



INFINITY ENGINEERING
GROUP, LLC

Project #: 15-323

Project Name: Fifth Third Bank Union BM Relocation

Date: 09/17/2024

Description:

Reviewer: Sofiya Fidler/Violetta Offenberg

Submittal Name: Exhaust Fans

Specification Numbers: 237500



Submittal Review Comments:

Empty box for Submittal Review Comments.

- No Exceptions Taken**
- Approved as Noted**
- Revise and Resubmit**

This review is only for general conformance with the design concept and general compliance with the contract documents. Any action shown is subject to the requirements of the plans and specifications. The contractor assumes full responsibility for all substitutions. The contractor is responsible for dimensions, which shall be confirmed and correlated at the job site; the fabrication process and techniques of construction; of his work with that of the other trades and the satisfactory performance of his work.

Additional Notes:

Engineer approval is for design and specification compliance only. It is the sole responsibility of the installing contractor to provide quantity, style, and finish per the project requirements.

Fifth Third Union, Kentucky BC


Project 2401031

Submittal 23 75 00-000 Centrifugal Fans

**Architectural Approval
Stamp & Comments**

**Engineer Approval
Stamp & Comments**

**Pepper Construction Approval
Stamp & Comments**

 Pepper Construction Tomorrow Transformed		
<input checked="" type="checkbox"/> REVIEWED FOR APPROVAL <input type="checkbox"/> REVIEWED AS NOTED FOR APPROVAL <input type="checkbox"/> FOR RECORD	Review of this shop drawing does not relieve the Architect, Engineer or Subcontractor of their contractual design responsibilities. Pepper Construction's review is not, nor is it responsible for, an engineering or architectural analysis of design elements, load or dimension calculations, or similar matters. The Subcontractor is responsible to furnish additional material or work as required by the Contract and review of these documents, as well as dimensions to be confirmed and correlated at the job site.	
JOB: 2401031	BY: Dylan Kopras	DATE: 9/5/2024
SUBMITTAL#: 23 75 00 - 000	Rev # 000	

Notes & Comments:

Please see attached submittal for the ceiling exhaust fans and duct connector involved for this project.



SUBMITTAL

Job Name: **Fifth Third Bank - Union BM Relocation**

Engineer: Infinity Engineering

Elevation: (ft) 499

Date: 8/19/2024

Submitted By: John Plaskey

Email: jplaskey@eapnet.com

Phone: (513)332-2095

EAP INC - 370

3930 VIRGINIA AVE

CINCINNATI, OH 45227

US

Phone: (513)489-9494

Fax: (513)489-6448

Email Address: jplaskey@eapnet.com



P.O. Box 410 Schofield, WI 54476 (715) 359-6171 FAX (715) 355-2399 www.greenheck.com

Model: SP-B90

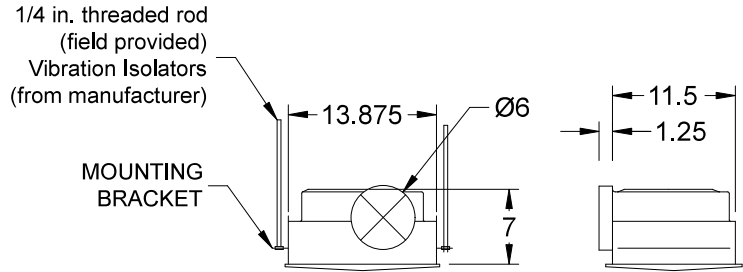
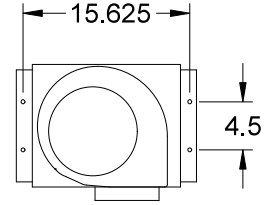
Ceiling Exhaust Fan

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:

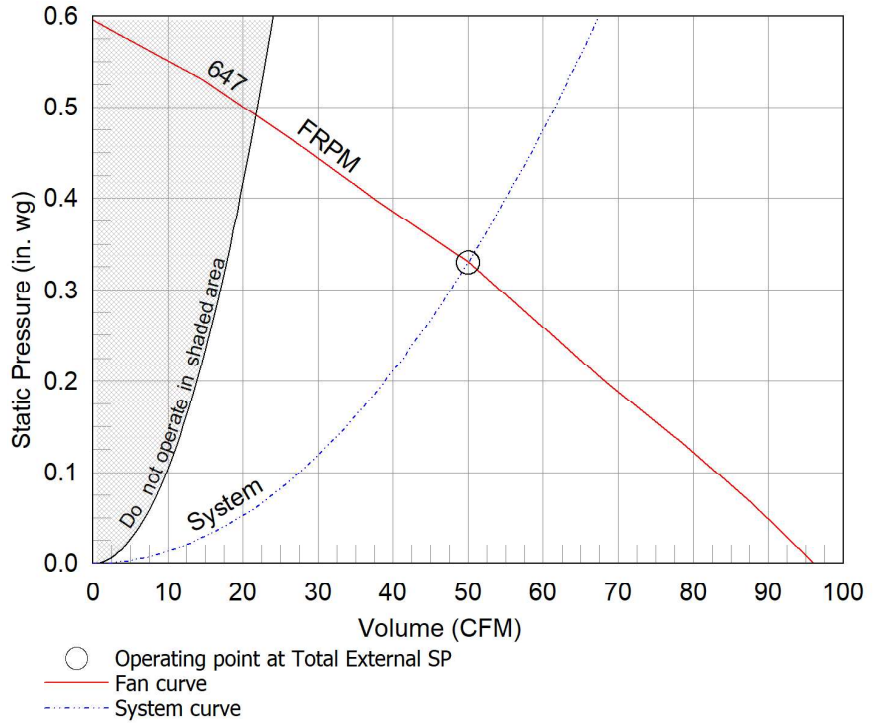
Motor rated for continuous use
Motor with Thermal Overload
Motor with CSA Approval
Motor with 40 Degree C Ambient Temperature
UL/cUL 507 Listed - Electric Fan
Solid State Speed Control, 6 Amp, Shipped Loose
Round Duct Connection
Isolation Kit, (PN: VI KIT-SP/CSP), Shipped Loose
Adjustable easy installation mounting bracket
Energy Star Certified
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)	10
Weight w/ Acc's (lb)	13

Performance	
Requested Volume (CFM)	50
Actual Volume (CFM)	50
Total External SP (in. wg)	0.33
Fan RPM	647
* FLA (A)	0.19
Elevation (ft)	499
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.074
Sones	1.5

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.

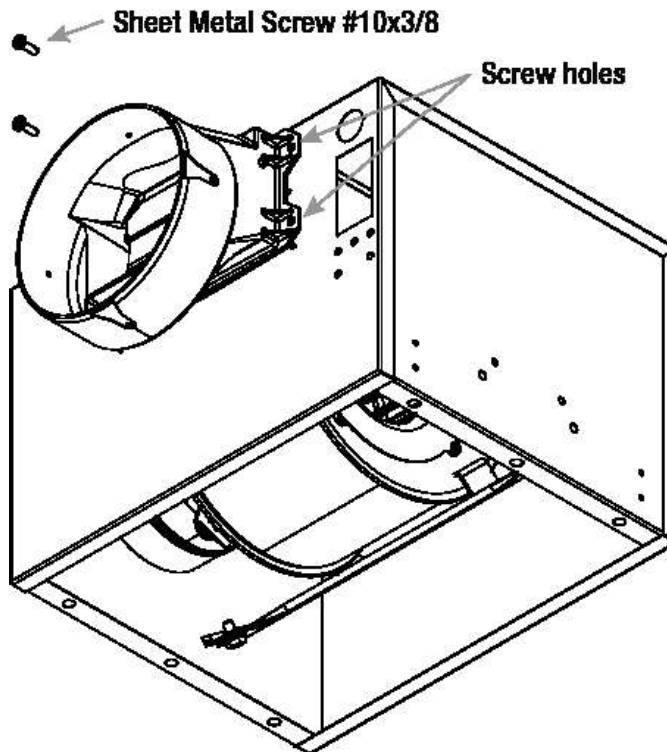


Round Duct Connector

Model: RDC

Standard Construction Features:

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



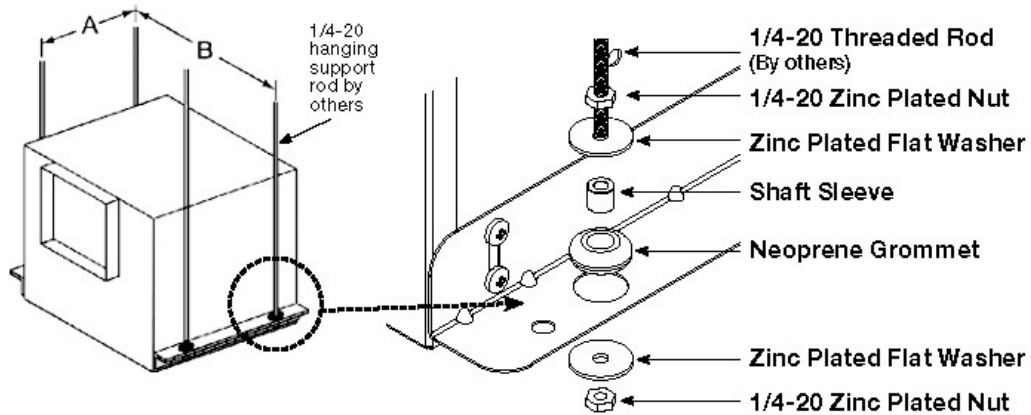
Notes: All dimensions shown are in units of in.

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

Model: SP-B110

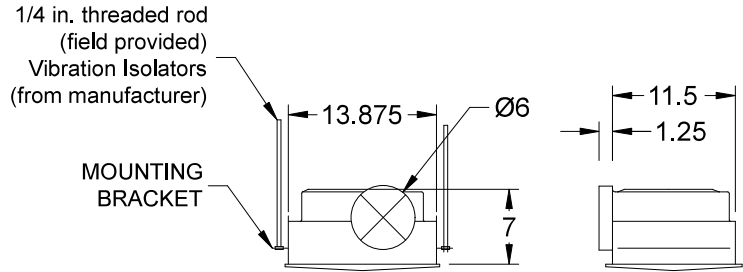
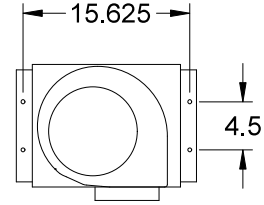
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Standard Construction Features:

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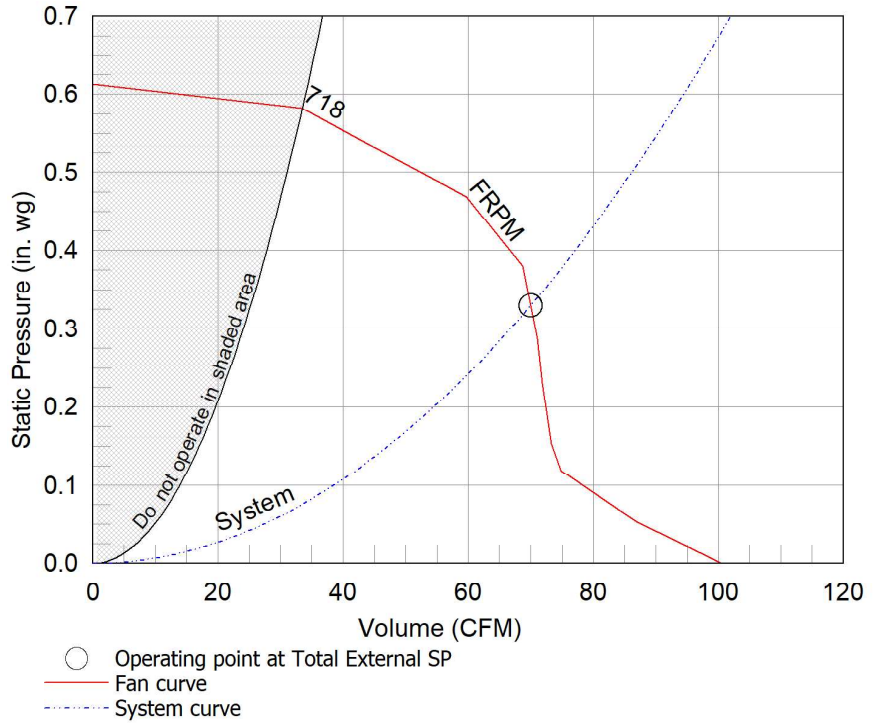
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Motor with Thermal Overload
Motor with CSA Approval
Motor with 40 Degree C Ambient Temperature
UL/cUL 507 Listed - Electric Fan
Solid State Speed Control, 6 Amp, Shipped Loose
Round Duct Connection
Isolation Kit, (PN: VI KIT-SP/CSP), Shipped Loose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



Dimensional	
Quantity	1
Weight w/o Acc's (lb)	10
Weight w/ Acc's (lb)	13

Performance	
Requested Volume (CFM)	70
Actual Volume (CFM)	70
Total External SP (in. wg)	0.33
Fan RPM	718
* FLA (A)	1.15
Elevation (ft)	499
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.074
Sones	0.7

Motor	
Motor Mounted	Yes
** Input Watts (W)	80
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP



Notes:

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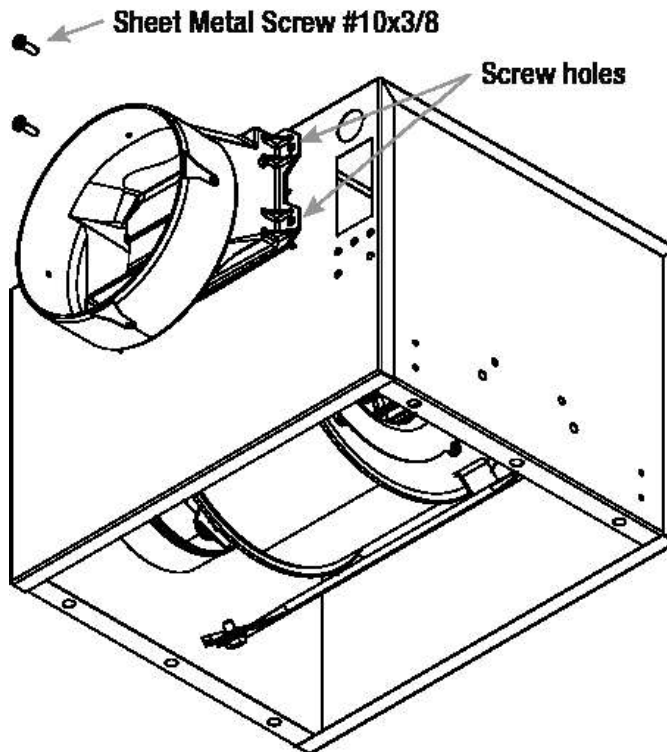


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Model: RDC

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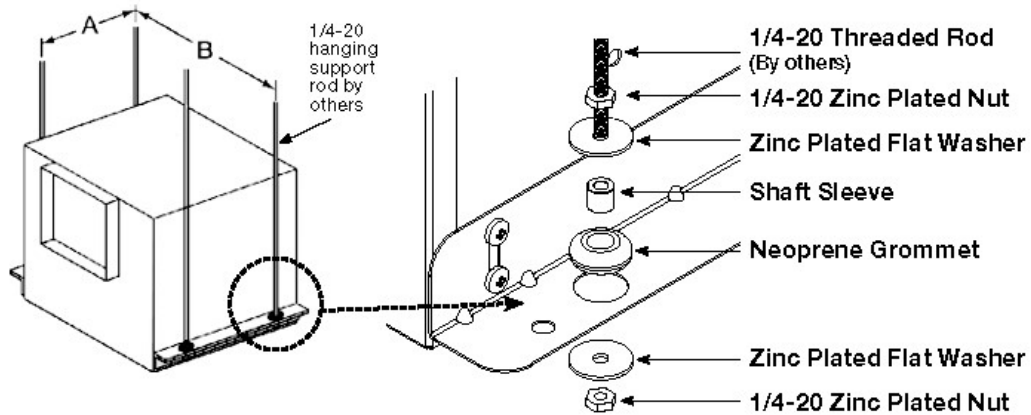
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Model: SP-B110

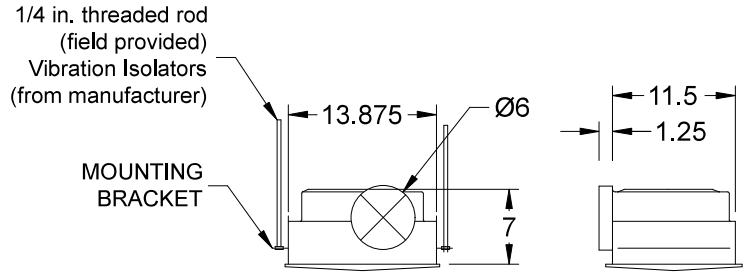
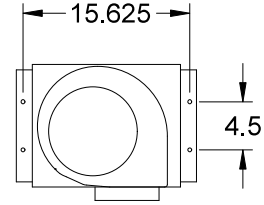
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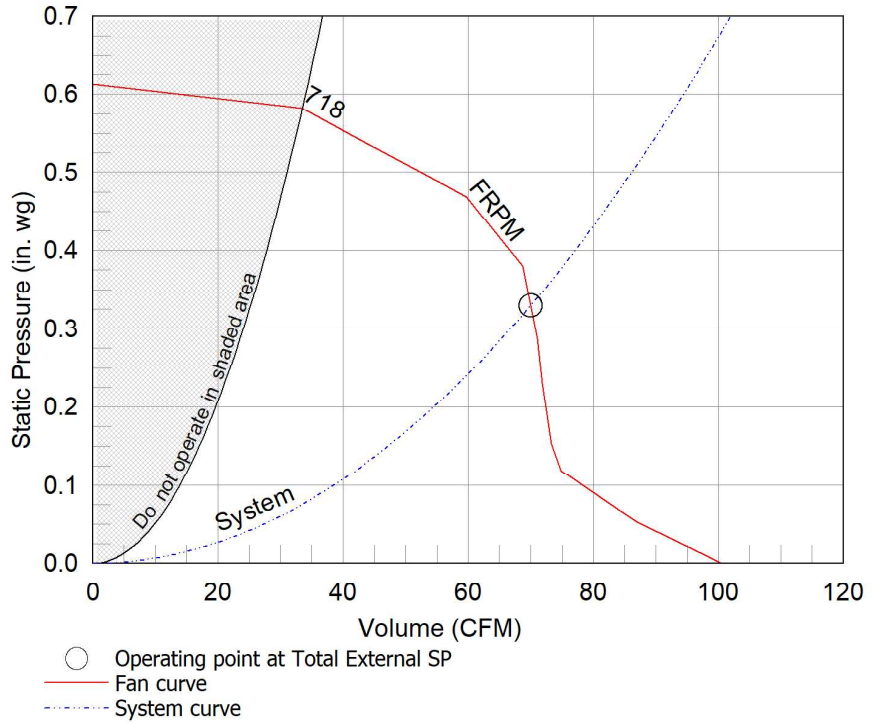
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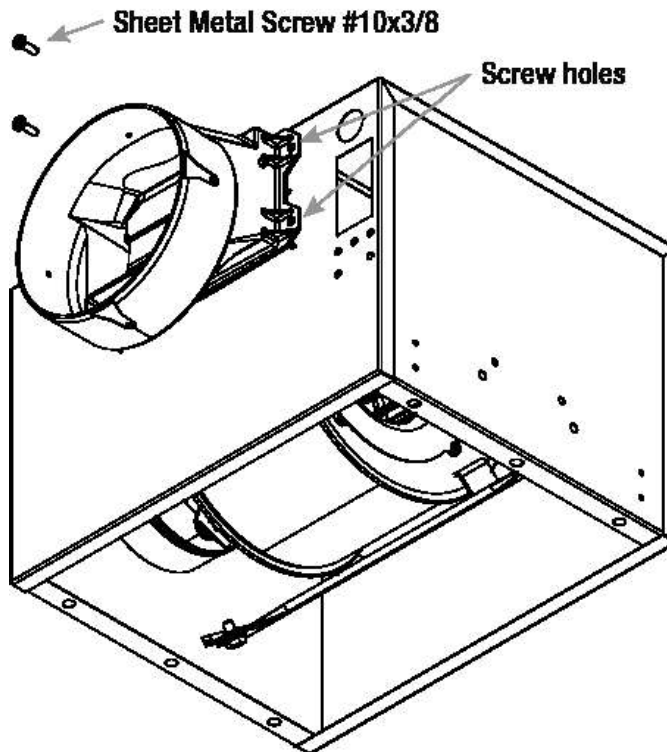


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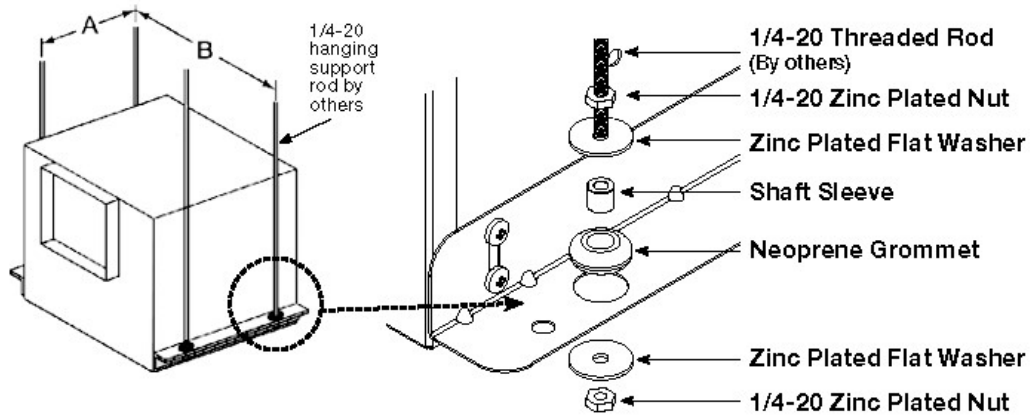
Notes: All dimensions shown are in units of in.

Isolation Kit

Type: Hanging

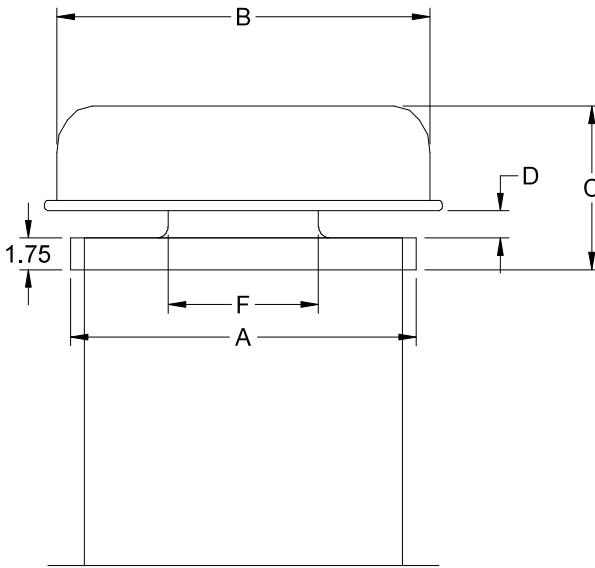
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All dimensions shown in inches (millimeters).		

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



Model: GRSR

Standard Construction Features:

- Aluminum housing.
- Aluminum curb cap with prepunched mounting holes.
- Recommended roof opening dimension is at least 2.5 in. larger than the damper size.

Dimensions

ID#	Tag	Qty	Model	Model Size (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Curb Cap Width (in.)	Curb Cap Length (in.)	Weight (lb)
1-1		1	GRSR-8	8	19	20.5	9	1.5	N/A	8.25	19	19	7

Construction

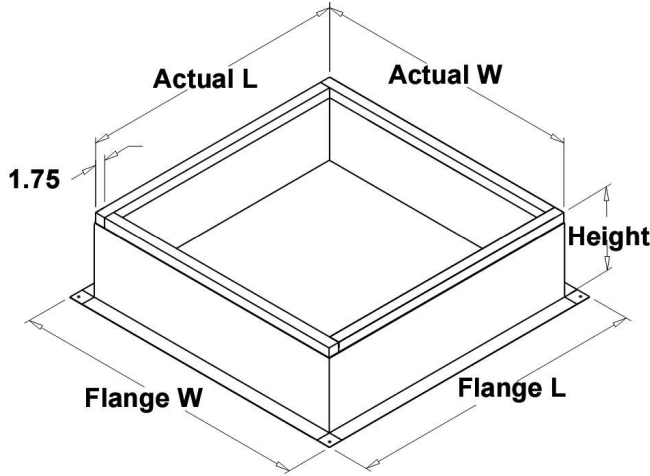
ID#	Flashing Flange	Installation Type	Insect Screen	Birdscreen Material	Unit Material
1-1	No	Ducted	No	Galvanized	Aluminum

Accessories

ID#	Hinged Curb Cap	Curb Seal	Hood Insulation (in.)	Tie Down Points
1-1	No	No	None	No

Roof Curbs

ID#	Model	Height (in.)	Width (in.)	Length (in.)
1-1	GPI	18	19	19



Model: GPI

Roof Curb

Standard Construction Features:

- Roof Curb fits between the building roof and the fan mounted directly to the roof support structure - Constructed of either 18 ga galvanized steel or 0.064 in. aluminum - Straight Sided without a cant - 2 in. mounting flange - 3 lb density insulation - Height - Available from 12 in. to 42 in. as specified in 0.5 in. increments. Notes: - The maximum roof opening dimension should not be greater than the "Actual" top outside dimension minus 2 in.. - The minimum roof opening dimension should be at least 2.5 in. more than the damper dimension or recommended duct size. - The Roof Opening Dimension may or may not be the same as the Structural Opening Dimension. - Damper Tray is optional and must be specified. Tray size is same as damper size. - Security bars are optional and must be specified. Frames and gridwork are all 12 ga steel.

General

ID#	Tag	Qty	Model	Sizing Method	Undersizing (in.)	Weight (lb)	Shipped Assembled	Union Made
1-1		1	GPI-19-G18	Nominal	1.5	27	Yes	No Preference

Dimensions

ID#	Curb Height (in.)	Nominal Outside Width (in.)	Nominal Outside Length (in.)	Actual Outside Width (in.)	Actual Outside Length (in.)
1-1	18	19	19	17.5	17.5

*May not be applicable

Accessories

ID#	Material	Security Bars	Liner	Insulation (in.)	Insulation R Value
1-1	Galvanized	No	No	1	R4.3