

BSQ



SQ

## Model SQ Direct Drive and BSQ Belt Drive

Centrifugal inline fans are designed for clean air exhaust or supply applications.

### Quick Delivery / Quick Build Performance

SQ capacities range from 80 to 5,025 cfm and 1.75 in. wg of static pressure. BSQ capacities range from 60 to 26,600 cfm and 4 in. wg of static pressure.



UL/cUL Listed 705 is standard on In Stock models.

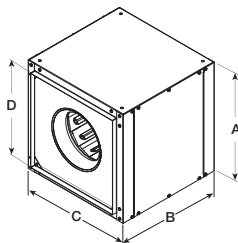
Model SQ and BSQ are AMCA Licensed for Sound and Air Performance

| Model                                                                                             | Best Available Program |
|---------------------------------------------------------------------------------------------------|------------------------|
| SQ-75 through 120 and 140<br>BSQ-70 through 120, 140 through 180 and 240                          | In Stock               |
| SQ-60 through 70, 130 thru 160<br>High Pressure SQ-130HP through 160HP<br>BSQ-130 and 200         | 1 Day                  |
| High Pressure BSQ-130HP through 240HP<br>BSQ-300 through 420<br>High Pressure BSQ-300HP and 360HP | 3 Days                 |

| Standard Construction                                                                           | SQ    | BSQ |     |
|-------------------------------------------------------------------------------------------------|-------|-----|-----|
| Housing - galvanized                                                                            | ■     | ■   |     |
| Wheel - backward-inclined, aluminum                                                             | ■     | ■   |     |
| Access panel - bolted, removable                                                                | ■     | ■   |     |
| Corrosion-resistant fasteners                                                                   | ■     | ■   |     |
| NEMA-1 disconnect switch                                                                        | ■     | ■   |     |
| Ball bearing motor - 1/4 hp and larger                                                          | ■     | ■   |     |
| Three speed motor - sizes 60 through 95                                                         | ■     |     |     |
| Adjustable motor plate                                                                          |       | ■   |     |
| Flanges - inlet and outlet                                                                      | ■     | ■   |     |
| Adjustable motor pulley                                                                         |       | ■   |     |
| Options and Accessories                                                                         | Stock | SQ  | BSQ |
| Vari-Green® motor - 80% turndown, 85% efficient<br><i>Available as standard on select sizes</i> | ✓     | ■   |     |
| Damper                                                                                          | ✓     | ■   | ■   |
| Aluminum housing                                                                                |       | ■   | ■   |
| Motor cover                                                                                     |       | ■   | ■   |
| Guards - inlet, outlet                                                                          |       | ■   | ■   |
| Speed control                                                                                   | ✓     | ■   |     |
| Isolators - external                                                                            | ✓     | ■   | ■   |
| Insulation - housing and motor cover                                                            |       | ■   | ■   |
| Filter box* - slide out                                                                         |       | ■   | ■   |
| NEMA rated disconnect switch                                                                    |       | ■   | ■   |
| Dual drives                                                                                     |       |     | ■   |
| Relubricatable bearings                                                                         |       |     | ■   |
| Multiple discharge positions*                                                                   |       | ■   | ■   |
| Decorative or protective powder coating                                                         |       | ■   | ■   |
| UL/cUL Listed Power Ventilators                                                                 |       | ■   | ■   |

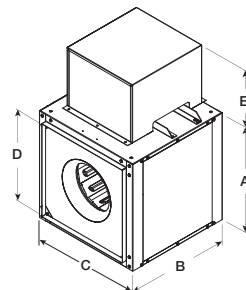
\*see page 31 for additional information

### Dimensions for SQ



| Model Size     | A & C | B  | D                              |
|----------------|-------|----|--------------------------------|
| 60, 65, 70, 75 | 12    | 13 | 8 <sup>7</sup> / <sub>8</sub>  |
| 80, 85, 90 95  | 15    | 16 | 11 <sup>7</sup> / <sub>8</sub> |
| 97, 98, 99     | 15    | 21 | 11 <sup>7</sup> / <sub>8</sub> |
| 100            | 17    | 21 | 13 <sup>3</sup> / <sub>8</sub> |
| 120            | 19    | 21 | 15 <sup>7</sup> / <sub>8</sub> |
| 130, 130 HP    | 21    | 21 | 17 <sup>7</sup> / <sub>8</sub> |
| 140, 140 HP    | 23    | 22 | 19 <sup>7</sup> / <sub>8</sub> |
| 160, 160 HP    | 26    | 26 | 22 <sup>7</sup> / <sub>8</sub> |

All dimensions are in inches.



### Dimensions for BSQ

| Model Size  | A & C                          | B  | D                              | H*                             |
|-------------|--------------------------------|----|--------------------------------|--------------------------------|
| 70, 80, 90  | 17 <sup>7</sup> / <sub>8</sub> | 21 | 11 <sup>7</sup> / <sub>8</sub> | 13 <sup>1</sup> / <sub>4</sub> |
| 100         | 17 <sup>7</sup> / <sub>8</sub> | 21 | 13 <sup>3</sup> / <sub>8</sub> | 13 <sup>1</sup> / <sub>4</sub> |
| 120         | 19 <sup>7</sup> / <sub>8</sub> | 21 | 15 <sup>7</sup> / <sub>8</sub> | 13 <sup>1</sup> / <sub>4</sub> |
| 130, 130 HP | 21 <sup>7</sup> / <sub>8</sub> | 21 | 17 <sup>7</sup> / <sub>8</sub> | 13 <sup>1</sup> / <sub>4</sub> |
| 140, 140 HP | 23 <sup>7</sup> / <sub>8</sub> | 22 | 19 <sup>7</sup> / <sub>8</sub> | 13 <sup>1</sup> / <sub>4</sub> |
| 160, 160 HP | 26 <sup>7</sup> / <sub>8</sub> | 26 | 22 <sup>7</sup> / <sub>8</sub> | 13 <sup>1</sup> / <sub>4</sub> |
| 180, 180 HP | 27 <sup>7</sup> / <sub>8</sub> | 28 | 23 <sup>3</sup> / <sub>8</sub> | 13 <sup>1</sup> / <sub>4</sub> |
| 200, 200 HP | 31 <sup>7</sup> / <sub>8</sub> | 32 | 27 <sup>7</sup> / <sub>8</sub> | 16                             |
| 240, 240 HP | 38 <sup>7</sup> / <sub>8</sub> | 34 | 34 <sup>7</sup> / <sub>8</sub> | 16                             |
| 300, 300 HP | 46                             | 38 | 41 <sup>7</sup> / <sub>8</sub> | 18                             |
| 360, 360 HP | 52                             | 42 | 47 <sup>7</sup> / <sub>8</sub> | 18                             |
| 420         | 58                             | 50 | 53 <sup>7</sup> / <sub>8</sub> | 18                             |

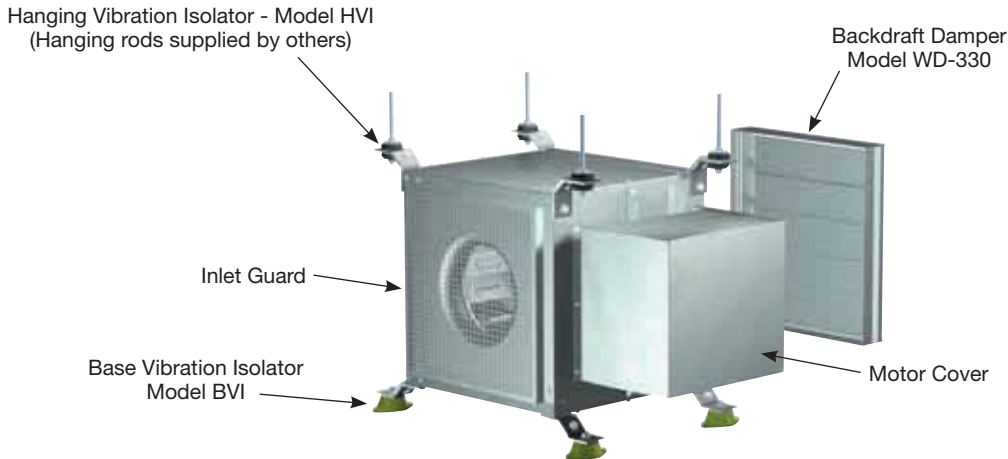
All dimensions are in inches.

\*Dimension may be greater depending on motor



Select sizes and models with the Vari-Green® motor are available in stock.

## SQ and BSQ Options and Accessories

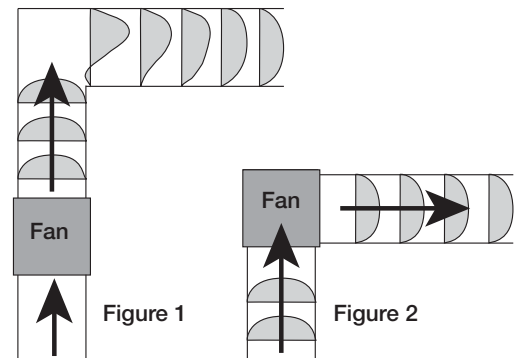


### Side Discharge

The side discharge option provides several advantages from removing a system effect problem, to increasing performance and even reducing installation labor.

The most notable is reducing system effect. Refer to Figure 1. It shows the air being discharged into the corner. It will take several duct lengths before the airflow becomes laminar or smooth again after making the turn.

In Figure 2, the fan is placed in the corner using a side discharge. In this configuration the airflow pattern at discharge is smooth and supports a more predictable system. Remember the duct length on the discharge side should be approximately two to three wheel diameters to achieve catalog performance.



### Multiple Discharge Positions

BCF fans are available with either top horizontal or upblast discharge positions.

BDF fans have been designed for horizontal mounting and are standard with a bottom horizontal discharge. Optional top horizontal discharge is also available.

SQ and BSQ fans are available with right side discharge, left side discharge, inline discharge positions, or a combination of right, left and inline positions.

| BCF Discharge Positions        |           | BDF Discharge Positions |                |
|--------------------------------|-----------|-------------------------|----------------|
| Top Horizontal                 | Upblast   | Bottom Horizontal       | Top Horizontal |
|                                |           |                         |                |
| SQ and BSQ Discharge Positions |           |                         |                |
| Right Side                     | Left Side | Inline                  | Combination    |
|                                |           |                         |                |

## Filter Box

Filter boxes incorporate a V-bank design constructed of galvanized steel. Filters are available in 1 or 2 inch throwaway (pleated) or permanent (washable aluminum mesh). Side access panels are standard for easy maintenance.



Slanted Filter

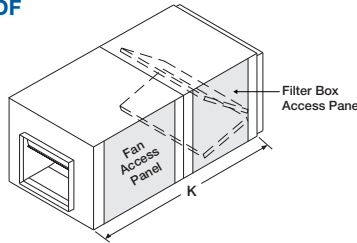


Double V-Bank Filter



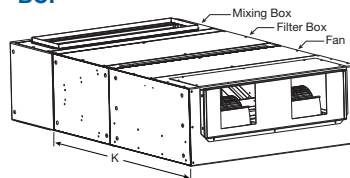
Aluminum Mesh Filter

### BDF



| Model Size | K                               | Filter Size | No. of Filters |
|------------|---------------------------------|-------------|----------------|
| 80         | 49 <sup>3</sup> / <sub>8</sub>  | 16 x 20     | 2              |
| 90         | 54 <sup>7</sup> / <sub>8</sub>  | 20 x 25     | 2              |
| 100        | 51 <sup>1</sup> / <sub>8</sub>  | 20 x 20     | 2              |
| 120        | 63 <sup>3</sup> / <sub>16</sub> | 12 x 25     | 4              |
| 150        | 62 <sup>1</sup> / <sub>16</sub> | 16 x 20     | 8              |
| 180        | 75 <sup>3</sup> / <sub>8</sub>  | 20 x 25     | 6              |
| 200        | 85 <sup>1</sup> / <sub>4</sub>  | 16 x 25     | 12             |

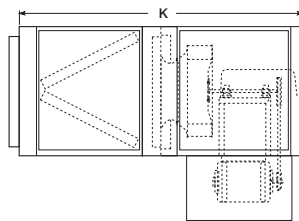
### BCF



| Model Size |            | K                              | Filter Size |            | No. of Filters |            |
|------------|------------|--------------------------------|-------------|------------|----------------|------------|
| Single Fan | Double Fan |                                | Single Fan  | Double Fan | Single Fan     | Double Fan |
| 106        | 206        | 45 <sup>1</sup> / <sub>2</sub> | 16 x 20     | 20 x 20    | 1              | 1          |
| 107        | 207        | 52                             | 16 x 20     | 16 x 20    | 1              | 2          |
| 108        | 208        | 56                             | 16 x 20     | 16 x 20    | 2              | 4          |
| 110        | 210        | 61                             | 20 x 20     | 20 x 20    | 2              | 4          |
| 112        | 212        | 65                             | 16 x 20     | 20 x 25    | 4              | 4          |

For slide-out filter box information, refer to BCF catalog.

### SQ, BSQ



| SQ             |                                 |             |                |
|----------------|---------------------------------|-------------|----------------|
| Model Size     | K                               | Filter Size | No. of Filters |
| 60, 65, 70, 75 | 22 <sup>1</sup> / <sub>8</sub>  | 10 x 12     | 1              |
| 80, 95, 90, 95 | 45 <sup>5</sup> / <sub>8</sub>  | 14 x 25     | 1              |
| 97, 98, 99     | 50 <sup>5</sup> / <sub>8</sub>  | 14 x 25     | 1              |
| 100            | 47 <sup>1</sup> / <sub>4</sub>  | 16 x 20     | 2              |
| 120            | 52 <sup>3</sup> / <sub>16</sub> | 16 x 25     | 2              |
| 130, 130HP     | 46 <sup>3</sup> / <sub>8</sub>  | 20 x 20     | 2              |
| 140, 140HP     | 52 <sup>3</sup> / <sub>8</sub>  | 20 x 25     | 2              |
| 160, 160HP     | 51 <sup>3</sup> / <sub>8</sub>  | 20 x 20     | 4              |

| BSQ        |                                 |             |                |
|------------|---------------------------------|-------------|----------------|
| Model Size | K                               | Filter Size | No. of Filters |
| 70, 80, 90 | 50 <sup>5</sup> / <sub>8</sub>  | 14 x 25     | 1              |
| 100        | 47 <sup>1</sup> / <sub>4</sub>  | 16 x 20     | 2              |
| 120        | 52 <sup>3</sup> / <sub>16</sub> | 16 x 25     | 2              |
| 130, 130HP | 46 <sup>3</sup> / <sub>8</sub>  | 20 x 20     | 2              |
| 140, 140HP | 52 <sup>3</sup> / <sub>8</sub>  | 20 x 25     | 2              |
| 160, 160HP | 51 <sup>3</sup> / <sub>8</sub>  | 20 x 20     | 4              |
| 180, 180HP | 55 <sup>1</sup> / <sub>16</sub> | 20 x 25     | 4              |
| 200, 200HP | 66 <sup>1</sup> / <sub>16</sub> | 12 x 25     | 3              |
|            |                                 | 16 x 25     | 3              |
|            |                                 | 20 x 25     | 4              |
| 240, 240HP | 68 <sup>7</sup> / <sub>8</sub>  | 16 x 25     | 4              |
|            |                                 | 20 x 25     | 8              |
| 300, 300HP | 72 <sup>1</sup> / <sub>8</sub>  | 16 x 25     | 10             |
|            |                                 | 20 x 25     | 5              |
| 360, 360HP | 79 <sup>1</sup> / <sub>4</sub>  | 16 x 25     | 5              |
|            |                                 | 20 x 25     | 10             |
| 420        | 93 <sup>1</sup> / <sub>8</sub>  | 16 x 25     | 5              |
|            |                                 | 20 x 25     | 10             |

## Insulated Housing

The interior of the fan housing and filter box can be lined with a fiberglass duct liner for noise reduction and condensation control. The duct liner can be utilized to reduce radiated noise from inline fan housings. It is recommended for applications when fans are placed in acoustically sensitive locations. The duct liner also reduces the noise radiating from the inlet and outlet of the fan.

