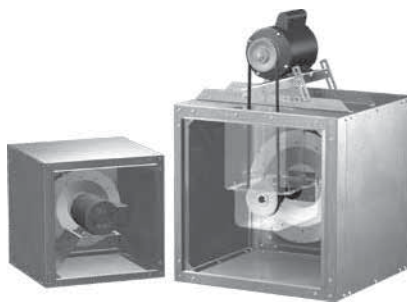


Installation, Operation and Maintenance Manual

Please read and save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage!

Model SQ Direct Drive

Model SQ is a direct drive centrifugal inline exhaust fan. These fans are specifically designed for inline applications. Performance capabilities range up to 5,000 cfm (8,500 m^3/hr) and up to 2.0 in. wg (498 Pa) of static pressure. SQ fans are available in thirteen sizes with nominal wheel diameter ranging from 6 to 16 inches (152 to 406 mm) (060 to 160 unit sizes). Each fan shall bear a permanently affixed manufacturers engraved metal nameplate containing the model number and individual serial number.



Model BSQ Belt Drive

Model BSQ is a belt drive centrifugal inline exhaust fan. These fans are specifically designed for inline applications. Performance capabilities range up to 27,200 cfm (46,200 m^3/hr) and up to 4.0 in. wg (996 Pa) of static pressure. BSQ fans are available in fourteen sizes with nominal wheel diameter ranging from 7 to 42 inches (178 to 1067 mm) (070 to 420 unit sizes). Each fan shall bear a permanently affixed manufacturers engraved metal nameplate containing the model number and individual serial number.

General Safety Information

Only qualified personnel should install this fan. Personnel should have a clear understanding of these instructions and should be aware of general safety precautions. Improper installation can result in electric shock, possible injury due to coming in contact with moving parts, as well as other potential hazards. Other considerations may be required if seismic activity is present. If more information is needed, contact a licensed professional engineer before moving forward.

1. Follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and the National Fire Protection Agency (NFPA), where applicable. Follow the Canadian Electric Code (CEC) in Canada.
2. The rotation of the wheel is critical. It must be free to rotate without striking or rubbing any stationary objects.
3. Motor must be securely and adequately grounded.
4. Do not spin fan wheel faster than max cataloged fan RPM. Adjustments to fan speed significantly affects motor load. If the fan RPM is changed, the motor current should be checked to make sure it is not exceeding the motor nameplate amps.
5. Do not allow the power cable to kink or come in contact with oil, grease, hot surfaces or chemicals. Replace cord immediately if damaged.
6. Verify that the power source is compatible with the equipment.
7. Never open access doors to a duct while the fan is running.

DANGER

Always disconnect, lock and tag power source before installing or servicing. Failure to disconnect power source can result in fire, shock or serious injury.

CAUTION

When servicing the fan, motor may be hot enough to cause pain or injury. Allow motor to cool before servicing.

CAUTION

Precaution should be taken in explosive atmospheres.

DANGER

Pour écarter les risques d'incendie, de choc électrique ou de blessure grave, veiller à toujours débrancher, verrouiller et étiqueter la source de courant avant l'installation ou l'entretien.

ATTENTION

Lors de toute intervention sur la soufflante, le moteur peut être suffisamment chaud pour provoquer une douleur voire une blessure. Laisser le moteur refroidir avant toute maintenance.

ATTENTION

Faire preuve de précaution dans les atmosphères explosives.

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Receiving

Upon receiving the product check to ensure all items are accounted for by referencing the delivery receipt or packing list. Inspect each crate or carton for shipping damage before accepting delivery. Alert the carrier of any damage detected. The customer will make a notation of damage (or shortage of items) on the delivery receipt and all copies of the bill of lading which is countersigned by the delivering carrier. If damaged, immediately contact your Greenheck Representative. Any physical damage to the unit after acceptance is not the responsibility of Greenheck Fan Corporation.

Unpacking

Verify that all required parts and the correct quantity of each item have been received. If any items are missing, report shortages to your local representative to arrange for obtaining missing parts. Sometimes it is not possible that all items for the unit be shipped together due to availability of transportation and truck space. Confirmation of shipment(s) must be limited to only items on the bill of lading.

Handling

Move fan to desired location and determine position of access panels, discharge and motor. Make sure the inlet and outlet have at least 2½ times the wheel diameter (duct diameter) before any obstructions like an elbow or transition. Attach the fan to a suitable framework as specified; hanging or base vibration isolators are recommended. See the SQ & BSQ Fan Dimensions table on pages 4 and 5 for physical dimensions, utilizing Figures 1 and 2. Mounting dimensions and vibration isolator centerline information is provided on pages 6 thru 9. The motor’s amperage and voltage ratings must be checked for compatibility to supply voltage prior to final electrical connection. Electrical lead-in wires are then connected to the factory supplied safety disconnect switch. All wiring must conform to local and national codes.

Fan Storage

Fans are protected against damage during shipment. If the unit cannot be installed and operated immediately, precautions need to be taken to prevent deterioration of the unit during storage. The user assumes responsibility of the fan and accessories while in storage. The manufacturer will not be responsible for damage during storage. These suggestions are provided solely as a convenience to the user.

Indoor Storage: The ideal environment for the storage of fans and accessories is indoors, above grade, in a low humidity atmosphere which is sealed to prevent the entry of blowing dust, rain or snow. Temperatures should be evenly maintained between 30° to 110°F (-1° to 43°C) (wide temperature swings may cause condensation and “sweating” of metal parts). All accessories must be stored indoors in a clean, dry atmosphere.

Remove any accumulations of dirt, water, ice or snow and wipe dry before moving to indoor storage. To avoid “sweating” of metal parts allow cold parts to reach room temperature. To dry parts and packages, use a portable electric heater to get rid of any moisture buildup. Leave coverings loose to permit air circulation and to allow for periodic inspection.

The unit should be stored at least 3½ inches (89 mm) off the floor on wooden blocks covered with moisture proof paper or polyethylene sheathing. Aisles between parts and along all walls should be provided to permit air circulation and space for inspection.

Outdoor Storage: Fans designed for outdoor applications may be stored outdoors, if absolutely necessary. Roads or aisles for portable cranes and hauling equipment are needed.

The fan should be placed on a level surface to prevent water from leaking into the fan. The fan should be elevated on an adequate number of wooden blocks so that it is above water and snow levels and has enough blocking to prevent it from settling into soft ground. Locate parts far enough apart to permit air circulation, sunlight and space for periodic inspection. To minimize water accumulation, place all fan parts on blocking supports so that rain water will run off.

Do not cover parts with plastic film or tarps as these cause condensation of moisture from the air passing through heating and cooling cycles.

Fan wheels should be blocked to prevent spinning caused by strong winds.

Inspection and Maintenance During Storage

While in storage, inspect fans once per month. Keep a record of inspection and maintenance performed.

If moisture or dirt accumulations are found on parts, the source should be located and eliminated. At each inspection, rotate the wheel by hand ten to fifteen revolutions to distribute lubricant on motor. If paint deterioration begins, consideration should be given to touch-up or repainting. Fans with special coatings may require special techniques for touch-up or repair.

Machined parts coated with rust preventive should be restored to good condition promptly if signs of rust occur. Immediately remove the original rust preventive coating with petroleum solvent and clean with lint-free cloths. Polish any remaining rust from surface with crocus cloth or fine emery paper and oil. Do not destroy the continuity of the surfaces. Thoroughly wipe clean with Tectyl® 506 (Ashland Inc.) or the equivalent. For hard to reach internal surfaces or for occasional use, consider using Tectyl® 511M Rust Preventive, WD-40® or the equivalent.

Removing From Storage

As fans are removed from storage to be installed in their final location, they should be protected and maintained in a similar fashion until the fan equipment goes into operation.

Redesigned BSQ Dimensions

In early 2015, the BSQ was redesigned. The redesign changes some mounting dimensions of the fan for sizes 70 through 240. All BSQ fans ordered after July 20th, 2015 will be moving over to this new design, with two exceptions that will still utilize the old design:

1. Any orders prior to July 20th, 2015.
2. Any orders for OSHPD seismic rated units.

Both versions of the fan have their dimensions listed, so it is recommended dimensions be confirmed on these models before the unit is installed. Contact your local sales representative for clarification on ordering information.

SQ & BSQ Fan Dimensions

Model	A	B	C	*D	E	*F	*G	*H	Damper	SQ Weight [^]	BSQ Weight [^]
SQ 60-75	12 (305)	13 (330)	12 (305)	8 $\frac{7}{8}$ (225)	1 (25)	-	-	-	9 (229)	26 (12)	-
SQ 80-95	15 (381)	16 (406)	15 (381)	11 $\frac{7}{8}$ (302)	1 (25)	-	-	-	12 (305)	41 (19)	-
SQ 97,98,99	15 (381)	21 (533)	15 (381)	11 $\frac{7}{8}$ (302)	1 (25)	-	-	-	12 (305)	49 (22)	-
BSQ 70-80	15 (381)	21 (533)	15 (381)	11 $\frac{7}{8}$ (302)	1 (25)	15 $\frac{1}{2}$ (394)	14 (356)	12 $\frac{1}{2}$ (318)	12 (305)	-	76 (34)
BSQ 90	15 (381)	21 (533)	15 (381)	11 $\frac{7}{8}$ (302)	1 (25)	15 $\frac{1}{2}$ (394)	14 (356)	12 $\frac{1}{2}$ (318)	12 (305)	-	84 (38)
SQ-BSQ 100	17 (432)	21 (533)	17 (432)	13 $\frac{3}{8}$ (352)	1 (25)	15 $\frac{1}{2}$ (394)	14 (356)	12 $\frac{1}{2}$ (318)	14 (356)	56 (25)	83 (38)
SQ-BSQ 120	19 (483)	21 (533)	19 (483)	15 $\frac{7}{8}$ (403)	1 (25)	17 $\frac{7}{8}$ (454)	16 (406)	12 $\frac{1}{2}$ (318)	16 (406)	67 (30)	97 (44)
SQ-BSQ 130 (HP)	21 (533)	21 (533)	21 (533)	17 $\frac{7}{8}$ (454)	1 (25)	17 $\frac{7}{8}$ (454)	16 (406)	12 $\frac{1}{2}$ (318)	18 (457)	67 (35)	97 (44)
SQ-BSQ 140 (HP)	23 (584)	22 (559)	23 (584)	19 $\frac{7}{8}$ (505)	1 (25)	17 $\frac{7}{8}$ (454)	16 (406)	12 $\frac{1}{2}$ (318)	20 (508)	104 (47)	111 (50)
SQ-BSQ 160 (HP)	26 (660)	26 (660)	26 (660)	22 $\frac{7}{8}$ (581)	1 (25)	20 $\frac{1}{2}$ (521)	17 (432)	13 $\frac{3}{8}$ (340)	23 (584)	160 (73)	208 (94)
BSQ 180 (HP)	28 (711)	28 (711)	28 (711)	23 $\frac{3}{8}$ (606)	1 $\frac{1}{2}$ (38)	24 $\frac{3}{8}$ (619)	18 (457)	13 $\frac{3}{4}$ (349)	24 (610)	26 (12)	245 (111)
BSQ 200 (HP)	32 (813)	32 (813)	32 (813)	27 $\frac{1}{8}$ (708)	1 $\frac{1}{2}$ (38)	28 (711)	20 (508)	16 (406)	28 (711)	26 (12)	314 (142)
BSQ 240 (HP)	39 (991)	34 (864)	39 (991)	34 $\frac{3}{8}$ (886)	1 $\frac{1}{2}$ (38)	32 $\frac{1}{8}$ (835)	22 (559)	19 (483)	35 (889)	26 (12)	415 (188)
BSQ 300 (HP)	46 (1168)	38 (965)	46 (1168)	41 $\frac{7}{8}$ (1064)	1 $\frac{1}{2}$ (38)	34 (864)	22 (559)	18 (457)	42 (1067)	26 (12)	537 (244)
BSQ 360 (HP)	52 (1321)	42 (1067)	52 (1321)	47 $\frac{7}{8}$ (1216)	1 $\frac{1}{2}$ (38)	34 (864)	22 (559)	18 (457)	48 (1219)	26 (12)	686 (311)
BSQ 420 (HP)	58 (1473)	50 (1270)	58 (1473)	53 $\frac{3}{8}$ (1368)	1 $\frac{1}{2}$ (38)	34 (864)	22 (559)	18 (457)	54 (1372)	26 (12)	789 (358)

All dimensions in inches (millimeters) and weight is shown in pounds (kilograms). *May be greater depending on motor.

[^]Weight shown is largest cataloged Open Drip Proof motor.

Filter Option Dimensions

Model	A	B	C	D	WT.	Filter Size	Filter Quantity
SQ 60-75	22 $\frac{7}{8}$ (562)	12 (305)	8 $\frac{7}{8}$ (225)	1 (25)	40 (18)	10 x 12 (254 x 305)	1
SQ 80-95	45 $\frac{5}{8}$ (1159)	15 (381)	11 $\frac{7}{8}$ (302)	1 (25)	74 (34)	14 x 25 (356 x 635)	1
SQ 97,98,99	50 $\frac{5}{8}$ (1286)	15 (381)	11 $\frac{7}{8}$ (302)	1 (25)	80 (36)	14 X 25 (356 X 635)	1
SQ 100	47 $\frac{1}{4}$ (1200)	17 (432)	13 $\frac{3}{8}$ (352)	1 (25)	88 (40)	16 x 20 (406 x 508)	2
SQ 120	52 $\frac{3}{16}$ (1326)	19 (483)	15 $\frac{7}{8}$ (403)	1 (25)	114 (52)	16 x 25 (406 x 635)	2
SQ 130	46 $\frac{3}{8}$ (1178)	21 (533)	17 $\frac{7}{8}$ (454)	1 (25)	120 (54)	20 x 20 (508 x 508)	2
SQ 140	52 $\frac{3}{16}$ (1330)	23 (584)	19 $\frac{7}{8}$ (505)	1 (25)	174 (79)	20 x 25 (508 x 635)	2
SQ 160	51 $\frac{3}{8}$ (1305)	26 (660)	22 $\frac{7}{8}$ (581)	1 (25)	246 (112)	20 x 20 (508 x 508)	4
BSQ 70-80-90	50 $\frac{5}{8}$ (1286)	15 (381)	11 $\frac{7}{8}$ (302)	1 (25)	117 (53)	14 x 25 (356 x 635)	1
BSQ 100	47 $\frac{1}{4}$ (1200)	17 (432)	13 $\frac{3}{8}$ (352)	1 (25)	120 (54)	16 x 20 (406 x 508)	2
BSQ 120	52 $\frac{3}{16}$ (1326)	19 (483)	15 $\frac{7}{8}$ (403)	1 (25)	144 (79)	16 x 25 (406 x 635)	2
BSQ 130 (HP)	46 $\frac{3}{8}$ (1178)	21 (533)	17 $\frac{7}{8}$ (454)	1 (25)	140 (64)	20 x 20 (508 x 508)	2
BSQ 140 (HP)	52 $\frac{3}{16}$ (1330)	23 (584)	19 $\frac{7}{8}$ (505)	1 (25)	181 (82)	20 x 25 (508 x 635)	2
BSQ 160 (HP)	51 $\frac{3}{8}$ (1305)	26 (660)	22 $\frac{7}{8}$ (581)	1 (25)	294 (133)	20 x 20 (508 x 508)	4
BSQ 180 (HP)	55 $\frac{1}{16}$ (1399)	28 (711)	23 $\frac{3}{8}$ (606)	1 $\frac{1}{2}$ (38)	344 (156)	20 x 25 (508 x 635)	4
BSQ 200 (HP)	66 $\frac{1}{16}$ (1694)	32 (813)	27 $\frac{7}{8}$ (708)	1 $\frac{1}{2}$ (38)	441 (200)	12 x 25 (305 x 635)	3
						16 x 25 (406 x 635)	3
BSQ 240 (HP)	68 $\frac{7}{8}$ (1749)	39 (991)	34 $\frac{7}{8}$ (886)	1 $\frac{1}{2}$ (38)	573 (260)	20 x 25 (508 x 635)	4
						16 x 25 (406 x 635)	4
BSQ 300 (HP)	72 $\frac{3}{8}$ (1832)	46 (1168)	41 $\frac{7}{8}$ (1064)	1 $\frac{1}{2}$ (38)	759 (344)	20 x 25 (508 x 635)	8
BSQ 360 (HP)	79 $\frac{1}{4}$ (2013)	52 (1321)	47 $\frac{7}{8}$ (1216)	1 $\frac{1}{2}$ (38)	957 (434)	16 x 25 (406 x 635)	10
						20 x 25 (508 x 635)	5
BSQ 420	93 $\frac{3}{8}$ (2365)	58 (1473)	53 $\frac{3}{8}$ (1368)	1 $\frac{1}{2}$ (38)	1185 (538)	16 x 25 (406 x 635)	5
						20 x 25 (508 x 635)	10

Note: 24-inch side clearance is recommended for accessing and removing filters.
All dimensions in inches (millimeters) and weight (WT.) in pounds (kilograms).

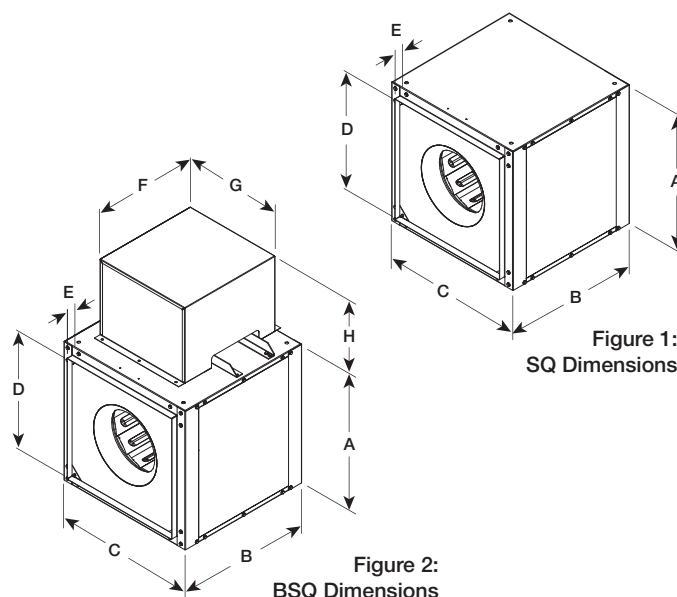


Figure 3: Model SQ - Filter Options

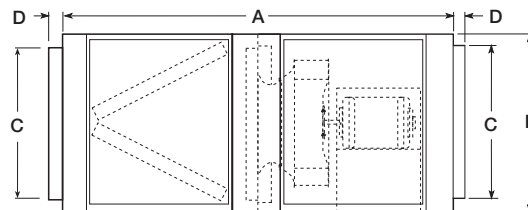
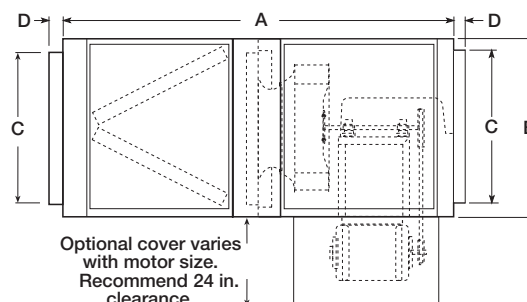


Figure 4: Model BSQ - Filter Options



Redesigned BSQ Dimensions (refer to page 3 for details)

BSQ Fan Dimensions										
Model	A	B	C	*D	E	*F	*G	*H	Damper	BSQ Weight [^]
BSQ 70-90	17 ¹ / ₈ (435)	21 (533)	17 ¹ / ₈ (435)	11 ¹ / ₈ (302)	1 ¹ / ₂ (37)	17 ³ / ₄ (451)	13 (330)	13 ¹ / ₄ (337)	12 (305)	106 (48)
BSQ 100	17 ¹ / ₈ (435)	21 (533)	17 ¹ / ₈ (435)	13 ³ / ₈ (352)	1 ¹ / ₂ (37)	17 ³ / ₄ (451)	13 (330)	13 ¹ / ₄ (337)	14 (356)	107 (48)
BSQ 120	19 ¹ / ₈ (486)	21 (533)	19 ¹ / ₈ (486)	15 ⁵ / ₈ (403)	1 ¹ / ₂ (37)	20 (508)	17 (432)	13 ¹ / ₄ (337)	16 (406)	124(56)
BSQ 130 (HP)	21 ¹ / ₈ (537)	21 (533)	21 ¹ / ₈ (537)	17 ⁷ / ₈ (454)	1 ¹ / ₂ (37)	20 (508)	17 (432)	13 ¹ / ₄ (337)	18 (457)	131 (59)
BSQ 140 (HP)	23 ¹ / ₈ (587)	22 (559)	23 ¹ / ₈ (587)	19 ⁷ / ₈ (505)	1 ¹ / ₂ (37)	20 (508)	17 (432)	13 ¹ / ₄ (337)	20 (508)	146 (66)
BSQ 160 (HP)	26 ¹ / ₈ (664)	26 (660)	26 ¹ / ₈ (664)	22 ⁷ / ₈ (581)	1 ¹ / ₂ (37)	20 (508)	17 (432)	13 ¹ / ₄ (337)	23 (584)	188 (85)
BSQ 180 (HP)	27 ¹ / ₈ (689)	28 (711)	27 ¹ / ₈ (689)	23 ⁷ / ₈ (606)	1 ¹ / ₂ (37)	20 (508)	17 (432)	13 ¹ / ₄ (337)	24 (610)	195 (88)
BSQ 200 (HP)	31 ¹ / ₈ (791)	32 (813)	31 ¹ / ₈ (791)	27 ⁷ / ₈ (708)	1 ¹ / ₂ (37)	30 (762)	20 (508)	16 (406)	28 (711)	246 (111)
BSQ 240 (HP)	38 ¹ / ₈ (968)	34 (864)	38 ¹ / ₈ (968)	34 ⁷ / ₈ (886)	1 ¹ / ₂ (37)	30 (762)	20 (508)	16 (406)	35 (889)	350 (159)

All dimensions in inches (millimeters) and weight is shown in pounds (kilograms). *May be greater depending on motor.

[^]Weight shown is largest cataloged Open Drip Proof motor.

Filter Option Dimensions							
Model	A	B	C	D	WT.	Filter Size	Filter Quantity
BSQ 70-80-90	53 ⁵ / ₈ (1368)	17 ¹ / ₈ (435)	11 ¹ / ₈ (302)	1 ¹ / ₂ (37)	168 (76)	16 x 20 (406 x 508)	2
BSQ 100	53 ⁵ / ₈ (1368)	17 ¹ / ₈ (435)	13 ³ / ₈ (352)	1 ¹ / ₂ (37)	169 (77)	16 x 20 (406 x 508)	2
BSQ 120	58 ³ / ₄ (1492)	19 ¹ / ₈ (486)	15 ⁵ / ₈ (403)	1 ¹ / ₂ (37)	194 (88)	16 x 25 (406 x 635)	2
BSQ 130 (HP)	53 ³ / ₄ (1353)	21 ¹ / ₈ (537)	17 ⁷ / ₈ (454)	1 ¹ / ₂ (37)	197 (89)	20 x 20 (508 x 508)	2
BSQ 140 (HP)	59 (1500)	23 ¹ / ₈ (537)	19 ⁷ / ₈ (505)	1 ¹ / ₂ (37)	231 (105)	20 x 25 (508 x 635)	2
BSQ 160 (HP)	58 ³ / ₄ (1492)	26 ¹ / ₈ (664)	22 ⁷ / ₈ (581)	1 ¹ / ₂ (37)	285 (129)	20 x 20 (508 x 508)	4
BSQ 180 (HP)	60 ³ / ₄ (1543)	27 ¹ / ₈ (689)	23 ⁷ / ₈ (606)	1 ¹ / ₂ (37)	293 (133)	20 x 25 (508 x 635)	4
BSQ 200 (HP)	69 ³ / ₈ (1762)	31 ¹ / ₈ (791)	27 ⁷ / ₈ (708)	1 ¹ / ₂ (37)	361 (164)	12 x 25 (305 x 635)	3
						16 x 25 (406 x 635)	3
BSQ 240 (HP)	71 ¹ / ₂ (1816)	38 ¹ / ₈ (968)	34 ⁷ / ₈ (886)	1 ¹ / ₂ (37)	496 (225)	20 x 25 (508 x 635)	4
						16 x 25 (406 x 635)	4

Note: 24-inch side clearance is recommended for accessing and removing filters.
All dimensions in inches (millimeters) and weight (WT.) in pounds (kilograms).

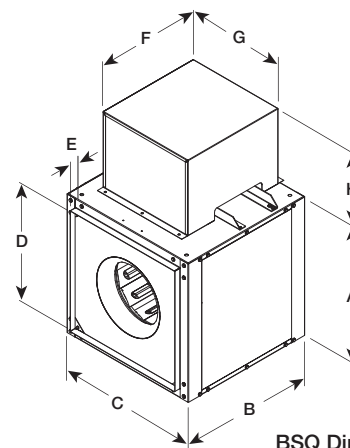
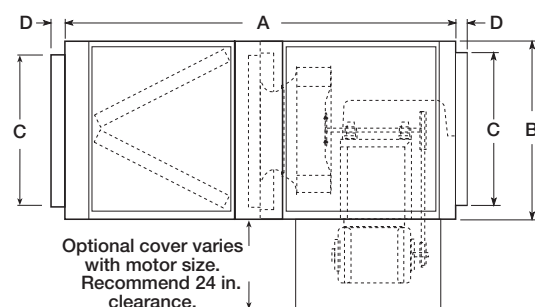


Figure 2:
BSQ Dimensions

Figure 4: Model BSQ - Filter Options



Mounting: SQ /BSQ

All SQ and BSQ fan models can be mounted horizontally, vertically or at an angle. For ease of installation, knockouts are provided at each location where mounting brackets are shown in Figures 5, 6 and 7. Optional brackets are universally adjustable to mount in any of these locations.

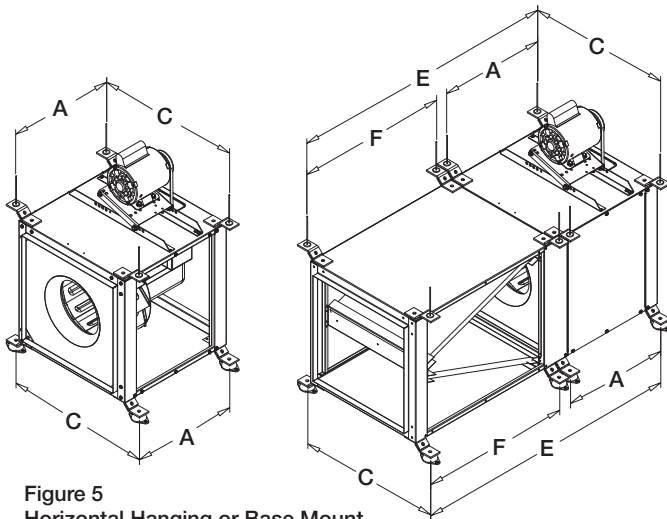


Figure 5
Horizontal Hanging or Base Mount

With either a hanging or base mount the motor may be located on either side. The base mount allows top access panels only.

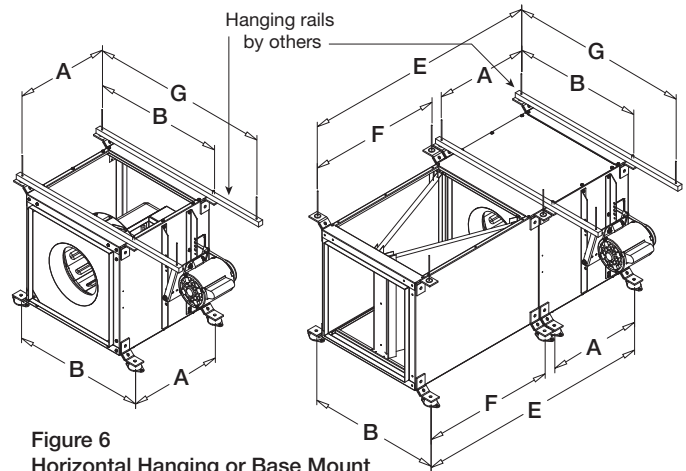


Figure 6
Horizontal Hanging or Base Mount

With a hanging mount, the motor may be located on either top or bottom. The base mount allows top motor location only. Both options provide access panels on two sides.

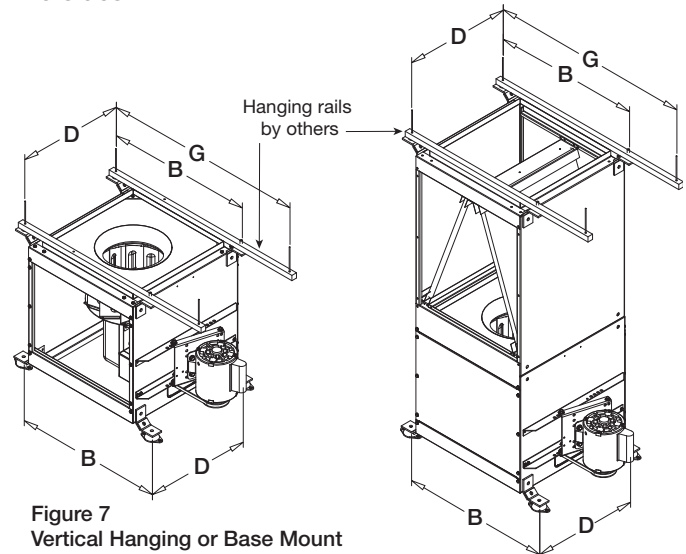


Figure 7
Vertical Hanging or Base Mount

Mounting brackets are turned 90° for vertical mounting. Access panels are located on the two sides adjacent to the motor.

Mounting Dimensional Data							
Model	A	B	C	D	E	F	G
SQ 60-75	10 $\frac{3}{8}$ (269)	16 $\frac{3}{4}$ (424)	14 $\frac{5}{8}$ (372)	8 $\frac{7}{8}$ (225)	19 $\frac{7}{8}$ (504)	6 $\frac{7}{8}$ (176)	Hanging rails not included. Supplied by others.
SQ 80-95	13 $\frac{1}{4}$ (338)	19 $\frac{3}{4}$ (500)	15 $\frac{1}{8}$ (384)	9 $\frac{3}{8}$ (238)	43 (1093)	27 $\frac{3}{8}$ (695)	
SQ 97,98,99	18 $\frac{5}{8}$ (473)	19 $\frac{3}{4}$ (500)	15 $\frac{1}{8}$ (384)	9 $\frac{3}{8}$ (238)	48 $\frac{3}{8}$ (1228)	27 $\frac{3}{8}$ (695)	
BSQ 70-90	18 $\frac{5}{8}$ (473)	19 $\frac{3}{4}$ (500)	17 $\frac{7}{8}$ (448)	11 $\frac{1}{8}$ (301)	48 $\frac{3}{8}$ (1228)	27 $\frac{3}{8}$ (695)	
SQ-BSQ 100	18 $\frac{5}{8}$ (473)	21 $\frac{1}{4}$ (551)	19 $\frac{7}{8}$ (499)	13 $\frac{7}{8}$ (352)	43 $\frac{3}{4}$ (1112)	22 $\frac{3}{4}$ (579)	
SQ-BSQ 120	18 $\frac{5}{8}$ (473)	23 $\frac{3}{4}$ (602)	21 $\frac{7}{8}$ (549)	15 $\frac{1}{8}$ (403)	49 $\frac{7}{8}$ (1247)	28 $\frac{1}{8}$ (715)	
SQ-BSQ 130	18 $\frac{5}{8}$ (473)	25 $\frac{3}{4}$ (653)	23 $\frac{3}{8}$ (600)	17 $\frac{7}{8}$ (454)	44 (1118)	23 (585)	
SQ-BSQ 140	19 $\frac{7}{8}$ (498)	27 $\frac{3}{4}$ (704)	25 $\frac{7}{8}$ (651)	19 $\frac{7}{8}$ (505)	50 (1271)	28 (713)	
SQ-BSQ 160	23 $\frac{1}{2}$ (596)	31 (789)	28 $\frac{3}{4}$ (730)	22 $\frac{1}{8}$ (581)	49 $\frac{1}{2}$ (1257)	23 $\frac{3}{8}$ (601)	Hanging rails not included. Supplied by others.
BSQ 180	25 $\frac{1}{2}$ (646)	33 (840)	28 $\frac{7}{8}$ (727)	22 $\frac{3}{4}$ (578)	52 $\frac{5}{8}$ (1336)	24 $\frac{1}{2}$ (623)	
BSQ 200	29 $\frac{1}{4}$ (742)	37 (941)	32 $\frac{3}{4}$ (832)	26 $\frac{7}{8}$ (683)	64 $\frac{1}{8}$ (1629)	32 $\frac{1}{4}$ (818)	
BSQ 240	31 $\frac{1}{8}$ (803)	44 (1119)	39 $\frac{3}{4}$ (1010)	33 $\frac{3}{8}$ (860)	66 $\frac{1}{2}$ (1689)	32 $\frac{1}{8}$ (816)	
BSQ 300	35 (889)	51 (1297)	46 $\frac{3}{4}$ (1188)	40 $\frac{7}{8}$ (1038)	69 $\frac{3}{8}$ (1755)	31 $\frac{3}{8}$ (797)	
BSQ 360	39 $\frac{3}{8}$ (1000)	57 (1449)	52 $\frac{5}{8}$ (1337)	46 $\frac{3}{4}$ (1187)	76 $\frac{3}{8}$ (1948)	34 $\frac{3}{4}$ (881)	
BSQ 420	47 (1195)	63 (1602)	58 $\frac{5}{8}$ (1488)	52 $\frac{3}{4}$ (1338)	90 $\frac{1}{4}$ (2292)	40 $\frac{5}{8}$ (1031)	

All dimensions in inches (millimeters).

Redesigned BSQ Dimensions

Mounting: BSQ

All BSQ fan models can be mounted horizontally, vertically or at an angle. For ease of installation, knockouts are provided at each location where mounting brackets are shown in Figures 5, 6 and 7. Optional brackets are universally adjustable to mount in any of these locations.

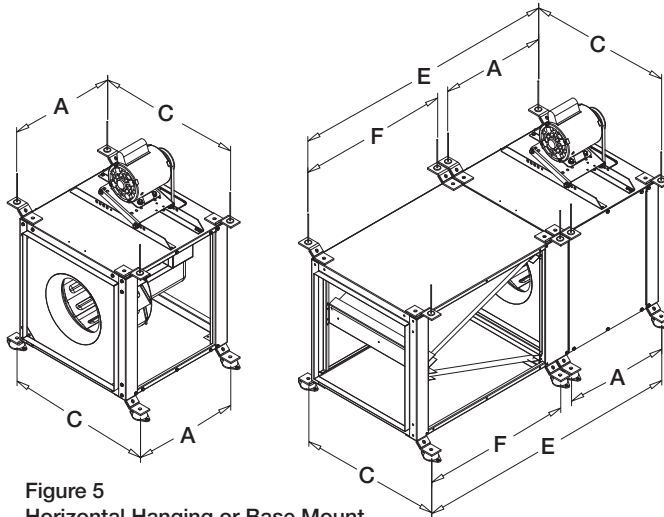


Figure 5
Horizontal Hanging or Base Mount

With either a hanging or base mount the motor may be located on either side. The base mount allows top access panels only.

NOTE

Flex duct is recommended for mounting to the inlet of the fan to allow for fitting adjustments.

If the inlet venturi requires adjustment, it can be detached from the unit via the fasteners located on the inlet panel.

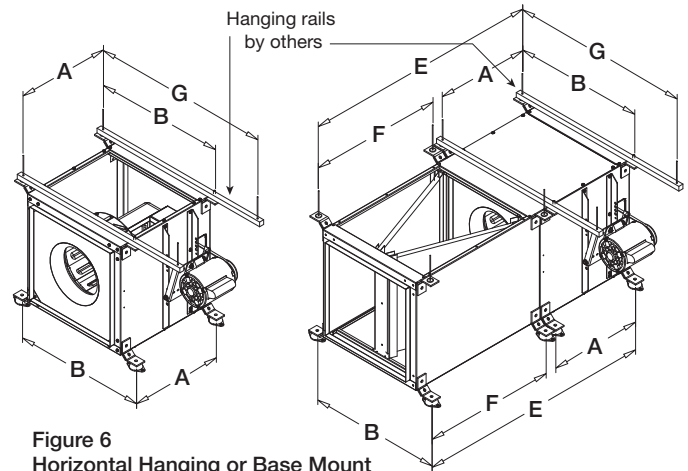


Figure 6
Horizontal Hanging or Base Mount

With a hanging mount, the motor may be located on either top or bottom. The base mount allows top motor location only. Both options provide access panels on two sides.

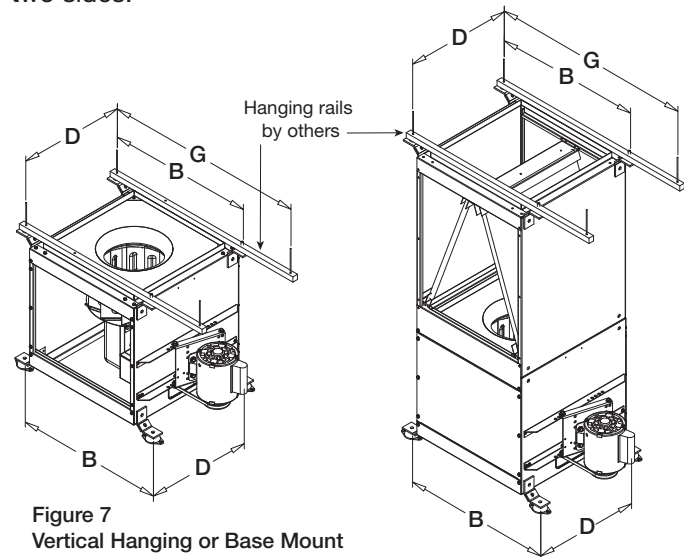


Figure 7
Vertical Hanging or Base Mount

Mounting brackets are turned 90° for vertical mounting. Access panels are located on the two sides adjacent to the motor.

Mounting Dimensional Data							
Model	A	B	C	D	E	F	G
BSQ 70-100	18 (457)	21 ¹³ / ₁₆ (554)	19 ¹⁴ / ₁₆ (505)	14 ¹ / ₈ (359)	50 ¹⁴ / ₁₆ (1292)	29 ¹⁴ / ₁₆ (758)	Hanging rails not included. Supplied by others.
BSQ 120	18 (457)	23 ¹³ / ₁₆ (605)	21 ¹⁴ / ₁₆ (556)	16 ¹ / ₈ (410)	55 ³ / ₄ (1416)	34 ³ / ₄ (883)	
BSQ 130	18 (457)	25 ¹³ / ₁₆ (656)	23 ¹⁴ / ₁₆ (607)	18 ¹ / ₈ (460)	50 ¹ / ₄ (1276)	29 ¹ / ₄ (743)	
BSQ 140	19 (483)	27 ¹³ / ₁₆ (707)	25 ¹⁴ / ₁₆ (657)	20 ¹ / ₈ (511)	56 (1424)	34 (865)	
BSQ 160	23 (584)	31 ¹ / ₈ (792)	29 (737)	23 ¹ / ₈ (587)	55 ³ / ₄ (1416)	29 ³ / ₄ (756)	Hanging rails not included. Supplied by others.
BSQ 180	25 (635)	32 ³ / ₁₆ (817)	30 (762)	24 ¹ / ₈ (613)	57 ³ / ₄ (1467)	29 ³ / ₄ (756)	
BSQ 200	29 (737)	36 ³ / ₁₆ (919)	34 (864)	28 ¹ / ₈ (714)	66 ³ / ₈ (1686)	34 ³ / ₈ (873)	
BSQ 240	31 (787)	43 ³ / ₁₆ (1097)	41 (1042)	35 ¹ / ₈ (892)	68 ¹ / ₂ (1740)	34 ¹ / ₂ (876)	

All dimensions in inches (millimeters).

Duct Length: The inlet and outlet duct length should be approximately two to three wheel diameters long before and after the fan to achieve cataloged performance.

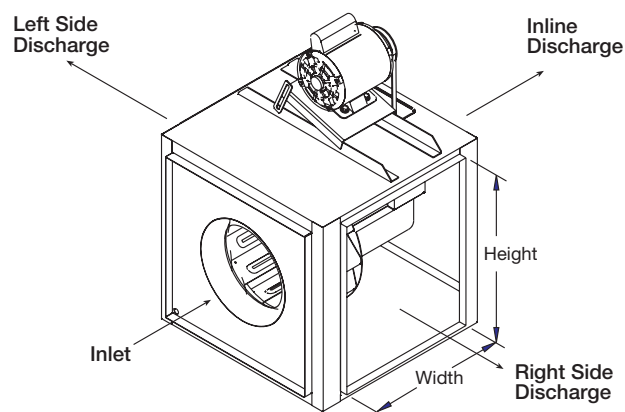


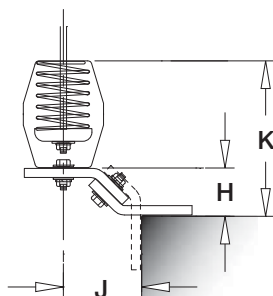
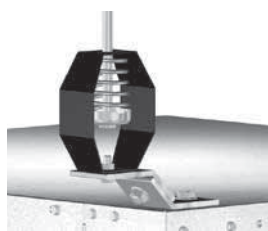
Figure 8

Side Discharge: Make sure discharge is orientated in the same direction as originally ordered, performance will change with different discharge positions. Refer to Figure 8 for proper side discharge definition and the Side Discharge chart for dimensions. Refer to the CAPS program or consult factory for performance corrections.

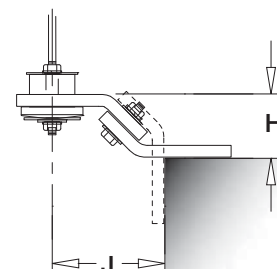
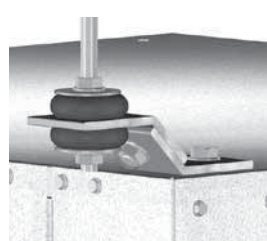
Side Discharge Duct Openings		
Unit Size	Width	Height
BSQ 70-80-90	11 ¹ / ₈ (302)	11 ¹ / ₈ (302)
SQ 60-75	9 ⁷ / ₈ (251)	8 ⁷ / ₈ (225)
SQ 80-95	12 ⁷ / ₈ (327)	11 ¹ / ₈ (302)
SQ 97-98-99	13 ⁷ / ₈ (352)	11 ¹ / ₈ (302)
SQ 100/BSQ 100	13 ⁷ / ₈ (352)	13 ⁷ / ₈ (352)
SQ 120/BSQ 120	15 ¹ / ₈ (403)	15 ¹ / ₈ (403)
SQ 130/BSQ 130 (HP)	17 ⁷ / ₈ (454)	17 ⁷ / ₈ (454)
SQ 140/BSQ 140 (HP)	19 ⁷ / ₈ (505)	19 ⁷ / ₈ (505)
SQ 160/BSQ 160 (HP)	22 ⁷ / ₈ (581)	22 ⁷ / ₈ (581)
BSQ 180 (HP)	23 ⁷ / ₈ (606)	23 ⁷ / ₈ (606)
BSQ 200 (HP)	27 ⁷ / ₈ (708)	27 ⁷ / ₈ (708)
BSQ 240 (HP)	28 ⁷ / ₈ (733)	34 ⁷ / ₈ (886)
BSQ 300 (HP)	31 ¹ / ₈ (810)	41 ⁷ / ₈ (1064)
BSQ 360 (HP)	32 ⁷ / ₈ (835)	37 ⁷ / ₈ (962)
BSQ 420	34 ⁷ / ₈ (886)	43 ⁷ / ₈ (1114)

All dimensions in inches (millimeters).

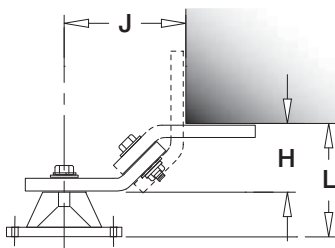
Hanging Spring Isolator



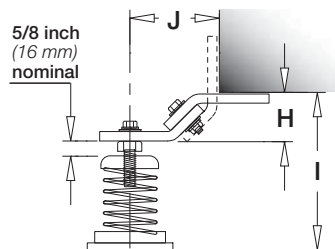
Hanging Neoprene Isolator



Standing Neoprene Isolator



Standing Spring Isolator

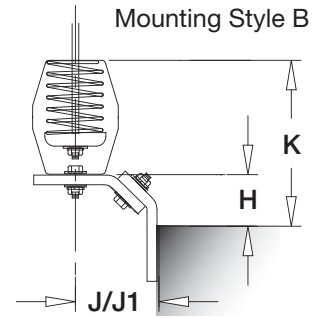
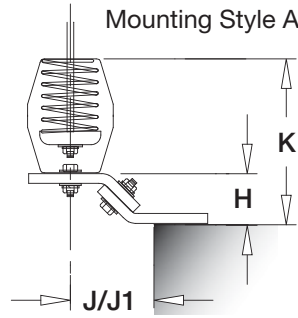
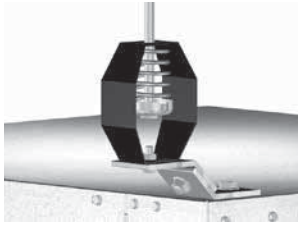


Isolator Dimensional Data					
Model	H	I	J	K	L
SQ 60-75					
SQ 80-95					
SQ 97-99					
BSQ 70-90	1 ³ / ₈	5 ¹ / ₂	2	6 ³ / ₄	2 ⁵ / ₁₆
SQ-BSQ 100	(35)	(140)	(51)	(171)	(59)
SQ-BSQ 120					
SQ-BSQ 130					
SQ-BSQ 140					
SQ-BSQ 160					
BSQ 180					
BSQ 200					
BSQ 240	1 ³ / ₈	5 ¹ / ₂	2	6 ³ / ₄	2 ⁵ / ₈
BSQ 300	(35)	(140)	(51)	(171)	(67)
BSQ 360					
BSQ 420					

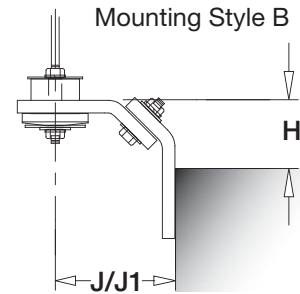
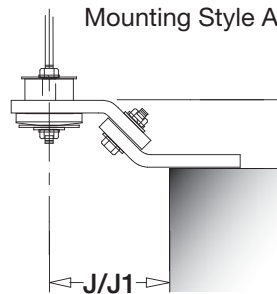
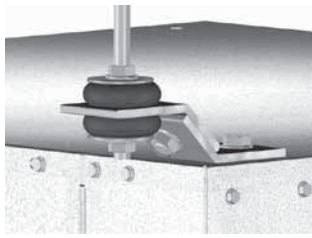
All dimensions in inches (millimeters).

Redesigned BSQ Dimensions

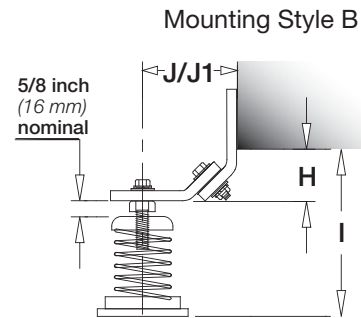
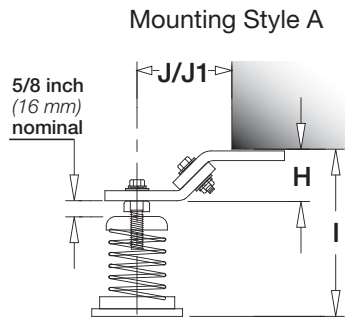
Hanging Spring Isolator



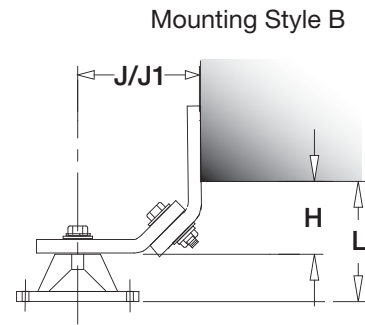
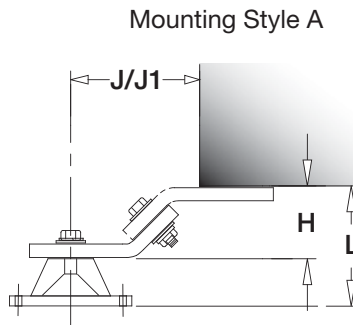
Hanging Neoprene Isolator



Standing Spring Isolator



Standing Neoprene Isolator



Isolator Dimensional Data

Model	H	I	J*	J1**	K	L
BSQ 70-90						
BSQ 100						
BSQ 120	1 $\frac{3}{8}$	5 $\frac{1}{2}$	1 $\frac{3}{8}$	2 $\frac{3}{8}$	6 $\frac{3}{4}$	2 $\frac{1}{3}$
BSQ 130	(35)	(140)	(35)	(60)	(171)	(59)
BSQ 140						
BSQ 160						
BSQ 180	1 $\frac{3}{8}$	5 $\frac{1}{2}$	1 $\frac{3}{8}$	2 $\frac{1}{2}$	6 $\frac{3}{4}$	2 $\frac{5}{8}$
BSQ 200	(35)	(140)	(35)	(64)	(171)	(67)
BSQ 240						

All dimensions in inches (millimeters).

*Use dimension J while utilizing Mounting Style A

**Use dimension J1 while utilizing Mounting Style B

Redesigned BSQ Dimensions

Duct Length: The inlet and outlet duct length should be approximately two to three wheel diameters long before and after the fan to achieve cataloged performance.

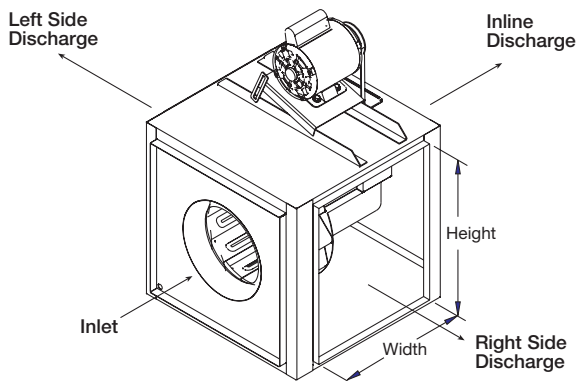


Figure 8

Side Discharge: Make sure discharge is orientated in the same direction as originally ordered, performance will change with different discharge positions. Refer to Figure 8 for proper side discharge definition and the Side Discharge chart for dimensions. Refer to the CAPS program or consult factory for performance corrections.

Side Discharge Duct Openings		
Unit Size	Width	Height
BSQ 70-100	12½ (317)	13⅞ (352)
BSQ 120	12½ (317)	15⅞ (403)
BSQ 130 (HP)	12½ (317)	17⅞ (454)
BSQ 140 (HP)	13½ (342)	19⅞ (505)
BSQ 160 (HP)	17½ (444)	22⅞ (581)
BSQ 180 (HP)	19½ (494)	23⅞ (606)
BSQ 200 (HP)	23½ (596)	27⅞ (708)
BSQ 240 (HP)	25½ (647)	34⅞ (886)

All dimensions in inches (millimeters).

Pre Start-Up Checks

1. **Check all fasteners for tightness.** The wheel should rotate freely and be aligned as shown in Figure 9. Wheel position is preset and the unit is tested at the factory. Movement may occur during shipment, and realignment may be necessary. Centering can be accomplished by loosening the bolts holding the inlet (venturi) panel and repositioning. Wheel and inlet cone overlap can be adjusted by loosening the setscrews in the wheel and moving the wheel to the desired position.

Wheel Overlap Dimensions

Model	G - Overlap in. (mm)	H - Gap in. (mm)
SQ 60-95	-	1/8 (3)
SQ 100-160	1/4 (6)	-
BSQ 70-160	1/4 (6)	-
BSQ 180-240	3/8 (10)	-
BSQ 300-420	1/2 (13)	-
SQ 97-98-99	1/4 (6)	-

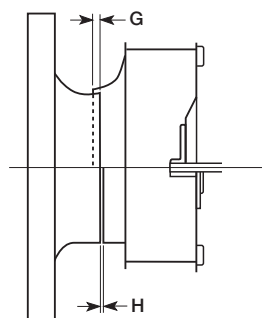


Figure 9

2. Wheel Rotation:

Direction of wheel rotation is critical. Reversed rotation will result in poor air performance, motor overloading and possible burnout. Check wheel rotation by momentarily energizing the unit (all SQ and BSQ fans

have clockwise wheel rotation when viewed from top of fan). Rotation should be clockwise as shown in Figure 10 and correspond to the rotation decal on the unit.

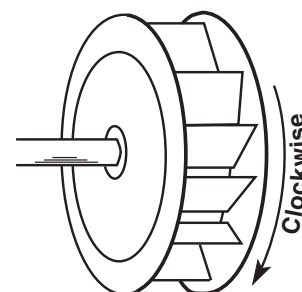


Figure 10

WARNING

Correct direction of wheel rotation is critical. Reversed rotation will result in poor air performance, motor overloading and possible burnout.

AVERTISSEMENT

La turbine doit impérativement tourner dans le bon sens. Une rotation en sens inverse entraînerait de mauvaises performances de soufflage, une surcharge du moteur voire un grillage du moteur.

3. **Vibration Isolators:** After fan is moved to desired location, punch out the four knockout holes which are located on the unit top and bottom panels. Assemble the brackets to the unit according to the appropriate drawings on pages 8 and 9 and refer to respective parts list on page 15. Make certain all connectors are tight and that all washers are in.
4. **For BSQ Fans:** If adjustments are made, it is very important to check the pulleys for proper alignment. Misaligned pulleys lead to excessive belt wear, vibration, noise, and power loss. (see Figure 11 on next page).

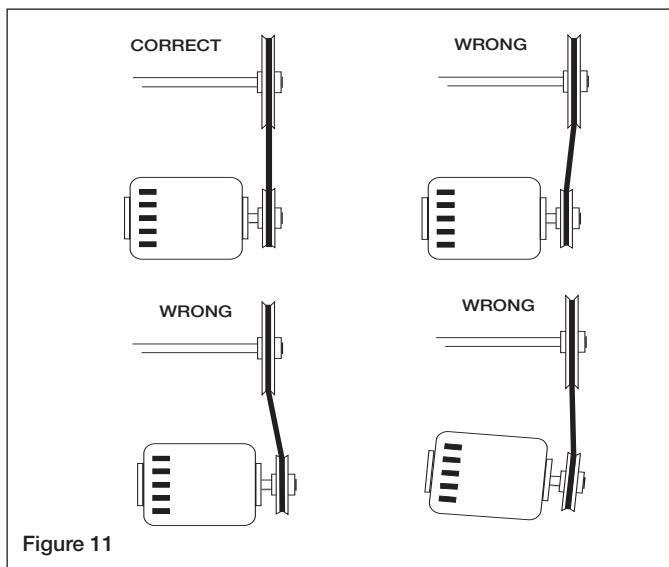


Figure 11

5. **For BSQ Fans:** Belt tension can be adjusted by loosening four fasteners marked “R” on the drive frame. (refer to Figure 13). The motor plate slides on the slotted adjusting arms. Belt tension should be adjusted to allow 1/64 inch of deflection per inch of belt span. For example, a 15 inch belt span should have 15/64 inch (or about 1/4 inch) of deflection with moderate thumb pressure at mid-point between pulleys (see Figure 12). Over-tightening will cause excessive bearing wear and noise. Too little tension will cause slippage at start-up and uneven wear.

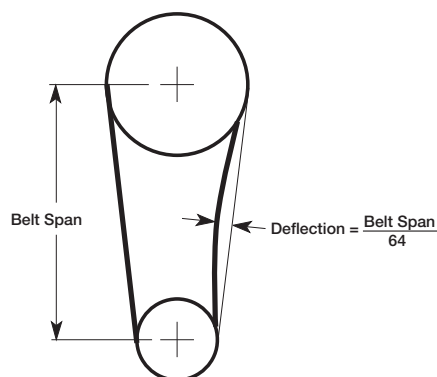


Figure 12

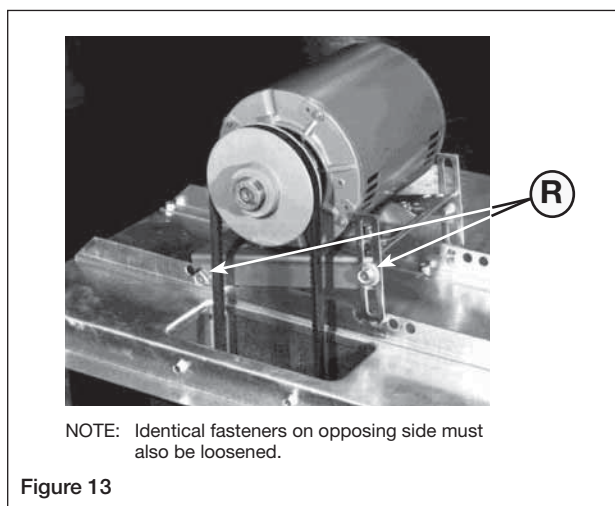


Figure 13

6. The adjustable motor pulley is factory set for the RPM specified. Speed can be increased by closing or decreased by opening the adjustable motor sheave. Two groove variable pitch pulleys must be adjusted an equal number of turns open or closed. Any increase in speed represents a substantial increase in the horsepower required by a unit. Motor amperage should always be checked to avoid serious damage to the motor when speed is varied.

IMPORTANT

The fan has been checked for mechanical noises at the factory prior to shipment. If mechanical noise should develop, suggested corrective actions are offered in the Troubleshooting section.

IMPORTANT

Over-tightening will cause excessive bearing wear and noise. Too little tension will cause slippage at start-up and uneven wear.

IMPORTANT

Adjust (tighten) belt tension after the first 24-48 hours of operation.

Operation: SQ / BSQ

1. Before starting up or operating fan, check all fasteners for tightness. In particular, check the setscrews in wheel hub (and pulleys, if applicable).
2. While in the OFF position or before connecting the fan to power, turn the fan wheel by hand to be sure it is not striking the venturi or any obstacle.
3. Start the fan and shut it off immediately to check rotation of the wheel with directional arrow in the motor compartment, see Figure 10.
4. When the fan is started, observe the operation and check for any unusual noises.
5. With the system in full operation and all ductwork attached, measure current input to the motor and compare with the nameplate rating to determine if the motor is operating under safe load conditions.
6. Keep inlets and approaches to fan clean and free from obstruction.

Inspection: SQ / BSQ

Inspection of the fan should be conducted at the first 30 minute and 24 hour intervals of satisfactory operation.

30 Minute Interval

Inspect bolts, setscrews and motor mounting bolts. Adjust and tighten as necessary.

24 Hour Interval

Check all internal components. On BSQ unit only, inspect belt alignment and tension. Adjust and tighten as necessary.

Maintenance: SQ / BSQ

Installation and maintenance are to be performed only by qualified personnel who are familiar with local codes and regulations and who are experienced with this type of equipment.

Motor maintenance is generally limited to cleaning and lubrication (where applicable). Cleaning should be limited to exterior surfaces only. Removing dust buildup on motor housing ensures proper motor cooling.

Greasing of motors is only intended when fittings are provided. Many fractional horsepower motors are permanently lubricated and should not be lubricated after installation. Motors supplied with grease fittings should be greased in accordance with manufacturers' recommendations. Where motor temperatures do not exceed 104°F (40°C), the grease should be replaced after 2,000 hours of running time as a general rule.

Wheels require very little attention when moving clean air. Occasionally, oil and dust may accumulate causing imbalance. When this occurs the wheel and housing should be cleaned to ensure smooth and safe operation.

All fasteners should be checked for tightness each time maintenance checks are performed prior to restarting unit.

A proper maintenance program will help these units deliver years of dependable service.

DANGER

Always disconnect, lock and tag power source before servicing. Failure to disconnect power source can result in fire, shock or serious injury.

DANGER

Pour écarter les risques d'incendie, de choc électrique ou de blessure grave, veiller à toujours débrancher, verrouiller et étiqueter la source de courant avant l'installation ou l'entretien.

IMPORTANT

Uneven cleaning of the wheel will produce an out of balance condition that will cause vibration in the fan.

WARNING

This unit should be made non-functional when cleaning the wheel or housing (fuses removed, disconnect locked off).

WARNING

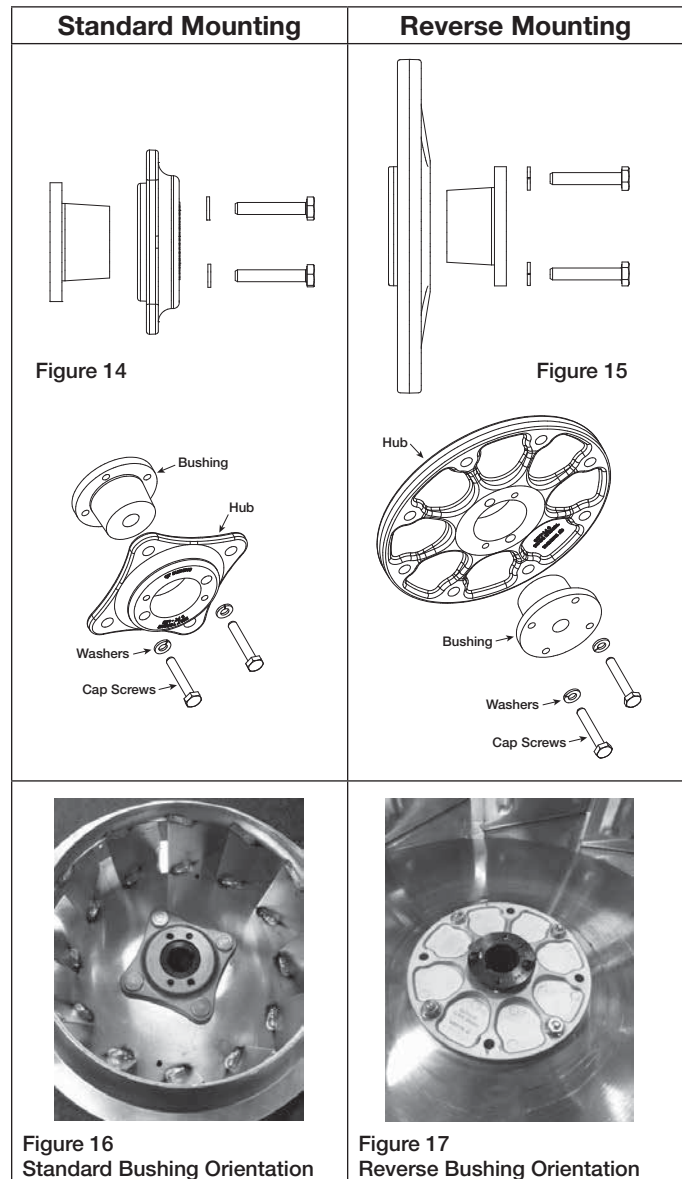
L'appareil doit être rendu non opérationnel lors du nettoyage de la turbine ou du caisson (fusibles retirés, sectionneur verrouillé).

Tapered Bushing Hub Installation and Removal

For wheel hubs and shaft pulleys utilizing a tapered bushing interface, follow this procedure for installation and removal. There are two possible set ups for the tapered bushing, both have the same procedure, but orientation of the hub varies.

Tapered Bushing Removal:

1. If present, loosen the setscrew holding the bushing and shaft key in place.
2. Loosen and remove the socket head cap screws which fasten the bushing to the hub as shown in the section views and examples of Figures 14-17.



3. **Standard Mounting** - Take the two socket head cap screws that were removed and install them into the visibly threaded holes on the wheel hub.
Reverse Mounting - Install the two socket head cap screws into the visibly threaded holes of the bushing flange.
4. Once both socket head cap screws are installed, tighten them an eighth of a turn at a time, alternating between the two until the hub comes loose from the bushing.

Bushing Installation:

1. Clean all surfaces of hub and bushing to remove any oil or residue present and do not use any lubricant to install bushing into the hub. For both standard and reverse mounting styles, the socket head cap screws are adjustable from the inlet of the fan.
2. **Standard Mounting:** Slide the bushing and shaft key onto the fan shaft followed by the wheel and hub assembly. If present, use the keyway setscrew to hold the shaft key and bushing in place but DO NOT overtighten as this can damage the bushing. Align the unthreaded holes of the hub with the threaded holes of the tapered bushing.
Reverse Mounting: Slide the wheel and hub assembly onto the fans shaft followed by the bushing and shaft key. If present, use the keyway setscrew to hold the shaft key and bushing in place but DO NOT overtighten as this can damage the bushing. Align the unthreaded holes of the tapered bushing with the threaded holes of the hub.
3. Install the two bushing socket head cap screws into the aligned holes by hand (or without excessive torque) until the heads of the socket head cap screws are seated against the mating surface.
4. Adjust the height of the wheel in the fan relative to the inlet venturi then tighten the two socket head cap screws an eighth turn at a time in an alternating fashion and to a torque of 10 ft-lbs.

Belt/Bearing Maintenance BSQ Unit

1. Belts tend to stretch after a period of time. They should be checked periodically for wear and tightness. When replacing belts, use the same type as supplied with the unit.
2. Matched belts should always be used on units with multi-groove pulleys.
3. For belt replacement, loosen the tensioning device enough to allow removal of the belt by hand. Do not force belts on or off. This may cause cords to break, leading to premature belt failure.
4. Once installed, adjust belts as shown in "Pre-Start-Up Checks."

5. Shaft bearings can be classified in two groups: relubricating and non-relubricating. All bearings on standard model BSQ fans are factory lubricated and require no further lubrication under normal use (between -20°F and 180°F (-29°C and 82°C) in a relatively clean environment).
6. Units installed in hot, humid or dirty locations should be equipped with special bearings. These bearings will require frequent lubrication. Caution should be employed to prevent overpacking or contamination.
7. Grease fittings should be wiped clean. The unit should be in operation while lubricating. Extreme care should be used around moving parts.
8. Grease should be pumped in very slowly until a slight bead forms around the seal. A high grade lithium base grease should be used.

Recommended Relubrication Frequency in Months

NOTE: If unusual environment conditions exist (extreme temperature, moisture or contaminants) more frequent lubrication is required.

A good quality lithium base grease, conforming to NLGI Grade 2 consistency, such as those listed here may be used.

Suggested Fan Bearing Greasing Intervals	
Interval (months)	Type of Service
1 to 3	Heavy duty in dirty, dusty locations; high ambient temperatures; moisture laden atmosphere; vibration.
3 to 6	12 to 24 hours per day, heavy duty, or if moisture is present
6 to 12	8 to 16 hours per day in clean, relatively dry atmosphere
12 to 18	Infrequent operation or light duty in clean atmosphere

Grease Manufacturers	
Manufacturer	Grease (NLGI #2)
U.S. Electric Motors	Grease No. 83343
Chevron U.S.A. Inc	Chevron SRI Grease #2
Mobil Oil Corporation	Mobilith
	Mobil 532
Texaco, Inc.	Premium BRB #2
	Texaco Multifak #2
Amoco Oil Co.	Rykon Premium #2
Exxon	Unirex N2
Shell	B Shell Alvania #2

Parts List

Each fan bears a manufacturer's nameplate with model number and serial number embossed. This information will assist the local Greenheck representative and the factory in providing service and replacement parts. Before taking any corrective action, make certain unit is not capable of operation during repairs.

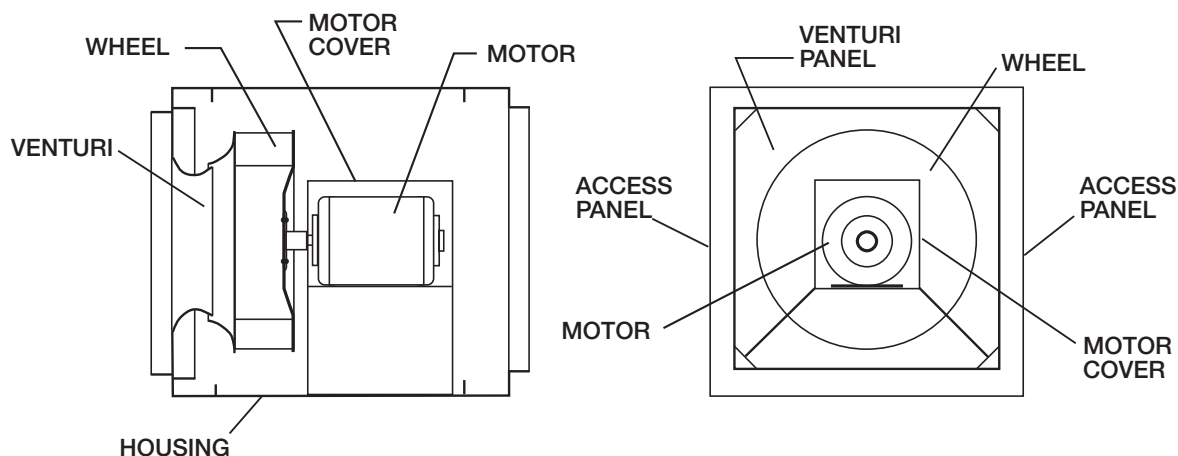
CAUTION

A fan manufactured with an explosion resistant motor does not certify the entire unit to be explosion proof. Refer to UL Listing Mark for the fans approved usage.

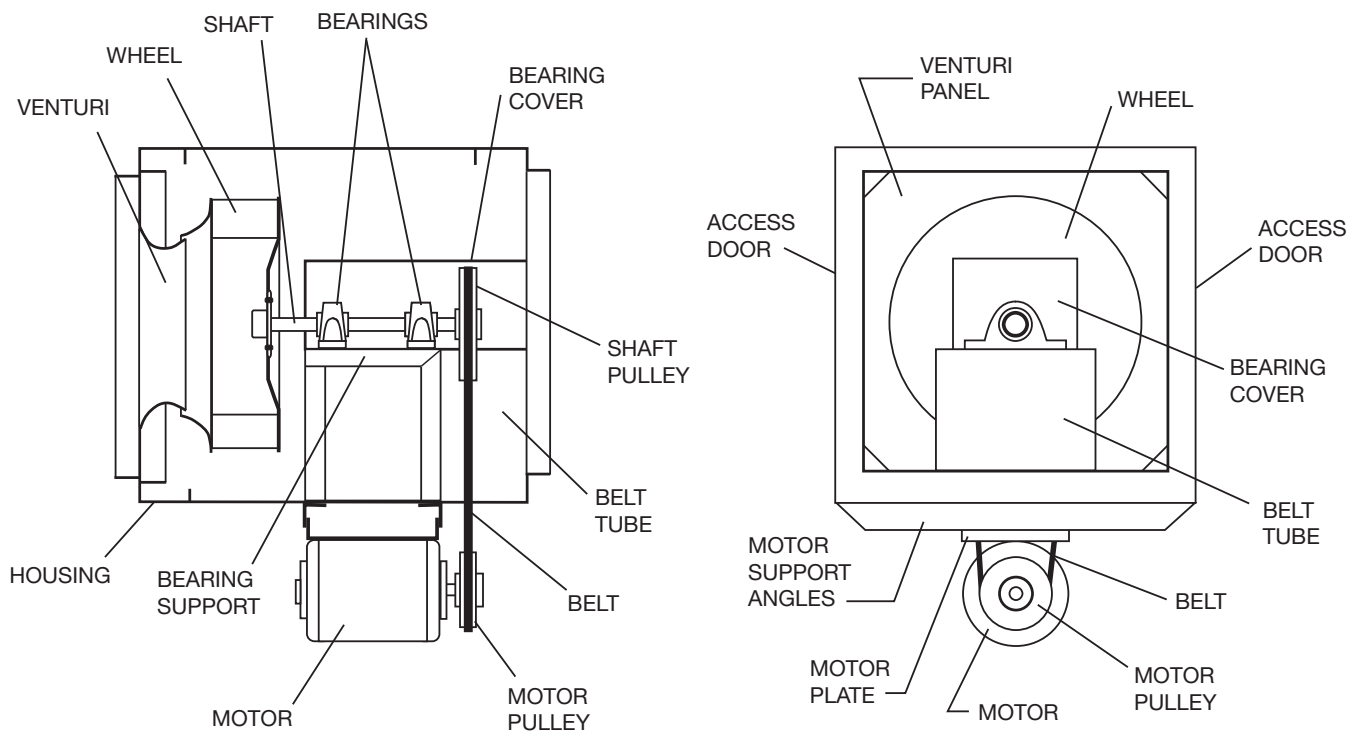
CAUTION

La présence d'un moteur antidéflagrant sur un ventilateur ne garantit pas que tout l'appareil est antidéflagrant. Pour connaître les emplois autorisés de l'appareil, voir son marquage de conformité UL.

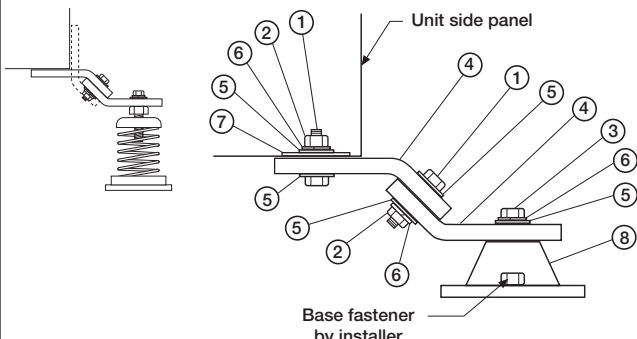
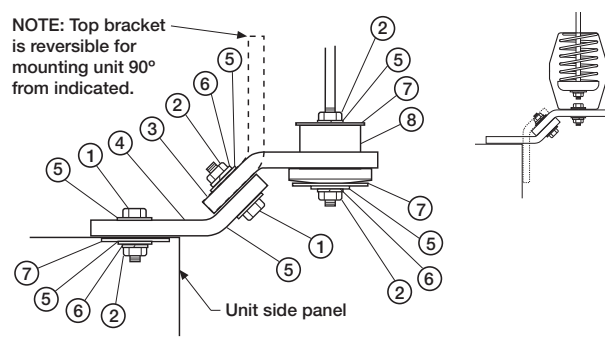
SQ Direct Drive Centrifugal Inline Exhaust Fan



BSQ Belt Drive Centrifugal Inline Exhaust Fan



Isolator Parts List

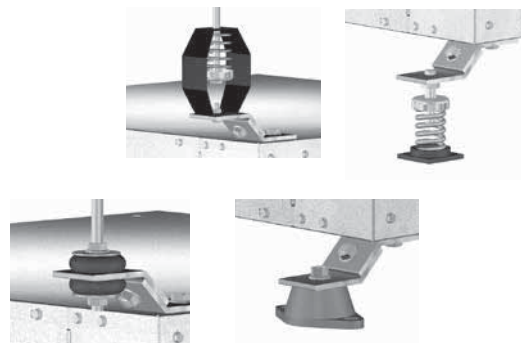
STANDING SUPPORT ISOLATOR					HANGING SUPPORT ISOLATOR				
					NOTE: Top bracket is reversible for mounting unit 90° from indicated. 				
No.	Qty.	Description	SQ-60 thru 140 BSQ-100 thru 140	SQ-160 BSQ-160 thru 420	No.	Qty.	Description	SQ-60 thru 140 BSQ-100 thru 140	SQ-160 BSQ-160 thru 420
1	8	Cadium plated hex head bolts	3/8 in. - 16 x 1 in.	3/8 in.-16 x 1 1/4 in.	1	8	Cadium plated hex head bolts	3/8 in. - 16 x 1 in.	3/8 in.-16 x 1 1/4 in.
2	8	Cadium plated hex nuts	3/8 in. - 16	3/8 in. - 16	2	16	Cadium plated hex nuts	3/8 in. - 16	3/8 in. - 16
3	4	Cadium plated hex head bolts	5/16 in. - 18 x 1 in.	3/8 in. - 16 x 1 in.	3	4	Std. mount bracket with (1) 1/4 in. hole	3/16 in.	1/4 in.
4	8	Std. mount bracket with (2) 7/16 in. holes	3/16 in.	1/4 in.	4	4	Std. mount bracket with (2) 7/16 in. holes	3/16 in.	1/4 in.
5	20	Cadium plated washer	7/8 in. O.D. x 3/8 in. I.D. x 1/16 in.	7/8 in. O.D. x 3/8 in. I.D. x 1/16 in.	5	24	Cadium plated washer	7/8 in. O.D. x 3/8 in. I.D. x 1/16 in.	7/8 in. O.D. x 3/8 in. I.D. x 1/16 in.
6	12	Cadium plated lock washer	3/8 in.	3/8 in.	6	12	Cadium plated lock washer	3/8 in.	3/8 in.
7	4	Cadium plated washer	1 3/8 in. O.D. x 9/16 in. I.D. x 3/32 in.	1 3/8 in. O.D. x 9/16 in. I.D. x 3/32 in.	7	12	Cadium plated washer	1 3/8 in. O.D. x 9/16 in. I.D. x 3/32 in.	1 3/8 in. O.D. x 9/16 in. I.D. x 3/32 in.
8	4	Neoprene or Spring Isolator	Reference appropriate table below for replacement Isolator(s)		8	4	Neoprene or Spring Isolator	Reference appropriate table below for replacement Isolator(s)	

REPLACEMENT SPRING ISOLATOR(S)

MODEL	FAN SIZES					
BSQ	----	70-130	140-180	200	240-300	360-420
SQ	60-100	120-140	160	----	----	----
BASE MOUNT	FDS-1-35 BLUE	FDS-1-70 GREEN	FDS 1-120 GRAY	FDS 1-120 GRAY	FDS-1-220 BROWN	FDS-1-370 ORANGE
HANGING	SH-1-35 BLUE	SH-1-70 GREEN	SH-1-125 GRAY	SH-1-245 BROWN	SH-1-245 BROWN	SH-1-370 ORANGE

REPLACEMENT NEOPRENE ISOLATOR(S)

MODEL	FAN SIZE		
BSQ	70-140	160-200	240-420
SQ	60-140	160	----
BASE MOUNT	R-1 GREEN	R-2 BLACK	R-2 RED
HANGING	40DUR BLACK	50DUR BLACK	50DUR BLACK



Troubleshooting

WARNING

Before taking any corrective action, make certain unit is not capable of operation during repairs.

AVERTISSEMENT

Avant d'entreprendre toute action corrective, s'assurer que l'appareil ne pourra pas fonctionner durant les réparations.

PROBLEM	CAUSE	CORRECTIVE ACTION
Excessive noise or vibration	Wheel unbalance	Clean all dirt off wheel. Check wheel balance, rebalance in place if necessary.
	Bad bearings	Replace.
	Belts too tight or too loose	Adjust tension, see Figure 12.
	Wheel improperly aligned and rubbing	Center wheel on inlet, see Figure 9.
	Loose drive or motor pulleys	Align and tighten. See "Pre Start-Up Checks", see pages 10-11.
	Foreign objects in wheel or housing	Remove objects, check for damage or unbalance.
Reduced airflow	System resistance too high	Check system: Proper operation of backdraft or control dampers, obstruction in ductwork, clean dirty filters.
	Unit running backwards	Correct as shown in Figure 10.
	Excessive dirt buildup on wheels	Clean wheel.
	Improper wheel alignment	Center wheel on inlets, see Pre Start-Up Checks and Figure 9.

Our Commitment

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

Specific Greenheck product warranties are located on greenheck.com within the product area tabs and in the Library under Warranty.

Greenheck's Centrifugal Inline Fans catalog, Models SQ and BSQ provides additional information describing the equipment, fan performance, available accessories, and specification data.

AMCA Publication 410-96, Safety Practices for Users and Installers of Industrial and Commercial Fans, provides additional safety information. This publication can be obtained from AMCA International, Inc. at www.amca.org.

