



## TABLE OF CONTENTS

◀ **PRISM**

This supply diffuser features an arcuate faceplate. Center square appliqué offers nine standard colors to match interior décor.

◀ **PLQ & 5PLQ**

This supply diffuser features a square plaque faceplate.

◀ **PLQR**

This supply diffuser features a round plaque faceplate.

◀ **ASDT, 5ASDT, AVDT, & 5AVDT**

The ASD supply diffusers feature square ceiling tile faceplates. The AVD supply diffusers feature an integral, thermally powered thermostat with VAV control damper.

◀ **ASDP, 5ASDP, AVDP, & 5AVDP**

The ASD supply diffusers feature square plaque-style faceplates. The AVD supply diffusers feature an integral, thermally powered thermostat with VAV control damper.

◀ **LVSD**

LVSD Series linear VAV supply diffuser features an aesthetic appearance with zone temperature control. Self contained and powered; requires no electrical wiring.

◀ **KSD**

This architectural supply diffuser features a center swirl.

**MODEL PRISM**

|                                                |      |
|------------------------------------------------|------|
| Introduction .....                             | G-3  |
| Prism Dimensional & Appliqué Information ..... | G-4  |
| Prism Retrofit Installation Information .....  | G-5  |
| Prism Reference Charts .....                   | G-6  |
| Prism Performance Data .....                   | G-9  |
| Engineering Specification .....                | G-11 |

**MODELS PLQ/5PLQ/PLQR**

|                                                          |      |
|----------------------------------------------------------|------|
| Introduction & Dimensional Information .....             | G-12 |
| PLQ/5PLQ/PLQR Frame Styles & Directional Blow Tabs ..... | G-13 |
| PLQ/5PLQ Reference Charts .....                          | G-14 |
| PLQ/5PLQ Performance Data .....                          | G-17 |
| PLQR Reference Charts .....                              | G-19 |
| PLQR Performance Data .....                              | G-22 |
| Engineering Specifications .....                         | G-24 |

**MODELS ASDP/5ASDP/ASDT/5ASDT**

|                                                                      |      |
|----------------------------------------------------------------------|------|
| Introduction .....                                                   | G-26 |
| ASDP/5ASDP/ASDT/5ASDT Dimensional Information & Adapter Frames ..... | G-27 |
| ASDP/5ASDP/ASDT/5ASDT Reference Charts .....                         | G-28 |
| ASDP/5ASDP/ASDT/5ASDT Performance Data .....                         | G-31 |
| Engineering Specifications .....                                     | G-33 |

**MODELS AVDP/5AVDP/AVDT/5AVDT**

|                                                                      |      |
|----------------------------------------------------------------------|------|
| Introduction .....                                                   | G-34 |
| AVDP/5AVDP/AVDT/5AVDT Dimensional Information & Adapter Frames ..... | G-35 |
| Engineering Specifications .....                                     | G-36 |

**MODELS LVSD**

|                                              |      |
|----------------------------------------------|------|
| Introduction & Dimensional Information ..... | G-37 |
| Adapter Frame Information .....              | G-38 |
| Engineering Specifications .....             | G-39 |

**MODEL KSD**

|                                       |      |
|---------------------------------------|------|
| Introduction & Dimensional Data ..... | G-40 |
| KSD Reference Charts .....            | G-41 |
| KSD Performance Data .....            | G-43 |
| Engineering Specification .....       | G-44 |



## ASDP/ASDT | CEILING TILE &amp; PLAQUE DIFFUSERS



## INTRODUCTION: ASDP/5ASDP/ASDT/5ASDT

The ASDP/ASDT architectural diffuser provides an aesthetically pleasing appearance which is clean, simple and unobtrusive. The ASDP diffuser provides a metal plaque face while the ASDT provides a frame that accepts a ceiling tile (by others) to form the plaque face. The diffusers discharge air horizontal to the ceiling causing secondary air circulation and mixing. The ASDP matching VAV diffuser is the AVDP. The ASDT matching VAV diffuser is the AVDT.

## MODELS

**MODEL ASDP** - Steel, Plaque Supply Diffuser

**MODEL 5ASDP** - Aluminum, Plaque Supply Diffuser \*

**MODEL ASDT** - Steel, Ceiling Tile Supply Diffuser

**MODEL 5ASDT** - Aluminum, Ceiling Tile Supply Diffuser \*

► (\*) Product contains steel components.

## FEATURES

- Available in Several Discharge Air Patterns (For 24"x24" Panel Only)

## PANEL SIZE

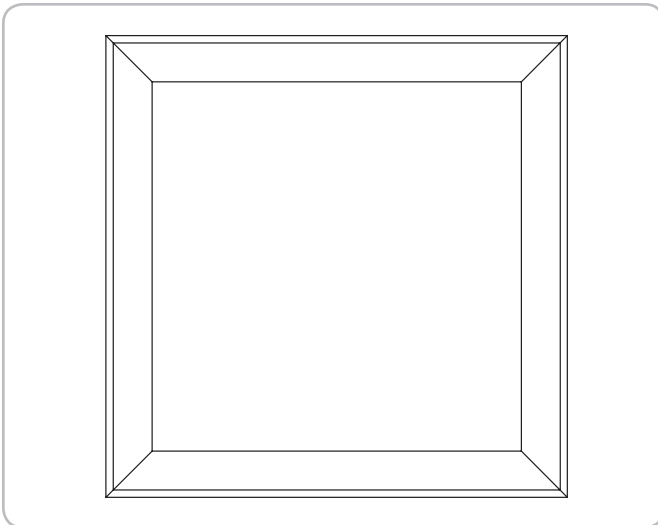
- 12"x12" (ASDP/5ASDP Only)
- 24"x24"

## FINISHES

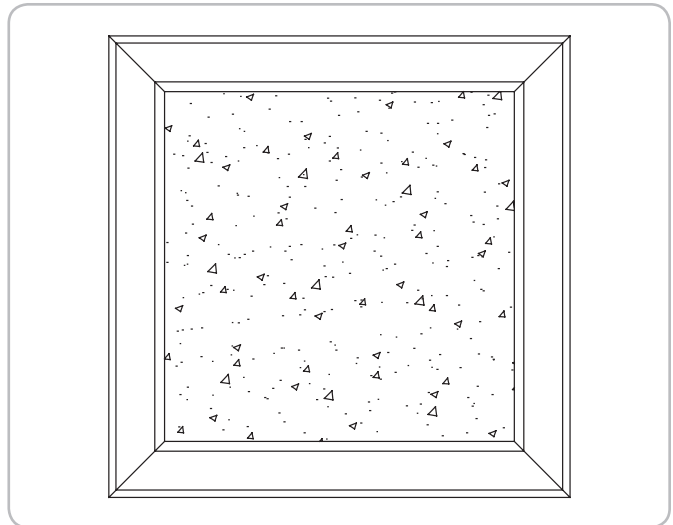
- Standard Finish is British White
- Optional Finishes Available

## ASDP/5ASDP/ASDT/5ASDT DIMENSIONAL INFORMATION

## ▼ ASDP/5ASDP, FACE VIEW (PLAQUE STYLE)



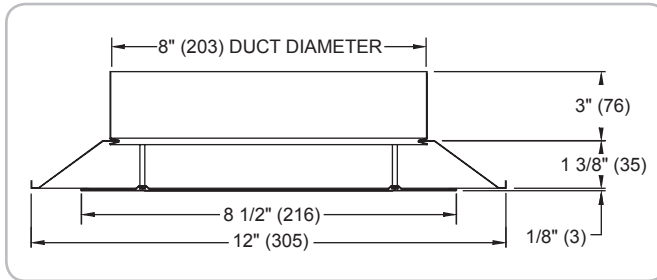
## ▼ ASDT/5ASDT, FACE VIEW (CEILING TILE STYLE)





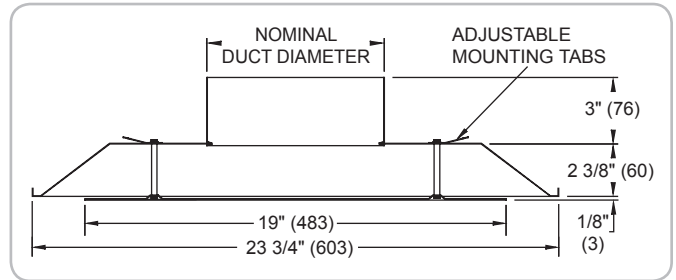
## ASDP/5ASDP/ASDT/5ASDT DIMENSIONAL INFORMATION

### ▼ ASDP/5ASDP, CROSS SECTION 12"x12" PANEL

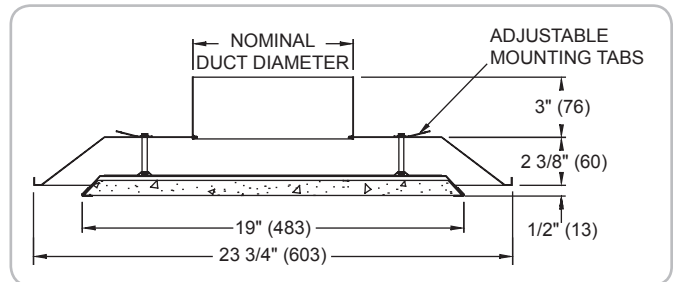


► Dimensions in ( ) are mm.

### ▼ ASDP/5ASDP, CROSS SECTION 24"x24" PANEL

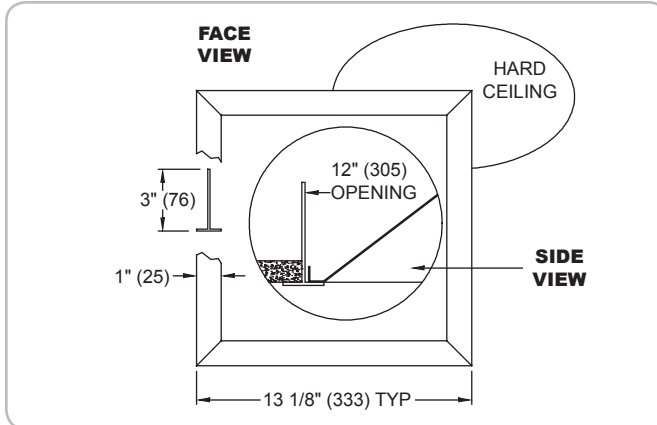


### ▼ ASDT/5ASDT, CROSS SECTION 24"x24" PANEL

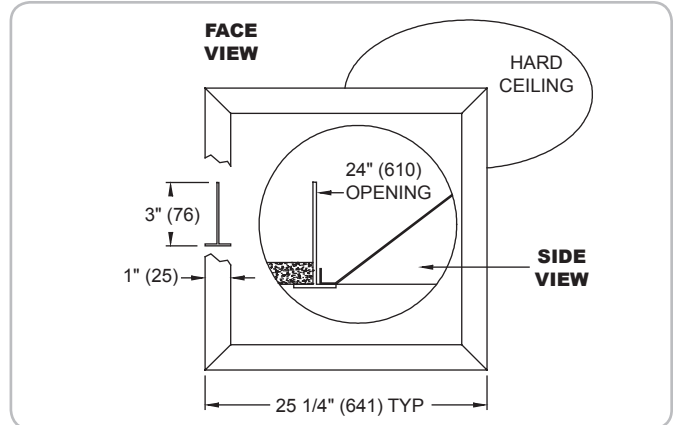


## ASDP/5ASDP/ASDT/5ASDT ADAPTER FRAMES

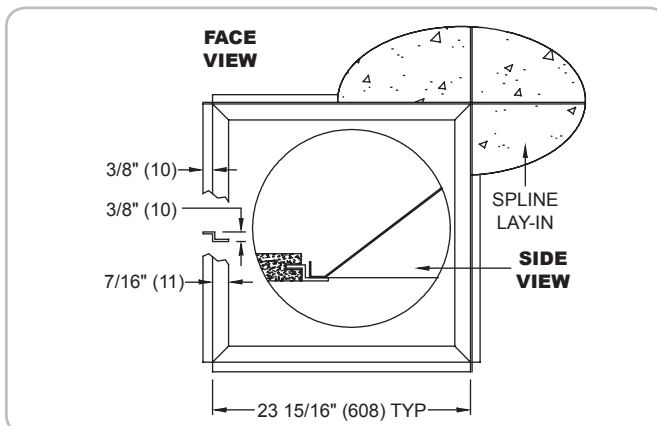
### ▼ ASDP/5ASDP, FRAME 20, SURFACE MOUNT, ADAPTER FRAME 12"x12" PANEL



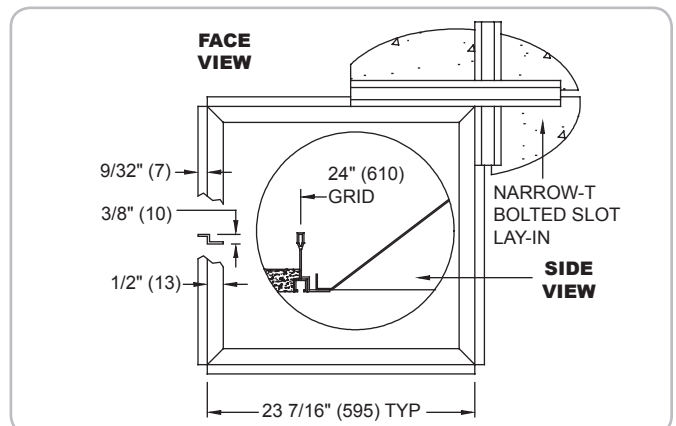
### ▼ ASDP/5ASDP/ASDT/5ASDT, FRAME 20, SURFACE MOUNT, ADAPTER FRAME 24"x24" PANEL



### ▼ ASDP/5ASDP/ASDT/5ASDT, FRAME 27, SPLINE, ADAPTER FRAME 24"x24" PANEL



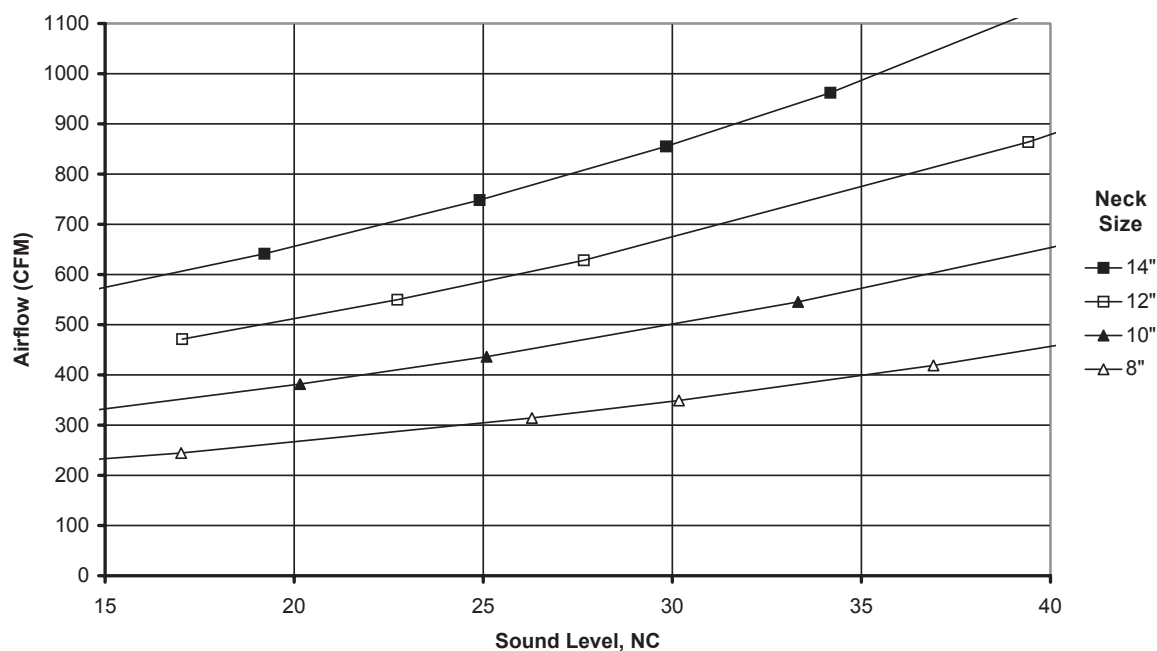
### ▼ ASDP/5ASDP/ASDT/5ASDT, FRAME 98, NARROW-T, ADAPTER FRAME 24"x24" PANEL



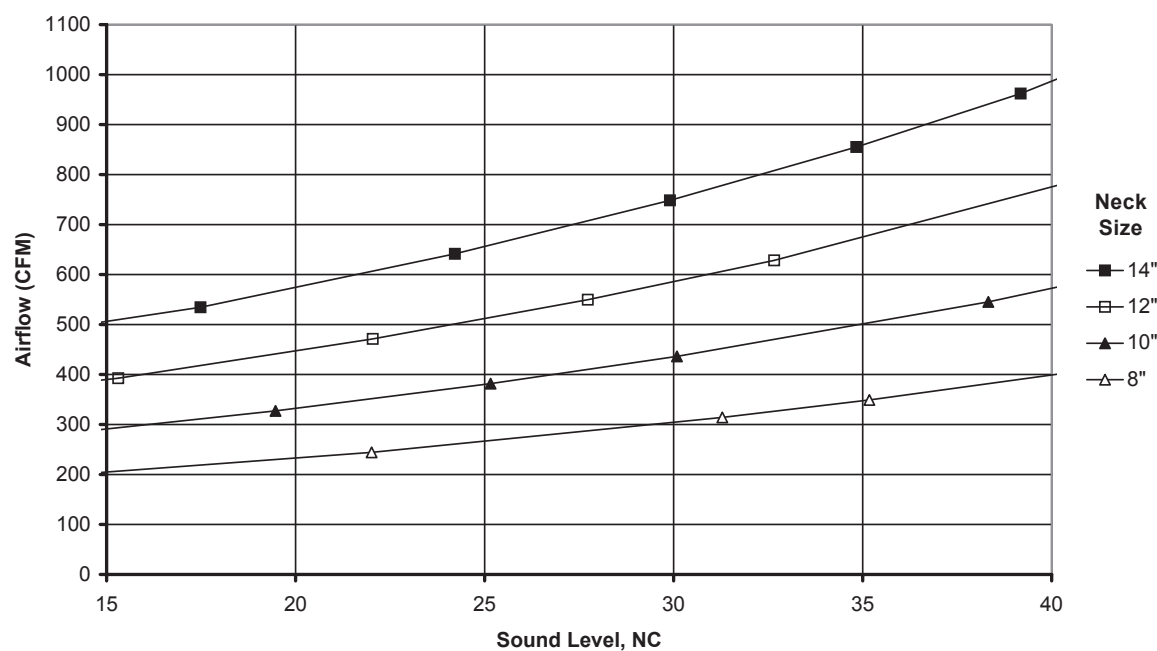


## ASDP/5ASDP/ASDT/5ASDT REFERENCE CHARTS

## ▼ AIRFLOW VS. NC LEVEL: ASDP/5ASDP, 24"x24" PANEL (NO DAMPER)



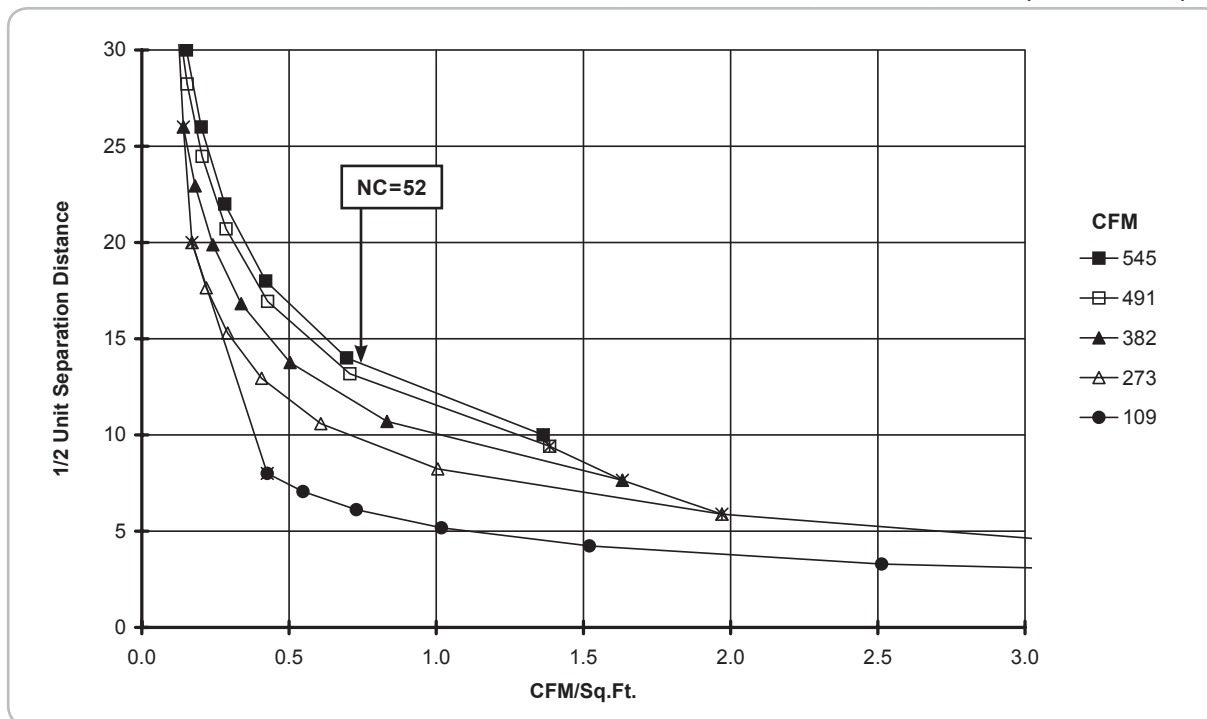
## ▼ AIRFLOW VS. NC LEVEL: ASDT/5ASDT, 24"x24" PANEL (NO DAMPER)



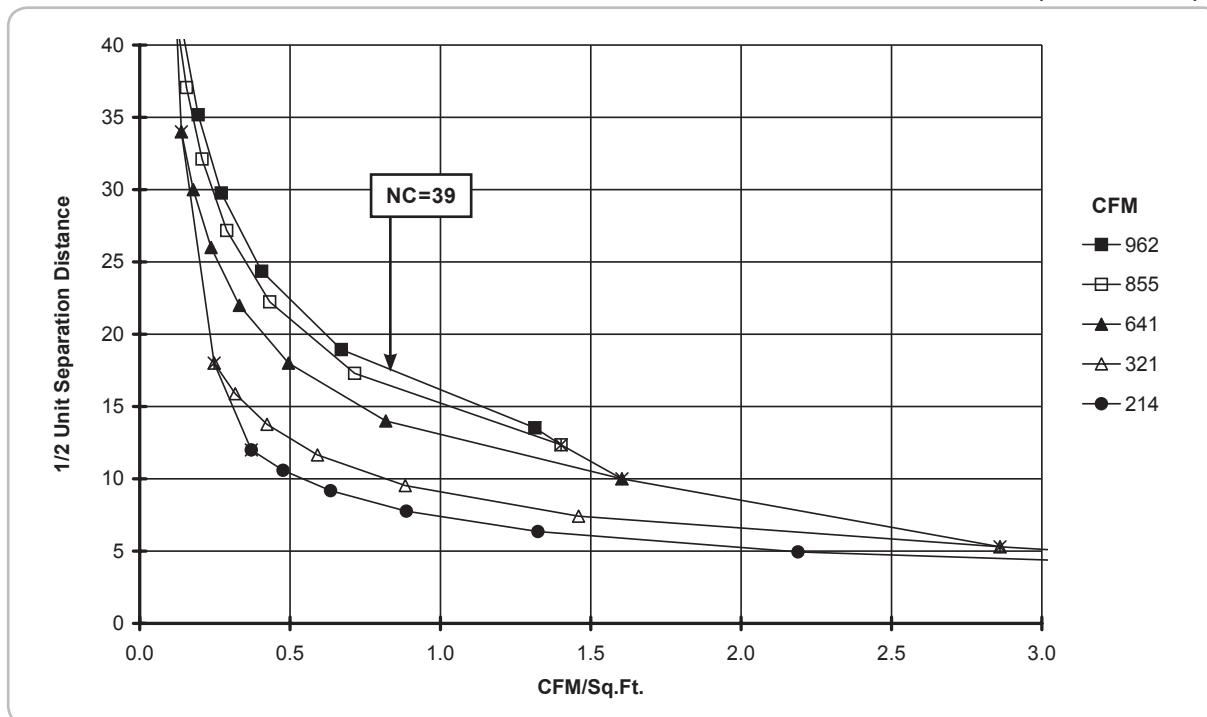


## ASDT/5ASDT REFERENCE CHARTS: HORIZONTAL THROW

▼ DIFFUSER SPACING FOR 80% ADPI: ASDT/5ASDT, 24"x24" PANEL, 8" NECK, 4-WAY (NO DAMPER)



▼ DIFFUSER SPACING FOR 80% ADPI: ASDT/5ASDT, 24"x24" PANEL, 14" NECK, 4-WAY (NO DAMPER)

► Charts are at 20 BTUH/ft<sup>2</sup> loads.

See the Engineering section of this catalog for instructions on how to read these charts and additional ADPI information.



## ASDT/5ASDT PERFORMANCE DATA: HORIZONTAL THROW

## ▼ IP/METRIC DATA: ASDT &amp; 5ASDT, 24"x24" PANEL (NO DAMPER)

|          | IP Data  |          |       |              |             | NC   | Metric Data |          |       |                 |                 | Octave Band, dB |    |    |    |    |    |  |
|----------|----------|----------|-------|--------------|-------------|------|-------------|----------|-------|-----------------|-----------------|-----------------|----|----|----|----|----|--|
|          | Neck Vel | Air Flow | Ps    | Pt           | Throw       |      | Neck Vel    | Air Flow | Ps    | Pt              | Throw           |                 |    |    |    |    |    |  |
|          | FPM      | CFM      | "WG   | "WG          | ft          |      | m/s         | L/s      | Pa    | Pa              | m               | 2               | 3  | 4  | 5  | 6  | 7  |  |
| 8" Dia.  | 200      | 70       | 0.012 | .014         | 0 - 1 - 3   | -    | 1.02        | 33       | 3.0   | 3.6             | 0.1 - 0.2 - 0.9 | 15              | -  | -  | -  | -  | -  |  |
|          | 300      | 105      | 0.027 | .032         | 1 - 2 - 4   | -    | 1.52        | 49       | 6.7   | 8.1             | 0.2 - 0.5 - 1.3 | 26              | 16 | -  | -  | -  | -  |  |
|          | 500      | 175      | 0.074 | .090         | 2 - 4 - 7   | -    | 2.54        | 82       | 18.5  | 22.4            | 0.7 - 1.1 - 2.2 | 40              | 32 | 27 | 16 | -  | -  |  |
|          | 600      | 209      | 0.107 | .129         | 3 - 4 - 9   | 16   | 3.05        | 99       | 26.6  | 32.2            | 0.9 - 1.3 - 2.6 | 45              | 37 | 33 | 22 | 11 | -  |  |
|          | 700      | 244      | 0.145 | .176         | 3 - 5 - 10  | 22   | 3.56        | 115      | 36.2  | 43.8            | 1.0 - 1.5 - 3.1 | 49              | 42 | 38 | 28 | 18 | -  |  |
|          | 800      | 279      | 0.190 | .230         | 4 - 6 - 12  | 27   | 4.06        | 132      | 47.3  | 57.2            | 1.2 - 1.8 - 3.5 | 53              | 46 | 43 | 33 | 23 | -  |  |
|          | 900      | 314      | 0.240 | .291         | 4 - 6 - 13  | 31   | 4.57        | 148      | 59.9  | 72.4            | 1.3 - 2.0 - 3.9 | 56              | 50 | 46 | 37 | 28 | 14 |  |
|          | 1000     | 349      | 0.297 | .359         | 5 - 7 - 14  | 35   | 5.08        | 165      | 73.9  | 89.4            | 1.5 - 2.2 - 4.1 | 59              | 53 | 50 | 41 | 33 | 18 |  |
| 1100     | 384      | 0.359    | .435  | 5 - 8 - 14   | 39          | 5.59 | 181         | 89.4     | 108.2 | 1.6 - 2.4 - 4.3 | 61              | 56              | 53 | 45 | 37 | 23 |    |  |
| 10" Dia. | 200      | 109      | 0.014 | .017         | 1 - 1 - 4   | -    | 1.02        | 51       | 3.5   | 4.1             | 0.2 - 0.4 - 1.2 | 19              | -  | -  | -  | -  | -  |  |
|          | 300      | 164      | 0.032 | .037         | 1 - 3 - 6   | -    | 1.52        | 77       | 7.9   | 9.3             | 0.4 - 0.8 - 1.8 | 30              | 19 | 13 | -  | -  | -  |  |
|          | 500      | 273      | 0.088 | .104         | 3 - 5 - 10  | 13   | 2.54        | 129      | 21.9  | 25.8            | 1.0 - 1.5 - 2.9 | 44              | 35 | 30 | 19 | -  | -  |  |
|          | 600      | 327      | 0.127 | .149         | 4 - 6 - 12  | 19   | 3.05        | 154      | 31.6  | 37.2            | 1.2 - 1.8 - 3.5 | 49              | 40 | 36 | 26 | 15 | -  |  |
|          | 700      | 382      | 0.173 | .203         | 4 - 7 - 13  | 25   | 3.56        | 180      | 43.0  | 50.6            | 1.4 - 2.0 - 4.1 | 53              | 45 | 41 | 31 | 22 | -  |  |
|          | 800      | 436      | 0.225 | .265         | 5 - 8 - 15  | 30   | 4.06        | 206      | 56.1  | 66.1            | 1.6 - 2.3 - 4.6 | 56              | 49 | 45 | 36 | 27 | 14 |  |
|          | 900      | 491      | 0.285 | .336         | 6 - 9 - 16  | 34   | 4.57        | 232      | 71.1  | 83.6            | 1.8 - 2.6 - 4.9 | 60              | 53 | 49 | 41 | 32 | 19 |  |
|          | 1000     | 545      | 0.352 | .415         | 6 - 10 - 17 | 38   | 5.08        | 257      | 87.7  | 103.2           | 1.9 - 2.9 - 5.2 | 62              | 56 | 52 | 44 | 37 | 24 |  |
| 1100     | 600      | 0.426    | .502  | 7 - 11 - 18  | 42          | 5.59 | 283         | 106.1    | 124.9 | 2.1 - 3.2 - 5.4 | 65              | 59              | 56 | 48 | 41 | 29 |    |  |
| 12" Dia. | 100      | 79       | 0.004 | .005         | 0 - 0 - 2   | -    | 0.51        | 37       | 1.0   | 1.2             | 0.1 - 0.1 - 0.5 | -               | -  | -  | -  | -  | -  |  |
|          | 200      | 157      | 0.017 | .019         | 1 - 2 - 5   | -    | 1.02        | 74       | 4.2   | 4.8             | 0.2 - 0.5 - 1.5 | 22              | -  | -  | -  | -  | -  |  |
|          | 300      | 236      | 0.038 | .043         | 2 - 4 - 7   | -    | 1.52        | 111      | 9.4   | 10.8            | 0.5 - 1.1 - 2.2 | 33              | 21 | 15 | -  | -  | -  |  |
|          | 500      | 393      | 0.105 | .121         | 4 - 6 - 12  | 15   | 2.54        | 185      | 26.2  | 30.0            | 1.2 - 1.8 - 3.6 | 47              | 37 | 32 | 22 | 11 | -  |  |
|          | 600      | 471      | 0.151 | .174         | 5 - 7 - 14  | 22   | 3.05        | 222      | 37.7  | 43.2            | 1.5 - 2.2 - 4.4 | 52              | 43 | 38 | 28 | 18 | -  |  |
|          | 700      | 550      | 0.206 | .236         | 6 - 8 - 17  | 28   | 3.56        | 259      | 51.3  | 58.9            | 1.7 - 2.6 - 5.1 | 56              | 47 | 43 | 34 | 25 | 12 |  |
|          | 800      | 628      | 0.269 | .309         | 6 - 10 - 18 | 33   | 4.06        | 297      | 66.9  | 76.9            | 1.9 - 2.9 - 5.5 | 60              | 51 | 47 | 39 | 30 | 19 |  |
|          | 900      | 707      | 0.340 | .391         | 7 - 11 - 19 | 37   | 4.57        | 334      | 84.7  | 97.3            | 2.2 - 3.3 - 5.9 | 63              | 55 | 51 | 43 | 35 | 24 |  |
| 1000     | 785      | 0.420    | .482  | 8 - 12 - 20  | 41          | 5.08 | 371         | 104.6    | 120.1 | 2.4 - 3.6 - 6.2 | 66              | 58              | 54 | 47 | 40 | 29 |    |  |
| 14" Dia. | 100      | 107      | 0.005 | .006         | 0 - 1 - 2   | -    | 0.51        | 50       | 1.2   | 1.4             | 0.1 - 0.2 - 0.6 | -               | -  | -  | -  | -  | -  |  |
|          | 200      | 214      | 0.020 | .023         | 1 - 2 - 6   | -    | 1.02        | 101      | 5.0   | 5.6             | 0.3 - 0.6 - 1.7 | 25              | 11 | -  | -  | -  | -  |  |
|          | 300      | 321      | 0.045 | .051         | 2 - 4 - 9   | -    | 1.52        | 151      | 11.2  | 12.6            | 0.6 - 1.3 - 2.6 | 36              | 23 | 17 | -  | -  | -  |  |
|          | 500      | 535      | 0.125 | .141         | 5 - 7 - 14  | 17   | 2.54        | 252      | 31.1  | 35.0            | 1.5 - 2.2 - 4.4 | 49              | 39 | 33 | 24 | 13 | -  |  |
|          | 600      | 641      | 0.180 | .203         | 6 - 9 - 17  | 24   | 3.05        | 303      | 44.8  | 50.4            | 1.7 - 2.6 - 5.2 | 54              | 45 | 39 | 31 | 21 | -  |  |
|          | 700      | 748      | 0.245 | .276         | 7 - 10 - 20 | 30   | 3.56        | 353      | 61.0  | 68.6            | 2.0 - 3.1 - 6.1 | 59              | 49 | 44 | 36 | 27 | 16 |  |
|          | 800      | 855      | 0.320 | .360         | 8 - 11 - 21 | 35   | 4.06        | 404      | 79.7  | 89.6            | 2.3 - 3.5 - 6.5 | 62              | 53 | 49 | 41 | 33 | 23 |  |
|          | 900      | 962      | 0.405 | .456         | 9 - 13 - 23 | 39   | 4.57        | 454      | 100.9 | 113.5           | 2.6 - 3.9 - 6.9 | 65              | 57 | 53 | 46 | 38 | 28 |  |
| 1000     | 1069     | 0.500    | .563  | 10 - 14 - 24 | 43          | 5.08 | 505         | 124.5    | 140.1 | 2.9 - 4.4 - 7.2 | 68              | 60              | 56 | 50 | 42 | 33 |    |  |

► Throw values are given for isothermal conditions and terminal velocities of 150, 100, and 50 FPM (0.75, 0.50, and 0.25 m/s). NC values are based on octave band 2 - 7 sound power levels minus a room absorption of 10dB, re  $10^{-12}$  watts. Dash (-) in space denotes a NC or dB value of less than 10. Nominal duct is duct width. Data was obtained from tests conducted in accordance with ANSI/ASHRAE Standard 70, ISO Standard 5219, and ISO Standard 3741. See K-Select program for performance data not shown, including octave band data.


**ASDP/5ASDP/ASDT/4ASDT SUGGESTED SPECIFICATION & CONFIGURATION**
**1. DIFFUSER SERIES: (XXXXX)**

ASDP - Steel Construction, Plaque-Style Face  
 5ASDP - Aluminum Construction, Plaque-Style Face \*\*\*

ASDT - Steel Construction, Ceiling Tile Face  
 5ASDT - Aluminum Construction, Ceiling Tile Face \*\*\*

**2. INLET: (XX)**

8"  
 10"  
 12"  
 14"

**3. PANEL: (XX)x(XX)**

12"x12" \*  
 24"x24" \*\*

**4. FINISH: (XX)**

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

- (\*) 12"x12" Panel only available with 8" inlet.  
 (\*\*) ASDT & 5ASDT only available in 24"x24" panel.  
 (\*\*\*) Product contains steel components.

**1. ACCESSORY SERIES: (XXXXXXXX)**

(Applicable to ASDP, 5ASDP, ASDT, 5ASDT, AVDP, 5AVDP, AVDT, and 5AVDT)  
 AVDPPF - Steel Surface Mount Frame  
 5AVDPPF - Aluminum Surface Mount Frame  
 AVDPFF - Steel Fine-Line Frame  
 5AVDPFF - Aluminum Fine-Line Frame  
 AVDPSF - Steel Square Spline Frame  
 5AVDPSF - Aluminum Spline Frame  
 DBTAB - Steel Directional Blow Tab  
 5DBTAB - Aluminum Directional Blow Tab

**2. PANEL: (XX)x(XX)**

12"x12"  
 24"x24" \*

**3. FINISH: (XX)**

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

- (\*) ASDT, 5ASDT, AVDT, and 5AVDT models are only available in 24"x24" panel.

**ASDP/5ASDP**

The architectural plaque face diffuser shall be Krueger model ASDP (steel) or 5ASDP (aluminum). The ASDP shall be constructed of 24 gage galvanized steel and the 5ASDP shall be constructed of 0.040" aluminum. The diffusers shall have a square face and round neck resulting in 360° discharge of air in the horizontal plane. The plaque face shall not exceed 1/8" drop below the ceiling plane.

**ASDT/5ASDT**

The architectural ceiling tile face diffuser shall be Krueger model ASDT (steel) or 5ASDT (aluminum). The diffuser shall have an appearance panel consisting of a back pan and 4 flanged side plates with mitered corners for installing ceiling tile provided by the ceiling contractor. The ASDT shall be constructed of 24 gage galvanized steel and the 5ASDT shall be constructed of 0.040" aluminum. The diffusers shall have a square face and round neck resulting in 360° discharge of air in the horizontal plane. The appearance panel with ceiling tile installed shall not exceed 1/2" drop below the ceiling plane.

Optional round damper shall be constructed of heavy gage steel. Damper shall be operable from the face of the diffuser.

**PERFORMANCE**

The manufacturer shall provide published (printed or electronic) performance data for the diffuser. Performance data shall include 2 - 7 octave band sound power levels. The diffuser shall be tested in accordance to the data standards at the time of product introduction or ANSI/ASHRAE Standard 70.

**FINISH**

The paint finish shall be British White.