

SHOP SUBMITTAL / DRAWING REVIEW RESPONSE



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Formerly **MEINHARDT** Consulting Engineers

Project Name: DPARD Admin Offices

From: Chuck Stringer

Project No: 13333

Description: 233000.01 Exhaust Fans Submittal

SW Associates Consulting Engineers	Engineer's review is for general compliance with the design concept and contract documents. Markings or comments or the lack thereof shall not be construed as relieving the Contractor from compliance with the project plans and specifications. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of construction, for performing this work in a safe manner and for coordinating his work with that of other trades
<input checked="" type="checkbox"/> No Exception Taken	This review does not constitute approval or acceptance of deviations from contract documents, such deviations if any must be requested in writing or clearly identified as deviations in accordance with contract documents.
<input type="checkbox"/> Make Corrections Noted	
<input type="checkbox"/> Revise and Submit	
<input type="checkbox"/> Rejected	
SWA Project No. 13333	Submittal No: 233000.01
Date: 04-01-19	Checked By: Chuck Stringer

Comments:



SUBMITTAL
FOR REVIEW

COOK FAN SUBMITTAL DATA

FOR

Dallas Parks and Recreation

Administration Offices

Dallas, TX

Owner:	City of Dallas
Mechanical Engineer:	SWA
Mechanical Contractor:	Total HVAC
Date:	3/5/2019
Revision:	Original
Submitted By:	Kia Kohen, Texas AirSystems, Inc.
Equipment Manufacturer:	Loren Cook
Equipment Type:	Exhaust Fans
Unit Tags:	EF-1 thru 5

Cook Roof Mounted Exhaust Fans

TAG: EF-1, 2, 5

Three (3) **Cook** Model **ACE-B**, roof mounted, downblast, belt driven exhaust fan designed for **120V/1Ph/60HZ** power and complete with the following:

- Spun aluminum hood – two piece construction with quick release latches
- All aluminum housing
- Non-overloading, backward inclined, aluminum wheel
- Single speed, Open Drip Proof motor
- Gravity operated backdraft damper
- Galvanized steel birdscreen
- NEMA-1 toggle disconnect switch – ***Factory mounted & wired***
- Fan speed controller – ***Factory mounted & wired***
- 13.5” high galvanized steel roof curb with damper tray

COOK CEILING EXHAUST FANS

TAG: EF-3, 4

Two (2) **Cook** Model **GC**, Series **100**, ceiling mounted, direct drive, exhaust fans designed for **120V/1Ph/60HZ** power and complete with the following:

- Forward curved injection molded polypropylene fan wheel
- Injection molded flame resistant fan housing
- Round outlet duct
- 22 gauge galvanized steel inlet box
- 2-speed motor with built-in thermal overload protection
- Disconnect switch – ***Factory mounted & wired***
- Fan speed controller – ***Factory mounted & wired***
- White, high impact styrene injection molded grille
- Wall mounted discharge cap



*Job: DPARD
2/28/2019*

MARK	QTY	MODEL	VOL (CFM)	SP (inwc)	PWR (HP)	MHP	RPM	SONES	DRIVE	TSPD (fpm)	VEL (fpm)	SE	WEIGHT (lbs)	MOTOR ENCL	MOTOR RPM	ELECTRICAL
EF-1	1	100 ACEB	1000	.25	.22	.25	1933	13.5	BELT	5060	1529	21%	82	ODP -SE	1725/0000	115/1/60
Drive Loss(Medium) = 16%																
EF-2	1	80 ACEB	500	.25	.12	.25	1348	7.9	BELT	3529	764	20%	82	ODP -SE	1725/0000	115/1/60
Drive Loss(Medium) = 18%																
EF-3, 4	2	GC-148	142	.125	45.9w	.0125	1075	2.5	DIRECT	2147	724	15%	20		1075/0000	115/1/60
EF-5	1	60 ACEB	75	.5	.09	.167	1375	6.7	BELT	3599	114	8%	81	ODP -SE	1725/0000	115/1/60
Drive Loss(Medium) = 18%																



COOK



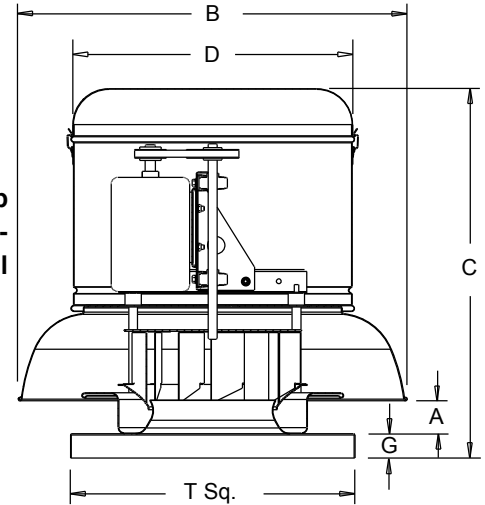
MARK: EF-1
PROJECT: DPARD
DATE: 2/28/2019

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	100C3B	1000	.250	1933	.224	n/a(<1HP)

Altitude (ft): 538 Temperature (F): 70

Motor Information

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

FLA based on NEC (2014) Table 430.248

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
73	75	79	77	70	67	61	56	77	66	13.5

Accessories:

- DRIVES (1.5 SF) @ 1933 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16-13.5H W/TRAY

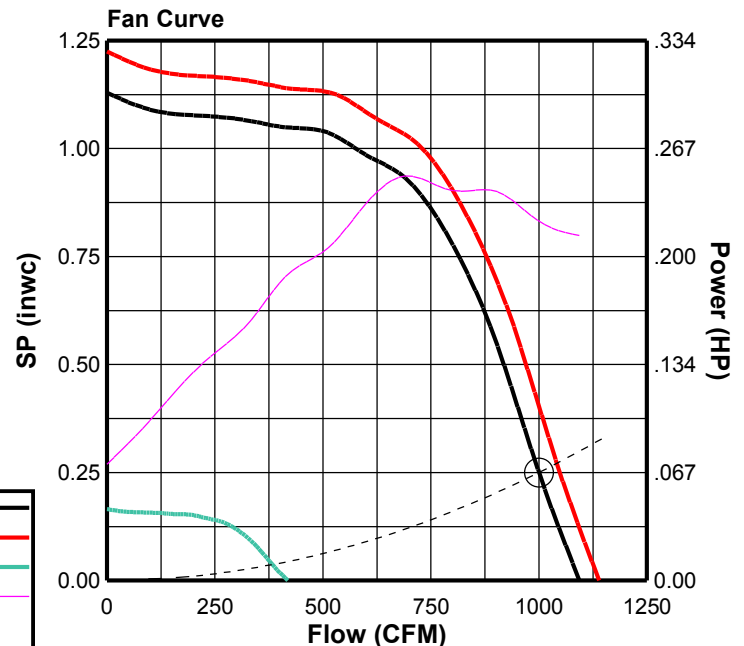
Dimensions (inches)

A	2-7/8
B	23-9/16
C	21-1/8
D	16-11/16
G	2
T Sq.	18
Roof Open.Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	82	Unit	74
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*Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: EF-1
PROJECT: DPARD
DATE: 2/28/2019

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)
100C3B	1000	.250	1933	.224	n/a(<1HP)	1529	5060	21%	70	538

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
73	75	79	77	70	67	61	56	77	66	13.5

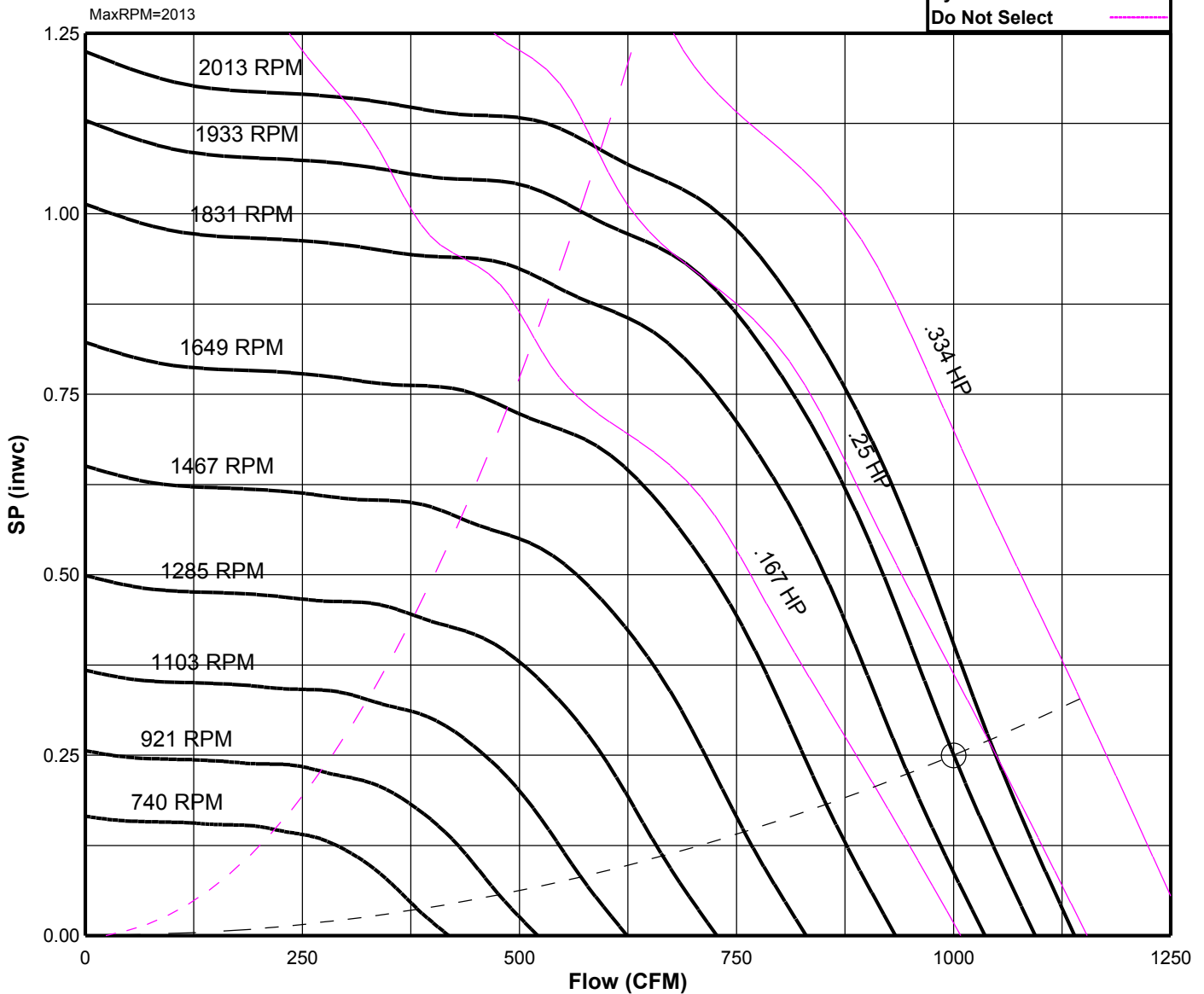
Motor Information

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

FLA based on NEC (2014) Table 430.248

Fan Curve Legend

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





COOK



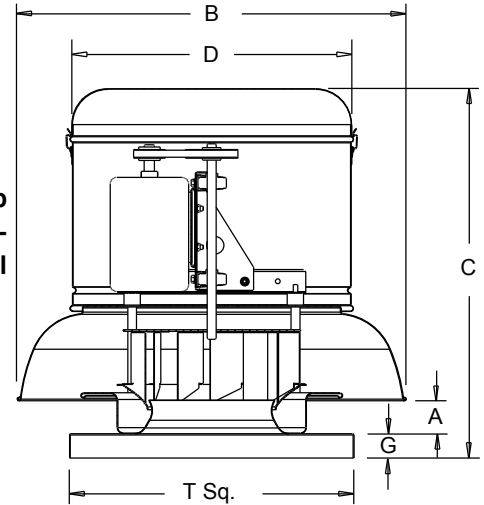
MARK: EF-2
PROJECT: DPARD
DATE: 2/28/2019

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 18% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	80C3B	500	.250	1348	.120	n/a(<1HP)

Altitude (ft): 538 Temperature (F): 70

Motor Information

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

FLA based on NEC (2014) Table 430.248

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
69	70	74	62	58	53	49	46	67	56	7.9

Accessories:

- DRIVES (1.5 SF) @ 1348 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16-13.5H W/TRAY

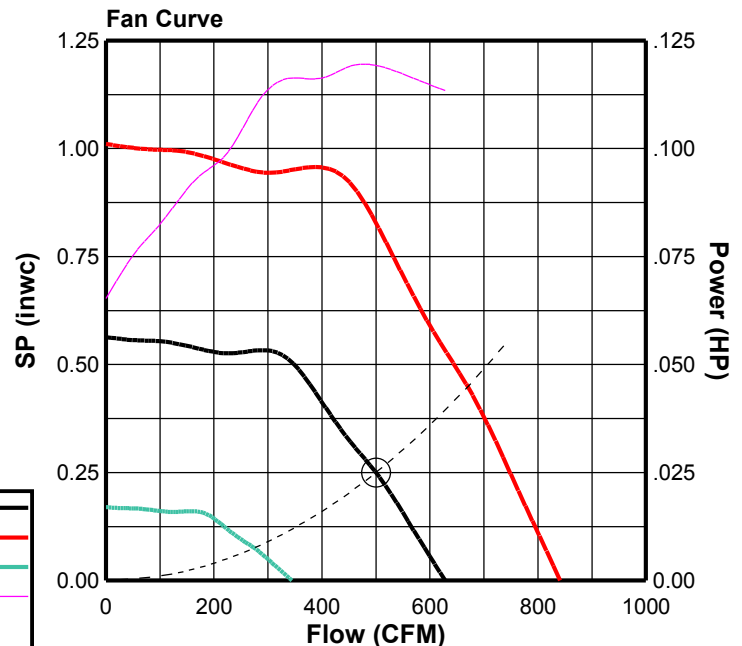
Dimensions (inches)

A	2-7/8
B	23-9/16
C	21-1/8
D	16-11/16
G	2
T Sq.	18
Roof Open.Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	82	Unit	74
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*Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: EF-2
PROJECT: DPARD
DATE: 2/28/2019

ACE-B

Performance (*Bhp includes 18% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	TEMP (°F)	ALT (ft)
80C3B	500	.250	1348	.120	n/a(<1HP)	764	3529	20%	70	538

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
69	70	74	62	58	53	49	46	67	56	7.9

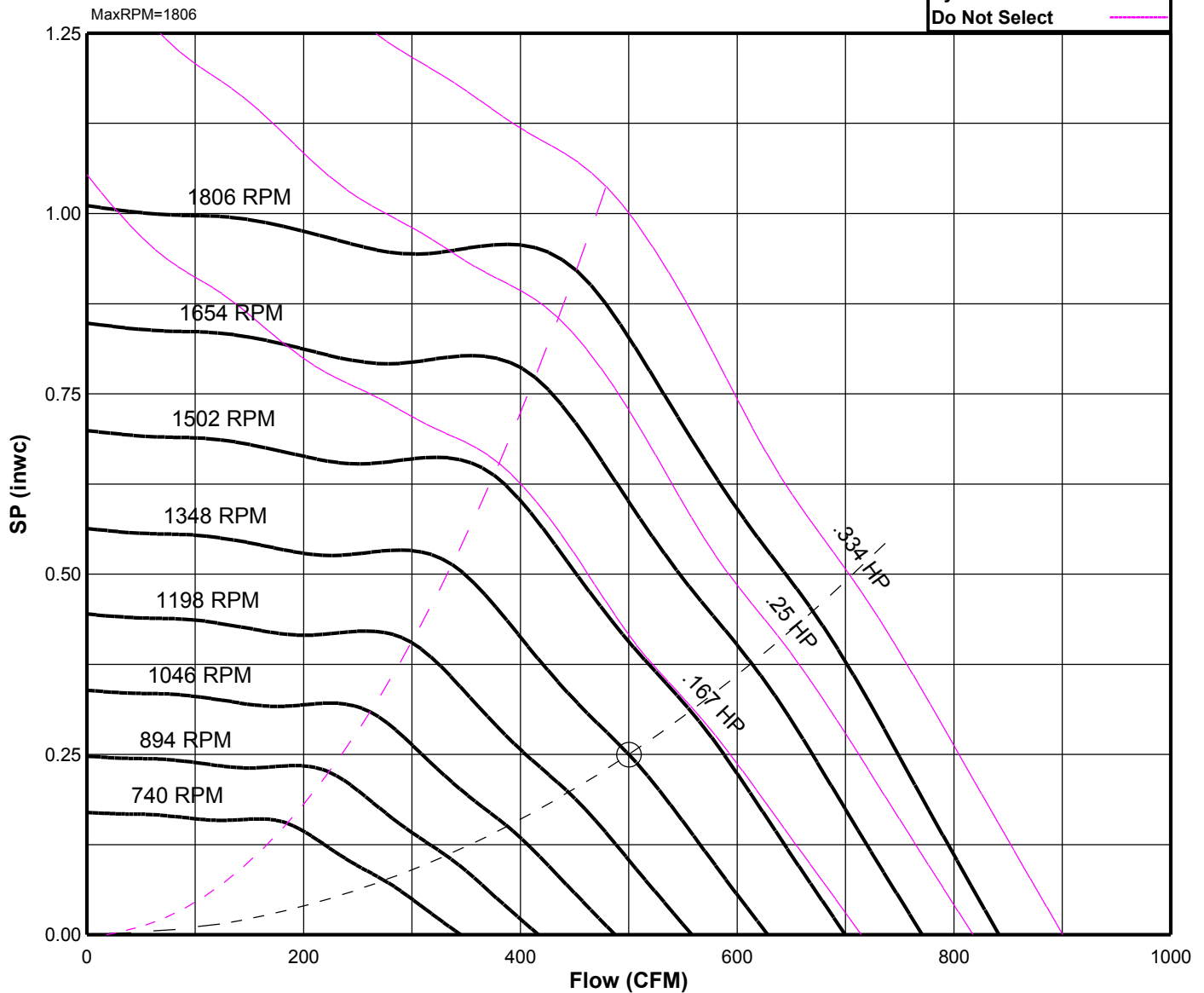
Motor Information

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

FLA based on NEC (2014) Table 430.248

Fan Curve Legend

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





COOK



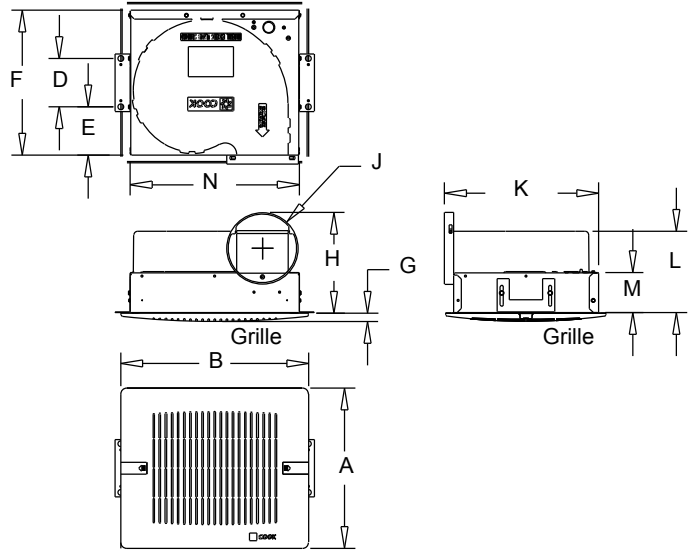
MARK: EF-3, 4
PROJECT: DPARD
DATE: 2/28/2019

GEMINI

Ceiling Fans 100 Series

STANDARD CONSTRUCTION FEATURES:

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



Performance

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts
2	GC-148	142	.125	1075	46

Altitude (ft): 538 Temperature (F): 70

Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.417

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
51	52	56	55	50	44	41	34	55	44	2.5

Accessories:

- DISCONNECT NEMA 1 PRE-WIRED
- WHITE PLASTIC GRILLE
- FAN SPEED CONTROLLER 5A 120V PREWIRED
- WALL CAP(RND) WCR-4
- INTEGRAL BD DAMPER

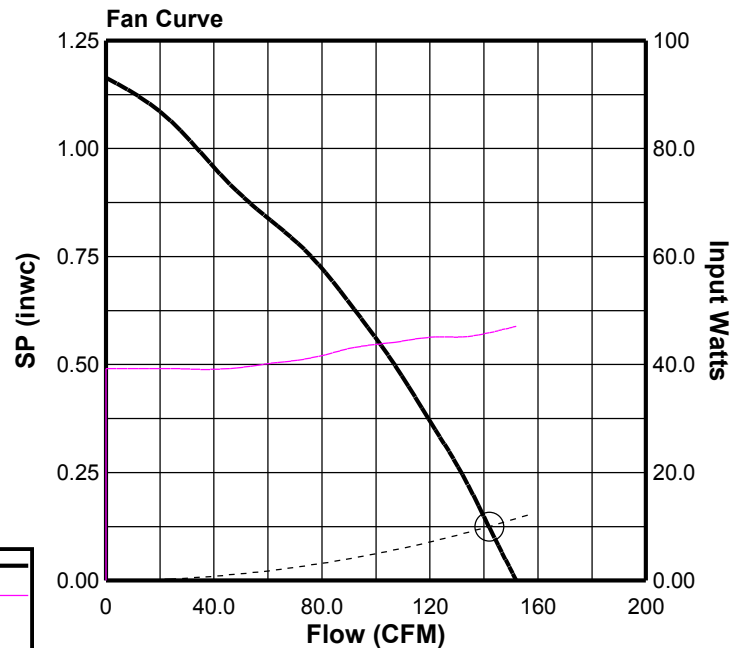
Dimensions (inches)

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

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	20	Unit	17

***Includes fan, motor & accessories.



Fan Curve Legend

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



COOK



MARK: EF-3, 4

PROJECT: DPARD

DATE: 2/28/2019

GEMINI

Performance

Catalog Number	Flow (CFM)	SP (inwc)	Nominal RPM	Input Watts	OVEL (fpm)	TSPD (fpm)	SE	TEMP (°F)	ALT (ft)
GC-148	142	.125	1075	46	724	2147	15%	70	538

Sound Data Inlet Sound Power by Octave Band

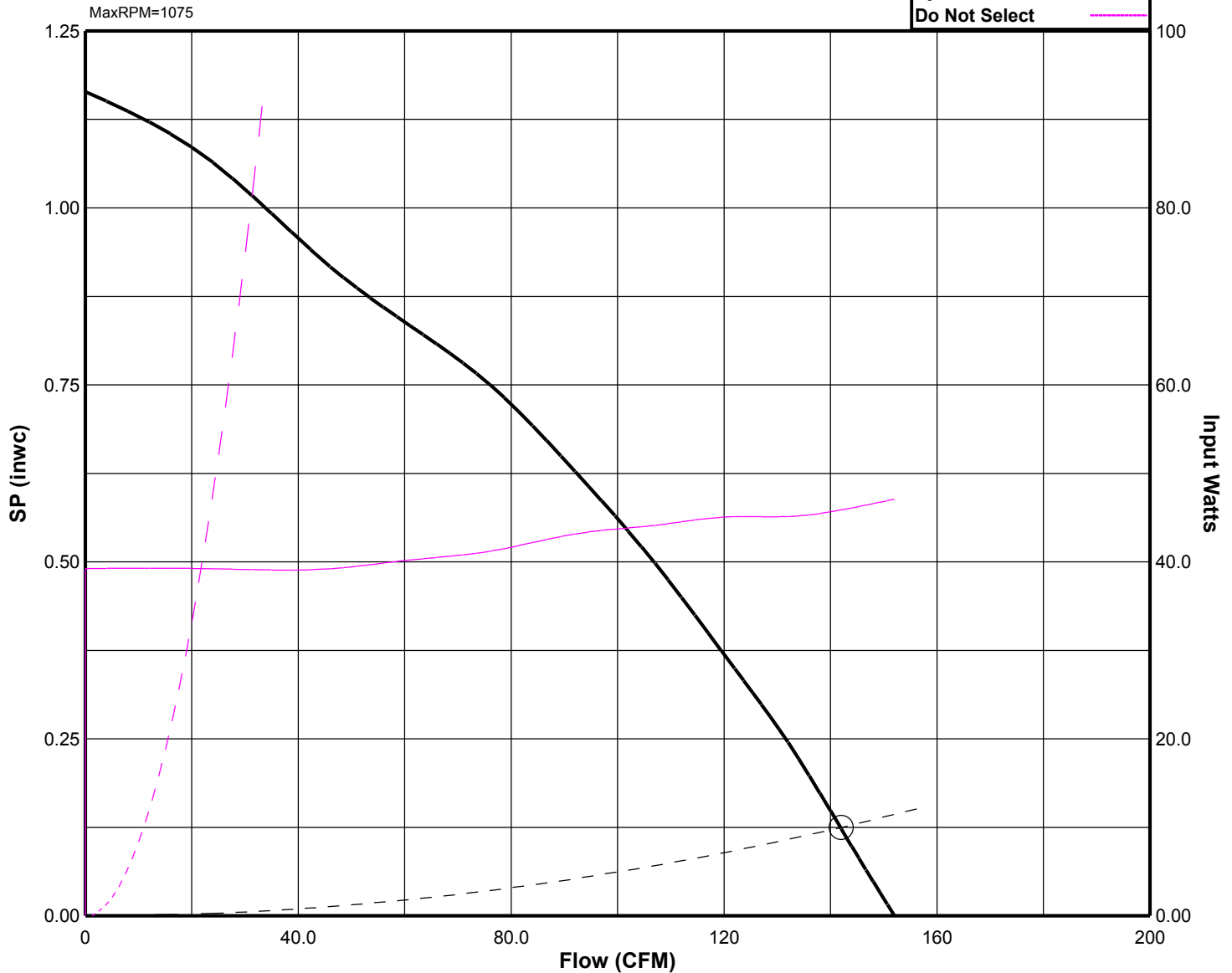
1	2	3	4	5	6	7	8	LwA	dBA	Sones
51	52	56	55	50	44	41	34	55	44	2.5

Motor Information

Volts/Ph/Hz	Nameplate Amps
115/1/60	.417

Fan Curve Legend

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





COOK



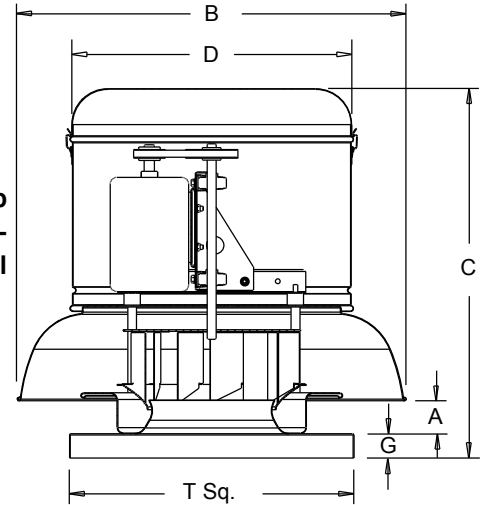
MARK: EF-5
PROJECT: DPARD
DATE: 2/28/2019

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 18% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	60C2B	75	.500	1375	.085	n/a(<1HP)

Altitude (ft): 538 Temperature (F): 70

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/6	1725	115/1/60	ODP -SE	4.4	Yes

FLA based on NEC (2014) Table 430.248

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
68	69	73	57	51	46	45	42	65	54	6.7

Accessories:

- DRIVES (1.5 SF) @ 1375 RPM
- DISCONNECT NEMA 1 PRE-WIRED
- BD-12 DAMPER
- ROOF CURB RCG 16-13.5H W/TRAY
- BELT TENSIONR-ROTARY
- SPARE BELT SET

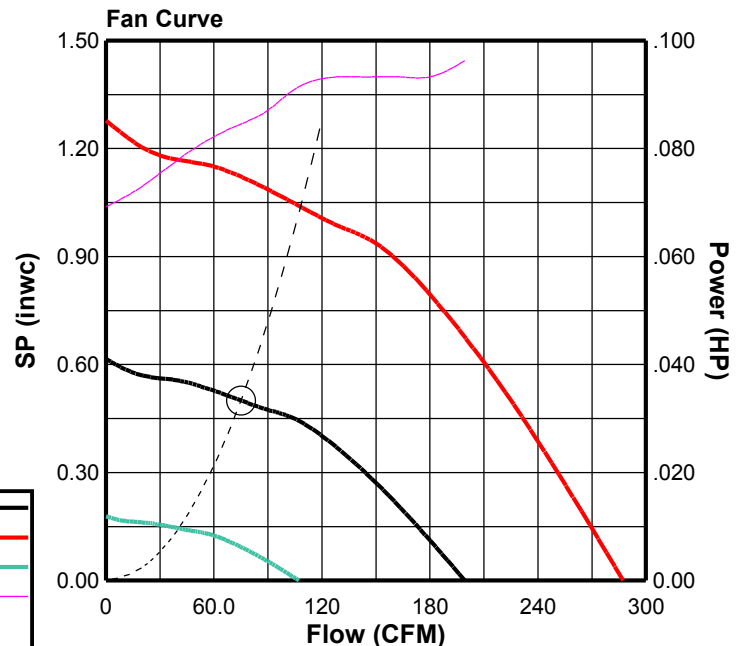
Dimensions (inches)

A	2-7/8
B	23-9/16
C	21-1/8
D	16-11/16
G	2
T Sq.	18
Roof Open.Sq.*	13-1/2

NOTE: Accessories may affect dimensions shown.

Weight(lbs)***	Shipping	81	Unit	73
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*Roof opening size for curbs supplied by Cook only.
***Includes fan, motor & accessories.





COOK



MARK: EF-5
PROJECT: DPARD
DATE: 2/28/2019

ACE-B

Performance (*Bhp includes 18% drive loss)

Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG	OVEL (fpm)	TSPD (fpm)	SE	TEMP (°F)	ALT (ft)
60C2B	75	.500	1375	.085	n/a(<1HP)	114	3599	8%	70	538

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
68	69	73	57	51	46	45	42	65	54	6.7

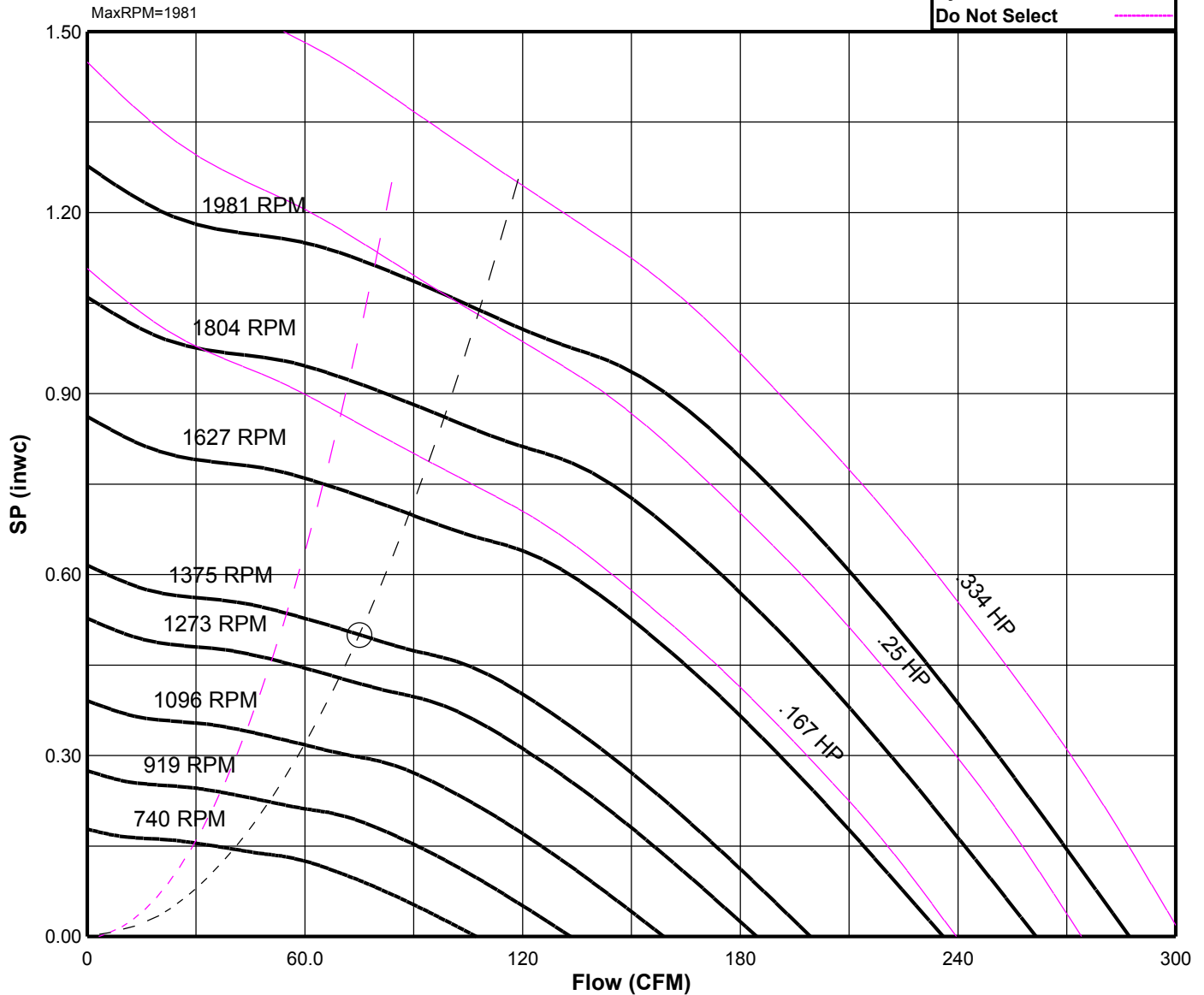
Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	FLA	Mounted
1/6	1725	115/1/60	ODP -SE	4.4	Yes

FLA based on NEC (2014) Table 430.248

Fan Curve Legend

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





COOK

PROJECT: DPARD

DATE: 2/28/2019

BD

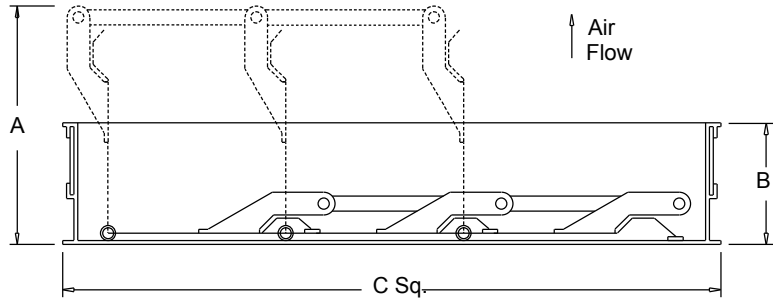
Gravity Backdraft Damper

STANDARD CONSTRUCTION FEATURES:

.02 Aluminum blades - .06 aluminum frame -
Aluminum hinge pins - Nylon bushings.

Note:

Sizes 36 thru 60 are shipped as 2 panels.
Sizes 66 and 78 are shipped as 6 panels.
These may require assembly.



Dimensions (inches)

Mark	Qty	Description	A Max.	B	C Sq.	# Panels
EF-1	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
EF-2	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1
EF-5	1	BD-12 DAMPER	5-3/16	1-7/8	11-3/4	1



RCG

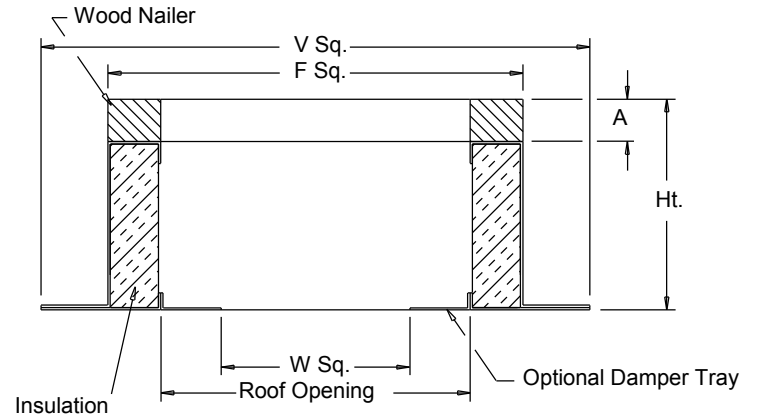
Galvanized Steel Roof Curb

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.



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
EF-1	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
EF-2	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2
EF-5	1	RCG 16	13.5	2;	1-1/2	16-1/2	20-1/2	9-3/4	13-1/2

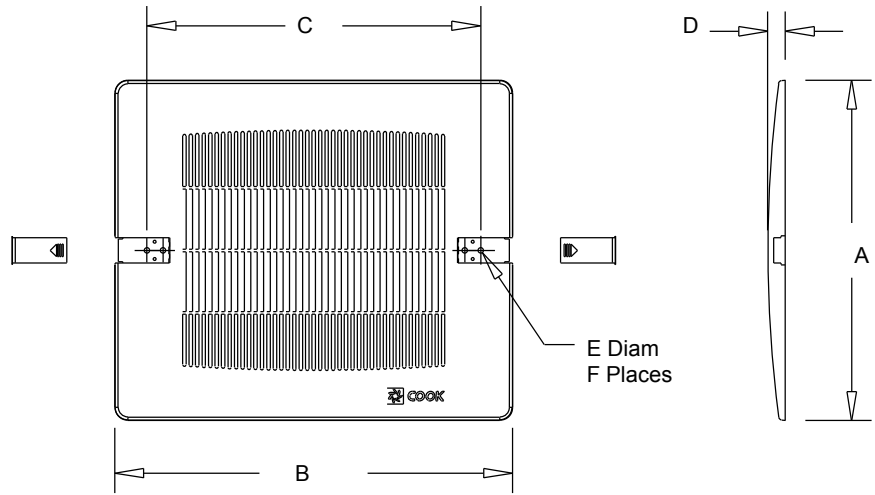


COOK

PROJECT: DPARD

DATE: 2/28/2019

GEMINI PLASTIC GRILLE



Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E Diam	F Places
EF-3, 4	2	WHITE PLASTIC GRILLE	13-1/4	15-1/2	13	1/4	1/4	4

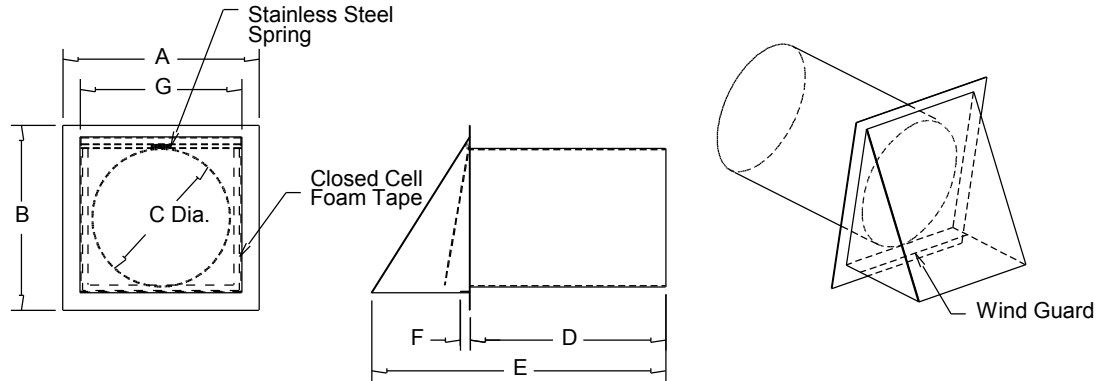


GEMINI

Wall Cap with Damper Round Duct

STANDARD CONSTRUCTION FEATURES:

Minimum .020 aluminum construction - Closed cell foam tape and stainless steel spring on damper door for quiet operation - Stainless steel pivot rod - Wind guard to prevent updraft from opening door.



Dimensions (inches)

Mark	Qty	Description	A	B	C Dia.	D	E	F	G
EF-3, 4	2	WALL CAP(RND) WCR-4	6	6-1/2	4	8-1/2	12-1/2	3/4	5