

Submittal #233423-1.0 - Product Data – Roof Exhausters 233423 - HVAC POWER VENTILATORS

Revision	0	Submittal Manager	Matthew Crawford (Megen Construction Company)
Status	Open	Date Created	Jul 21, 2025
Issue Date		Spec Section	233423 - HVAC POWER VENTILATORS
Responsible Contractor	Feldkamp Enterprises, Inc	Received From	Heather Wyatt (Feldkamp Enterprises, Inc)
Received Date		Submit By	
Final Due Date	Sep 25, 2025	Lead Time	
		Cost Code	
Location		Type	Product Data
Submittal Package			
Approvers	Tanya Tedesco (Motz Engineering), Brian Trettenero (Motz Engineering), Jessica Scholl (MSA Architects), Brad Sir Louis (MSA Architects)		
Ball in Court	Tanya Tedesco (Motz Engineering), Brian Trettenero (Motz Engineering)		
Distribution	Jeff Williams (Megen Construction Company), Stacy Beck (Megen Construction Company), Jessica Scholl (MSA Architects), Christopher Todd (Megen Construction Company), Brad Sir Louis (MSA Architects)		
Description	Please see the attached roof exhausters submittal for your review and approval.		

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					233423.2.03 - HVAC Power Ventilators [Roof Exhausters].pdf
Tanya Tedesco	Sep 4, 2025	Sep 18, 2025		Pending	
Brian Trettenero	Sep 4, 2025	Sep 18, 2025		Pending	
Jessica Scholl		Sep 25, 2025		Pending	
Brad Sir Louis		Sep 25, 2025		Pending	

SHOP DRAWINGS

Reviewed Furnish as Corrected

Rejected Revise and Resubmit

This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for: dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication process or to the means, methods, techniques, sequences and procedures of construction; coordination of the work of all trades; and for performing all work in a safe and satisfactory manner.

Note: Errors in shop drawings or undue delays in making corrections are not an acceptable excuse for changing delivery dates from imperfect fabrication.

MOTZ CONSULTING ENGINEERS, INC.
 By: Jeff Haynay Date: 09/12/2025

Reviewed
 Reviewed & Revisions Noted
 Revise & Resubmit
 Other: Received for Record

Review is for general conformance and design concept. Contractor is responsible for dimensions, quantities, coordination with other trades, techniques of construction and performance of work in a safe and satisfactory manner. Review does not relieve Contractor from responsibility for errors or deviations from contract requirements. Notations do not authorize an extra cost.

JScholl 9/12/2025

Signature Date

MSA DESIGN

Defer to Motz Review



Feldkamp Enterprises
 3642 Muddy Creek Rd
 Cincinnati, Ohio 45238
 P: (513) 347-4500

Project: 1351 Princeton Athletic Facility
 1100 Viking Way
 Cincinnati, Ohio 45246

Submittal #23 34 23-1.0 - Roof Exhausters 23 34 23 - HVAC Power Ventilators

Revision	0	Submittal Manager	Heather Wyatt (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises)
Status	Open	Date Created	Jul 24, 2025
Issue Date		Spec Section	23 34 23 - HVAC Power Ventilators
Responsible Contractor	Controlled Air, Inc.	Received From	Patrick Tepe (Controlled Air, Inc.)
Received Date		Submit By	
Final Due Date	Aug 18, 2025	Lead Time	
		Cost Code	
Location		Type	Product Information
Submittal Package			
Manufacturer	Loren Cook		
Approvers	Heather Wyatt (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Matt Crawford (Megen Construction)		
Ball in Court	Heather Wyatt (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises)		
Distribution	Jack Rahn (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Josh Zins (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Brian Linblad (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Jonathan Vogelpohl (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Matt Flower (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Kelly Jones (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Frank Izzo (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Rob Bush (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), David Doremus (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Shawn Heeney (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises), Jason Hageman (Marsden Mechanical L.L.C. d/b/a/ Feldkamp Enterprises)		
Description	1.01 SECTION INCLUDES A Roof exhausters. B Roof ventilators. C Roof intake fans. D Wall exhausters. E Cabinet exhaust fans. F Ceiling exhaust fans. G Fire-rated enclosures. H Upblast roof exhausters. I Inline centrifugal fans and blowers. J Kitchen hood upblast roof exhausters. 2.01 MANUFACTURERS A Carnes, a division of Carnes Company Inc B Greenheck Fan Corporation C Loren Cook Company D PennBarry, Division of Air System Components		

Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					
Patrick Tepe		Aug 6, 2025	Aug 1, 2025	Submitted	
Heather Wyatt	Aug 1, 2025	Aug 4, 2025		Pending	
Matt Crawford		Aug 18, 2025		Pending	



COOK

SUBMITTAL

PROJECT: PRINCETON ATHLETICS BASE

CONTRACTOR: Feldkamp Enterprises

SUBMITTED BY: Patrick Tepe
Controlled Air, Inc
Cincinnati, OH 45241

E-MAIL: patrick.r.tepe@controlled-air.com

DATE: 7/18/2025

*** STARTERS, VFDS, T'STATS, ETC BY OTHERS UNLESS NOTED OTHERWISE. ***



LOREN COOK COMPANY
Corporate Offices: 2015 E. Dale Street, Springfield, MO 65803 • P.O. Box 4047, Springfield, MO 65808
417.869.6474 • fax 417.869.2520
lorencook.com



COOK



MARK: EF-3

PROJECT: PRINCETON ATHLETICS BASE

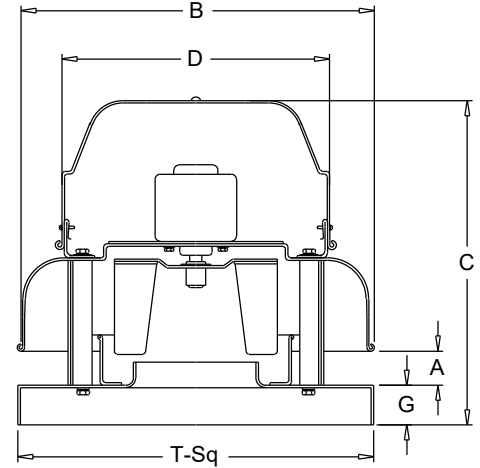
DATE: 7/18/2025

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	Speed Control
1	90C17DEC	300	.500	1515	55	n/a(<1HP)	EC

Altitude (ft): 1004 Temperature (F): 70

Motor Information

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



Motor is electronically/thermally protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
63	68	68	58	54	49	44	39	62	51	5.8

- 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

Dimensions (inches)

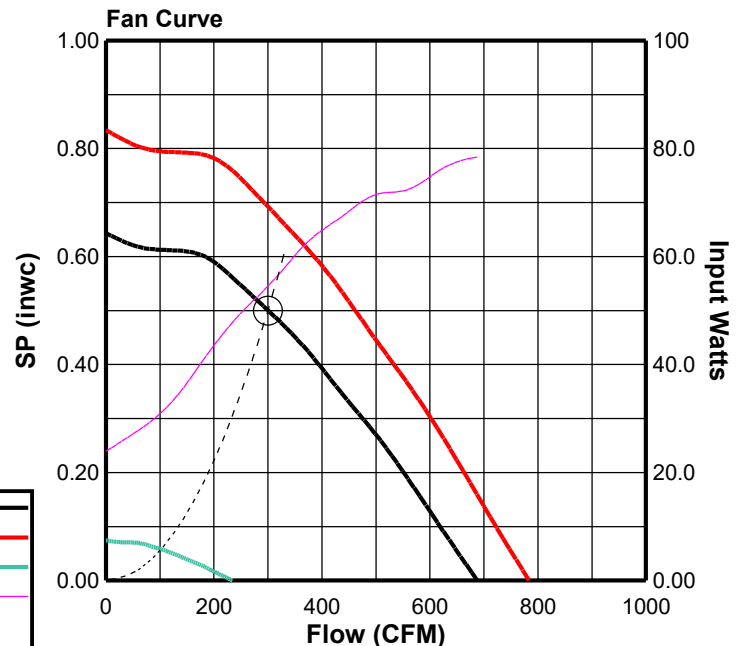
A	2-1/2
B O.D.	18-3/4
C	16-13/16
D O.D.	16-3/4
G	2
T Sq.	18
Roof Open. Sq.*	13-1/2

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.





COOK



MARK: EF-3

PROJECT: PRINCETON ATHLETICS BASE

DATE: 7/18/2025

ACED-EC

Performance

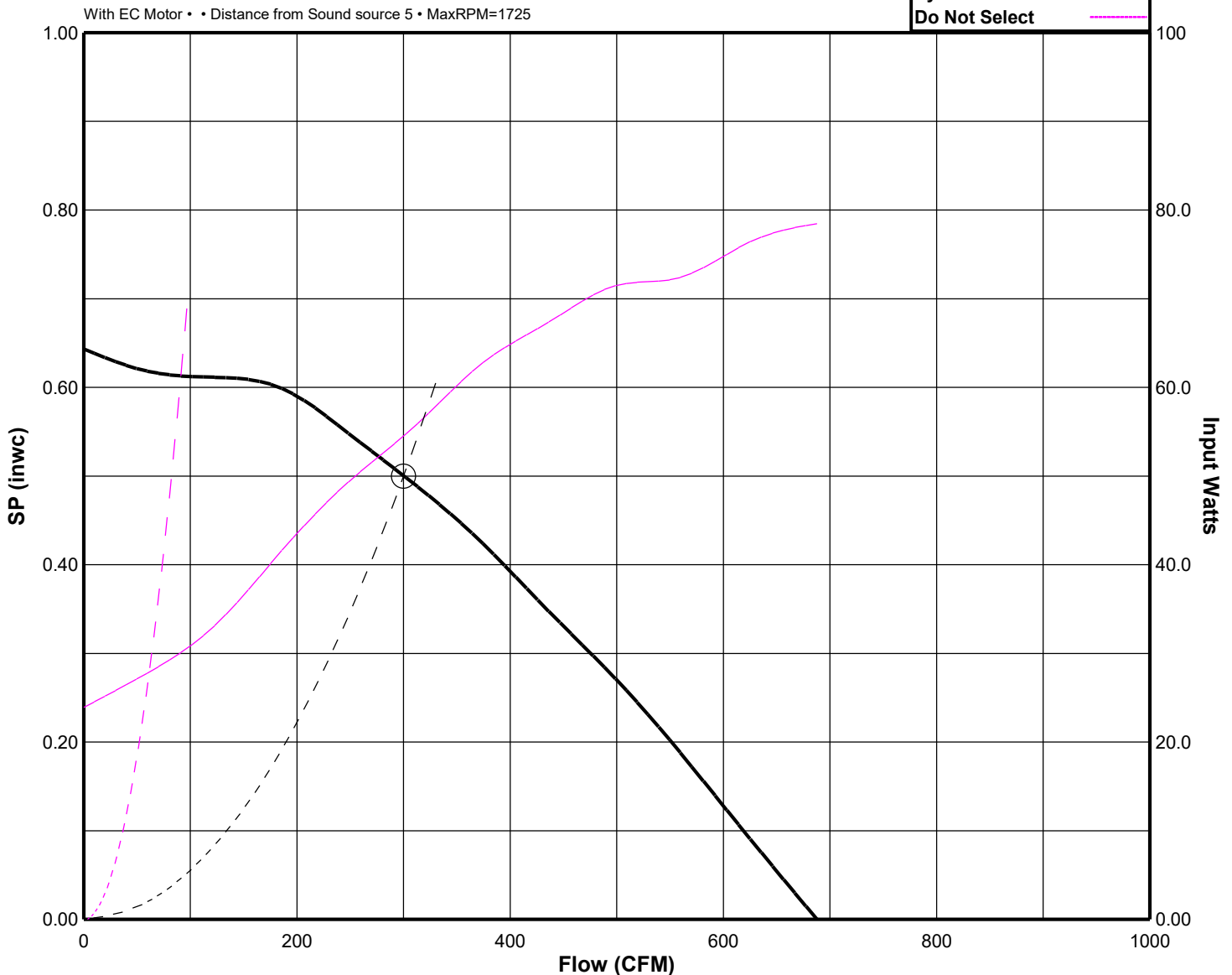
Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
90C17DEC	300	.500	1515	55	n/a(<1HP)	388	3569	40%	70	1004

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
63	68	68	58	54	49	44	39	62	51	5.8

Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	- - -
Do Not Select	---





COOK



MARK: EF-4

PROJECT: PRINCETON ATHLETICS BASE

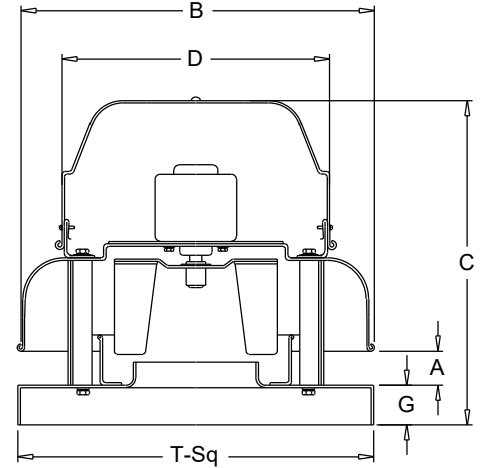
DATE: 7/18/2025

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	Speed Control
1	90C17DEC	200	.500	1409	37	n/a(<1HP)	EC

Altitude (ft): 1004 Temperature (F): 70

Motor Information

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



Motor is electronically/thermally protected.

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
62	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

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

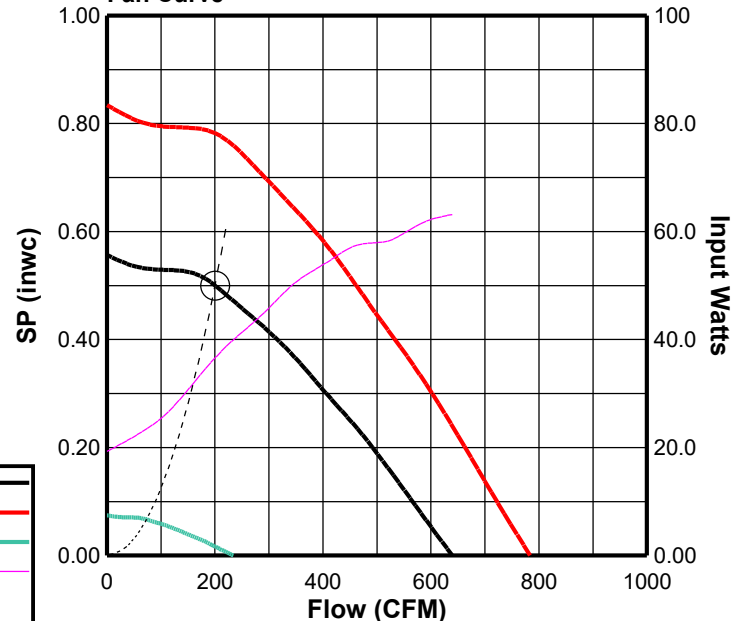
NOTE: Accessories may affect dimensions shown.

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 (1409)	—
100% EC (1725)	—
Min EC (515)	—
CFM vs Watts	—
Point of Operation	○
System Curve	---



COOK



MARK: EF-4

PROJECT: PRINCETON ATHLETICS BASE

DATE: 7/18/2025

ACED-EC

Performance

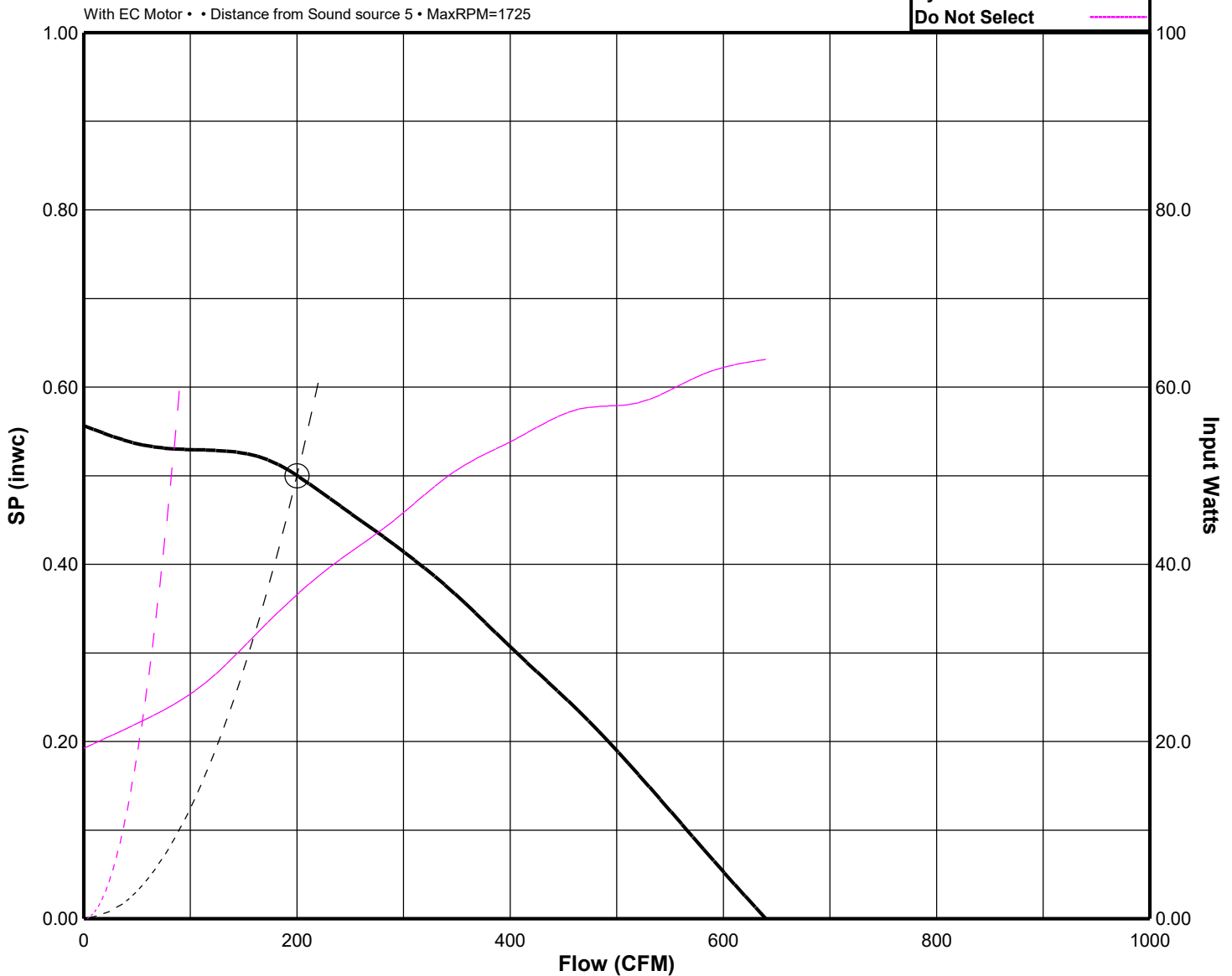
Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
90C17DEC	200	.500	1409	37	n/a(<1HP)	259	3319	40%	70	1004

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
62	65	66	55	51	47	42	39	60	49	5.1

Fan Curve Legend

CFM vs SP	—
CFM vs Watts	—
Point of Operation	○
System Curve	- - -
Do Not Select	---





COOK

PROJECT: PRINCETON ATHLETICS BASE

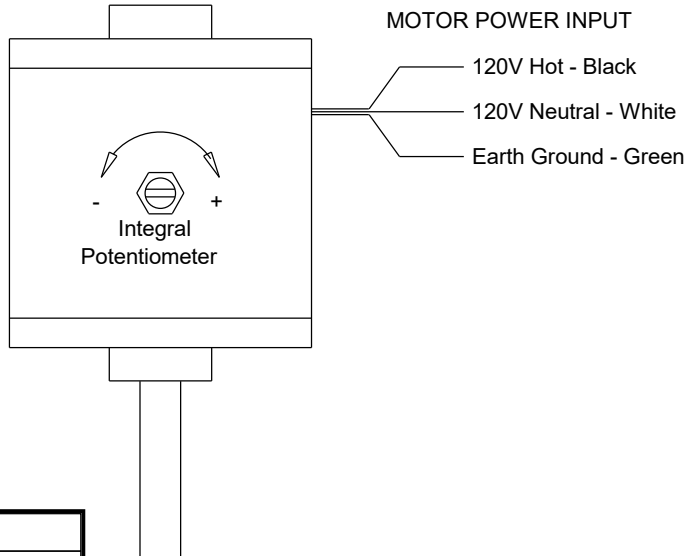
DATE: 7/18/2025

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-3	1	OPEN -1/6HP - 115V/1 PH/ 60 1725/0000 -EC
EF-4	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:

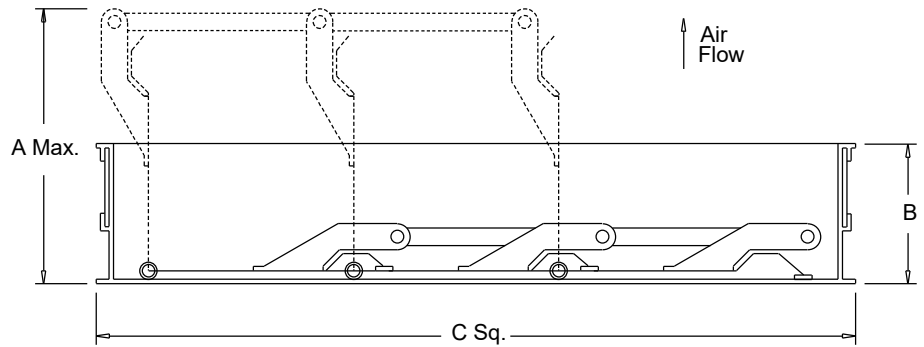
Max. operating temperature 200 Deg F (95 Deg C).

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



RCG

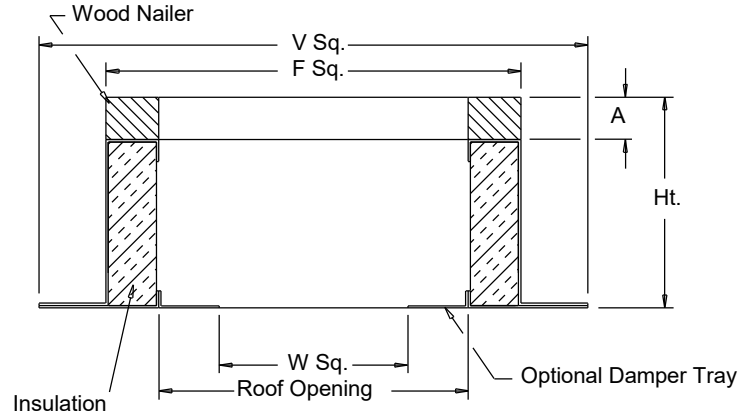
Galvanized Steel Roof Curb

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
EF-3	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
EF-4	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2



COOK

MARK: EF-4

PROJECT: PRINCETON ATHLETICS BASE

DATE: 7/18/2025

Limited Warranty

Loren Cook Company warrants that your Loren Cook fan was manufactured free of defects in materials and workmanship, to the extent stated herein. For a period of one (1) year after date of shipment, we will replace any parts found to be defective without charge, except for shipping costs which will be paid by you.

This warranty is granted only to the original purchaser placing the fan in service.

This warranty is void if the fan or any part thereof has been altered or modified from its original design or has been abused, misused, damaged or is in worn condition or if the fan has been used other than for the uses described in the company manual. This warranty does not cover defects resulting from normal wear and tear.

To make a warranty claim, notify Loren Cook Company, General Offices, 2015 East Dale Street, Springfield, Missouri 65803-4637, explaining in writing, in detail, your complaint and referring to the specific model and serial numbers of your fan. Upon receipt by Loren Cook Company of your written complaint, you will be notified, within thirty (30) days of our receipt of your complaint, in writing, as to the manner in which your claim will be handled. If you are entitled to warranty relief, a warranty adjustment will be completed within sixty (60) business days of the receipt of your written complaint by Loren Cook Company.

This warranty gives only the original purchaser placing the fan in service specifically the right. You may have other legal rights which vary from state to state.

For fans provided with motors, the motor manufacturer warrants motors for a designated period stated in the manufacturer's warranty. Warranty periods vary from manufacturer to manufacturer. Should motors furnished by Loren Cook Company prove defective during the designated period, they should be returned to the nearest authorized motor service station. Loren Cook Company will not be responsible for any removal or installation costs.