

# SUBMITTAL

Job: 2100202588 - At Home DC

Spec Section No: 230500

Submittal No: 230500-016

Revision No: 0

Sent Date: 10/21/2022

Spec Section Title: Mechanical Material / Method

Submittal Title: Design Center - Exhaust Fan

Contractor:


Structure Tone

Please see attached for the following:

Design Center - Terminal Units Product Data

Please review and return by 8/29/22

Contractor's Stamp

	
2100202588 - At Home	
<input checked="" type="checkbox"/> APPROVAL	<input type="checkbox"/> REJECTED
<input type="checkbox"/> REVISE & RESUBMIT	<input type="checkbox"/> NOT REVIEWED
BY samuel.cody	DATE 8/22/2022
SUBMITTAL# 230500-006	SPEC 230500
<small>Review of these shop drawings or submittals does not relieve the subcontractor of his responsibility for full compliance with the plans, specifications, and contract documents. Dimensions, quantities, errors, omissions and the furnishing of all items required, whether shown on this drawing or not, shall remain the responsibility of the subcontractor.</small>	

Architect:


Architect's Stamp

<b>CORGAN</b>	
SPEC. SEC. 23 05 00	PROJECT # 21436.0000
<small>This review was performed only for general conformance with the design intent of the project and general compliance with the information given in the Contract Documents. Modifications or comments made on the submittal during this review do not relieve contractor from compliance with the requirements of the Contract Documents. Review of a specific item does not include review of the assembly of which the item is a component. Contractor is responsible for: dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences, and procedures of construction; coordination of the work of all trades; and for performing all the work in a safe and satisfactory manner.</small>	
<input type="checkbox"/> No Exceptions Taken	<input type="checkbox"/> Not Reviewed. Submittal not required by Contract Documents
<input checked="" type="checkbox"/> Comments Included	<input type="checkbox"/> Reviewed for Project Close-Out Requirements Only
<input type="checkbox"/> Revise & Resubmit	<input type="checkbox"/> Proposed Substitution. Resubmit. Comply with Section 01 25 00
<input type="checkbox"/> Rejected	
DATE 10/31/2022	BY Caroline Hudson
<small>REV. 3/18</small>	

Reference PMI comments below.

Engineer:

Engineer's Stamp

<input type="checkbox"/> No Exception Taken	<input checked="" type="checkbox"/> Furnish As Corrected	<input type="checkbox"/> Revise And Submit
<input type="checkbox"/> Rejected	<input type="checkbox"/> Submit Specific Item	
<input type="checkbox"/> Reviewed For Compliance With Performance Spec		
<small>This review was performed only for general conformance to design concept of the project and general compliance with information given in the contract documents. Modifications or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Contractor is responsible for: dimensions being confirmed and correlated at the jobsite; information that pertains solely to fabrication processes or to the means, methods, techniques, sequences, and procedures of construction; coordination of the work of all trades, and performing all work in a safe and satisfactory manner.</small>		
<b>PURDY-MCGUIRE, INC. - MEP ENGINEERS</b>		
17300 N. Dallas Parkway, Suite 3000, Dallas, Texas 75248		
Phone: (972) 239-5357   www.Purdy-McGuire.com		
Date: October 31 ,2022	By: Jeremy Pendery	

Comments:

Provide EF 5 with washable filter.

# ***SUBMITTAL***

*Job Name:* **At Home Design Center TI**

*Engineer:* Venture Mechanical

*Contractor:* Venture Mechanical

*Elevation: (ft)* 597

*Date:* 9/07/2022

*Submitted By:* Christian Young

**BARTOS INDUSTRIES**

10350 OLYMPIC DR

DALLAS, TX 75220-4436

US

Phone: (214)350-6871

Fax: (214)350-3481

Email Address: [cyoung@bartosindustries.com](mailto:cyoung@bartosindustries.com)



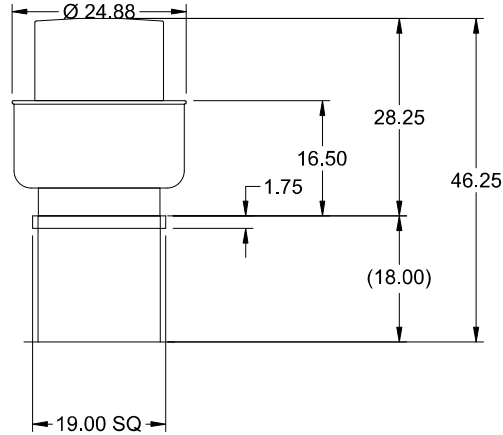
P.O. Box 410 Schofield, WI 54476 (715) 359-6171 FAX (715) 355-2399 [www.greenheck.com](http://www.greenheck.com)

**Model: CUE-100-VG**

Direct Drive Upblast Centrifugal Roof Exhaust Fan

Previously: CUE-101-VG

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	45
Weight w/ Acc's (lb)	52
Weight w/ Acc's and Curb (lb)	79
Standard Curb Cap Size (in.)	19 x 19
Optional Damper (in.)	12 x 12
Roof Opening (in.)	15.5 x 15.5

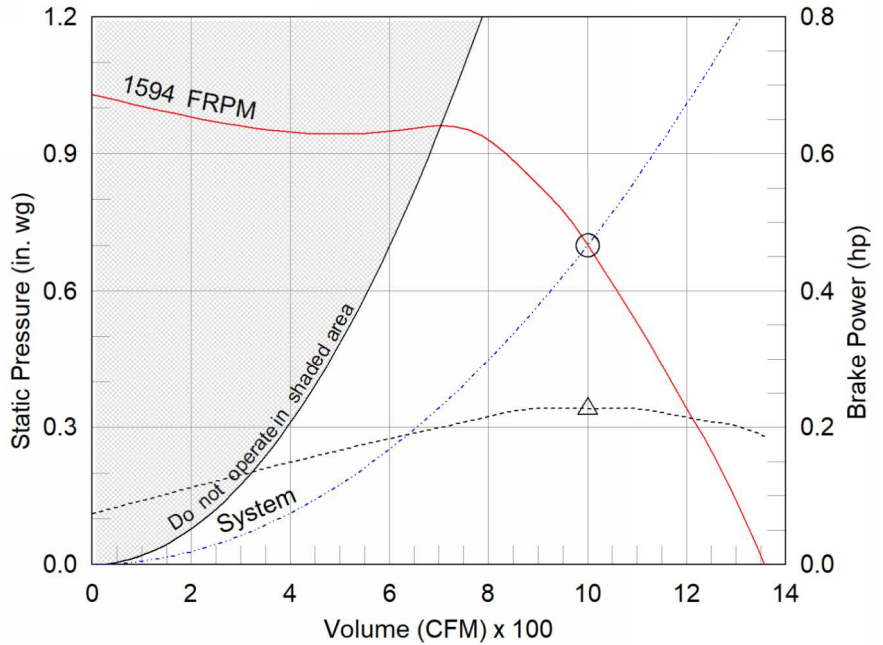


Performance	
Requested Volume (CFM)	1,000
Actual Volume (CFM)	1,000
Total External SP (in. wg)	0.7
Fan RPM	1594
Operating Power (hp)	0.23
Elevation (ft)	597
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.073
Tip Speed (ft/min)	4,643
Static Eff. (%)	48

Misc Fan Data	
Fan Eff. Index (FEI)	-
Outlet Velocity (ft/min)	781

Motor	
Motor Mounted	Yes
Size (hp)	1/4
Voltage/Cycle/Phase	115/60/1
Enclosure	TENV
Motor RPM	1725
Efficiency Rating	High
Windings	1
FLA (Amps)	2.85
Min. Circuit Ampacity (MCA)	4
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.



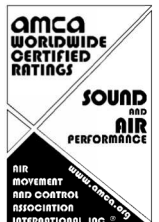
- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

**Notes:**

All dimensions shown are in units of in.  
\*NEC FLA, MCA and MOP are for reference only – based on tables 430.248 or 430.25 of National Electric Code 2020. Actual motor FLA may vary, for sizing thermal overload, consult factory. MCA and MOP values shown only account for the motor, not accessories (damper actuator, field supplied VFD, etc).  
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 ANSI/AMCA 301 at 5 ft

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	74	72	75	67	61	62	56	51	71	59	9.8



## Model: CUE-100-VG

### Direct Drive Upblast Centrifugal Roof Exhaust Fan

#### Standard Construction Features:

- Aluminum housing - Backward inclined aluminum wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Vari Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

#### Selected Options & Accessories:

Motor - Vari-Green EC motor  
Control - Dial for balancing  
Standard Curb Cap Size - 19 Square  
UL/cUL 705 Listed - "Power Ventilators"  
Switch, NEMA-3R, Toggle, Shipped with Unit  
Junction Box Mounted & Wired  
Foam Curb Seal (Factory Applied)  
Birdscreen: Galvanized, nom. 62% Free Area  
Unit Warranty: 1 Yr (Standard)  
Damper Shipped Loose, BD-100-PB-12X12, Gravity Operated, Not Coated

#### Selected Sub Marks

See individual submittals for full details

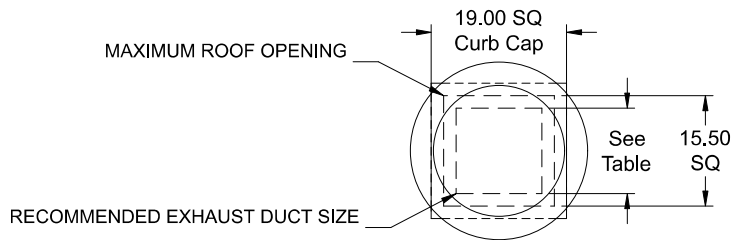
GPI-19-12-G18

***The Vari-Green Motor included in this order has a 'Multi-Voltage' ability. The red wire on the motor is called a 'Voltage Doubler', and when it is connected the motor can be powered by 115V.***

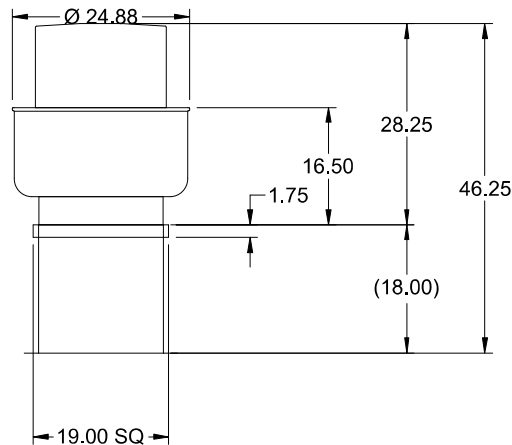
***If the Red wire is disconnected, then the motor can be powered with 208-230/277V. The motor will leave the factory with the voltage doubler wired per the order.***

# Assembly Drawing

Type: Direct Drive Upblast Centrifugal Roof Exhaust Fan



DUCT TYPE	SIZE
STANDARD	12 SQ
FIRE-WRAPPED	8 SQ



DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB.  
CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON  
MOTOR, ADAPTER, AND/OR HINGE BASE.

Notes: All dimensions shown are in units of in..

# Vari-Green Motor & Control Options

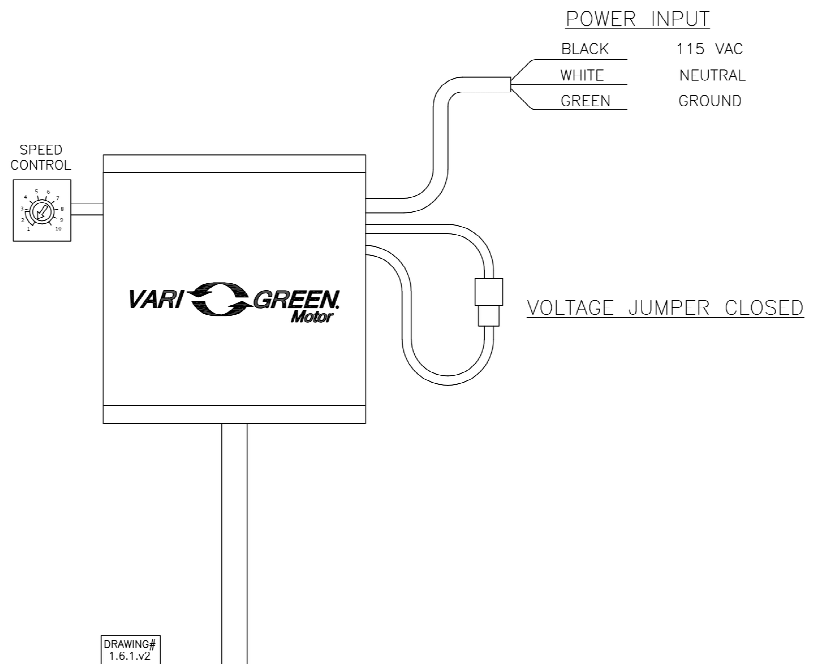
An EC motor that uses AC input power and internally converts it to DC power. Potentiometer (dial) mounted on the motor enclosure adjusts the speed (RPM) down 80%. Vari-Green motors feature a soft-start and inherent thermal and current protection built into each unit. Inrush current at start up is eliminated and the motor will automatically reduce speed or turn off if overloaded or it becomes too hot.

### Motor Configuration

Input Voltage: 115  
Speed Reference: Dial on Motor  
Permanent Dial: Yes

### Control Configuration

Control Type: N/A  
Transformer: None



# Horizontal Mount Exhaust Damper

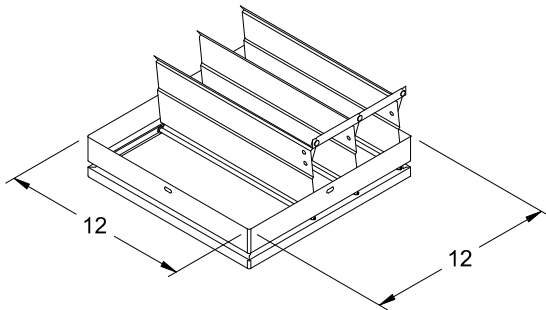
Model: BD-100

## Standard Construction Features:

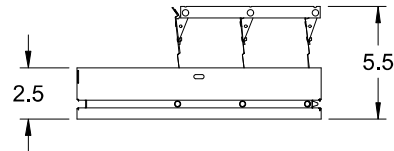
- Model BD-100 is a horizontal mount exhaust damper (air flow up) and is constructed of 24 ga galvanized steel with pre-punched mounting holes
- Damper blades are 0.016 in. roll formed aluminum with vinyl seals on the closing edge, and spring assisted for ease of opening
- Axle/bearing is constructed of fiberglass reinforced nylon



Greenheck Fan Corporation certifies that the models BD-100 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.

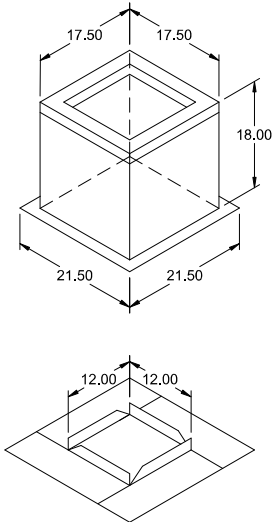


DAMPER



TYP. SECTION VIEW

Notes: All dimensions shown are in units of in.



## 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. Gridwork is welded to the frame and the frame is welded to the curb.

#### General

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

#### Dimensions

Curb Height (in.)	Nominal Outside Width (in.)	Nominal Outside Length (in.)	Actual Outside Width (in.)	Actual Outside Length (in.)	Actual Inside Width (in.)	Actual Inside Length (in.)	Flange Width (in.)	Flange Length (in.)	Hinge Base Width* (in.)	Hinge Base Length* (in.)
18	19	19	17.5	17.5	14	14	21.5	21.5	18	18

\*May not be applicable

#### Damper Tray

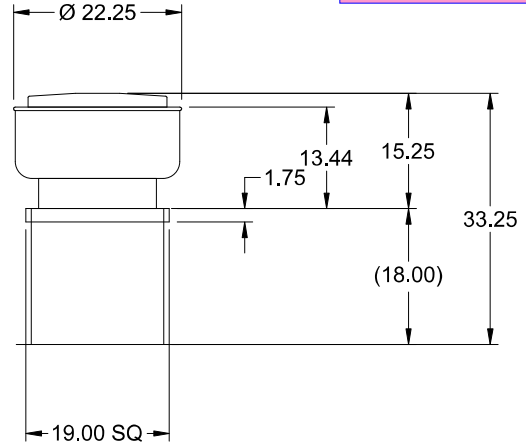
Damper Tray Width (in.)	Damper Tray Length (in.)
12	12

#### Accessories

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

# Model: CUE-095-VG

## Direct Drive Upblast Centrifugal Roof Exhaust Fan



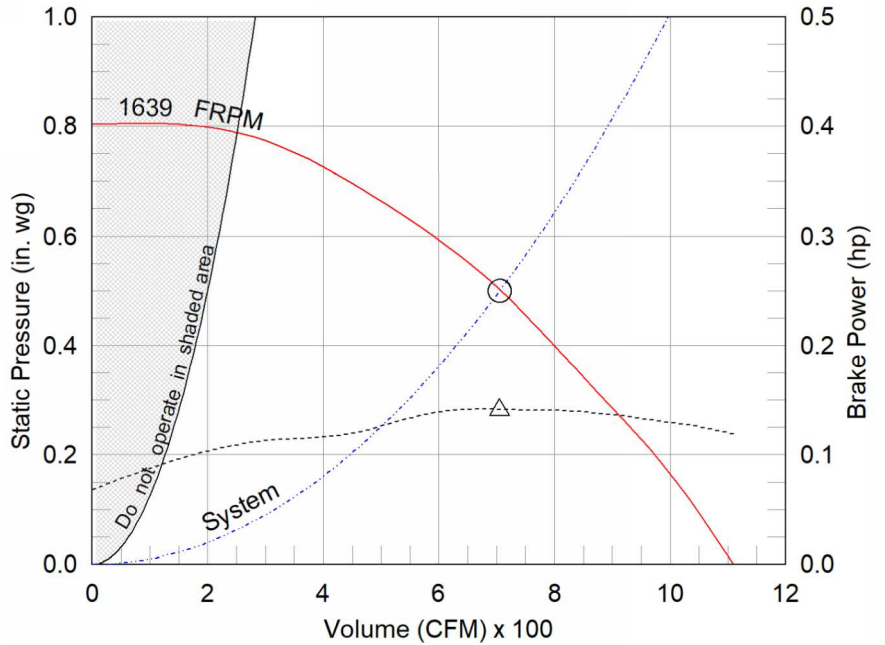
Dimensional	
Quantity	1
Weight w/o Acc's (lb)	35
Weight w/ Acc's (lb)	41
Weight w/ Acc's and Curb (lb)	68
Standard Curb Cap Size (in.)	19 x 19
Optional Damper (in.)	10 x 10
Roof Opening (in.)	15.5 x 15.5

Performance	
Requested Volume (CFM)	705
Actual Volume (CFM)	705
Total External SP (in. wg)	0.5
Fan RPM	1639
Operating Power (hp)	0.14
Elevation (ft)	597
Airstream Temp.(F)	70
Air Density (lb/ft3)	0.073
Tip Speed (ft/min)	4,666
Static Eff. (%)	39

Misc Fan Data	
Fan Eff. Index (FEI)	-
Outlet Velocity (ft/min)	608

Motor	
Motor Mounted	Yes
Size (hp)	1/6
Voltage/Cycle/Phase	115/60/1
Enclosure	TENV
Motor RPM	1725
Efficiency Rating	High
Windings	1
FLA (Amps)	2.2
Min. Circuit Ampacity (MCA)	3
Max. Overcurrent Protection (MOP)	15
Short Circuit Current Rtg (SCCR)	5 kA

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.



- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

### Notes:

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 Sones - calculated using ANSI/AMCA 301 at 5 ft

### Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	75	75	74	67	58	59	54	34	70	58	8.9



## Model: CUE-095-VG

### Direct Drive Upblast Centrifugal Roof Exhaust Fan

#### Standard Construction Features:

- Aluminum housing - Backward curved composite (sizes 60-95) or aluminum (sizes 99-300) wheel - Aluminum curb cap with prepunched mounting holes - Drain trough - Ball bearing motors (sizes 85-300 and all Vari Green), sleeve bearing motors (sizes 60-80) - Motor isolated on shock mounts - Corrosion resistant fasteners

#### Selected Options & Accessories:

Motor - Vari-Green EC motor  
Control - Dial for balancing  
Standard Curb Cap Size - 19 Square  
UL/cUL 705 Listed - "Power Ventilators"  
Switch, NEMA-3R, Toggle, Shipped with Unit  
Junction Box Mounted & Wired  
Foam Curb Seal (Factory Applied)  
Birdscreen: Galvanized, nom. 68% Free Area  
Composite Wheel Material  
Unit Warranty: 1 Yr (Standard)  
Damper Shipped Loose, BD-100-PB-10X10, Gravity Operated, Not Coated

#### Selected Sub Marks

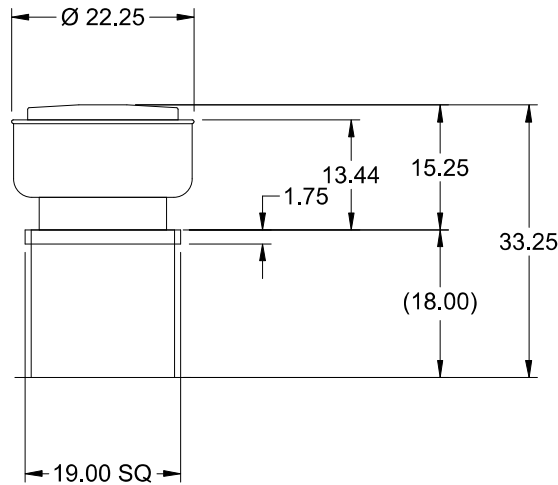
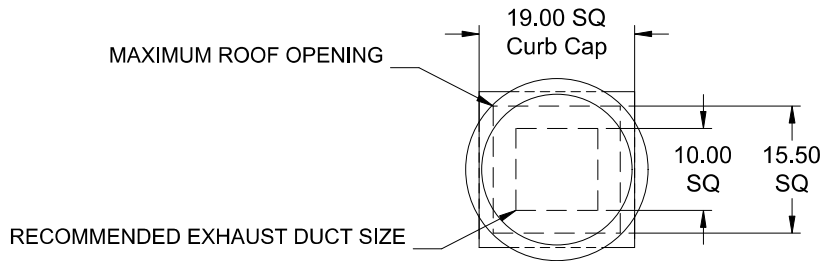
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GPI-19-10-G18

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# Assembly Drawing

Type: Direct Drive Upblast Centrifugal Roof Exhaust Fan



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# Vari-Green Motor & Control Options

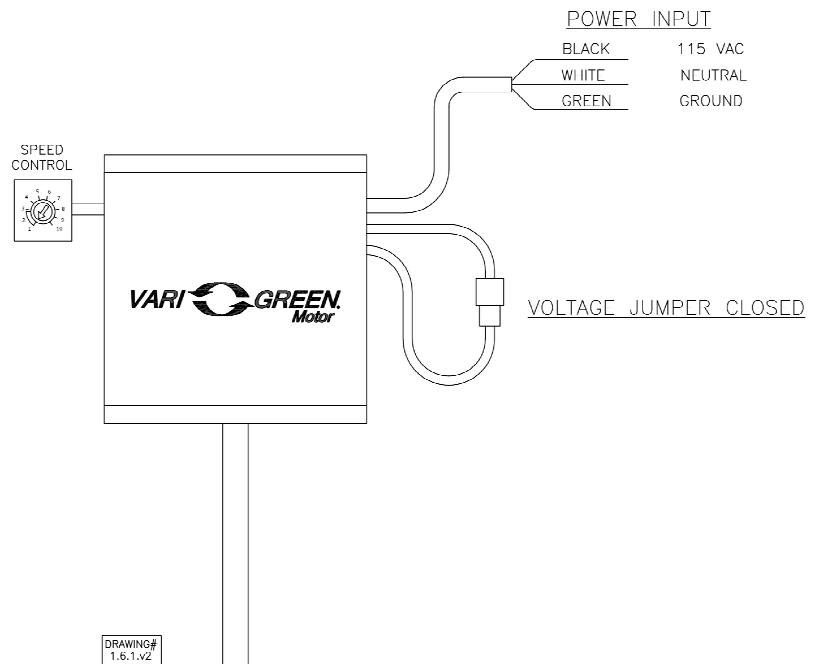
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### Motor Configuration

Input Voltage: 115  
Speed Reference: Dial on Motor  
Permanent Dial: Yes

### Control Configuration

Control Type: N/A  
Transformer: None



# Horizontal Mount Exhaust Damper

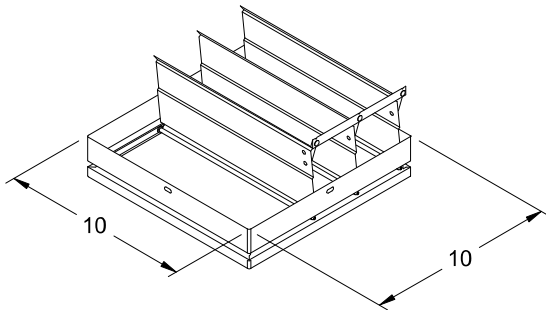
Model: BD-100

## Standard Construction Features:

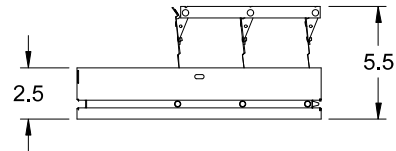
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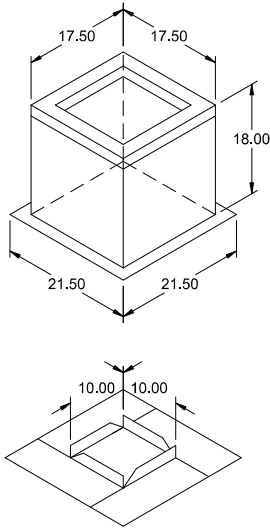


DAMPER



TYP. SECTION VIEW

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18	19	19	17.5	17.5	14	14	21.5	21.5	18	18

\*May not be applicable

#### Damper Tray

Damper Tray Width (in.)	Damper Tray Length (in.)
10	10

#### Accessories

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