



# SUBMITTAL SHEET

Edifice, LLC

NC4205 . - CMS New Elementary School Hidden Valley JW Grier Newell (17)

**Project:** NC4205 .  
CMS New Elementary School Hidden Valley JW Grier  
Newell (17)  
7515 The Plaza  
Charlotte, NC  
28215

**Spec Section Num:** 233723  
**Submittal:** 233723.002  
**Revision:** 0  
**Package:**  
**Date:** 7/5/2022 EDT

**Submittal Title:** HVAC Gravity Ventilators PD & SD & HVAC Power Ventilators PD & SD  
**Submittal Detail:**  
**Response Due By:**


**Contractor:**

Contractor's Stamp

THIS REVIEW IS FOR GENERAL COMPLIANCE WITH THE DESIGN CONCEPT THE SUBCONTRACTOR / VENDOR IS RESPONSIBLE FOR DIMENSIONS TO BE CONFIRMED AND COORDINATED IN THE FIELD AND REMAINS RESPONSIBLE FOR VERIFICATION OF ALL QUANTITIES. EDIFICE IS NOT RESPONSIBLE FOR ANY DEVIATION FROM THE CONTRACT DOCUMENTS. DEVIATIONS AND / OR SUBSTITUTIONS MUST BE CLEARLY IDENTIFIED. APPROVAL OF ANY DEVIATIONS / SUBSTITUTIONS MUST BE MADE BY OWNER OR DESIGN TEAM.

**Architect:**

Architect's Stamp

**SHOP DRAWING REVIEW** 

NO EXCEPTION TAKEN  
 APPROVED AS NOTED  
 REVISE AND RESUBMIT  
 REJECTED

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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 MAINTENANCE ACCESS, CLEARANCES, BUILDING ALTERATIONS, REPLACEMENT OF OTHER SYSTEM COMPONENTS, ETC.

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BY **Bill Nord** DATE **7/18/2022**

**Response:**  
**Comment:**

**KEF (F-1) & MUA (F-2) INCLUDED IN HOOD SUBMITTAL**

Spec Section 233423 Power Ventilators included with this submittal.

Coordinate all electrical requirements with electrical contractor.

All cost associated with substituted equipment to comply with basis of design, any such cost will be the responsibility of the mechanical contractor. this includes any modifications to any associated mechanical, plumbing, or electrical systems.

Fans **F-30, F-32** are missing from this submittal.

See submittal for additional comments.



**SUBMITTAL**

**PROJECT:** CMS – GRIER / HV / NEWELL RELIEF  
ELEMENTARY SCHOOL  
CHARLOTTE, NC

**ENGINEER:** OPTIMA ENGINEERING  
CHARLOTTE, NC

**CONTRACTOR:** SUPERIOR MECHANICAL SYSTEMS  
CHARLOTTE, NC

**EQUIPMENT:** EXHAUST 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:**   
David Petrovski

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

Telephone: 704-523-5000  
Fax: 704-523-5171  
04/07/2022 11:31 AM



**COOK**

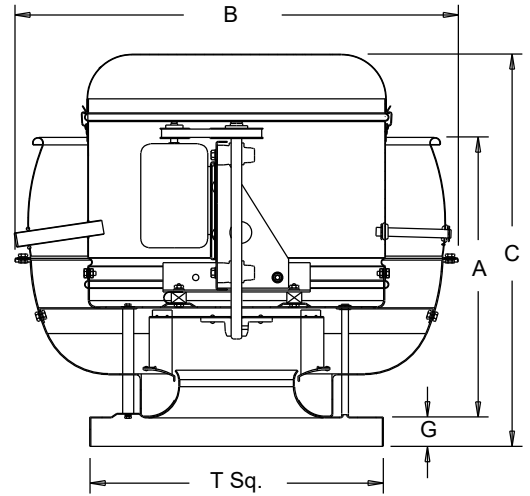


<b>MARK: F-3</b>
<b>PROJECT: CMS - GRIER_HV_NEWELL RELIEF ELEMEN...</b>
<b>DATE: 4/7/2022</b>

**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 14% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	135R OR91	600	1.00	1504	.348	n/a(<1HP)

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

**Motor Information**

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	TOL
1/2	1725	115/1/60	ODP -SE	9.8	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
81	86	83	74	66	63	58	53	77	66	15.1

**Accessories:**

- DRIVES (1.5 SF) @ 1504 RPM
- ORIFICE PLATE 91
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N
- HINGED BASE KIT
- DRAIN TUBE (ALUM)
- ALUMINUM BIRDSCREEN
- ANTICONDENSATE COAT

**Dimensions (inches)**

<b>A</b>	19-1/16
<b>B</b>	30-3/16
<b>C</b>	28-5/8
<b>G</b>	2
<b>T Sq.</b>	20
<b>Roof Open. Sq.*</b>	15-1/2

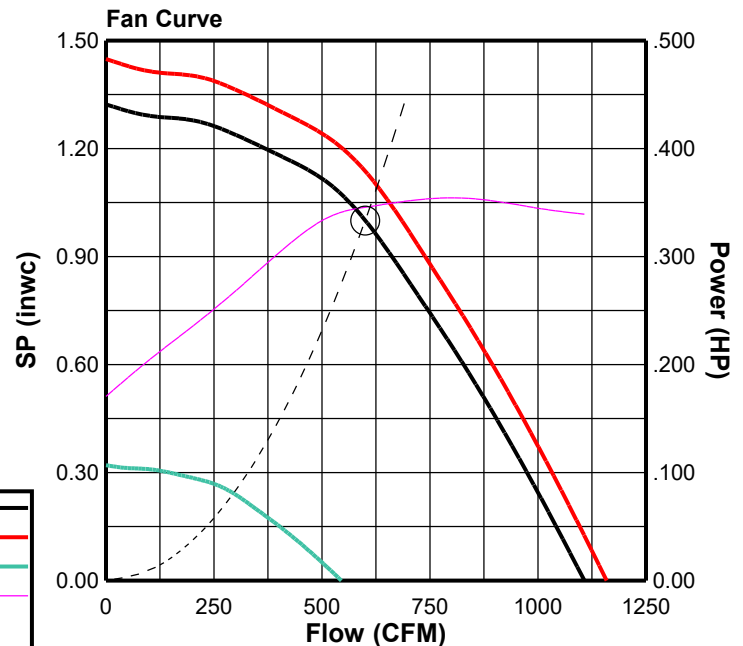
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	125	Unit	108
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\* Roof opening size for curbs supplied by Cook only.  
 \*\*\*Includes fan, motor & accessories.

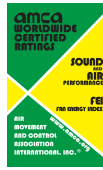
**Fan Curve Legend**

CFM vs SP (1504)	—
MaxRPM( 1574)	—
MinRPM(740)	—
CFM vs HP	—
Point of Operation	○
System Curve	-----





**COOK**



MARK: F-4

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

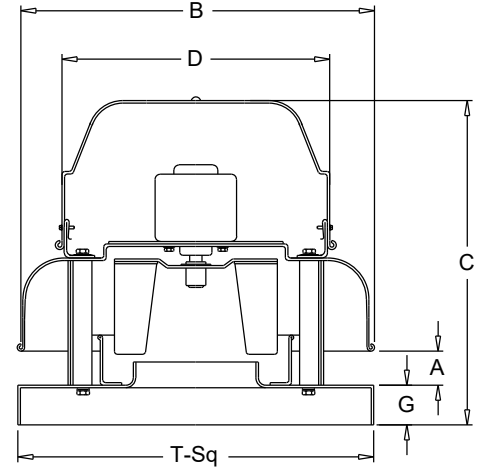
# ACED-EC

**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 101 - 135) - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing electronically commutated motor - Power rated in Input Watts - Corrosion resistant fasteners - Transit tested packaging.



**Performance**

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	90C17DEC	600	.250	1662	96	n/a(<1HP)	2.02	EC

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

**Motor Information**

HP	RPM	Volts/Ph/Hz	Enclosure
1/6	1725	115/1/60	OPEN -EC



**Sound Data Inlet Sound Power by Octave Band**

1	2	3	4	5	6	7	8	LwA	dBA	Sones
64	72	73	63	60	54	47	42	67	56	7.7

**Accessories:**

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N

**Dimensions (inches)**

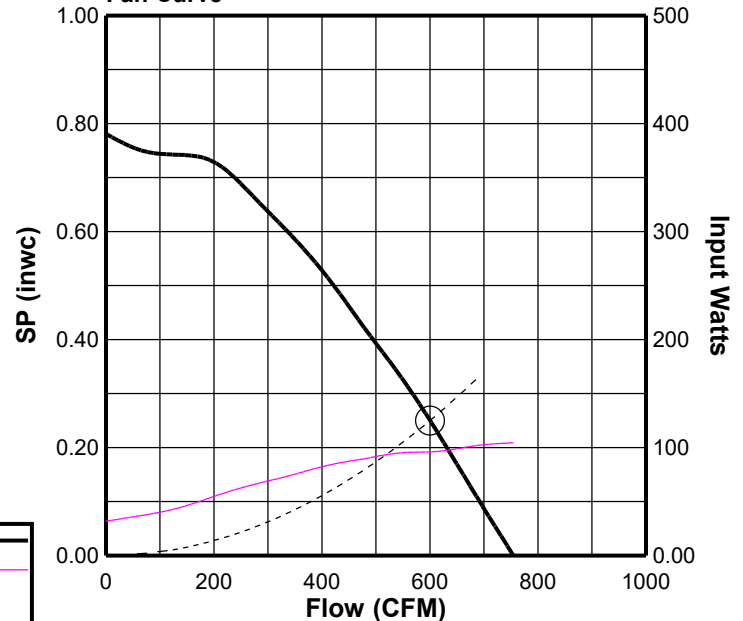
A	2-1/2
B O.D.	18-3/4
C	16-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	Unit
59	51	51

\* 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-6

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

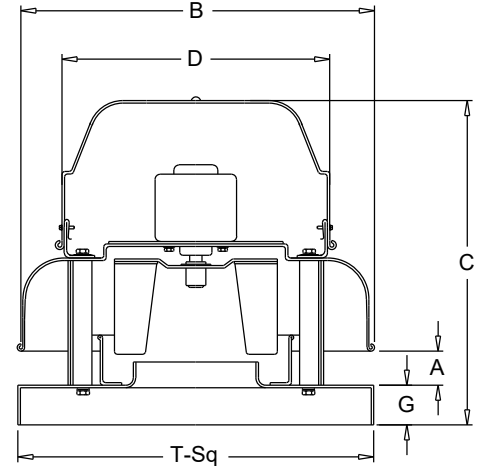
# ACED-EC

**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 101 - 135) - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing electronically commutated motor - Power rated in Input Watts - Corrosion resistant fasteners - Transit tested packaging.



**Performance**

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	90C17DEC	425	.250	1366	52	n/a(<1HP)	3.16	EC

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

**Motor Information**

HP	RPM	Volts/Ph/Hz	Enclosure
1/6	1725	115/1/60	OPEN -EC



**Sound Data Inlet Sound Power by Octave Band**

1	2	3	4	5	6	7	8	LwA	dBA	Sones
62	67	69	58	52	47	41	38	63	51	5.8

**Accessories:**

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N

**Dimensions (inches)**

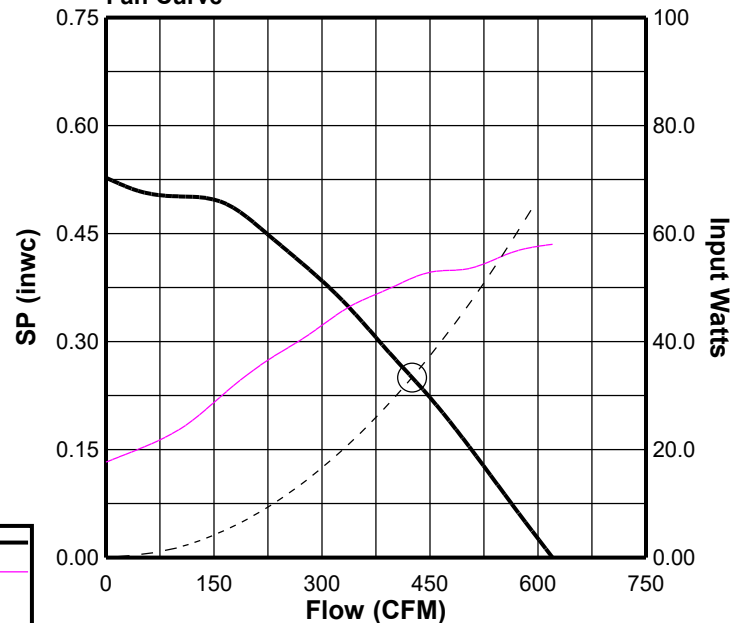
A	2-1/2
B O.D.	18-3/4
C	16-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	59	Unit	51
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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 - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

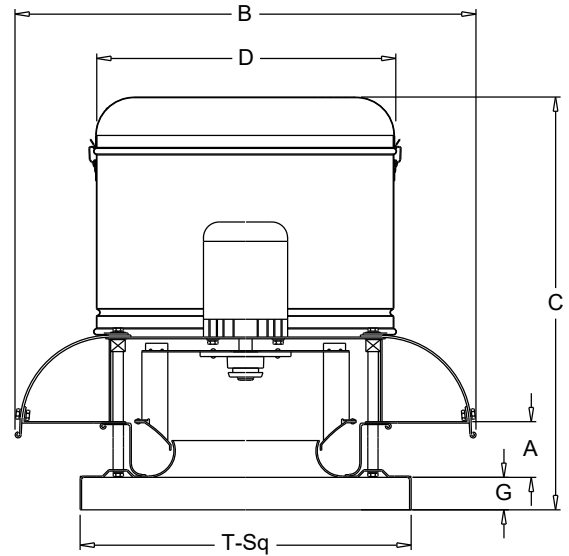
# ACE-D VF

**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	135C17D (VF)	1650	.500	1343	.332	n/a(<1HP)	EC

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

**Motor Information**

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
1/2	1725	115/1/60	OPEN -EC	6.4



\*Motor programmed to max speed of 1515 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
74	76	80	71	67	65	58	53	75	63	12.3

**Accessories:**

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N

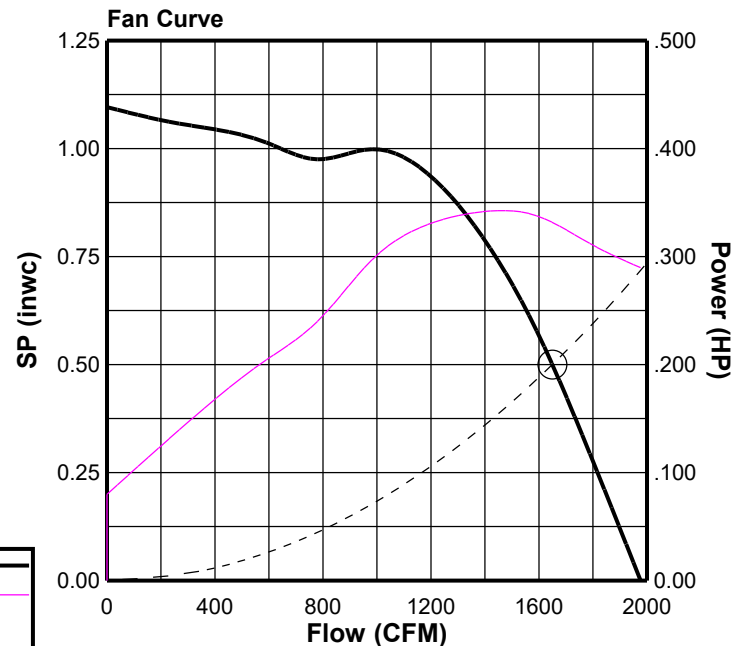
**Dimensions (inches)**

A	1-15/16
B O.D.	28-7/16
C	28-11/16
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	86	Unit	70
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\* Roof opening size for curbs supplied by Cook only.  
\*\*\*Includes fan, motor & accessories.





# COOK



MARK: F-8

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

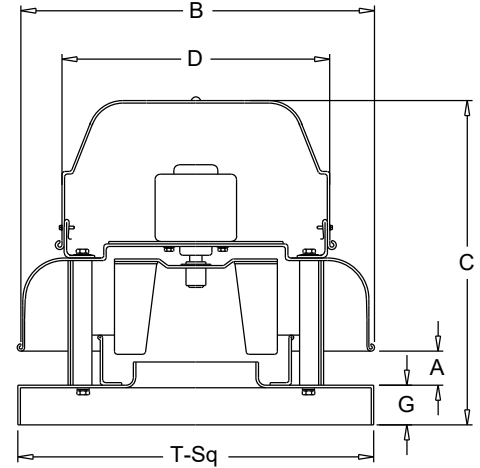
## ACED-EC

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 101 - 135) - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing electronically commutated motor - Power rated in Input Watts - Corrosion resistant fasteners - Transit tested packaging.



### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	100C17DEC	675	.250	1551	114	n/a(<1HP)	1.81	EC

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

### Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure
1/4	1725	115/1/60	OPEN -EC



### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
64	75	75	65	62	58	50	45	69	58	8.8

### Accessories:

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N

### 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

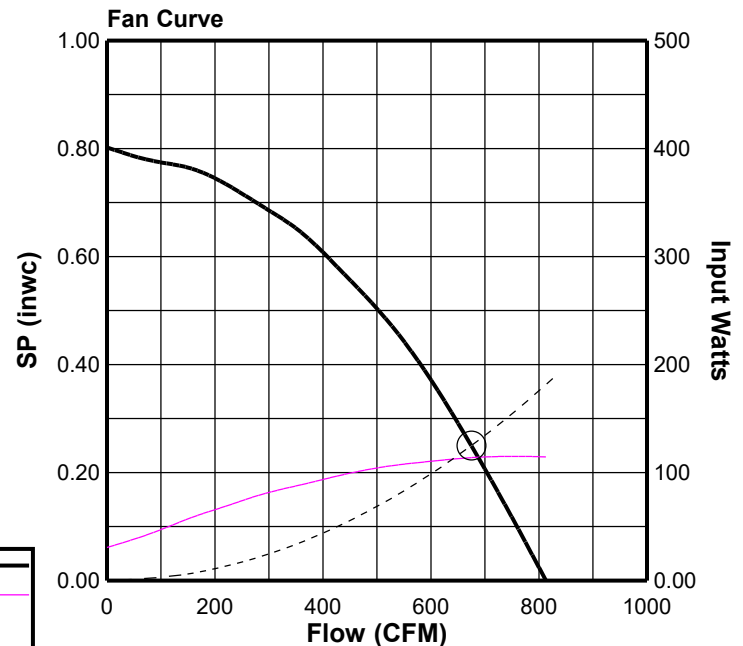
NOTE: Accessories may affect dimensions shown.

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-37

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

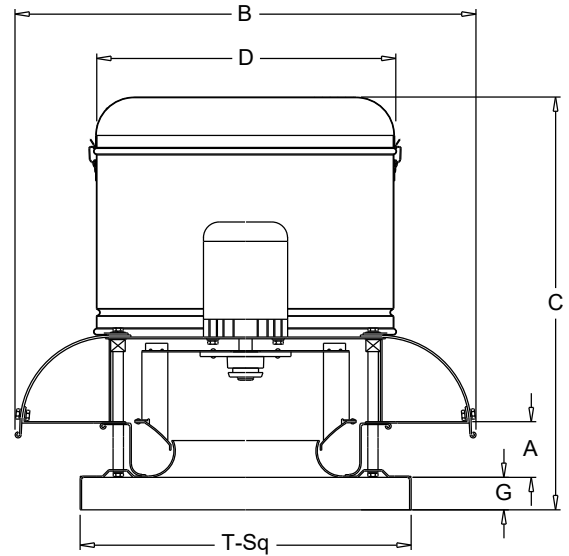
## ACED-EC

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 101 - 135) - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing electronically commutated motor - Power rated in Input Watts - Corrosion resistant fasteners - Transit tested packaging.



### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	120C17DEC	1000	.250	1161	108	n/a(<1HP)	2.41	EC

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

### Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure
1/2	1725	115/1/60	OPEN -EC



### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
65	69	71	63	60	57	50	45	67	55	7.6

### Accessories:

- FAN MOUNTED SPEED CONTROL
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N

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

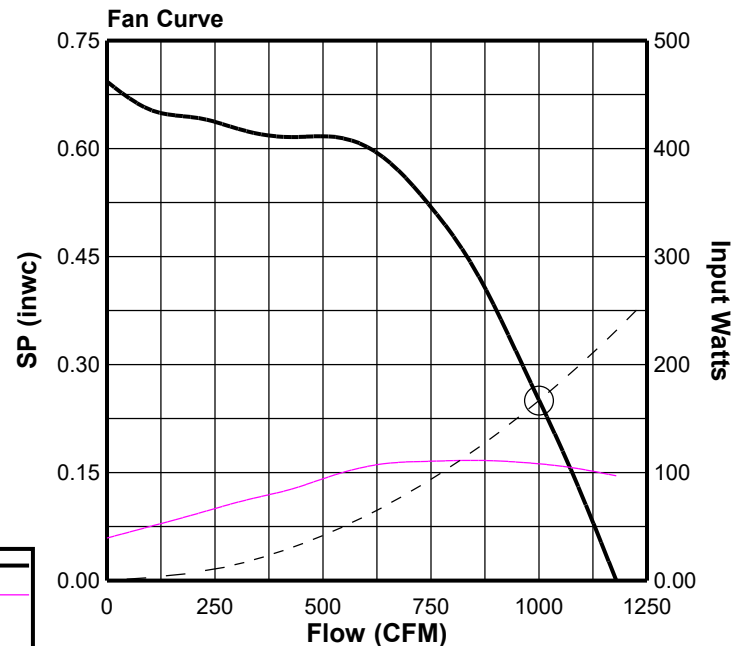
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	Unit
81	81	35

\* Roof opening size for curbs supplied by Cook only.  
\*\*\*Includes fan, motor & accessories.

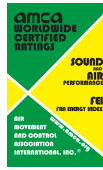
### Fan Curve Legend

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





# COOK



MARK: F-5

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

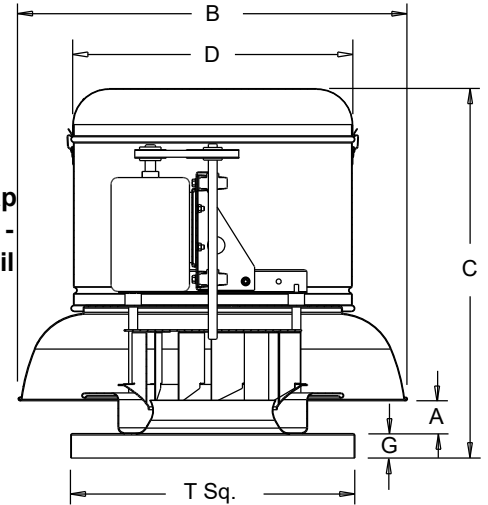
DATE: 4/7/2022

## ACE-B

### Downblast 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 - 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 16% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	135C4B	1700	.250	1239	.256	n/a(<1HP)

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

#### Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	TOL
1/3	1725	115/1/60	ODP -SE	7.2	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
72	75	79	69	66	63	56	50	73	62	11.3

#### Accessories:

- DRIVES (1.5 SF) @ 1239 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N
- HINGED BASE KIT

Verify wall mounted twist timer control provided for this fan

#### Dimensions (inches)

A	2-3/16
B	28-7/16
C	27-1/4
D	20-5/16
G	2
T Sq.	20
Roof Open.Sq.*	15-1/2

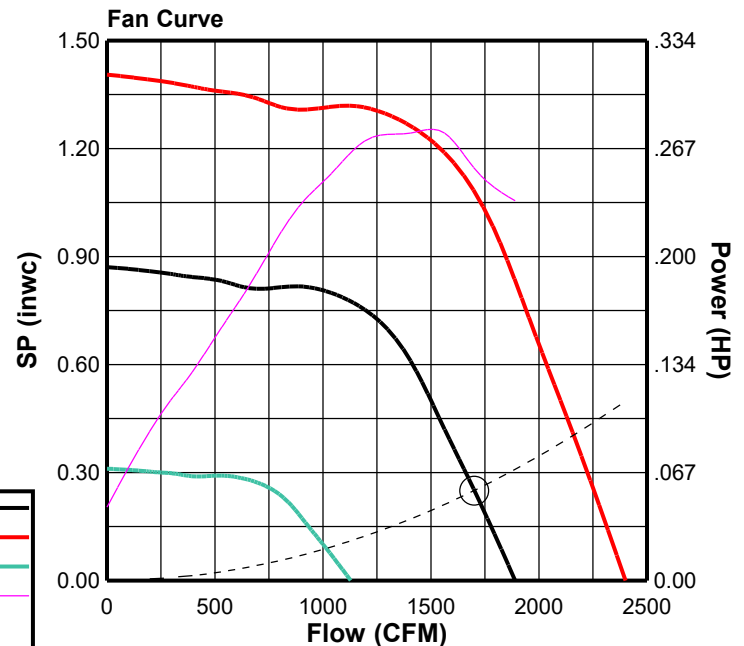
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	105	Unit	89
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\*Roof opening size for curbs supplied by Cook only.  
\*\*\*Includes fan, motor & accessories.

#### Fan Curve Legend

CFM vs SP (1239)	—
MaxRPM( 1574)	—
MinRPM(740)	—
CFM vs HP	—
Point of Operation	○
System Curve	-----





**COOK**



MARK: F-35

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

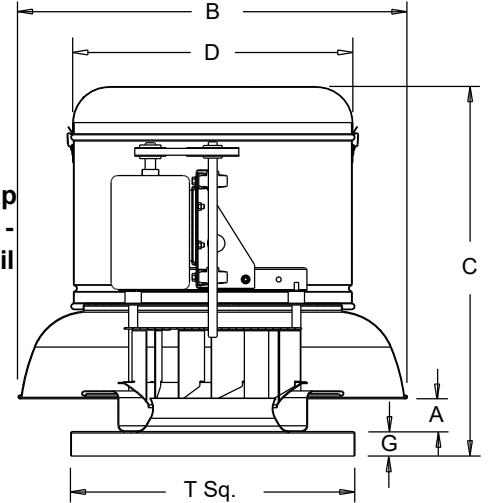
DATE: 4/7/2022

# ACE-B

**Downblast 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 - 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 16% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	210C4B	2400	.250	535	.225	n/a(<1HP)

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

**Motor Information**

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	TOL
1/3	1725	115/1/60	ODP -SE	7.2	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
64	67	62	58	55	48	44	41	61	49	5.0

**Accessories:**

- DRIVES (1.5 SF) @ 535 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-24 DAMPER
- ROOF CURB RCG 28 13.5H -C+T+N

Verify thermostat control provided for this fan

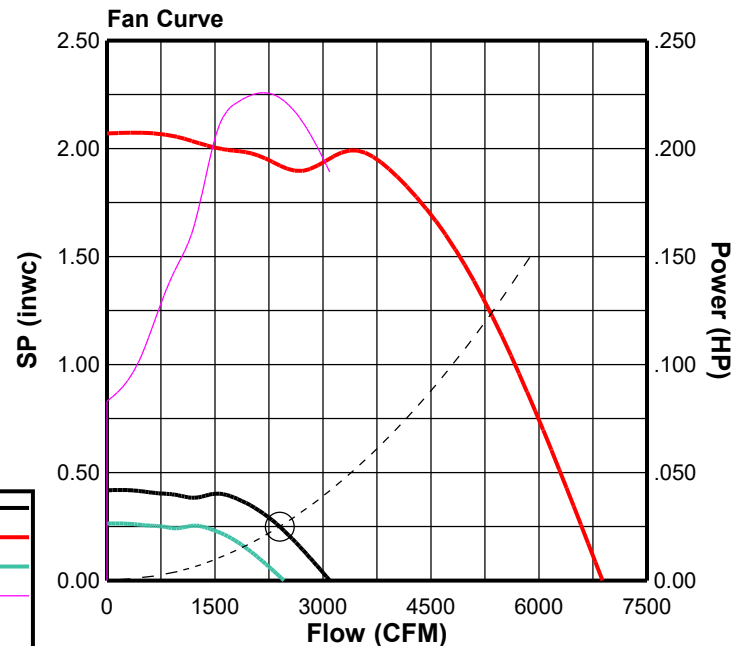
**Dimensions (inches)**

A	4-3/4
B	43-5/8
C	37-1/4
D	29-7/8
G	3
T Sq.	30
Roof Open.Sq.*	25-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	275	Unit	144
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\*Roof opening size for curbs supplied by Cook only.  
\*\*\*Includes fan, motor & accessories.





# COOK



MARK: F- 12-21 / 23-28 / 3

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

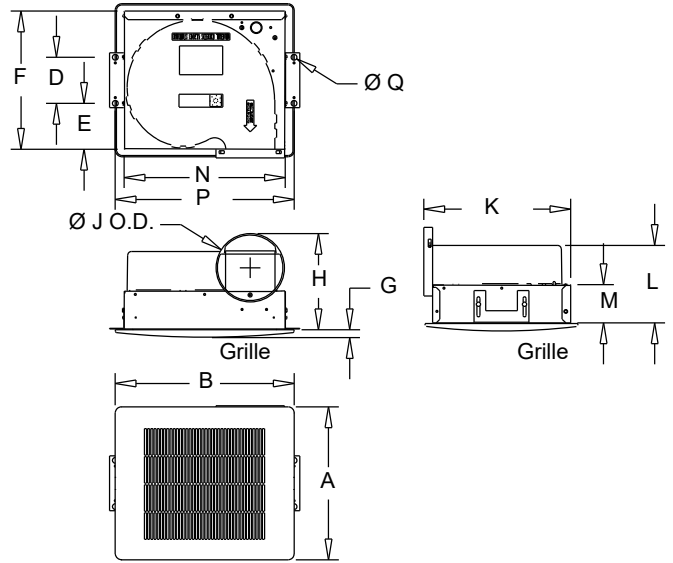
DATE: 4/7/2022

## GEMINI

### Ceiling Fans 100 Series

#### STANDARD CONSTRUCTION FEATURES:

Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Permanently lubricated 2-speed motor with built-in thermal overload protection and disconnect plug - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
18	GC-146	75	.250	813	31	FSC

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

#### Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.313

#### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
46	48	50	48	41	34	28	19	48	36	1.1

#### Accessories:

- FAN SPEED CONTROLLER 5A 120V PREWIRED
- WHITE ALUM GRILLE
- INTEGRAL BD DAMPER
- INSULATED HOUSING
- GEMINI ISOLATOR KIT - ISOLATORS

#### Dimensions (inches)

A Aluminum	13-3/4	M	3-1/4
B Aluminum	15-1/2	N	14
D	4	P	15-1/2
E	4	Q	1/2
F	12		
G	5/8		
H	8-3/8		
J O.D.	5-15/16		
K	12-3/4		
L	6-11/16		

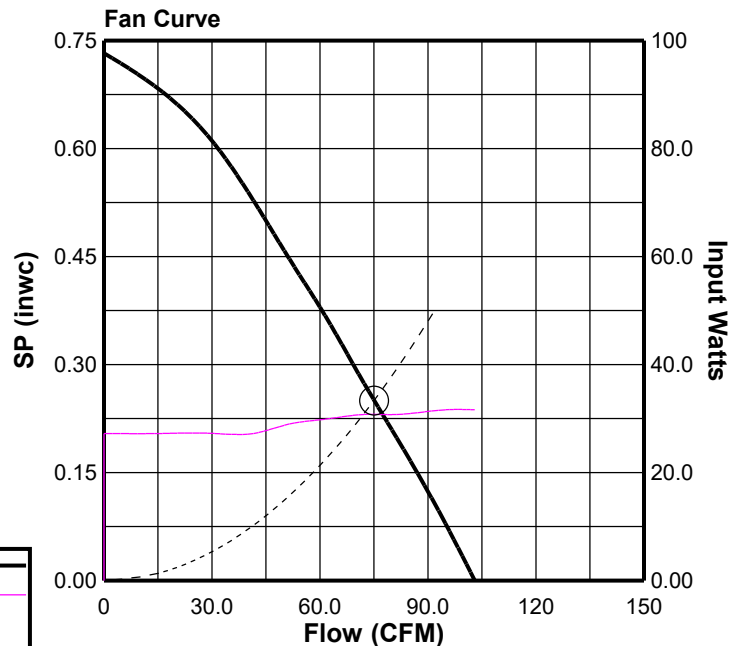
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	20	Unit	17
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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-31

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

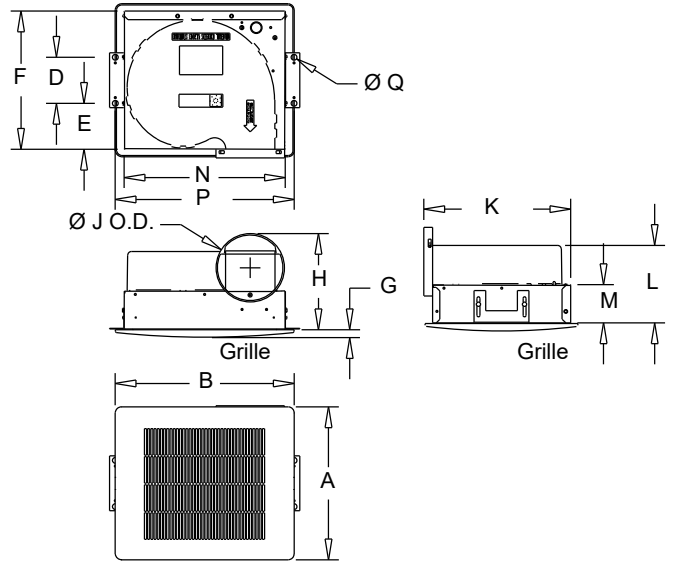
DATE: 4/7/2022

## GEMINI

### Ceiling Fans 100 Series

#### STANDARD CONSTRUCTION FEATURES:

Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Permanently lubricated 2-speed motor with built-in thermal overload protection and disconnect plug - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GC-186	170	.250	897	72	FSC

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

#### Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.817

#### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
53	57	61	56	53	49	46	42	59	47	3.5

#### Accessories:

- FAN SPEED CONTROLLER 5A 120V PREWIRED
- WHITE ALUM GRILLE
- INTEGRAL BD DAMPER
- INSULATED HOUSING
- GEMINI ISOLATOR KIT - ISOLATORS

Verify thermostat control provided for this fan

#### Dimensions (inches)

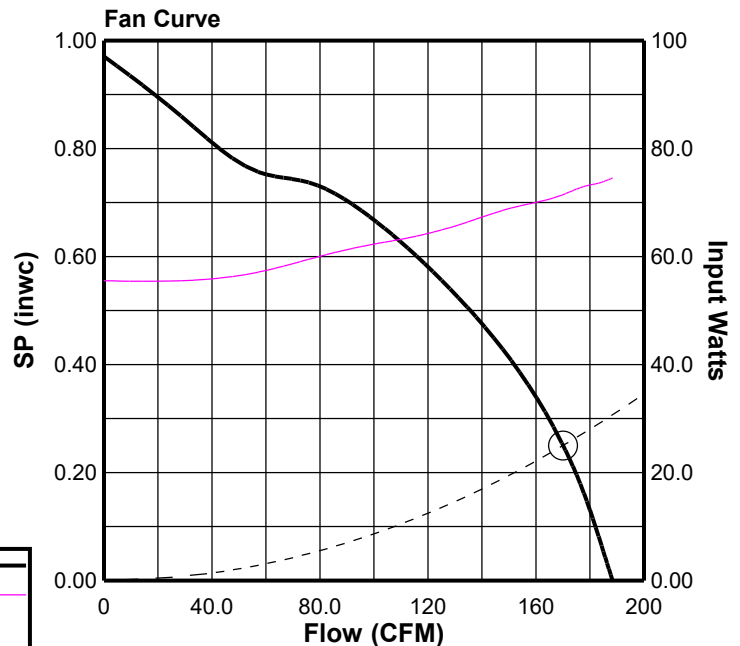
A Aluminum	13-3/4
B Aluminum	15-1/2
D	4
E	4
F	12
G	5/8
H	8-3/8
J O.D.	5-15/16
K	12-3/4
L	6-11/16

M	3-1/4
N	14
P	15-1/2
Q	1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	21	Unit	18
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\*\*\*Includes fan, motor & accessories.





**COOK**  
UL US



MARK: F-33

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

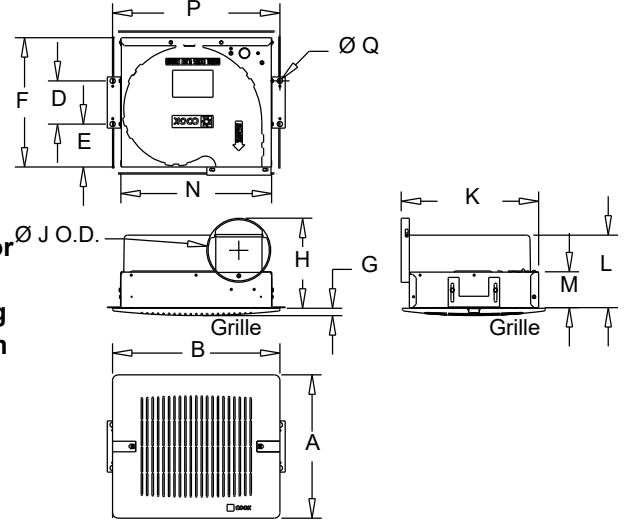
DATE: 4/7/2022

# GEMINI Vari-Flow®

Ceiling Fans  
100 Series

**STANDARD CONSTRUCTION FEATURES:**

Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Permanently lubricated electronically commutated variable speed motor with built-in electronic overload protection and disconnect plug - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging



**Performance**

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GCVF-180	130	.250	948	18	EC

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

**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
43	50	52	53	51	48	43	39	56	44	2.5

**Accessories:**

- CONTROL BY OTHERS
- EXT SPD CTRL CAPABLE
- WHITE ALUM GRILLE
- INTEGRAL BD DAMPER
- INSULATED HOUSING
- GEMINI ISOLATOR KIT - ISOLATORS

**Dimensions (inches)**

A Plastic	13-1/4	H	8-3/8
B Plastic	15-1/2	J O.D.	5-15/16
A Steel	13-1/2	K	12-3/4
B Steel	15-1/2	L	6-11/16
A Aluminum	13-3/4	M	3-1/4
B Aluminum	15-1/2	N	14
D	4	P	15-1/2
E	4	Q	1/2
F	12		
G	5/8		

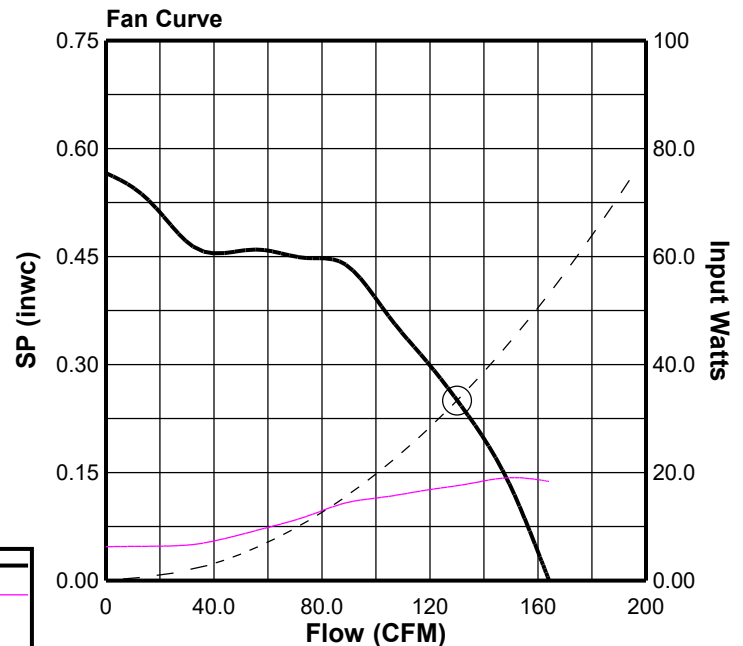
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	26	Unit	23
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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-34

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

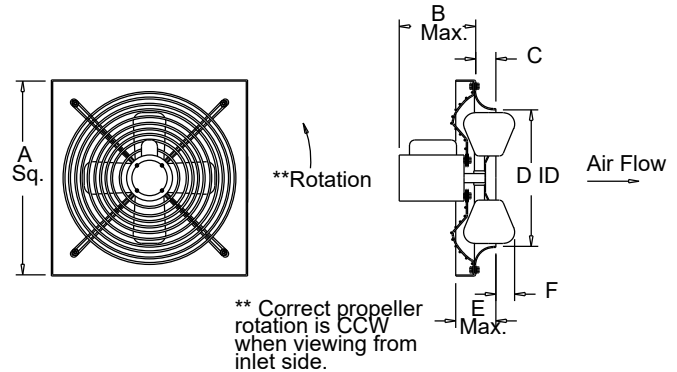
## XWD VF

### Propeller Wall Fan Direct Drive

#### Electronically Commutated Vari-Flow® Motor

##### STANDARD CONSTRUCTION FEATURES:

Aluminum propeller blades attached to a steel hub - Propellers are statically and dynamically balanced - Spun steel venturi - Welded wall base corners - Lorenized powder paint finish - Plated steel motor mount/wire guard - Corrosion resistant fasteners - Single phase motor.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	Speed Control
1	14XW32D17 (VF)	1700	.250	1659	.218	n/a(<1HP)	EC

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

#### Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
1/4	1725	115/1/60	OPEN -EC	3.2



\*Motor programmed to max speed of 1708 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
73	78	72	68	66	63	60	55	72	60	10.5

#### Accessories:

- EXTERNAL SIGNAL SPEED CONTROL
- VFCO2 - CO2 CTRL
- VFABK AIR BALANCEKIT
- DISCONNECT NEMA 1 PRE-WIRED
- MOTORIZED SHUTTER (GALV) -18 115V
- WALL COLLAR
- WIREGUARD-MOTOR SIDE

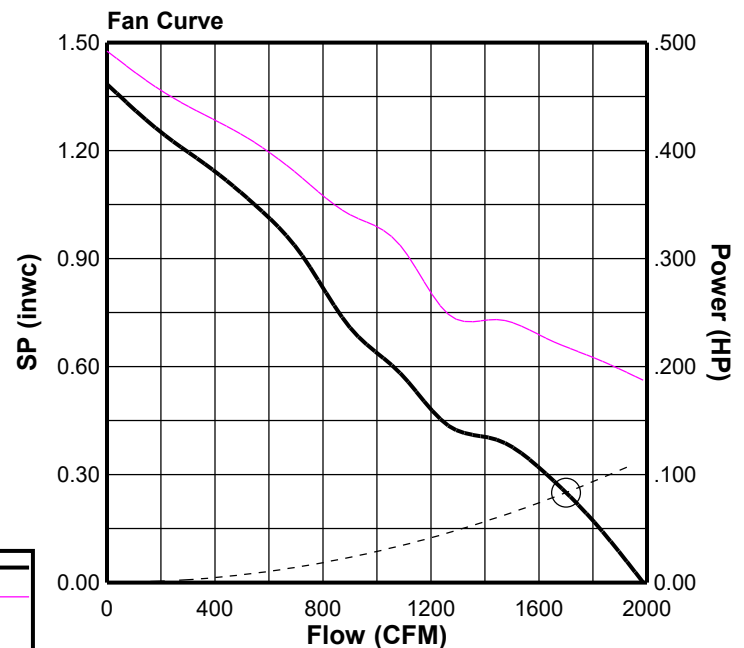
#### Dimensions (inches)

A Sq.	20-3/16
B Max.	5-13/16
C	2-1/2
D Dia.	14-3/4
E	4-1/2
F	1-5/8
Wall Opening*	20-7/16

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	85	Unit	77
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\*See wire guard or wall collar submittal for accessory wall opening  
\*\*\*Includes fan, motor & accessories.





# COOK



MARK: F-36

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

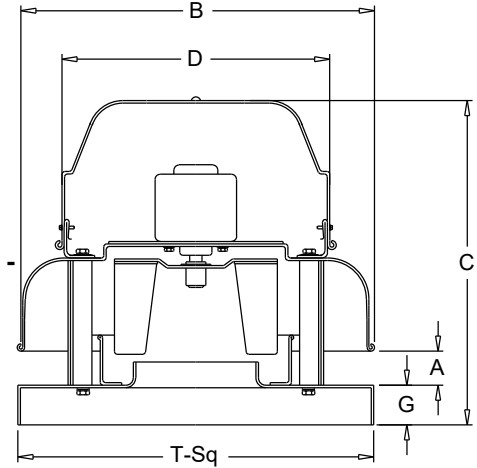
## ACE-D VF

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	90C17DL (VF)	200	.250	1110	.018	n/a(<1HP)	EC

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

### Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure
1/20	1725	115/1/60	TENV -EC



### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
58	61	61	51	46	41	37	36	55	44	3.5

### Accessories:

- FAN MOUNTED SPEED CONTROL
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N

Verify thermostat control provided for this fan

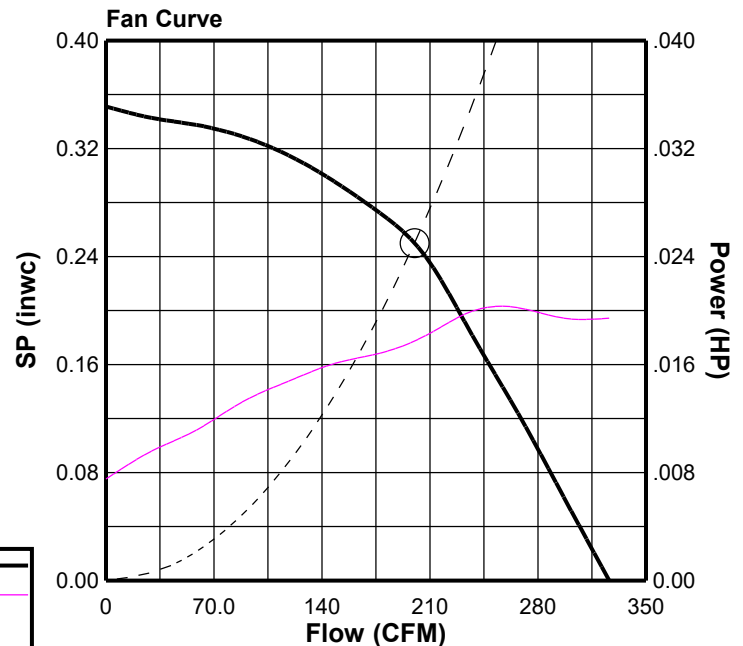
### Dimensions (inches)

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.

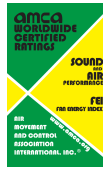
Weight(lbs)***	Shipping	Unit
54	46	46

\* Roof opening size for curbs supplied by Cook only.  
\*\*\*Includes fan, motor & accessories.





# COOK



MARK: F-9 & 10

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

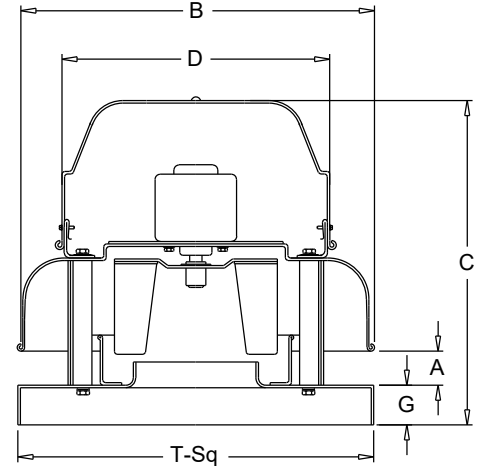
## ACED-EC

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 101 - 135) - Welded curb cap corners - Birdscreen - Permanently lubricated ball bearing electronically commutated motor - Power rated in Input Watts - Corrosion resistant fasteners - Transit tested packaging.



### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
2	70C17DEC	120	.250	1498	20	n/a(<1HP)	5.45	EC

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

### Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure
1/20	1725	115/1/60	TENV -PM



### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
56	61	63	51	44	41	36	35	56	45	3.8

### Accessories:

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N

### Dimensions (inches)

A	1-3/4
B O.D.	13-5/8
C	13-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

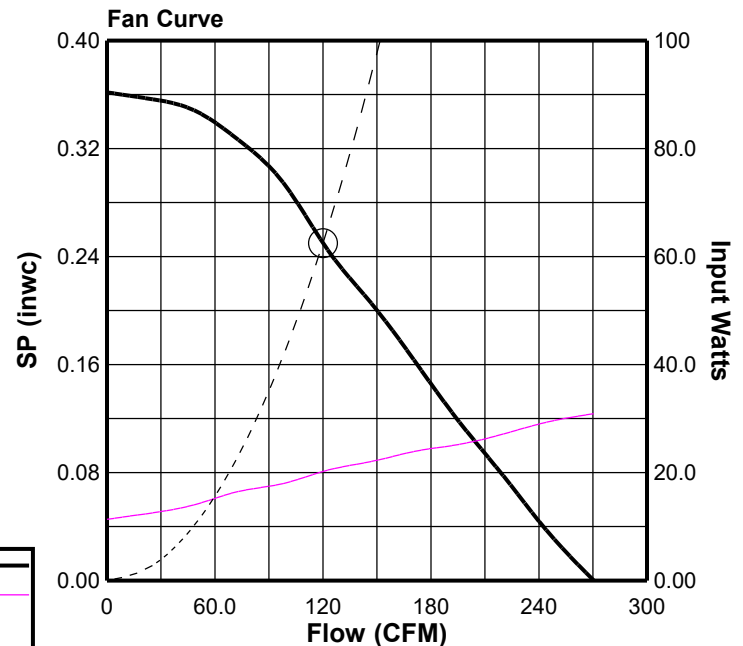
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	50	Unit	45
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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-11

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

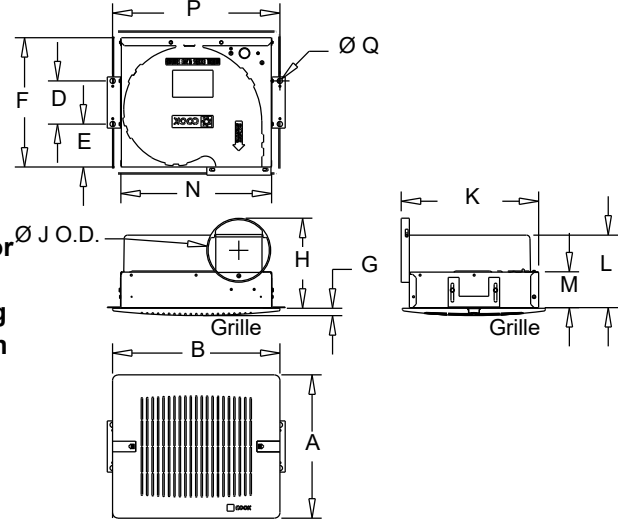
DATE: 4/7/2022

## GEMINI Vari-Flow®

### Ceiling Fans 100 Series

#### STANDARD CONSTRUCTION FEATURES:

Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Permanently lubricated electronically commutated variable speed motor with built-in electronic overload protection and disconnect plug - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GCVF-180	120	.250	907	15	EC

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

#### 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
42	49	51	52	50	46	42	38	54	43	2.5

#### Accessories:

- CONTROL BY OTHERS
- EXT SPD CTRL CAPABLE
- WHITE ALUM GRILLE
- INTEGRAL BD DAMPER
- INSULATED HOUSING
- GEMINI ISOLATOR KIT - ISOLATORS

#### Dimensions (inches)

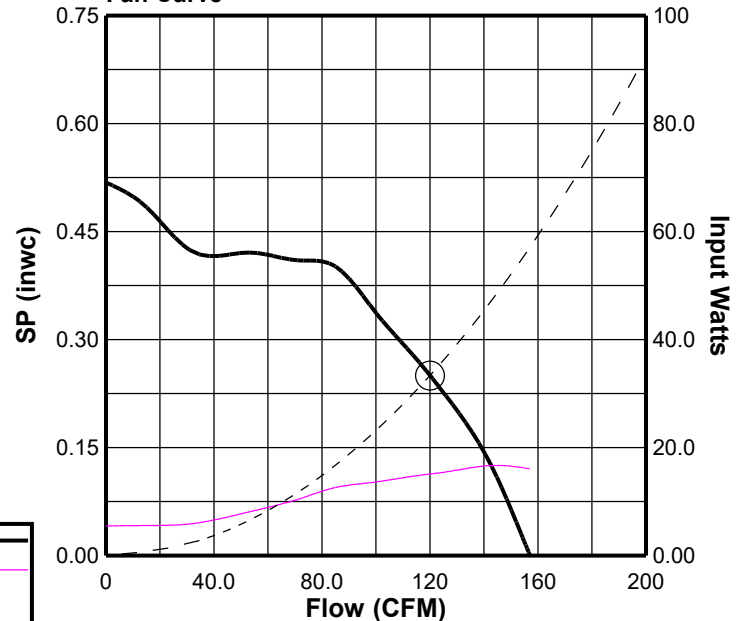
A Plastic	13-1/4	H	8-3/8
B Plastic	15-1/2	J O.D.	5-15/16
A Steel	13-1/2	K	12-3/4
B Steel	15-1/2	L	6-11/16
A Aluminum	13-3/4	M	3-1/4
B Aluminum	15-1/2	N	14
D	4	P	15-1/2
E	4	Q	1/2
F	12		
G	5/8		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	26	Unit	23
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\*\*\*Includes fan, motor & accessories.

#### Fan Curve



#### Fan Curve Legend

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



# COOK



MARK: F-29

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

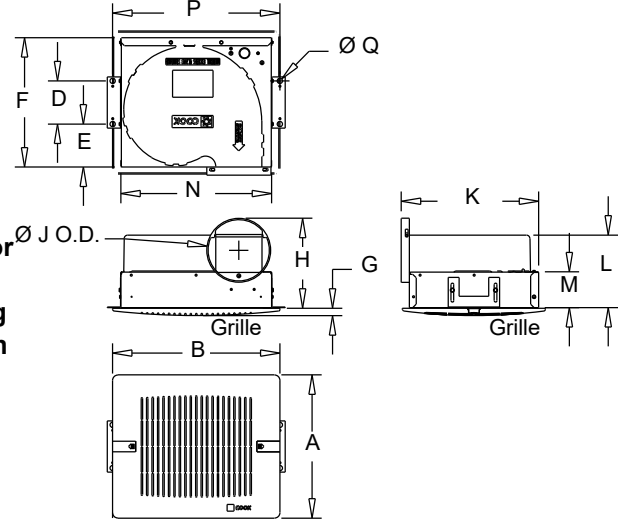
DATE: 4/7/2022

## GEMINI Vari-Flow®

### Ceiling Fans 100 Series

#### STANDARD CONSTRUCTION FEATURES:

Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Permanently lubricated electronically commutated variable speed motor with built-in electronic overload protection and disconnect plug - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GCVF-180	150	.250	1033	24	EC

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

#### 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
46	52	55	56	54	50	46	42	58	47	3.0

#### Accessories:

- WHITE ALUM GRILLE
- INTEGRAL BD DAMPER
- INSULATED HOUSING
- TYPE P INTERNAL CTRL
- GEMINI ISOLATOR KIT - ISOLATORS

#### Dimensions (inches)

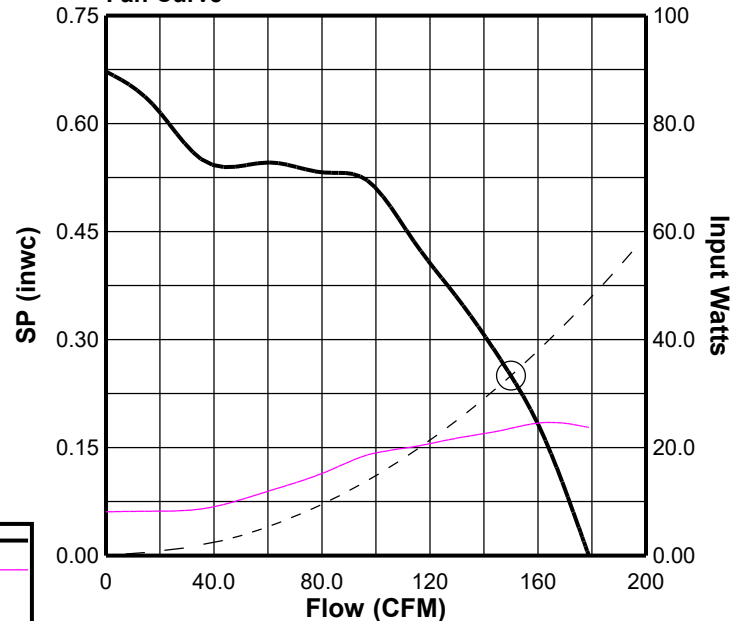
A Plastic	13-1/4	H	8-3/8
B Plastic	15-1/2	J O.D.	5-15/16
A Steel	13-1/2	K	12-3/4
B Steel	15-1/2	L	6-11/16
A Aluminum	13-3/4	M	3-1/4
B Aluminum	15-1/2	N	14
D	4	P	15-1/2
E	4	Q	1/2
F	12		
G	5/8		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	Unit
23	20	

\*\*\*Includes fan, motor & accessories.

#### Fan Curve



#### Fan Curve Legend

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



# COOK



<b>MARK: F-38</b>
<b>PROJECT: CMS - GRIER_HV_NEWELL RELIEF ELEMEN...</b>
<b>DATE: 4/7/2022</b>

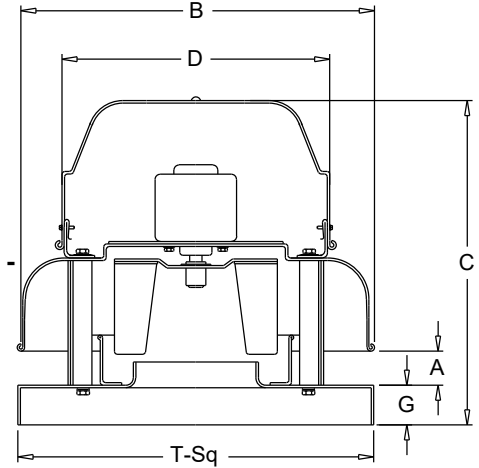
## ACE-D VF

**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	90C17DL (VF)	250	.250	1227	.026	n/a(<1HP)	EC

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

#### Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure
1/20	1725	115/1/60	TENV -EC



#### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
60	64	66	55	49	44	39	37	60	48	4.8

#### Accessories:

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N

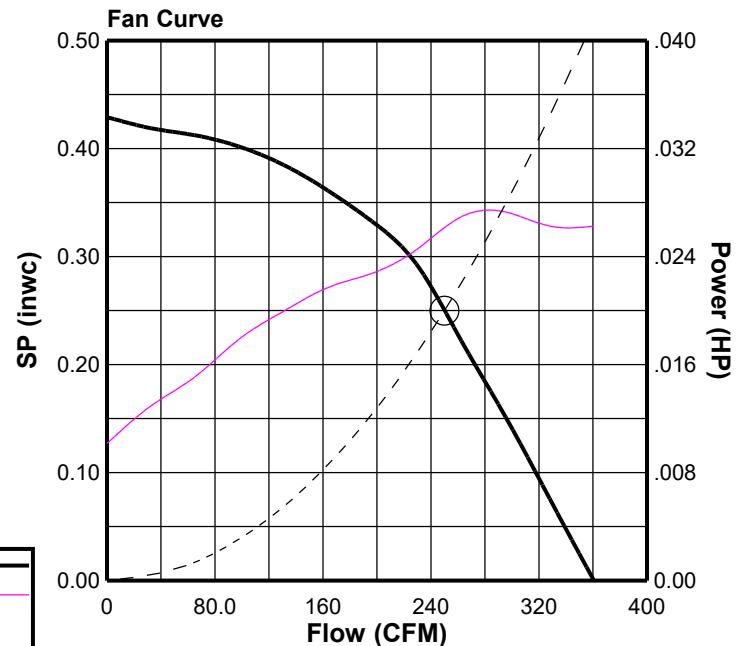
#### Dimensions (inches)

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

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	54	Unit	46
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\* Roof opening size for curbs supplied by Cook only.  
\*\*\*Includes fan, motor & accessories.





# COOK

MARK: RIV-2

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

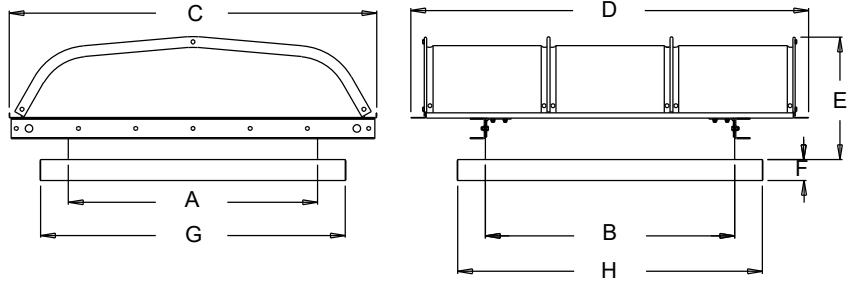
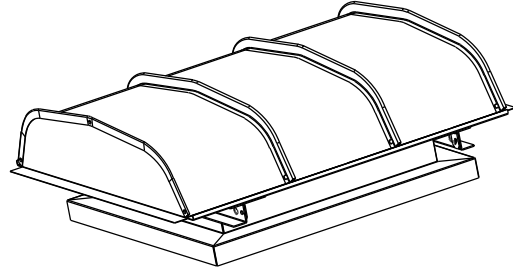
DATE: 4/7/2022

## GI

### Gravity Intake Ventilator

#### STANDARD CONSTRUCTION FEATURES:

Heavy gauge aluminum construction - Birdscreen  
 - Radius throat - Rain gutter to prevent rain infiltration - Welded curb cap corners - Integral lifting lugs/tie down points - Hinged hood standard on throat lengths less than 61" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	46X46GI	9100	.050	336	619	Ducted

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

#### Accessories:

BDI 45.75X45.75  
 ROOF CURB RCG 50X 50-13.5H W/TRAY  
 ALUM INSECT SCREEN

#### Dimensions (inches)

A	46
B	46
C	79
D	87
E	26.51
F	2
G	51.5
H	51.5
J	9

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	465	Unit	239
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\*\*\*Includes accessories.



# COOK

MARK: RIV-3

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

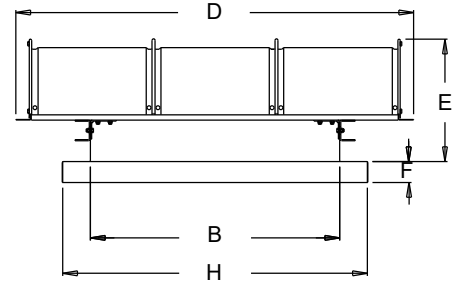
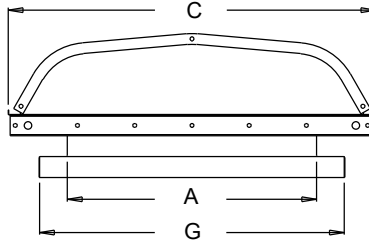
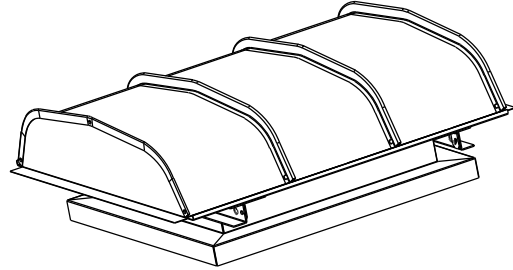
DATE: 4/7/2022

## GI

### Gravity Intake Ventilator

#### STANDARD CONSTRUCTION FEATURES:

Heavy gauge aluminum construction - Birdscreen  
 - Radius throat - Rain gutter to prevent rain infiltration - Welded curb cap corners - Integral lifting lugs/tie down points - Hinged hood standard on throat lengths less than 61" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	36X38GI	6200	.061	370	653	Ducted

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

#### Accessories:

BDI 35.75X37.75  
 ROOF CURB RCG 40X 42-13.5H W/TRAY  
 ALUM INSECT SCREEN

#### Dimensions (inches)

A	36
B	38
C	71
D	63
E	23.13
F	2
G	41.5
H	43.5
J	9

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	363	Unit	191
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\*\*\*Includes accessories.



# COOK

MARK: RIV-4

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

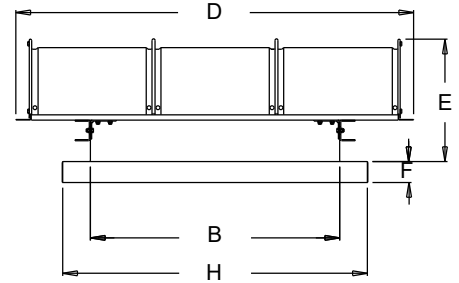
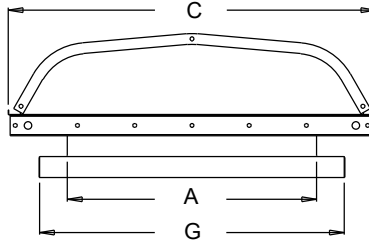
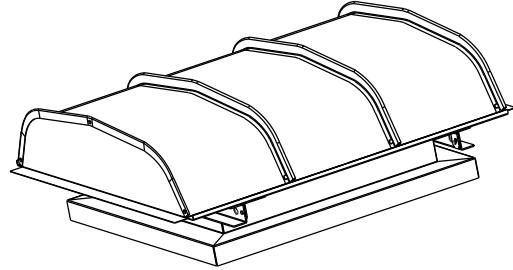
DATE: 4/7/2022

## GI

### Gravity Intake Ventilator

#### STANDARD CONSTRUCTION FEATURES:

Heavy gauge aluminum construction - Birdscreen  
 - Radius throat - Rain gutter to prevent rain infiltration - Welded curb cap corners - Integral lifting lugs/tie down points - Hinged hood standard on throat lengths less than 61" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	34X40GI	6000	.055	353	635	Ducted

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

#### Accessories:

BDI 33.75X39.75  
 ROOF CURB RCG 38X 44-13.5H W/TRAY  
 ALUM INSECT SCREEN

#### Dimensions (inches)

A	34
B	40
C	60
D	75
E	23.05
F	2
G	39.5
H	45.5
J	9

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	400	Unit	216

\*\*\*Includes accessories.



**COOK**

MARK: RIV-5

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

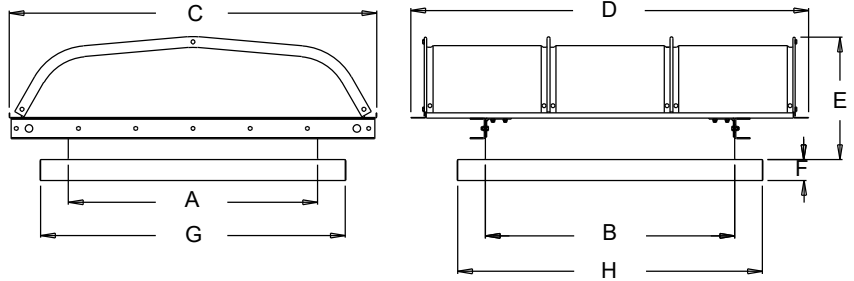
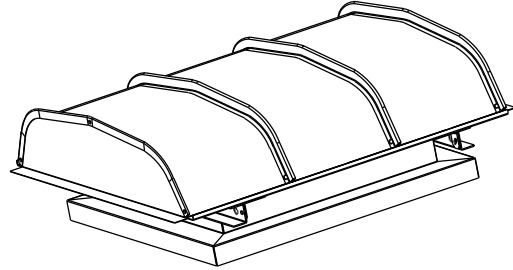
DATE: 4/7/2022

# GI

## Gravity Intake Ventilator

### STANDARD CONSTRUCTION FEATURES:

Heavy gauge aluminum construction - Birdscreen  
 - Radius throat - Rain gutter to prevent rain infiltration - Welded curb cap corners - Integral lifting lugs/tie down points - Hinged hood standard on throat lengths less than 61" - Five year warranty.



### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	48X58GI	12500	.054	350	647	Ducted

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

### Accessories:

BDI 47.75X57.75  
 ROOF CURB RCG 52X 62-13.5H W/TRAY  
 ALUM INSECT SCREEN

### Notes:

Hood will ship in sections for field assembly.

### Dimensions (inches)

A	48
B	58
C	90
D	99
E	28.96
F	2
G	53.5
H	63.5
J	9
No.-Hood Sections	2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	621	Unit	355
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\*\*\*Includes accessories.



# COOK

MARK: RIV-6

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

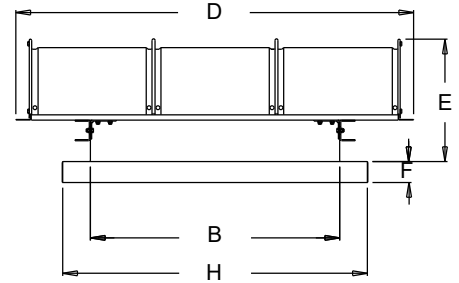
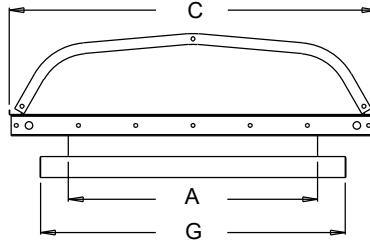
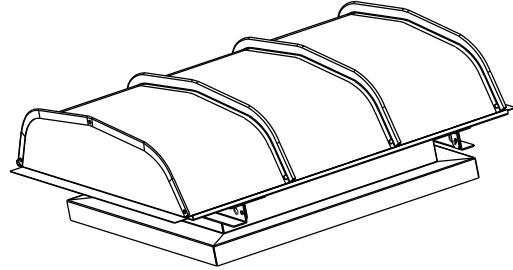
DATE: 4/7/2022

## GI

### Gravity Intake Ventilator

#### STANDARD CONSTRUCTION FEATURES:

Heavy gauge aluminum construction - Birdscreen  
 - Radius throat - Rain gutter to prevent rain infiltration - Welded curb cap corners - Integral lifting lugs/tie down points - Hinged hood standard on throat lengths less than 61" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	46X52GI	10600	.055	350	638	Ducted

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

#### Accessories:

BDI 45.75X51.75  
 ROOF CURB RCG 50X 56-13.5H W/TRAY  
 ALUM INSECT SCREEN

#### Dimensions (inches)

A	46
B	52
C	88
D	87
E	27.57
F	2
G	51.5
H	57.5
J	9

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	556	Unit	317

\*\*\*Includes accessories.



# COOK

MARK: RIV-9

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

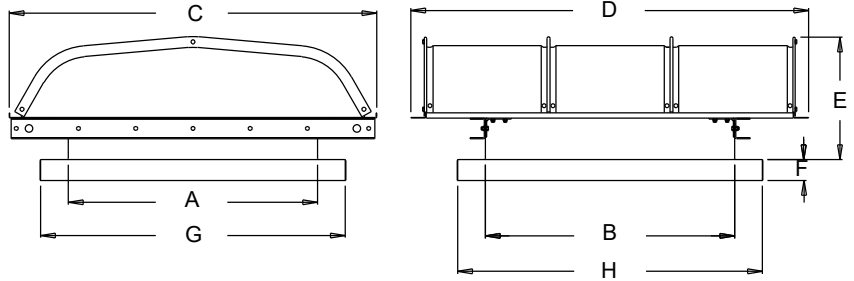
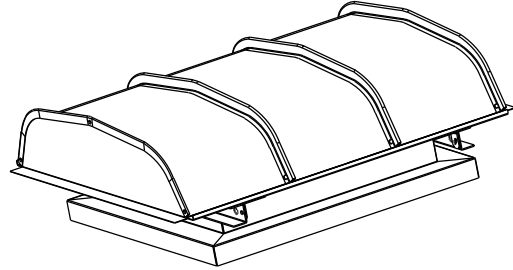
DATE: 4/7/2022

## GI

### Gravity Intake Ventilator

#### STANDARD CONSTRUCTION FEATURES:

Heavy gauge aluminum construction - Birdscreen  
 - Radius throat - Rain gutter to prevent rain infiltration - Welded curb cap corners - Integral lifting lugs/tie down points - Hinged hood standard on throat lengths less than 61" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	24X48GI	4500	.046	321	563	Ducted

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

#### Accessories:

BDI 23.75X 47.75  
 ROOF CURB RCG 28X 52-13.5H W/TRAY  
 ALUM INSECT SCREEN

#### Dimensions (inches)

A	24
B	48
C	51
D	75
E	18.26
F	2
G	29.5
H	53.5
J	6

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	362	Unit	191
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\*\*\*Includes accessories.



# COOK

MARK: REV-3

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

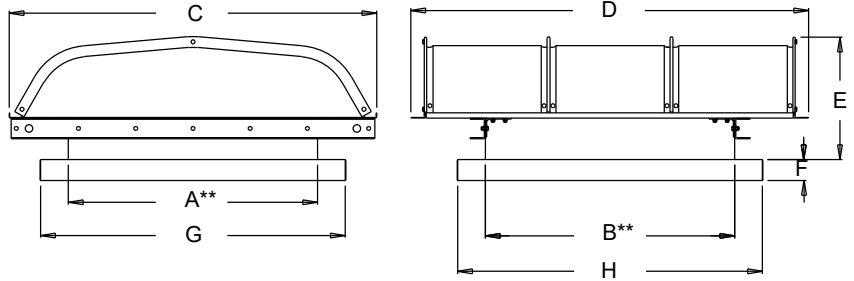
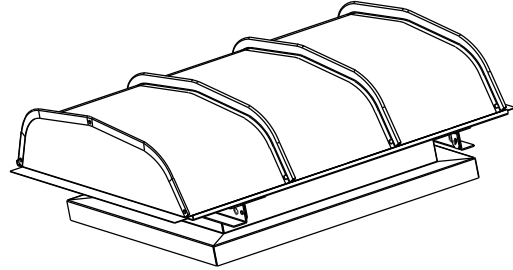
DATE: 4/7/2022

## GR

### Gravity Relief Ventilator

**STANDARD CONSTRUCTION FEATURES:**

- Heavy gauge aluminum construction - Birdscreen
- Radius throat - Rain gutter - Welded curb cap corners
- Integral lifting lugs/tie down points
- Hinged hood standard on throat lengths less than 73" - Five year warranty.



### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	38X38GR	6200	.014	789	618	Ducted

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

### Accessories:

- BD 37.75X37.75
- ROOF CURB RCG 42X 42-13.5H W/TRAY
- ALUM INSECT SCREEN

### Dimensions (inches)

A	38
B	38
C	51
D	63
E	18.76
F	2
G	43.5
H	43.5
J	9

\*\* Actual throat length and width are 1/4" greater than nominal values.

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	332	Unit	179
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\*\*\*Includes accessories.



# COOK

MARK: REV-4

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

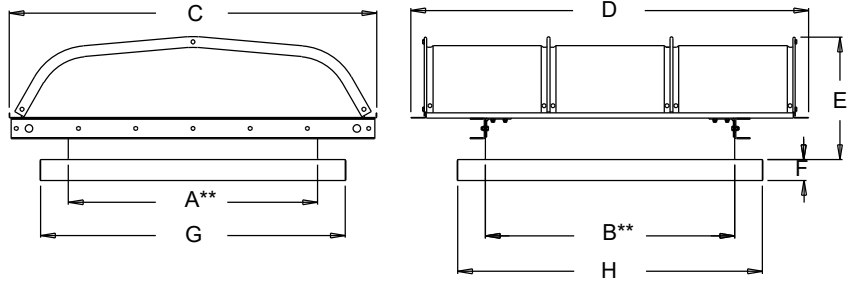
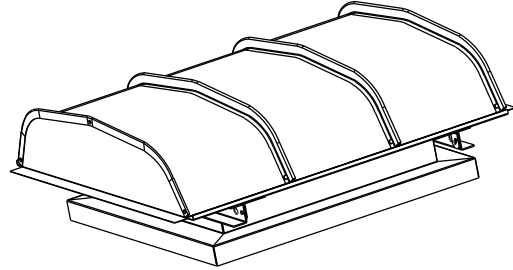
DATE: 4/7/2022

## GR

### Gravity Relief Ventilator

#### STANDARD CONSTRUCTION FEATURES:

Heavy gauge aluminum construction - Birdscreen  
- Radius throat - Rain gutter - Welded curb cap corners - Integral lifting lugs/tie down points - Hinged hood standard on throat lengths less than 73" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	36X38GR	6000	.076	788	632	Ducted

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

#### Accessories:

BD 35.75X37.75  
ROOF CURB RCG 40X 42-13.5H W/TRAY  
ALUM INSECT SCREEN

#### Dimensions (inches)

A	36
B	38
C	49
D	63
E	18.51
F	2
G	41.5
H	43.5
J	9

\*\* Actual throat length and width are 1/4" greater than nominal values.

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	313	Unit	162
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\*\*\*Includes accessories.



# COOK

MARK: REV-8

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

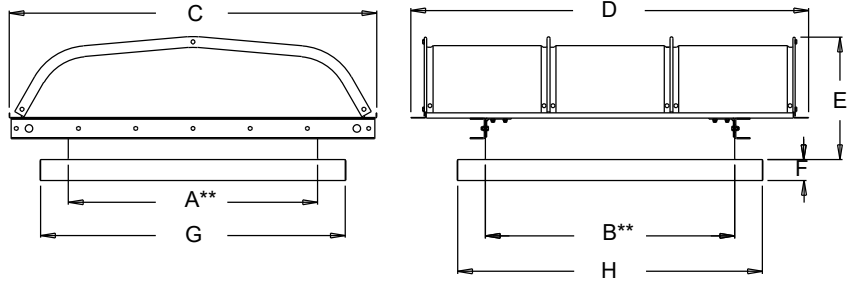
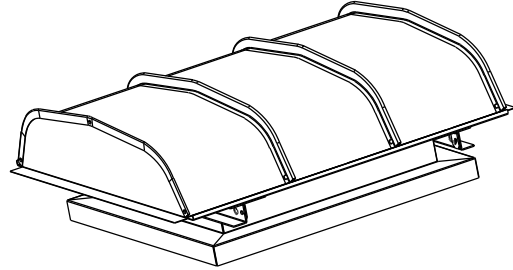
DATE: 4/7/2022

## GR

### Gravity Relief Ventilator

#### STANDARD CONSTRUCTION FEATURES:

- Heavy gauge aluminum construction - Birdscreen
- Radius throat - Rain gutter - Welded curb cap corners
- Integral lifting lugs/tie down points
- Hinged hood standard on throat lengths less than 73" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	58X58GR	15000	.068	747	642	Ducted

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

#### Accessories:

- BD 57.75X57.75
- ROOF CURB RCG 62X 62-13.5H W/TRAY
- ALUM INSECT SCREEN

#### Dimensions (inches)

A	58
B	58
C	83
D	87
E	23.76
F	2
G	63.5
H	63.5
J	9

\*\* Actual throat length and width are 1/4" greater than nominal values.

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	584	Unit	358
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\*\*\*Includes accessories.



# COOK

MARK: REV-34

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

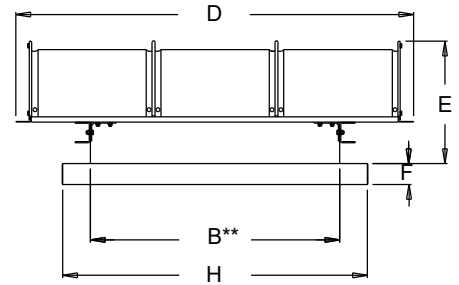
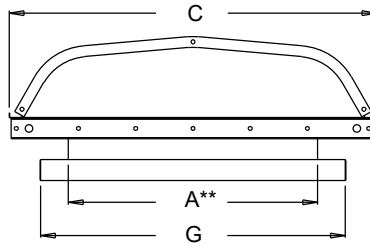
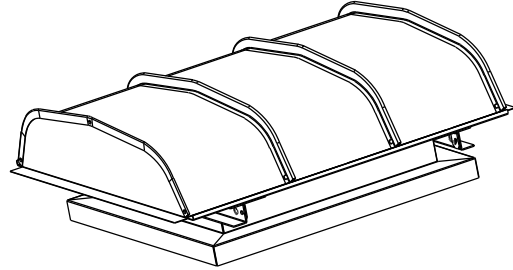
DATE: 4/7/2022

## GR

### Gravity Relief Ventilator

#### STANDARD CONSTRUCTION FEATURES:

- Heavy gauge aluminum construction - Birdscreen
- Radius throat - Rain gutter - Welded curb cap corners
- Integral lifting lugs/tie down points
- Hinged hood standard on throat lengths less than 73" - Five year warranty.



#### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Face Velocity (fpm)	Throat Velocity (fpm)	Installation
1	30X30GR	3900	.063	720	624	Ducted

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

#### Accessories:

- BDM-30 MTR DPR 115V
- ROOF CURB RCG 34X 34-13.5H W/TRAY
- ALUM INSECT SCREEN

#### Dimensions (inches)

A	30
B	30
C	43
D	51
E	16.76
F	2
G	35.5
H	35.5
J	9

\*\* Actual throat length and width are 1/4" greater than nominal values.

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	232	Unit	104
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\*\*\*Includes accessories.



**COOK**



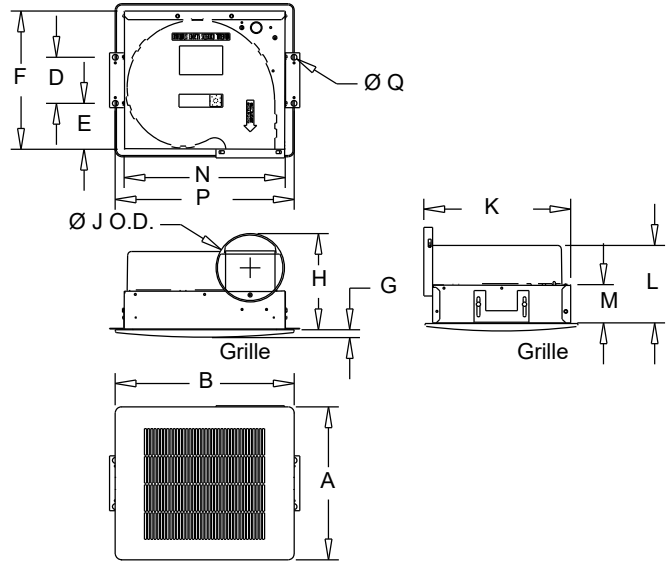
<b>MARK: F-22</b>
<b>PROJECT: CMS - GRIER_HV_NEWELL RELIEF ELEMEN...</b>
<b>DATE: 4/7/2022</b>

# GEMINI

## Ceiling Fans 100 Series

### STANDARD CONSTRUCTION FEATURES:

Forward curved injection molded polypropylene fan wheel - Injection molded flame resistant fan housing with round outlet duct - 22 ga. galvanized steel inlet box - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Permanently lubricated 2-speed motor with built-in thermal overload protection and disconnect plug - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - White, high impact styrene injection molded grille - Shipped in ISTA certified transit tested packaging.



### Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GC-186	170	.250	897	72	FSC

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

### Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.817

### Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
53	57	61	56	53	49	46	42	59	47	3.5

### Accessories:

- WHITE ALUM GRILLE
- FAN SPEED CONTROLLER 5 AMP 120 VOLT
- INTEGRAL BD DAMPER
- INSULATED HOUSING
- GEMINI ISOLATOR KIT - ISOLATORS

### Dimensions (inches)

<b>A Aluminum</b>	13-3/4	<b>M</b>	3-1/4
<b>B Aluminum</b>	15-1/2	<b>N</b>	14
<b>D</b>	4	<b>P</b>	15-1/2
<b>E</b>	4	<b>Q</b>	1/2
<b>F</b>	12		
<b>G</b>	5/8		
<b>H</b>	8-3/8		
<b>J O.D.</b>	5-15/16		
<b>K</b>	12-3/4		
<b>L</b>	6-11/16		

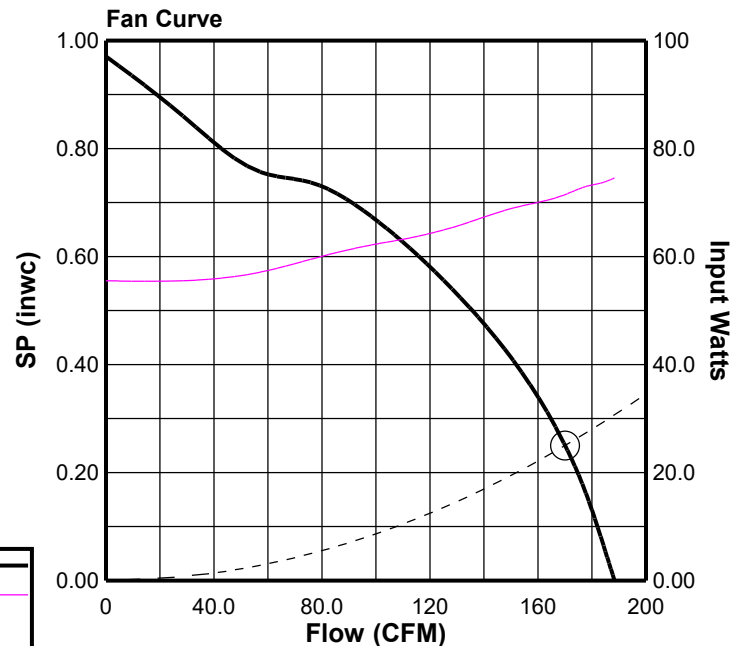
NOTE: Accessories may affect dimensions shown.

<b>Weight(lbs)***</b>	<b>Shipping</b>	21	<b>Unit</b>	18
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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-34

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

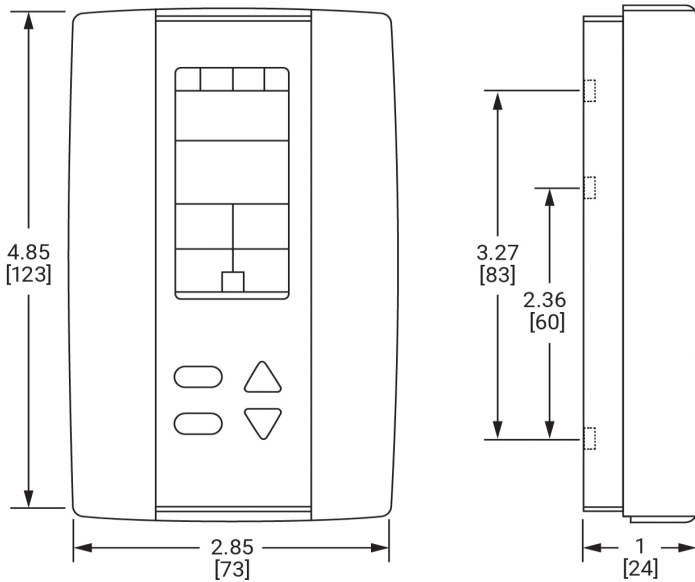
DATE: 4/7/2022

## CO2 Controller

### Product Description

The Vari-Flow CO2 Controller (VFCO2/VFCO2-N) is used to modulate fan speed via a 0-10VDC output signal to a Vari-Flow motor. The signal varies directly with the difference between the ambient CO2 level and the CO2 set point. It will also simultaneously control to the humidity and temperature set points.

Setup is configured via a pushbutton menu and digital readout. Monitoring capability is achieved through dry contact set points. VFCO2-N is BACnet or Modbus network-compatible (selectable via menu).



### Specifications

<b>Temperature Range</b>	50°F to 104°F (10°C to 40°C)
<b>Accuracy</b>	+/- 0.8°F (0.4°C)
<b>Resolution</b>	+/- 0.2°F (0.1°C)
<b>Power Supply</b>	24V
<b>Minimum Conductor</b>	18 AWG (8mm <sup>2</sup> ) copper or equivalent
<b>Inputs</b>	(2) Configurable analog inputs: 0–10VDC, Thermistor (10k Type 3), or digital input (dry contact)
<b>Outputs</b>	(2) Binary outputs (BO1 and BO2), dry contacts 24VAC, 1A max/3A max inrush (2) Analog outputs (cooling and/or heating, 0–10VDC)
<b>Contacts</b>	NO and NC field configurable settings
<b>Operating Temperature</b>	32°F to 104°F (0°C to 40°C)
<b>Storage Temperature</b>	-22°F to 122°F (-30°C to 50°C)
<b>Enclosure</b>	IP 30 (EN60529, NEMA 1)
<b>Weight</b>	0.25 lb (120g)
<b>Certifications</b>	Conforms to UL 873, certified to CSA C22.2 No. 24-93
<b>Networking</b>	BACnet (up to 76800 bps) (B-ASC) Modbus RTU slave (up to 57600) Parity/stop bit configuration: No parity, 2 stop bit; Even parity, 1 stop bit; Odd parity, 1 stop bit



# COOK

MARK: F-34

PROJECT: CMS - GRIER\_HV\_NEWELL RELIEF ELEMEN...

DATE: 4/7/2022

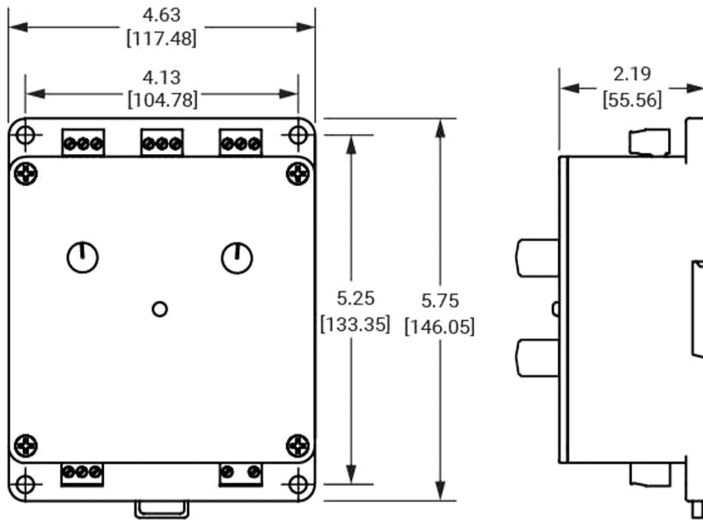
## Air Balance Kit

### Product Description

The Vari-Flow Air Balance Kit (VFABK) is an interface which integrates and simplifies the interconnection of Vari-Flow motors and controls. It also provides a convenient point to set the speed range over which the Vari-Flow motor will operate. It is provided whenever external signal capability is ordered with Vari-Flow motors on Cook fans.

The VFABK contains an integral 24V control transformer. It provides convenient terminals for landing Vari-Flow motors and controls as well as auxiliary control of motor operated dampers. It also provides a means for remote on/off control.

Status is indicated by a tricolor LED light.



### Specifications

<b>Power Supply</b>	115V/1PH, 200–240V/1PH (50Hz/60Hz)
<b>Minimum Conductor</b>	18 AWG (8mm <sup>2</sup> ) copper or equivalent
<b>Inputs</b>	(1) Analog Inputs: 0–10VDC, (1) Binary Input (Remote On/Off)
<b>Outputs</b>	(2) 24VDC (1) 0–10VDC
<b>Aux. Contact</b>	NO and NC, 10A @ 24-250VAC, 10A @ 30VDC
<b>Operating Temperature</b>	32°F to 104°F (0°C to 40°C)
<b>Storage Temperature</b>	-22°F to 122°F (-30°C to 50°C)
<b>Mounting</b>	Surface mount or DIN rail
<b>Weight</b>	0.85 lb (385.6g)



## BD

### Gravity Backdraft Damper

#### STANDARD CONSTRUCTION FEATURES:

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

#### Notes:

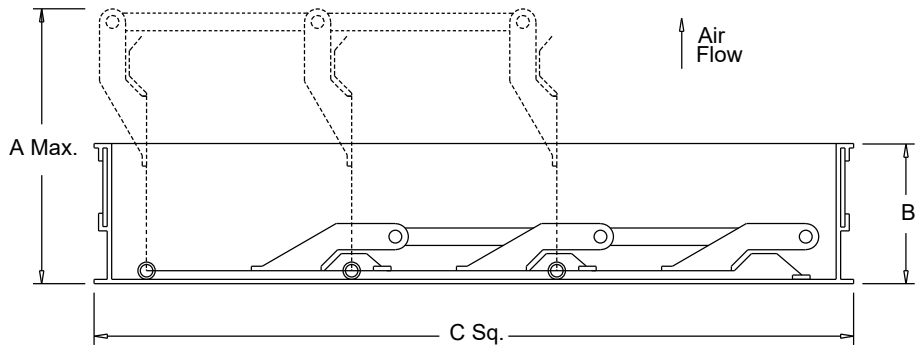
Max. operating temperature 200 Deg F (95 Deg C).

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-14 DAMPER	5-3/16	1-7/8	13-3/4	1
F-4	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-6	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-7	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
F-8	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-37	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
F-5	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
F-35	1	BD-24 DAMPER	5-3/16	1-7/8	23-3/4	1
F-36	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-9 & 10	2	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
F-38	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1



## RCG

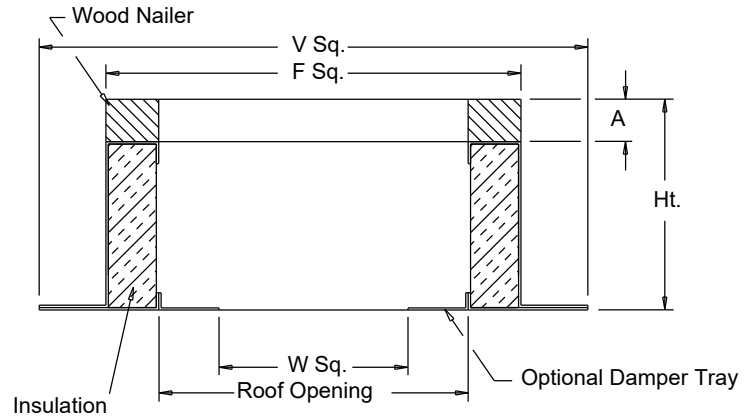
### Galvanized Steel Roof Curb

#### 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.



#### Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
F-3	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
F-4	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-6	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-7	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
F-8	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-37	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
F-5	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
F-35	1	RCG 28	13.5	2;	1-1/2	28-1/2	32-1/2	21-3/4	25-1/2
F-36	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-9 & 10	2	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
F-38	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2



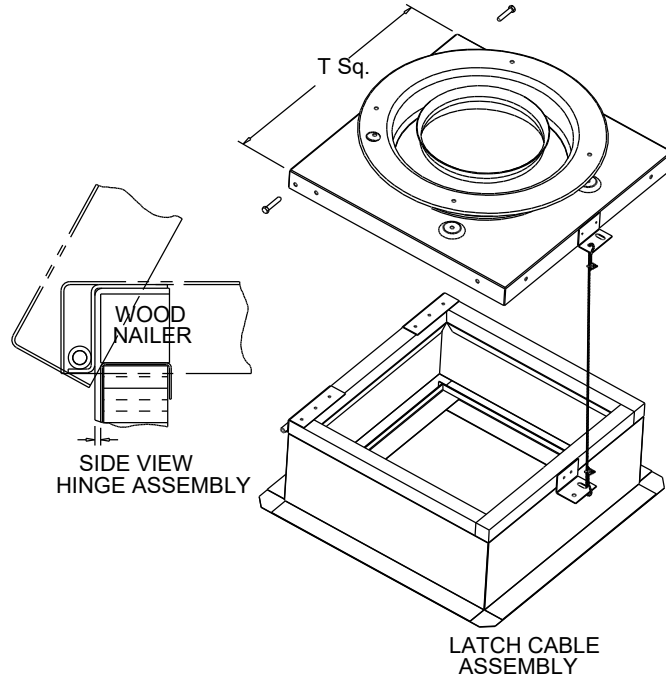
# COOK

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## HINGED BASE

### Kit Assembly



### Dimensions (inches)

Mark	Qty	Description
F-3	1	HINGED BASE KIT
F-5	1	HINGED BASE KIT

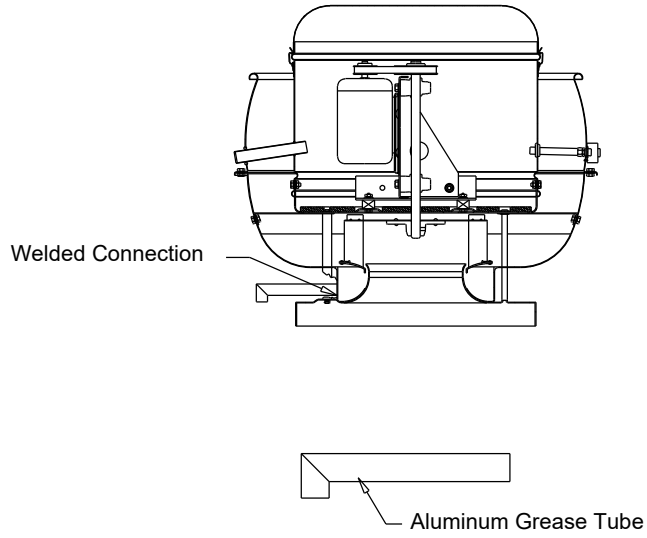


# COOK

## Grease Tube

### Aluminum

Aluminum Installation



### Dimensions (inches)

Mark	Qty	Description
F-3	1	DRAIN TUBE (ALUM)

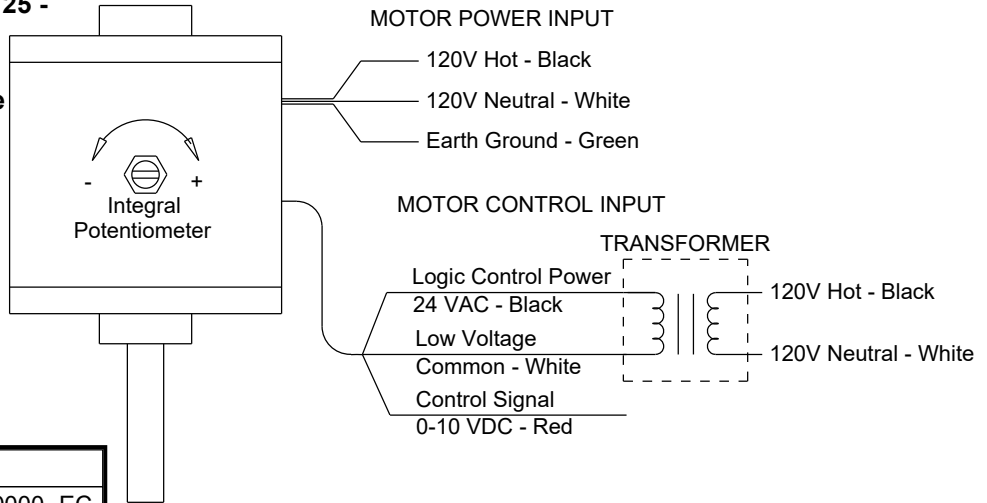


## Speed Control

### External Speed Control Electronically Commutated (EC) Motor Type M

#### STANDARD CONSTRUCTION FEATURES:

EC Motors are available in 1/4, 1/2, and 3/4 HP for 120V - Single phase applications have an adjustable speed range of 500 to 1725 - External signal speed control requires a 0-10 VDC control signal to adjust speed of the motor as well as a 24 VAC power source to operate the motor control circuit (a 24v transformer is included and shipped loose with the fan) - The motor will operate from 2-10 VDC and turns off when the control signal is below 1.9 VDC. Integral potentiometer must be set to full speed when using external speed control.



#### Dimensions (inches)

Mark	Qty	Description
F-4	1	OPEN -1/6HP - 115V/1 PH/ 60 1725/0000 -EC
F-6	1	OPEN -1/6HP - 115V/1 PH/ 60 1725/0000 -EC
F-8	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC



# COOK

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## Speed Control

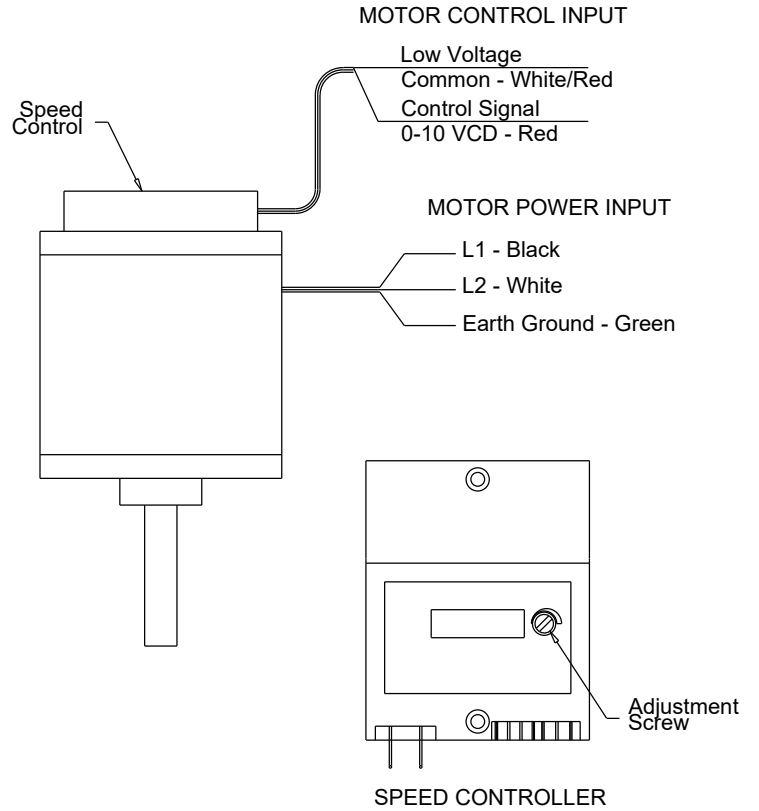
### External Speed Control Electronically Commutated (EC) Motor Type N

#### 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-7	1	OPEN -1/2HP - 115V/1 PH/ 60 1725/0000 -EC
F-34	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC





# COOK

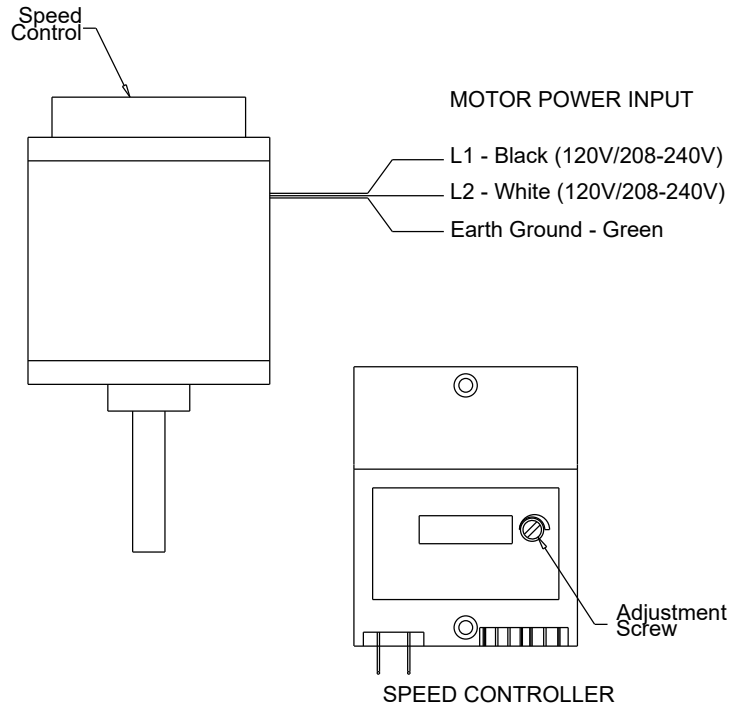
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## Speed Control

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-37	1	OPEN -1/2HP - 115V/1 PH/ 60 1725/0000 -EC

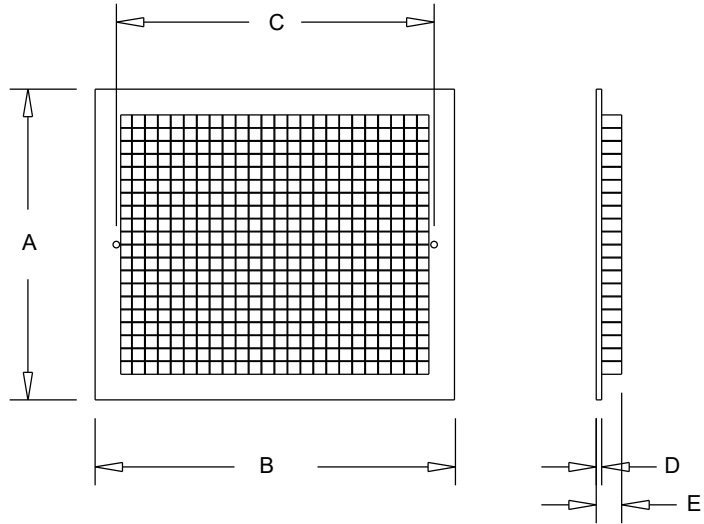


## GEMINI

### ALUMINUM GRILLE

**NOTE:**

Aluminum Grill requires special unit mounting considerations to ensure clearance between motor and grill on 160 and 180 series only. Consult IOM prior to installation for additional details.



#### Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E
F- 12-21 / 23-28 / 3	18	WHITE ALUM GRILLE	12-3/4	14-3/4	13	1/4	1-1/16
F-31	1	WHITE ALUM GRILLE	12-3/4	14-3/4	13	1/4	1-1/16
F-33	1	WHITE ALUM GRILLE	12-3/4	14-3/4	13	1/4	1-1/16
F-11	1	WHITE ALUM GRILLE	12-3/4	14-3/4	13	1/4	1-1/16
F-29	1	WHITE ALUM GRILLE	12-3/4	14-3/4	13	1/4	1-1/16
F-22	1	WHITE ALUM GRILLE	12-3/4	14-3/4	13	1/4	1-1/16



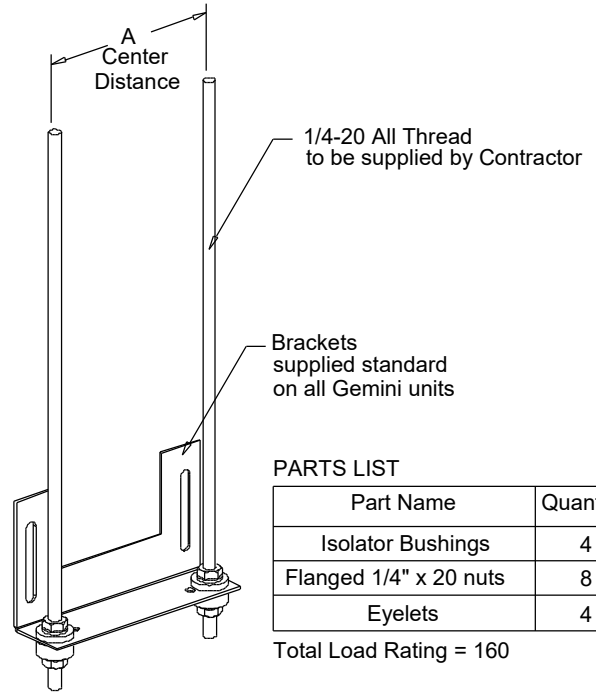
# COOK

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## GEMINI

Gemini Isolator Kit  
GIK  
Rubber In Shear



### Dimensions (inches)

Mark	Qty	Description	Part #	A
F- 12-21 / 23-28 / 3	18	GEMINI ISOLATO	GIK	4
F-31	1	GEMINI ISOLATO	GIK	4
F-33	1	GEMINI ISOLATO	GIK	4
F-11	1	GEMINI ISOLATO	GIK	4
F-29	1	GEMINI ISOLATO	GIK	4
F-22	1	GEMINI ISOLATO	GIK	4

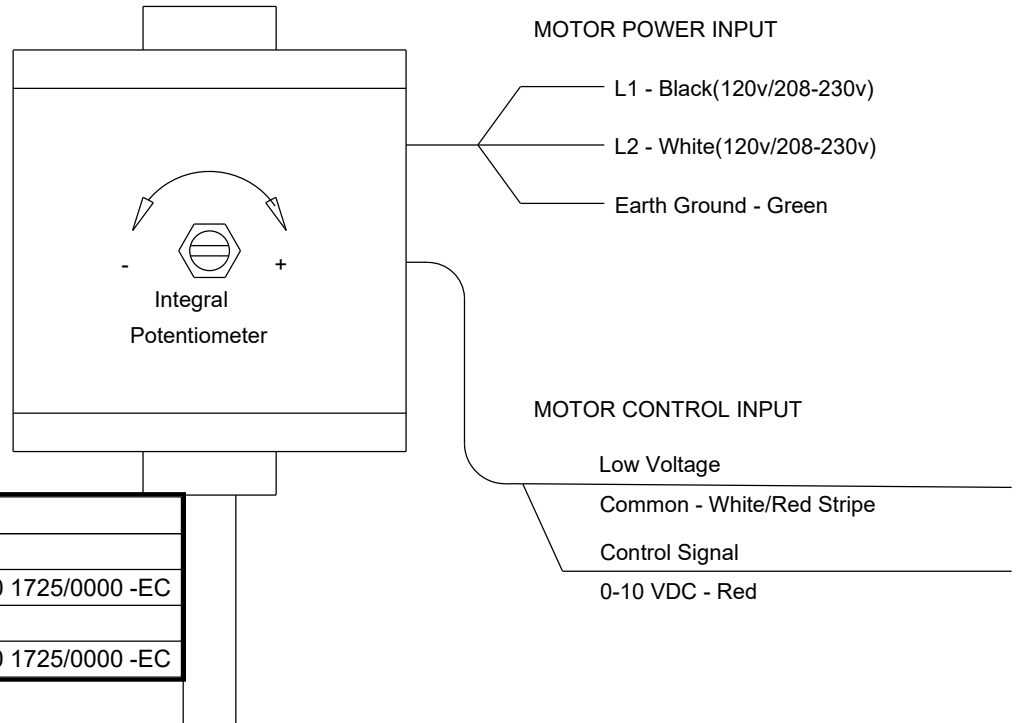


## Speed Control

### External Signal Speed Control Electronically Commutated (EC) Motor Type P

#### STANDARD CONSTRUCTION FEATURES:

Integral potentiometer with slotted screw  
for speed adjustment.



#### Dimensions (inches)

Mark	Qty	Description
F-33	1	EXT SPD CTRL CAPABLE
F-9 & 10	2	TENV -1/20HP - 115V/1 PH/ 60 1725/0000 -EC
F-11	1	EXT SPD CTRL CAPABLE
F-38	1	TENV -1/20HP - 115V/1 PH/ 60 1725/0000 -EC



# COOK

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## SHUTTER

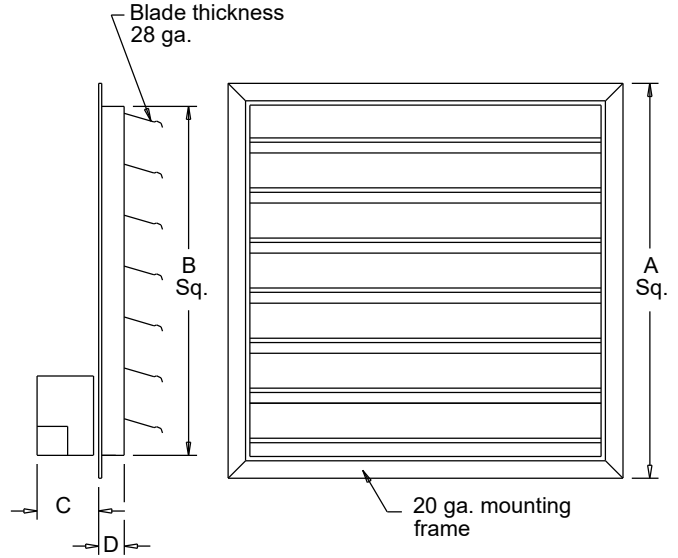
### Motorized Discharge

#### STANDARD CONSTRUCTION FEATURES:

Galvanized steel blades and frame - Stainless steel pivots - Vinyl blade edge seals.

#### NOTE

The Model MSG shutters are designed to reduce back drafts, 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. Maximum velocity 3000 FPM. Motor operated dampers required for velocities below 600 FPM.



#### Dimensions (inches)

Mark	Qty	Description	A Sq.	B Sq.	C Max	D	# Panels	# Motors
F-34	1	MSG-18 115V	21	18	6-3/8	3	1	1



# COOK

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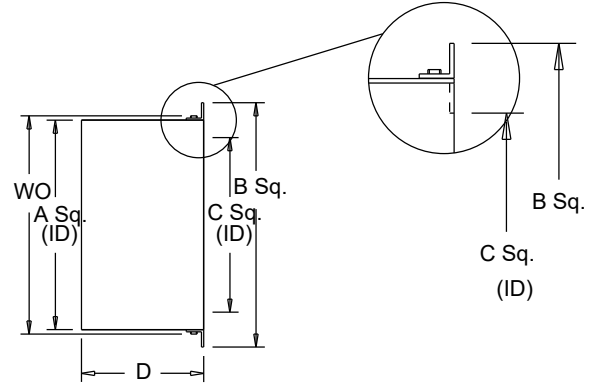
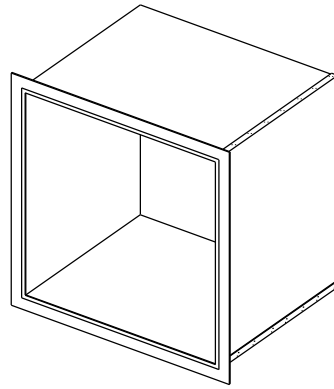
## WALL COLLAR

### Propeller Wall Fans

#### NOTES:

Fasteners should be placed on 6 to 10 inch centers on the perimeter of the wall collar.

Wall collar should be caulked to the exterior of the wall.



#### Dimensions (inches)

Mark	Qty	Description	A Sq.	B Sq.	C Sq.	D	WO
F-34	1	WALL COLLAR	20-3/16	23-1/2	18-3/8	15-5/16	21-1/4



# COOK

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## WIRE GUARD

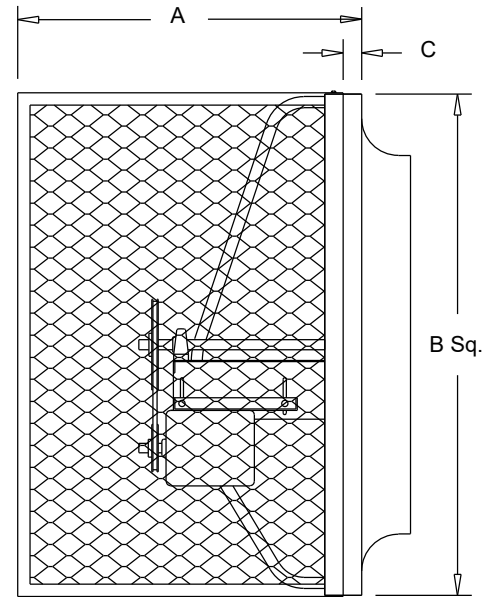
### Motor Side Propeller Wall Ventilators

#### 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 & B Sq. are to outside of fasteners on wire guard.



#### Dimensions (inches)

Mark	Qty	Description	A	B Sq.*	C
F-34	1	WIREGUARD-MOTOR SIDE	13-9/16	21	1



# COOK

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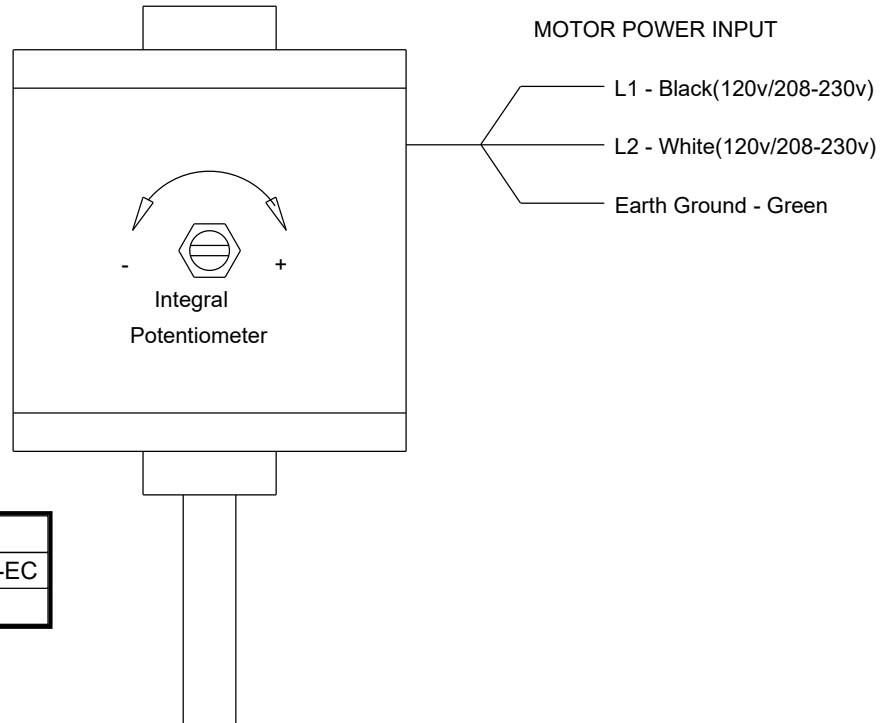
DATE: 4/7/2022

## Speed Control

Internal Speed Control  
Electronically Commutated (EC) Motor  
Type P

### STANDARD CONSTRUCTION FEATURES:

Integral potentiometer with slotted screw  
for speed adjustment.



### Dimensions (inches)

Mark	Qty	Description
F-36	1	TENV -1/20HP - 115V/1 PH/ 60 1725/0000 -EC
F-29	1	TYPE P INTERNAL CTRL



# COOK

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## BDI

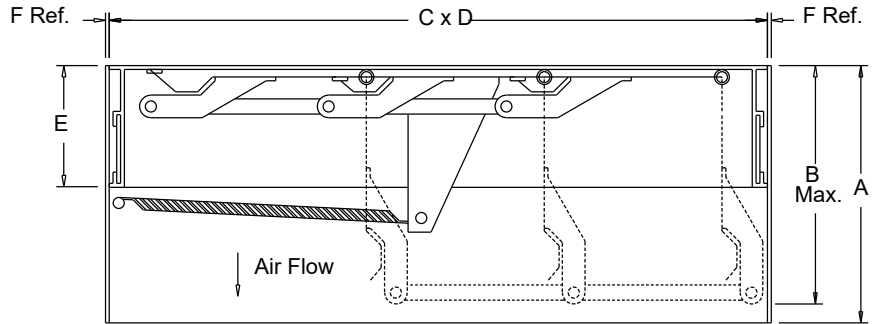
### Intake Backdraft Damper

#### STANDARD CONSTRUCTION FEATURES:

- .020 aluminum blades - .060 aluminum frame -
- .080 aluminum wrapper - Spring return to close -
- Aluminum hinge pins - Brass bushings.

#### NOTES:

Maximum operating temperature:  
200 deg. F (95 deg. C).



#### Dimensions (inches)

Mark	Qty	Description	A	B Max.	C	D	E	F
RIV-2	1	BDI 45.75X45.75	6	5.1875	45.75	45.75	1.875	.125
RIV-3	1	BDI 35.75X37.75	6	5.1875	35.75	37.75	1.875	.125
RIV-4	1	BDI 33.75X39.75	6	5.1875	33.75	39.75	1.875	.125
RIV-5	1	BDI 47.75X57.75	6	5.1875	47.75	57.75	1.875	.125
RIV-6	1	BDI 45.75X51.75	6	5.1875	45.75	51.75	1.875	.125
RIV-9	1	BDI 23.75X 47.75	6	5.1875	23.75	47.75	1.875	.125



## RCG

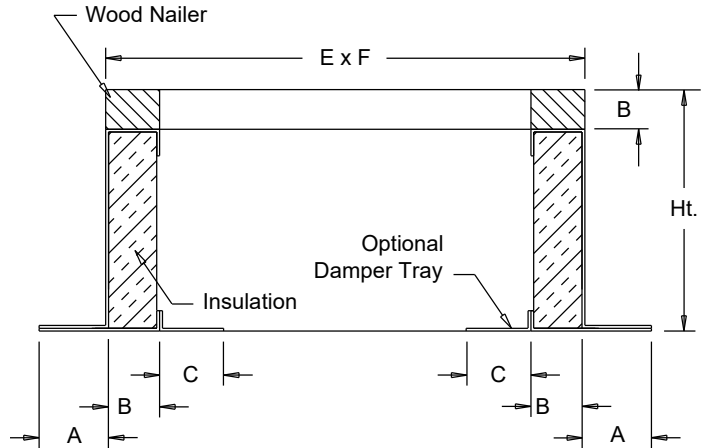
### Galvanized Steel

#### STANDARD CONSTRUCTION FEATURES:

18 ga. galvanized steel - 1-1/2"(3.81 cm),  
 3 lbs./cu.ft.(1.36 kg/cu. meter) density  
 thermal and accoustical 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.



#### Note:

Roof Opening is (E - 3) X (F - 3)  
 Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	B	C	E	F	Roof Opening
RIV-2	1	RCG 50X 50	13.5	2;	2	1.5	1.875	50	50	47 X 47
RIV-3	1	RCG 40X 42	13.5	2;	2	1.5	1.875	40	42	37 X 39
RIV-4	1	RCG 38X 44	13.5	2;	2	1.5	1.875	38	44	35 X 41
RIV-5	1	RCG 52X 62	13.5	2;	2	1.5	1.875	52	62	49 X 59
RIV-6	1	RCG 50X 56	13.5	2;	2	1.5	1.875	50	56	47 X 53
RIV-9	1	RCG 28X 52	13.5	2;	2	1.5	1.875	28	52	25 X 49
REV-3	1	RCG 42X 42	13.5	2;	2	1.5	1.875	42	42	39 X 39
REV-4	1	RCG 40X 42	13.5	2;	2	1.5	1.875	40	42	37 X 39
REV-8	1	RCG 62X 62	13.5	2;	2	1.5	1.875	62	62	59 X 59
REV-34	1	RCG 34X 34	13.5	2;	2	1.5	1.875	34	34	31 X 31



# COOK

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## BD

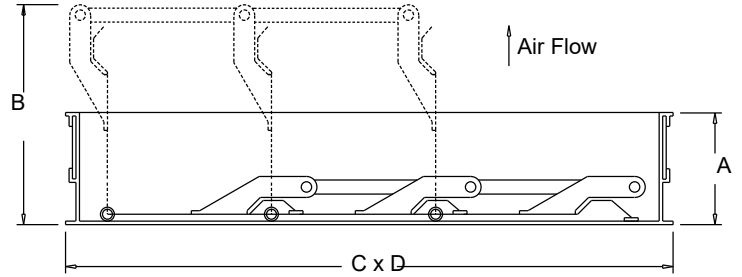
### Gravity Backdraft Damper

#### STANDARD CONSTRUCTION FEATURES:

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

#### NOTES:

Maximum operating temperature:  
200 Degrees F (95 Degrees C).



#### Dimensions (inches)

Mark	Qty	Description	A	B Max.	C	D
REV-3	1	BD 37.75X37.75	1.875	5.1875	37.75	37.75
REV-4	1	BD 35.75X37.75	1.875	5.1875	35.75	37.75
REV-8	1	BD 57.75X57.75	1.875	5.1875	57.75	57.75



# COOK

PROJECT: CMS - GRIER_HV_NEWELL RELIEF ELEMEN...
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## BDM

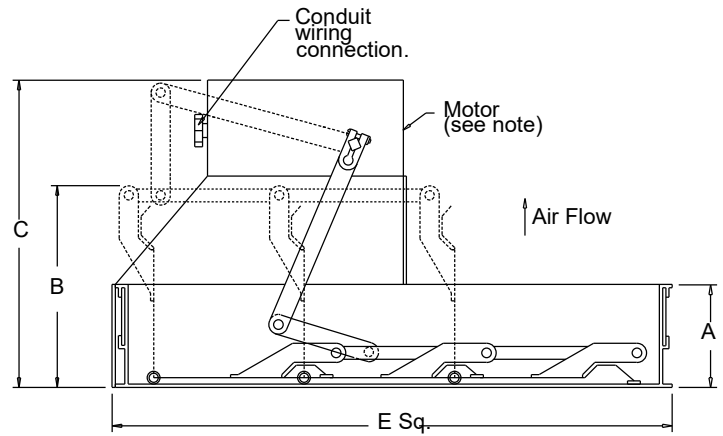
### Motorized Backdraft Damper

#### STANDARD CONSTRUCTION FEATURES:

- .020 aluminum blades - .060 aluminum frame - Aluminum hinge pins - Brass bushings - Non-overloading motor.

#### Notes:

Max operating temperature 130 Deg F (50 Deg C)



#### Dimensions (inches)

Mark	Qty	Description	A	B Max	C	E Sq.	# Motors
REV-34	1	BDM-30 MTR DPR 115V	1-7/8	5-3/16	8	29-3/4	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-22	1	FSC 5 AMP 120 VOLT

