

HVAC Submittal 230500-04

NO EXCEPTION NO EXCEPTION
AS CORRECTED

AS NOTED BELOW REVISE AND RESUBMIT

Checking is only for conformance with the design concept of the Project. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for electrical characteristics; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades. Approval of items does not relieve the contractor from complying with all requirements of the Contract Document.

Swyger & Associates - Consulting Engineers

By Bill Junstas

Date 4/21/23

1. Exhaust Fans by Cook: No Exception

Mechanical Engineer assumes no responsibility for sizes or quantities, Contractor to verify sizes and counts.

Mechanical Engineer assumes no responsibility for voltage, Contractor to verify proper voltage before ordering.

Action Mech:
Page 5 notes that a cooling thermostat provided with fan.

Ignore other notes about belts and small motor HP change.



SUBMITTAL COVER SHEET

Job Name/Number: Bethany Elementary School – Job #2302002

Date: 4/5/2023

Submittal #: 230500-04

Subcontractor/Vendor: Action Mechanical
Exhaust Fans Product Data

Description: _____

Submittal Type:

_____	Shop Drawings	_____	Sample
<u>X</u>	Product Data	_____	Color Chart
_____	Test Report	_____	Other

Please complete the following information; if not applicable, please mark as "N/A":

***Color/Finish Selections Required:** _____

***Lead Time from Approval:** _____

***Electrical Requirements:** _____

SHELCO, LLC

WE HEREBY STATE THAT THIS DOCUMENT HAS BEEN REVIEWED FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THIS IN NO WAY RELEASES THE SUBCONTRACTOR / SUPPLIER FROM HIS RESPONSIBILITY TO ADHERE TO THE REQUIREMENTS OF THE CONTRACT DRAWINGS AND SPECIFICATIONS, INCLUDING ALL DIMENSIONS, QUANTITIES, AND PERFORMANCE CRITERIA.

_____ NO EXCEPTIONS TAKEN

X EXCEPTIONS NOTED

_____ EXCEPTIONS NOTED – RESUBMIT

_____ REJECTED

_____ REJECTED – NOT REVIEWED

_____ INFORMATION/CONFIRMATION

BY: TM _____

DATE: 4/5/23 _____

Architect/Engineer Stamp



SUBMITTAL

PROJECT: BETHANY ELEMENTARY SCHOOL ADDITIONS
CLOVER, SC

ENGINEER: SWYGERT & ASSOCIATES CONSULTING
ENGINEERS
COLUMBIA, SC

CONTRACTOR: ACTION MECHANICAL CONTRACTORS, INC.
CHARLOTTE, NC

EQUIPMENT: EXHAUST FANS BY LOREN COOK

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 style and is positioned above a horizontal line.

David Petrovski

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

Telephone: 704-523-5000

Fax: 704-523-5171

03/24/2023 4:30 PM



COOK
c UL US



MARK: EF-1

PROJECT: BETHANY ELEMENTARY SCHOOL ADDITIO...

DATE: 3/24/2023

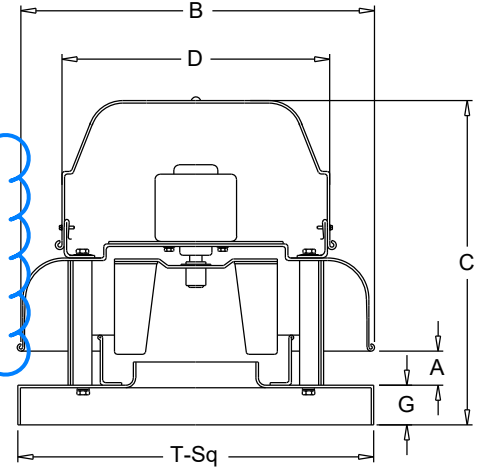
ACED-EC

**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.



Per remark 1 on dwg M001, a belt tensioner is required for EF-1

Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	90C17DEC	240	.500	1445	43	n/a(<1HP)	3.79	EC

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

Motor Information

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

Motor is electronically/thermally protected.

Per the fan schedule on dwg M001, motor h.p. is specified to 1/10



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	64	Unit	56
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

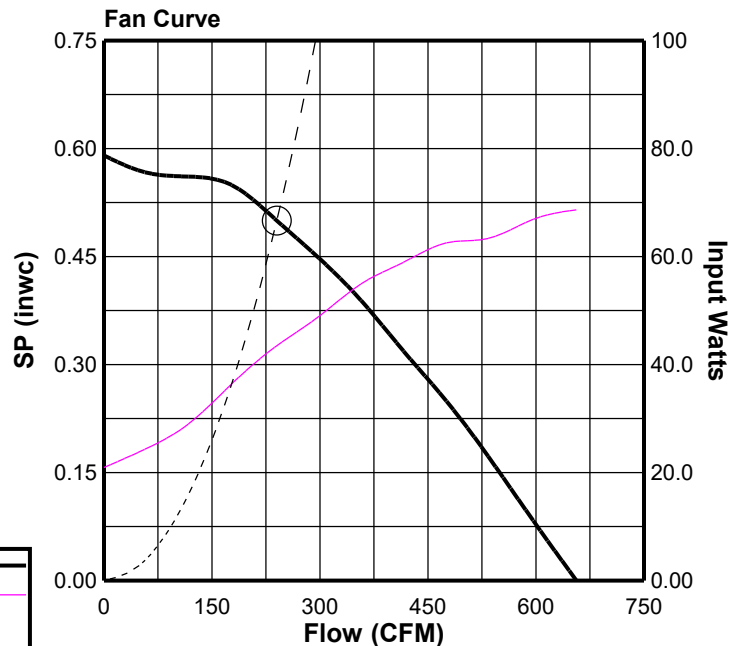
Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
62	66	67	56	52	48	43	39	61	50	5.3

- Distance from Sound source 5 ft

Accessories:

- FAN MOUNTED SPEED CONTROL
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N SL-.25:12



Fan Curve Legend

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



COOK



MARK: EF-2

PROJECT: BETHANY ELEMENTARY SCHOOL ADDITIO...

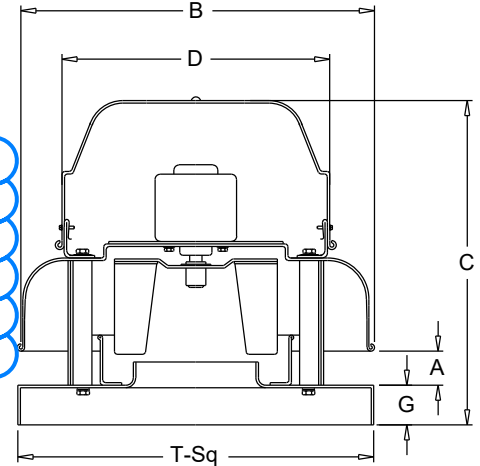
DATE: 3/24/2023

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.



Per remark 1 on dwg M001, a belt tensioner is required for EF-1

Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	90C17DEC	200	.500	1403	36	n/a(<1HP)	4.25	EC

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

Motor Information

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

Motor is electronically/thermally protected.

Per the fan schedule on dwg M001, motor h.p. is specified to 1/10



Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
61	65	66	55	51	47	42	39	60	49	5.1

Distance from sound source 5 ft

Accessories:

- FAN MOUNTED SPEED CONTROL
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16 13.5H -C+T+N SL-.25:12

Per dwg M001, remark 3, cooling thermostat to be provided/furnished

Dimensions (inches)

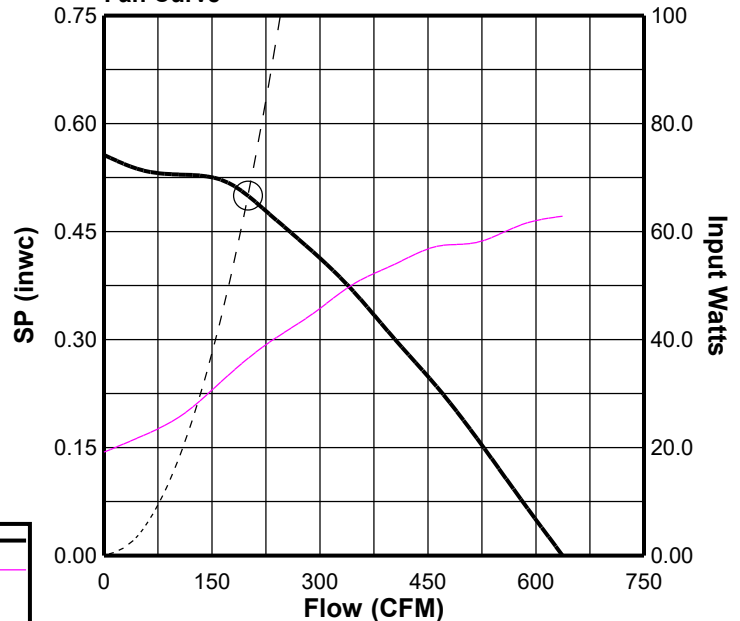
A	2-1/2
B O.D.	18-3/4
C	16-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	64	Unit	56
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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	- - -

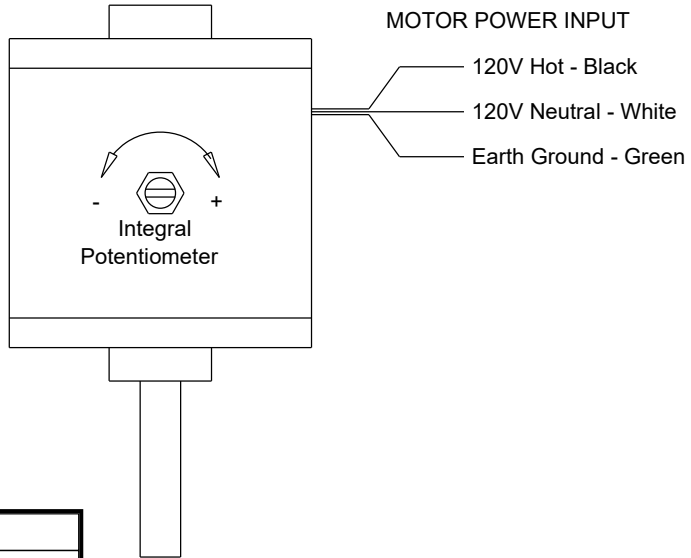


Speed Control

Internal Speed Control
Electronically Commutated (EC) Motor
Type M

STANDARD CONSTRUCTION FEATURES:

Integral potentiometer with slotted screw for speed adjustment.



Dimensions (inches)

Mark	Qty	Description
EF-1	1	OPEN -1/6HP - 115V/1 PH/ 60 1725/0000 -EC
EF-2	1	OPEN -1/6HP - 115V/1 PH/ 60 1725/0000 -EC



BD

Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

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

Notes:

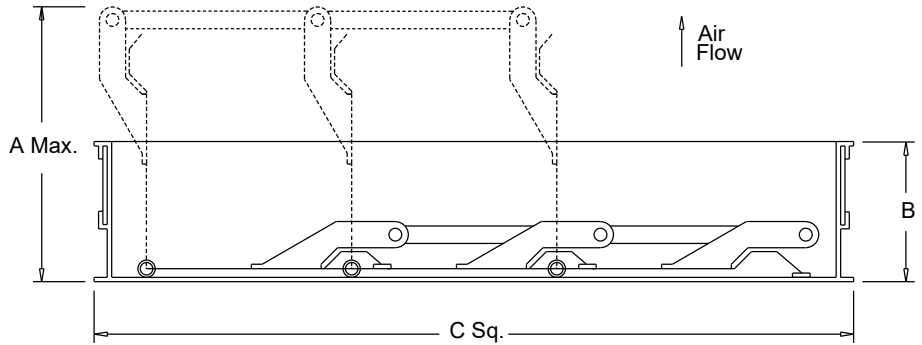
Max. operating temperature 200 Deg F (95 Deg C).

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
EF-1	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
EF-2	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1



RCG SLOPED

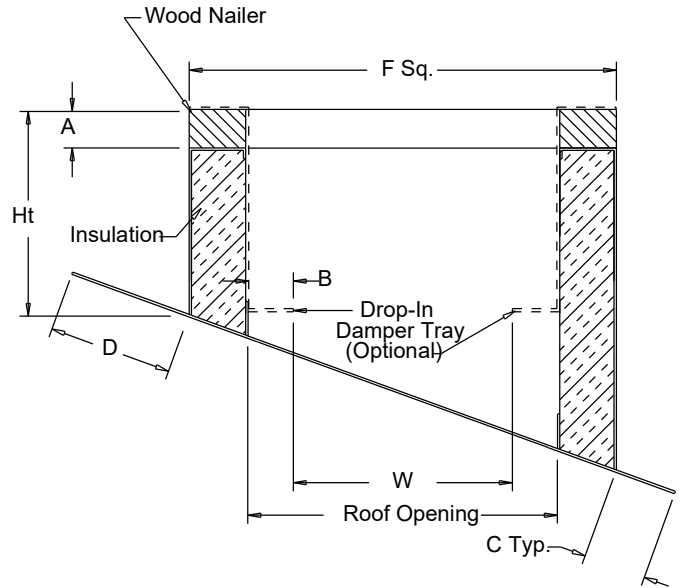
Galvanized Steel Roof Curb

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) Drop-in 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* Rise/Run	A	B	C	D	F Sq.	W Sq.	Roof Opening
EF-1	1	RCG 16	13.5	2; .25:12	1.5	1.875	2	6	16.5	9.75	13.5 X 13.5
EF-2	1	RCG 16	13.5	2; .25:12	1.5	1.875	2	6	16.5	9.75	13.5 X 13.5