



CROMWELL

SUBMITTAL REVIEW FORM

1300 East 6th Street
LITTLE ROCK, AR 72202
PHONE: 501-372-2900
FAX: 501-372-0482

Reviewing is only for conformance with the design concepts of the Project and compliance with the information given in the contract documents. The Contractor is responsible for dimensions to be confirmed or correlated at the site; for information that pertains solely to the fabrication process, or to the means, methods, techniques, sequences, and procedures of construction; and for coordination of the work of all other trades

JOB TITLE: Eagle Picher - Joplin

JOB NO: 2024-004

SUBMITTAL NO: 23 07 13 Admin- HVAC - Insulation

Refrigeration Piping MISC

BY: Jesus Padilla, PE

DATE: 02-24-2025

Item No.	Description (See contractor transmittal for corresponding description)	No Exception Taken	Make Corrections Noted	Revise and Resubmit	Not Accepted	Comments
1.	Duct Insulation - Interior	X				
2.	Duct Insulation - Exterior	X				
3.	HVAC Piping Insulation - Interior	X				
4.	HVAC Piping Insulation - Exterior	X				
5.	Refrigerant Piping	X				
6.	HVAC Ducts & Casings	X				
7.	Air Duct Accessories	X				
8.	HVAC Power Ventilators	X				
9.	Air Terminal Units		X	X		1. Revise airflows for air terminal VAV2-6 for 310 Max CFM and 93 Min CFM as indicated on sheet M-601-A. Min SP shall also be revised to 0.24 in. wc.
10.	Air outlets & Inlets		X	X		1. Submit sound canopy equal to Price RAC as indicated on return grilles on sheet M-101-A.



Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 2/4/2025

Return Request: 2/14/2025

Project: City Of Sherwood Public Works (Administration Building)

Supplier: Airetech

Manufacturer: Greenheck

Submittal: HVAC Power Ventilators

Submittal Number: 23 34 23-01

Drawing # and Installation: Mechanical Drawings

ARCHITECT

Cromwell
1300 East 6th Street
Little Rock, AR 72202
501-372-2900

ENGINEER

Cromwell
1300 East 6th Street
Little Rock, AR 72202
501-372-2900

GENERAL CONTRACTOR

Baldwin & Shell
1000 W. Capitol Ave.
Little Rock, AR 72201
501-374-8677

MECHANICAL SUBCONTRACTOR

Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

--

CSUSA PROJECT NO.

24-6084

sean@comfortar.com

9924 Landers Rd.
No. Little Rock, AR 72117



SUBMITTAL DATA

EQUIPMENT: Greenheck Exhaust Fans & Vehicle Exhaust Fans

TAGS: Administration Building (EF-1 & 2)
Maintenance and Operations Building
(EF-1 thru 5 and VEF-1 thru 4)
Wash Bay (EF-1)

PROJECT: City of Sherwood Public Works Facilities

LOCATION: Sherwood, Arkansas

ENGINEER:



CONTRACTOR:



DATE: 12/10/2024

SUBMITTED BY: Forrest Moseley
forrest@airetechcorp.com

ENGINEER CONTACT: Nick Moore

Model: SQ-120

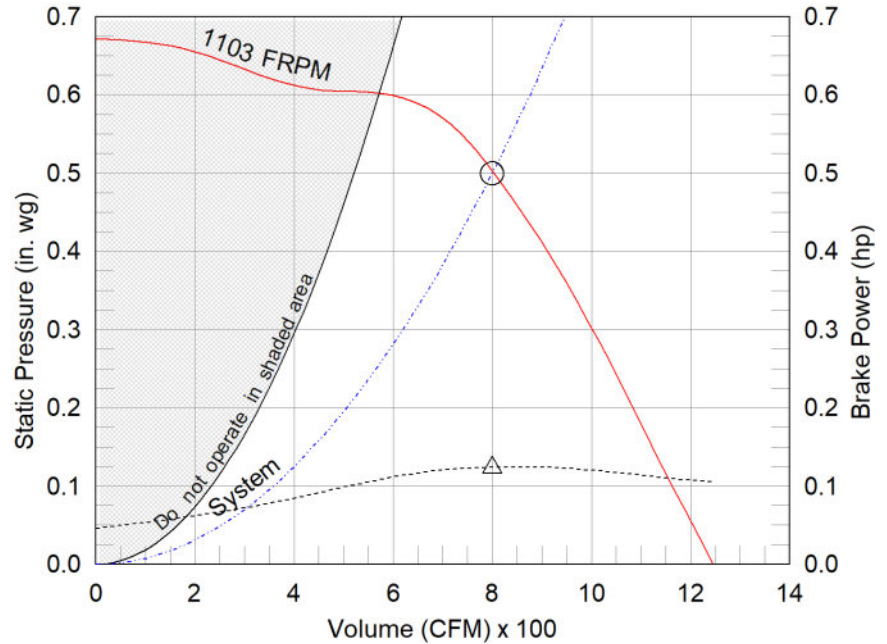
Direct Drive Centrifugal Inline Fan

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	55
Weight w/ Acc's (lb)	76
Max T Motor Frame Size	56
Optional Damper (in.)	16 x 16

Performance	
Requested Volume (CFM)	800
Actual Volume (CFM)	800
Total External SP (in. wg)	0.5
Fan RPM	1103
Operating Power (hp)	0.12
Elevation (ft)	256
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.074
Tip Speed (ft/min)	3,789
Static Eff. (%)	51

Misc Fan Data	
Fan Energy Index (FEI)	-
Outlet Velocity (ft/min)	465

Motor	
Motor Mounted	Yes
Size (hp)	1/6
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP
Motor RPM	1140
Windings	1
Short Circuit Current Rtg (SCCR)	5 kA



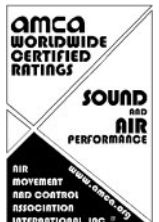
Nameplate Model: SQ-120-X

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	66	64	63	62	55	51	46	41	62	50	5.4
Radiated	67	65	57	56	50	45	41	37	57	46	4.1

Notes:

All dimensions shown are in units of in.
*Please consult factory for actual motor amp draw
LwA - A weighted sound power level, based on ANSI S1.4
dBA - A weighted sound pressure level, based on 11.5 dB
attenuation per Octave band at 5 ft - dBA levels are not
licensed by AMCA International
Sones - calculated using AMCA 301 at 5 ft



Model: SQ-120

Direct Drive Centrifugal Inline Fan

Greenheck model SQ Mixed Flow meets or exceeds legacy centrifugal models SQ/BSQ in performance and features. SQ Mixed flow is an approved equal and can be considered a direct replacement for these models.

Standard Construction Features:

- Galvanized steel housing - Backward inclined composite (sizes 60-95) or aluminum (sizes 97-160) wheel - Two bolted access panels - Integral duct connection flanges - Ball bearing motors (sizes 97-160 and all vari-green motors), sleeve bearing motors (sizes 60-95) - Corrosion resistant fasteners

Selected Options & Accessories:

PSC Motor

Provided motor meets the motor efficiency requirements set forth in 2024 Title 24/California

UL/cUL 705 Listed - "Power Ventilators"

Junction Box Mounted and Wired

Switch, NEMA-1, Toggle, Shipped Separate

Aluminum Centrifugal Wheel

Motor Cover

Fan: Spring, Hanging, 1 Inch Isolator PN: 850343, Incl. 4 isolators and 4 brackets

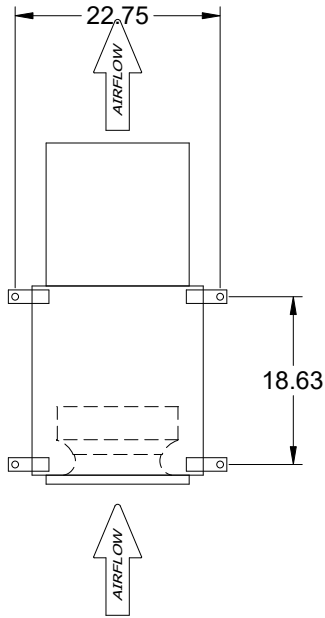
Solid State Speed Control, 6 Amp, Shipped Loose

Damper Shipped Loose, Inline, BD-330-PB-16X16, Gravity Operated, Not Coated

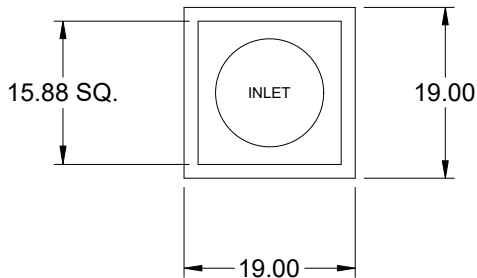
Unit Warranty: 1 Yr (Standard)

SQ-120

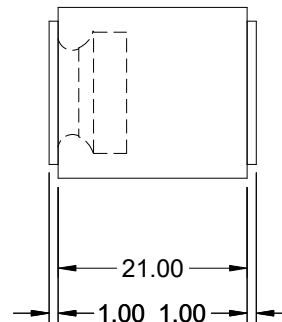
Direct Drive Centrifugal Inline Fan



TOP VIEW



END VIEW



SIDE VIEW

Notes: All dimensions shown are in units of in.

Disconnect Switch

Enclosure Rating: NEMA-1

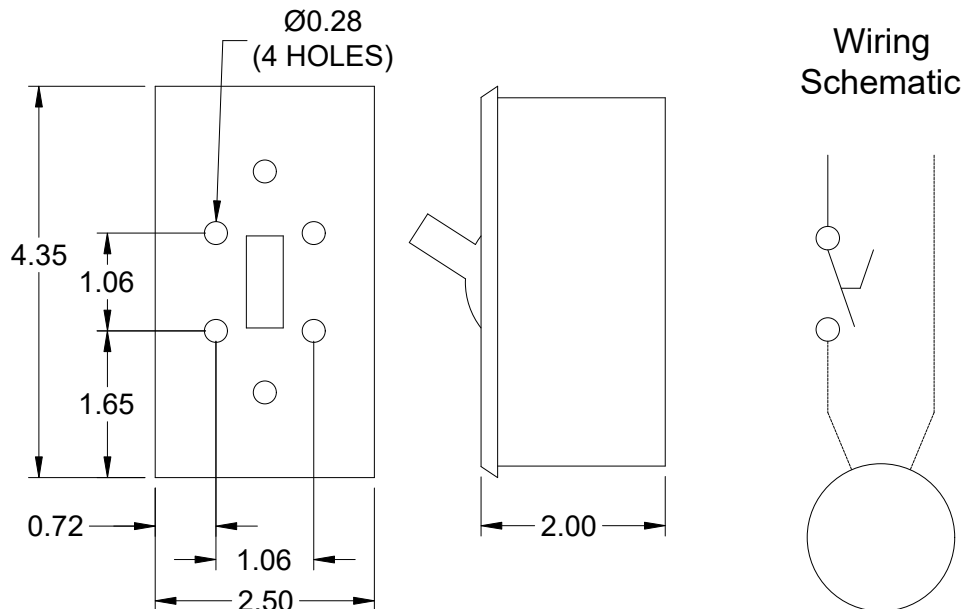
Standard Construction Features:

Enclosure constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment and to provide a degree of protection against falling dust. This enclosure meets the rod entry and the indoor corrosion protection design tests. The rod entry test is intended to simulate incidental contact with enclosure equipment. Enclosure is equipped with provision to lockout in the off position with customer supplied lock.

Disconnect Switch Configuration

Type:	Toggle	Motor Size:	1/6 hp	Voltage:	115	UL Listed:	Yes
Manufacturer:	Pass and Seymour	Cycle:	60	Amperage:	15	CSA Approved:	Yes
Overload Protection:	None	Phase:	1	Switch Pole(s):	1	Rating:	1/2 hp
Junction Box Mtg.:	Ship Separate	RPM:	1140	Exp. Resist. Wiring:	None		
Switch Mounting:	Shipped Separate						

Electrical Drawing Details



Notes: All dimensions shown are in units of in.

Vertical Mount Exhaust Damper

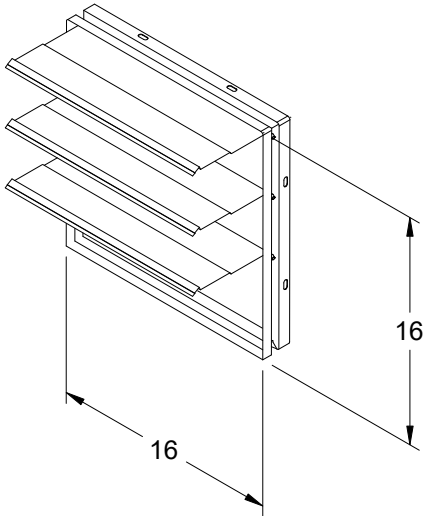
Model: BD-330

Standard Construction Features:

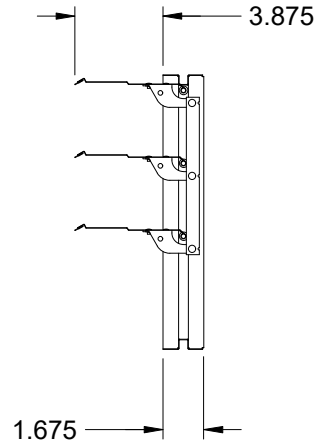
- Model BD-330 is a vertical mount exhaust damper and is constructed of 24 ga galvanized steel with pre-punched mounting holes - Damper blades are 0.016 in. roll formed aluminum with vinyl seals on the closing edge - Axle/bearing is constructed of fiberglass reinforced nylon



Greenheck Fan Corporation certifies that the models BD-300, 320, and 330 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance Ratings.



DAMPER



TYP. SECTION VIEW

Notes: All dimensions shown are in units of in.

Fan Isolator

Type: Spring, Hanging, 1 Inch

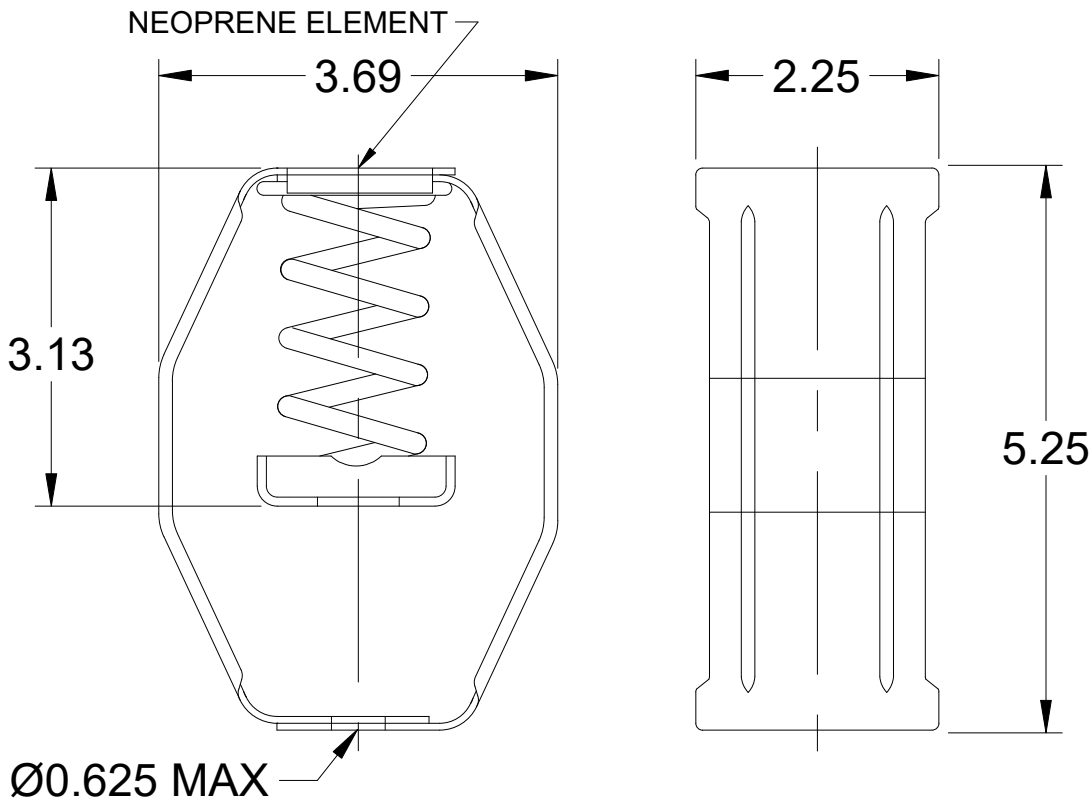
Standard Construction Features:

The spring hanging isolator is designed to reduce the transmission of vibration and noise produced by suspended equipment and piping. To assure stability, the spring element has a minimum lateral stiffness of 1.0 times the rated vertical stiffness. The hanger will allow a support rod misalignment through a 30 degree arc and the isolation brackets will carry a 500% overload without failure. The isolator has an epoxy powder coated bracket and spring coil which is color coded according to the load capacity and has a noise isolation pad, all which is assembled into a stamped or welded hanger bracket. This part number includes 4 isolators.

Isolator Configuration

Description:	SH-1-35	Color:	Blue
Manufacturer:	Kinetics Noise Control	Mounting:	Hanging
Load Capacity:	35 lb	Kit Part Number:	850343
Deflection at Full Load:	1.52	Selection Deflection (in.):	0.6

Spring, Hanging, 1 Inch Deflection - Vibration Isolator



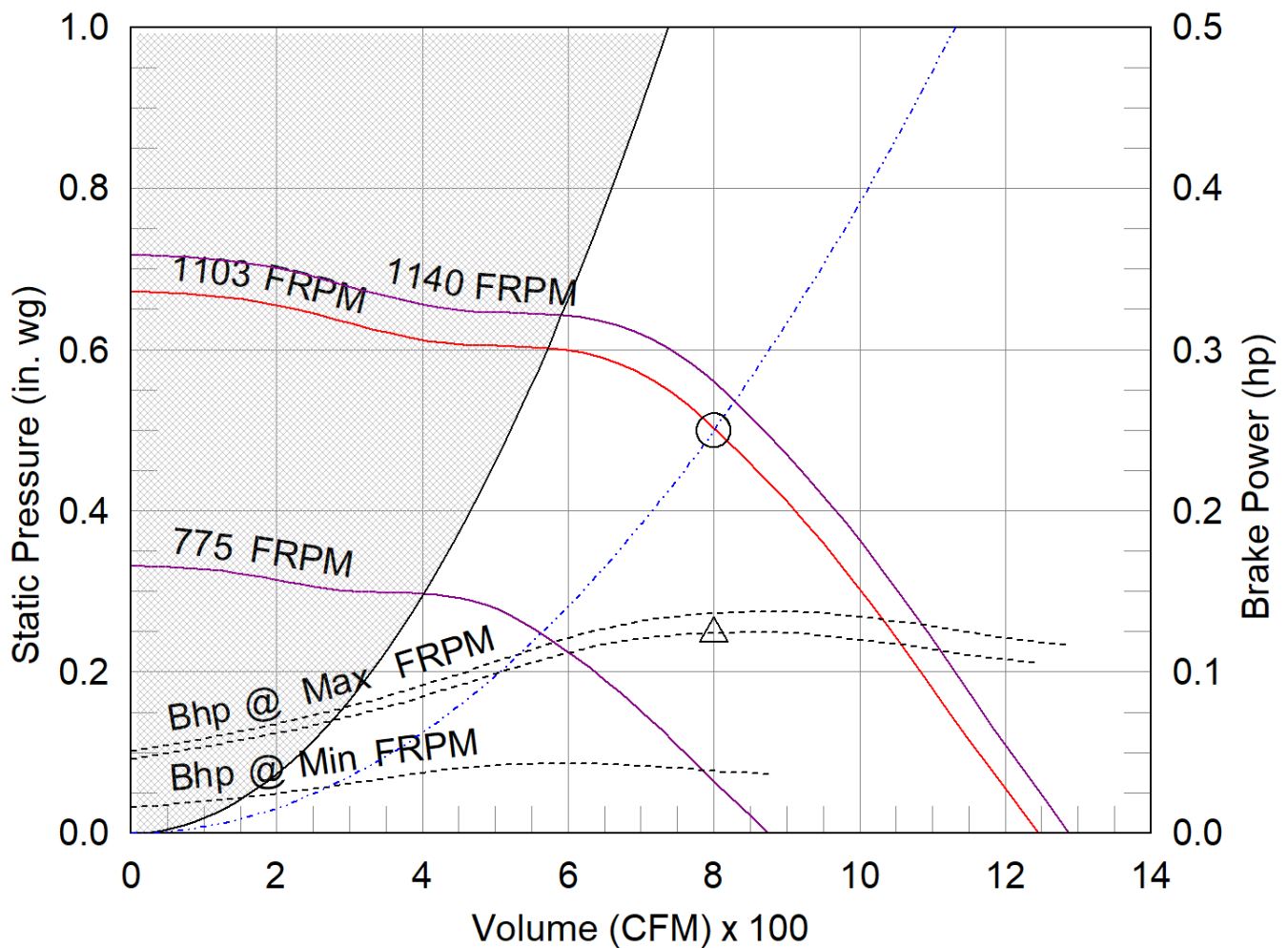
Notes: All dimensions shown are in units of in.

SQ-120

Min/Max Fan Curve

Performance

Requested Volume (CFM)	Actual Volume (CFM)	Total External SP (in. wg)	Fan RPM	Operating Power (hp)
800	800	0.5	1103	0.12



- △ Operating Bhp point
- Operating point at Total External SP
- Construction Limit
- Fan curve
- Min FRPM
- System curve
- Brake horsepower curve

Warranty

1 Yr (Standard)

WARRANTY AND LIABILITY: SELLER warrants to Buyer that products manufactured are free from defects in material and workmanship for a period of 1 Yr (Standard) from the date of shipment. SELLER's obligations and liabilities under this warranty are limited to furnishing FOB factory or warehouse at SELLER's designated shipping point, freight allowed to Buyer's city, (or point of export for shipments outside the conterminous United States) replacement equipment (or at the option of SELLER parts therefore) for all Seller's products not conforming to this warranty and which have been returned to the manufacturer. No liability whatever shall attach to SELLER until said products have been paid for and such liability shall be strictly limited to the purchase price of the equipment shown to be defective. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by SELLER prove defective during this period, they should be returned to the nearest authorized motor service station. SELLER will not be responsible for any removal or installation costs. Electrical components, excluding motors, are warranted only to the extent warranted by the original manufacturer. To the extent that SELLER is entitled to pass through a warranty of the original equipment manufacturer of the electrical goods sold, SELLER will pass through such warranties to Buyer. The legal remedies described in this Warranty are the sole exclusive remedy of Buyer. SELLER MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED, REGARDING ITS PRODUCTS, OR ITS SELECTION AND APPLICATION, INCLUDING, BUT NOT LIMITED TO, COMPLIANCE WITH BUILDING CODES, SAFETY CODES, LAWS, MERCHANTABILITY OR FITNESS OR A PARTICULAR PURPOSE. This warranty is extended solely to the Buyer. It is nontransferable and non-assignable, and the Buyer shall not permit or authorize its employees, agents, representatives or customers to claim, represent or imply that this limited warranty extends or is available to anyone other than the Buyer. ANY MISUSE, NEGLIGENCE, FAILURE TO FOLLOW INSTRUCTIONS OR MANUALS OF INSTALLATION OF MAINTENANCE REPAIR, SERVICE, RELOCATION OR ALTERATION TO OR OF, OR OTHER TAMPERING WITH, THE PRODUCTS PERFORMED BY ANY PERSON OR ENTITY OTHER THAN SELLER WITHOUT SELLER'S PRIOR WRITTEN APPROVAL OR ANY USE OF REPLACEMENT PARTS NOT SUPPLIED BY SELLER, SHALL IMMEDIATELY VOID AND CANCEL ALL WARRANTIES WITH RESPECT TO THE AFFECTED PRODUCTS. THE WARRANTY AND LIABILITY SET FORTH HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES AND LIABILITIES WHETHER IN CONTRACT OR IN NEGLIGENCE, EXPRESSED OR IMPLIED, IN LAW OR IN FACT, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. SELLER PROVIDES NO INDEPENDENT WARRANTY FOR THIRD PARTY PRODUCTS OR COMPONENTS SOLD TOGETHER OR INCORPORATED WITH SELLER'S PRODUCT(S). THE SELLER HAS THE RIGHT TO SETTLE ANY AND ALL DISPUTES REGARDING THE WARRANTY.

Model: SP-B80

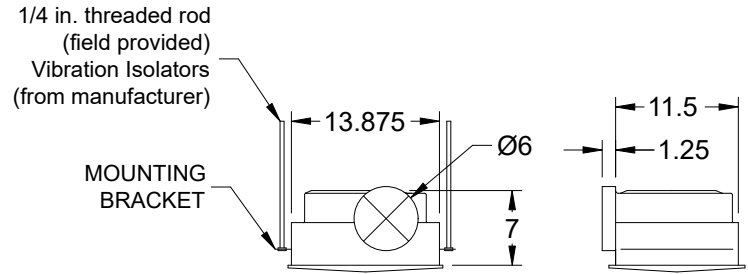
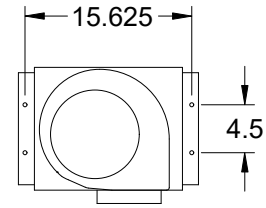
Ceiling Exhaust Fan

Standard Construction Features:

- Corrosion resistant galvanized steel scroll and housing - White designer non-yellowing grille - Round outlet duct collar with integral backdraft damper - Single inlet forward curved wheel - Plug type disconnect - Adjustable mounting brackets

Selected Options & Accessories:

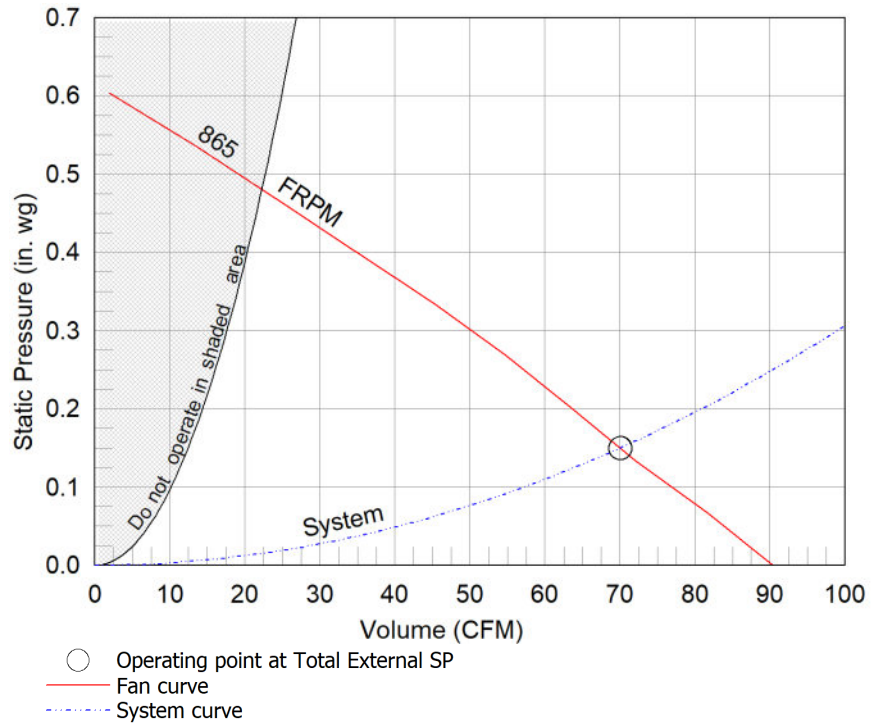
Motor rated for continuous use
Motor with Thermal Overload
Motor with CSA Approval
Motor with 40 Degree C Ambient Temperature
UL/cUL 507 Listed - Electric Fan
Solid State Speed Control, 6 Amp, Mounted and Wired Internally
Round Duct Connection
Isolation Kit, (PN: VI KIT-SP/CSP), Shipped Loose
Adjustable easy installation mounting bracket
Aluminum Grille, (PN: 486006) Shipped Loose
Polypropylene Wheel Material
Can Be Used to Comply with: ASHRAE 62.2, California Title 24, and Washington State Energy Code



Dimensional	
Quantity	1
Weight w/o Acc's (lb)	9
Weight w/ Acc's (lb)	12

Performance	
Requested Volume (CFM)	70
Actual Volume (CFM)	70
Total External SP (in. wg)	0.15
Fan RPM	865
* FLA (A)	0.16
Elevation (ft)	256
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.074
Sones	0.5

Motor	
Motor Mounted	Yes
** Input Watts (W)	16
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP



Notes:

All dimensions shown are in units of in.
*FLA is approximate and will vary slightly with the motor.
Sones - calculated using AMCA 301 at 5 ft
** Wattage is approximate and may vary between motors.

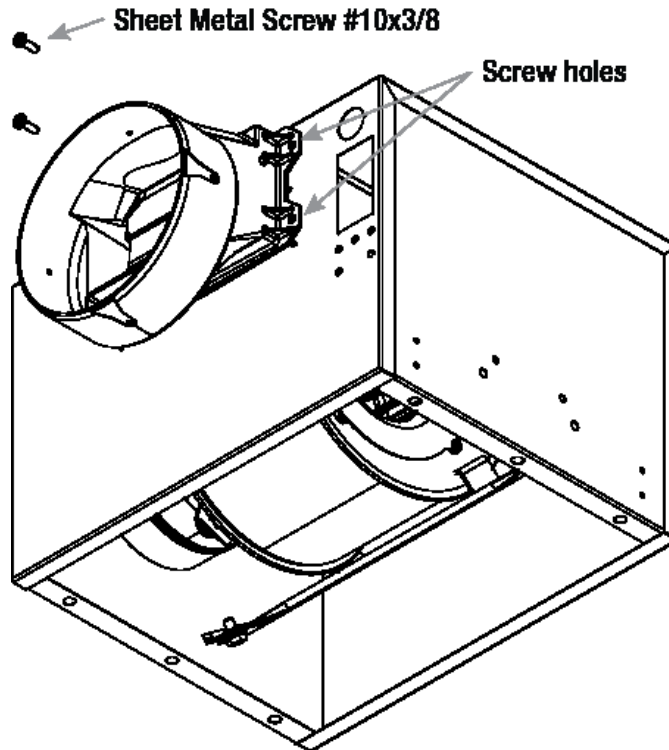


Round Duct Connector

Model: RDC

Standard Construction Features:

-Constructed of Polypropylene - Replaces the square discharge duct connector and damper using the existing mounting holes



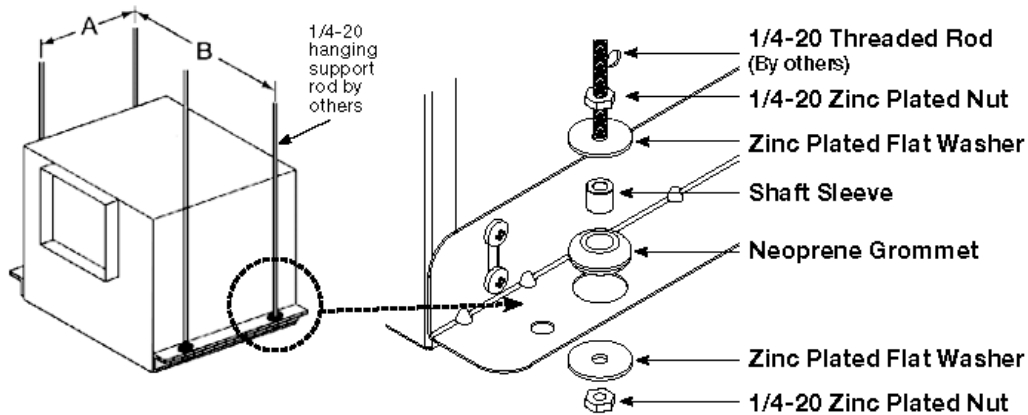
Notes: All dimensions shown are in units of in.

Isolation Kit

Type: Hanging

Standard Construction Features:

- Neoprene vibration isolation for hanging installation - Kit includes four isolators and all hardware necessary for mounting one unit except for the 0.25 in. x 20 in. threaded rod to be supplied by others - Fan mounting brackets include prepunched mounting holes for ease of installation



Unit Size	A	B
B50-B200	4 1/2 (114)	15 5/8 (397)
A50-A190	5 1/2 (140)	14 5/8 (371)
A200-A390	6 3/4 (171)	15 1/2 (394)
A410, A510, A710, A780	9 1/4 (235)	19 5/8 (498)
A700	5 1/2 (140)	25 1/8 (638)
A900 - A1050, A1410 - A1550	9 1/4 (235)	25 3/8 (645)
A1750, A2150	9 1/4 (235)	36 3/4 (933)
A3600	9 1/4 (235)	48 5/8 (1235)
All dimensions shown in inches (millimeters).		

Description	Qty
Neoprene Grommets	4
1 x 32 Zinc Plated Nuts	8
Zinc Plated Flat Washers	8
3/8 x 3/16 Shaft Sleeves	4