



Submittal ID: 89489

Shop Drawing Submittal

Send To: **MOODY NOLAN, INC.**
300 SPRUCE STREET, SUITE 300
COLUMBUS, OH 43215-

Attention: Bernard Costantino

Project Id: 2018-0217 Project Name: Dayton Charter School-Connor Group

Discipline: HVAC Spec Description: 233417 FANS

Submittal Description: PRODUCT DATA FOR FANS

Date Recv'd: 3/3/2022 Date Sent: 2022-03-17

Copies Recv'd: 1 E-COPY Copies Sent: 1 E-COPY

Action Taken

- Approved
- Approved As Noted
- Revise and Resubmit
- Reviewed
- Returned without review per "Submittals" Specification

Comments:

- EF1: Fan specified for operation at 480V. Coordinate new dedicated 25A/1P, 120v circuit with Div 26 contractor.
- EF8: Fan specified 1/2 hp and increased to 3/4 hp. Coordinate upsized circuit breaker from 20/1 to 25/1 with Div 26 contractor.
- EF10: Fan specified 1/8hp and increased to 1/4hp. Coordinate new dedicated 20A/1P, 120V circuit to fan with Div 26 contractor.

Logged In By:: AMS Marked/Logged Out By: AMS

Checked By: Edwartoski, Dan Initials: DJE Date: 03/15/2022

Coordinated By: Jones, Rob Initials: RRJ Date: 03/16/2022

Coordinated By: _____ Initials: _____ Date: _____

Signature: *Daniel J Edwartoski*



Re-SUBMITTAL DATA

Project: The Greater Dayton School
Bid Category : HVAC
Project No.: E1000110
TP Tab No.: 112
Construction Manager: Daimler Group
Architect/Engineer: Moody Nolan
Submittal For: Exhaust Fans
Specification #: 233417
Manufacturer: Various
Project Manager: Josh Bolton 937-768-2289

The attached submittal data has been reviewed by TP Mechanical Contractors for compliance with the Architect/Engineer's specifications and plan schedule for this project.

In order to maintain the project schedule, we request that this submittal be returned to TP Mechanical Contractors **within 7 days**.

NOTE: Material cannot be released without Architect/Engineer's approval of submittal.

(Please place stamp of approval here)

<u> X </u>	PRODUCT DATA
<u> </u>	DRAWINGS
<u> 3/2/22 </u>	DATE SUBMITTED
<u> </u>	DATE RESUBMITTED
T. P. MECHANICAL CONTRACTORS	
BY <u> Josh Bolton </u> TJ	
<p>This drawing or brochure has been checked to quality or proper components only. Approval of this drawing or brochure shall not relieve the supplier of responsibility for accuracy or dimensions of full compliance with plans and specifications and purchase order.</p>	



CONTROLLED AIR INC.

12009 Tramway Drive • Cincinnati, Ohio 45241

Date: 3-2-2022

To: TP Mechanical

Project: Greater Dayton School

Engineer: Korda Nemeth Engineering

Submittal: Cook Power Ventilators (Revised for record)

Specification: 233417

Comments Addressed:

EF-1: Revised fan selection to direct drive for better fan curve.

EF-8: Revised fan selection to direct drive for better fan curve.

EF-9: Horse power raised to 1/2 .

Return (1) approved copy to this office for material release.

Current build time is 8-16 weeks.

Respectfully submitted,

Steven Forbeck

Controlled Air Inc.

Office: 513-981-2734

steve@controlled-air.com



COOK

SUBMITTAL

PROJECT: GREATER DAYTON SCHOOL

ENGINEER: Korda Nemeth Engineering

CONTRACTOR: TP Mechanical

SUBMITTED BY: Steve Forbeck
Controlled Air Inc.
12009 Tramway Drive
Cincinnati, OH 45241

PHONE: 513-981-2734
E-MAIL: steve@controlled-air.com

NOTES: 233417

DATE: 3/2/2022

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-1

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

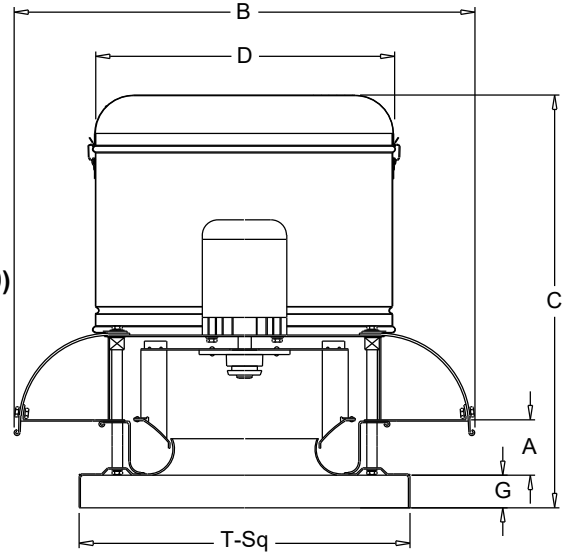
ACE-D VF

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	120C28DOR91VF	1025	1.50	2127	.674	n/a(<1HP)	EC

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

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
3/4	2800	115/1/60	OPEN -EC	8.5

*Motor programmed to max speed of 2169 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
80	87	90	78	72	70	67	63	83	72	21

Accessories:

- FAN MOUNTED SPEED CONTROL
- ORIFICE PLATE 91
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N

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

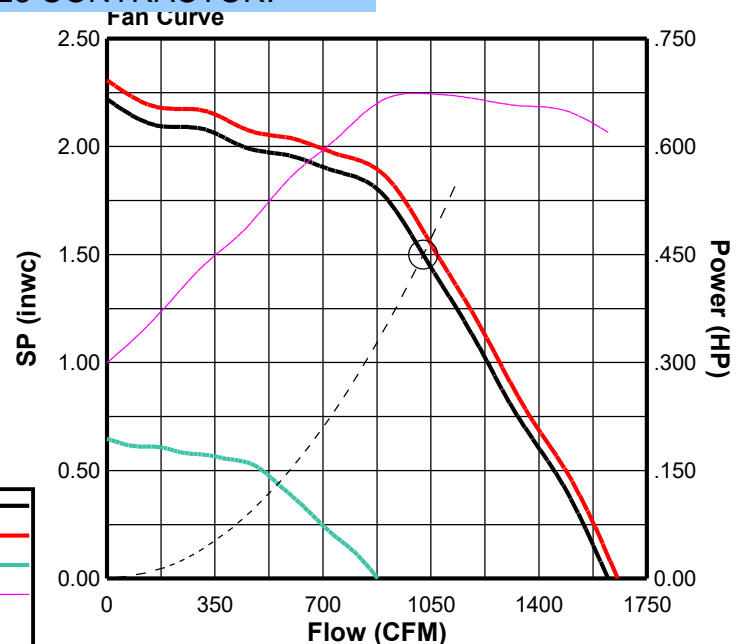
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	88	Unit	72
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* Roof opening size for curbs supplied by Cook only.

***Includes fan, motor & accessories.

FAN SPECIFIED FOR OPERATION AT 480V. COORDINATE NEW DEDICATED 25A/1P, 120V CIRCUIT WITH DIV 26 CONTRACTOR.





COOK



MARK: EF-1

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACE-D VF

Performance

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
120C28DOR91VF	1025	1.50	2127	.674	n/a(<1HP)	1080	6682	36%	70	1004

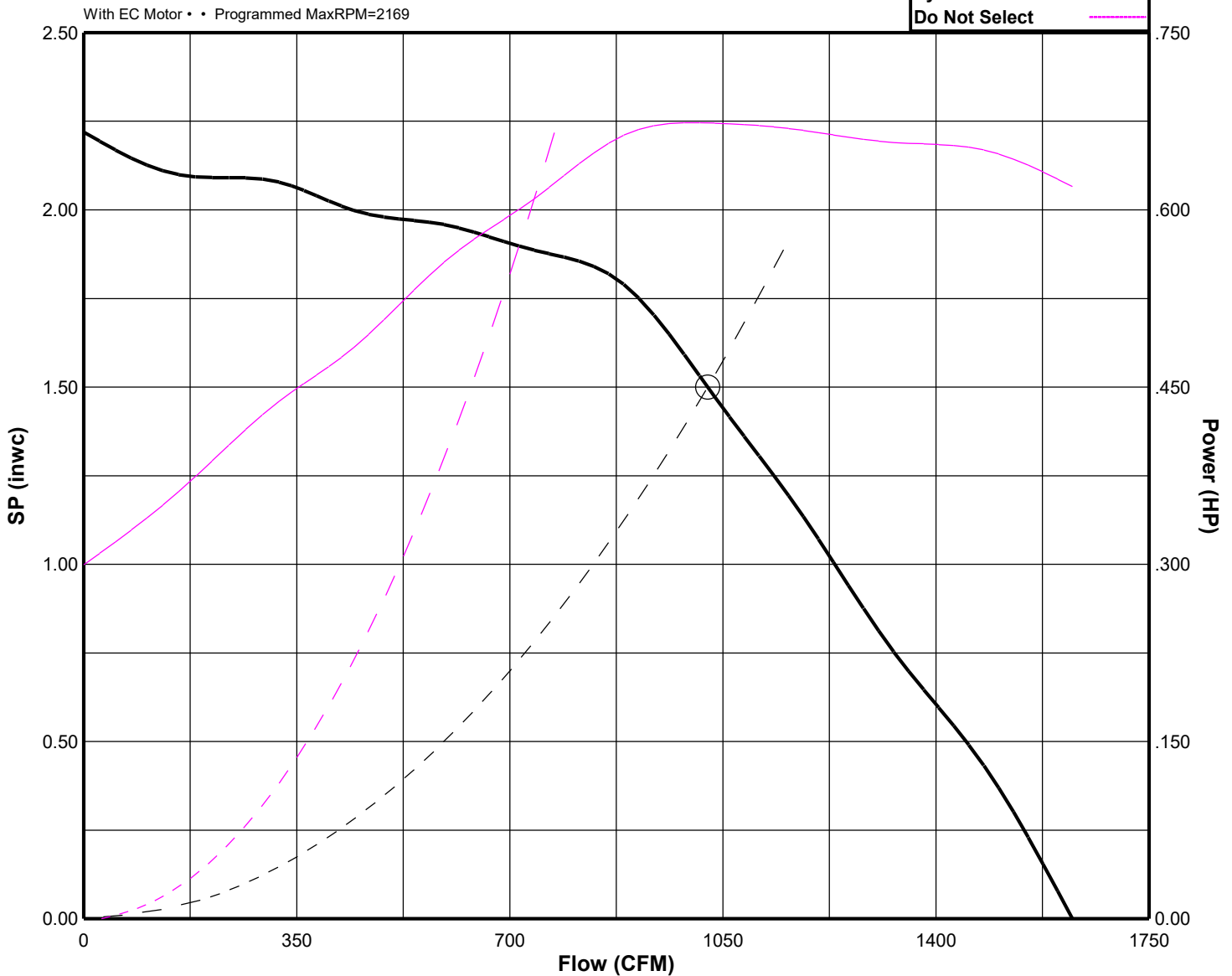
Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
3/4	2800	115/1/60	OPEN -EC	8.5

*Motor programmed to max speed of 2169 RPM.
 RLA based on motor manufacturer's data at programmed HP and max RPM.
 Motor is electronically protected.

Fan Curve Legend

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





COOK



MARK: EF-2

PROJECT: GREATER DAYTON SCHOOL

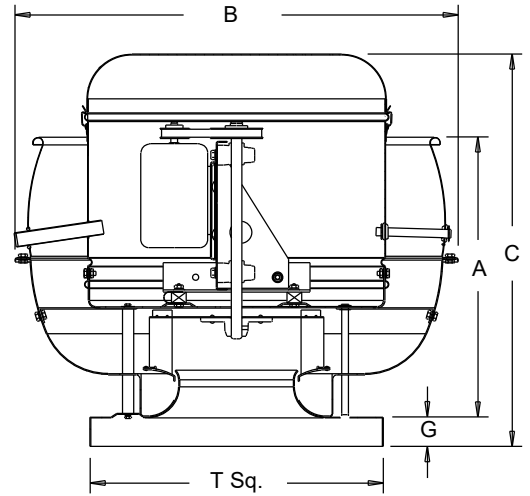
DATE: 3/2/2022

ACRU-B

**Upblast Centrifugal Exhaust Ventilator
Roof Mounted/Belt Drive**

STANDARD CONSTRUCTION FEATURES:

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



Performance (*Bhp includes 15% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	135R OR80	300	1.25	1570	.306	n/a(<1HP)

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

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/3	1725	115/1/60	ODP -SE	7.2	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	88	83	75	66	61	57	53	78	67	15.7

Accessories:

- DRIVES (1.5 SF) @ 1570 RPM
- ORIFICE PLATE 80
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N
- SPARE BELT SET

Dimensions (inches)

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

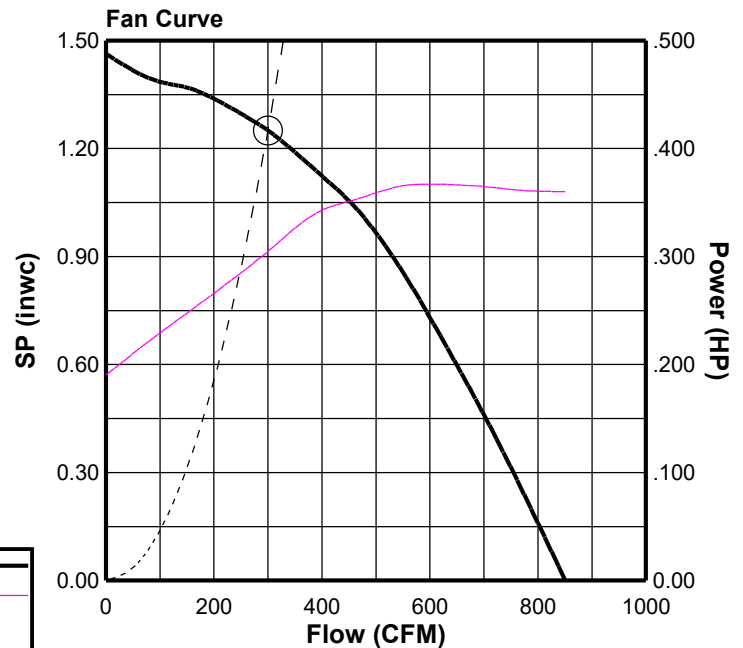
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	124	Unit	107
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

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





COOK



MARK: EF-2

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACRU-B

Performance (*Bhp includes 15% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
135R OR80	300	1.25	1570	.306	n/a(<1HP)	148	5548	22%	70	1004

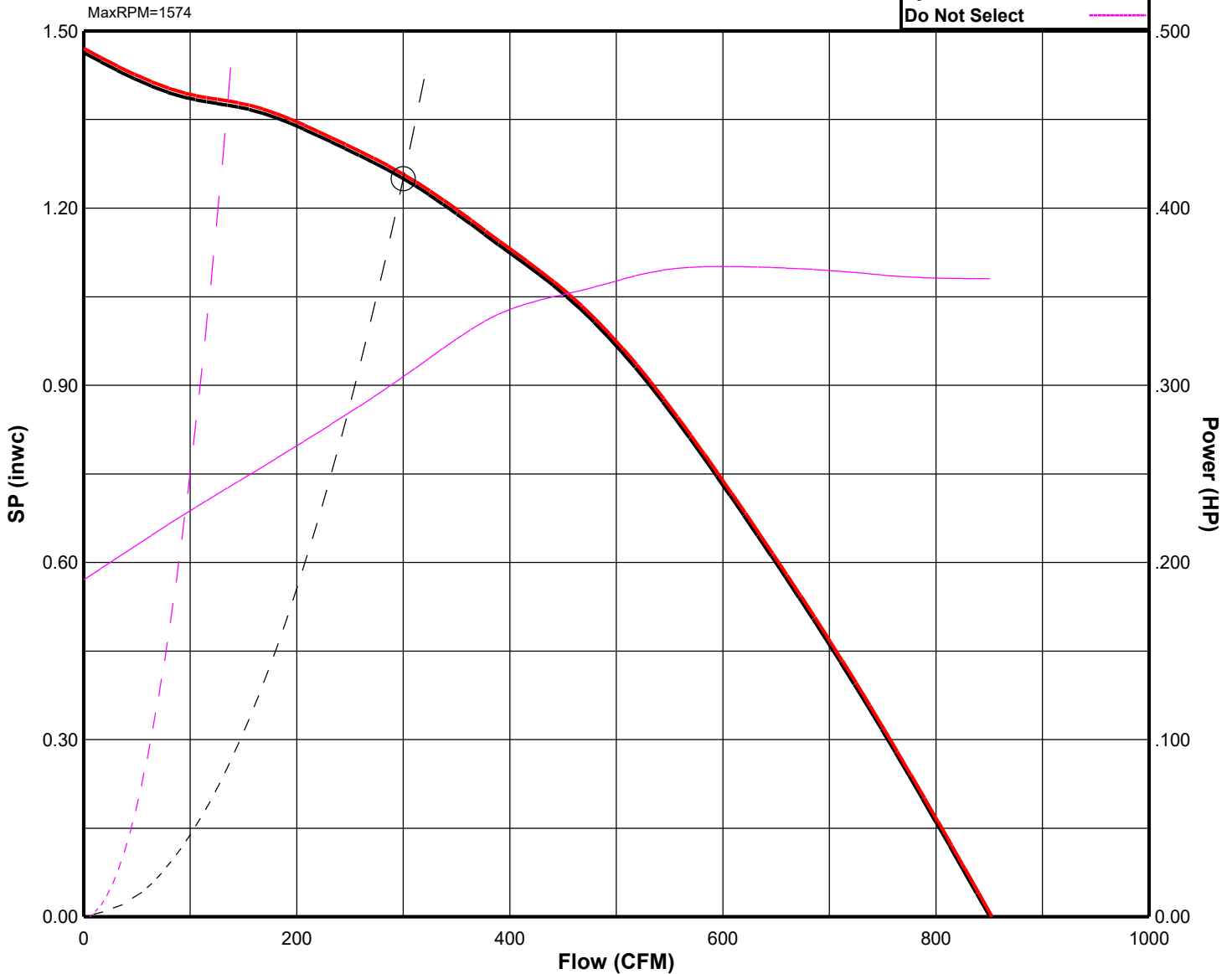
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/3	1725	115/1/60	ODP -SE	7.2	Yes

FLA based on NEC (2017) Table 430.248

Fan Curve Legend

CFM vs SP (1570)	—
MaxRPM(1574)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	- · - · -





COOK



MARK: EF-3

PROJECT: GREATER DAYTON SCHOOL

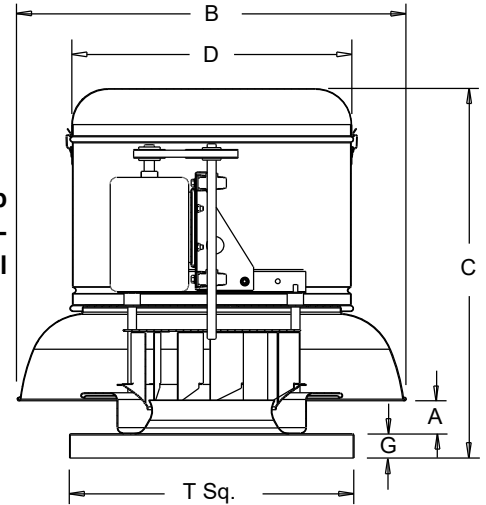
DATE: 3/2/2022

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 7% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	FEI
1	300C10B	5375	1.50	799	2.68	60	1.05

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

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	VFD Rated
3	1725	460/3/60	ODP -PE	4.8	Yes	Yes

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

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
85	88	87	80	74	72	65	58	82	71	19.8

Accessories:

- Premium Efficiency Motor (Min. 89.5%)
- DRIVES (1.5 SF) @ 799 RPM
- WHEEL REDUCED 33% - BANDED
- DISCONNECT NEMA 1 PRE-WIRED
- BD-30 DAMPER
- ROOF CURB RCG 34 13.5H -C+T+N
- SPARE BELT SET

Dimensions (inches)

A	7-1/16
B	52-5/8
C	49-1/16
D	39-3/8
G	3
T Sq.	36
Roof Open.Sq.*	31-1/2

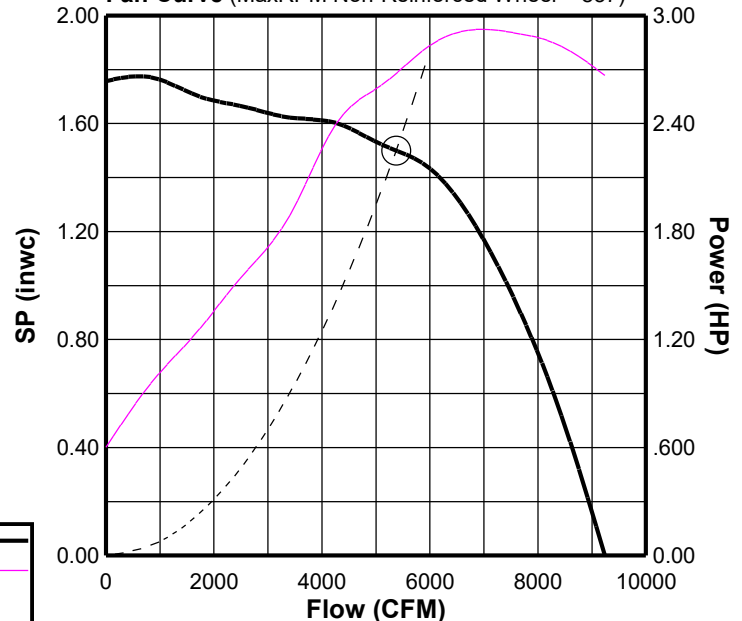
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	490	Unit	326
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*Roof opening size for curbs supplied by Cook only.

***Includes fan, motor & accessories.

Fan Curve (MaxRPM Non-Reinforced Wheel = 837)



Fan Curve Legend

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



COOK



MARK: EF-3

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACE-B

Performance (*Bhp includes 7% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	FEI	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
300C10B	5375	1.50	799	2.68	60	1.05	912	6275	47%	70	1004

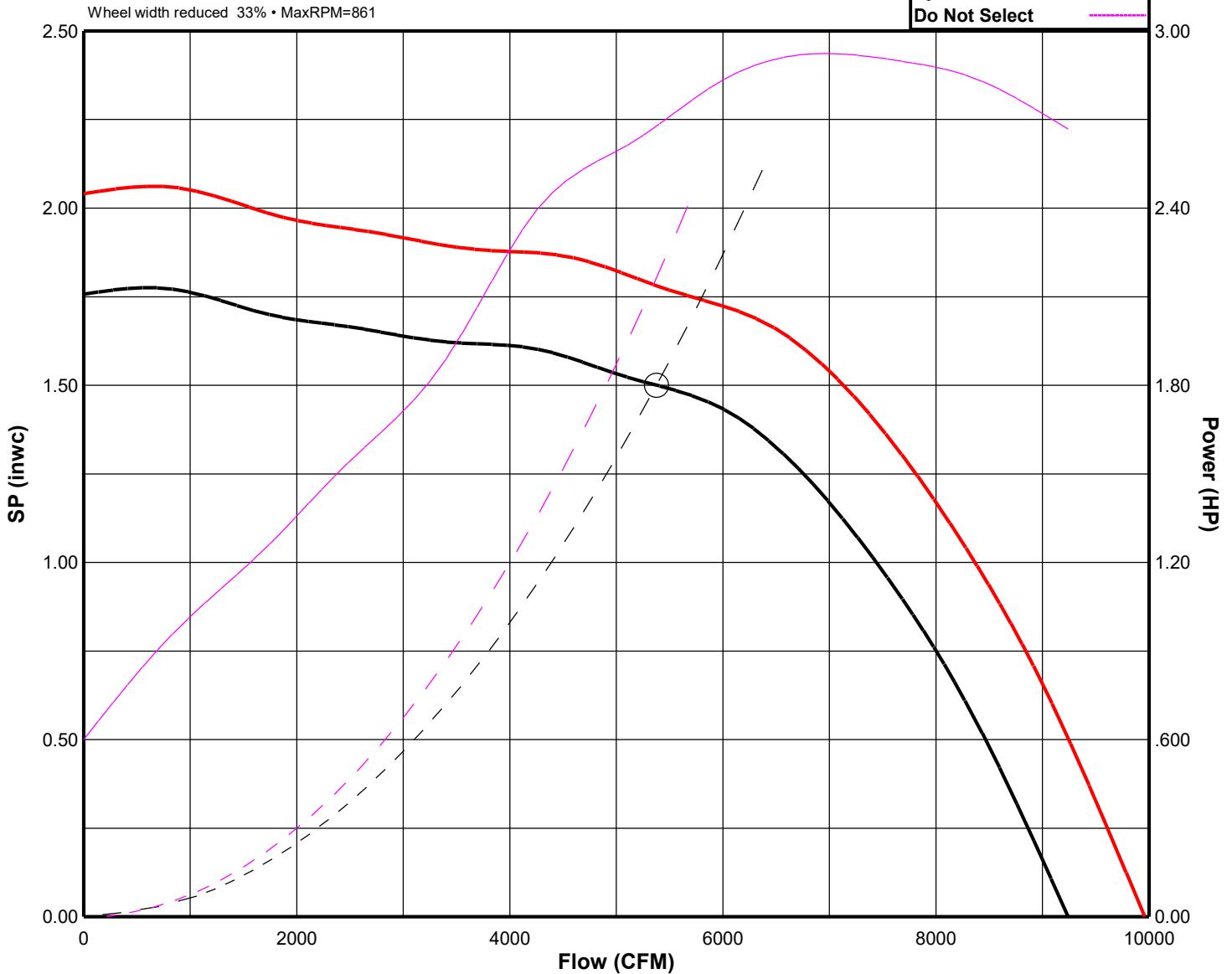
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	VFD Rated
3	1725	460/3/60	ODP -PE	4.8	Yes	Yes

FLA based on NEC (2017) Table 430.250

Fan Curve Legend

CFM vs SP (799)	—
MaxRPM(837)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—





COOK



MARK: EF-4

PROJECT: GREATER DAYTON SCHOOL

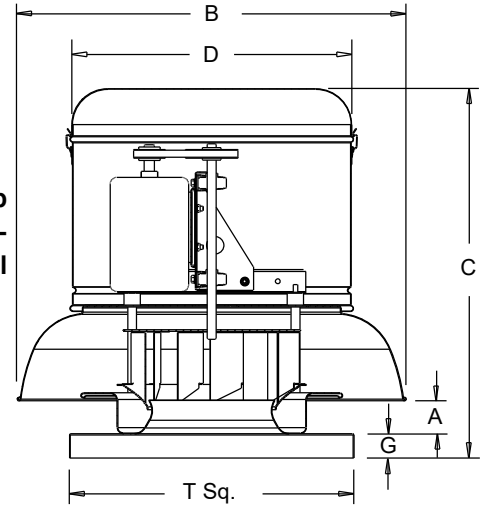
DATE: 3/2/2022

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	135C OR91	375	1.00	1360	.244	n/a(<1HP)

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

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/3	1725	115/1/60	ODP -SE	7.2	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
80	80	82	70	63	58	54	50	75	64	12.7

Accessories:

- DRIVES (1.5 SF) @ 1360 RPM
- ORIFICE PLATE 91
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N
- SPARE BELT SET

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

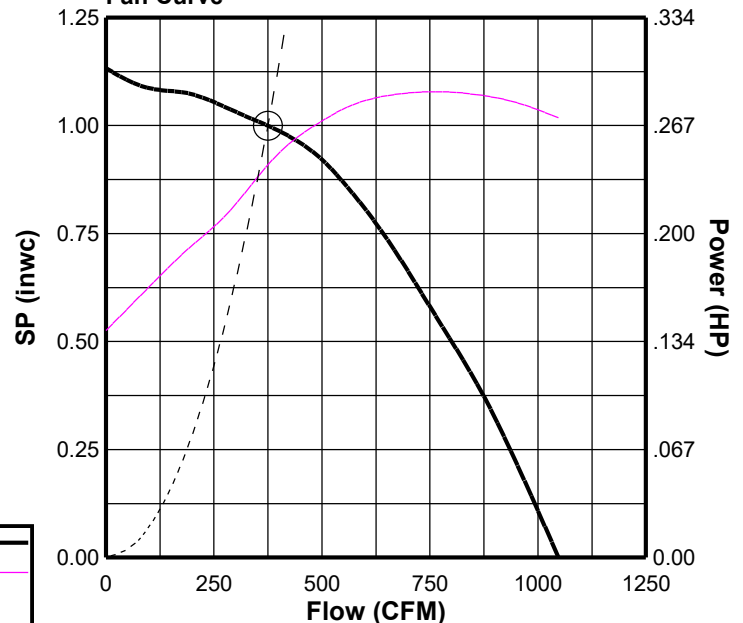
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	113	Unit	97
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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 HP	—
Point of Operation	○
System Curve	- - -



COOK



MARK: EF-4

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACE-B

Performance (*Bhp includes 16% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
135C OR91	375	1.00	1360	.244	n/a(<1HP)	314	4806	28%	70	1004

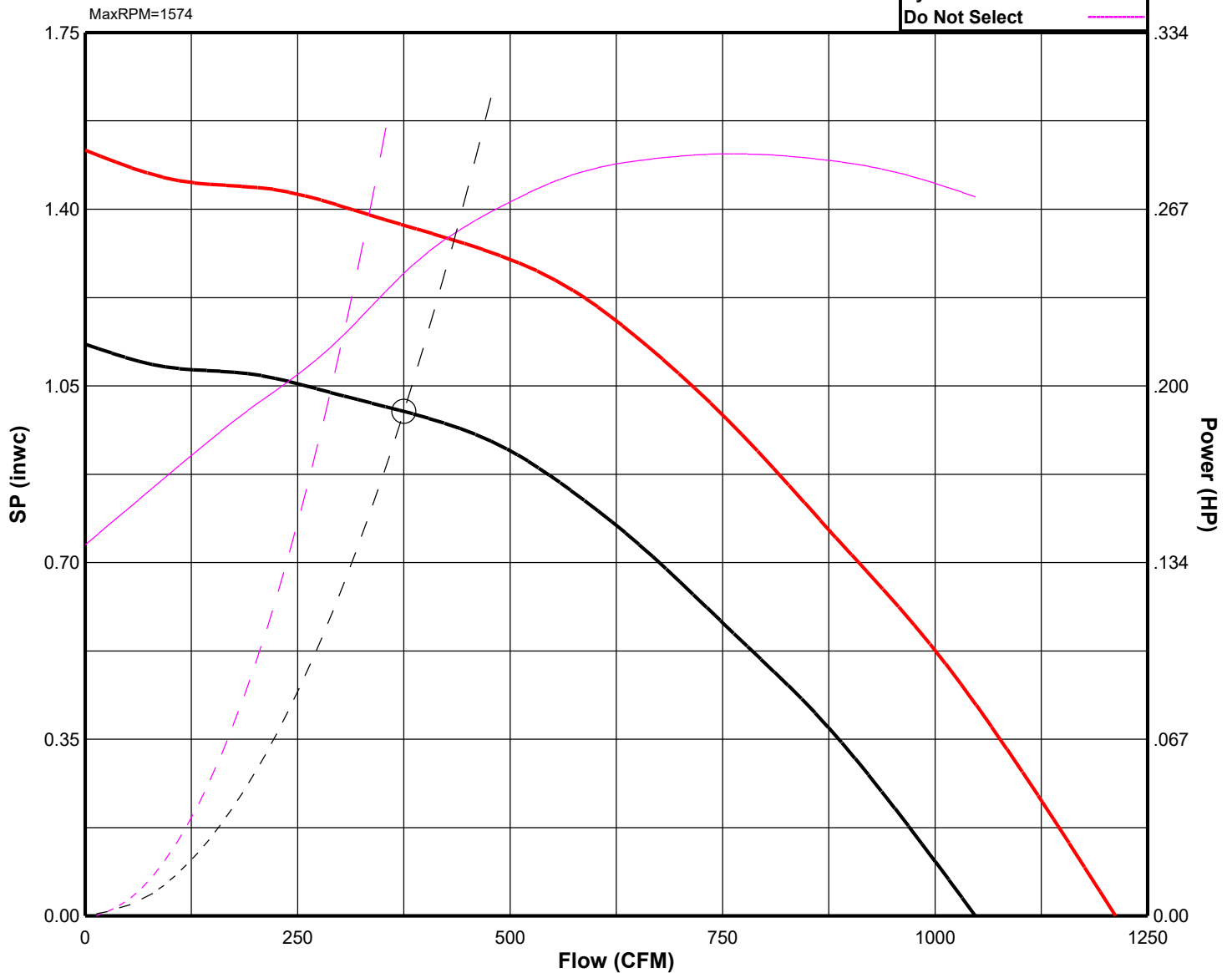
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/3	1725	115/1/60	ODP -SE	7.2	Yes

FLA based on NEC (2017) Table 430.248

Fan Curve Legend

CFM vs SP (1360)	—
MaxRPM(1574)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—





COOK



MARK: EF-5

PROJECT: GREATER DAYTON SCHOOL

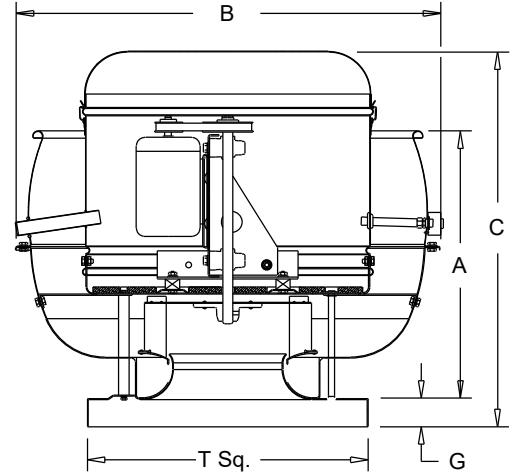
DATE: 3/2/2022

VCR-XP

Upblast Centrifugal Exhaust Ventilator Roof Mounted/Belt Drive

STANDARD CONSTRUCTION FEATURES:

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



Performance (*Bhp includes 6% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	FEI
1	300VX11B	4400	2.50	1165	3.14	63	1.13

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

Motor Information

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

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

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
82	89	90	84	79	76	74	69	87	75	25

Accessories:

- Premium Efficiency Motor (Min. 89.5%)
- DRIVES (1.5 SF) @ 1165 RPM
- DISCONNECT NEMA 3 PRE-WIRED
- ROOF CURB RCG 34 13.5H -C-T-N
- UL762 (327Y-300DEG)
- KEYWAY GREASE TROUGH
- SPARE BELT SET

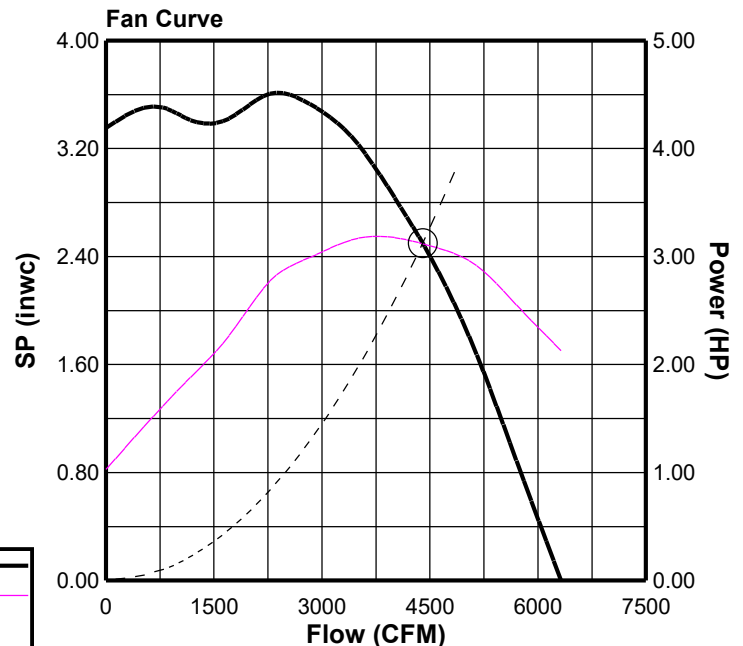
Dimensions (inches)

A	33-7/8
B	54-1/4
C	41-7/16
G	3
T Sq.	36
Roof Open. Sq.*	31-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	497	Unit	337
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: EF-5

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

VCR-XP

Performance (*Bhp includes 6% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	FEI	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
300VX11B	4400	2.50	1165	3.14	63	1.13	697	9149	59%	70	1004

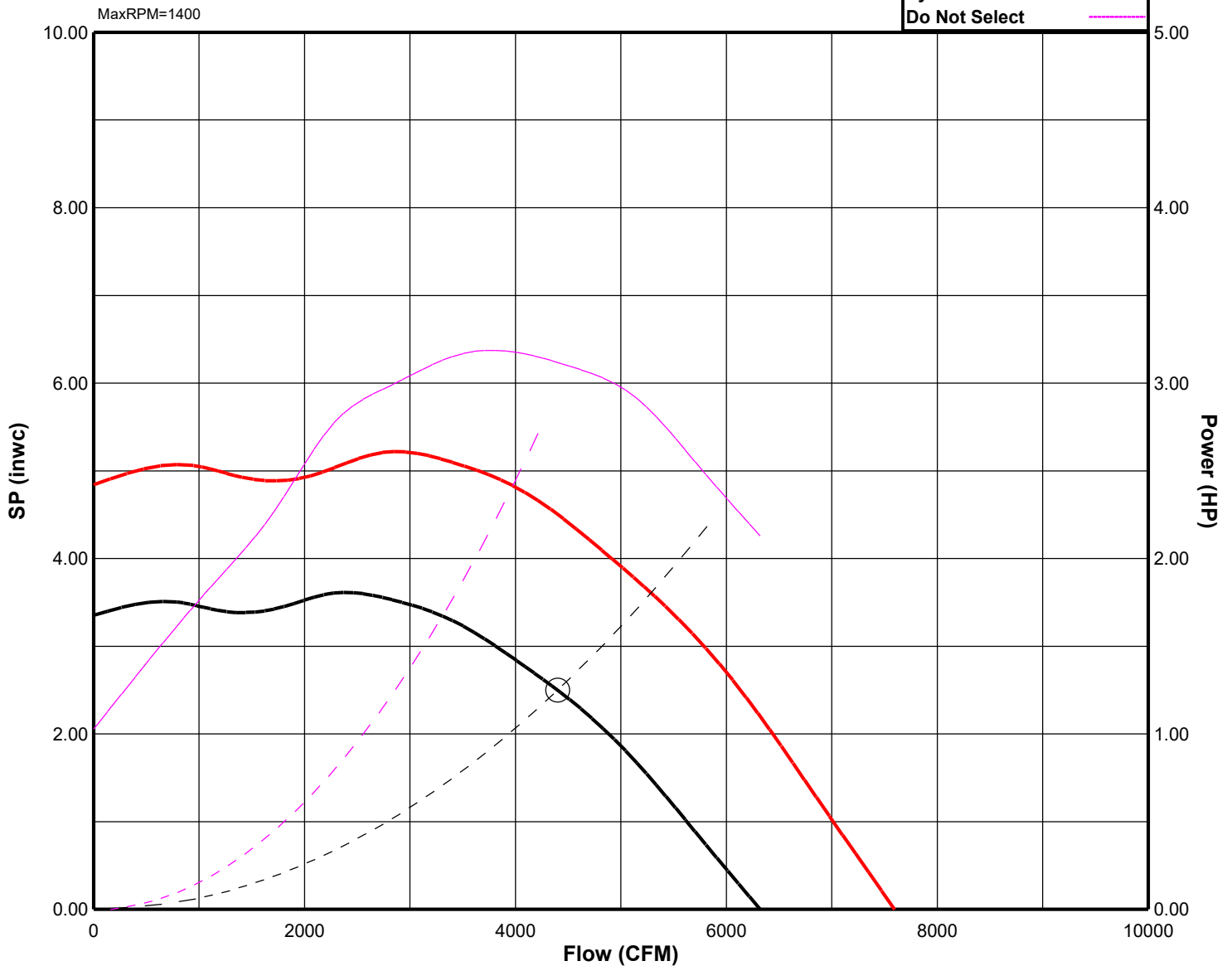
Motor Information

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

FLA based on NEC (2017) Table 430.250

Fan Curve Legend

CFM vs SP (1165)	—
MaxRPM(1400)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—





COOK



MARK: EF-6

PROJECT: GREATER DAYTON SCHOOL

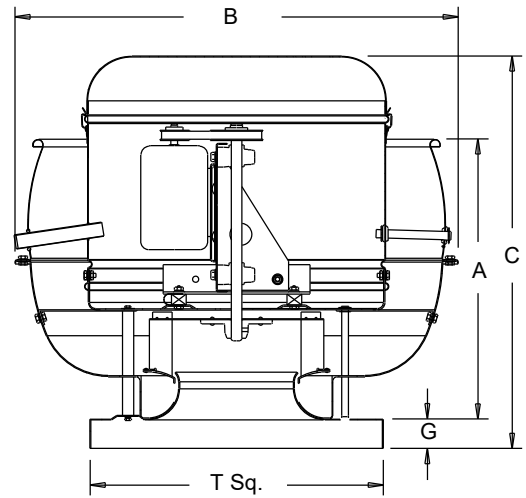
DATE: 3/2/2022

ACRU-XP

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 12% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	FEI
1	210RX7B	1200	1.50	1192	.603	n/a(<1HP)	1.21

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

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	VFD Rated
1	1725	460/3/60	ODP -PE	2.1	Yes	Yes

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

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
77	79	73	68	67	66	65	59	73	62	12.1

Accessories:

- Premium Efficiency Motor (Min. 85.5%)
- DRIVES (1.5 SF) @ 1192 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-24 DAMPER
- ROOF CURB RCG 28 13.5H -C+T+N
- SPARE BELT SET

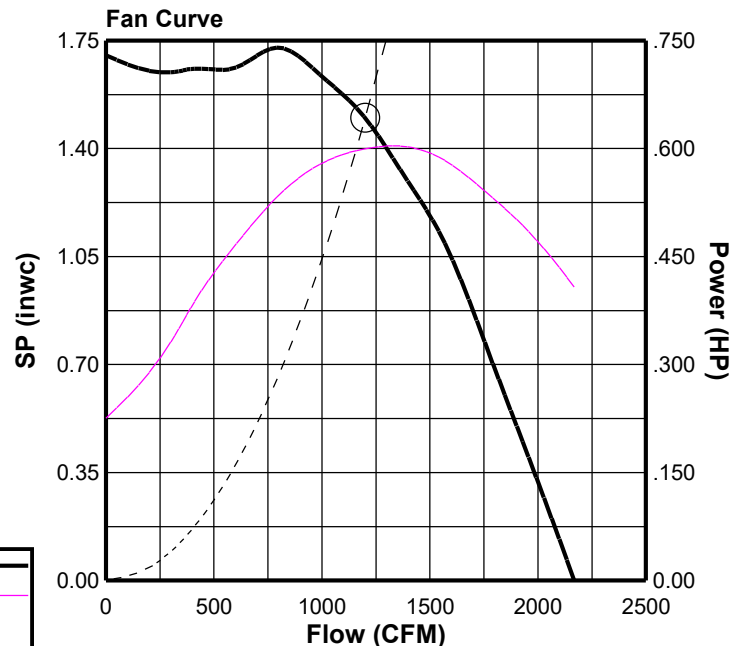
Dimensions (inches)

A	25-15/16
B	45-1/4
C	32-3/4
G	3
T Sq.	30
Roof Open. Sq.*	25-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	331	Unit	204
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: EF-6

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACRU-XP

Performance (*Bhp includes 12% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	FEI	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
210RX7B	1200	1.50	1192	.603	n/a(<1HP)	1.21	229	6553	53%	70	1004

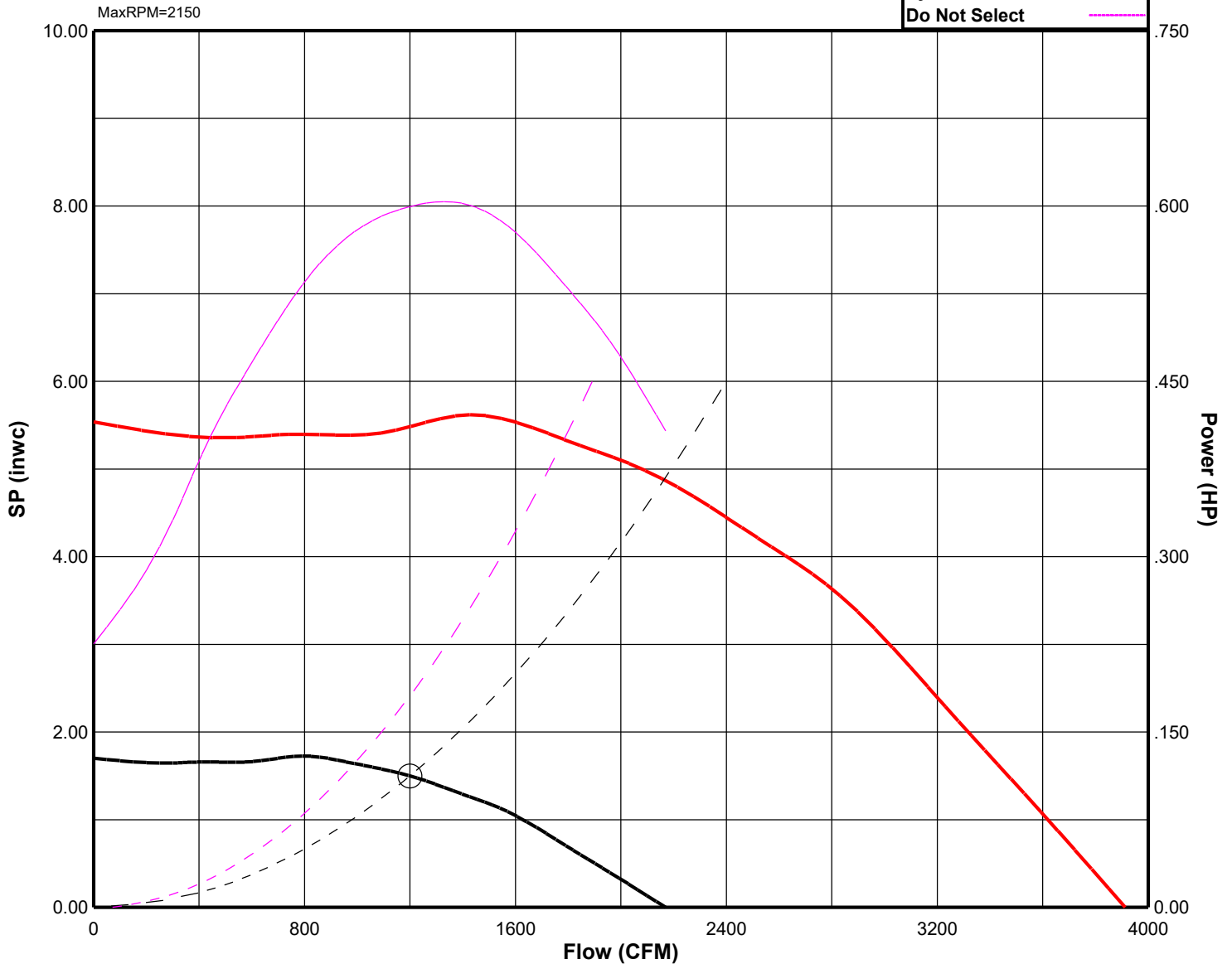
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted	VFD Rated
1	1725	460/3/60	ODP -PE	2.1	Yes	Yes

FLA based on NEC (2017) Table 430.250

Fan Curve Legend

CFM vs SP (1192)	—
MaxRPM(2150)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—





COOK



MARK: EF-7

PROJECT: GREATER DAYTON SCHOOL

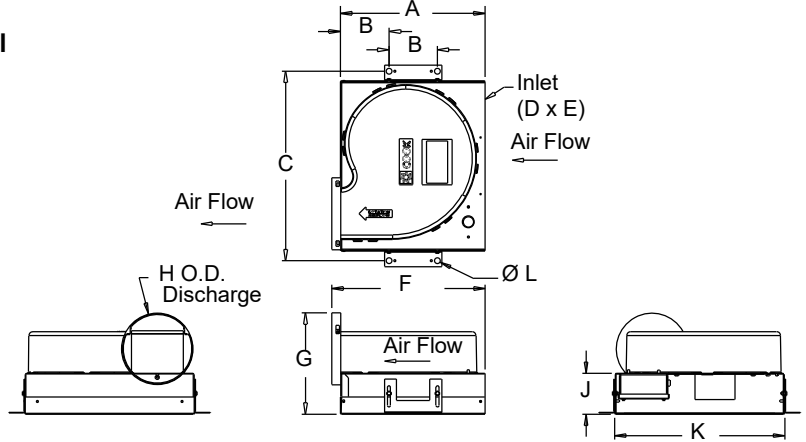
DATE: 3/2/2022

GEMINI Vari-Flow[®]

Inline 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 -
 Permanently lubricated electronically commutated variable speed motor with built-in electronic overload protection and disconnect plug - Isolation mounted motor, mounted to one piece galvanized stamped steel integral motor mount/inlet - Field wiring compartment with receptacle - Adjustable prepunched mounting bracket - Shipped in ISTA certified transit tested packaging



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	Speed Control
1	GNVF-180	150	.250	1035	23	EC

Altitude (ft): 1004 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:

- EXT SPD CTRL CAPABLE CONTROL BY OTHERS
- INTEGRAL BD DAMPER
- GEMINI ISOLATOR KIT - ISOLATORS

Dimensions (inches)

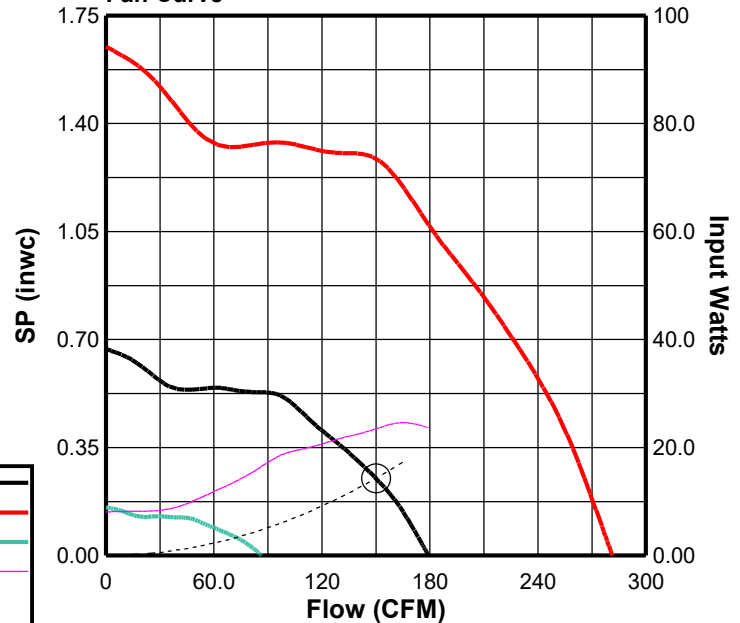
A	12	L	1/2
B	4		
C	15-1/2		
D	14		
E	3-1/4		
F	12-3/4		
G	8-3/8		
H O.D.	5-15/16		
J	3-3/8		
K	14		

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	23	Unit	20
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***Includes fan, motor & accessories.

Fan Curve



Fan Curve Legend

CFM vs SP (1035)	—
100% EC (1625)	—
Min EC (500)	—
CFM vs Watts	—
Point of Operation	○
System Curve	—



COOK



MARK: EF-7

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

GEMINI Vari-Flow®

Performance

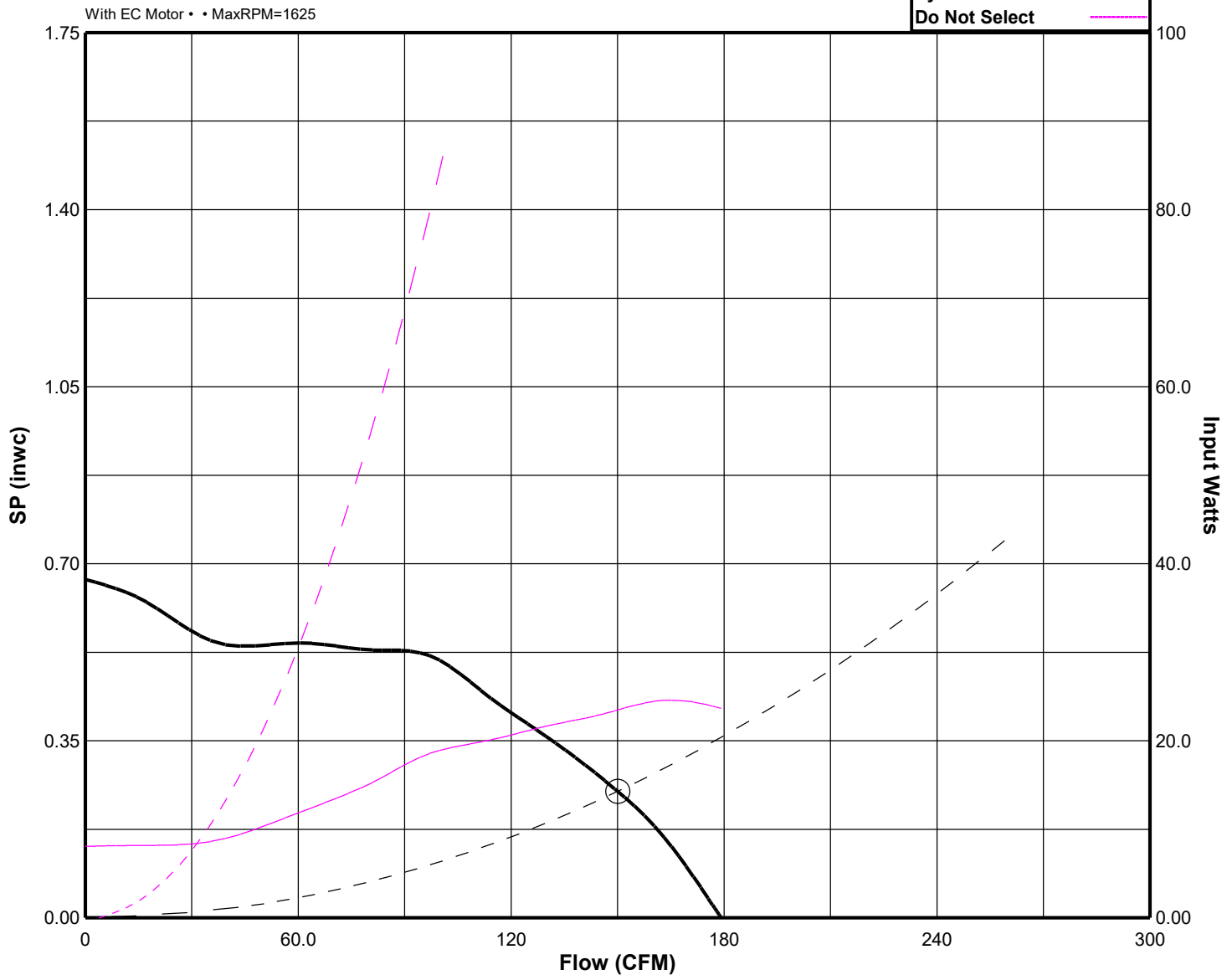
Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
GNVF-180	150	.250	1035	23	765	2067	24%	70	1004

Motor Information

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

Fan Curve Legend

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





COOK



MARK: EF-8

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

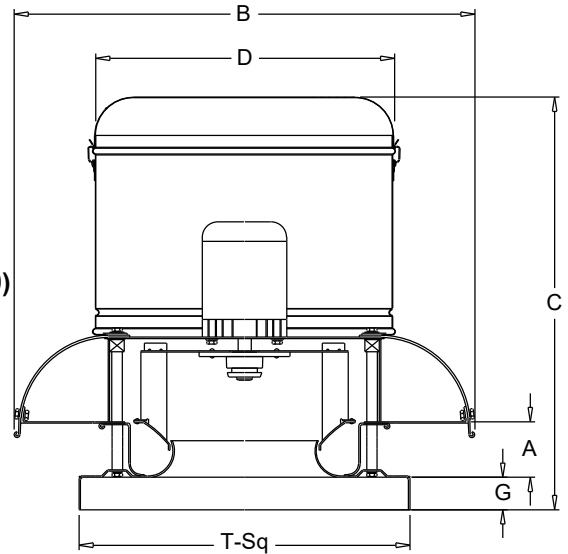
ACE-D VF

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	135C28DOR70VF	450	1.50	2079	.700	n/a(<1HP)	EC

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

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
3/4	2800	115/1/60	OPEN -EC	8.5



*Motor programmed to max speed of 2090 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
80	87	89	77	73	68	65	61	83	71	20

Accessories:

- FAN MOUNTED SPEED CONTROL
- ORIFICE PLATE 70
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N

FAN INCREASED FROM 1/2 HP TO 3/4 HP. COORDINATE UPSIZE CIRCUIT BREAKER FROM 20/1 TO 25/1 WITH DIV 26 CONTRACTOR.

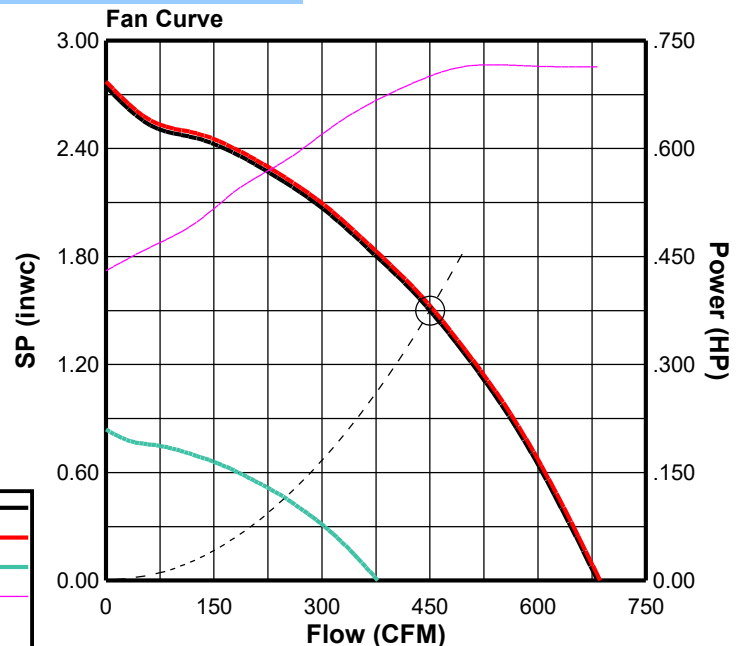
Dimensions (inches)

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	93	Unit	77
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: EF-8

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACE-D VF

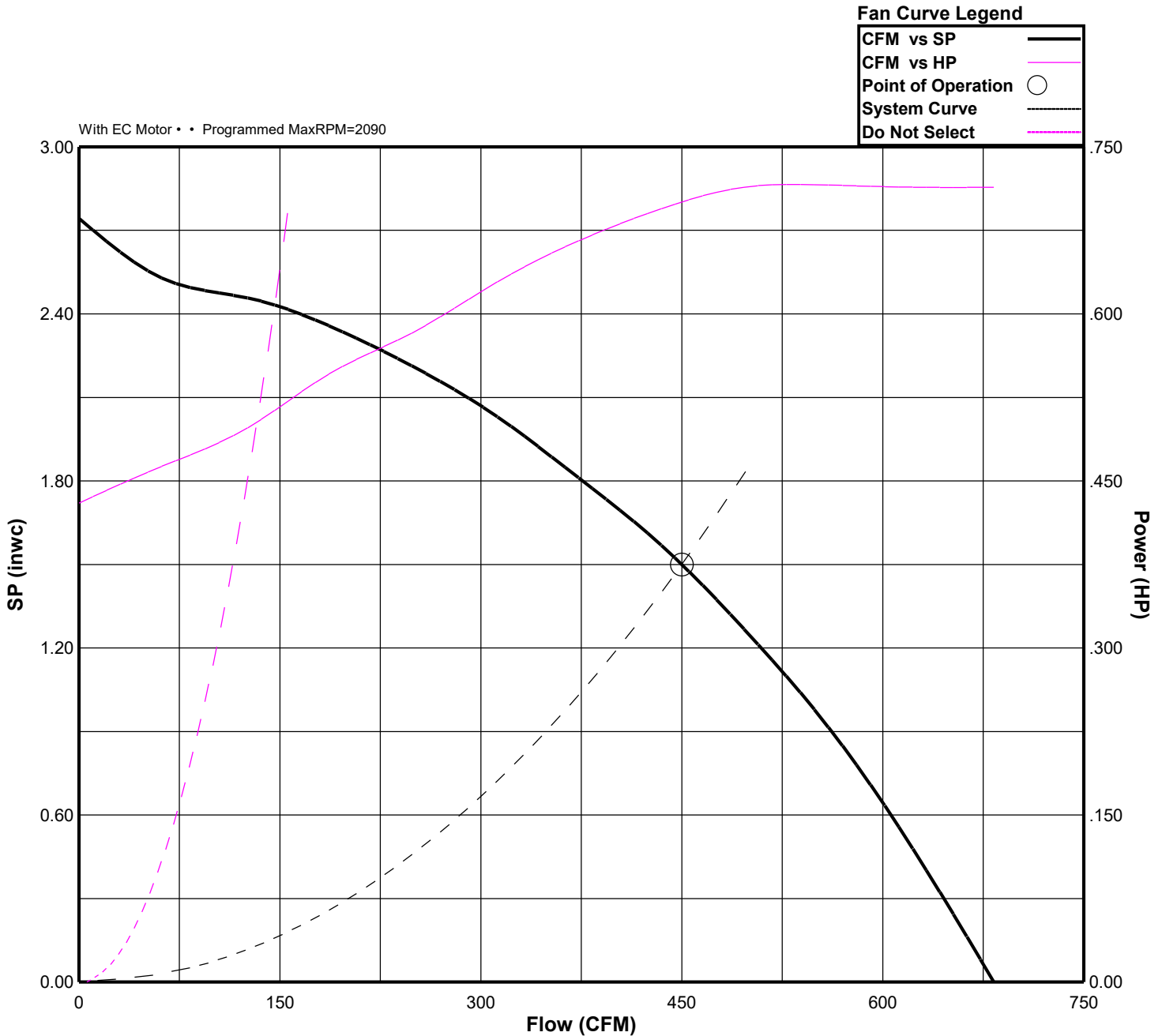
Performance

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
135C28DOR70VF	450	1.50	2079	.700	n/a(<1HP)	373	7347	15%	70	1004

Motor Information

HP	RPM*	Volts/Ph/Hz	Enclosure	RLA
3/4	2800	115/1/60	OPEN -EC	8.5

*Motor programmed to max speed of 2090 RPM.
 RLA based on motor manufacturer's data at programmed HP and max RPM.
 Motor is electronically protected.





COOK



MARK: EF-9

PROJECT: GREATER DAYTON SCHOOL

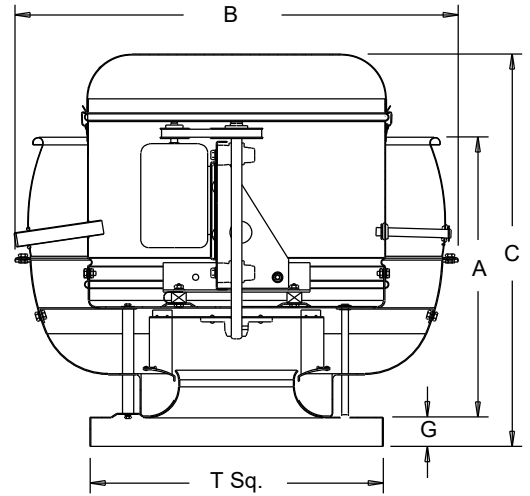
DATE: 3/2/2022

ACRU-B

**Upblast Centrifugal Exhaust Ventilator
Roof Mounted/Belt Drive**

STANDARD CONSTRUCTION FEATURES:

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



Performance (*Bhp includes 15% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	135R5B	1200	.750	1276	.309	n/a(<1HP)

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

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/2	1725	115/1/60	ODP -SE	9.8	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
77	82	78	67	62	61	56	52	73	61	11.6

Accessories:

- DRIVES (1.5 SF) @ 1276 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N
- SPARE BELT SET

Dimensions (inches)

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

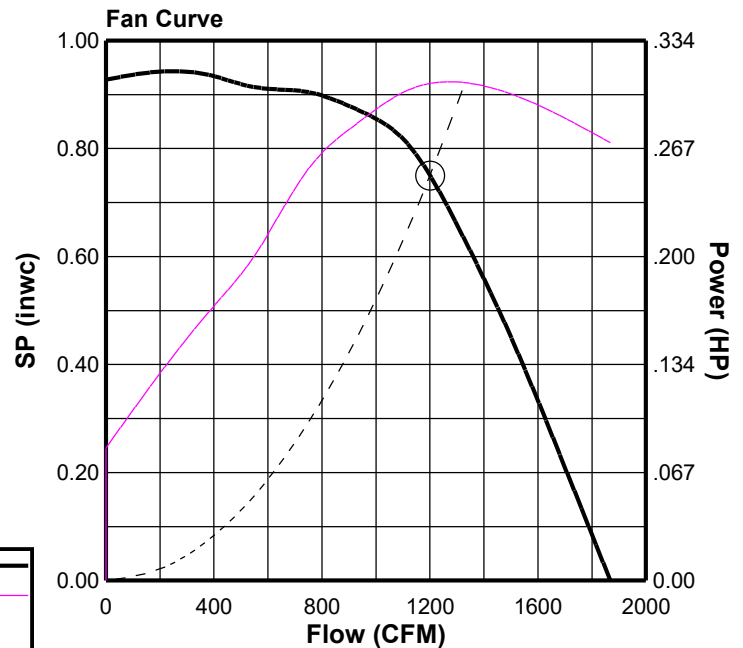
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	128	Unit	111
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

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





COOK



MARK: EF-9

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACRU-B

Performance (*Bhp includes 15% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
135R5B	1200	.750	1276	.309	n/a(<1HP)	592	4509	53%	70	1004

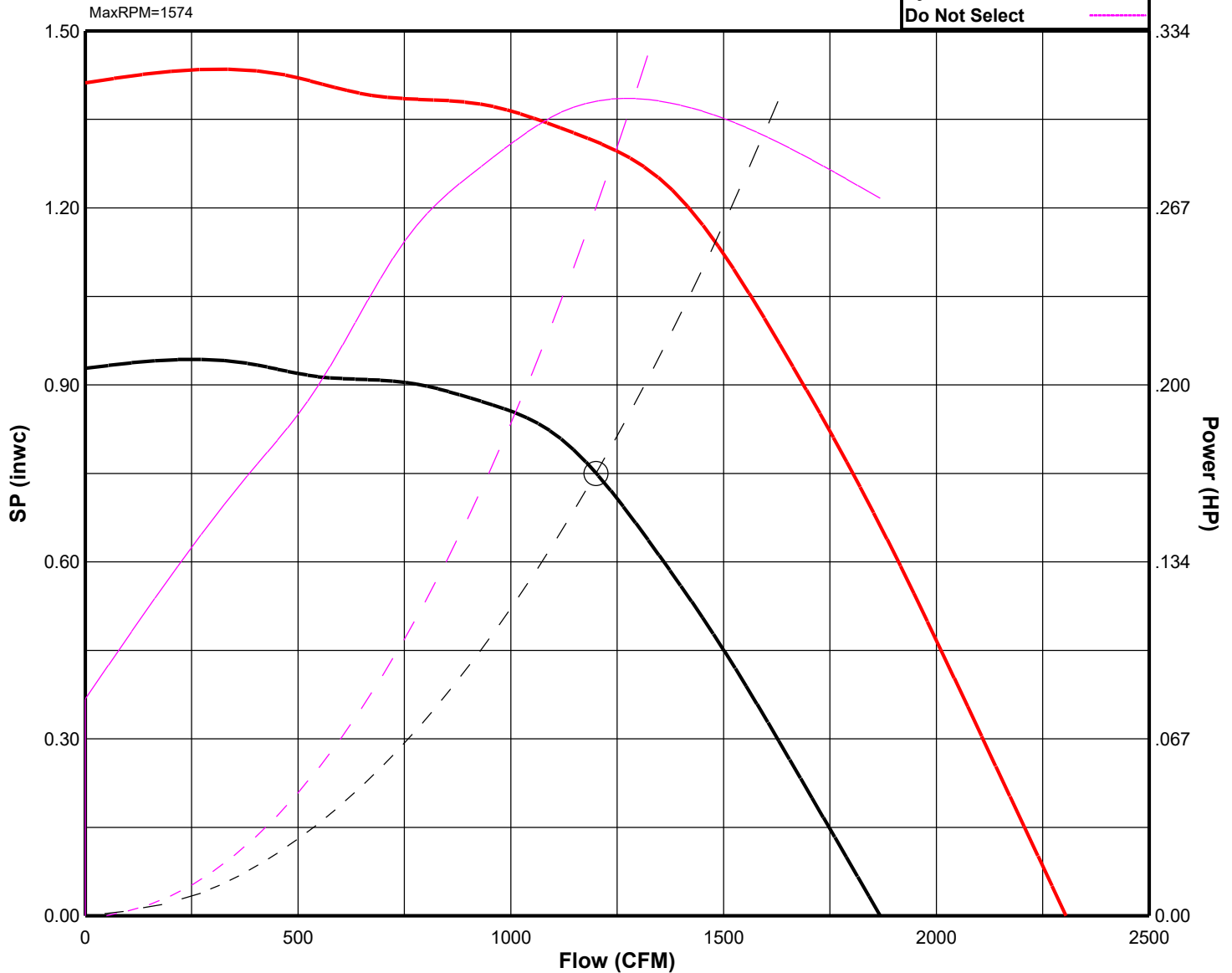
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/2	1725	115/1/60	ODP -SE	9.8	Yes

FLA based on NEC (2017) Table 430.248

Fan Curve Legend

CFM vs SP (1276)	—
MaxRPM(1574)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—





COOK



MARK: EF-10

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

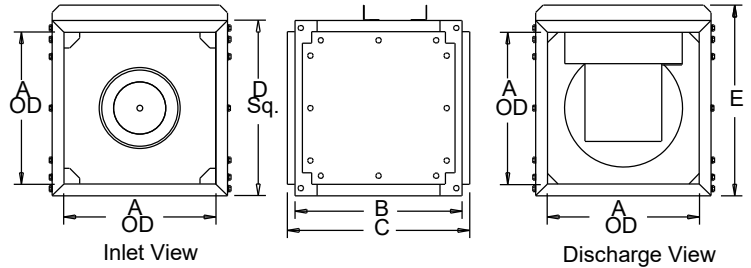
SQND-EC

Centrifugal Square Inline Direct Drive

Electronically Commutated Vari-Flow® Motor

STANDARD CONSTRUCTION FEATURES:

- All aluminum wheel - Galvanized steel housing - Three removable access doors - Closed cell neoprene gasketing - Inlet and discharge duct collars - Universal mounting feet - Permanently lubricated electronically commutated motor - Power rated in Input Watts - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	100SQN17DEC	600	.250	1370	68	n/a(<1HP)	2.72	EC

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

Motor Information

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



Dimensions (inches)

A	12
B	20
C	22
D Sq.	14
E	15-9/16

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	75	Unit	72
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***Includes fan, motor & accessories.

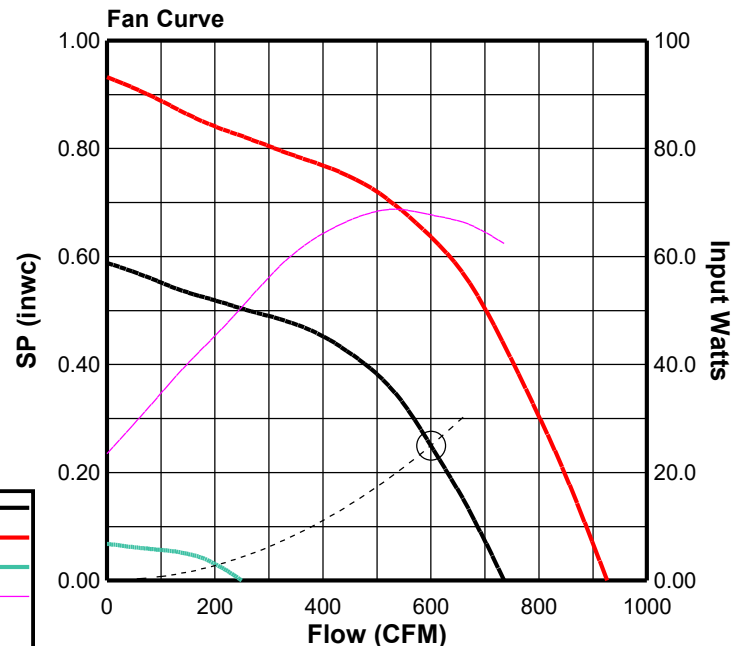
Sound Data - Sound Power by Octave Band

	1	2	3	4	5	6	7	8	LwA	dBA	Sones
Inlet	60	62	67	60	55	50	45	40	62	51	5.6
Outlet	74	67	66	59	58	55	48	42	64	52	6.4

FAN INCREASED FROM 1/8HP TO 1/4HP. COORDINATE NEW DEDICATED 20A/1P, 120V CIRCUIT TO FAN WITH DIV 26 CONTRACTOR.

Accessories:

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- INSULATED HOUSING [Sound calc. for this option on next page](#)
- SC-35 SET(4) - ISOLATORS





COOK



MARK: EF-10

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

SQND-EC

Performance

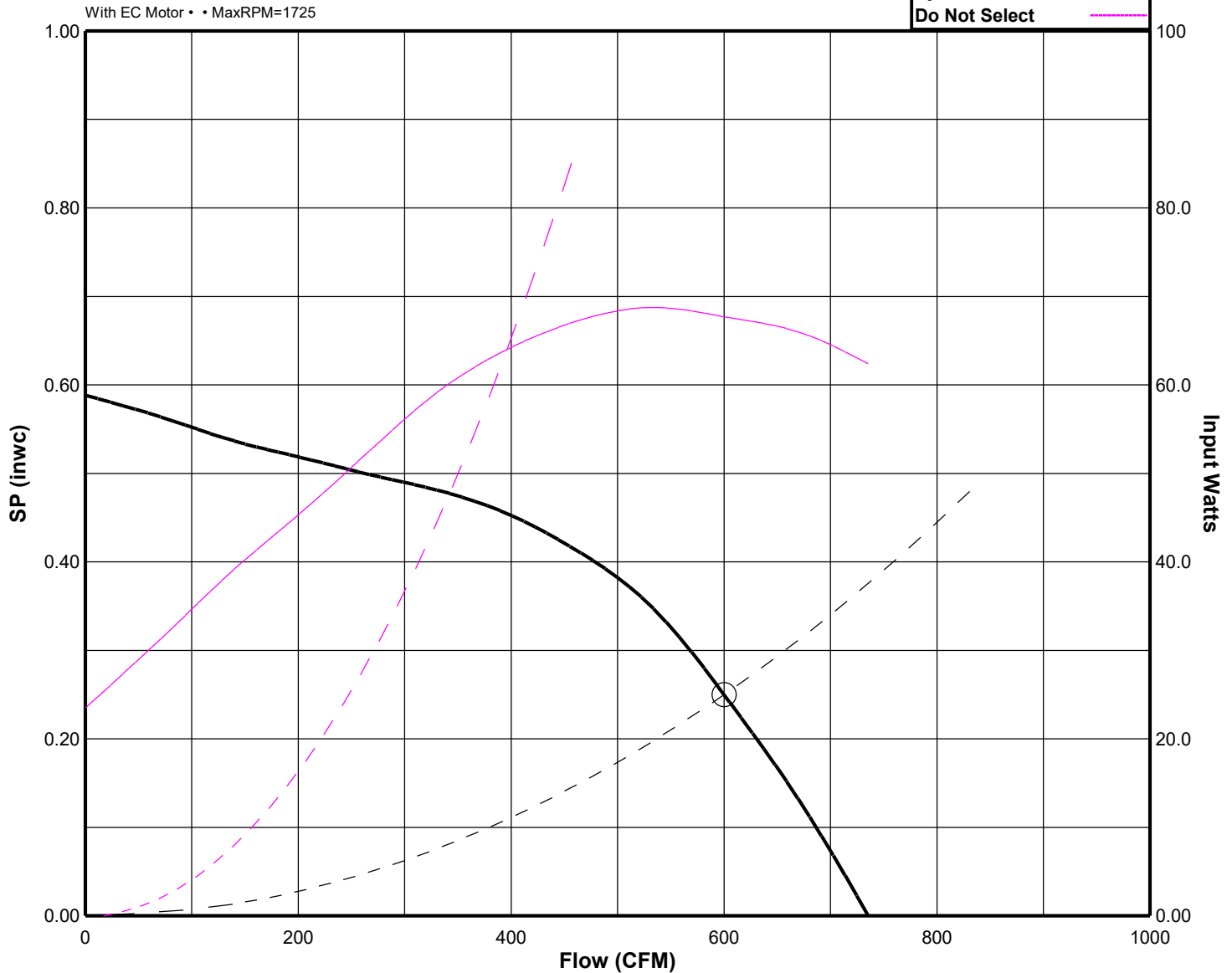
Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
100SQN17DEC	600	.250	1370	68	n/a(<1HP)	2.72	600	3586	33%	70	1004

Motor Information

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

Fan Curve Legend

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





Octave Bands

OB 1:	60 - 3	= 57
OB 2:	62 - 3	= 59
OB 3:	67 - 3	= 64
OB 4:	60 - 3	= 57
OB 5:	55 - 3	= 52
OB 6:	50 - 3	= 47
OB 7:	45 - 3	= 42
OB 8:	40 - 3	= 37

*Adjustment used was Insulated Housing

Sound Power:

LwA = 59.4

Sound Pressure**:

*Distance from
Sound Source = 5 feet
dBA = 48*

Hemispherical Sones = 4.5

Spherical Sones = 3.5

**The sound ratings shown are at 5 ft. in a hemispherical free field calculated per AMCA Standard 301.



COOK



MARK: EF-11

PROJECT: GREATER DAYTON SCHOOL

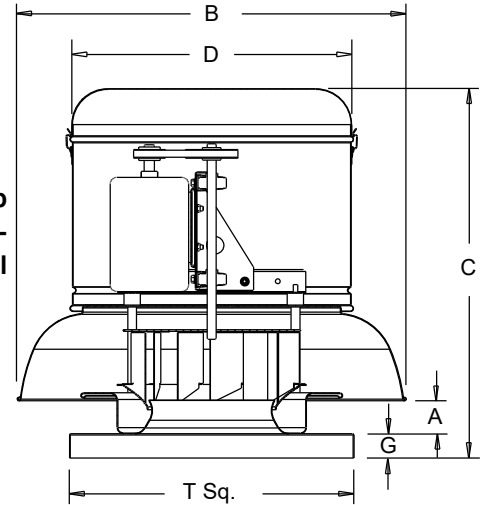
DATE: 3/2/2022

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 17% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	120C4B	1250	.250	1317	.174	n/a(<1HP)

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

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/3	1725	115/1/60	ODP -SE	7.2	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
69	72	76	67	63	61	54	49	71	59	9.7

Accessories:

- DRIVES (1.5 SF) @ 1317 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-14 DAMPER
- ROOF CURB RCG 18 13.5H -C+T+N
- SPARE BELT SET

Dimensions (inches)

A	1-13/16
B	28-7/16
C	26-7/8
D	20-5/16
G	2
T Sq.	20
Roof Open.Sq.*	15-1/2

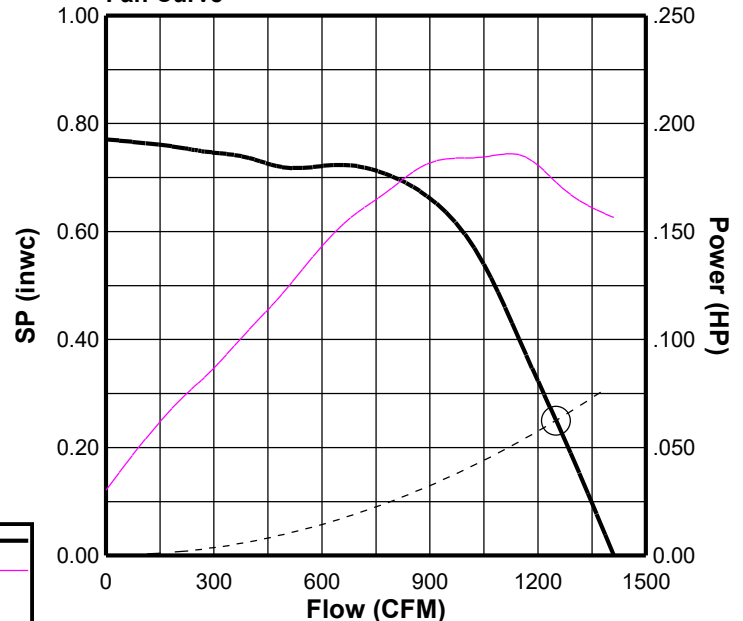
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	111	Unit	95
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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 HP	—
Point of Operation	○
System Curve	- - -



COOK



MARK: EF-11

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACE-B

Performance (*Bhp includes 17% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
120C4B	1250	.250	1317	.174	n/a(<1HP)	1317	4137	33%	70	1004

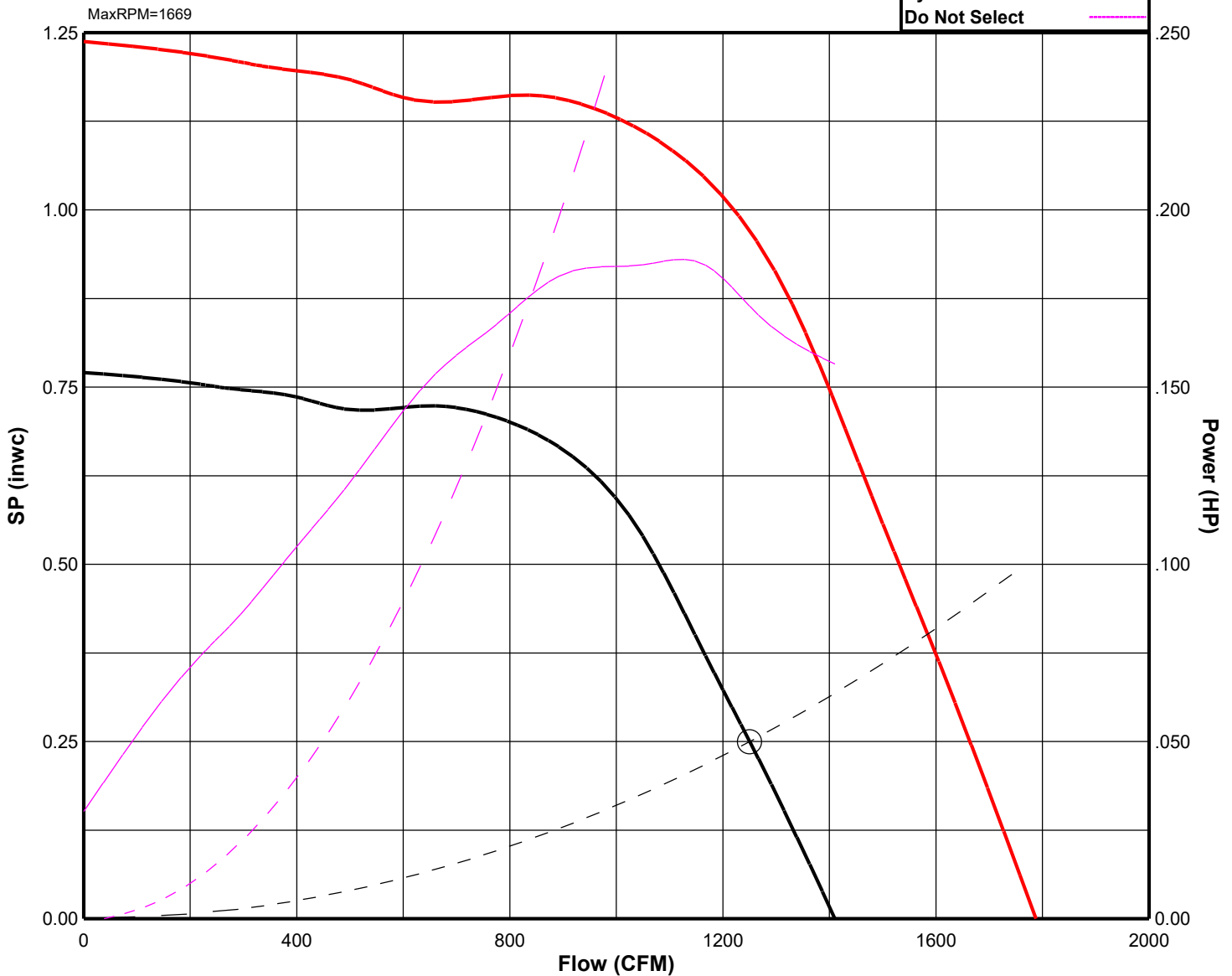
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/3	1725	115/1/60	ODP -SE	7.2	Yes

FLA based on NEC (2017) Table 430.248

Fan Curve Legend

CFM vs SP (1317)	—
MaxRPM(1669)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	—





COOK



MARK: EF-12

PROJECT: GREATER DAYTON SCHOOL

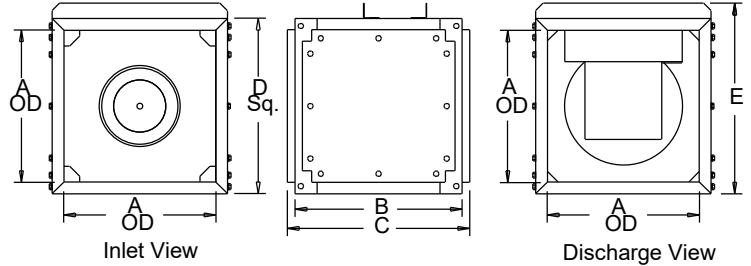
DATE: 3/2/2022

SQND-EC

**Centrifugal Square Inline
Direct Drive
Electronically Commutated Vari-Flow® Motor**

STANDARD CONSTRUCTION FEATURES:

All aluminum wheel - Galvanized steel housing - Three removable access doors - Closed cell neoprene gasketing - Inlet and discharge duct collars - Universal mounting feet - Permanently lubricated electronically commutated motor - Power rated in Input Watts - Transit tested packaging.



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	Speed Control
1	90SQN17DEC	325	.500	1619	85	n/a(<1HP)	2.03	EC

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

Motor Information

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



Dimensions (inches)

A	12
B	15
C	17
D Sq.	14
E	15-9/16

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	70	Unit	66
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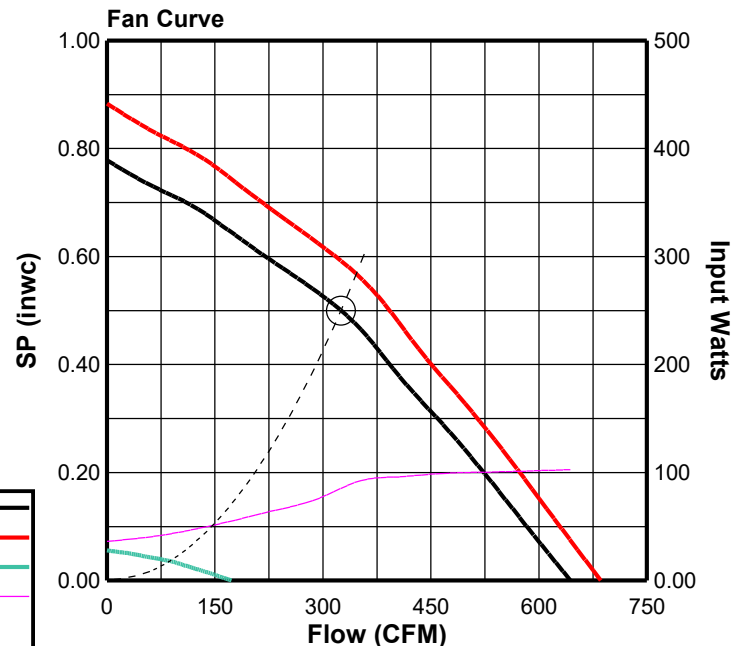
***Includes fan, motor & accessories.

Sound Data Sound Power by Octave Band

	1	2	3	4	5	6	7	8	LwA	dBA	Sones
Inlet	64	66	70	64	58	53	49	45	65	54	6.8
Outlet	84	71	71	64	62	56	50	45	68	56	9.1

Accessories:

- EXTERNAL SIGNAL SPEED CONTROL
- CTL & XFMR BY OTHERS
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- INSULATED HOUSING [Sound calc. for this option on next page.](#)
- SC-35 SET(4) - ISOLATORS





Octave Bands

OB 1:	64	- 3	= 61
OB 2:	66	- 3	= 63
OB 3:	70	- 3	= 67
OB 4:	64	- 3	= 61
OB 5:	58	- 3	= 55
OB 6:	53	- 3	= 50
OB 7:	49	- 3	= 46
OB 8:	45	- 3	= 42

*Adjustment used was Insulated Housing

Sound Power:

$$LwA = 62.8$$

Sound Pressure**:

Distance from
Sound Source = 8 feet
dBA = 47.3

Hemispherical Sones = 4.3

Spherical Sones = 3.5

**The sound ratings shown are at 8 ft. in a hemispherical free field calculated per AMCA Standard 301.



COOK



MARK: EF-12

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

SQND-EC

Performance

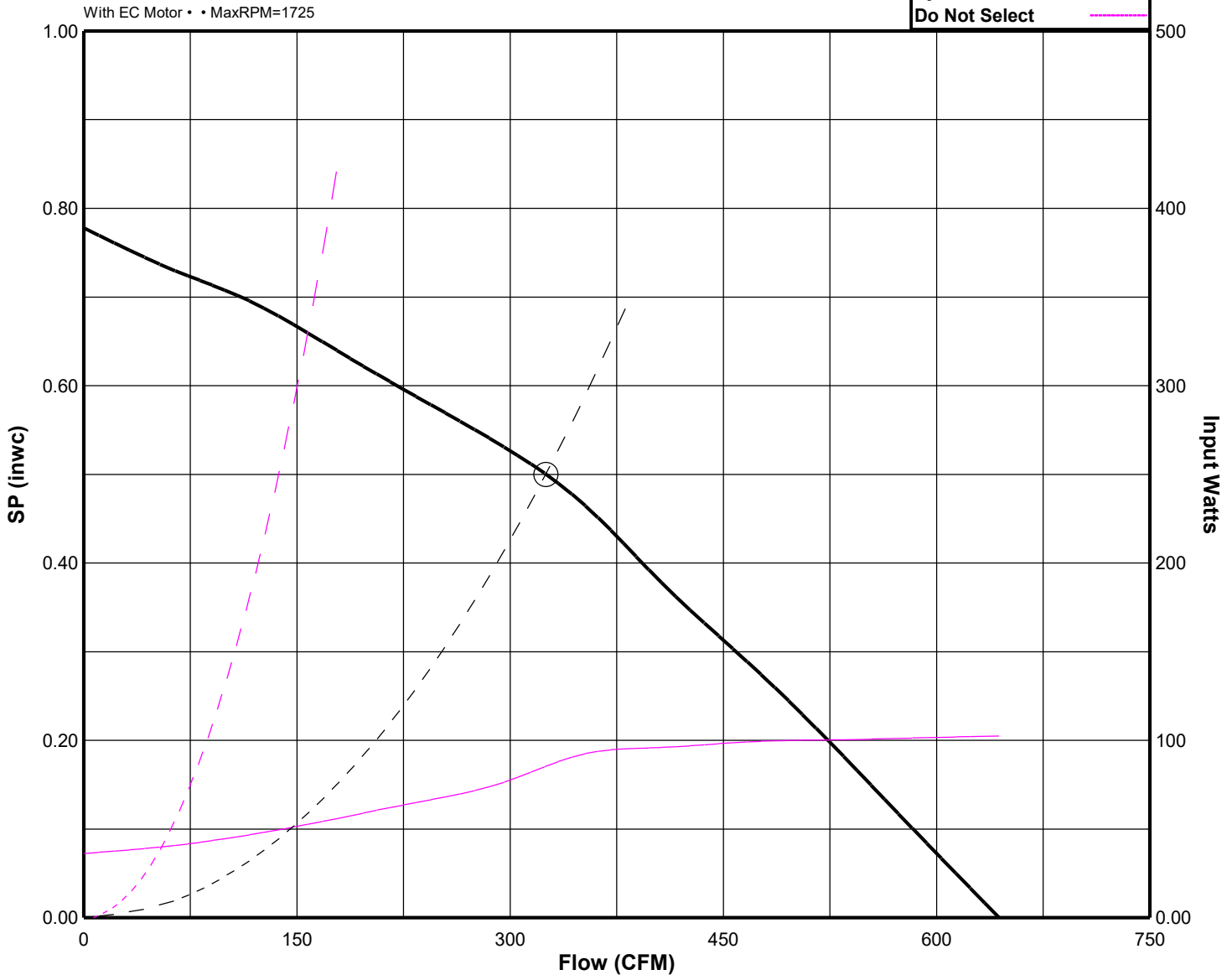
Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Input Watts	FEG	FEI	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
90SQN17DEC	325	.500	1619	85	n/a(<1HP)	2.03	325	3814	28%	70	1004

Motor Information

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

Fan Curve Legend

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





COOK



MARK: EF-13

PROJECT: GREATER DAYTON SCHOOL

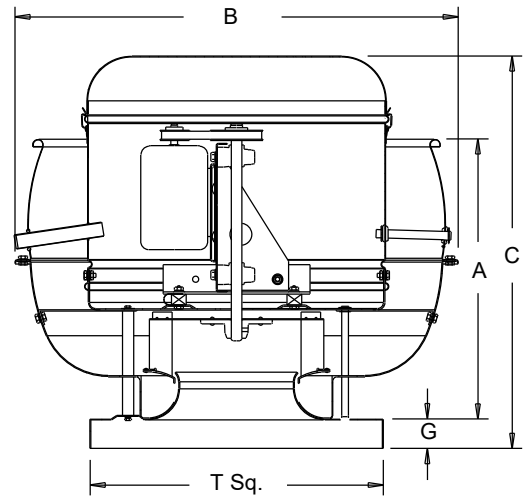
DATE: 3/2/2022

ACRU-HP

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 15% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	150RH5B	800	1.00	1415	.324	n/a(<1HP)

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

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/2	1725	115/1/60	ODP -SE	9.8	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
82	71	69	63	62	65	60	54	70	58	9.9

Accessories:

- DRIVES (1.5 SF) @ 1415 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-18 DAMPER
- ROOF CURB RCG 22 13.5H -C+T+N
- SPARE BELT SET

Dimensions (inches)

A	20-15/16
B	34-11/16
C	27-1/2
G	2
T Sq.	24
Roof Open. Sq.*	19-1/2

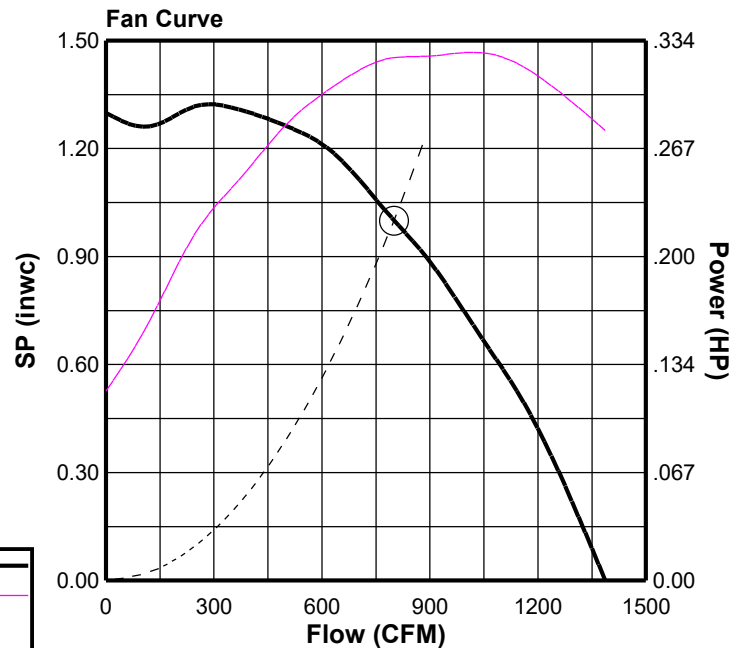
NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	141	Unit	116
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* Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.

Fan Curve Legend

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





COOK



MARK: EF-13

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

ACRU-HP

Performance (*Bhp includes 15% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	Temp (°F)	ALT (ft)
150RH5B	800	1.00	1415	.324	n/a(<1HP)	298	5556	45%	70	1004

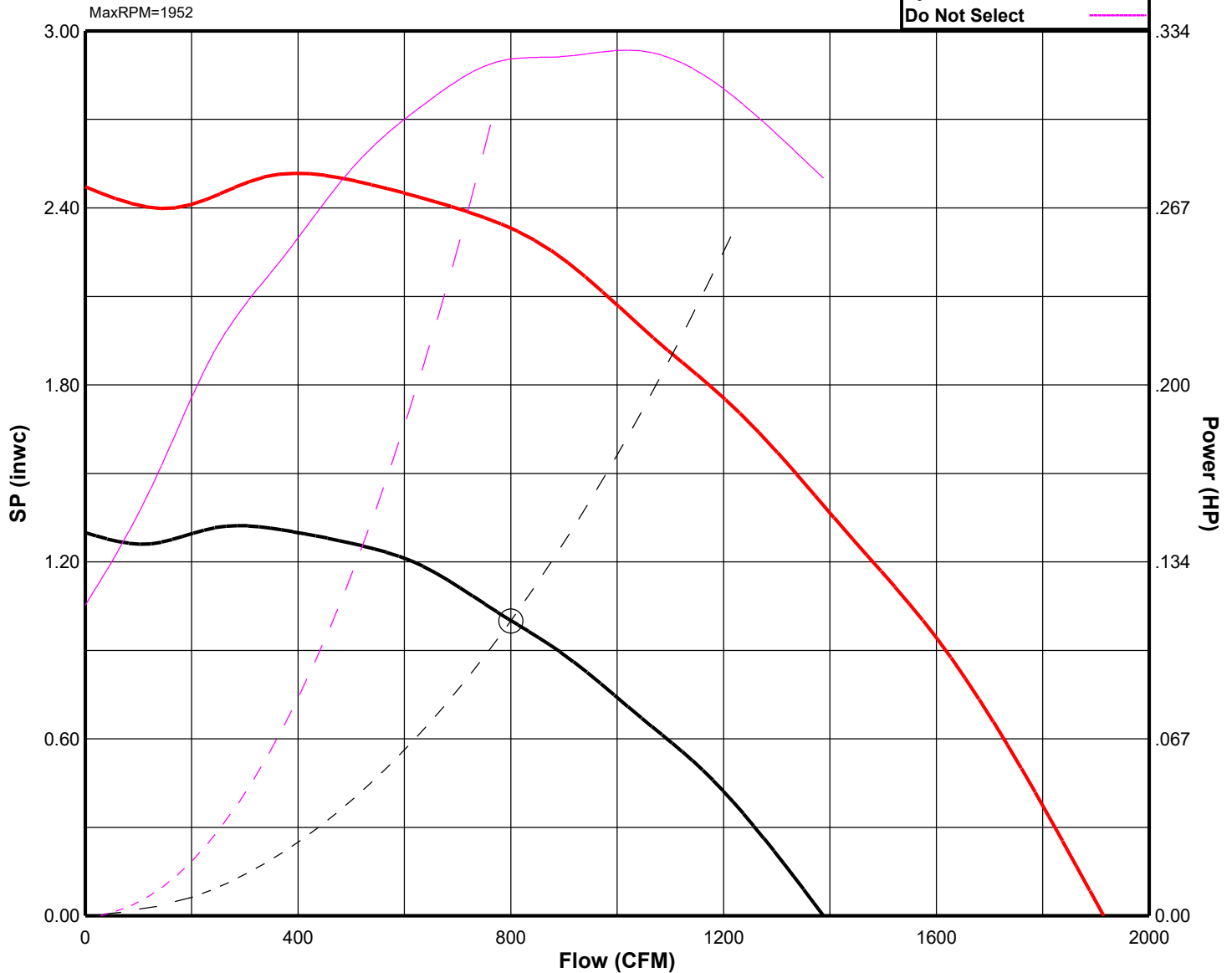
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/2	1725	115/1/60	ODP -SE	9.8	Yes

FLA based on NEC (2017) Table 430.248

Fan Curve Legend

CFM vs SP (1415)	—
MaxRPM(1952)	—
CFM vs HP	—
Point of Operation	○
System Curve	- - -
Do Not Select	- · - · -

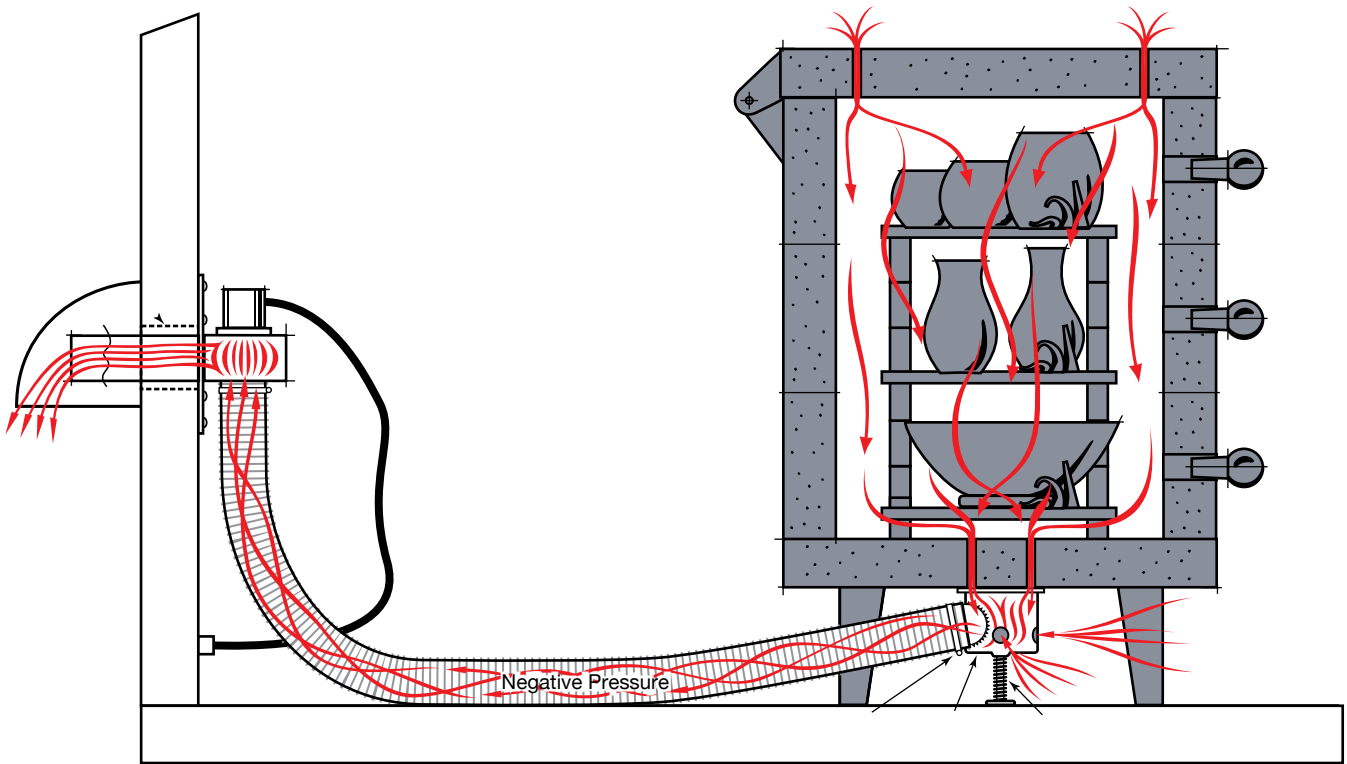




SKUTT

EnviroVent 2

Fan only. Klin and duct by others.



Operating Manual

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www.skutt.com

Revised 12/11/15

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Congratulations

Congratulation on your purchase of the newly designed EnviroVent 2. The EnviroVent 2 is a Downdraft Ventilation System designed to extract fumes from your electric kiln and vent them outdoors before they have a chance to enter the room. Because it is a DownDraft Ventilation System the EnviroVent 2 also improves the firing atmosphere in the kiln while it is protecting you from the odorous fumes that can be emitted from certain clay bodies and glazes when they are fired. Here is what you get:

- True Downdraft Venting
- Ability to Vent 2 Kilns
- Spring Loaded Plenum Cup
- Vent Up to 24 Cubic Foot Kiln
- Corrosion Resistant Ducting
- Mounts Away From Heat
- UL Listed Safe
- No Vibration to the Kiln
- Potential to Control With Kiln

How It Works

A designated number of holes are drilled in the lid and floor of the kiln either in the factory or on location. A spring loaded plenum cup (see diagram on page 4) is placed under the kiln and tensioned between the floor of the kiln and the floor under the kiln. The holes in the floor of the kiln are drilled in a tight pattern so the plenum cup can cover them all. The other end of the cup is connected by 3" ducting to a fan which is generally mounted on the wall. On the opposite end of the fan the air is ducted through the wall to the outside air.

The plenum cup has 3 additional holes from which it draws room temperature air to mix with the heated air from the kiln. This serves 2 purposes. Since the kiln air is mixed with cooler room air the air coming out of the end of the vent is never hotter than an average hair dryer. Secondly, the holes in the plenum cup are sized to reduce the vacuum on the kiln chamber so only a small amount of air is moving through the kiln. This ensures the firing time is not affected and the ware is not at risk.

Better Heat Uniformity

Most people are aware of the fact that heat rises. The EnviroVent 2 helps compensate for this rising heat by creating a flow of air moving back down the kiln chamber. As the air moves in a downward direction it is also deflected by ware and shelves causing turbulence. This turbulence helps move heat to cooler areas of the kiln.

Better Kiln Atmosphere

When you are firing in an electric kiln you are firing in an Oxidation atmosphere. The EnviroVent 2 helps bring in more oxygen and flush out fumes which can form a reduction atmosphere. A reduction atmosphere can be desirable in a gas or wood fired kiln however it only causes problems in an electric kiln. Your elements will last longer, your glazes will be clearer and brighter and you will help prevent glazes migrating between pieces.

Better Working Environment

Prior to the introduction of venting systems it was still necessary to vent the kiln. This was done by propping the lid open with a wedge of brick until the kiln reached 1000 °F (538 °C). Not only was this inconvenient, it also radiated the fumes right into the room.

A Better Vent

A new benefit of the EnviroVent 2 is that it is now a **Negative Pressure System**. This means that since the motor is pulling the air instead of pushing the air, if there is ever a hole in the ducting the fumes will not escape into the room. Also since the motor is now mounted away from the kiln it is **protected from the heat** of the kiln and the kiln is **protected from possible vibration** from the motor.

A unique feature that no other vent on the market has is that the plenum cup is spring loaded. The floor of your kiln will have a tendency to cup when it heats up. This cupping can compromise the seal and reduce the pull of air on other models. With the EnviroVent 2 the **Spring Loaded Plenum Cup** ensures a tight seal throughout the entire firing.

STANDARD ENVIROVENT 2 INSTALLATION

This section of the manual covers standard installations of The EnviroVent 2 on a single top loading, multi-sided, electric kiln with a chamber size under 12 cubic feet. A Dual Intake Kit is available for venting a single kiln over 12 cubic feet or two kilns with chamber volumes each at or under 12 cubic feet. The maximum chamber volume that can be vented with one motor is 24 cubic feet. For instructions on venting two kilns, kilns greater than 12 cubic feet and other custom installations consult the [Custom Installations](#) section of this manual.

As with any change in firing routine, we recommend that you closely follow all instructions and monitor your firings with witness cone groups on each shelf of your kiln both before and after you install the EnviroVent 2. If you have any questions, please contact your supplier.

EnviroVent 2 Contents

Blower Motor w/6 ft. Power Cord w/In-line Switch

8" x 12" Mounting Plate

8 ft. x 3" Flexible Aluminum Duct

Spring Loaded Plenum Cup Assembly

Cast Plenum Cup

Fiber Gasket

Plenum Stand w/Base

Plenum Spring

Blower Inlet Tube

Blower Discharge Tube

3" to 4" Connector

Floor Mount Plate

Operating Manual

Mounting Hardware

4 - #10 x 1 1/2" Sheet Metal Screws

4 - 8-32 x 1/4" Screws

4 - 8-32 Lock Washers

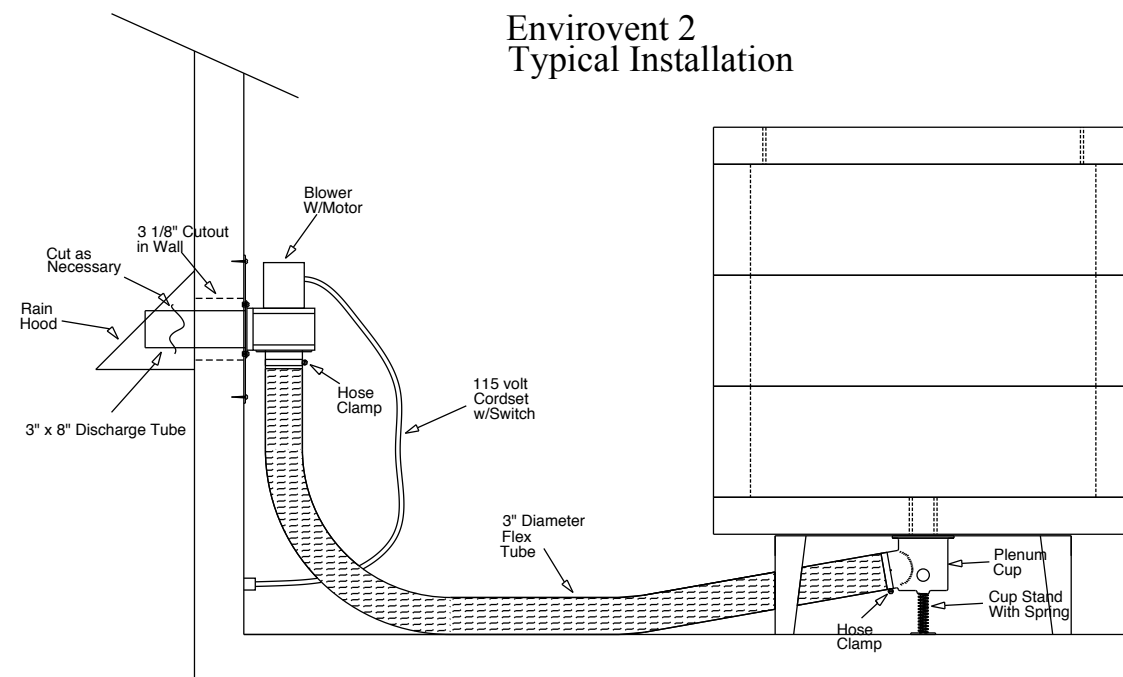
4 - 8-32 Hex Nuts

4 - 1/8" x 2" Toggle Bolts

1 - 1/4" twist drill

1 - 3/16" twist drill

2 - Hose Clamps



STEP 1 - PREPARATION

- Unplug the kiln
- At the time of purchase it is possible to order the kiln factory drilled. If your kiln has already been drilled for the EnviroVent 2 by Skutt, you may skip to Step 6.
- Before drilling the holes in the kiln it will be necessary to empty all of the ware and shelving from the chamber.
- Nearly every Skutt kiln uses a 8" high stand. The EnviroVent 2 is designed to fit under this 8" stand. If your stand is lower you can either shim the legs until it is 8" off the ground or replace it with a correctly sized Skutt Stand. If your stand is higher than 8" you can shim the plenum cup up so the bottom of the base is 8" from the bottom of the kiln or replace the stand with one with 8" clearance.
- If your kiln has been previously drilled for an EnviroVent or any vent other than an EnviroVent 2, it will be necessary to patch the existing holes before drilling new ones. **Failing to patch incorrect holes in the kiln floor could cause the vent not to perform as designed.** It is usually not necessary to patch holes in the lid unless they are drilled further than an inch away from the kiln wall. The amount of air vented is regulated by the holes in the floor so additional holes in the lid will not affect performance but could affect your ability to test the vent. See the [Testing](#) section of this manual. If you find that you need to patch holes in the lid follow the instructions below.

Patching Existing Holes

- Disassemble the kiln to allow full access to the kiln floor. (This will need to be done to remove an existing EnviroVent anyhow).
- Cover one end of the openings to existing holes with tape.
- Use Skutt Sairset (part# 0290) to fill the holes through the uncovered opening. Use a paper clip or element pin to help fill the hole. When you can't get any more in the hole use a spackling knife to clean up the excess cement.
- Turn the kiln floor over, remove the tape, and fill any voids with Sairset.
- Re-assemble the kiln and allow the patch to dry for 1 hour before turning on the vent.

STEP 2 - DETERMINING THE NUMBER, SIZE AND LOCATION OF VENT HOLES

Use the Vent Hole Chart and Location Diagrams to determine the number, size and location of the holes for your particular kiln. The chart and diagrams are based on standard multi-sided top loading electric kilns greater than 1 cubic feet in size. If you are planning on venting a kiln smaller than 1.1 cubic feet please contact Skutt for hole drilling instructions.

The Vent Hole Chart refers to the number of "sides" a kiln has to determine the chamber width. This number refers to the number of brick used to form the circumference in a round or oval shaped kiln. This measurement is fairly standard between brands. Some kilns with 3" brick have smaller diameters but will not change the number or size of the holes drilled.

Kilns that are square or rectangular with multiple bricks per side will not fit this rule. For these kilns find out the total cubic feet of the kiln and use the closest value in the chart.

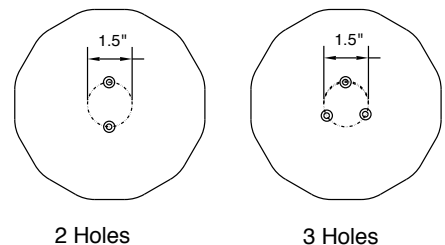
VENT HOLE CHART

Kiln Chamber Depth	Drill This Many Holes In Slab	Drill This Many Holes In Lid	Drill Size	Kiln Cubic Feet
614	1	1	3/16"	0.8
714 and GlazeTech	1	2	3/16"	1.1 thru 1.4
Eight Sided				
14"	1	2	3/16"	2
18" and 22"	1	2	3/16"	2.3 thru 3.2
27"	2	3	3/16"	3.5 thru 3.9
Ten Sided				
14"	2	3	3/16"	3.5
18"	2	3	3/16"	4.2 thru 4.6
27" and 22"	3	3	3/16"	5.3 thru 7.0
Twelve Sided				
14"	1	2	1/4"	5
18"	1	2	1/4"	6.6
27" and 22"	2	3	1/4"	8.1 thru 9.9
31"	2	3	1/4"	11.6

STEP 3 - DRILLING HOLES IN THE KILN FLOOR

- Locate and mark the center of the kiln floor.
- Use Diagram #1 as a guide to drill the appropriate hole(s) in the kiln floor. **Important: The holes in the floor must fit within a 1 1/2" diameter circle at the center of the floor.**
- Use an electric drill with the correct size bit. Drill slowly, keeping the drill straight. Precision and care are important to avoid drilling an oversize hole or chipping of the floor underside.

Placement of holes in kiln floor
Diagram #1



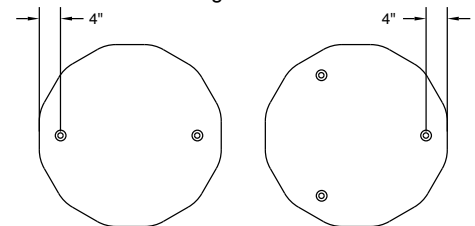
2 Holes

3 Holes

STEP 4 - DRILLING HOLES IN THE KILN LID

- Measure the thickness of the kiln sidewall fire brick and add 1" to this measurement. This will be the distance from the outside edge of the kiln that your holes will be drilled.
- Space the holes evenly around the kiln lid but no closer to the edge than the distance above. Because the holes introduce room temperature air into your kiln, they must not be clustered together or directly above the thermocouple. Refer to diagram #2 for proper hole location and spacing.
- Drill the holes in the lid using the same method as used for the floor.
- Vacuum out any brick dust from inside your kiln caused during the drilling.

Placement of holes in kiln lid
Diagram #2



2 Holes

3 Holes

STEP 5 - INSTALLING THE PLENUM CUP AND SPRING STAND

- Using gloves to protect your hands, stretch the flex tubing to the proper length for your installation. Stretch out the last 3" of tubing on each end of the duct to ensure they are wide enough to fit over their connections. Be careful not to collapse the open end of the flex tubing. You should be able to stretch the flex tubing 6 ft. to 8 ft.
- Attach the length of 3" diameter aluminum flex tubing to the 3" sleeve on the plenum cup and secure with the hose clamp.
- Place the spring over the plenum cup stand post and insert the 7/16" stand post into the small hole in the bottom of the aluminum plenum cup. Refer to the installation drawing if necessary. When properly assembled the plenum stand should be spring loaded into the bottom of the plenum cup.
- Place the plenum cup and stand under the holes drilled in the kiln floor by rotating the cup horizontally, compressing the spring to permit cup rotation to vertical and releasing the spring tension. Ensure that the plenum cup is centered under the holes in the kiln's floor.



STEP 6 - INSTALLING THE BLOWER AND MOTOR ASSEMBLY

- Locate a spot on the wall to mount the blower assembly and discharge tube. Important: Choose a spot that is close enough for the aluminum flex tubing to reach. Remember that most kilns must be a minimum of 18" from the wall. If possible, locate a spot that allows you to mount the vertical edge of the mounting plate into a wall stud or ceiling joist. If you need to go further then the ducting will allow consult the Custom Installation section of this manual.
- Drill a 3 1/8" clearance hole in the wall or ceiling to accept the 3" diameter discharge pipe. Be sure to check for wires and pipes in the wall prior to drilling.
- Insert the discharge pipe through the 3 1/8" hole and fasten the mounting plate in place using the supplied sheet metal screws or toggle bolts. Choose the proper fastener for your wall type of material. If you are using the toggle bolts you will need to position the mounting plate and mark where the holes will be. Predrill the holes for the toggle bolts using a 3/8" drill bit. The 3" metal discharge tube is supplied at 8" in length. This tube may be trimmed shorter or added to in order to allow for any installation.
- Attach the open end of the aluminum flex tube to the blower inlet flange using the hose clamp provided. Check the plenum cup assembly to make sure it has not shifted out of place.
- We recommend attaching a hood with a screen over the end of the discharge tube. This will help prevent snow, rain or debris from entering into the discharge tube or blocking the air flow. The screen is also important to prevent small animals and insects from entering the tube. This item is not included with the kit but can usually be found at local hardware stores.



FLOOR MOUNTED VENTS

A bolt-on plate comes with your kit and allows you to place the vent motor on the floor when wall-mounting is not possible. To install, just bolt the floor plate onto the bottom lip of the mounting plate using the hardware included in the kit. This allows the motor to sit upright on the floor. Install ducting to the discharge tube and vent it as you would a dryer making sure all joints are airtight. When the vent is floor mounted it is no longer a negative pressure system.

STEP 7 - TESTING THE ENVIROVENT2 FOR PROPER OPERATION

- Check to make sure the plenum cup has not shifted during installation. It should be perpendicular to the floor and have a good seal to the bottom of the kiln.
- Plug the EnviroVent2 power cord into a 110 - 120 volt outlet.
- Turn on the blower by activating the switch in the power cord. Ensure that the blower motor starts and operates normally. If the blower doesn't start or the sound of air passage is not evident, immediately unplug the blower and check for the cause of the malfunction.
- Close the lid of the kiln.
- Install all peep plugs.
- Ensure that no other kiln openings are left open except the drilled holes in the kiln lid.
- Test your new vent system by placing a lighted match directly over and level with one of the lid holes. The flame from the match should be pulled into the kiln as a result of the draft. If you are unsure of the effect of the draft, observe the action of the flame away from the hole and then move it over the hole. If the flame is not pulled into the kiln, the kiln is not venting properly. See page 13 on Troubleshooting. Repeat this test regularly to ensure continuing accurate operation.



TESTING PREVIOUSLY DRILLED LIDS

As mentioned earlier it may not be necessary to patch existing holes. If there are more holes, or holes with a larger diameter than this manual recommends in your kiln lid, you may not be able to flame test it as previously recommended. If a flame is not drawn through the lid try covering up some of the holes in the lid. If after covering all the holes in the lid you still cannot get a flame to draw down into the chamber, contact your distributor for further instruction.

CHECKING THE PLENUM CUP

The floor of a 12 sided kiln will flex up to 1/4" due to the uneven heating of the floor. The spring loaded action of the EnviroVent2 will allow the plenum cup to rise and fall with the flexing of the kiln floor. If the 3" aluminum flex is kicked, bumped or otherwise dislodged, the position of the plenum cup may change. If this occurs, simply look at the plenum cup to ensure it is positioned properly. To reposition the plenum cup simply push down on the cup to release the spring pressure, reposition the cup and let go.

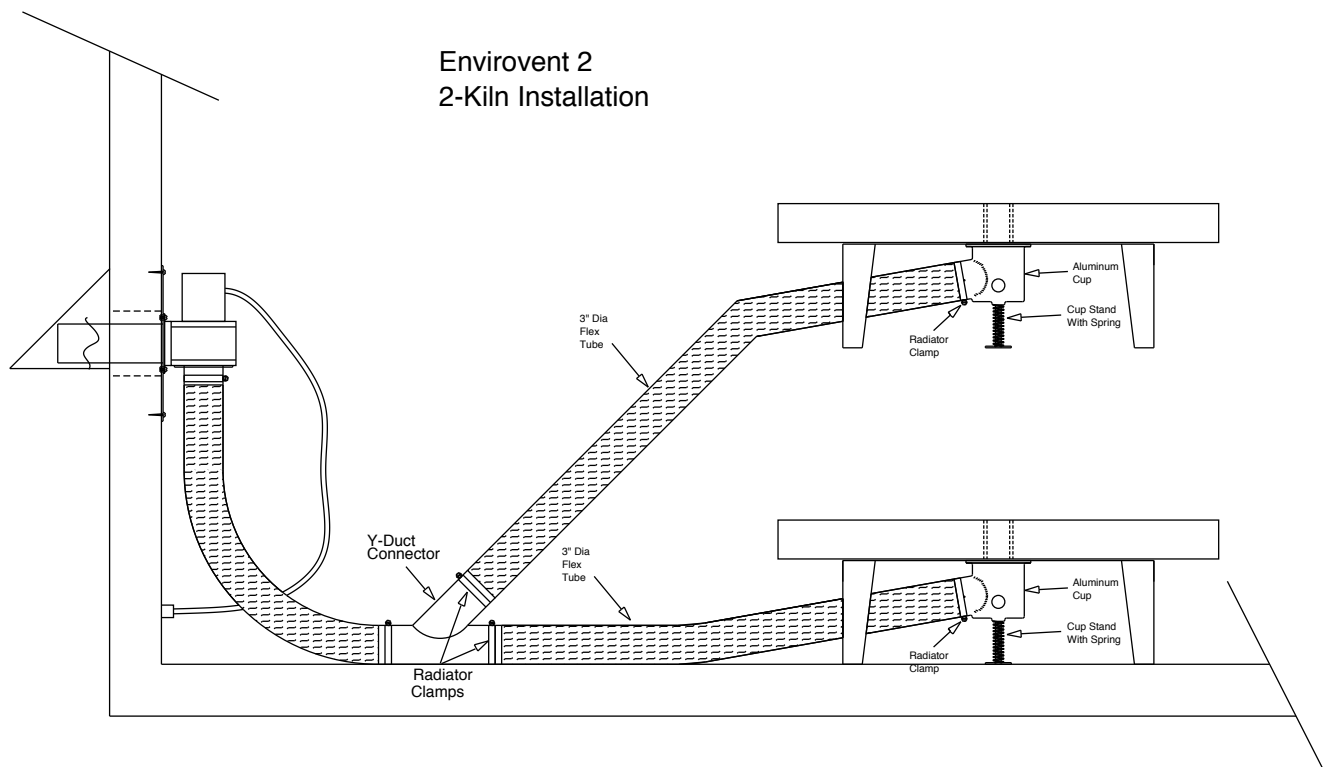
DUAL INTAKE KIT

A Dual Intake Kit is required when you are venting 2 kilns with one Envirovent 2 or a single kiln that is greater than 12 cubic feet in volume.

Dual Intake Kit Contents

A Dual Intake Kit contains : an additional Spring Loaded Plenum Cup Assembly, 4 - Hose Clamps, 1- 3" Y Duct Connector and 2 - 8' x 3" Flexible Aluminum Duct Sections.

VENTING 2 KILNS



Installation for Two Kilns

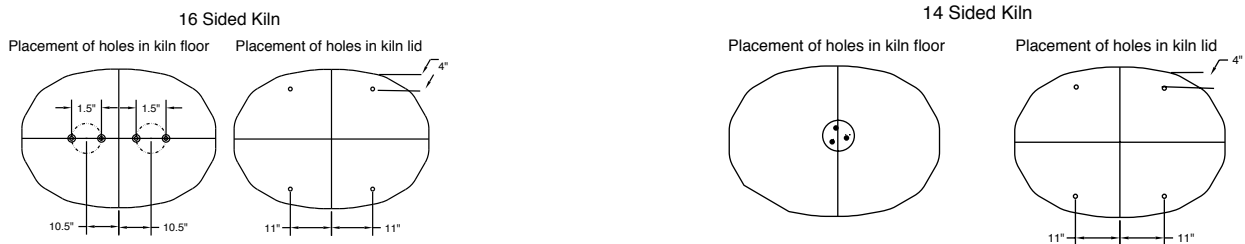
Follow the instructions for installing the EnviroVent 2. The only difference will be that the 3" ducting from the Plenum Cup Assemblies of the two units will attach to a Y-Duct connector and then up to the motor. Try and keep the duct length between the plenum cup and the y-duct connector the same length for each kiln to ensure equal air draw. See above diagram.

VENTING OVAL KILNS & KILNS OVER 12 CUBIC FEET

On kilns over 12 cubic feet, and up to 24 cubic feet, you will need a Dual Intake Kit to vent the chamber using two plenum cups. This is to ensure the proper amount of air is vented without overheating the ducting. For oval kilns use the charts and diagrams below to drill the proper holes in the lid and slab. If the kiln is over 12 Cu. Ft, follow the instructions for installing an Envirovent 2 with a Dual Intake Kit.

For other kilns between 12 and 24 cubic feet contact the manufacturer before installing

Kiln Chamber Depth	Drill This Many Holes In Slab	Drill This Many Holes In Lid	Drill Bit Size	Kiln Cu/Ft
Fourteen Sided				
14"	3	4	3/16"	6.7
Sixteen Sided				
27"	2 + 2	4	1/4"	18.5



KM1627-3" kilns come with a fiber insert that sits on the slab of the kiln. If your kiln was not predrilled in the factory you will need to cut holes in these inserts to make sure the air flow is not restricted to the vent.

ADDITIONAL DUCTING REQUIREMENTS

An 8 ft. length of flexible 3" diameter, aluminum ducting is supplied with your kit for installation. If the distance from your kiln to the vent hole in the wall is greater than 2 ft. you may need additional ducting. This depends on how high up the wall you are ducting and how much stretch you can get from your 3" flexible ducting.

When additional ducting is required you have several options.

Option 1

You may purchase one or more 8 ft. extension kits from Skutt or a Skutt Distributor. The kit comes with one 8 ft. length of 3" flexible ducting, one 3" coupler, and two hose clamps. If you are going to vent the kiln further than 60 ft. or have 4 or more 90 degree bends, you will need to transition to 4" ducting no further than 8 ft. from the plenum cup.

If it is necessary to step up to 4" ducting, we recommend you use PVC since it will not corrode and is relatively inexpensive. A transition piece from 3" to 4" may be difficult to locate but is available through Skutt along with the transition piece needed to go from the 4" PVC back down to the 3" motor mount. See the Accessories Section for more details.

Option 2

If you prefer, you can transition directly from the 3" ducting to 4" PVC. Remember that you will need to purchase the transition pieces from Skutt.

USING CENTRAL DUCTING

If you have more than one EnviroVent 2, you may connect them to a central duct. If a central duct is used, hook the individual vent ducts to that central line. It is recommended that the central duct be located outside the kiln room if possible to maintain a vacuum system inside the room.

To determine what size of central ducting to install, use the chart below.

Number of Vents	1	2	3	4	5	6
Central Ducting Size	4"	6"	8"	8"	10"	10"

The duct discharge may be horizontal or vertical with the exit located a minimum of four feet from any opening (window or door) into the building. Provide a cover on the end of the discharge to prevent rain or snow or small animals from entering the duct. For horizontal discharge, a flapper or hood type dryer exhaust vent may be used. For vertical discharge, a cap type shield that does not reduce the discharge may be used.

Additional Considerations

- The EnviroVent 2 should not be directly hooked-up to another vent system that is a powered system - that would create additional draw on the EnviroVent 2 system.
- If using a central duct system with multiple EnviroVent 2 blowers and all EnviroVent 2 blowers are not going to be on at the same time (Due to one or more kilns not being used), then it is recommended to install air-tight dampers on the output side of each of the EnviroVent 2 blowers. They should be closed when that blower/s is not in use, in order to prevent fumes from re-entering the room via the kiln blower/s that are not turned on.
- In order to maintain a vacuum system inside the room, it is recommended to locate the blower as close as practical to the exterior of the room or the exterior discharge point.
- If mounting a blower up high, you may want to have the receptacle that the blower plugs into hooked-up to a conveniently located wall switch for turning the blower on and off.

CEILING MOUNTING

Ceiling mounting should be treated the same as wall mounting. It may be necessary to mount a receptacle high on the wall to plug in the EnviroVent 2. Since the in-line switch on the cord will not be accessible in some installations, it may be necessary to also install a switch to control that outlet. Remember to turn the toggle switch on. The EnviroLink may also be used to turn the fan on/off. See the *Accessories* section for more information.

SIDE MOUNTING

On certain model kilns it is not possible to mount the vent cup under the kiln and it will be necessary to mount the cup on the side of the kiln. In order to get the positive effects of Downdraft Ventilation, you will want to mount it as low on the side of the kiln as possible. You will not need the plenum stand or plenum spring since the plenum cup will be screwed into the side of the kiln. Don't worry about the exposed hole at the bottom of the cup.

To mount the cup you will need to drill 3 holes around the flange of the cup sized for the mounting screws you are using. To find the size and number of holes to drill on the side and top of the kiln, find the closest chamber size in the Vent Hole Chart and use those values. Once the cup is mounted the rest of the installation instructions will be the same. Remember that it is always a good idea to consult with the Manufacturer of the kiln if it is a brand other than Skutt.

Loading the Kiln

The bottom kiln shelf needs to be supported at least one inch off the kiln floor to allow sufficient air circulation. If the holes are blocked, venting cannot take place. If you are using half shelves, a slight gap left between them will allow better air circulation in the kiln chamber. If you are loading ware near the lid be sure not to place it directly under a vent hole. This may cause discoloration in glazes or thermal shocking.

Be sure to close the lid and plug all of the peep holes. You can open any peephole during the firing to check the bending of witness cones and the progress of your firing. Do not prop the lid or leave any peepholes open during a normal firing. To do so can cause fumes to enter the room and additional room temperature air drawn into the kiln may affect the firing.

Important: Keep the kiln floor clean and the holes unobstructed for the EnviroVent 2 to continue doing its job properly.

Motor Operation

The EnviroVent 2 motor is equipped with an in-line toggle switch in the power cord. This switch must be turned ON in order to ventilate your kiln and collect the fumes.

Leaving the motor in the on position during cooling will reduce the amount of time it takes to cool the kiln to a temperature where you can safely handle your ware. Turning the motor off will not significantly affect the kiln's ability to maintain temperature or perform a slow cooling therefore it is not necessary. If you would like to be able to automatically control when the Envirovent 2 turns on and off, you can install an EnviroLink on KilnMaster and GlassMaster Kilns. See the Accessories section for more details.

Fresh Make-up Air

It is essential to have a source of fresh air to replace the air vented outdoors. The EnviroVent 2 fan moves 140 cubic feet per minute. Unless you know that the room ventilation can handle the total volume of loss, leave a window or door slightly ajar for make-up air. Remember: do not exhaust fumes near a fresh air intake.

Firing times

When the correct holes are drilled in your kiln, firing times should not be much longer than normal. If firing times are significantly longer, see the Troubleshooting section for help.

PROBLEM: VENT NOT OPERATING

Possible Cause: No Power to the vent.

Solutions:

Check to see the vent is plugged in.

Check to make sure the in-line switch is on.

Check the power to the outlet. If there is no power to the outlet, check the circuit breaker.

PROBLEM: SMELL OR ODOR COMING FROM KILN AREA

Possible Cause: Air is not being pulled through the kiln slab.

Solutions:

Check to see that the holes are correctly drilled in the kiln slab.

Check to see that the holes are not blocked by debris in the chamber or a shelf placed on the slab.

Check to see that the plenum cup is aligned with the holes.

Check to see if there are holes or poor connections in the ducting.

Check to see if the exit duct is free of debris and has a clear passage to the outside.

PROBLEM: KILN SLOW TO REACH TEMPERATURE

Possible Cause: Too much air is being pulled into the kiln chamber.

Solutions:

Check to see the holes in the lid and slab are drilled to specification.

Check to see if the lid is closed during firing.

Check to see the all the peep plugs are in place.

PROBLEM: DUCTING IS GETTING TOO HOT

Possible Cause: Holes in slab are too large.

Solutions:

Check to see the holes in the slab are drilled to specification.

PROBLEM: MOTOR IS VIBRATING

Possible Cause: Squirrel cage in motor is imbalanced by debris sucked into the motor.

Solutions:

Blow out motor with compressed air. Be sure to clean area around motor intake.

Check all mounting screws to see if they are secure.

For all other problems contact your Skutt Distributor.

Dual Intake Kit

The Dual Intake Kit is used when you are venting 2 kilns that are each at or under 12 Cubic Feet or when you are venting a single kiln between 12 and 24 Cubic Feet. The kit contains the following items:

- Two 8 ft. x 3" Flexible Aluminum Duct
- One Spring Loaded Plenum Cup Assembly
 - Cast Plenum Cup
 - Fiber Gasket
 - Plenum Stand w/Base
 - Plenum Spring
- Four Hose Clamps
- One Y Duct Connector

Extension Kit

The Extension Kit is used when you need additional ducting than what is provided with a standard Envirovent 2. The kit contains the following items:

- One 8 ft. x 3" Flexible Aluminum Duct
- Two Hose Clamps
- One 3" Connector

Individual Fittings



3" Connector 3" to 4" Connector 3" Y Duct Connector

EnviroLink

The EnviroLink is an accessory item that can be ordered for the EnviroVent and Envirovent 2 that works in conjunction with the Skutt KilnMaster or GlassMaster controller. It allows you to program the controller to automatically turn the vent on and off throughout a firing program. You simply enter an on/off setting for each segment of a Ramp and Hold program while you are programming the kiln. There are preset "vent programs" that can be run in conjunction with a ConeFire Mode program as well. If ordering for a kiln that is equipped with a Link Board, be sure to order the EnviroLink for Link Board version.



The EnviroVent 2 is a UL listed accessory when used with the following Skutt UL listed kilns.

<u>Models</u>	<u>Voltage</u>	<u>Phase</u>	<u>Models</u>	<u>Voltage</u>	<u>Phase</u>
1227-3	240 or 208 volt		KS818P-3	240 or 208 volt	
1227-3	240 or 208 volt	3 phase	KS818P	240 or 208 volt	
1027-3	240 or 208 volt		KM818-30A-3	240 or 208 volt	
1027-3	240 or 208 volt	3 phase	KM1218-3	240 or 208 volt	
1027	240 or 208 volt		KM1218-3	240 or 208 volt	3 phase
1027	240 or 208 volt	3 phase	KM1627-3-PK	240 or 208 volt	3 phase
1018-3	240 or 208 volt		KM1627-3-PK-LF	240 or 208 volt	
1018	240 or 208 volt		KM1627-3-PK-LF	240 or 208 volt	3 phase
818-3	240 or 208 volt		KM1231-3-PK	240 or 208 volt	
818	240 or 208 volt		KM1231-3-PK	240 or 208 volt	3 phase
714	240/208 volt		KM1227-3-PK	240 or 208 volt	
			KM1227-3-PK	240 or 208 volt	3 phase
			GM1227-3	240 or 208 volt	
KM1222-3	240 or 208 volt		GM1227-3	240 or 208 volt	3 phase
KM1222-3	240 or 208 volt	3 phase	GM1018	240 or 208 volt	
KM1022-3	240 or 208 volt		GM818	240 or 208 volt	
KM1022-3	240 or 208 volt	3 phase	GM1414	240 or 208 volt	
KM1022	240 or 208 volt		GM1414	240 or 208 volt	3 phase
KM1022	240 or 208 volt	3 phase	GM1014	240 or 208 volt	
KM822-3	240 or 208 volt		GM814	240 or 208 volt	
KM822	240 or 208 volt		GM22CS	240 or 208 volt	
			GM22CS	240 or 208 volt	3 phase

NOTE: All of the above kilns may have a prefix of KM or KS.

Specifications

Motor: 115 volt
1.4 amps
50/60 Hz

Heat Exiting Blower: 160 °F maximum

Blower: 140 cfm

Maximum kiln capacity for use with EnviroVent 2: 12 cubic feet (24 cubic feet with dual intake kit)

Warranty

SKUTT CERMIC PRODUCTS, INC. warrants this product to be free from defects in materials and workmanship for two full years from the date of the first retail purchase from an authorized Skutt dealer.

What Skutt will Do

Skutt will repair or replace, at its expense, any defective part upon return, freight prepaid, to any authorized Skutt Service center.

What is Not Covered.

This warranty does not cover (1) any defect not reported to an authorized Skutt dealer or distributor within 10 days of discovery; (2) any damage caused by overfiring; (3) products subjected to abnormal strain, freight damage, neglect, abuse, improper storage, failure to follow instructions, or products altered from factory standard condition; (4) products whose identification number has been changed; (5) failures of, or failures caused by, parts or accessories not manufactured or supplied by Skutt Ceramic Products.

How To Obtain Warranty Service.

Notify your Skutt dealer or distributor within 10 days of discovery of any defect. Deliver any defective part, freight prepaid, to an authorized Skutt service center. A list of Skutt service centers may be obtained from your dealer or from Skutt Ceramic Products, Inc. at the address and telephone number below.

Other limitations. ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING PROPERTY DAMAGE, LOST PROFITS, LOSS OF USE, OR OTHER ECONOMIC LOSS, ARE EXCLUDED TO THE FULL EXTENT PERMITTED BY STATE LAW. Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. ANY IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Dealers are not authorized to modify this Warranty or to make any additional commitments. Skutt will not be responsible for promises not contained in this Warranty.

State Law Rights. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

6441 S.E. JOHNSON CREEK BLVD, PORTLAND, OREGON 97206

(503) 774-6000

How to Request Warranty Service

All repair work must be authorized, either by Skutt, or by an authorized Skutt Distributor before the work is done. If you believe your vent is going to require warranty servicing, the first step is to call the Distributor from whom you purchased the kiln. If they are unable to provide or coordinate service, call Skutt Ceramic Products and ask for our Technical Service Department. 503-774-6000

Skutt has one of the most extensive networks of Distributors in the country. However, not all areas have a trained vent technician. We realize that re-packaging and shipping your vent is not a realistic option for some of our customers. Many of our Distributors have trained vent technicians either on staff or with which they contract. Often times these technicians will travel to your business or home to do the repair. Skutt will pay them for their time on the job. It is your responsibility to pay them for their travel time to and from your location.

Please register your warranty at www.skutt.com under the "Contact Us" tab to streamline future warranty requests. You will need your Serial number, Model Name, Voltage, and Phase. All of this information can be found on the serial plate which is located on the side of your control box.



COOK

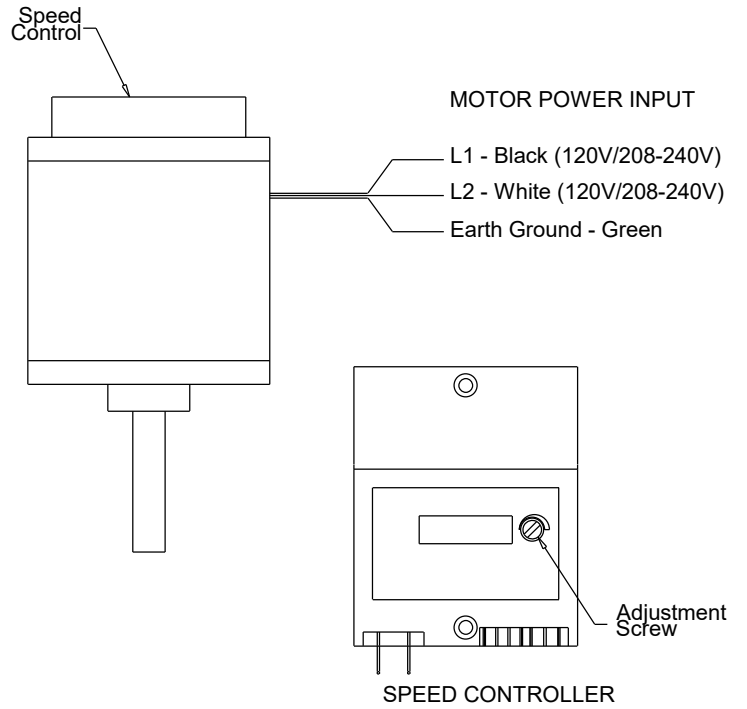
PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

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
EF-1	1	OPEN -3/4HP - 115V/1 PH/ 60 2800/0000 -EC
EF-8	1	OPEN -3/4HP - 115V/1 PH/ 60 2800/0000 -EC



BD

Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

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

Notes:

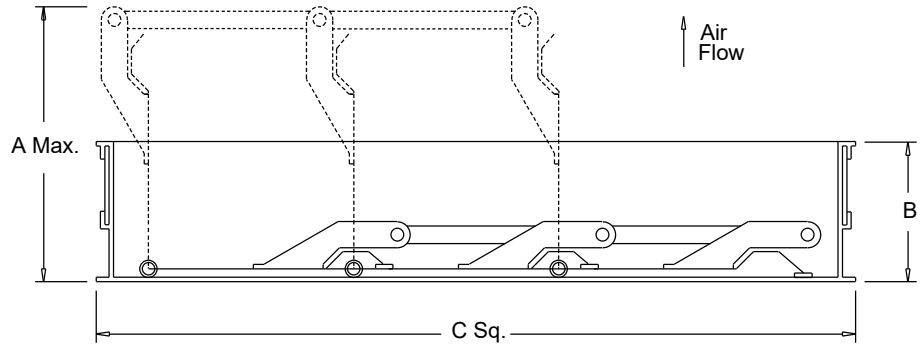
Max. operating temperature 200 Deg F (95 Deg C).

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-14 DAMPER	5-3/16	1-7/8	13-3/4	1
EF-10	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
EF-11	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
EF-12	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
EF-13	1	BD-18 DAMPER	5-3/16	1-7/8	17-3/4	1
EF-2	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
EF-3	1	BD-30 DAMPER	5-3/16	1-7/8	29-3/4	1
EF-4	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
EF-6	1	BD-24 DAMPER	5-3/16	1-7/8	23-3/4	1
EF-8	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1
EF-9	1	BD-14 DAMPER	5-3/16	1-7/8	13-3/4	1



RCG

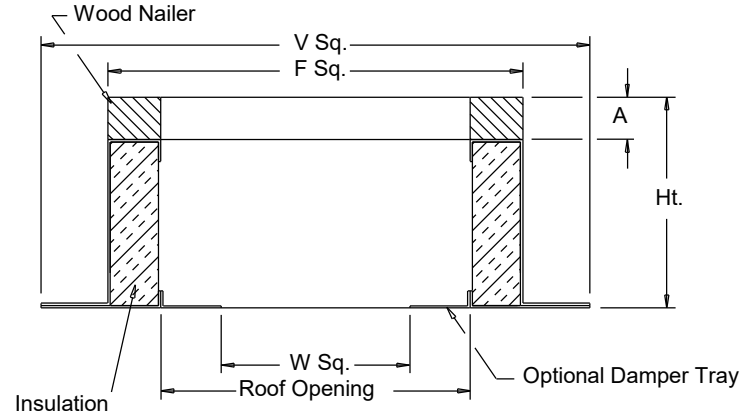
Galvanized Steel Roof Curb

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-1	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
EF-11	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
EF-13	1	RCG 22	13.5	2;	1-1/2	22-1/2	26-1/2	15-3/4	19-1/2
EF-2	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
EF-3	1	RCG 34	13.5	2;	1-1/2	34-1/2	38-1/2	27-3/4	31-1/2
EF-4	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
EF-5	1	RCG 34	13.5	1;	1-1/2	34-1/2	38-1/2	27-3/4	31-1/2
EF-6	1	RCG 28	13.5	2;	1-1/2	28-1/2	32-1/2	21-3/4	25-1/2
EF-8	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2
EF-9	1	RCG 18	13.5	2;	1-1/2	18-1/2	22-1/2	11-3/4	15-1/2

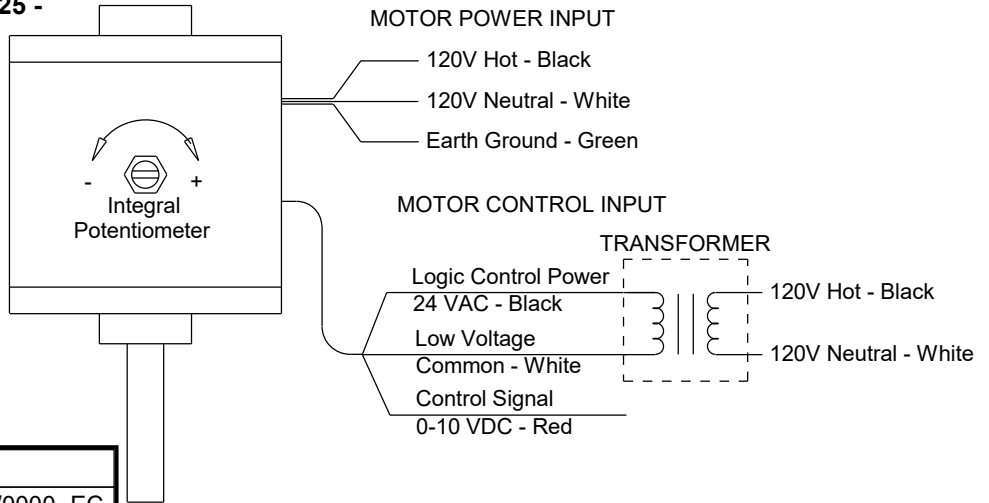


Speed Control

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
EF-10	1	OPEN -1/4HP - 115V/1 PH/ 60 1725/0000 -EC
EF-12	1	OPEN -1/6HP - 115V/1 PH/ 60 1725/0000 -EC



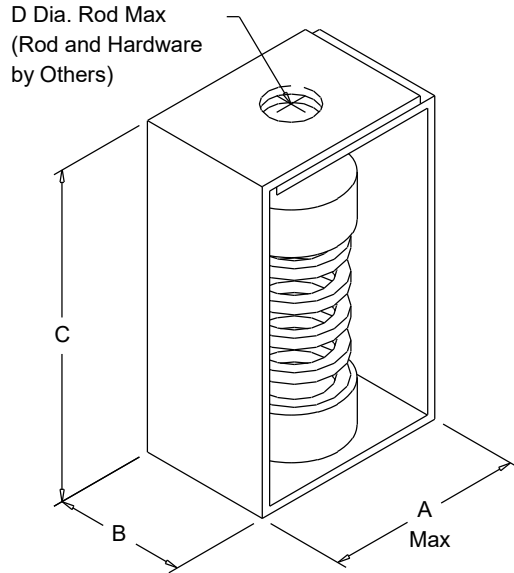
COOK

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SPRING CEILING

Housing Spring
Spring Isolator
Ceiling Mounted



Dimensions (inches)

Mark	Qty	Description	A	B	C	D Dia.	Rated Deflection
EF-10	1	SC-35 SET(4)	2-5/32	1-1/2	3-15/32	1/2	1.03
EF-12	1	SC-35 SET(4)	2-5/32	1-1/2	3-15/32	1/2	1.03



COOK

PROJECT: GREATER DAYTON SCHOOL

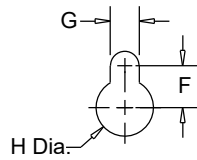
DATE: 3/2/2022

Grease Trough

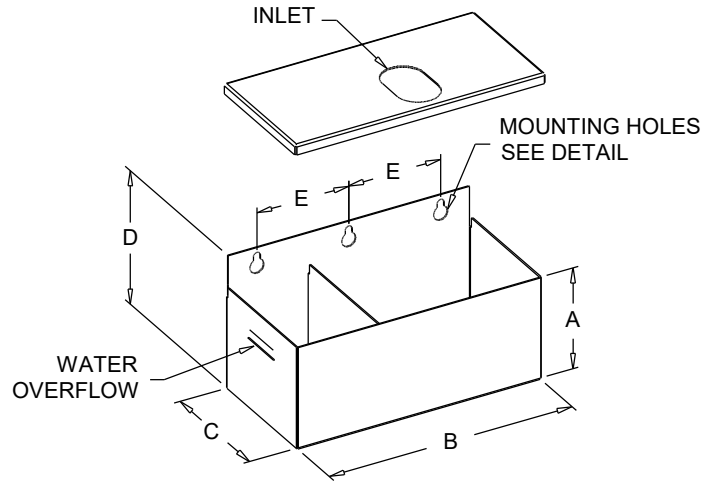
Keyway Mount

STANDARD CONSTRUCTION FEATURES:

All aluminum .063 construction - Continuously welded trough housing corners - Removable lid for servicing - Slotted mounting holes for easy removal - Baffled design for extended capacity.



MOUNTING HOLE DETAIL



Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E	F	G	H Dia.
EF-5	1	KEYWAY GREASE TROUGH	5	12	6-1/16	6-1/2	4-1/2	1/2	3/8	11/16



COOK

PROJECT: GREATER DAYTON SCHOOL

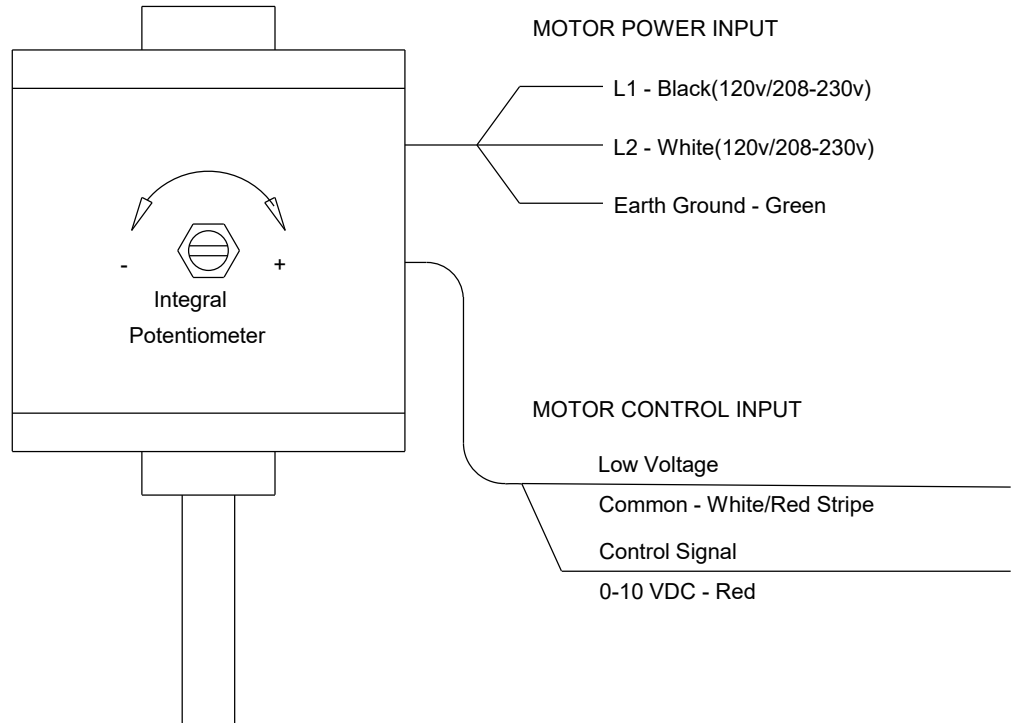
DATE: 3/2/2022

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
EF-7	1	EXT SPD CTRL CAPABLE



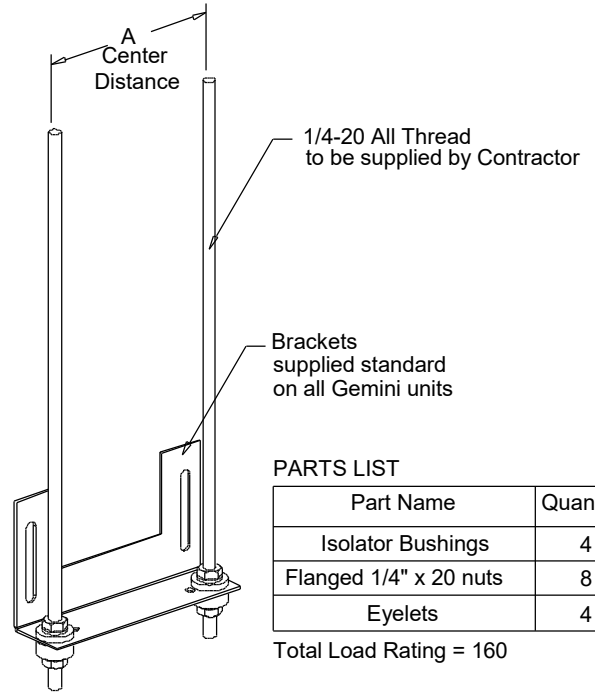
COOK

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

GEMINI

Gemini Isolator Kit
GIK
Rubber In Shear



PARTS LIST

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

Total Load Rating = 160

Dimensions (inches)

Mark	Qty	Description	Part #	A
EF-7	1	GEMINI ISOLATO	GIK	4



COOK

MARK: EF-9

PROJECT: GREATER DAYTON SCHOOL

DATE: 3/2/2022

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.