

## Model SDPC Security Diffuser - Supply Performance Data

### 3/16" Diameter holes on 1/4" Staggered Centers - 24" x 24" Module

| Nominal Neck Size |     | Neck Velocity   | 200     | 300      | 400      | 500      | 600      | 700      | 800      |
|-------------------|-----|-----------------|---------|----------|----------|----------|----------|----------|----------|
| W                 | H   | Static Pressure | 0.01    | 0.02     | 0.04     | 0.06     | 0.09     | 0.12     | 0.16     |
| 6"                | 6"  | CFM             | 50      | 80       | 100      | 130      | 150      | 180      | 200      |
|                   |     | NC              | <20     | <20      | <20      | 23       | 29       | 34       | 38       |
|                   |     | 4 way throw     | 1 2 4   | 2 3 6    | 2 4 7    | 3 5 9    | 4 5 11   | 4 6 12   | 5 7 13   |
|                   |     | 3 way throw     | 1 2 4   | 2 4 7    | 3 4 9    | 4 6 11   | 4 7 13   | 5 8 15   | 6 9 16   |
|                   |     | 2 way throw     | 2 3 5   | 3 4 8    | 3 5 10   | 4 7 13   | 5 8 15   | 6 9 17   | 7 10 18  |
|                   |     | 1 way throw     | 2 4 7   | 4 6 11   | 5 7 14   | 6 9 19   | 7 11 22  | 9 13 25  | 10 14 26 |
| 8"                | 8"  | CFM             | 90      | 130      | 180      | 220      | 270      | 310      | 360      |
|                   |     | NC              | <20     | <20      | 20       | 27       | 33       | 38       | 42       |
|                   |     | 4 way throw     | 2 2 5   | 2 3 7    | 3 5 10   | 4 6 12   | 5 7 15   | 6 8 16   | 6 10 17  |
|                   |     | 3 way throw     | 2 3 6   | 3 4 9    | 4 6 12   | 5 7 14   | 6 9 18   | 7 10 20  | 8 12 21  |
|                   |     | 2 way throw     | 2 3 7   | 3 5 10   | 5 7 14   | 6 8 17   | 7 10 21  | 8 12 23  | 9 14 25  |
|                   |     | 1 way throw     | 3 5 10  | 5 7 14   | 6 10 19  | 8 12 24  | 10 15 29 | 11 17 32 | 13 19 35 |
| 10"               | 10" | CFM             | 140     | 210      | 280      | 350      | 420      | 490      | 560      |
|                   |     | NC              | <20     | <20      | 23       | 30       | 36       | 41       | 45       |
|                   |     | 4 way throw     | 2 3 6   | 3 5 9    | 4 6 12   | 5 8 15   | 6 9 18   | 7 11 20  | 8 12 22  |
|                   |     | 3 way throw     | 2 4 7   | 4 6 11   | 5 7 15   | 6 9 18   | 7 11 22  | 9 13 25  | 10 15 27 |
|                   |     | 2 way throw     | 3 4 9   | 4 6 13   | 6 9 17   | 7 11 21  | 9 13 26  | 10 15 29 | 11 17 31 |
|                   |     | 1 way throw     | 4 6 12  | 6 9 18   | 8 12 24  | 10 15 30 | 12 18 36 | 14 21 41 | 16 24 44 |
| 12"               | 12" | CFM             | 200     | 300      | 400      | 500      | 600      | 700      | 800      |
|                   |     | NC              | <20     | <20      | 25       | 32       | 38       | 43       | 47       |
|                   |     | 4 way throw     | 2 4 7   | 4 5 11   | 5 7 14   | 6 9 18   | 7 11 22  | 8 13 24  | 10 14 26 |
|                   |     | 3 way throw     | 3 4 9   | 4 7 13   | 6 9 18   | 7 11 22  | 9 13 26  | 10 15 30 | 12 18 32 |
|                   |     | 2 way throw     | 3 5 10  | 5 8 15   | 7 10 20  | 8 13 25  | 10 15 30 | 12 18 34 | 14 20 37 |
|                   |     | 1 way throw     | 5 7 14  | 7 11 22  | 10 14 29 | 12 18 36 | 14 22 43 | 17 25 49 | 19 29 52 |
| 14"               | 14" | CFM             | 270     | 410      | 540      | 680      | 820      | 950      | 1090     |
|                   |     | NC              | <20     | <20      | 27       | 34       | 40       | 45       | 49       |
|                   |     | 4 way throw     | 3 4 8   | 4 6 13   | 6 8 17   | 7 10 21  | 8 13 25  | 10 15 28 | 11 17 30 |
|                   |     | 3 way throw     | 3 5 10  | 5 8 15   | 7 10 20  | 9 13 26  | 10 15 31 | 12 18 35 | 14 21 37 |
|                   |     | 2 way throw     | 4 6 12  | 6 9 18   | 8 12 23  | 10 15 30 | 12 18 36 | 14 21 40 | 16 24 43 |
|                   |     | 1 way throw     | 5 8 17  | 8 13 25  | 11 17 33 | 14 21 42 | 17 25 50 | 19 29 57 | 22 34 61 |
| 16"               | 16" | CFM             | 360     | 530      | 710      | 890      | 1070     | 1240     | 1420     |
|                   |     | NC              | <20     | 20       | 29       | 36       | 42       | 47       | 51       |
|                   |     | 4 way throw     | 3 5 10  | 5 7 14   | 6 10 19  | 8 12 24  | 10 14 29 | 11 17 32 | 13 19 35 |
|                   |     | 3 way throw     | 4 6 12  | 6 9 17   | 8 12 23  | 10 15 29 | 12 18 35 | 14 20 40 | 16 23 42 |
|                   |     | 2 way throw     | 4 7 14  | 7 10 20  | 9 14 27  | 11 17 34 | 14 20 41 | 16 24 46 | 18 27 49 |
|                   |     | 1 way throw     | 6 10 19 | 10 14 29 | 13 19 38 | 16 24 48 | 19 29 58 | 22 33 65 | 25 38 69 |

Data determined in accordance with ANSI/ASHRAE Standard 70-1991

Velocity - Neck Velocity, Fpm

Ps - Static Pressure, inches w.g.

Throw - Distance, in feet, to terminal velocities Vt = 150, 100, 50 Fpm, respectively.

3 Way - Throw distances shown are for the two opposite directions. The other throw distance is equal to the 4 way throw distance.

NC - Noise Criteria with 10 dB room attenuation.

## Model SDPC Security Diffuser - Supply Performance Data

### 3/16" Diameter holes on 1/4" Staggered Centers - 24" x 24" Module

| Nominal Neck Size | Neck Velocity   | 200    | 300     | 400      | 500      | 600      | 700      | 800      |
|-------------------|-----------------|--------|---------|----------|----------|----------|----------|----------|
| Dia               | Static Pressure | 0.01   | 0.02    | 0.04     | 0.06     | 0.09     | 0.12     | 0.16     |
| 6"                | CFM             | 40     | 60      | 80       | 100      | 120      | 140      | 160      |
|                   | NC              | <20    | <20     | <20      | 22       | 28       | 33       | 37       |
|                   | 4 way throw     | 1 2 3  | 2 2 5   | 2 3 6    | 3 4 8    | 3 5 10   | 4 6 11   | 4 6 12   |
|                   | 3 way throw     | 1 2 4  | 2 3 6   | 3 4 8    | 3 5 10   | 4 6 12   | 5 7 13   | 5 8 14   |
|                   | 2 way throw     | 1 2 5  | 2 3 7   | 3 5 9    | 4 6 11   | 5 7 14   | 5 8 15   | 6 9 16   |
|                   | 1 way throw     | 2 3 6  | 3 5 10  | 4 6 13   | 5 8 16   | 6 10 19  | 8 11 22  | 9 13 23  |
| 8"                | CFM             | 70     | 100     | 140      | 170      | 210      | 240      | 280      |
|                   | NC              | <20    | <20     | <20      | 26       | 31       | 36       | 40       |
|                   | 4 way throw     | 1 2 4  | 2 3 6   | 3 4 8    | 3 5 10   | 4 6 13   | 5 7 14   | 6 8 15   |
|                   | 3 way throw     | 2 3 5  | 2 4 7   | 3 5 10   | 4 6 13   | 5 8 16   | 6 9 17   | 7 10 19  |
|                   | 2 way throw     | 2 3 6  | 3 4 9   | 4 6 12   | 5 7 15   | 6 9 18   | 7 10 20  | 8 12 22  |
|                   | 1 way throw     | 3 4 8  | 4 6 12  | 6 8 17   | 7 10 21  | 8 13 25  | 10 15 28 | 11 17 31 |
| 10"               | CFM             | 110    | 160     | 220      | 270      | 330      | 380      | 440      |
|                   | NC              | <20    | <20     | 21       | 28       | 34       | 39       | 43       |
|                   | 4 way throw     | 2 3 5  | 3 4 8   | 4 5 11   | 4 7 13   | 5 8 16   | 6 9 18   | 7 11 19  |
|                   | 3 way throw     | 2 3 7  | 3 5 10  | 4 7 13   | 5 8 16   | 7 10 20  | 8 11 22  | 9 13 24  |
|                   | 2 way throw     | 2 4 8  | 4 5 11  | 5 8 15   | 6 9 19   | 8 11 23  | 9 13 25  | 10 15 27 |
|                   | 1 way throw     | 3 5 11 | 5 8 16  | 7 11 21  | 9 13 26  | 11 16 32 | 12 18 36 | 14 21 39 |
| 12"               | CFM             | 160    | 240     | 310      | 390      | 470      | 550      | 630      |
|                   | NC              | <20    | <20     | 24       | 31       | 37       | 42       | 46       |
|                   | 4 way throw     | 2 3 6  | 3 5 10  | 4 6 13   | 5 8 16   | 6 10 19  | 7 11 22  | 8 13 23  |
|                   | 3 way throw     | 3 4 8  | 4 6 12  | 5 8 15   | 6 10 19  | 8 12 23  | 9 14 26  | 10 16 28 |
|                   | 2 way throw     | 3 5 9  | 5 7 14  | 6 9 18   | 7 11 22  | 9 13 27  | 10 16 30 | 12 18 33 |
|                   | 1 way throw     | 4 6 13 | 6 10 19 | 8 13 25  | 11 16 32 | 13 19 38 | 15 22 43 | 17 25 46 |
| 14"               | CFM             | 210    | 320     | 430      | 530      | 640      | 750      | 860      |
|                   | NC              | <20    | <20     | 26       | 33       | 39       | 44       | 48       |
|                   | 4 way throw     | 2 4 7  | 4 6 11  | 5 7 15   | 6 9 18   | 7 11 22  | 9 13 25  | 10 15 27 |
|                   | 3 way throw     | 3 4 9  | 5 7 14  | 6 9 18   | 8 11 23  | 9 14 27  | 11 16 31 | 12 18 33 |
|                   | 2 way throw     | 3 5 10 | 5 8 16  | 7 11 21  | 9 13 26  | 10 16 31 | 12 18 36 | 14 21 38 |
|                   | 1 way throw     | 5 7 15 | 7 11 22 | 10 15 30 | 12 18 37 | 15 22 44 | 17 26 50 | 20 30 54 |
| 16"               | CFM             | 280    | 420     | 560      | 700      | 840      | 980      | 1120     |
|                   | NC              | <20    | <20     | 28       | 35       | 40       | 45       | 50       |
|                   | 4 way throw     | 3 4 8  | 4 6 13  | 6 8 17   | 7 11 21  | 8 13 25  | 10 15 29 | 11 17 31 |
|                   | 3 way throw     | 3 5 10 | 5 8 16  | 7 10 21  | 9 13 26  | 10 16 31 | 12 18 35 | 14 21 38 |
|                   | 2 way throw     | 4 6 12 | 6 9 18  | 8 12 24  | 10 15 30 | 12 18 36 | 14 21 41 | 16 24 44 |
|                   | 1 way throw     | 5 8 17 | 8 13 25 | 11 17 34 | 14 21 42 | 17 25 51 | 20 30 58 | 23 34 62 |

Data determined in accordance with ANSI/ASHRAE Standard 70-1991

Velocity - Neck Velocity, Fpm

Ps - Static Pressure, inches w.g.

Throw - Distance, in feet, to terminal velocities Vt = 150, 100, 50 Fpm, respectively.

3 Way - Throw distances shown are for the two opposite directions. The other throw distance is equal to the 4 way throw distance.

NC - Noise Criteria with 10 dB room attenuation.

**Model SDPCR Security Diffuser - Return Performance Data**  
**3/16" Diameter holes on 1/4" Staggered Centers - 24" x 24" Module**

| Nominal Neck Size |     | Neck Velocity   | 200  | 300  | 400  | 500  | 600  | 700  | 800  |
|-------------------|-----|-----------------|------|------|------|------|------|------|------|
| W                 | H   | Static Pressure | 0.01 | 0.02 | 0.04 | 0.07 | 0.09 | 0.13 | 0.17 |
| 6"                | 6"  | CFM             | 50   | 80   | 100  | 130  | 150  | 180  | 200  |
|                   |     | NC              | <20  | <20  | <20  | <20  | <20  | <20  | 22   |
| 8"                | 8"  | CFM             | 90   | 130  | 180  | 220  | 270  | 310  | 360  |
|                   |     | NC              | <20  | <20  | <20  | <20  | <20  | 22   | 26   |
| 10"               | 10" | CFM             | 140  | 210  | 280  | 350  | 420  | 490  | 560  |
|                   |     | NC              | <20  | <20  | <20  | <20  | 20   | 25   | 29   |
| 12"               | 12" | CFM             | 200  | 300  | 400  | 500  | 600  | 700  | 800  |
|                   |     | NC              | <20  | <20  | <20  | <20  | 22   | 27   | 31   |
| 14"               | 14" | CFM             | 270  | 410  | 540  | 680  | 820  | 950  | 1090 |
|                   |     | NC              | <20  | <20  | <20  | <20  | 24   | 29   | 33   |
| 16"               | 16" | CFM             | 360  | 530  | 710  | 890  | 1070 | 1240 | 1420 |
|                   |     | NC              | <20  | <20  | <20  | 20   | 26   | 31   | 35   |

Data determined in accordance with ANSI/ASHRAE Standard 70-1991

Velocity - Neck Velocity, Fpm

Ps - Static Pressure, inches w.g.

NC - Noise Criteria with 10 dB room attenuation.

**Model SDPCR Security Diffuser - Return Performance Data**  
**3/16" Diameter holes on 1/4" Staggered Centers - 24" x 24" Module**

| Nominal Neck Size |                 | 200  | 300  | 400  | 500  | 600  | 700  | 800  |
|-------------------|-----------------|------|------|------|------|------|------|------|
| Dia               | Neck Velocity   | 200  | 300  | 400  | 500  | 600  | 700  | 800  |
|                   | Static Pressure | 0.01 | 0.02 | 0.04 | 0.07 | 0.09 | 0.13 | 0.17 |
| 6"                | CFM             | 40   | 60   | 80   | 100  | 120  | 140  | 160  |
|                   | NC              | <20  | <20  | <20  | <20  | <20  | <20  | 21   |
| 8"                | CFM             | 70   | 100  | 140  | 170  | 210  | 240  | 280  |
|                   | NC              | <20  | <20  | <20  | <20  | <20  | 20   | 24   |
| 10"               | CFM             | 110  | 160  | 220  | 270  | 330  | 380  | 440  |
|                   | NC              | <20  | <20  | <20  | <20  | <20  | 23   | 27   |
| 12"               | CFM             | 160  | 240  | 310  | 390  | 470  | 550  | 630  |
|                   | NC              | <20  | <20  | <20  | <20  | 21   | 25   | 30   |
| 14"               | CFM             | 210  | 320  | 430  | 530  | 640  | 750  | 860  |
|                   | NC              | <20  | <20  | <20  | <20  | 23   | 27   | 32   |
| 16"               | CFM             | 280  | 420  | 560  | 700  | 840  | 980  | 1120 |
|                   | NC              | <20  | <20  | <20  | <20  | 24   | 29   | 33   |

Data determined in accordance with ANSI/ASHRAE Standard 70-1991

Velocity - Neck Velocity, Fpm

Ps - Static Pressure, inches w.g.

NC - Noise Criteria with 10 dB room attenuation.