



# ENGINEERING DATA

## DSC

| UNIT SIZE<br>(in.) | INLET SIZE<br>(in.) | NECK<br>VELOCITY<br>(FPM) | AIRFLOW<br>(CFM) | P <sub>D</sub><br>(in. wc) | P <sub>T</sub><br>(in. wc) | NC<br>(Noise Criteria) | Throw Length & Width in<br>Adjacent Zone (AZ), (ft.) |         |
|--------------------|---------------------|---------------------------|------------------|----------------------------|----------------------------|------------------------|--|---------|
|                    |                     |                           |                  |                            |                            |                        | Δ5°  | Δ10°    |
| 11x25              | 6                   | 200                       | 38               | 0.002                      | 0.004                      | -                      | 3 - 8  | 4 - 9   |
|                    |                     | 300                       | 56               | 0.006                      | 0.008                      | -                      | 3 - 10   | 4 - 11  |
|                    |                     | 400                       | 75               | 0.010                      | 0.015                      | -                      | 4 - 12   | 5 - 13  |
|                    |                     | 500                       | 94               | 0.016                      | 0.023                      | -                      | 4 - 13   | 5 - 15  |
|                    |                     | 600                       | 113              | 0.022                      | 0.033                      | -                      | 5 - 15   | 6 - 17  |
|                    |                     | 700                       | 132              | 0.031                      | 0.045                      | -                      | 5 - 16   | 6 - 19  |
| 13x37              | 8                   | 200                       | 68               | 0.002                      | 0.004                      | -                      | 4 - 11   | 5 - 13  |
|                    |                     | 300                       | 10               | 0.006                      | 0.008                      | -                      | 5 - 14   | 6 - 16  |
|                    |                     | 400                       | 135              | 0.010                      | 0.015                      | -                      | 5 - 17   | 7 - 19  |
|                    |                     | 500                       | 169              | 0.016                      | 0.023                      | -                      | 6 - 19   | 7 - 22  |
|                    |                     | 600                       | 203              | 0.022                      | 0.033                      | -                      | 6 - 21   | 8 - 25  |
|                    |                     | 700                       | 237              | 0.031                      | 0.045                      | 10                     | 7 - 23   | 8 - 27  |
| 15x37              | 10                  | 200                       | 106              | 0.002                      | 0.004                      | -                      | 5 - 14   | 7 - 17  |
|                    |                     | 300                       | 160              | 0.006                      | 0.009                      | -                      | 6 - 18   | 8 - 21  |
|                    |                     | 400                       | 213              | 0.010                      | 0.015                      | -                      | 7 - 22   | 9 - 26  |
|                    |                     | 500                       | 266              | 0.016                      | 0.024                      | -                      | 8 - 25   | 9 - 29  |
|                    |                     | 600                       | 319              | 0.022                      | 0.035                      | -                      | 8 - 28   | 10 - 33 |
|                    |                     | 700                       | 372              | 0.031                      | 0.047                      | 13                     | 9 - 31   | 11 - 36 |
| 18x60              | 12                  | 200                       | 154              | 0.002                      | 0.004                      | -                      | 7 - 18   | 8 - 21  |
|                    |                     | 300                       | 231              | 0.006                      | 0.008                      | -                      | 8 - 23   | 10 - 27 |
|                    |                     | 400                       | 308              | 0.010                      | 0.015                      | -                      | 9 - 27   | 11 - 32 |
|                    |                     | 500                       | 385              | 0.016                      | 0.023                      | -                      | 10 - 31  | 12 - 37 |
|                    |                     | 600                       | 461              | 0.022                      | 0.033                      | -                      | 10 - 35  | 13 - 41 |
|                    |                     | 700                       | 538              | 0.031                      | 0.045                      | 13                     | 11 - 38  | 14 - 45 |
| 24x24              | 14                  | 200                       | 154              | 0.002                      | 0.004                      | -                      | 8 - 18   | 10 - 21 |
|                    |                     | 300                       | 231              | 0.006                      | 0.009                      | -                      | 9 - 23   | 12 - 27 |
|                    |                     | 400                       | 308              | 0.010                      | 0.016                      | -                      | 10 - 27  | 13 - 32 |
|                    |                     | 500                       | 385              | 0.016                      | 0.025                      | -                      | 11 - 31  | 14 - 37 |
|                    |                     | 600                       | 461              | 0.022                      | 0.036                      | 10                     | 12 - 35  | 15 - 41 |
|                    |                     | 700                       | 538              | 0.031                      | 0.049                      | 15                     | 13 - 39  | 16 - 45 |
|                    |                     | 800                       | 615              | 0.040                      | 0.064                      | 19                     | 14 - 42  | 17 - 49 |

Notes:

1. The adjacent zone (AZ) is the discharge isolevel at 1" above the floor where the terminal velocity is 50 fpm.
2. Tests for sound and pressure conducted in accordance with ASHRAE 70-2006 at isothermal conditions.
3. Tests for AZ conducted in accordance with Nordtest method of aerodynamic testing and rating of low velocity.
4. Tests conducted with straight rigid inlet condition. Other inlet conditions may alter performance.
5. P<sub>D</sub> = dynamic (velocity) pressure, P<sub>T</sub> = total pressure, inches of water column.
6. NC = Noise Criteria (based on 10db Room attenuation (Re: 10<sup>-12</sup> watts) evaluated at 125 through 4000Hz octave bands).
7. ΔT = The temperature difference, measured in °F, between the supply air and the space 3-1/2 feet above the floor.
8. ash (-) indicates an NC value of less than 10.
9. Throw values are distances in feet at 50 fpm at listed temperature difference (see diagram on page 03).

Displacement Diffusers



# ENGINEERING DATA

## DSC

| UNIT SIZE<br>(in.) | INLET SIZE<br>(in.) | NECK<br>VELOCITY<br>(FPM) | AIRFLOW<br>(CFM) | P <sub>D</sub><br>(in. wc) | P <sub>T</sub><br>(in. wc) | NC<br>(Noise Criteria) | Throw Length & Width in<br>Adjacent Zone (AZ), (ft.) |         |
|--------------------|---------------------|---------------------------|------------------|----------------------------|----------------------------|------------------------|--|---------|
|                    |                     |                           |                  |                            |                            |                        | Δ5°  | Δ10°    |
| 24x36              | 14                  | 200                       | 210              | 0.002                      | 0.004                      | -                      | 9 - 22   | 11 - 25 |
|                    |                     | 300                       | 315              | 0.006                      | 0.009                      | -                      | 11 - 28  | 13 - 33 |
|                    |                     | 400                       | 420              | 0.010                      | 0.015                      | -                      | 12 - 33  | 15 - 39 |
|                    |                     | 500                       | 525              | 0.016                      | 0.024                      | -                      | 13 - 38  | 16 - 44 |
|                    |                     | 600                       | 630              | 0.022                      | 0.035                      | 11                     | 14 - 42  | 17 - 50 |
|                    |                     | 700                       | 735              | 0.031                      | 0.047                      | 16                     | 15 - 47  | 18 - 54 |
|                    |                     | 800                       | 840              | 0.040                      | 0.062                      | 20                     | 16 - 50  | 19 - 59 |
| 24x48              | 16                  | 200                       | 275              | 0.002                      | 0.004                      | -                      | 10 - 26  | 13 - 30 |
|                    |                     | 300                       | 412              | 0.006                      | 0.009                      | -                      | 12 - 33  | 15 - 38 |
|                    |                     | 400                       | 550              | 0.010                      | 0.015                      | -                      | 13 - 39  | 16 - 46 |
|                    |                     | 500                       | 687              | 0.016                      | 0.024                      | -                      | 14 - 45  | 18 - 52 |
|                    |                     | 600                       | 825              | 0.022                      | 0.035                      | 12                     | 15 - 50  | 19 - 58 |
|                    |                     | 700                       | 962              | 0.031                      | 0.047                      | 17                     | 16 - 55  | 21 - 64 |
|                    |                     | 800                       | 1100             | 0.040                      | 0.061                      | 21                     | 17 - 59  | 22 - 70 |
| 36x24              | 14                  | 200                       | 210              | 0.002                      | 0.004                      | -                      | 11 - 22  | 14 - 26 |
|                    |                     | 300                       | 315              | 0.006                      | 0.009                      | -                      | 13 - 28  | 17 - 33 |
|                    |                     | 400                       | 420              | 0.010                      | 0.015                      | -                      | 15 - 33  | 19 - 39 |
|                    |                     | 500                       | 525              | 0.016                      | 0.024                      | -                      | 16 - 38  | 20 - 45 |
|                    |                     | 600                       | 630              | 0.022                      | 0.035                      | 11                     | 17 - 43  | 22 - 50 |
|                    |                     | 700                       | 735              | 0.031                      | 0.047                      | 16                     | 19 - 47  | 23 - 55 |
|                    |                     | 800                       | 840              | 0.040                      | 0.061                      | 20                     | 20 - 51  | 25 - 59 |
| 36x36              | 16                  | 200                       | 275              | 0.002                      | 0.004                      | -                      | 13 - 26  | 16 - 30 |
|                    |                     | 300                       | 412              | 0.006                      | 0.008                      | -                      | 15 - 33  | 19 - 38 |
|                    |                     | 400                       | 550              | 0.010                      | 0.015                      | -                      | 17 - 39  | 21 - 46 |
|                    |                     | 500                       | 687              | 0.016                      | 0.023                      | -                      | 18 - 45  | 23 - 53 |
|                    |                     | 600                       | 825              | 0.022                      | 0.034                      | 11                     | 19 - 50  | 24 - 59 |
|                    |                     | 700                       | 962              | 0.031                      | 0.046                      | 16                     | 21 - 55  | 26 - 64 |
|                    |                     | 800                       | 1100             | 0.040                      | 0.060                      | 20                     | 22 - 60  | 27 - 70 |

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# ENGINEERING DATA

## DSC

### DSC - Throw Diagram

L - Length (First Throw Value in Performance Data Tables)

W - Width (Second Throw Value in Performance Data Tables)

