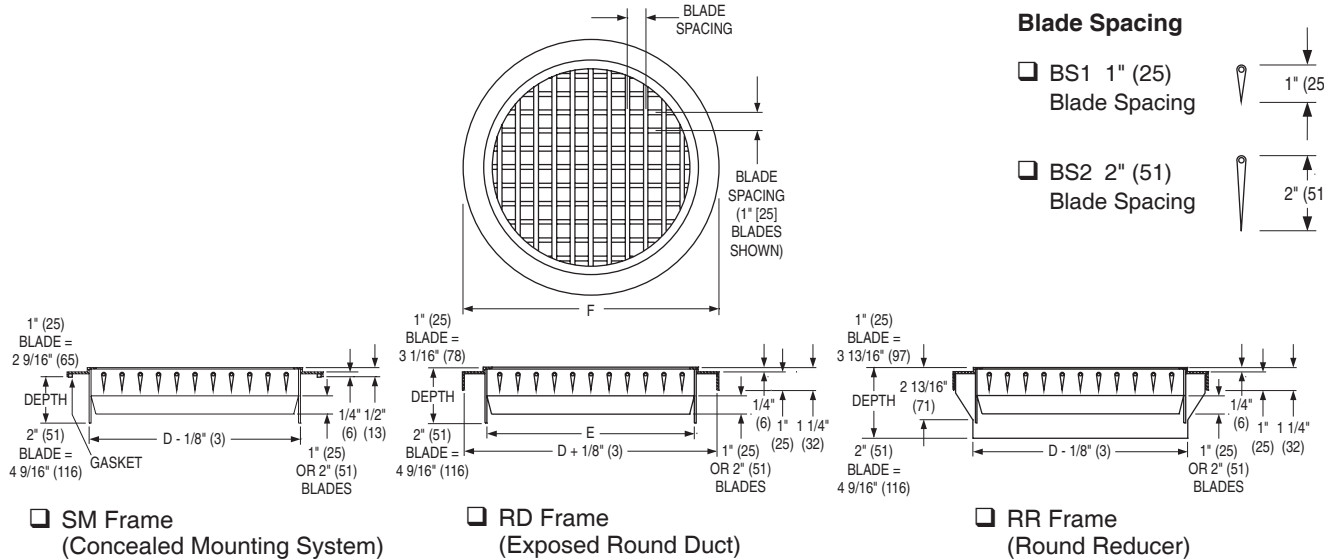




**ROUND DOUBLE DEFLECTION GRILLE**  
**ALUMINUM • ADJUSTABLE VERTICAL & HORIZONTAL**  
**BLADES • ROUND NECK**  
**MODEL: RDDG**



| Nom. Size   | SM Frame |              | RD Frame † |          |              | RR Frame |              |
|-------------|----------|--------------|------------|----------|--------------|----------|--------------|
|             | D        | F            | D          | E        | F            | D        | F            |
| ** 6 (152)  | 6 (152)  | 8 1/4 (210)  | 8 (203)    | 6 (152)  | 8 1/4 (210)  | 6 (152)  | 8 1/4 (210)  |
| 8 (203)     | 8 (203)  | 10 1/4 (260) | 10 (254)   | 8 (203)  | 10 1/4 (260) | 8 (203)  | 10 1/4 (260) |
| 10 (254)    | 10 (254) | 12 1/4 (311) | 12 (305)   | 10 (254) | 12 1/4 (311) | 10 (254) | 12 1/4 (311) |
| 12 (305)    | 12 (305) | 14 1/4 (362) | 14 (356)   | 12 (305) | 14 1/4 (362) | 12 (305) | 14 1/4 (362) |
| 14 (356)    | 14 (356) | 16 1/4 (413) | 16 (406)   | 14 (356) | 16 1/4 (413) | 14 (356) | 16 1/4 (413) |
| 16 (406)    | 16 (406) | 18 1/4 (464) | 18 (457)   | 16 (406) | 18 1/4 (464) | 16 (406) | 18 1/4 (464) |
| 18 (457)    | 18 (457) | 20 1/4 (514) | 20 (508)   | 18 (457) | 20 1/4 (514) | 18 (457) | 20 1/4 (514) |
| 20 (508)    | 20 (508) | 22 1/4 (565) | 22 (559)   | 20 (508) | 22 1/4 (565) | 20 (508) | 22 1/4 (565) |
| 22 (559)    | 22 (559) | 24 1/4 (616) | 24 (610)   | 22 (559) | 24 1/4 (616) | 22 (559) | 24 1/4 (616) |
| 24 (610)    | 24 (610) | 26 1/4 (667) | 26 (660)   | 24 (610) | 26 1/4 (667) | 24 (610) | 26 1/4 (667) |
| ***30 (762) | 30 (762) | 32 1/4 (819) | 32 (813)   | 30 (762) | 32 1/4 (819) | —        | —            |

**Note:**  
 † The RD frame model nominal size is 2" (51) smaller than the duct size it mounts to.  
 Example: A size 10 mounts on a 12" (305) duct.

\*\*Size 6 not available with 2" (51) spacing. \*\*\*Size 30 not available on all frames with 1" (25) spacing or on optional RR frame with 2" (51) spacing. Inches are measured to the nearest 1/16" (2).

**DESCRIPTION:**

1. Material: Aluminum construction with extruded airfoil blades with 1" or 2" (25 or 51) blade spacing depending on model and frame choice. See chart.
2. Model RDDG Round Double Deflection Grille is a contemporary air distribution grille with architectural appeal. It combines versatility and the modern esthetics of a flowing circular design with superior performance and high quality. The individually adjustable front and rear blades are designed so the air stream can be adjusted from a concentrated column of air to a conical widespread diffusion pattern. The versatility of the RDDG makes it suitable for applications requiring high velocity spot cooling or a dispersed airflow projection.
3. Frame Type SM – Concealed mounting system. Mounting ring and screws are included.  
 Frame Type RD – Frame slides cleanly over end of exposed duct work. Mounting screws are included.  
 Frame Type RR – Frame slides cleanly into end of exposed duct work. Mounting screws are included.
4. Standard finish is AW Appliance White.

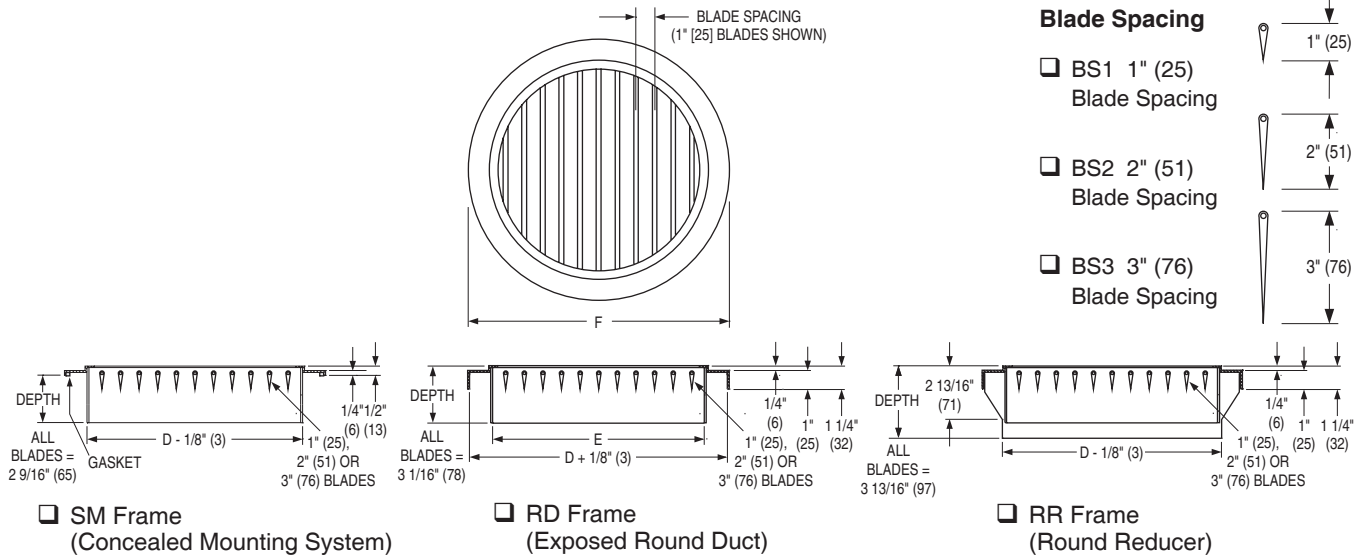
**OPTIONS:**

- Frame:
- SM Surface Mount (Wall/Ceiling)
  - RD Exposed Round Duct
  - RR Round Reducer
- Finish:
- SP Special. Specify: \_\_\_\_\_

|                      |             |                                |                   |                    |  |
|----------------------|-------------|--------------------------------|-------------------|--------------------|--|
| <b>SCHEDULE TYPE</b> |             | Dimensions are in inches (mm). |                   |                    |  |
| <b>PROJECT</b>       |             |                                |                   |                    |  |
| <b>ENGINEER</b>      | <b>DATE</b> | <b>B SERIES</b>                | <b>SUPERSEDES</b> | <b>DRAWING NO.</b> |  |
| <b>CONTRACTOR</b>    | 1 - 30 - 19 | RDDG                           | 11 - 29 - 18      | RDDG-1             |  |



**ROUND SINGLE DEFLECTION GRILLE**  
 ALUMINUM • ADJUSTABLE VERTICAL & HORIZONTAL  
 BLADES • ROUND NECK  
**MODEL: RSDG**



| Nom. Size   | SM Frame |              | RD Frame † |          |              | RR Frame |              |
|-------------|----------|--------------|------------|----------|--------------|----------|--------------|
|             | D        | F            | D          | E        | F            | D        | F            |
| ** 6 (152)  | 6 (152)  | 8 1/4 (210)  | 8 (203)    | 6 (152)  | 8 1/4 (210)  | 6 (152)  | 8 1/4 (210)  |
| * 8 (203)   | 8 (203)  | 10 1/4 (260) | 10 (254)   | 8 (203)  | 10 1/4 (260) | 8 (203)  | 10 1/4 (260) |
| * 10 (254)  | 10 (254) | 12 1/4 (311) | 12 (305)   | 10 (254) | 12 1/4 (311) | 10 (254) | 12 1/4 (311) |
| * 12 (305)  | 12 (305) | 14 1/4 (362) | 14 (356)   | 12 (305) | 14 1/4 (362) | 12 (305) | 14 1/4 (362) |
| * 14 (356)  | 14 (356) | 16 1/4 (413) | 16 (406)   | 14 (356) | 16 1/4 (413) | 14 (356) | 16 1/4 (413) |
| 16 (406)    | 16 (406) | 18 1/4 (464) | 18 (457)   | 16 (406) | 18 1/4 (464) | 16 (406) | 18 1/4 (464) |
| 18 (457)    | 18 (457) | 20 1/4 (514) | 20 (508)   | 18 (457) | 20 1/4 (514) | 18 (457) | 20 1/4 (514) |
| 20 (508)    | 20 (508) | 22 1/4 (565) | 22 (559)   | 20 (508) | 22 1/4 (565) | 20 (508) | 22 1/4 (565) |
| 22 (559)    | 22 (559) | 24 1/4 (616) | 24 (610)   | 22 (559) | 24 1/4 (616) | 22 (559) | 24 1/4 (616) |
| 24 (610)    | 24 (610) | 26 1/4 (667) | 26 (660)   | 24 (610) | 26 1/4 (667) | 24 (610) | 26 1/4 (667) |
| ***30 (762) | 30 (762) | 32 1/4 (819) | 32 (813)   | 30 (762) | 32 1/4 (819) | —        | —            |

**Note:**  
 † The RD frame model nominal size is 2" (51) smaller than the duct size it mounts to.  
 Example: A size 10 mounts on a 12" (305) duct.

\*Sizes 6 to 14 not available with 3" (76) spacing. \*\*Size 6 not available with 2" (51) spacing. \*\*\*Size 30 not available on all frames with 1" (25) spacing or on optional RR frame with 2" (51) spacing. Inches are measured to the nearest 1/16" (2).

**DESCRIPTION:**

- Material: Aluminum construction with extruded airfoil blades with 1", 2" or 3" (25, 51 or 76) blade spacing depending on model and frame choice. See chart.
- Model RSDG Round Single Deflection Grille is a contemporary air distribution grille with architectural appeal. It combines versatility and the modern esthetics of a flowing circular design with superior performance and high quality. The individually adjustable blades are designed so the air stream can be adjusted from a concentrated column of air to a conical widespread diffusion pattern. The versatility of the RSDG makes it suitable for applications requiring high velocity spot cooling or a dispersed airflow projection.
- Frame Type SM – Concealed mounting system. Mounting ring and screws are included.  
 Frame Type RD – Frame slides cleanly over end of exposed duct work. Mounting screws are included.  
 Frame Type RR – Frame slides cleanly into end of exposed duct work. Mounting screws are included.
- Standard finish is AW Appliance White.

**OPTIONS:**

- Frame:**
- SM Surface Mount (Wall/Ceiling)
  - RD Exposed Round Duct
  - RR Round Reducer
- Finish:**
- SP Special. Specify: \_\_\_\_\_

|                      |  |  |  |  |                                |                 |                   |                    |  |
|----------------------|--|--|--|--|--------------------------------|-----------------|-------------------|--------------------|--|
| <b>SCHEDULE TYPE</b> |  |  |  |  | Dimensions are in inches (mm). |                 |                   |                    |  |
| <b>PROJECT</b>       |  |  |  |  |                                |                 |                   |                    |  |
| <b>ENGINEER</b>      |  |  |  |  | <b>DATE</b>                    | <b>B SERIES</b> | <b>SUPERSEDES</b> | <b>DRAWING NO.</b> |  |
| <b>CONTRACTOR</b>    |  |  |  |  | 1 - 30 - 19                    | RSDG            | 11 - 29 - 18      | RSDG-1             |  |

## PERFORMANCE DATA:

### MODEL RDDG • BS1 - 1" (25) BLADE SPACING

| Nominal Size | Duct Velocity<br>Velocity Pressure | 400<br>0.010 | 600<br>0.022 | 800<br>0.040 | 1000<br>0.062 | 1200<br>0.090 | 1400<br>0.122 | 1600<br>0.160 |
|--------------|------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| 6            | Airflow, CFM                       | 79           | 118          | 157          | 196           | 236           | 275           | 314           |
|              | Static Pressure                    | 0.023        | 0.052        | 0.081        | 0.148         | 0.205         | 0.282         | 0.358         |
|              | Noise Criteria                     | <15          | <15          | 18           | 26            | 32            | 38            | 43            |
|              | Throw                              | 6-12-24      | 8-16-32      | 10-18-30     | 12-20-36      | 16-26-38      | 20-28-42      | 22-30-44      |
| 8            | Airflow, CFM                       | 140          | 209          | 279          | 349           | 419           | 489           | 559           |
|              | Static Pressure                    | 0.018        | 0.042        | 0.074        | 0.117         | 0.167         | 0.228         | 0.295         |
|              | Noise Criteria                     | <15          | <15          | 16           | 24            | 30            | 36            | 41            |
|              | Throw                              | 7-14-28      | 10-20-34     | 14-28-42     | 18-32-46      | 22-36-50      | 26-38-52      | 26-42-58      |
| 10           | Airflow, CFM                       | 218          | 327          | 436          | 545           | 655           | 764           | 873           |
|              | Static Pressure                    | 0.016        | 0.037        | 0.065        | 0.102         | 0.146         | 0.200         | 0.260         |
|              | Noise Criteria                     | <15          | <15          | 15           | 23            | 29            | 35            | 39            |
|              | Throw                              | 8-16-30      | 10-20-40     | 18-34-48     | 22-40-58      | 26-44-60      | 32-48-66      | 38-52-72      |
| 12           | Airflow, CFM                       | 314          | 471          | 628          | 786           | 943           | 1100          | 1257          |
|              | Static Pressure                    | 0.015        | 0.034        | 0.059        | 0.094         | 0.133         | 0.183         | 0.237         |
|              | Noise Criteria                     | <15          | <15          | 15           | 22            | 28            | 34            | 38            |
|              | Throw                              | 9-18-36      | 15-30-52     | 20-40-60     | 26-48-68      | 32-52-76      | 36-58-84      | 42-62-96      |
| 14           | Airflow, CFM                       | 428          | 641          | 855          | 1069          | 1283          | 1497          | 1711          |
|              | Static Pressure                    | 0.014        | 0.032        | 0.056        | 0.085         | 0.127         | 0.171         | 0.223         |
|              | Noise Criteria                     | <15          | <15          | 15           | 22            | 28            | 34            | 38            |
|              | Throw                              | 10-20-40     | 18-36-60     | 22-44-70     | 30-56-78      | 38-62-90      | 44-66-96      | 48-72-106     |
| 16           | Airflow, CFM                       | 559          | 838          | 1117         | 1396          | 1676          | 1955          | 2234          |
|              | Static Pressure                    | 0.014        | 0.030        | 0.053        | 0.084         | 0.120         | 0.163         | 0.212         |
|              | Noise Criteria                     | <15          | <15          | 15           | 22            | 28            | 34            | 38            |
|              | Throw                              | 12-24-48     | 18-36-68     | 28-56-84     | 36-65-92      | 44-70-104     | 52-78-110     | 58-82-116     |
| 18           | Airflow, CFM                       | 707          | 1060         | 1414         | 1767          | 2121          | 2474          | 2828          |
|              | Static Pressure                    | 0.013        | 0.030        | 0.051        | 0.080         | 0.115         | 0.158         | 0.205         |
|              | Noise Criteria                     | <15          | <15          | 16           | 23            | 29            | 35            | 39            |
|              | Throw                              | 14-28-56     | 22-44-78     | 32-64-92     | 40-74-104     | 52-80-114     | 58-86-122     | 65-92-130     |
| 20           | Airflow, CFM                       | 873          | 1309         | 1746         | 2182          | 2618          | 3055          | 3491          |
|              | Static Pressure                    | 0.013        | 0.029        | 0.050        | 0.078         | 0.112         | 0.152         | 0.197         |
|              | Noise Criteria                     | <15          | <15          | 16           | 23            | 29            | 35            | 39            |
|              | Throw                              | 16-32-64     | 26-52-88     | 35-68-104    | 45-80-114     | 56-88-128     | 66-96-136     | 72-100-145    |
| 22           | Airflow, CFM                       | 1056         | 1584         | 2112         | 2640          | 3168          | 3696          | 4224          |
|              | Static Pressure                    | 0.012        | 0.028        | 0.048        | 0.076         | 0.108         | 0.148         | 0.192         |
|              | Noise Criteria                     | <15          | <15          | 17           | 24            | 30            | 36            | 40            |
|              | Throw                              | 16-34-68     | 28-56-96     | 38-74-110    | 48-88-126     | 60-98-142     | 74-110-156    | 78-112-160    |
| 24           | Airflow, CFM                       | 1257         | 1885         | 2514         | 3142          | 3770          | 4399          | 5027          |
|              | Static Pressure                    | 0.012        | 0.027        | 0.047        | 0.075         | 0.107         | 0.144         | 0.189         |
|              | Noise Criteria                     | <15          | <15          | 18           | 25            | 32            | 37            | 41            |
|              | Throw                              | 18-36-72     | 30-60-105    | 42-86-122    | 52-96-136     | 65-108-150    | 75-114-160    | 84-122-168    |

#### Performance Notes:

- AIRFLOW CFM:** Standard air density and isothermal conditions.
- STATIC PRESSURE:** Inches of water gauge required.
- NOISE CRITERIA:** Noise Criteria [NC] curve which is not exceeded with a Room Attenuation of 10 dB and based on Sound Power Level, re 10<sup>-12</sup> watts.
- THROW:** Projection distance in feet from outlet at which the maximum velocity has reduced to 200, 100 and 50 fpm respectively.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

| Correction Factors for Various Deflection Angles |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| Deflection Angle                                 | 0°  | 10° | 20° | 30° | 40° |
| Total Pressure [times]                           | 1.0 | 1.2 | 1.4 | 1.9 | 2.4 |
| Throw Projection [times]                         | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |
| Noise Criteria - NC [add]                        | +0  | +3  | +7  | +11 | +16 |

## PERFORMANCE DATA:

### MODEL RDDG • BS2 - 2" (51) BLADE SPACING

| Nominal Size | Duct Velocity<br>Velocity Pressure | 400<br>0.010 | 600<br>0.022 | 800<br>0.040 | 1000<br>0.062 | 1200<br>0.090 | 1400<br>0.122 | 1600<br>0.160 |
|--------------|------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| 8            | Airflow, CFM                       | 140          | 209          | 279          | 349           | 419           | 489           | 559           |
|              | Static Pressure                    | 0.015        | 0.035        | 0.062        | 0.099         | 0.141         | 0.193         | 0.250         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 32            | 37            |
|              | Throw                              | 5-10-20      | 8-16-27      | 11-21-32     | 14-25-36      | 17-28-39      | 20-30-41      | 21-32-45      |
| 10           | Airflow, CFM                       | 218          | 327          | 436          | 545           | 655           | 764           | 873           |
|              | Static Pressure                    | 0.013        | 0.031        | 0.055        | 0.086         | 0.124         | 0.170         | 0.221         |
|              | Noise Criteria                     | <15          | <15          | 15           | 19            | 25            | 31            | 35            |
|              | Throw                              | 6-12-24      | 9-17-32      | 14-26-37     | 17-31-45      | 21-34-47      | 25-37-52      | 29-40-56      |
| 12           | Airflow, CFM                       | 314          | 471          | 628          | 786           | 943           | 1100          | 1257          |
|              | Static Pressure                    | 0.013        | 0.029        | 0.051        | 0.081         | 0.115         | 0.159         | 0.206         |
|              | Noise Criteria                     | <15          | <15          | 15           | 19            | 25            | 31            | 35            |
|              | Throw                              | 7-15-30      | 12-24-40     | 16-33-47     | 20-37-53      | 25-41-59      | 29-45-65      | 33-48-74      |
| 14           | Airflow, CFM                       | 428          | 641          | 855          | 1069          | 1283          | 1497          | 1711          |
|              | Static Pressure                    | 0.012        | 0.028        | 0.050        | 0.076         | 0.114         | 0.153         | 0.200         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 32            | 36            |
|              | Throw                              | 8-18-37      | 14-28-47     | 18-38-55     | 23-44-61      | 30-48-70      | 34-52-74      | 38-56-83      |
| 16           | Airflow, CFM                       | 559          | 838          | 1117         | 1396          | 1676          | 1955          | 2234          |
|              | Static Pressure                    | 0.013        | 0.027        | 0.049        | 0.078         | 0.111         | 0.151         | 0.197         |
|              | Noise Criteria                     | <15          | <15          | <15          | 21            | 27            | 33            | 37            |
|              | Throw                              | 10-20-40     | 15-30-53     | 22-44-65     | 28-50-72      | 34-54-80      | 40-60-85      | 45-64-90      |
| 18           | Airflow, CFM                       | 707          | 1060         | 1414         | 1767          | 2121          | 2474          | 2828          |
|              | Static Pressure                    | 0.012        | 0.028        | 0.048        | 0.076         | 0.109         | 0.150         | 0.194         |
|              | Noise Criteria                     | <15          | <15          | 16           | 23            | 29            | 35            | 39            |
|              | Throw                              | 11-22-44     | 18-36-61     | 25-50-72     | 31-57-80      | 40-63-89      | 45-67-95      | 50-71-101     |
| 20           | Airflow, CFM                       | 873          | 1309         | 1746         | 2182          | 2618          | 3055          | 3491          |
|              | Static Pressure                    | 0.012        | 0.027        | 0.047        | 0.074         | 0.106         | 0.144         | 0.187         |
|              | Noise Criteria                     | <15          | <15          | 16           | 23            | 29            | 35            | 39            |
|              | Throw                              | 12-24-49     | 20-40-68     | 27-53-80     | 35-63-89      | 44-68-99      | 51-74-105     | 56-78-112     |
| 22           | Airflow, CFM                       | 1056         | 1584         | 2112         | 2640          | 3168          | 3696          | 4224          |
|              | Static Pressure                    | 0.011        | 0.026        | 0.045        | 0.072         | 0.102         | 0.140         | 0.182         |
|              | Noise Criteria                     | <15          | <15          | 17           | 24            | 30            | 36            | 40            |
|              | Throw                              | 13-27-54     | 22-44-74     | 30-57-85     | 37-68-98      | 47-76-110     | 57-85-120     | 60-87-123     |
| 24           | Airflow, CFM                       | 1257         | 1885         | 2514         | 3142          | 3770          | 4399          | 5027          |
|              | Static Pressure                    | 0.011        | 0.025        | 0.044        | 0.071         | 0.101         | 0.136         | 0.179         |
|              | Noise Criteria                     | <15          | <15          | 18           | 25            | 32            | 37            | 41            |
|              | Throw                              | 14-29-60     | 24-48-81     | 33-66-95     | 41-75-106     | 50-84-116     | 58-88-124     | 66-95-130     |
| 30           | Airflow, CFM                       | 1960         | 2940         | 3920         | 4900          | 5880          | 6860          | 7840          |
|              | Static Pressure                    | 0.011        | 0.027        | 0.044        | 0.077         | 0.110         | 0.0143        | 0.176         |
|              | Noise Criteria                     | <15          | <15          | 16           | 23            | 28            | 34            | 38            |
|              | Throw                              | 17-34-69     | 30-60-102    | 41-82-123    | 50-90-129     | 60-101-141    | 69-107-150    | 78-116-157    |

#### Performance Notes:

- AIRFLOW CFM:** Standard air density and isothermal conditions.
- STATIC PRESSURE:** Inches of water gauge required.
- NOISE CRITERIA:** Noise Criteria [NC] curve which is not exceeded with a Room Attenuation of 10 dB and based on Sound Power Level, re 10<sup>-12</sup> watts.
- THROW:** Projection distance in feet from outlet at which the maximum velocity has reduced to 200, 100 and 50 fpm respectively.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

| Correction Factors for Various Deflection Angles |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| Deflection Angle                                 | 0°  | 10° | 20° | 30° | 40° |
| Total Pressure [times]                           | 1.0 | 1.1 | 1.2 | 1.7 | 2.1 |
| Throw Projection [times]                         | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |
| Noise Criteria - NC [add]                        | +0  | +2  | +5  | +8  | +12 |

## PERFORMANCE DATA:

### MODEL RSDG • BS1 - 1" (25) BLADE SPACING

| Nominal Size | Duct Velocity<br>Velocity Pressure | 400<br>0.010 | 600<br>0.022 | 800<br>0.040 | 1000<br>0.062 | 1200<br>0.090 | 1400<br>0.122 | 1600<br>0.160 |
|--------------|------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| 6            | Airflow, CFM                       | 79           | 118          | 157          | 196           | 236           | 275           | 314           |
|              | Static Pressure                    | 0.021        | 0.047        | 0.073        | 0.133         | 0.185         | 0.254         | 0.322         |
|              | Noise Criteria                     | <15          | <15          | 15           | 23            | 29            | 35            | 40            |
|              | Throw                              | 4-8-15       | 6-12-21      | 8-14-24      | 10-16-28      | 13-21-30      | 15-22-32      | 17-24-34      |
| 8            | Airflow, CFM                       | 140          | 209          | 279          | 349           | 419           | 489           | 559           |
|              | Static Pressure                    | 0.016        | 0.038        | 0.067        | 0.105         | 0.150         | 0.205         | 0.266         |
|              | Noise Criteria                     | <15          | <15          | <15          | 21            | 27            | 33            | 38            |
|              | Throw                              | 5-10-20      | 8-16-27      | 11-21-32     | 14-25-36      | 17-28-39      | 20-30-41      | 21-32-45      |
| 10           | Airflow, CFM                       | 218          | 327          | 436          | 545           | 655           | 764           | 873           |
|              | Static Pressure                    | 0.014        | 0.033        | 0.059        | 0.092         | 0.131         | 0.180         | 0.234         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 32            | 36            |
|              | Throw                              | 6-12-24      | 9-17-32      | 14-26-37     | 17-31-45      | 21-34-47      | 25-37-52      | 29-40-56      |
| 12           | Airflow, CFM                       | 314          | 471          | 628          | 786           | 943           | 1100          | 1257          |
|              | Static Pressure                    | 0.014        | 0.031        | 0.053        | 0.085         | 0.120         | 0.165         | 0.213         |
|              | Noise Criteria                     | <15          | <15          | <15          | 19            | 25            | 31            | 35            |
|              | Throw                              | 7-15-30      | 12-24-40     | 16-33-47     | 20-37-53      | 25-41-59      | 29-45-65      | 33-48-74      |
| 14           | Airflow, CFM                       | 428          | 641          | 855          | 1069          | 1283          | 1497          | 1711          |
|              | Static Pressure                    | 0.013        | 0.029        | 0.050        | 0.077         | 0.114         | 0.154         | 0.201         |
|              | Noise Criteria                     | <15          | <15          | <15          | 19            | 25            | 31            | 35            |
|              | Throw                              | 8-18-37      | 14-28-47     | 18-38-55     | 23-44-61      | 30-48-70      | 34-52-74      | 38-56-83      |
| 16           | Airflow, CFM                       | 559          | 838          | 1117         | 1396          | 1676          | 1955          | 2234          |
|              | Static Pressure                    | 0.013        | 0.027        | 0.048        | 0.076         | 0.108         | 0.147         | 0.191         |
|              | Noise Criteria                     | <15          | <15          | <15          | 19            | 25            | 31            | 35            |
|              | Throw                              | 10-20-40     | 15-30-53     | 22-44-65     | 28-50-72      | 34-54-80      | 40-60-85      | 45-64-90      |
| 18           | Airflow, CFM                       | 707          | 1060         | 1414         | 1767          | 2121          | 2474          | 2828          |
|              | Static Pressure                    | 0.012        | 0.027        | 0.046        | 0.072         | 0.104         | 0.142         | 0.185         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 32            | 36            |
|              | Throw                              | 11-22-44     | 18-36-61     | 25-50-72     | 31-57-80      | 40-63-89      | 45-67-95      | 50-71-101     |
| 20           | Airflow, CFM                       | 873          | 1309         | 1746         | 2182          | 2618          | 3055          | 3491          |
|              | Static Pressure                    | 0.012        | 0.026        | 0.045        | 0.070         | 0.101         | 0.137         | 0.177         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 32            | 36            |
|              | Throw                              | 12-24-49     | 20-40-68     | 27-53-80     | 35-63-89      | 44-68-99      | 51-74-105     | 56-78-112     |
| 22           | Airflow, CFM                       | 1056         | 1584         | 2112         | 2640          | 3168          | 3696          | 4224          |
|              | Static Pressure                    | 0.011        | 0.025        | 0.043        | 0.068         | 0.097         | 0.133         | 0.173         |
|              | Noise Criteria                     | <15          | <15          | <15          | 21            | 27            | 33            | 37            |
|              | Throw                              | 13-27-54     | 22-44-74     | 30-57-85     | 37-68-98      | 47-76-110     | 57-85-120     | 60-87-123     |
| 24           | Airflow, CFM                       | 1257         | 1885         | 2514         | 3142          | 3770          | 4399          | 5027          |
|              | Static Pressure                    | 0.011        | 0.024        | 0.042        | 0.068         | 0.096         | 0.130         | 0.170         |
|              | Noise Criteria                     | <15          | <15          | 15           | 22            | 29            | 34            | 38            |
|              | Throw                              | 14-29-60     | 24-48-81     | 33-66-95     | 41-75-106     | 50-84-116     | 58-88-124     | 66-95-130     |

#### Performance Notes:

- AIRFLOW CFM:** Standard air density and isothermal conditions.
- STATIC PRESSURE:** Inches of water gauge required.
- NOISE CRITERIA:** Noise Criteria [NC] curve which is not exceeded with a Room Attenuation of 10 dB and based on Sound Power Level, re 10<sup>-12</sup> watts.
- THROW:** Projection distance in feet from outlet at which the maximum velocity has reduced to 200, 100 and 50 fpm respectively.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

| Correction Factors for Various Deflection Angles |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| Deflection Angle                                 | 0°  | 10° | 20° | 30° | 40° |
| Total Pressure [times]                           | 1.0 | 1.2 | 1.4 | 1.9 | 2.4 |
| Throw Projection [times]                         | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |
| Noise Criteria - NC [add]                        | +0  | +3  | +7  | +11 | +16 |

## PERFORMANCE DATA:

### MODEL RSDG • BS2 - 2" (51) BLADE SPACING

| Nominal Size | Duct Velocity<br>Velocity Pressure | 400<br>0.010 | 600<br>0.022 | 800<br>0.040 | 1000<br>0.062 | 1200<br>0.090 | 1400<br>0.122 | 1600<br>0.160 |
|--------------|------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| 8            | Airflow, CFM                       | 140          | 209          | 279          | 349           | 419           | 489           | 559           |
|              | Static Pressure                    | 0.014        | 0.039        | 0.060        | 0.094         | 0.135         | 0.184         | 0.239         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 32            | 37            |
|              | Throw                              | 5-10-20      | 8-16-27      | 11-21-32     | 14-25-36      | 17-28-39      | 20-30-41      | 21-32-45      |
| 10           | Airflow, CFM                       | 218          | 327          | 436          | 545           | 655           | 764           | 873           |
|              | Static Pressure                    | 0.013        | 0.029        | 0.053        | 0.083         | 0.118         | 0.162         | 0.210         |
|              | Noise Criteria                     | <15          | <15          | <15          | 19            | 25            | 31            | 35            |
|              | Throw                              | 6-12-24      | 9-17-32      | 14-26-37     | 17-31-45      | 21-34-47      | 25-37-52      | 29-40-56      |
| 12           | Airflow, CFM                       | 314          | 471          | 628          | 786           | 943           | 1100          | 1257          |
|              | Static Pressure                    | 0.013        | 0.028        | 0.048        | 0.076         | 0.108         | 0.148         | 0.192         |
|              | Noise Criteria                     | <15          | <15          | <15          | 18            | 24            | 30            | 34            |
|              | Throw                              | 7-15-30      | 12-24-40     | 16-33-47     | 20-37-53      | 25-41-59      | 29-45-65      | 33-48-74      |
| 14           | Airflow, CFM                       | 428          | 641          | 855          | 1069          | 1283          | 1497          | 1711          |
|              | Static Pressure                    | 0.012        | 0.026        | 0.045        | 0.069         | 0.103         | 0.139         | 0.181         |
|              | Noise Criteria                     | <15          | <15          | <15          | 18            | 24            | 30            | 34            |
|              | Throw                              | 8-18-37      | 14-28-47     | 18-38-55     | 23-44-61      | 30-48-70      | 34-52-74      | 38-56-83      |
| 16           | Airflow, CFM                       | 559          | 838          | 1117         | 1396          | 1676          | 1955          | 2234          |
|              | Static Pressure                    | 0.012        | 0.024        | 0.043        | 0.068         | 0.097         | 0.132         | 0.172         |
|              | Noise Criteria                     | <15          | <15          | <15          | 18            | 24            | 30            | 34            |
|              | Throw                              | 10-20-40     | 15-30-53     | 22-44-65     | 28-50-72      | 34-54-80      | 40-60-85      | 45-64-90      |
| 18           | Airflow, CFM                       | 707          | 1060         | 1414         | 1767          | 2121          | 2474          | 2828          |
|              | Static Pressure                    | 0.011        | 0.024        | 0.041        | 0.065         | 0.094         | 0.128         | 0.166         |
|              | Noise Criteria                     | <15          | <15          | <15          | 19            | 25            | 31            | 35            |
|              | Throw                              | 11-22-44     | 18-36-61     | 25-50-72     | 31-57-80      | 40-63-89      | 45-67-95      | 50-71-101     |
| 20           | Airflow, CFM                       | 873          | 1309         | 1746         | 2182          | 2618          | 3055          | 3491          |
|              | Static Pressure                    | 0.011        | 0.023        | 0.040        | 0.063         | 0.091         | 0.123         | 0.159         |
|              | Noise Criteria                     | <15          | <15          | <15          | 19            | 25            | 31            | 35            |
|              | Throw                              | 12-24-49     | 20-40-68     | 27-53-80     | 35-63-89      | 44-68-99      | 51-74-105     | 56-78-112     |
| 22           | Airflow, CFM                       | 1056         | 1584         | 2112         | 2640          | 3168          | 3696          | 4224          |
|              | Static Pressure                    | 0.010        | 0.022        | 0.039        | 0.061         | 0.087         | 0.120         | 0.156         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 32            | 36            |
|              | Throw                              | 13-27-54     | 22-44-74     | 30-57-85     | 37-68-98      | 47-76-110     | 57-85-120     | 60-87-123     |
| 24           | Airflow, CFM                       | 1257         | 1885         | 2514         | 3142          | 3770          | 4399          | 5027          |
|              | Static Pressure                    | 0.010        | 0.022        | 0.038        | 0.061         | 0.086         | 0.117         | 0.153         |
|              | Noise Criteria                     | <15          | <15          | <15          | 21            | 28            | 33            | 37            |
|              | Throw                              | 14-29-60     | 24-48-81     | 33-66-95     | 41-75-106     | 50-84-116     | 58-88-124     | 66-95-130     |
| 30           | Airflow, CFM                       | 1960         | 2940         | 3920         | 4900          | 5880          | 6860          | 7840          |
|              | Static Pressure                    | 0.009        | 0.023        | 0.039        | 0.067         | 0.096         | 0.0126        | 0.155         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 31            | 36            |
|              | Throw                              | 17-34-69     | 30-60-102    | 41-82-123    | 50-90-129     | 60-101-141    | 69-107-150    | 78-116-157    |

#### Performance Notes:

- AIRFLOW CFM:** Standard air density and isothermal conditions.
- STATIC PRESSURE:** Inches of water gauge required.
- NOISE CRITERIA:** Noise Criteria [NC] curve which is not exceeded with a Room Attenuation of 10 dB and based on Sound Power Level, re 10<sup>-12</sup> watts.
- THROW:** Projection distance in feet from outlet at which the maximum velocity has reduced to 200, 100 and 50 fpm respectively.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

| Correction Factors for Various Deflection Angles |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| Deflection Angle                                 | 0°  | 10° | 20° | 30° | 40° |
| Total Pressure [times]                           | 1.0 | 1.2 | 1.4 | 1.9 | 2.4 |
| Throw Projection [times]                         | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |
| Noise Criteria - NC [add]                        | +0  | +3  | +7  | +11 | +16 |

## PERFORMANCE DATA:

### MODEL RSDG • BS3 - 3" (76) BLADE SPACING

| Nominal Size | Duct Velocity<br>Velocity Pressure | 400<br>0.010 | 600<br>0.022 | 800<br>0.040 | 1000<br>0.062 | 1200<br>0.090 | 1400<br>0.122 | 1600<br>0.160 |
|--------------|------------------------------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| 16           | Airflow, CFM                       | 559          | 838          | 1117         | 1396          | 1676          | 1955          | 2234          |
|              | Static Pressure                    | 0.011        | 0.023        | 0.041        | 0.065         | 0.092         | 0.125         | 0.163         |
|              | Noise Criteria                     | <15          | <15          | <15          | 17            | 23            | 29            | 33            |
|              | Throw                              | 10-20-40     | 15-30-53     | 22-44-65     | 28-50-72      | 34-54-80      | 40-60-85      | 45-64-90      |
| 18           | Airflow, CFM                       | 707          | 1060         | 1414         | 1767          | 2121          | 2474          | 2828          |
|              | Static Pressure                    | 0.010        | 0.023        | 0.039        | 0.062         | 0.089         | 0.122         | 0.158         |
|              | Noise Criteria                     | <15          | <15          | <15          | 18            | 24            | 30            | 34            |
|              | Throw                              | 11-22-44     | 18-36-61     | 25-50-72     | 31-57-80      | 40-63-89      | 45-67-95      | 50-71-101     |
| 20           | Airflow, CFM                       | 873          | 1309         | 1746         | 2182          | 2618          | 3055          | 3491          |
|              | Static Pressure                    | 0.010        | 0.022        | 0.038        | 0.060         | 0.086         | 0.117         | 0.151         |
|              | Noise Criteria                     | <15          | <15          | <15          | 18            | 24            | 30            | 34            |
|              | Throw                              | 12-24-49     | 20-40-68     | 27-53-80     | 35-63-89      | 44-68-99      | 51-74-105     | 56-78-112     |
| 22           | Airflow, CFM                       | 1056         | 1584         | 2112         | 2640          | 3168          | 3696          | 4224          |
|              | Static Pressure                    | 0.009        | 0.021        | 0.037        | 0.058         | 0.083         | 0.114         | 0.148         |
|              | Noise Criteria                     | <15          | <15          | <15          | 19            | 25            | 31            | 35            |
|              | Throw                              | 13-27-54     | 22-44-74     | 30-57-85     | 37-68-98      | 47-76-110     | 57-85-120     | 60-87-123     |
| 24           | Airflow, CFM                       | 1257         | 1885         | 2514         | 3142          | 3770          | 4399          | 5027          |
|              | Static Pressure                    | 0.009        | 0.021        | 0.036        | 0.058         | 0.082         | 0.111         | 0.145         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 27            | 32            | 36            |
|              | Throw                              | 14-29-60     | 24-48-81     | 33-66-95     | 41-75-106     | 50-84-116     | 58-88-124     | 66-95-130     |
| 30           | Airflow, CFM                       | 1960         | 2940         | 3920         | 4900          | 5880          | 6860          | 7840          |
|              | Static Pressure                    | 0.009        | 0.022        | 0.037        | 0.064         | 0.091         | 0.0119        | 0.147         |
|              | Noise Criteria                     | <15          | <15          | <15          | 20            | 26            | 31            | 36            |
|              | Throw                              | 17-34-69     | 30-60-102    | 41-82-123    | 50-90-129     | 60-101-141    | 69-107-150    | 78-116-157    |

#### Performance Notes:

- AIRFLOW CFM:** Standard air density and isothermal conditions.
- STATIC PRESSURE:** Inches of water gauge required.
- NOISE CRITERIA:** Noise Criteria [NC] curve which is not exceeded with a Room Attenuation of 10 dB and based on Sound Power Level, re 10<sup>-12</sup> watts.
- THROW:** Projection distance in feet from outlet at which the maximum velocity has reduced to 200, 100 and 50 fpm respectively.
- Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 2006.

| Correction Factors for Various Deflection Angles |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| Deflection Angle                                 | 0°  | 10° | 20° | 30° | 40° |
| Total Pressure [times]                           | 1.0 | 1.2 | 1.4 | 1.9 | 2.4 |
| Throw Projection [times]                         | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |
| Noise Criteria - NC [add]                        | +0  | +3  | +7  | +11 | +16 |