10-15 | 8-13-18 | 11-14-20 | 12-15-22 | 13-17-24 | 14-18-25 | 15-19-27 | 16-20-29 |
| | 2-Way Opposite | 3-7-13 | 6-10-15 | 8-13-18 | 11-14-20 | 12-15-22 | 13-17-24 | 14-18-25 | 15-19-27 | 16-20-29 |
| | 1-Way | 5-11-20 | 10-16-25 | 14-20-28 | 18-23-32 | 20-25-35 | 21-27-38 | 23-29-41 | 24-30-43 | 25-32-46 |
| **12" x 12"** | Air Flow (CFM) | **200** | **300** | **400** | **500** | **600** | **700** | **800** | **900** | **1000** |
| | Sound (NC/RC) | 10/— | 12/10H | 15/13H | 21/17N | 25/21N | 29/26N | 32/31N | 35/35N | 38/38N |
| | 4-Way | 3-5-11 | 5-8-14 | 7-11-16 | 9-12-18 | 11-14-19 | 12-15-21 | 13-16-22 | 14-17-23 | 14-18-25 |
| Throw | 3-Way | 3-7-14 | 7-11-17 | 10-14-20 | 12-16-23 | 14-17-25 | 15-19-27 | 16-20-29 | 17-22-31 | 18-23-32 |
| (Feet) | 2-Way Corner | 3-7-14 | 7-11-17 | 10-14-20 | 12-16-23 | 14-17-25 | 15-19-27 | 16-20-29 | 17-22-31 | 18-23-32 |
| | 2-Way Opposite | 3-7-14 | 7-11-17 | 10-14-20 | 12-16-23 | 14-17-25 | 15-19-27 | 16-20-29 | 17-22-31 | 18-23-32 |
| | 1-Way | 5-12-23 | 12-18-28 | 16-23-32 | 20-25-36 | 23-28-40 | 24-30-43 | 26-32-46 | 28-34-48 | 29-36-51 |
| **14" x 14"** | Air Flow (CFM) | **272** | **408** | **544** | **681** | **817** | **953** | **1089** | **1225** | **1361** |
| | Sound (NC/RC) | 10/— | 13/10H | 17/14H | 22/19N | 26/24N | 31/29N | 34/34N | 36/38N | 39/41N |
| | 4-Way | 4-6-12 | 7-9-15 | 8-12-18 | 10-14-19 | 12-15-21 | 14-16-23 | 14-17-24 | 15-18-26 | 16-19-27 |
| Throw | 3-Way | 4-8-16 | 8-12-19 | 11-16-23 | 14-18-25 | 16-19-27 | 17-21-30 | 19-22-32 | 20-24-34 | 21-25-36 |
| (Feet) | 2-Way Corner | 4-8-16 | 8-12-19 | 11-16-23 | 14-18-25 | 16-19-27 | 17-21-30 | 19-22-32 | 20-24-34 | 21-25-36 |
| | 2-Way Opposite | 4-8-16 | 8-12-19 | 11-16-23 | 14-18-25 | 16-19-27 | 17-21-30 | 19-22-32 | 20-24-34 | 21-25-36 |
| | 1-Way | 6-13-26 | 14-20-31 | 18-25-36 | 23-28-40 | 26-31-44 | 28-34-47 | 30-36-51 | 32-38-53 | 33-39-56 |

**Notes on Performance**

- Performance data is based on tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.
- Actual performance in the field may vary.
- Testing was conducted in isothermal conditions.
- Sound level values are based on a room absorption of 10db re $10^{-12}$ watts.
- A "—" indicates an NC or RC value of less than 10.

**Units of Measure Used:**

- Velocity is given in Feet per Minute (fpm).
- Pressure is given in Inches of Water (w.g.).
- Flows are given in Cubic Feet per Minute (CFM).
- Throws are given in feet to terminal velocities of 150, 100 & 50 fpm, respectively.
- Sound data is given in both NC and RC. NC is first with RC second, separated by a slash.

| | Duct Velocity (fpm) | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Static Pressure | 0.010 | 0.022 | 0.040 | 0.064 | 0.092 | 0.126 | 0.165 | 0.210 | 0.259 |
| | Total Pressure | 0.013 | 0.028 | 0.050 | 0.080 | 0.114 | 0.157 | 0.205 | 0.216 | 0.321 |
| **16" x1 6"** | Air Flow (CFM) | **356** | **533** | **711** | **889** | **1067** | **1244** | **1422** | **1600** | **1778** |
| | Sound (NC/RC) | 10/— | 13/11H | 18/16H | 23/21N | 27/26N | 32/32N | 35/37N | 38/40N | 41/43N |
| | 4-Way | 4-7-14 | 7-10-17 | 9-13-19 | 11-15-21 | 14-16-23 | 15-18-25 | 16-19-27 | 17-20-28 | 18-21-30 |
| Throw | 3-Way | 4-9-18 | 9-14-21 | 12-17-25 | 15-20-28 | 18-21-30 | 19-23-33 | 21-25-35 | 22-26-37 | 23-28-39 |
| (Feet) | 2-Way Corner | 4-9-18 | 9-14-21 | 12-17-25 | 15-20-28 | 18-21-30 | 19-23-33 | 21-25-35 | 22-26-37 | 23-28-39 |
| | 2-Way Opposite | 4-9-18 | 9-14-21 | 12-17-25 | 15-20-28 | 18-21-30 | 19-23-33 | 21-25-35 | 22-26-37 | 23-28-39 |
| | 1-Way | 7-15-29 | 15-22-34 | 20-28-39 | 26-31-43 | 29-34-48 | 31-37-52 | 33-39-55 | 35-41-58 | 37-43-62 |
| **18" x 18"** | Air Flow (CFM) | **450** | **675** | **900** | **1125** | **1350** | **1575** | **1800** | **2025** | **2250** |
| | Sound (NC/RC) | 10/— | 13/11H | 19/17H | 25/23N | 31/29N | 35/34N | 38/39N | 41/43N | 44/45N |
| | 4-Way | 4-7-15 | 8-11-18 | 10-14-21 | 13-16-23 | 15-18-25 | 17-19-27 | 18-21-29 | 19-22-31 | 20-23-33 |
| Throw | 3-Way | 5-10-20 | 10-15-23 | 14-19-27 | 17-21-30 | 20-23-33 | 22-25-35 | 23-27-38 | 24-28-40 | 26-30-42 |
| (Feet) | 2-Way Corner | 5-10-20 | 10-15-23 | 14-19-27 | 17-21-30 | 20-23-33 | 22-25-35 | 23-27-38 | 24-28-40 | 26-30-42 |
| | 2-Way Opposite | 5-10-20 | 10-15-23 | 14-19-27 | 17-21-30 | 20-23-33 | 22-25-35 | 23-27-38 | 24-28-40 | 26-30-42 |
| | 1-Way | 8-16-32 | 17-24-37 | 23-30-43 | 28-34-47 | 32-37-52 | 34-40-56 | 37-43-60 | 39-45-63 | 42-47-67 |
| **20" x 20"** | Air Flow (CFM) | **556** | **833** | **1111** | **1389** | **1667** | **1944** | **2222** | **2500** | **2778** |
| | Sound (NC/RC) | 10/— | 14/11H | 21/18H | 27/25N | 33/32N | 37/37N | 41/42N | 44/45N | 47/47N |
| | 4-Way | 5-8-16 | 8-12-20 | 11-16-23 | 14-18-25 | 17-20-27 | 18-21-30 | 19-23-32 | 21-24-33 | 22-25-35 |
| Throw | 3-Way | 5-11-22 | 11-16-25 | 15-21-29 | 19-23-32 | 22-25-35 | 24-27-38 | 25-29-41 | 27-31-43 | 28-32-46 |
| (Feet) | 2-Way Corner | 5-11-22 | 11-16-25 | 15-21-29 | 19-23-32 | 22-25-35 | 24-27-38 | 25-29-41 | 27-31-43 | 28-32-46 |
| | 2-Way Opposite | 5-11-22 | 11-16-25 | 15-21-29 | 19-23-32 | 22-25-35 | 24-27-38 | 25-29-41 | 27-31-43 | 28-32-46 |
| | 1-Way | 8-17-35 | 19-26-40 | 25-33-47 | 31-37-51 | 35-40-56 | 38-43-61 | 41-46-65 | 43-49-68 | 46-51-73 |
| **22" x 22"** | Air Flow (CFM) | **672** | **1008** | **1344** | **1681** | **2017** | **2353** | **2689** | **3025** | **3361** |
| | Sound (NC/RC) | 10/— | 14/11H | 22/19H | 30/27N | 35/34N | 39/39N | 43/44N | 46/48N | 49/49N |
| | 4-Way | 5-8-18 | 9-12-21 | 12-17-25 | 15-19-27 | 19-21-29 | 20-23-32 | 21-24-34 | 23-25-36 | 24-27-38 |
| Throw | 3-Way | 6-11-24 | 12-17-27 | 16-22-31 | 20-25-35 | 24-27-38 | 26-29-41 | 28-31-44 | 29-33-47 | 31-35-49 |
| (Feet) | 2-Way Corner | 6-11-24 | 12-17-27 | 16-22-31 | 20-25-35 | 24-27-38 | 26-29-41 | 28-31-44 | 29-33-47 | 31-35-49 |
| | 2-Way Opposite | 6-11-24 | 12-17-27 | 16-22-31 | 20-25-35 | 24-27-38 | 26-29-41 | 28-31-44 | 29-33-47 | 31-35-49 |
| | 1-Way | 9-19-38 | 20-28-43 | 27-35-50 | 34-39-54 | 38-43-60 | 41-47-65 | 44-50-70 | 46-52-73 | 50-54-78 |
| **24" x 24"** | Air Flow (CFM) | **800** | **1200** | **1600** | **2000** | **2400** | **2800** | **3200** | **3600** | **4000** |
| | Sound (NC/RC) | 11/— | 15/12H | 24/21H | 32/29N | 37/36N | 42/41N | 46/46N | 50/50N | 53/51N |
| | 4-Way | 6-9-20 | 10-13-23 | 13-18-26 | 16-21-29 | 20-23-31 | 22-24-34 | 23-26-36 | 24-27-38 | 26-29-41 |
| Throw | 3-Way | 6-12-26 | 13-18-29 | 18-24-34 | 22-27-37 | 26-29-41 | 28-31-44 | 30-34-47 | 31-36-50 | 33-37-52 |
| (Feet) | 2-Way Corner | 6-12-26 | 13-18-29 | 18-24-34 | 22-27-37 | 26-29-41 | 28-31-44 | 30-34-47 | 31-36-50 | 33-37-52 |
| | 2-Way Opposite | 6-12-26 | 13-18-29 | 18-24-34 | 22-27-37 | 26-29-41 | 28-31-44 | 30-34-47 | 31-36-50 | 33-37-52 |
| | 1-Way | 10-20-41 | 22-30-47 | 29-38-54 | 36-42-58 | 41-46-65 | 44-50-69 | 48-53-75 | 50-56-78 | 54-58-84 |

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- Testing was conducted in isothermal conditions.
- Sound level values are based on a room absorption of 10db re $10^{-12}$ watts.
- A "—" indicates an NC or RC value of less than 10.

**Units of Measure Used:**

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- Pressure is given in Inches of Water (w.g.).
- Flows are given in Cubic Feet per Minute (CFM).
- Throws are given in feet to terminal velocities of 150, 100 & 50 fpm, respectively.
- Sound data is given in both NC and RC. NC is first with RC second, separated by a slash.

| | Duct Velocity (fpm) | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Static Pressure | 0.006 | 0.014 | 0.025 | 0.040 | 0.058 | 0.079 | 0.104 | 0.132 | 0.163 |
| | Total Pressure | 0.009 | 0.020 | 0.035 | 0.056 | 0.080 | 0.110 | 0.144 | 0.183 | 0.225 |
| **6" x 6" To** | Air Flow (CFM) | **39** | **59** | **79** | **98** | **118** | **138** | **157** | **177** | **196** |
| **6" Round** | Sound (NC/RC) | —/— | 10/— | 14/10H | 15/14H | 16/17H | 19/20N | 21/22N | 24/25N | 26/26N |
| | 4-Way | 1-1-4 | 1-3-6 | 2-4-8 | 3-5-9 | 4-6-10 | 5-7-11 | 5-8-12 | 6-9-13 | 7-9-13 |
| Throw | 3-Way | 1-2-6 | 2-4-8 | 3-5-11 | 5-7-12 | 5-8-13 | 6-9-15 | 7-10-15 | 8-11-16 | 9-12-17 |
| (Feet) | 2-Way Corner | 1-2-6 | 2-4-8 | 3-5-11 | 5-7-12 | 5-8-13 | 6-9-15 | 7-10-15 | 8-11-16 | 9-12-17 |
| | 2-Way Opposite | 1-2-6 | 2-4-8 | 3-5-11 | 5-7-12 | 5-8-13 | 6-9-15 | 7-10-15 | 8-11-16 | 9-12-17 |
| | 1-Way | 1-3-9 | 3-6-12 | 5-9-17 | 8-10-20 | 9-13-21 | 10-15-23 | 11-17-25 | 13-18-26 | 14-19-27 |
| **8" x 8" To** | Air Flow (CFM) | **70** | **105** | **140** | **175** | **210** | **244** | **279** | **314** | **349** |
| **8" Round** | Sound (NC/RC) | —/— | 11/— | 14/11H | 15/16H | 18/19H | 21/22N | 23/24N | 26/27N | 29/28N |
| | 4-Way | 2-3-7 | 3-5-8 | 4-7-9 | 5-8-11 | 6-8-12 | 7-9-13 | 7-10-14 | 8-10-14 | 8-11-15 |
| Throw | 3-Way | 2-5-8 | 4-7-11 | 6-9-12 | 7-10-14 | 8-11-16 | 9-12-17 | 9-12-18 | 10-13-10 | 10-14-20 |
| (Feet) | 2-Way Corner | 2-5-8 | 4-7-11 | 6-9-12 | 7-10-14 | 8-11-16 | 9-12-17 | 9-12-18 | 10-13-10 | 10-14-20 |
| | 2-Way Opposite | 2-5-8 | 4-7-11 | 6-9-12 | 7-10-14 | 8-11-16 | 9-12-17 | 9-12-18 | 10-13-10 | 10-14-20 |
| | 1-Way | 3-7-13 | 7-11-17 | 9-14-19 | 12-16-22 | 13-17-25 | 14-18-27 | 15-19-28 | 16-21-30 | 17-22-32 |
| **10" x 10" To** | Air Flow (CFM) | **109** | **164** | **218** | **273** | **327** | **382** | **437** | **491** | **546** |
| **10" Round** | Sound (NC/RC) | —/— | 11/— | 14/13H | 16/17H | 20/21H | 23/24N | 26/27N | 30/29N | 33/31N |
| | 4-Way | 2-4-7 | 4-6-9 | 5-8-11 | 6-9-12 | 7-9-13 | 8-10-15 | 9-11-16 | 9-12-16 | 10-12-17 |
| Throw | 3-Way | 2-5-10 | 5-8-12 | 7-10-14 | 8-11-16 | 10-12-17 | 10-13-19 | 11-14-20 | 12-15-21 | 12-16-23 |
| (Feet) | 2-Way Corner | 2-5-10 | 5-8-12 | 7-10-14 | 8-11-16 | 10-12-17 | 10-13-19 | 11-14-20 | 12-15-21 | 12-16-23 |
| | 2-Way Opposite | 2-5-10 | 5-8-12 | 7-10-14 | 8-11-16 | 10-12-17 | 10-13-19 | 11-14-20 | 12-15-21 | 12-16-23 |
| | 1-Way | 4-8-16 | 8-13-19 | 11-16-22 | 14-18-25 | 16-20-28 | 17-21-30 | 18-23-32 | 19-24-33 | 20-25-36 |
| **12" x 12" To** | Air Flow (CFM) | **157** | **236** | **314** | **393** | **471** | **550** | **629** | **707** | **786** |
| **12" Round** | Sound (NC/RC) | —/— | 11/— | 14/14H | 17/19H | 21/22H | 25/26N | 30/29N | 32/31N | 35/33N |
| | 4-Way | 2-4-9 | 4-6-11 | 6-9-12 | 7-10-14 | 9-11-15 | 9-12-16 | 10-12-17 | 11-13-19 | 11-14-20 |
| Throw | 3-Way | 3-6-11 | 6-9-14 | 8-11-16 | 10-13-18 | 11-14-20 | 12-15-21 | 13-16-23 | 14-17-24 | 14-18-25 |
| (Feet) | 2-Way Corner | 3-6-11 | 6-9-14 | 8-11-16 | 10-13-18 | 11-14-20 | 12-15-21 | 13-16-23 | 14-17-24 | 14-18-25 |
| | 2-Way Opposite | 3-6-11 | 6-9-14 | 8-11-16 | 10-13-18 | 11-14-20 | 12-15-21 | 13-16-23 | 14-17-24 | 14-18-25 |
| | 1-Way | 4-10-18 | 9-14-22 | 13-18-25 | 16-20-28 | 18-22-31 | 19-24-34 | 21-25-36 | 22-27-38 | 23-28-40 |
| **14" x 14" To** | Air Flow (CFM) | **214** | **321** | **428** | **535** | **642** | **749** | **856** | **963** | **1069** |
| **14" Round** | Sound (NC/RC) | —/— | 11/— | 14/14H | 17/19H | 21/23N | 25/26N | 30/29N | 33/32N | 35/ 34N |
| | 4-Way | 3-5-10 | 5-7-12 | 6-9-14 | 8-11-15 | 10-12-17 | 11-13-18 | 11-14-19 | 12-14-20 | 13-15-22 |
| Throw | 3-Way | 3-6-13 | 7-10-15 | 9-13-18 | 11-14-20 | 13-15-22 | 14-16-23 | 15-18-25 | 16-19-27 | 16-20-28 |
| (Feet) | 2-Way Corner | 3-6-13 | 7-10-15 | 9-13-18 | 11-14-20 | 13-15-22 | 14-16-23 | 15-18-25 | 16-19-27 | 16-20-28 |
| | 2-Way Opposite | 3-6-13 | 7-10-15 | 9-13-18 | 11-14-20 | 13-15-22 | 14-16-23 | 15-18-25 | 16-19-27 | 16-20-28 |
| | 1-Way | 5-10-20 | 11-16-25 | 14-20-28 | 18-22-31 | 20-24-34 | 22-26-37 | 24-28-40 | 25-30-42 | 27-31-45 |
| **16" x 16" To** | Air Flow (CFM) | **279** | **419** | **559** | **698** | **838** | **978** | **1117** | **1257** | **1397** |
| **16 Round** | Sound (NC/RC) | —/— | 12/— | 15/15H | 18/19H | 22/24N | 26/27N | 30/30N | 33/32N | 36/35N |
| | 4-Way | 3-5-11 | 5-8-13 | 7-10-15 | 9-12-17 | 11-13-18 | 12-14-20 | 13-15-21 | 14-16-22 | 14-17-24 |
| Throw | 3-Way | 3-7-14 | 7-11-17 | 10-14-20 | 12-15-22 | 14-17-24 | 15-18-26 | 16-19-27 | 17-21-29 | 18-22-31 |
| (Feet) | 2-Way Corner | 3-7-14 | 7-11-17 | 10-14-20 | 12-15-22 | 14-17-24 | 15-18-26 | 16-19-27 | 17-21-29 | 18-22-31 |
| | 2-Way Opposite | 3-7-14 | 7-11-17 | 10-14-20 | 12-15-22 | 14-17-24 | 15-18-26 | 16-19-27 | 17-21-29 | 18-22-31 |
| | 1-Way | 6-12-23 | 12-18-27 | 16-22-31 | 20-25-34 | 23-27-38 | 24-29-41 | 26-31-44 | 28-32-46 | 29-34-49 |
| **18" x 18" To** | Air Flow (CFM) | **354** | **530** | **707** | **884** | **1061** | **1238** | **1414** | **1591** | **1768** |
| **18 Round** | Sound (NC/RC) | —/— | 12/— | 15/15H | 18/20H | 22/24N | 26/27N | 31/31N | 34/33N | 36/35N |
| | 4-Way | 3-6-12 | 6-9-14 | 8-11-17 | 10-13-18 | 12-14-20 | 13-15-21 | 14-16-23 | 15-17-24 | 16-18-26 |
| Throw | 3-Way | 4-8-16 | 8-12-18 | 11-15-21 | 14-17-24 | 16-18-26 | 17-20-28 | 18-21-30 | 19-22-32 | 20-24-33 |
| (Feet) | 2-Way Corner | 4-8-16 | 8-12-18 | 11-15-21 | 14-17-24 | 16-18-26 | 17-20-28 | 18-21-30 | 19-22-32 | 20-24-33 |
| | 2-Way Opposite | 4-8-16 | 8-12-18 | 11-15-21 | 14-17-24 | 16-18-26 | 17-20-28 | 18-21-30 | 19-22-32 | 20-24-33 |
| | 1-Way | 6-13-25 | 13-19-29 | 18-24-34 | 22-27-37 | 25-29-41 | 27-32-45 | 29-34-47 | 31-35-50 | 33-37-53 |

**Notes on Performance**

- Performance data is based on tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.
- Actual performance in the field may vary.
- Testing was conducted in isothermal conditions.
- Sound level values are based on a room absorption of 10db re $10^{-12}$ watts.
- A "—" indicates an NC or RC value of less than 10.

**Units of Measure Used:**

- Velocity is given in Feet per Minute (fpm).
- Pressure is given in Inches of Water (w.g.).
- Flows are given in Cubic Feet per Minute (CFM).
- Throws are given in feet to terminal velocities of 150, 100 & 50 fpm, respectively.
- Sound data is given in both NC and RC. NC is first with RC second, separated by a slash.

| | Duct Velocity (fpm) | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |
|---|---|---|---|---|---|---|---|---|---|---|
| | Static Pressure | 0.006 | 0.014 | 0.025 | 0.040 | 0.058 | 0.079 | 0.104 | 0.132 | 0.163 |
| | Total Pressure | 0.009 | 0.020 | 0.035 | 0.056 | 0.080 | 0.110 | 0.144 | 0.183 | 0.225 |
| **20" x20" To** | Air Flow (CFM) | **437** | **655** | **707** | **884** | **1061** | **1238** | **1414** | **1591** | **1768** |
| **20 Round** | Sound (NC/RC) | —/— | 12/— | 15/15H | 18/20H | 22/24N | 26/27N | 31/31N | 34/33N | 37/36N |
| | 4-Way | 4-6-13 | 7-9-16 | 9-12-18 | 11-14-20 | 13-15-21 | 14-16-23 | 15-18-25 | 16-19-26 | 17-20-28 |
| Throw | 3-Way | 4-8-17 | 9-13-20 | 12-16-23 | 15-18-25 | 17-20-28 | 19-21-30 | 20-23-32 | 21-24-34 | 22-26-36 |
| (Feet) | 2-Way Corner | 4-8-17 | 9-13-20 | 12-16-23 | 15-18-25 | 17-20-28 | 19-21-30 | 20-23-32 | 21-24-34 | 22-26-36 |
| | 2-Way Opposite | 4-8-17 | 9-13-20 | 12-16-23 | 15-18-25 | 17-20-28 | 19-21-30 | 20-23-32 | 21-24-34 | 22-26-36 |
| | 1-Way | 7-14-27 | 15-21-32 | 20-26-37 | 24-29-40 | 28-32-44 | 30-34-48 | 32-36-51 | 34-38-54 | 36-40-57 |
| **22" x 22" To** | Air Flow (CFM) | **528** | **792** | **1056** | **1320** | **1585** | **1849** | **2113** | **2377** | **2641** |
| **22 Round** | Sound (NC/RC) | —/— | 12/— | 15/15H | 18/20H | 23/25N | 27/28N | 32/32N | 35/34N | 37/36N |
| | 4-Way | 4-7-14 | 7-10-17 | 10-13-19 | 12-15-21 | 14-17-23 | 16-18-25 | 17-19-27 | 18-20-28 | 19-21-30 |
| Throw | 3-Way | 5-9-19 | 10-14-21 | 13-17-25 | 16-20-27 | 19-21-30 | 20-23-32 | 22-25-34 | 23-26-37 | 24-27-39 |
| (Feet) | 2-Way Corner | 5-9-19 | 10-14-21 | 13-17-25 | 16-20-27 | 19-21-30 | 20-23-32 | 22-25-34 | 23-26-37 | 24-27-39 |
| | 2-Way Opposite | 5-9-19 | 10-14-21 | 13-17-25 | 16-20-27 | 19-21-30 | 20-23-32 | 22-25-34 | 23-26-37 | 24-27-39 |
| | 1-Way | 7-15-30 | 16-22-34 | 21-28-40 | 27-31-43 | 30-34-48 | 23-37-51 | 35-39-55 | 36-41-58 | 39-43-62 |
| **24" x 24" To** | Air Flow (CFM) | **629** | **943** | **1257** | **1571** | **1886** | **2200** | **2514** | **2829** | **3143** |
| **24" Round** | Sound (NC/RC) | —/— | 12/— | 15/15H | 18/20H | 23/25N | 27/28N | 32/23N | 35/35N | 38/37N |
| | 4-Way | 4-7-15 | 8-11-18 | 10-14-21 | 13-16-23 | 15-18-24 | 17-19-27 | 18-20-29 | 19-21-30 | 20-23-32 |
| Throw | 3-Way | 5-10-20 | 11-15-23 | 14-19-27 | 17-21-29 | 20-23-32 | 22-25-34 | 24-26-37 | 25-28-39 | 26-29-41 |
| (Feet) | 2-Way Corner | 5-10-20 | 11-15-23 | 14-19-27 | 17-21-29 | 20-23-32 | 22-25-34 | 24-26-37 | 25-28-39 | 26-29-41 |
| | 2-Way Opposite | 5-10-20 | 11-15-23 | 14-19-27 | 17-21-29 | 20-23-32 | 22-25-34 | 24-26-37 | 25-28-39 | 26-29-41 |
| | 1-Way | 8-16-32 | 17-24-37 | 23-30-43 | 29-33-46 | 32-36-51 | 35-39-55 | 37-42-59 | 39-44-62 | 42-46-66 |
| **8" x 8" To** | Air Flow (CFM) | **39** | **59** | **79** | **98** | **118** | **138** | **157** | **177** | **196** |
| **6" Round** | Sound (NC/RC) | —/— | 10/— | 14/10H | 15/15H | 17/18H | 20/21N | 22/23N | 25/26N | 27/27N |
| | 4-Way | 1-2-5 | 2-4-7 | 3-5-8 | 4-6-10 | 5-7-11 | 6-8-12 | 6-9-13 | 7-9-13 | 7-10-14 |
| Throw | 3-Way | 1-4-7 | 3-5-9 | 4-7-11 | 6-8-13 | 6-9-14 | 7-10-16 | 8-11-16 | 9-12-17 | 9-13-18 |
| (Feet) | 2-Way Corner | 1-4-7 | 3-5-9 | 4-7-11 | 6-8-13 | 6-9-14 | 7-10-16 | 8-11-16 | 9-12-17 | 9-13-18 |
| | 2-Way Opposite | 1-4-7 | 3-5-9 | 4-7-11 | 6-8-13 | 6-9-14 | 7-10-16 | 8-11-16 | 9-12-17 | 9-13-18 |
| | 1-Way | 2-5-11 | 5-8-14 | 7-11-18 | 10-13-21 | 11-15-23 | 12-16-25 | 13-18-26 | 14-19-28 | 15-20-29 |
| **10" x 10" To** | Air Flow (CFM) | **70** | **105** | **140** | **175** | **210** | **244** | **279** | **314** | **349** |
| **8" Round** | Sound (NC/RC) | —/— | 11/— | 14/12H | 15/16H | 19/20H | 22/23N | 24/25N | 28/28N | 31/29N |
| | 4-Way | 2-3-7 | 3-5-8 | 4-7-10 | 5-8-11 | 6-8-12 | 7-9-14 | 8-10-15 | 8-11-15 | 9-11-16 |
| Throw | 3-Way | 2-5-9 | 4-7-11 | 6-9-13 | 7-10-15 | 9-11-16 | 9-12-18 | 10-13-19 | 11-14-20 | 11-15-21 |
| (Feet) | 2-Way Corner | 2-5-9 | 4-7-11 | 6-9-13 | 7-10-15 | 9-11-16 | 9-12-18 | 10-13-19 | 11-14-20 | 11-15-21 |
| | 2-Way Opposite | 2-5-9 | 4-7-11 | 6-9-13 | 7-10-15 | 9-11-16 | 9-12-18 | 10-13-19 | 11-14-20 | 11-15-21 |
| | 1-Way | 3-7-14 | 7-12-18 | 10-15-20 | 13-17-23 | 14-18-26 | 15-19-28 | 16-21-30 | 17-22-31 | 18-23-34 |
| **12" x 12" To** | Air Flow (CFM) | **109** | **164** | **218** | **273** | **327** | **382** | **437** | **491** | **546** |
| **10" Round** | Sound (NC/RC) | —/— | 11/— | 14/13H | 16/18H | 20/21H | 24/25N | 28/28N | 31/30N | 34/32N |
| | 4-Way | 2-4-8 | 4-6-10 | 5-8-11 | 6-9-13 | 8-10-14 | 8-11-15 | 9-11-15 | 10-12-17 | 10-13-18 |
| Throw | 3-Way | 2-5-10 | 5-8-13 | 7-10-15 | 9-12-17 | 10-13-18 | 11-14-20 | 12-15-21 | 13-16-22 | 13-17-24 |
| (Feet) | 2-Way Corner | 2-5-10 | 5-8-13 | 7-10-15 | 9-12-17 | 10-13-18 | 11-14-20 | 12-15-21 | 13-16-22 | 13-17-24 |
| | 2-Way Opposite | 2-5-10 | 5-8-13 | 7-10-15 | 9-12-17 | 10-13-18 | 11-14-20 | 12-15-21 | 13-16-22 | 13-17-24 |
| | 1-Way | 4-9-17 | 8-13-20 | 12-17-23 | 15-19-26 | 17-21-29 | 18-22-32 | 19-24-34 | 20-25-35 | 21-26-38 |
| **14" x 14" To** | Air Flow (CFM) | **157** | **236** | **314** | **393** | **471** | **550** | **629** | **707** | **786** |
| **12" Round** | Sound (NC/RC) | —/— | 11/— | 14/14H | 17/19H | 21/22H | 25/26N | 30/29N | 32/31N | 35/33N |
| | 4-Way | 2-4-9 | 4-6-11 | 6-9-12 | 7-10-14 | 9-11-16 | 10-12-17 | 10-13-18 | 11-13-19 | 12-14-21 |
| Throw | 3-Way | 3-6-12 | 6-9-14 | 8-12-17 | 10-13-19 | 12-14-21 | 13-15-22 | 14-17-24 | 15-18-25 | 15-19-26 |
| (Feet) | 2-Way Corner | 3-6-12 | 6-9-14 | 8-12-17 | 10-13-19 | 12-14-21 | 13-15-22 | 14-17-24 | 15-18-25 | 15-19-26 |
| | 2-Way Opposite | 3-6-12 | 6-9-14 | 8-12-17 | 10-13-19 | 12-14-21 | 13-15-22 | 14-17-24 | 15-18-25 | 15-19-26 |
| | 1-Way | 4-10-19 | 10-15-23 | 13-19-26 | 17-21-29 | 19-23-32 | 20-25-35 | 22-26-38 | 23-38-40 | 25-29-42 |

**Notes on Performance**

- Performance data is based on tests conducted in accordance with ANSI/ASHRAE Standard 70-1991.
- Actual performance in the field may vary.
- Testing was conducted in isothermal conditions.
- Sound level values are based on a room absorption of 10db re $10^{-12}$ watts.
- A "—" indicates an NC or RC value of less than 10.

**Units of Measure Used:**

- Velocity is given in Feet per Minute (fpm).
- Pressure is given in Inches of Water (w.g.).
- Flows are given in Cubic Feet per Minute (CFM).
- Throws are given in feet to terminal velocities of 150, 100 & 50 fpm, respectively.
- Sound data is given in both NC and RC. NC is first with RC second, separated by a slash.

## Round Neck Transition Options

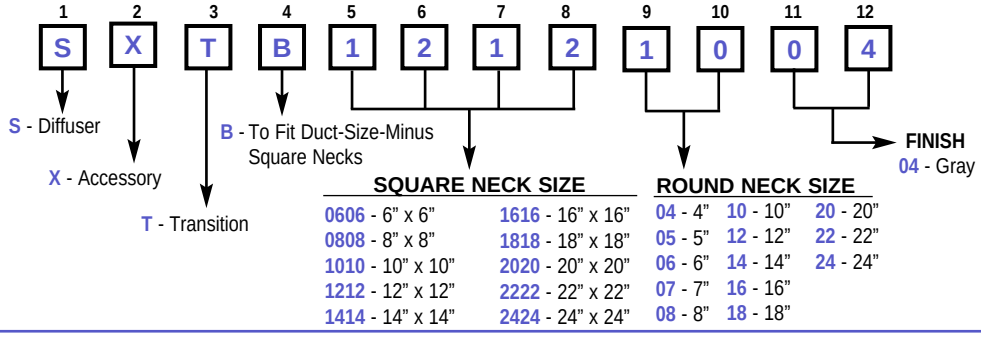
**Application**

A round neck transition allows efficient installation when flex duct is used. It is available as a factory mounted option on the diffuser, or as a separate field-installed unit.

**Features**

- Round inlet is nominal size minus 1/8” to fit inside the flex duct of the same nominal size.
- Round inlet height is 1-1/4”
- Maximum round inlet size is the same as the square neck size it is fitting on to. For example, a 10” diameter is the largest inlet that will fit on a 10” x 10” square neck diffuser.

### Model Numbering System




## Gasket Option (Option G)

**Application**

Polyurethane gasket applied around the edge of the mounting frame on surface mount diffusers reduces air leakage at the edge of the frame.

**NOTES:**