


Submittal

Project: ELON HAWK RIDGE POLO RELIEF ES

View Date: 04/12/2022

Superior Mechanical Systems (Charlotte)	Balfour Beatty Construction, LLC Stamp
<p>Submittal No. / Revision: 233423-1 0</p> <p>Description: HVAC Power Ventilators - Product Data</p> <p>Subcontractor certifies that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and contract documents.</p> <p>Submitted By: Ben Wyke</p> <p>Date:</p>	<p style="color: green;">This submittal has been reviewed for general compliance with the plans and specification. This review and the response indicated below does not relieve subcontractor/ supplier of any contractual responsibilities including the furnishing of all items required by the contract documents and the confirmation of all quantities and dimensions.</p> <p style="color: green;">Submittal No.: 233423-1 0 Description: HVAC Power Ventilators - Product Data</p> <p style="color: green;">Reviewed by: Aidan Mulligan Date: 04/12/2022</p>
Little Diversified Architectural Consul (Charlotte) Stamp	Consultant Stamp
<p style="text-align: center;">A/E Response: Date:</p>	<div style="border: 1px solid red; padding: 10px;"> <p style="text-align: center;">SHOP DRAWING REVIEW</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 80%;"> <p><input type="checkbox"/> NO EXCEPTION TAKEN</p> <p><input checked="" type="checkbox"/> APPROVED AS NOTED</p> <p><input type="checkbox"/> REVISE AND RESUBMIT</p> <p><input type="checkbox"/> REJECTED</p> </div> <div style="width: 15%; text-align: center;">  </div> </div> <p style="font-size: 8px; text-align: center; margin-top: 5px;">REVIEW IS FOR GENERAL COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. MECHANICAL CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR CORRECTNESS, DIMENSIONS, DETAILS, QUANTITIES AND ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT, INCLUDING STRUCTURAL AND ELECTRICAL CHANGES, MAINTENANCE ACCESS, CLEARANCES, BUILDING ALTERATIONS, PIPING, SHEET METAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, ETC.</p> <p style="font-size: 8px; display: flex; justify-content: space-between; margin-top: 5px;"> BY T Hogue DATE 4/19/2022 </p> </div> <div style="border: 1px solid red; padding: 5px; margin-top: 10px; text-align: center; color: red;"> <p>See submittal for comments</p> </div>
Consultant Stamp	



Charlotte Office
Commissioning Group
8801 JM Keynes Drive, Suite 240
Charlotte, North Carolina 28262
Phone 704-376-7072

PROJECT: CMS Elon Park Relief ES
ML PROJECT NO: 221.038
SUBMITTAL: 233423-1-0 HVAC Power Ventilators PD

DISPOSITION LEGEND

RO REVIEW ONLY

Commissioning Authority neither approves nor disapproves submittal. Notations, if any, are for Designer use.

Reviewer: Kevin Richey

Date: April 18, 2022

1. Fan F-7, F-9 thru F-22
 - a. Provide wall louver at discharge
2. Fan F-8
 - a. Provide wall mounted 0-30 minute timer
3. Fan F-31
 - a. Provide wall mounted thermostat
 - b. Interlock with CO detector

End of Comments



SUBMITTAL

PROJECT: CMS – NEW ELON / HAWK / POLO RIDGE
RELIEF ELEMENTARY SCHOOL
CHARLOTTE, NC

ENGINEER: OPTIMA ENGINEERING
CHARLOTTE, NC

CONTRACTOR: SUPERIOR MECHANICAL SYSTEMS
CHARLOTTE, NC

EQUIPMENT: MAKE-UP AIR / EXHAUST / SUPPLY FANS &
HOODS BY LOREN COOK

SPEC SECTION: 233423 – HVAC POWER VENTILATORS
~~233723 – HVAC GRAVITY VENTILATORS~~

SUPPLIER: HAHN-MASON AIR SYSTEMS, INC.
4901 DWIGHT EVANS ROAD, STE. 120
CHARLOTTE, NORTH CAROLINA 28217

SUBMITTED BY:

A handwritten signature in black ink that reads "David Petrovski". The signature is written in a cursive, flowing style.

David Petrovski

HAHN-MASON AIR SYSTEMS, INC.
P.O. BOX 31248
CHARLOTTE, NC 28231-1248

Telephone: 704-523-5000
Fax: 704-523-5171
03/31/2022 3:57 PM



COOK



MARK: F-1

PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

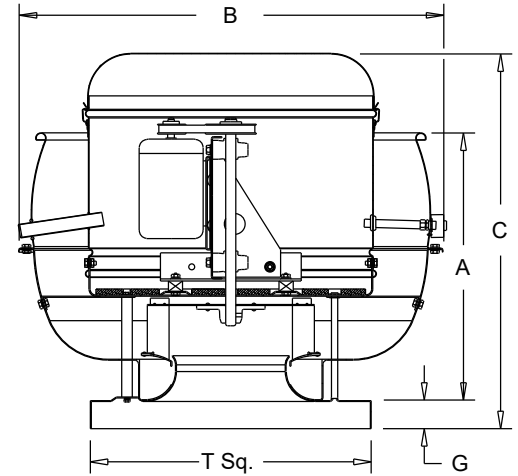
VCR

Upblast Centrifugal Exhaust Ventilator Roof Mounted/Belt Drive

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches - One piece bottom spinning - Welded curb cap corners - Lifting Lugs - Permanently lubricated ball bearing motors - Oil and heat resistant, static conducting belts - Adjustable pitch drives through 5 hp motor - Corrosion resistant fasteners - Regreasable bearings in cast iron pillow block housing, rated at 200,000 hours average life - All fans factory adjusted to specified fan RPM - Transit tested packaging.

To be furnished with bird screen



Performance (*Bhp includes 7% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	FEI
1	210V9B	4951	1.00	1092	1.60	67	1.17

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	VFD Rated
2	1725	460/3/60	ODP -PE	3.4	Yes	Yes

NEMA Premium® efficiency motor per MG-1 (2014) Table 12-12
FLA based on NEC (2017) Table 430.250

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
76	82	87	75	71	69	64	59	81	70	18.1

Accessories:

- Premium Efficiency Motor (Min. 86.5%)
- DRIVES (1.5 SF) @ 1092 RPM
- DISCONNECT NEMA 3 PRE-WIRED
- ROOF CURB RCG 28 13.5H -C-T-N
- UL762 (327Y-300DEG)
- HINGED BASE KIT
- GREASE TERMINATOR
- VE-29 VENTED EXTNS

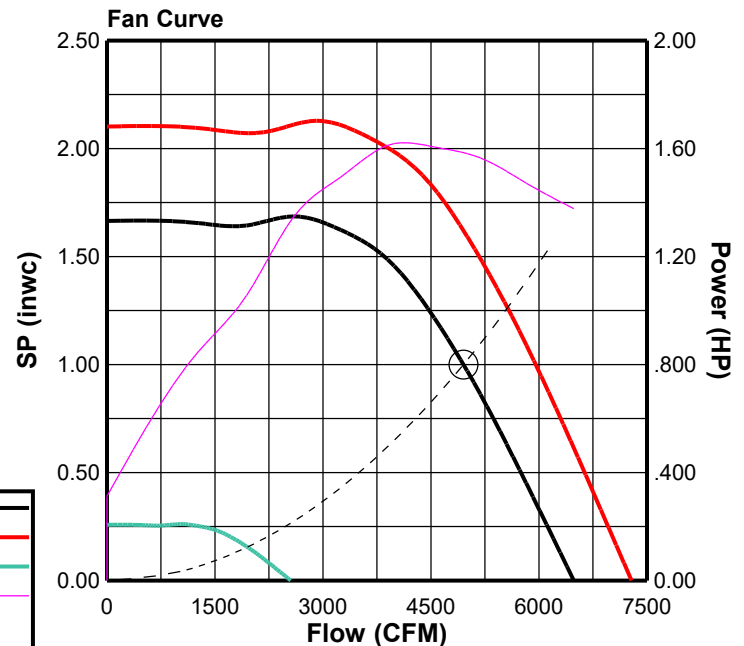
Dimensions (inches)

A	25-15/16
B	45-1/4
C	38-3/8
G	3
T Sq.	30
Roof Open. Sq.*	25-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	363	Unit	232
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: F-2

PROJECT: CMS ELON-HAWK-PR RELIEF ES

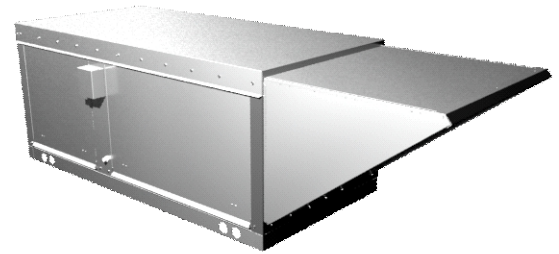
DATE: 3/31/2022

HMD

**Make-Up Air Unit
Direct-Fired
Down Discharge
Belt Drive
Roof Mounted**

STANDARD CONSTRUCTION FEATURES:

Housing constructed of minimum 18 gauge G90 galvanized steel - Removable access panels - Weatherization - Cabinet lined with 1" thick 3 lb density FSK insulation - Corrosion resistant fasteners - Lifting points - DWDI Forward curved steel blower mounted on vibration isolators - **Motorized intake damper** - Intake weather hood - **Permanent, 1" thick washable aluminum filter** - Cast aluminum burner with stainless steel baffles - Redundant gas valves - Gauges for supply and manifold gas pressure - Intermittent direct spark ignition system - Electronic flame modulation - Field adjustable profile plates - Intake air temp sensor - Mild weather stat - Freeze protection - Pre-wired and pre-piped controls - Lockable disconnect switch - Permanently lubricated bearings rated at 200,000 hours average life - Adjustable motor pulley adjusted to specified RPM - Static resistant belts - Standard motors ship factory installed



2" per spec. AE please confirm acceptable

Performance (*Bhp includes 6% drive loss)

Qty	Catalog Number	Airflow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEI
1	HMD-4100	3960	.500	1592	4.00	.47

Altitude (ft): 768 Temperature (F): 70

Heating Summary

Gas Type	Winter Design (°F)	Leaving Air Temp (°F)	Heating Input (Btu/hr)	Heating Output (Btu/hr)	Building Gas Pressure* Psi	Unit Rated Gas Pressure Psi
Natural	23	70	233,231	214,573	5-10	0.5

*Pressure Regulator Required

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	VFD Rated
5	1725	460/3/60	ODP -PE	7.6	Yes	Yes

NEMA Premium® efficiency motor per MG-1 (2014) Table 12-12
FLA based on NEC (2017) Table 430.250

Fan Information

OVel(fpm)	Discharge
3779	Down

Sound Data Sound Power by Octave Band

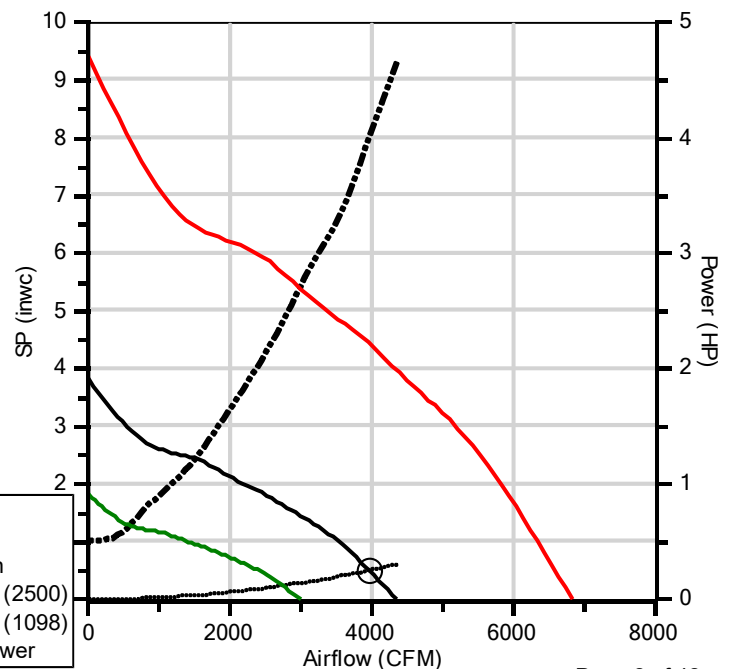
	1	2	3	4	5	6	7	8	LwA	dBA	Sones
Inlet	79	80	73	64	62	64	65	64	72	61	13
Outlet	97	92	89	86	85	84	82	79	91	79	35

Accessories:

Premium Efficiency Motor (Min. 89.5%)
DRIVES (1.5 SF) @ 1592 RPM
SUPPLY GAS REG (BY OTHERS)
SPARE BELT SET

ROOF CURB RCG 31 X 67-13.5H
2" ALUMINUM WASHABLE FILTER (#348201)

Verify 2" washable filters provided. General Description notes 1" filters.





COOK

MARK: F-2

PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

Heating Data

HMD
Make-Up Air Unit
Direct-Fired
Down Discharge
Belt Drive
Roof Mounted

Performance (*Bhp includes 6% drive loss)

Catalog Number	Airflow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEI
HMD-4100	3960	.500	1592	4.00	.47

Altitude (ft): 768 Temperature (F): 70

Heater Information

Unit Type	Gas Type	Gas Connection Size	Building Gas Pressure (Psi)	Unit Rated Gas Pressure (Psi)	Regulator Required
Direct Gas	Natural	3/4"	5-10	0.5	Yes

Heater Performance

Standard Airflow (SCFM)	Winter Design (°F)	Temperature Rise (°F)	Leaving Air Temp (°F)	Heating Input (Btu/hr)	Heating Output (Btu/hr)	Heating Efficiency	Manifold Gas Pressure (inwc)	Press Drop Across Burner (inwc)
4227	23	47	70	233,231	214,573	92%	2.54	1.16

Heater Capacity

Maximum Temp Rise (°F)	Minimum Temp Rise (°F)	Maximum Leaving Air Temp (°F)	Maximum Heating Output (Btu/hr)	Minimum Heating Output (Btu/hr)
91	3	165	415,449	12,500

Heater Notes:

ETL listed to ANSI Z83.4 and CAN 3.7
 Outdoor air only - 100% OSA
 Flame sensing - Flame Rod
 Ignition Control - Direct Spark
 Temperature Control - Discharge Air Temp
 Pressure Regulator Required



COOK

MARK: F-2

PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

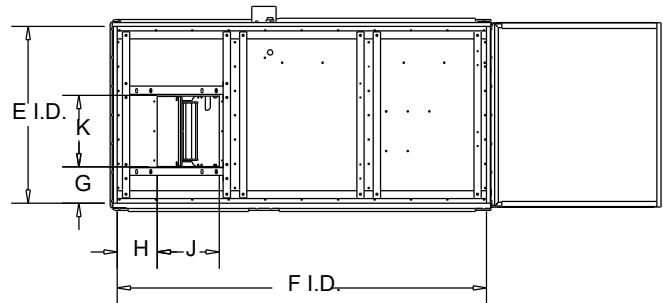
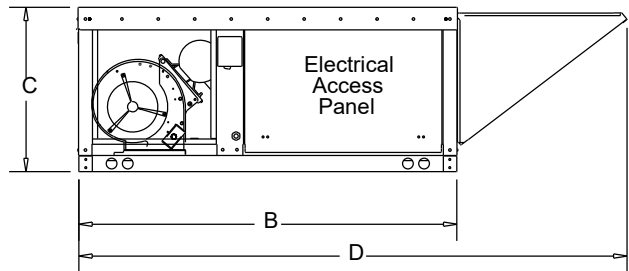
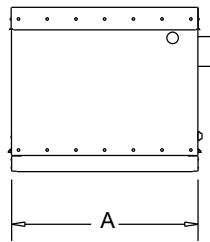
Dimensions

HMD
Make-Up Air Unit
Direct-Fired
Down Discharge
Belt Drive
Roof Mounted

Dimensions (inches)

Model	HMD-4100
A	34-1/2
B	70
C	30-7/16
D	101-1/2
E	32-3/4
F	68-3/8
G	6-3/4
H	7-7/16
J	11-1/2
K	13-1/4
*Shipping Weight	783 (lbs)
*Unit Weight	562 (lbs)

*Estimated Weight - includes fan motor and accessories.





Features

Standard Construction

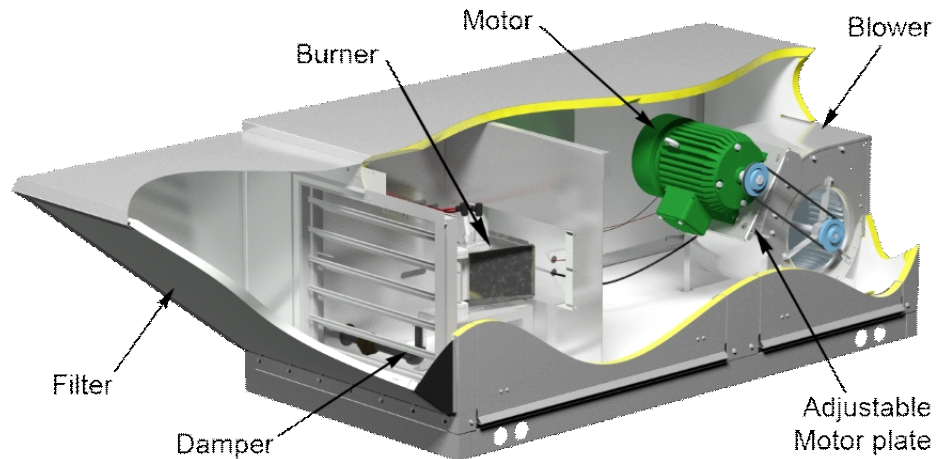
- Housing constructed of minimum 18 gauge G90 galvanized steel
- Removable access panels
- Weatherization
- Cabinet lined with 1" thick 3 lb density FSK insulation
- Corrosion resistant fasteners
- Lifting points
- DWDI Forward curved steel blower mounted on vibration isolators
- Motorized intake damper
- Intake weather hood
- Permanent, 1" thick washable aluminum filter
- Cast aluminum burner with stainless steel baffles
- Redundant gas valves
- Gauges for supply and manifold gas pressure
- Intermittent direct spark ignition system
- Electronic flame modulation
- Field adjustable profile plates
- Intake air temp sensor
- Mild weather stat
- Freeze protection
- Pre-wired and pre-piped controls
- Lockable disconnect switch
- Permanently lubricated bearings rated at 200,000 hours average life
- Adjustable motor pulley adjusted to specified RPM
- Static resistant belts
- Standard motors ship factory installed

2" per spec. AE please confirm acceptable

Standard Construction noted as 1" washable filters. Accessories note 2" washable filters. Verify 2" filters provided as noted on Schedule.

HMD

Make-Up Air Unit
Direct-Fired
Down Discharge
Belt Drive
Roof Mounted



(Standard Construction Features are for illustration only, your configuration may vary.)



COOK



MARK: F-3

PROJECT: CMS ELON-HAWK-PR RELIEF ES

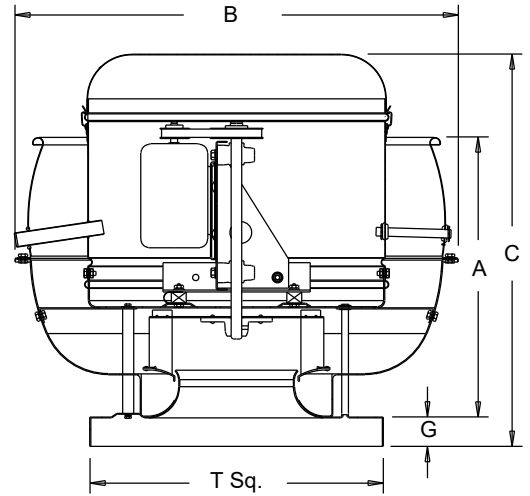
DATE: 3/31/2022

ACRU-B

Upblast Centrifugal Exhaust Ventilator Roof Mounted/Belt Drive

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches - One piece bottom spinning - Welded curb cap corners - **Birdscreen** - Vibration isolators - Lifting Lugs - Permanently lubricated ball bearing motors - Oil and heat resistant, static conducting belts - Adjustable pitch drives through 5 hp motor - Corrosion resistant fasteners - Regreasable bearings in a cast iron pillow block housing, rated at 200,000 hours average life - All fans factory adjusted to specified fan RPM - Transit tested packaging. Standard motors ship factory installed.



Performance (*Bhp includes 17% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	100R OR80	600	.500	1689	.204	n/a(<1HP)

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	TOL
1/4	1725	115/1/60	ODP -SE	5.8	Yes	Yes

FLA based on NEC (2017) Table 430.248

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
74	77	79	71	62	59	54	48	73	62	11.0

Accessories:

- DRIVES (1.5 SF) @ 1689 RPM
- ORIFICE PLATE 80
- DISCONNECT NEMA 1** PRE-WIRED
- BD-12 DAMPER**
- ROOF CURB RCG 16 13.5H -C+T-N**
- HINGED BASE KIT
- SPARE BELT SET

Dimensions (inches)

A	14-1/2
B	25-3/16
C	22-7/16
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

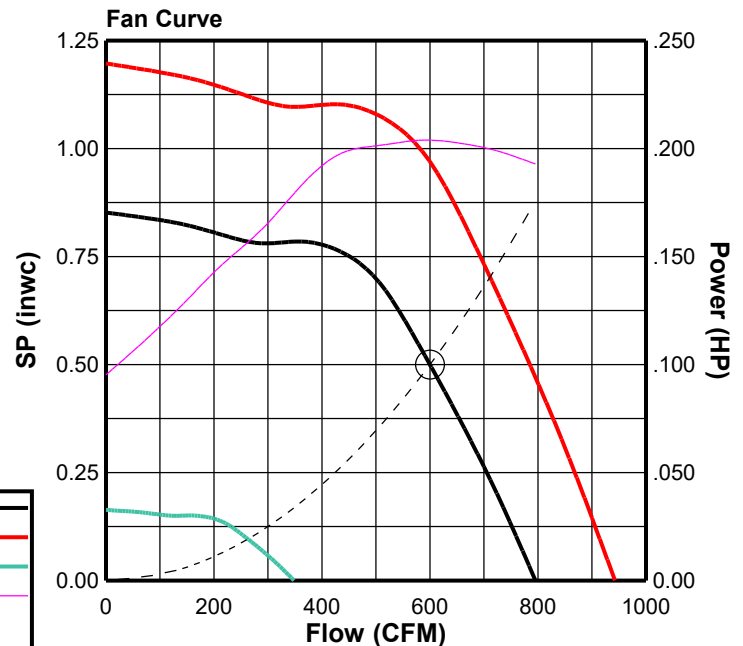
Weight(lbs)***	Shipping	82	Unit	72
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* Roof opening size for curbs supplied by Cook only.

***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP (1689)	—
MaxRPM(2002)	—
MinRPM(740)	—
CFM vs HP	—
Point of Operation	○
System Curve	-----





COOK



MARK: F-4

PROJECT: CMS ELON-HAWK-PR RELIEF ES

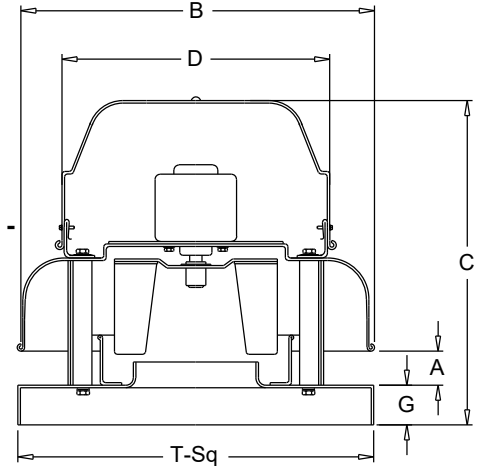
DATE: 3/31/2022

ACE-D

Downblast Centrifugal Exhaust Ventilator Roof Mounted/Direct Drive

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	90C15DH	200	.500	1350	76	n/a(<1HP)	2.05	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	TOL
1/8	1550	115/1/60	ODP -SE	Yes

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
67	67	71	61	55	53	48	44	65	53	6.9

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T-N
- FAN SPEED CONTROLLER 5 AMP 120 VOLT

Dimensions (inches)

A	2-1/2
B O.D.	18-3/4
C	16-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

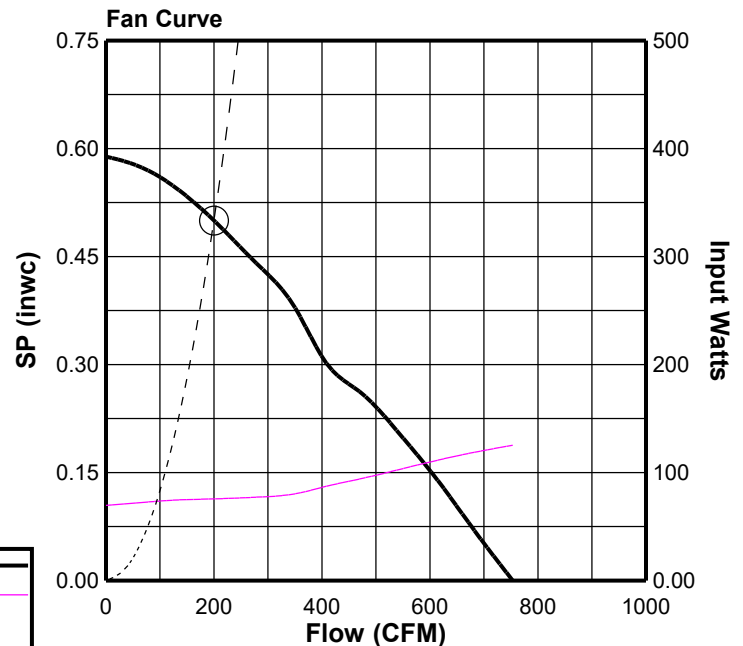
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	61	Unit	53
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	- - -





COOK



MARK: F-5

PROJECT: CMS ELON-HAWK-PR RELIEF ES

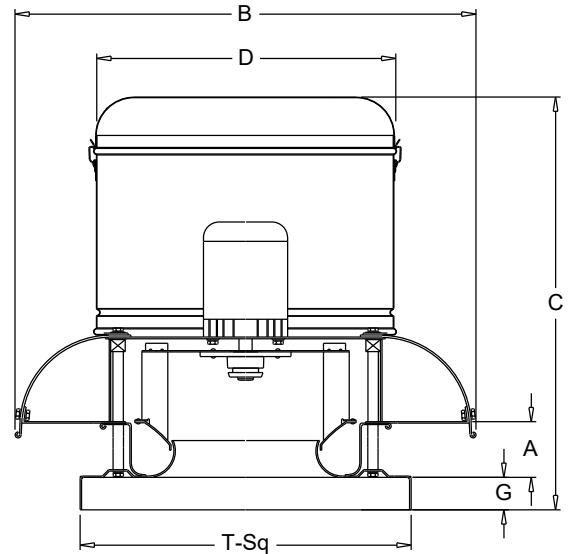
DATE: 3/31/2022

ACE-D

**Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive**

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	120C15D	900	.250	1034	.077	n/a(<1HP)	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	TOL
1/4	1550	115/1/60	ODP -SE	Yes

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
62	65	66	59	57	53	47	42	63	51	5.8

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T-N
- FAN SPEED CONTROLLER 5 AMP 120 VOLT

Verify thermostat control provided for this fan

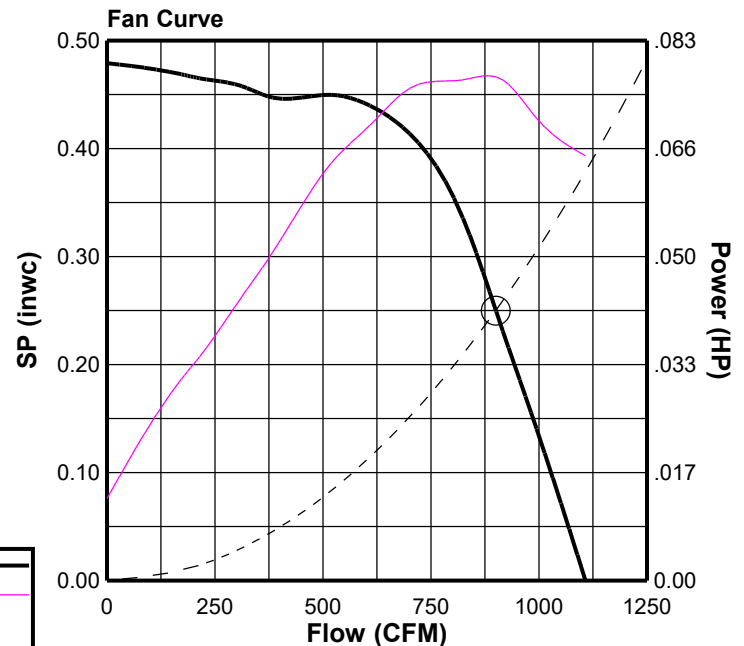
Dimensions (inches)

A	1-7/16
B O.D.	28-7/16
C	27-1/16
D O.D.	20-3/8
G	2
T Sq.	20
Roof Open. Sq.*	15-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	80	Unit	34
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: F-6

PROJECT: CMS ELON-HAWK-PR RELIEF ES

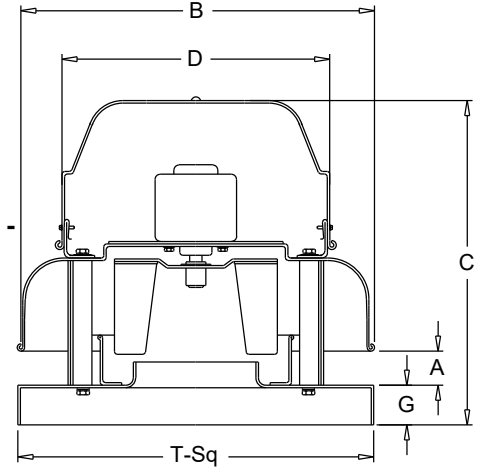
DATE: 3/31/2022

ACE-D

**Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive**

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	100C15DH	400	.250	1115	102	n/a(<1HP)	1.57	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	TOL
1/8	1550	115/1/60	ODP -SE	Yes

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
63	67	69	56	52	49	45	42	62	51	5.8

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N
- FAN SPEED CONTROLLER 5 AMP 120 VOLT

Verify thermostat control provided for this fan

Dimensions (inches)

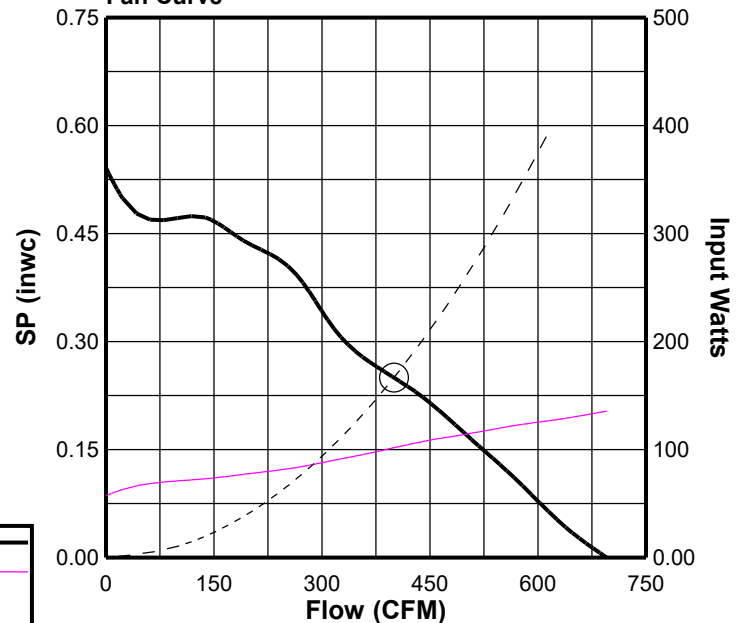
A	2-1/2
B O.D.	18-3/4
C	16-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	62	Unit	54
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve



Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	- - -



COOK



MARK: F-7

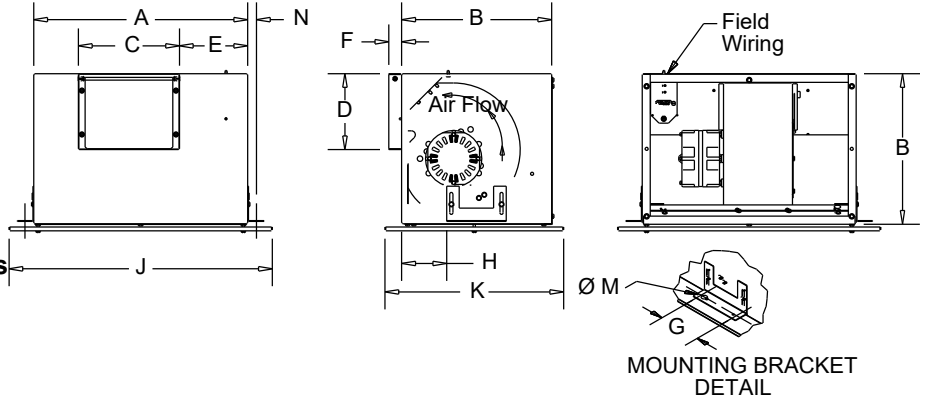
PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

GEMINI

Ceiling and Wall Blowers 200-700 Series

STANDARD CONSTRUCTION FEATURES:
 Forward curved **galvanized steel fan wheel** -
 Corrosion resistant galvanized steel fan housing
- Acoustically insulated housing - Aluminum
 backdraft damper with solid aluminum hinge rod
 mounted in nylon bushings - Permanently
 lubricated motor with built-in thermal overload
 protection and disconnect plug -
 Interchangeable panels with removable fasteners
 allows the discharge to be easily changed -
 Internal wiring box with disconnect receptacle -
Powder-painted white steel grille - Plastic grille
 standard on sizes 222, 242, 322, and 342.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GC-322	150	.250	1521	39	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.53

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
53	64	65	52	44	39	35	31	58	47	3.0

Accessories:

- FAN SPEED CONTROLLER 5 AMP 120 VOLT
- WHITE ALUM GRILLE
- BV2 100-400
- GEMINI ISOLATOR KIT - ISOLATORS

Verify thermostat control provided for this fan

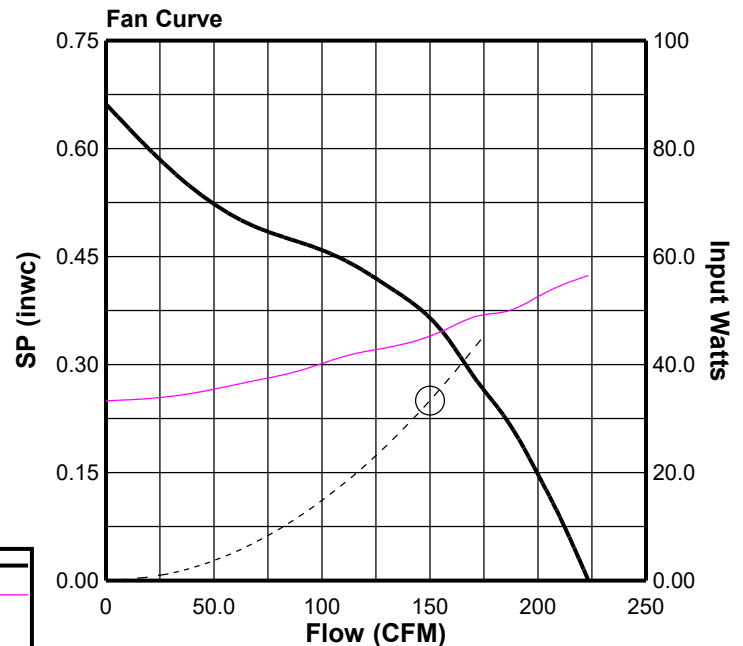
Dimensions (inches)

A	12-3/8	M	1/2
B	10-3/4	N	13/16
C	8		
D	6		
E	2-13/16		
F	1		
G	4		
H	3-9/16		
J	14-1/4		
K	12-1/4		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	Unit
30	30	26

***Includes fan, motor & accessories.



Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	- - -



COOK



MARK: F-8

PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

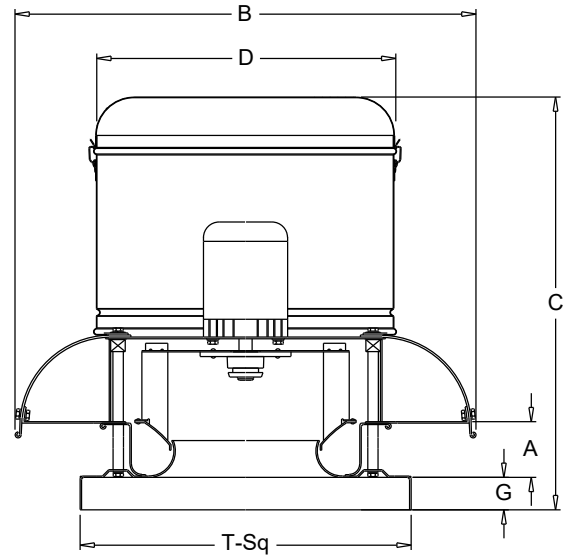
ACE-D VF

Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive

Electronically Commutated Vari-Flow® Motor

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	165C17D (VF)	1900	.500	917	.264	n/a(<1HP)	EC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
3/4	1725	115/1/60	OPEN -EC	7.4



*Motor programmed to max speed of 1278 RPM.

RLA based on motor manufacturer's data at programmed HP and max RPM. Motor is electronically protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
71	74	71	64	63	58	53	48	68	57	8.3

Accessories:

- FAN MOUNTED SPEED CONTROL
- DISCONNECT NEMA 1 PRE-WIRED
- BD-18 DAMPER
- ROOF CURB RCG 22 13.5H -C+T+N

Verify wall mounted twist timer control provided for this fan

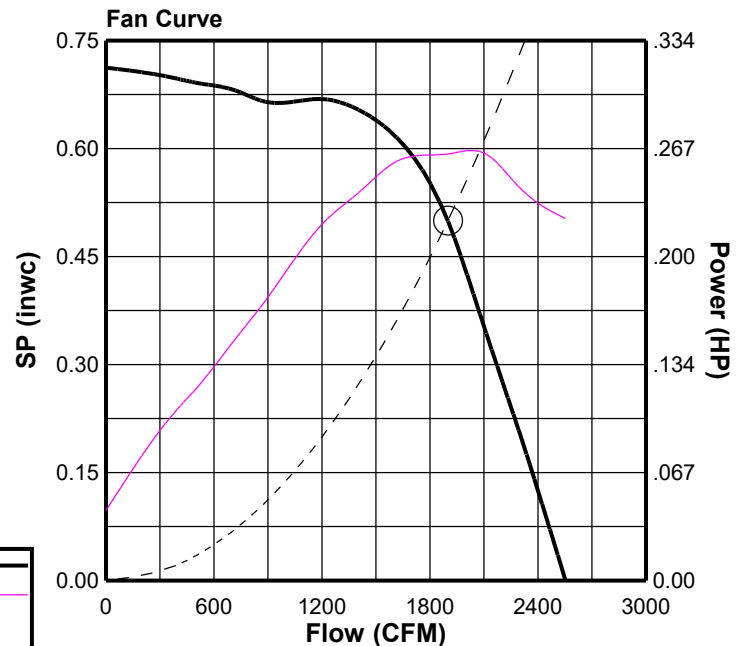
Dimensions (inches)

A	3-5/16
B O.D.	32-7/8
C	29-3/16
D O.D.	23-13/16
G	2
T Sq.	24
Roof Open. Sq.*	19-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)**	Shipping	121	Unit	95
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* Roof opening size for curbs supplied by Cook only.
**Includes fan, motor & accessories.





COOK



MARK: F-9 -F22

PROJECT: CMS ELON-HAWK-PR RELIEF ES

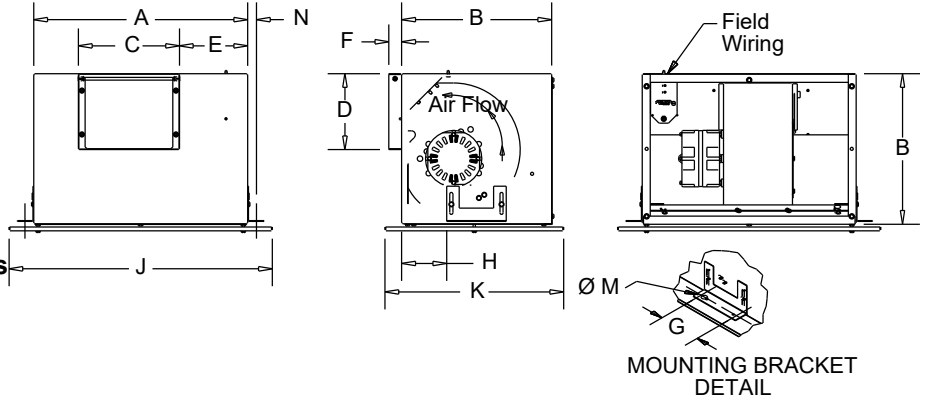
DATE: 3/31/2022

GEMINI

Ceiling and Wall Blowers 200-700 Series

STANDARD CONSTRUCTION FEATURES:

- Forward curved **galvanized steel fan wheel** -
- Corrosion resistant galvanized steel fan housing
- Acoustically insulated housing** - Aluminum backdraft damper with solid aluminum hinge rod mounted in nylon bushings - Permanently lubricated motor with built-in thermal overload protection and disconnect plug -
- Interchangeable panels with removable fasteners allows the discharge to be easily changed -
- Internal wiring box with disconnect receptacle -
- Powder-painted white steel grille** - Plastic grille standard on sizes 222, 242, 322, and 342.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
14	GC-322	75	.380	1436	29	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.53

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
55	63	62	50	41	36	31	28	55	44	2.5

Accessories:

- FAN SPEED CONTROLLER 5 AMP 120 VOLT
- WHITE ALUM GRILLE
- BV2 100-400
- GEMINI ISOLATOR KIT - ISOLATORS

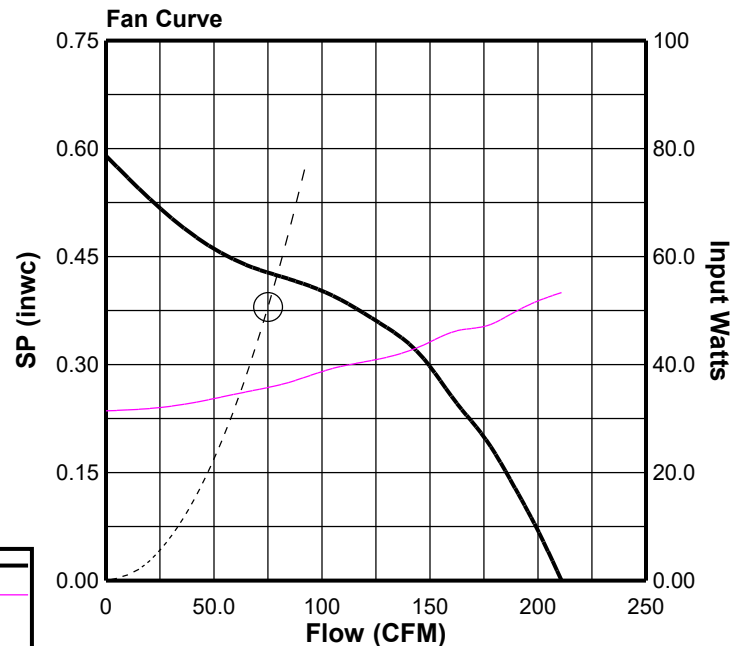
Dimensions (inches)

A	12-3/8	M	1/2
B	10-3/4	N	13/16
C	8		
D	6		
E	2-13/16		
F	1		
G	4		
H	3-9/16		
J	14-1/4		
K	12-1/4		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	30	Unit	26
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***Includes fan, motor & accessories.



Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	- - -



COOK



MARK: F-23

PROJECT: CMS ELON-HAWK-PR RELIEF ES

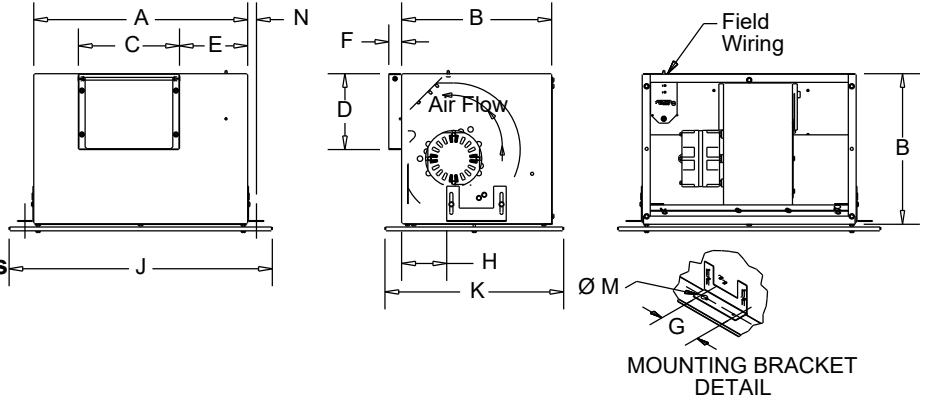
DATE: 3/31/2022

GEMINI

Ceiling and Wall Blowers 200-700 Series

STANDARD CONSTRUCTION FEATURES:

- Forward curved galvanized steel fan wheel -
- Corrosion resistant galvanized steel fan housing -
- Acoustically insulated housing - Aluminum
- backdraft damper with solid aluminum hinge rod mounted in nylon bushings -
- Permanently lubricated motor with built-in thermal overload protection and disconnect plug -
- Interchangeable panels with removable fasteners allows the discharge to be easily changed -
- Internal wiring box with disconnect receptacle -
- Powder-painted white steel grille - Plastic grille standard on sizes 222, 242, 322, and 342.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GC-342	150	.380	1566	66	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.75

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
59	72	63	52	43	38	33	28	59	48	3.5

Accessories:

- FAN SPEED CONTROLLER 5 AMP 120 VOLT
- BV2 100-400
- WHITE ALUM GRILLE
- GEMINI ISOLATOR KIT - ISOLATORS

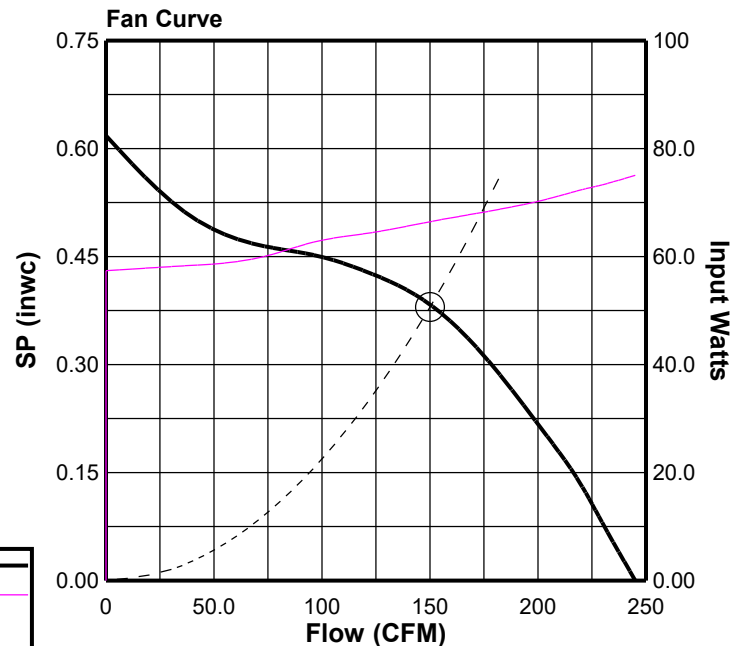
Dimensions (inches)

A	12-3/8	M	1/2
B	10-3/4	N	13/16
C	8		
D	6		
E	2-13/16		
F	1		
G	4		
H	3-9/16		
J	14-1/4		
K	12-1/4		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	30	Unit	26
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***Includes fan, motor & accessories.



Fan Curve Legend

CFM vs SP	—
CFM vs Watts	- - -
Point of Operation	○
System Curve	—



COOK



MARK: F-24 -F25

PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

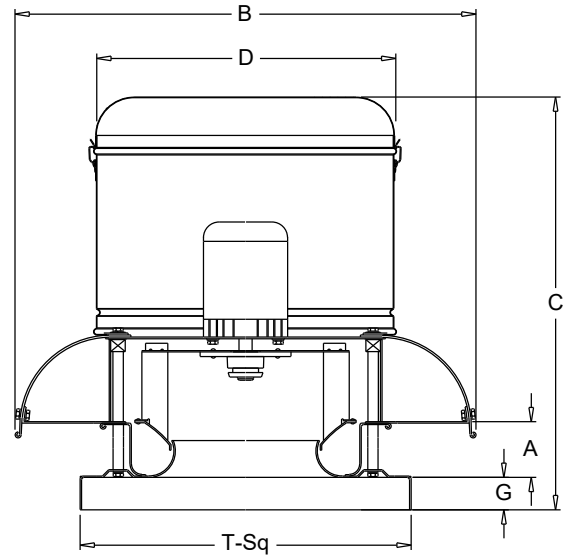
ACE-D VF

Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive

Electronically Commutated Vari-Flow® Motor

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
2	165C17D (VF)	1800	.500	892	.242	n/a(<1HP)	EC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
3/4	1725	115/1/60	OPEN -EC	7.4



*Motor programmed to max speed of 1280 RPM.
RLA based on motor manufacturer's data at programmed HP and max RPM.
Motor is electronically protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
70	73	69	63	62	57	52	48	67	56	7.7

Accessories:

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-18 DAMPER
- ROOF CURB RCG 22 13.5H -C+T+N

Dimensions (inches)

A	3-5/16
B O.D.	32-7/8
C	29-3/16
D O.D.	23-13/16
G	2
T Sq.	24
Roof Open. Sq.*	19-1/2

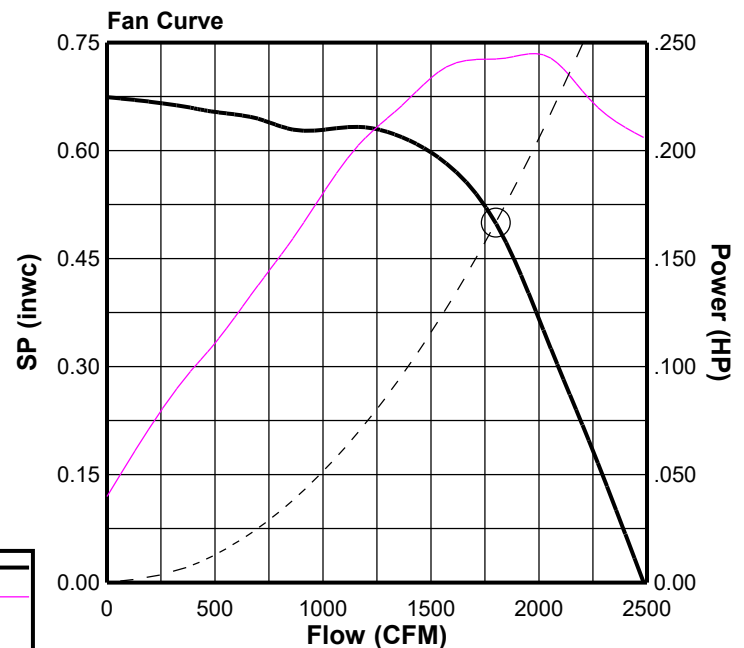
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	121	Unit	95
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	-----





COOK



MARK: F-26

PROJECT: CMS ELON-HAWK-PR RELIEF ES

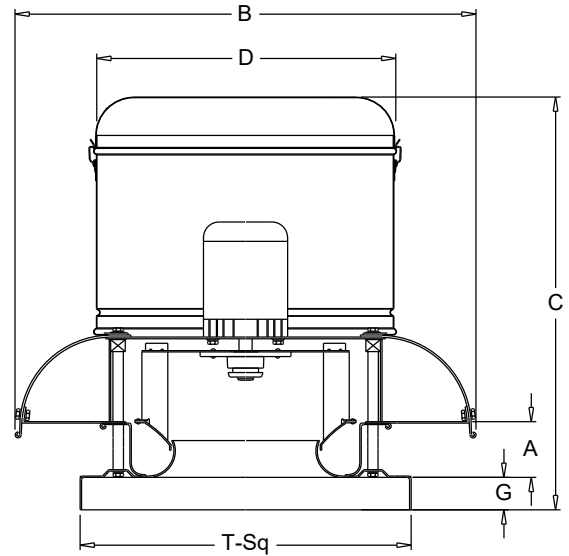
DATE: 3/31/2022

ACE-D

**Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive**

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	120C15D	650	.500	1103	.085	n/a(<1HP)	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	TOL
1/4	1550	115/1/60	ODP -SE	Yes

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
63	66	67	59	57	53	48	44	63	51	6.1

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N
- FAN SPEED CONTROLLER 5 AMP 120 VOLT

Dimensions (inches)

A	1-7/16
B O.D.	28-7/16
C	27-1/16
D O.D.	20-3/8
G	2
T Sq.	20
Roof Open. Sq.*	15-1/2

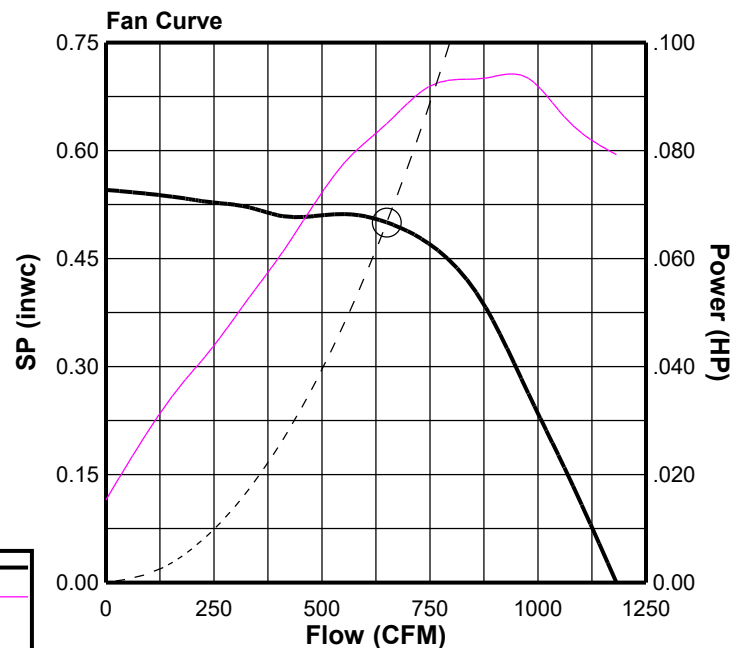
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	80	Unit	34
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs HP	—
Point of Operation	○
System Curve	-----





COOK



MARK: F-27

PROJECT: CMS ELON-HAWK-PR RELIEF ES

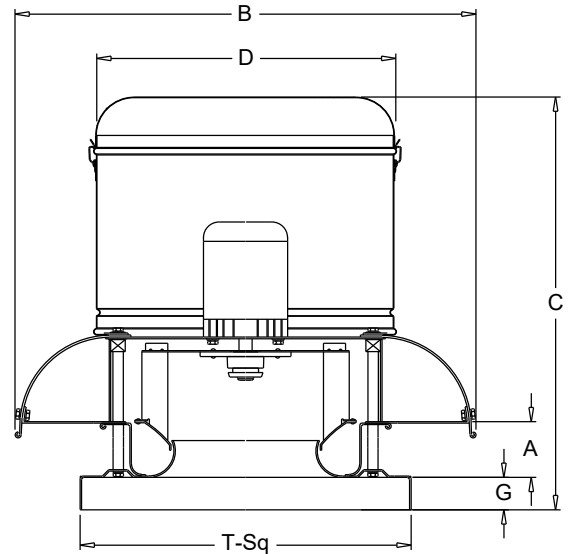
DATE: 3/31/2022

ACE-D

**Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive**

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	150C10D	1375	.500	949	.181	n/a(<1HP)	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	TOL
1/3	1050	115/1/60	ODP -SE	Yes

Coordinate motor requirements with Electrical Contractor

Dimensions (inches)

A	2-13/16
B O.D.	32-7/8
C	29-3/16
D O.D.	23-13/16
G	2
T Sq.	24
Roof Open. Sq.*	19-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	115	Unit	89
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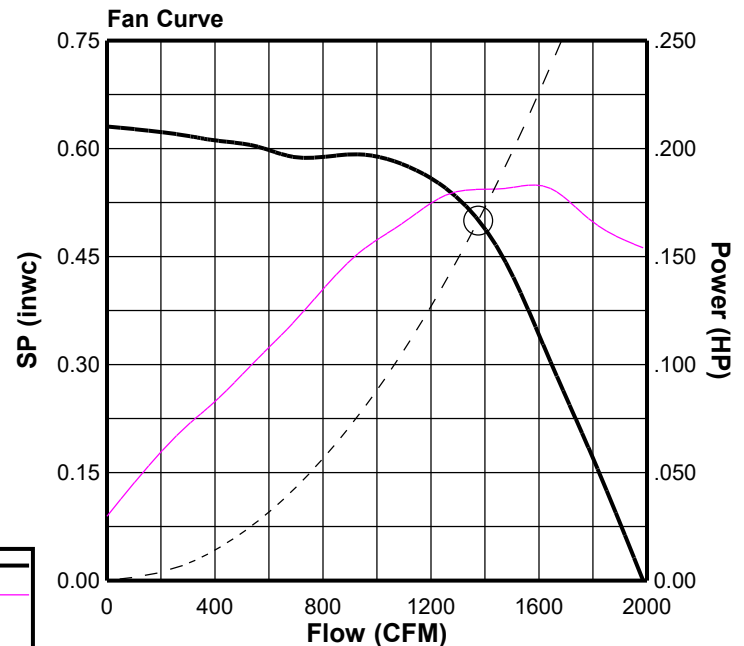
* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
68	71	68	62	60	56	51	46	66	54	7.1

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- BD-18 DAMPER
- ROOF CURB RCG 22 13.5H -C+T+N
- FAN SPEED CONTROLLER 5 AMP 120 VOLT





COOK



MARK: F-28 -F30

PROJECT: CMS ELON-HAWK-PR RELIEF ES

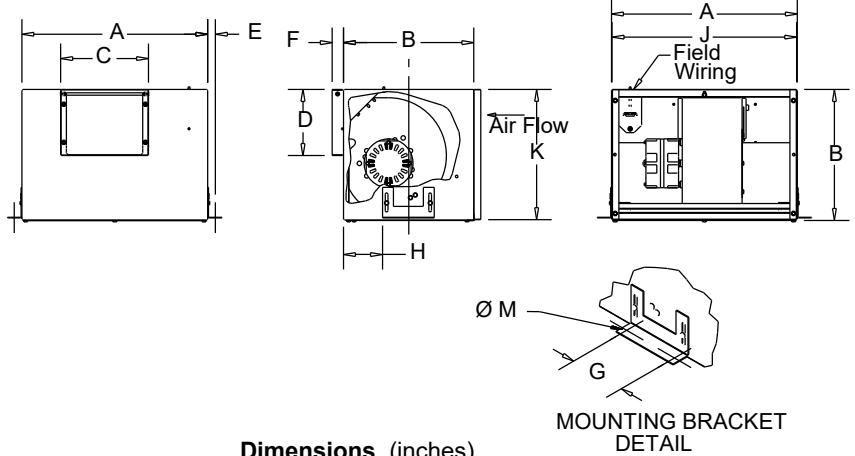
DATE: 3/31/2022

GEMINI

Inline Blowers 200-700 Series

STANDARD CONSTRUCTION FEATURES:

Forward curved **galvanized steel fan wheel** -
 Corrosion resistant galvanized steel fan housing -
Acoustically insulated housing - Aluminum
 backdraft damper with solid aluminum hinge rod
 mounted in nylon bushings - Permanently lubricated
 motor with built-in thermal overload protection and
 disconnect plug - Interchangeable panels with
 removable fasteners allows the intake to be easily
 changed - Internal wiring box with disconnect
 receptacle.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
3	GN-542	250	.500	1428	90	FSC

Altitude (ft): 768 Temperature (F): 70

Coordinate motor requirements with Electrical Contractor

Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	1.2

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
59	64	65	54	49	45	42	37	59	47	3.5

Accessories:

FAN SPEED CONTROLLER 5 AMP 120 VOLT
GEMINI ISOLATOR KIT - ISOLATORS

Dimensions (inches)

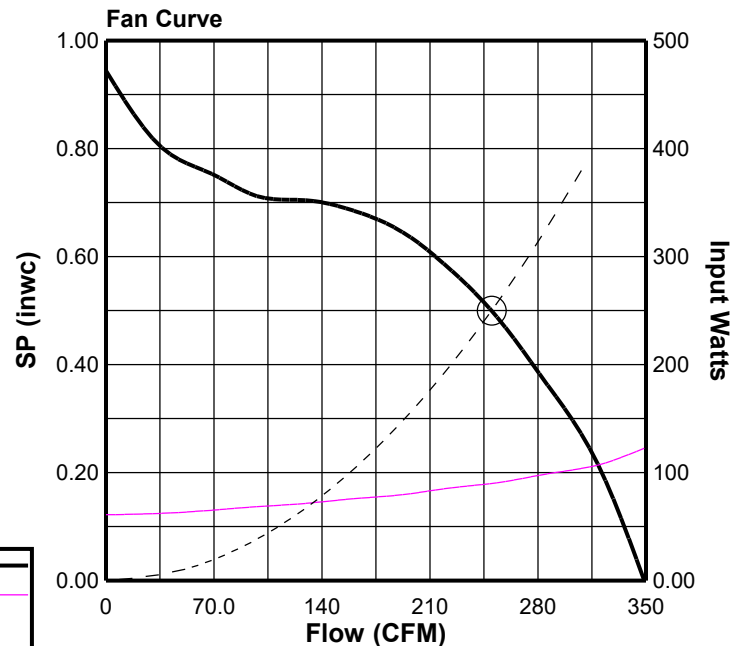
A	17
B	12
C	8
D	6
E	13/16
F	1
G	4
H	3-9/16
J-Inlet	16-15/16
K-Inlet	11-15/16

M	1/2
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NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	32	Unit	28
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***Includes fan, motor & accessories.





COOK



MARK: F-31

PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

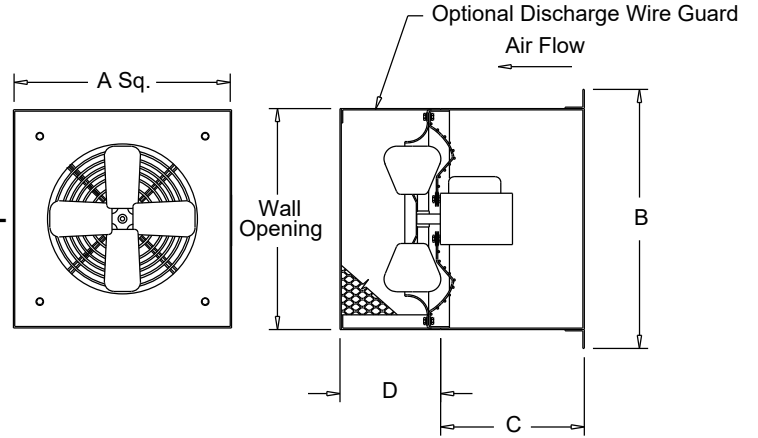
XWD

Supply Wall Fan Aluminum Propeller Direct Drive

STANDARD CONSTRUCTION FEATURES:

Aluminum propeller blades attached to a steel hub - Plated steel motor mount/inlet wire guard - Spun steel venturi/wall base - Single phase motor - Corrosion resistant fasteners - Welded wall base corners - Wall collar.

M101 Fan Schedule shows two fans while 1/M351 shows one fan. AE please confirm number of fans needed for this space



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	16XWS28D152	1700	.250	1218	359	n/a(<1HP)	1.04	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	TOL
1/2	1550	115/1/60	ODP -SE	Yes

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
73	80	71	68	65	62	58	52	71	60	10.6

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- MOTORIZED CTR PIVOT (HVY-DUTY) -18 115V
- WIREGUARD-PROP SIDE
- FAN SPEED CONTROLLER 10 AMP 120 VOLT

There is only a single Fan F-31, as shown on drawing M351.

Verify thermostat control and interlock with CO detector provided for this fan

Dimensions (inches)

A Sq.	20-3/16
B	23-1/4
C	15-3/8
D	12-3/8
Wall Opening	21

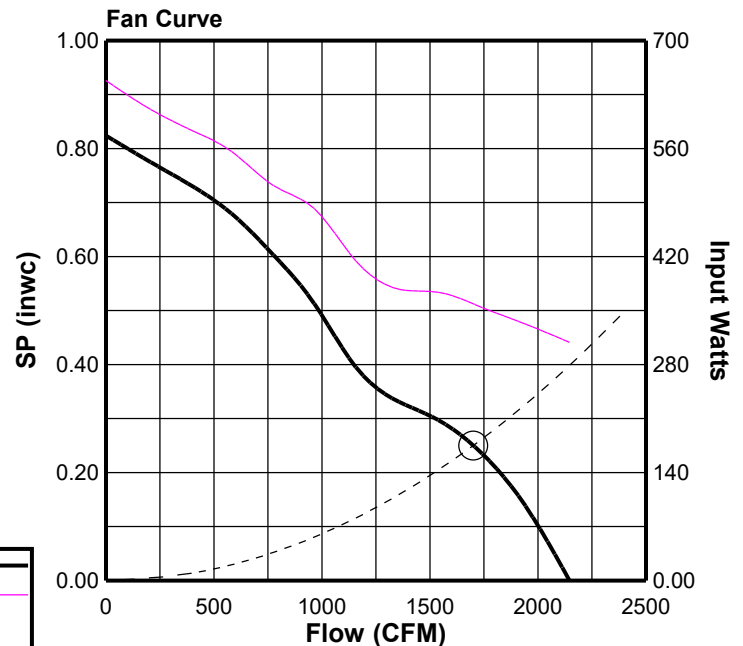
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	91	Unit	83

***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	-----





COOK



MARK: F-32

PROJECT: CMS ELON-HAWK-PR RELIEF ES

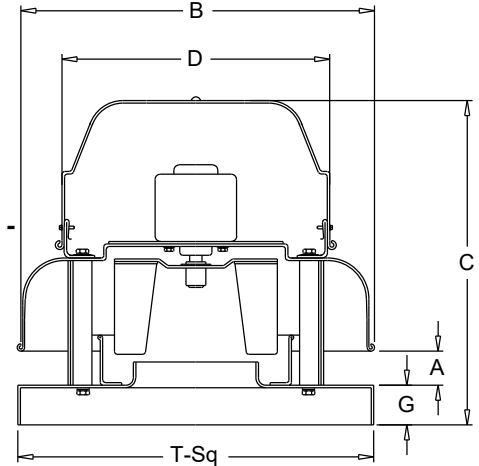
DATE: 3/31/2022

ACE-D

Downblast Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches (sizes 120 - 300) - Welded curb cap corners - **Birdscreen** - Permanently lubricated ball bearing motors - Corrosion resistant fasteners - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	90C15DH	150	.500	1311	73	n/a(<1HP)	1.96	FSC

Altitude (ft): 768 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	TOL
1/8	1550	115/1/60	ODP -SE	Yes

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
66	66	70	60	55	52	47	43	64	53	6.6

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N
- FAN SPEED CONTROLLER 5 AMP 120 VOLT

Dimensions (inches)

A	2-1/2
B O.D.	18-3/4
C	16-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

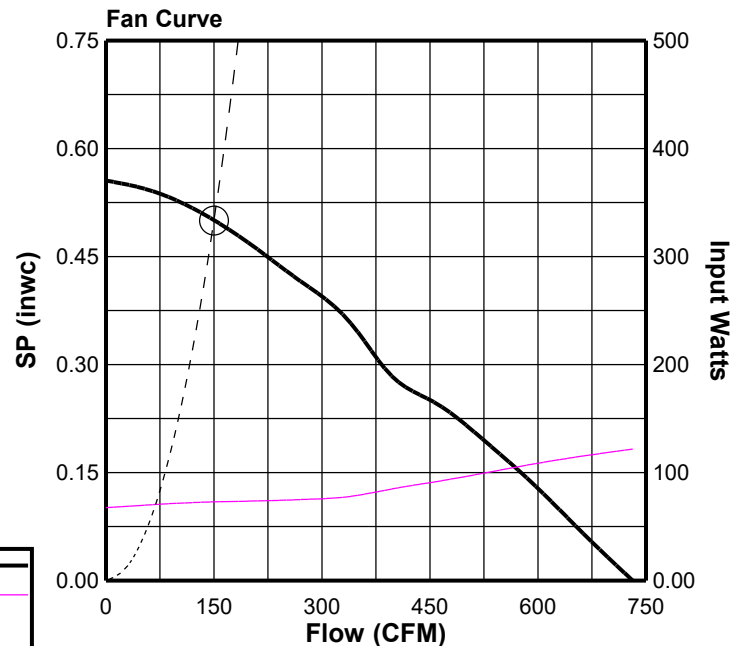
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	61	Unit	53
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	- - -





RCG

Galvanized Steel Roof Curb

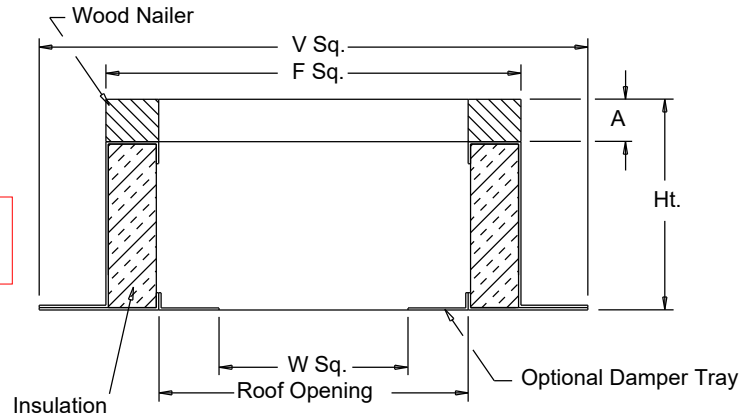
STANDARD CONSTRUCTION FEATURES:

- 18 gauge galvanized steel - 1-1/2",
- 3 lbs. density thermal and acoustical insulation - Continuously welded corners -
- Wood nailer.

Options:(As noted below*)

- 1) No wood nailer (deduct 1-1/2" for actual height).
- 2) Damper tray.
- 3) Liner.
- 4) Gasket on wood nailer.
- 5) Lorenized coating.
- 6) Enamel coating.
- 7) Burglar bars.

Verify Nailer provided with curb.



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
F-1	1	RCG 28	13.5	1;	1-1/2	28-1/2	32-1/2	21-3/4	25-1/2
F-3	1	RCG 16	13.5	1; 2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-4	1	RCG 16	13.5	1; 2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-5	1	RCG 18	13.5	1; 2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
F-6	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-8	1	RCG 22	13.5	2;	1-1/2	22-1/2	26-1/2	15-3/4	19-1/2
F-24	2	RCG 22	13.5	2;	1-1/2	22-1/2	26-1/2	15-3/4	19-1/2
F-26	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
F-27	1	RCG 22	13.5	2;	1-1/2	22-1/2	26-1/2	15-3/4	19-1/2
F-32	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2



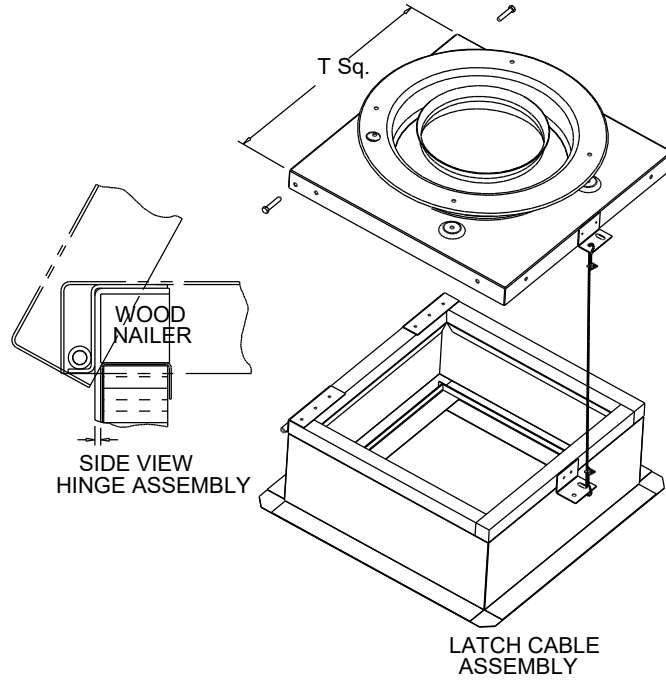
COOK

PROJECT: CMS ELON-HAWK-PR RELIEF ES

DATE: 3/31/2022

HINGED BASE

Kit Assembly



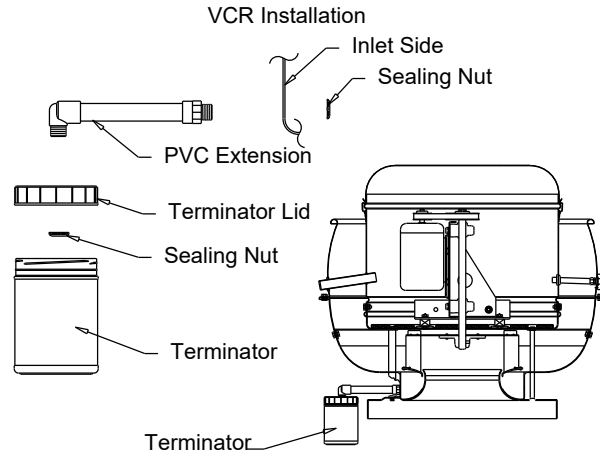
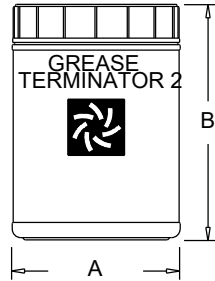
Dimensions (inches)

Mark	Qty	Description
F-1	1	HINGED BASE KIT
F-3	1	HINGED BASE KIT



COOK

Grease Terminator 2 Assembly and Installation



Dimensions (inches)

Mark	Qty	Description	A	B
F-1	1	GREASE TERMINATOR	4-13/16	6-3/4



VENTED EXTENSION

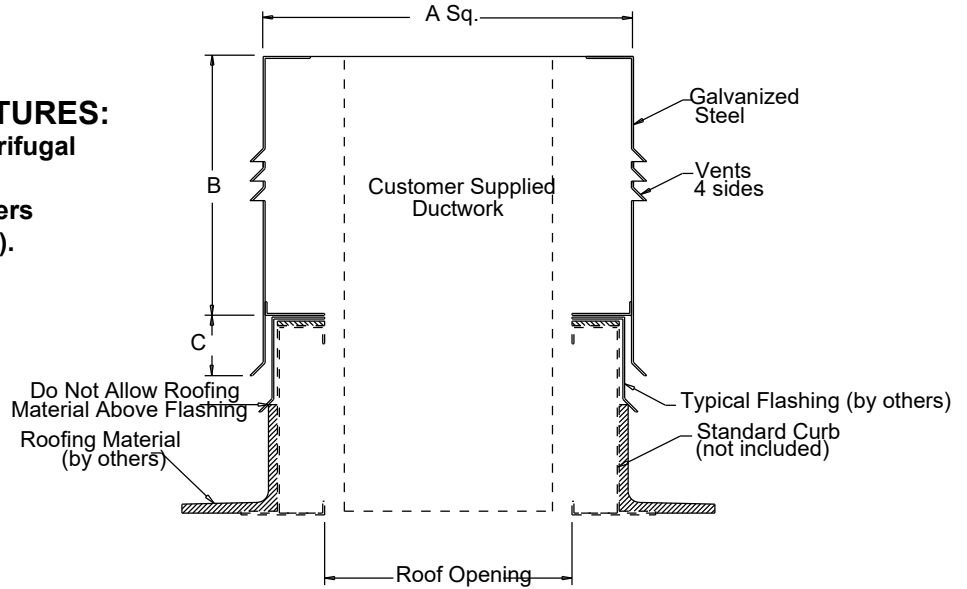
Galvanized Extension Centrifugal Units

STANDARD CONSTRUCTION FEATURES:

Minimum 20 gauge galvanized steel - Centrifugal Roof Exhausters use the standard vented extension (VE) - Low Profile Roof Exhausters use the heavy-duty vented extension (VEH).

Note:

Roof opening size for curbs supplied by Cook Only.



Dimensions (inches)

Mark	Qty	Description	Cat.No.	A Sq.	B	C	Roof Opening
F-1	1	VE-29 VENTED EXTNSN	VE-29	29	16	3-3/4	25-1/2



RCG

Galvanized Steel Roof Curb

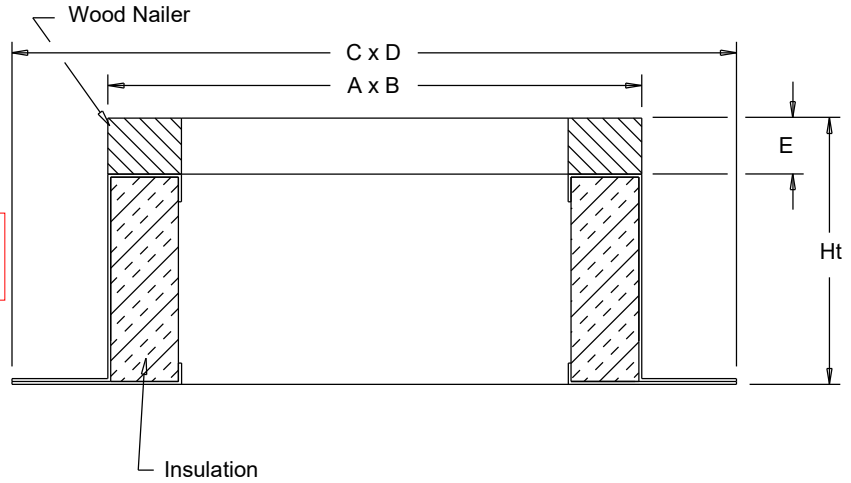
STANDARD CONSTRUCTION FEATURES:

1-1/2", 3 lbs. density thermal and acoustical insulation - Continuously welded corners - wood nailer.

Options:(As noted below*)

- 1) No wood nailer (deduct 1-1/2" for actual height)
- 2) Liner.
- 3) Gasket on wood nailer.
- 4) Lorenized coating.
- 5) Enamel coating.
- 6) Burglar bars.

Verify Nailer provided with curb.



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	B	C	D	E	Steel Ga.
F-2	1	RCG 31 X 67	13.5	-	31-1/4	66-15/16	34-1/4	70-15/16	1-1/2	18



BD

Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

.020 Aluminum blades - .060 aluminum frame -
Aluminum hinge pins - Nylon bushings.

Notes:

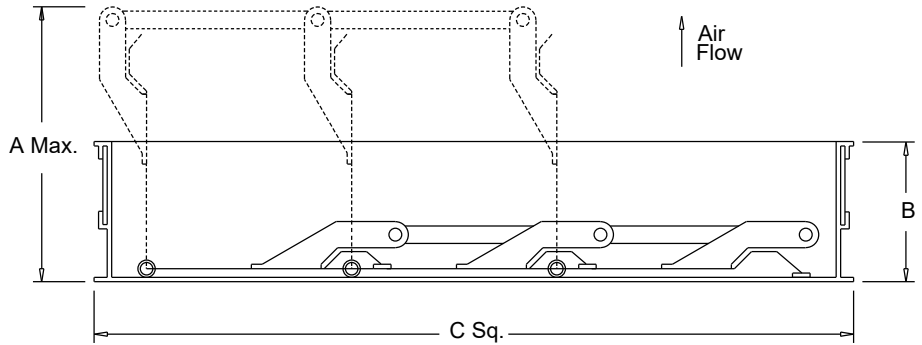
Max. operating temperature 200 Deg F (95 Deg C).

Max. discharge velocity 2000 fpm.

Sizes 36 thru 60 are shipped as 2 panels.

Sizes 66 and 78 are shipped as 6 panels.

These may require assembly.



Dimensions (inches)

Mark	Qty	Description	A Max.	B	C Sq.	# Panels
F-3	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-4	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-5	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
F-6	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-8	1	BD-18 DAMPER	5-3/16	1-7/8	17-3/4	1
F-24	2	BD-18 DAMPER	5-3/16	1-7/8	17-3/4	1
F-26	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
F-27	1	BD-18 DAMPER	5-3/16	1-7/8	17-3/4	1
F-32	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1



FSC

Fan Speed Controls

STANDARD CONSTRUCTION FEATURES:

PRODUCT DESCRIPTION - Through the "Quadrac" integrated semi-conductor device it is now possible to offer this system with many advantages. Fewer semi-conductor parts mean greater reliability and the passivation process used in the manufacture of the semi-conductor insures long life.

Printed circuit construction eliminates wiring difficulties and guarantees workmanship.

All of these factors serve to offer the most important of all features - quality.

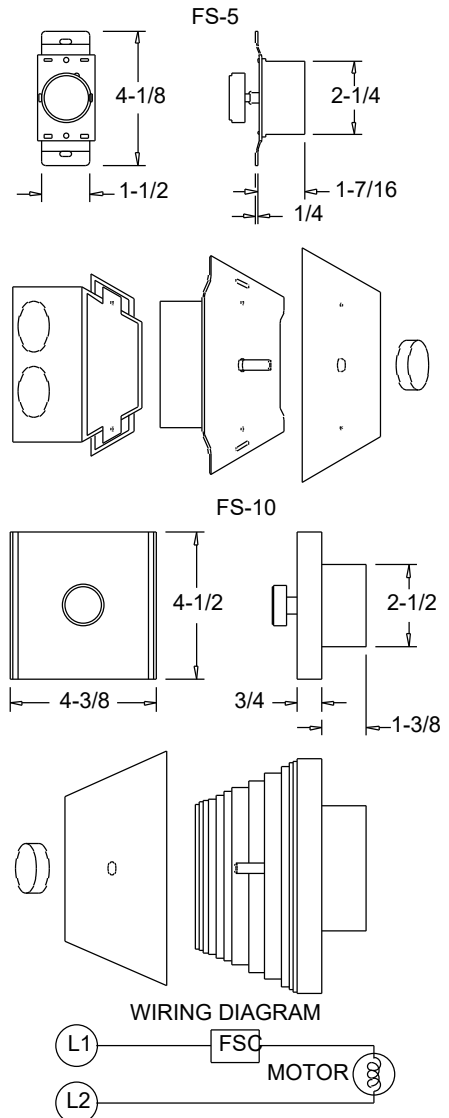
SPEED CONTROL - Positive Off/On action in the control dial. Speed range set to the customer's requirements. **CONTROL RATING** - 120 volts, 60 cycles, 1 phase. Maximum ambient temperature - 120 degree F (5 AMP, 10 AMP, 15 AMP). 220/240 volt, 50/60 cycles, 1 phase. Maximum ambient temperature - 120 degree F (5 AMP, 10 AMP). 220/240 volt model not UL listed. Fan cannot have UL listing if furnished with prewired 220/240 volt FSC. 277 volt, 60 cycles, 1 phase.

Maximum ambient temperature - 120 degree F (5 AMP). **WARNING** - Power must be turned off before installing this unit. **STANDARD INSTALLATION** - Fits any standard single gang box.

Turn off power and connect the two wires on the control to the two switch wires in the usual manner. The connection box is not supplied. **SPECIAL FEATURES** - Complete range control, solid state "Quadrac" integrated circuitry, solid state construction for long reliable operating life, saves on electric bills.

Dimensions (inches)

Mark	Qty	Description
F-4	1	FSC 5 AMP 120 VOLT
F-5	1	FSC 5 AMP 120 VOLT
F-6	1	FSC 5 AMP 120 VOLT
F-7	1	FSC 5 AMP 120 VOLT
F-9	14	FSC 5 AMP 120 VOLT
F-23	1	FSC 5 AMP 120 VOLT
F-26	1	FSC 5 AMP 120 VOLT
F-27	1	FSC 5 AMP 120 VOLT
F-28	3	FSC 5 AMP 120 VOLT
F-31	1	FSC 10 AMP 120 VOLT
F-32	1	FSC 5 AMP 120 VOLT



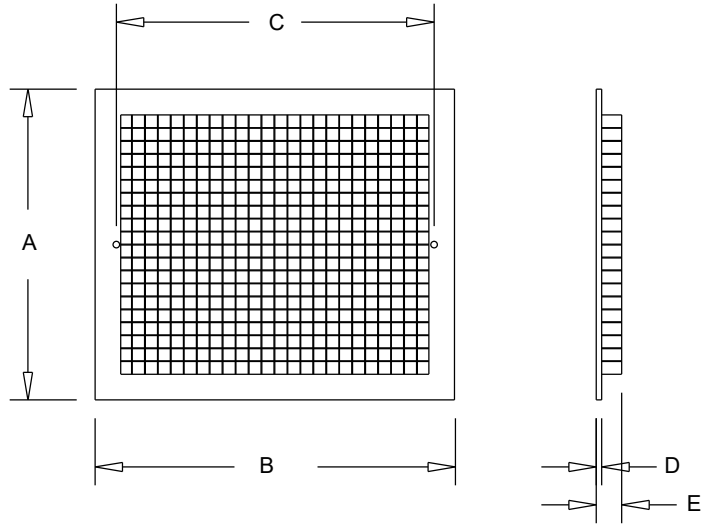


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PROJECT: CMS ELON-HAWK-PR RELIEF ES

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GEMINI ALUMINUM GRILLE



Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E
F-7	1	WHITE ALUM GRILLE	12-1/4	14-1/4	11-3/4	1/4	3/4
F-9	14	WHITE ALUM GRILLE	12-1/4	14-1/4	11-3/4	1/4	3/4
F-23	1	WHITE ALUM GRILLE	12-1/4	14-1/4	11-3/4	1/4	3/4



COOK

PROJECT: CMS ELON-HAWK-PR RELIEF ES

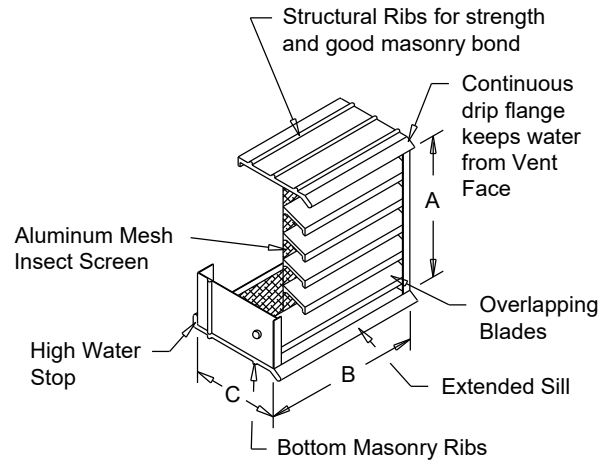
DATE: 3/31/2022

GEMINI

BRICK VENT

NOTE:

Frame and blades are constructed from .125" thick materials. Designed for maximum protection against water entering building with 4" deep frame and 45 degree blades. The vents come standard with clear anodized finish.



Dimensions (inches)

Mark	Qty	Description	Series	A	B	C
F-7	1	BV2 100-400	200-400	4-3/4	16-1/2	4
F-9	14	BV2 100-400	200-400	4-3/4	16-1/2	4
F-23	1	BV2 100-400	200-400	4-3/4	16-1/2	4



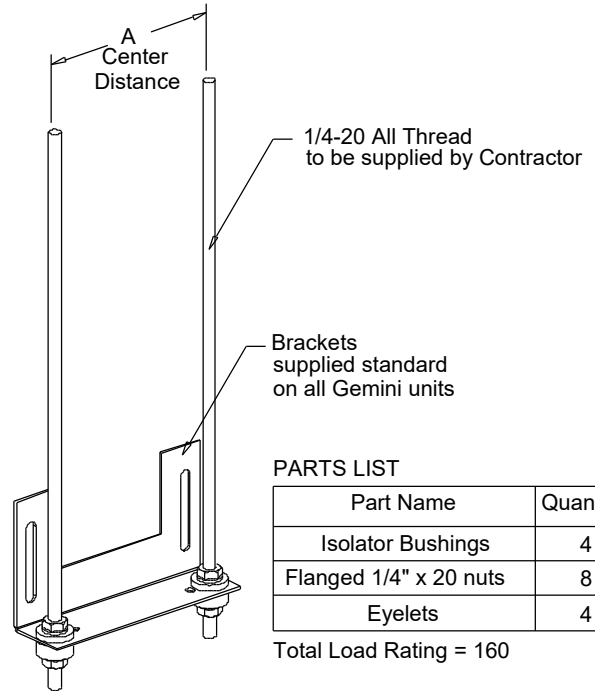
COOK

GEMINI

Gemini Isolator Kit
GIK
Rubber In Shear

PROJECT: CMS ELON-HAWK-PR RELIEF ES

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PARTS LIST

Part Name	Quantity
Isolator Bushings	4
Flanged 1/4" x 20 nuts	8
Eyelets	4

Total Load Rating = 160

Dimensions (inches)

Mark	Qty	Description	Part #	A
F-7	1	GEMINI ISOLATO	GIK	4
F-9	14	GEMINI ISOLATO	GIK	4
F-23	1	GEMINI ISOLATO	GIK	4
F-28	3	GEMINI ISOLATO	GIK	4



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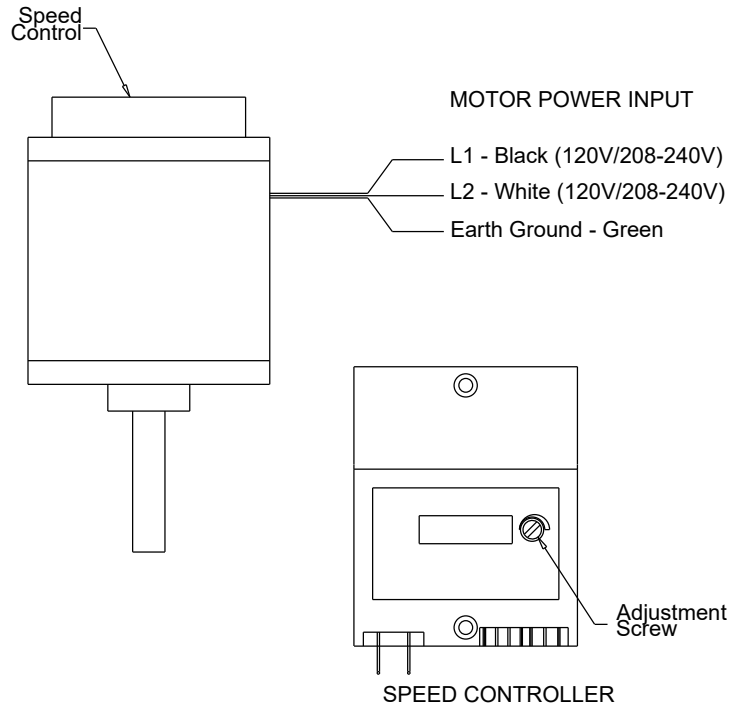
PROJECT: CMS ELON-HAWK-PR RELIEF ES

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Speed Control

Internal Speed Control
Electronically Commutated (EC) Motor
Type N

STANDARD CONSTRUCTION FEATURES:
Some motors come with a factory programmed maximum RPM for specific applicaitons - Integral potentiometer with slotted screw for speed adjustment.



Dimensions (inches)

Mark	Qty	Description
F-8	1	OPEN -3/4HP - 115V/1 PH/ 60 1725/0000 -EC



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Speed Control

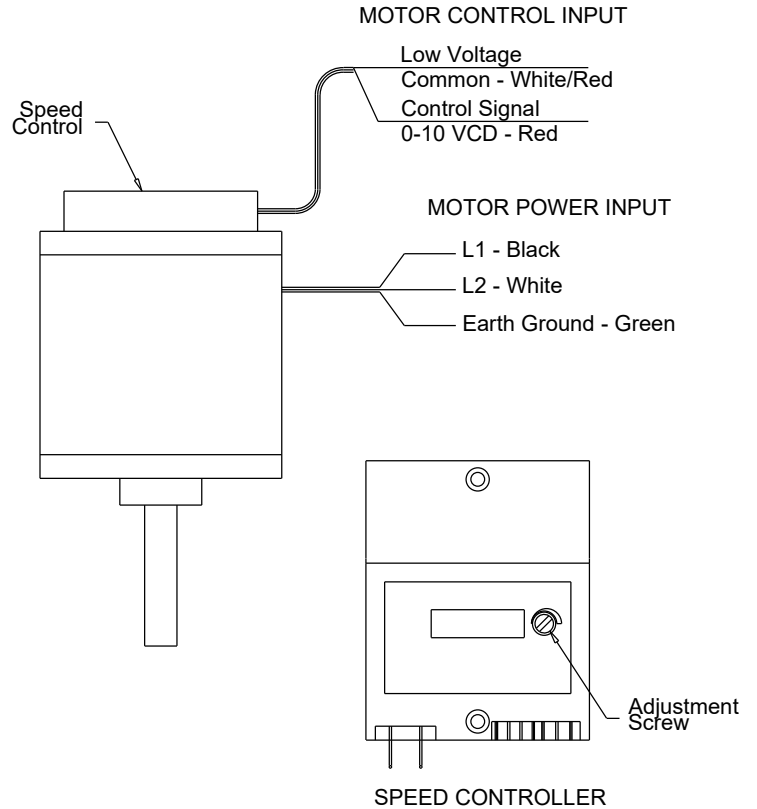
External Speed Control Electronically Commutated (EC) Motor Type N

STANDARD CONSTRUCTION FEATURES:

Vari-Flow EC Motors are available in 1/8 to 1 HP for 120V or 208-230V -Single phase applications have a adjustable speed range of 500 to 1725 or 500 to 2800 - Some motors come with a factory programmed maximum RPM for specific applications - External signal speed control requires a 0-10 VDC control signal to adjust speed of the motor - The motor will operate from 2-10 VDC and turns off when the control signal is below 1.9 VDC - Dial on speed control must be set to 0 for proper external speed control operation.

Dimensions (inches)

Mark	Qty	Description
F-24	2	OPEN -3/4HP - 115V/1 PH/ 60 1725/0000 -EC





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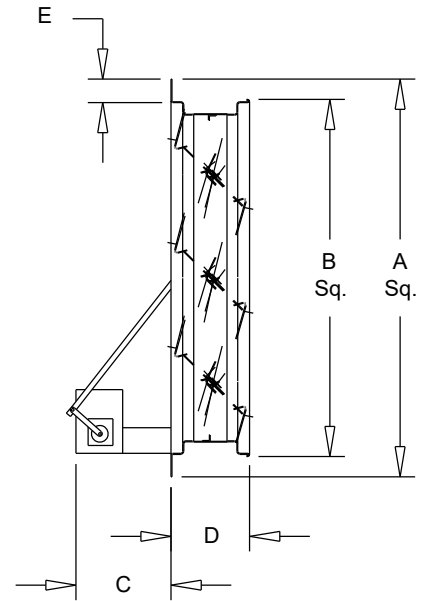
MIC

Motorized Center Pivot Intake Shutter

NOTES:

The Model MIC shutters are designed to reduce backdrafts, prevent entry of some foreign material and pests, such as birds, and limit the amount of rain that enters the building. These shutters are intended to be weather-resistant, but are not weather-proof for extreme conditions.

- 1) Shutter sizes are the same for units with or without wall collars.
- 2) Shutter is motorized open - spring return.
- 3) Motors are non-overloading type. Available voltages - 24V AC/DC, 115-1PH, 230-1PH. 230V-3PH and 460V-3PH are provided as 115V-1PH with a transformer.
- 4) All galvanized steel construction: Blades 16. ga; Frame 16 ga.



Dimensions (inches)

Mark	Qty	Description	A Sq.	B Sq.	C	D	E	# Motors
F-31	1	MIC-18 115V	21	18	7-7/8	5	1-1/2	1



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WIRE GUARD

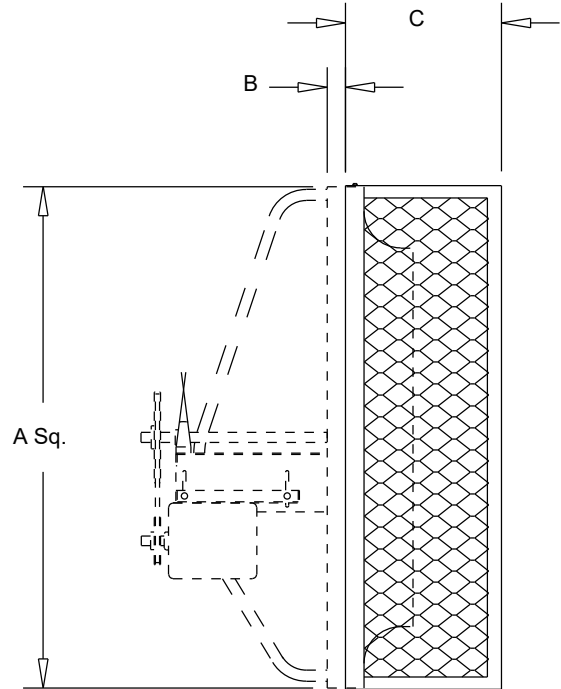
Propeller Side Propeller Wall Ventilators

STANDARD CONSTRUCTION FEATURES:

14 Ga. steel frame - 1/2" X 1" X 16 Ga.
expanded metal screen - Lorenized finish -
Removable end panel - Sheet metal screws
attach wire guard to fan, shipped
assembled on fan.

NOTES:

* A Sq. is to outside of fasteners on wire guard.



Dimensions (inches)

Mark	Qty	Description	A Sq.*	B	C
F-31	1	WIREGUARD-PROP SIDE	21	1	12-3/8