



#### Contents:

Introduction & Typical Applications	1-2
Construction Features	3
Corrosion Resistance	4
Specifications	
FCED: Downblast Direct Drive Exhaust Fan	5
FCEB: Downblast Belt Drive Exhaust Fan	6
FCRUD: Upblast Direct Drive Exhaust Fan	7
FCRUB: Upblast Belt Drive Exhaust Fan	8
FCP: Belt Drive Utility Set	9
Accessories	10



## Why Fiberglass?

Fiber-Reinforced Plastic (FRP) provides excellent corrosion resistance and weight saving when compared to carbon steel. Fiberglass fans can weigh 15 to 40% less than traditional steel Class II utility vent sets.

Cook fiberglass products are constructed of corrosion resistant fiberglass resin, which is formulated to achieve a Class I flame spread of 25 or less. All resin is protected with a chemical, flame and ultraviolet top coating. A neoprene seal protects the shaft. Motors and drives are enclosed in a compartment, protected from corrosion and weather.

This FRP was successfully tested with more than 90 corrosive materials, in environments 150 to 210°F. See page 4 for a full list of corrosion and temperature ratings.

#### **Typical Applications**

- · Water Treatment Plants
- Wastewater Treatment Plants
- · Pumping Stations
- · Indoor Swimming Pools
- Aguariums
- · Laboratory Exhaust Systems
- · Chemical Process Facilities
- · Pulp and Paper Mills
- · Fertilizer Manufacturing
- · Chemical Storage Facilities
- · Battery Charging Stations





#### **FRP Wheel**

This first of its kind, centrifugal airfoil backward inclined wheel, is molded and formed as one solid piece. It has more than 140 precisely cut, glass mats that are woven into a single mold.

Added to this process is a precision machined aluminum hub. Vinylester resin is then injected in the mold encapsulating the hub.

This mold is precisely designed to produce a wheel that does not require any hand layup work.

Available in clockwise or counter-clockwise rotations. Choose a standard width or a high pressure (HP) 66% width wheel to meet specific needs.

Wheels are balanced in accordance with AMCA Standard 204-05, Balance Quality and Vibration Levels for Fans.





## **Roof Exhausters**

The **FCE** downblast & **FCRU** upblast are curb mounted exhaust fans.

- 7 belt drive and 3 direct drive sizes available, with either standard or high pressure wheels
- Motor & drive components are protected from the airstream
- · One piece curb cap, with sealed corners
- Permanently lubricated ball bearing motors
- · Stainless steel fasteners inside airstream
- Corrosion resistant fasteners outside airstream
   Belt drive related features:
- Heavy-duty, deep row radial ball or double row spherical roller type self aligning bearings that are shielded in cast iron housing
- · Oil, heat, and static resistant belts
- · All fans factory adjusted to specified fan RPM

### **Utility Set**

**FCP** is a centrifugal utility vent set for higher pressure applications.

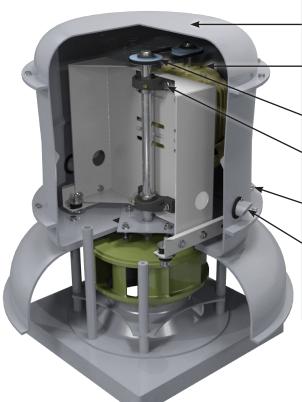
- 9 belt drive sizes, with either standard or high pressure wheels
- · 10 discharge rotation choices
- · Arrangement 10, Class II construction
- Motor, drives, and bearings are easily accessible, in the standard OSHA motor compartment / weather cover
- Airstream hardware 304 stainless steel and encapsulated, no metal parts in the airstream
- Heavy duty ball or roller bearings with extended lube lines
- Shaft with fiberglass sleeve in airstream and sized to operate well below critical speed
- · Outlet flange
- Can weigh 15 to 40% less than traditional steel Class II utility vent sets



# **Quality parts and craftsmanship**

### **FCRU**

### **FCE**



#### All FCE & FCRU's include:

Motor & drive components are protected from the airstream.

Permanently lubricated ball bearing motors, ship factory installed. Drives factory set to a specific RPM.

Oil, heat, & static resistant belts (belt drive only)

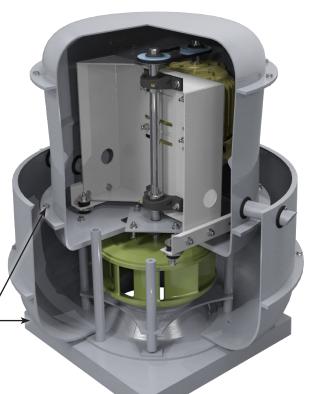
Heavy duty regreasable ball bearings in a cast iron pillow block housing (belt drive only)

Corrosion resistant fasteners outside airstream

Cooling tube

Stainless steel fasteners inside airstream

One piece curb cap for sealed corners



**FCP** 

Heavy duty regreasable ball bearings in a cast iron pillow block housing (belt drive only)

Airstream hardware 304 stainless steel and encapsulated, no metal parts in the airstream

Outlet flange

Shaft with fiberglass sleeve in airstream and sized to operate well below critical speed.

Extended lube lines

Inlet collar (not shown)

Drives factory set to specific RPM

Motor, drives, and bearings are easily accessible, in OSHA motor compartment / weather cover (not shown).



# **Corrosion Resistance**

G =Good F =Fair P =Poor ND =No Data	Cook FRP / Max. °F Resistance	Lorenized	Epoxy Powder	Phenolic Powder	Heresite	Aluminum	Mild Steel	304 Stainless Steel	316 Stainless Steel
Acetic Acid	G / 210	F	F	F	F	F	F	F	G
Aluminum	G / 180	ND	G	G	G	G	G	G	G
Hydroxide Ammonia (dry)	G / 100	ND	G	F	F	G	F	G	G
Ammonium	G / 210*	G	G	G	G	Р	P	F	F
Chloride	G / 210	G	G	G	G	٢	Ρ	Г	_
Ammonium Hydroxide	G / 180*	Р	G	F	F	Р	F	G	G
Ammonium Nitrate	G / 210	ND	G	F	F	G	Р	G	G
Ammonium	G / 180	ND	G	Р	Р	Р	G	G	G
Persulphate	07 100	IND	J	'	'	'	J	U	
Ammonium Phosphate	G / 210	G	G	F	F	Р	Р	G	G
Ammonium Sulfate	G / 210	G	G	F	F	Р	F	F	F
Barium Chloride	G / 210	G	G	F	F	Р	F	F	G
Barium Hydroxide	G / 150*	Р	G	G	G	P F	F	F	G
Barium Sulphate Benzoic Acid	G / 210 G / 210	ND G	F	F	F	G	P ND	G	G G
Butyric Acid	G / 210	F	G	F	F	Р	ND	F	G
Calcium Carbonate	G / 180*	G	Ğ	F	F	G	G	G	G
Calcium Chlorate	G / 210*	ND	G	ND	ND	F	G	E	G
Calcium Chloride	G / 210*	G	G	G	G	F	F	F	F
Calcium Hydroxide Carbon Monoxide	G / 180*	Р	G	G	G	Р	F	G	G
Gas	G / 210	ND	G	G	G	G	G	G	G
Carbon	G / 100	G	F	Р	Р	F	Р	F	F
Tetrachloride				F	F		-	· F	F
Chlorine Gas (dry) Chlorine Gas	G / 210*	ND	F			Р	<u>P</u>		_
(moist)	G / 180*	ND	F	G	G	Р	Р	F	Р
Chlorine Water	G / 180*	G	Р	F	F	Р	ND	Р	Р
Chromic Acid	G / 150	Р	F	Р	Р	Р	P	F	F
Citric Acid Copper Chloride	G / 210* G / 210*	G	F	F	F	F	P P	F	G F
Copper Cyanide	G / 210	ND	F	P	P	P	P	G	G
Copper Nitrate	G / 210	ND	G	F	F	P	P	G	G
Copper Sulfate	G / 210	G	F	F	F	Р	Р	G	G
Ethyl Alcohol Ferric Sulphate	G / 80 G / 210	G ND	ND G	F	F	F	G P	G	G F
Ferrous Sulphate	G / 210	ND	G	F	F	F	P	G	F
Formalin-	G / 120	ND	ND	G	G	F	P	G	G
Formaldehyde									
Formic Acid Fluoroboric Acid	G / 180 G / 210*	P ND	F	P P	P	P P	P P	F	F
Furfural	G / 210	ND	G	P	P	G	F	G	G
Gasoline	G / 180	G	G	F	F	G	F	G	G
Hydrobromic Acid	G / 180*	ND	F	Р	Р	Р	Р	Р	F
Hydrochloric Acid	G / 180*	G	F	F	F	Р	Р	Р	Р
Hydrochlorus Acid Hydrocyanic Acid	G / 100 G / 180	ND G	F	ND P	ND P	P	P F	P	P
Hydrofluoric Acid	G / 130*	Р	F	Р	Р	Р	P	P	P
Hydrofluosilicic Acid		P	ND	P	P	P	ND	F	P
Hydrogen Peroxide	G / 150	ND	F	Р	Р	G	Р	G	G
Hydrogen Sulfide	G / 180 G / 210*	G	G	F	F	F	P P	F	G
Lactic Acid Magnesium		_	G						G
Carbonate	G / 180*	ND	G	F	F	P	Р	G	G

G =Good F =Fair P =Poor ND =No Data	Cook EBD /	Max. °F Resistance	Lorenized	Epoxy Powder	Phenolic Powder	Heresite	Aluminum	Mild Steel	304 Stainless Steel	316 Stainless Steel
Magnesium Chloride	G	210	G	G	G	G	Р	Р	F	F
Maleic Acid	G	180	G	ND	Р	Р	F	F	F	G
Naptha	G	180	F	G	F	F	G	F	G	G
Nickel Chloride	G	210	G	G	F	F	P	Р	F	F
Nickel Nitrate	G G	210 210	ND ND	ND G	F	F	P P	P P	G	G G
Nickel Sulphate Nitric Acid 5%	G	150	Р	F	G	G	P	P	F	F
Oleic Acid	G	210	G	G	F	F	F	F	F	G
Oxalic Acid	G	210*	G	G	F	F	F	P	F	G
Phosphoric Acid	G	210*	Ğ	F	F	F	P	P	F	F
Potassium Bromide	G	160	G	G	F	F	F	Р	F	G
Potassium Chloride	G	210	G	G	F	F	F	F	F	G
Potassium								-		
Dichromate	G	210	ND	F	F	F	G	F	G	G
Potassium	G	210	ND	ND	F	F	G	ND	G	G
Ferricyanide	G	210	טאו	טאו	Г	Г	G	טא	G	G
Potassium	G	210	ND	G	F	F	F	F	G	G
Ferrocyanide										
Potassium Nitrate	G	210	ND	G	F	F	G	F	G	G
Potassium Permanganate	G	210	ND	ND	Р	Р	G	F	G	F
Potassium	_									
Sulphate	G	210	ND	ND	F	F	G	F	G	F
Salt Spray	G	200	G	G	F	F	F	Р	F	F
Silver Nitrate	G	210	ND	G	F	F	Р	Р	G	F
Sodium Acetate	G	210	ND	G	F	F	G	F	G	G
Sodium Bisulfate	G	210	ND	G	F	F	F	Р	G	G
Sodium Carbonate	G	160*	G	G	F	F	F	F	G	F
Sodium Chlorate	G	210	G	G	F	F	F	F	G	G
Sodium Chloride	G	210	G	G	G	G	F	F	F	F
Sodium Dichromate	G	210	ND	ND	Р	Р	Р	F	F	Ρ
Sodium	G	240	NID	ND	F	F	Р	ND	G	G
Ferricyanide	G	210	ND		Г	Г	Ľ	טאו	G	G
Sodium Fluoride	G	180*	ND	ND	Р	Р	F	Р	F	F
Sodium Hydroxide	G	150*	Р	F	F	F	Р	F	G	F
Sodium	G	150*	ND	F	Р	Р	Р	Р	Р	F
Hypochlorite					•		·		_	
Sodium Nitrate	G	210	ND	G	F	F	G	F	G	G
Sodium Nitrite	G	210	ND	ND	F	F	G	ND	G	G
Sodium Silicate Sodium Sulphate	G	210* 210	ND	G	F	F	F	F	G	F G
Sodium Sulphide	G	210*	ND G	ND	Р	Р	P	F	F	F
Stannic Chloride	G	210*	ND	G	F	F	P	P	P	P
Stannous Chloride	G	210*	ND	G	F	F	P	P	F	P
Steam Vapor	G	180	G	G	F	F	G	F	G	G
Stearic Acid	G	210	G	G	F	F	F	F	F	G
Sulphur Dioxide	G	210	ND	G	F	F	F	Р	F	F
Gas							-	-		
Sulphuric Acid 10%	G	200*	F	F	Р	Р	F	Р	Р	F
Sulphurous Acid	G	100	ND	F	F	F	F	P	Р	F
Tannic Acid	G	210	G	G	G	G	F	F	G	G
Tartaric Acid	G	210	ND	G	F	F	F	P	F	G
Water (moisture) Zinc Nitrate	G G	180 210	G	G ND	G F	G F	G	ND	G G	G G
Zinc Sulphate	G	210	ND	F	F	F	F	Р	G	G
	0	_ 10	. 10					•	0	





For submittals, typical specifications, performance data & selection software visit lorencook.com

### FCED / FCED-HP

#### **Downblast FRP Direct Drive Exhaust Fan**

**Description**: Fan shall be a fiber-reinforced plastic resin, roof mounted, direct driven, downblast centrifugal exhaust ventilator.

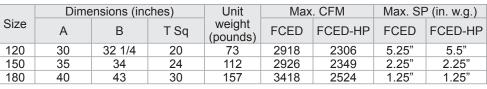
Certifications: Fan shall be manufactured at an ISO 9001 certified facility.

Construction: The fan shall be of bolted construction with stainless steel fasteners. Fasteners in the airstream shall be encapsulated in resin to further protect against corrosion. Structural parts shall be made of either fiber-reinforced plastic resin or epoxy coated steel. All fiberglass resin to be formulated to achieve a Class I flame spread below 25. All resin surfaces shall have additional chemical, flame and ultraviolet protective top coating. The fan base shall have solid curb cap corners for maximum leak protection. Motor, bearing and drives shall be mounted on a heavy duty epoxy coated steel power assembly, and enclosed in a ventilated motor compartment for protection against corrosive airstream. An integral conduit chase shall be provided through the curb cap and into the motor compartment to facilitate wiring connections. A neoprene shaft seal shall be provided. Nameplate shall indicate design CFM, static pressure, and maximum fan RPM. Unit shall be shipped in ISTA certified transit tested packaging.

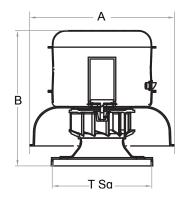
Wheel: Wheel shall be centrifugal airfoil backward inclined, constructed of fiber-reinforced vinylester resin, molded and formed in one solid piece. Wheels constructed of separately molded shroud, floats and backplate and then assembled are considered unacceptable. Wheel shall include a precision machined aluminum hub encapsulated in resin. Wheel inlet shall overlap an aerodynamic inlet cone to provide maximum performance and efficiency. Wheel shall be balanced in accordance with AMCA Standard 204-05, Balance Quality and Vibration Levels for Fans.

**Motor**: Motor shall be Totally Enclosed NEMA Design B with Class B insulation rated for continuous duty and furnished at the specified voltage, phase and enclosure.

**Product**: Fan shall be model FCED / FCED-HP as manufactured by Loren Cook Company of Springfield, Missouri.



Weight without motor.





For submittals, typical specifications, performance data & selection software visit lorencook.com

### FCEB / FCEB-HP

#### **Downblast FRP Belt Drive Exhaust Fan**

**Description:** Fan shall be a fiber-reinforced plastic resin, roof mounted, belt driven, downblast centrifugal exhaust ventilator.

Certifications: Fan shall be manufactured at an ISO 9001 certified facility.

Construction: The fan shall be of bolted construction with stainless steel fasteners. Fasteners in the airstream shall be encapsulated in resin to further protect against corrosion. Structural parts shall be made of either Fiber-Reinforced Plastic resin or epoxy coated steel. All fiberglass resin to be formulated to achieve a Class I flame spread below 25. All resin surfaces shall have additional chemical, flame and ultraviolet protective top coating. The fan base shall have solid curb cap corners for maximum leak protection. Motor, bearing and drives shall be mounted on a heavy duty epoxy coated steel power assembly, and enclosed in a ventilated motor compartment for protection against corrosive airstream. An integral conduit chase shall be provided through the curb cap and into the motor compartment to facilitate wiring connections. A neoprene shaft seal shall be provided. Nameplate shall indicate design CFM, static pressure, and maximum fan RPM. Unit shall be shipped in ISTA certified transit tested packaging.

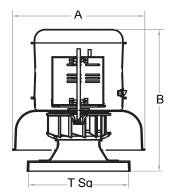
Wheel: Wheel shall be centrifugal airfoil backward inclined, constructed of fiber-reinforced vinylester resin, molded and formed in one solid piece. Wheels constructed of separately molded shroud, floats and backplate and then assembled are considered unacceptable. Wheel shall include a precision machined aluminum hub encapsulated in resin. Wheel inlet shall overlap an aerodynamic inlet cone to provide maximum performance and efficiency. Wheel shall be balanced in accordance with AMCA Standard 204-05, Balance Quality and Vibration Levels for Fans.

**Motor**: Motor shall be Totally Enclosed NEMA Design B with Class B insulation rated for continuous duty and furnished at the specified voltage, phase and enclosure.

**Bearings**: Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a cast iron pillow block housing selected for a minimum L50 life in excess of 250,000 hours at maximum cataloged operating speed.

**Belts & Drives**: Belts shall be oil and heat resistant, static conducting. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150 percent of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product**: Fan shall be model FCEB / FCEB-HP as manufactured by Loren Cook Company of Springfield, Missouri.



	Dime	ensions (inc	ches)	Unit	Max	. CFM	Max. SP (in. w.g.)		
Size	Α	В	T Sq	weight (pounds)	FCEB	FCEB-HP	FCEB	FCEB-HP	
120	30	33 1/4	20	95	1949	1680	2.25"	3"	
150	35	33	24	133	3503	2818	3.25"	3"	
180	39 1/4	42	30	178	4560	2944	2"	1.75"	
240	50 1/4	46 3/4	30	261	7846	5356	2"	2.5"	
300	55	56 3 /4	36	410	12322	9244	2.25"	2.25"	
360	65 1/4	61 1/4	42	583	17976	12574	2"	2.25"	
400	65 1/4	64 1/2	48	676	21598	16612	2"	2"	



For submittals, typical specifications, performance data & selection software visit lorencook.com

### FCRUD / FCRUD-HP

#### **Upblast FRP Direct Drive Exhaust Fan**

**Description**: Fan shall be a fiber-reinforced plastic resin, roof mounted, direct driven, upblast centrifugal exhaust ventilator.

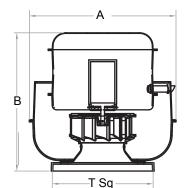
**Certifications**: Fan shall be manufactured at an ISO 9001 certified facility.

Construction: The fan shall be of bolted construction with stainless steel fasteners. Fasteners in the airstream shall be encapsulated in resin to further protect against corrosion. Structural parts shall be made of either fiber-reinforced plastic resin or epoxy coated steel. All fiberglass resin to be formulated to achieve a Class I flame spread below 25. All resin surfaces shall have additional chemical, flame and ultraviolet protective top coating. The fan base shall have solid curb cap corners for maximum leak protection. Motor, bearing and drives shall be mounted on a heavy duty epoxy coated steel power assembly, and enclosed in a ventilated motor compartment for protection against corrosive airstream. An integral conduit chase shall be provided through the curb cap and into the motor compartment to facilitate wiring connections. A neoprene shaft seal shall be provided. Nameplate shall indicate design CFM, static pressure, and maximum fan RPM. Unit shall be shipped in ISTA certified transit tested packaging.

Wheel: Wheel shall be centrifugal airfoil backward inclined, constructed of fiberreinforced vinylester resin, molded and formed in one solid piece. Wheels
constructed of separately molded shroud, floats and backplate and then
assembled are considered unacceptable. Wheel shall include a precision
machined aluminum hub encapsulated in resin. Wheel inlet shall overlap an
aerodynamic inlet cone to provide maximum performance and efficiency. Wheel
shall be balanced in accordance with AMCA Standard 204-05, Balance Quality
and Vibration Levels for Fans.

**Motor**: Motor shall be Totally Enclosed NEMA Design B with Class B insulation rated for continuous duty and furnished at the specified voltage, phase and enclosure.

**Product**: Fan shall be model FCRUD / FCRUD-HP as manufactured by Loren Cook Company of Springfield, Missouri



	Dime	ensions (inc	hes)	Unit	Max	Max. SP		
	Size	Α	В	T Sq	weight (pounds)	FCRUD	FCRUD-HP	
	120	30	32 1/2	20	81	2918	2306	5.25"
	150	34 7/8	32 7/8	24	125	2926	2349	2.25"
	180	39 3/8	42 5/16	30	173	3418	2525	1.25"



For submittals, typical specifications, performance data & selection software visit lorencook.com

#### FCRUB / FCRUB-HP

#### **Upblast FRP Belt Drive Exhaust Fan**

**Description**: Fan shall be a fiber-reinforced plastic resin, roof mounted, belt driven, upblast centrifugal exhaust ventilator.

Certifications: Fan shall be manufactured at an ISO 9001 certified facility.

Construction: The fan shall be of bolted construction with stainless steel fasteners. Fasteners in the airstream shall be encapsulated in resin to further protect against corrosion. Structural parts shall be made of either Fiber-reinforced plastic resin or epoxy coated steel. All fiberglass resin to be formulated to achieve a Class I flame spread below 25. All resin surfaces shall have additional chemical, flame and ultraviolet protective top coating. The fan base shall have solid curb cap corners for maximum leak protection. Motor, bearing and drives shall be mounted on a heavy duty epoxy coated steel power assembly, and enclosed in a ventilated motor compartment for protection against corrosive airstream. An integral conduit chase shall be provided through the curb cap and into the motor compartment to facilitate wiring connections. A neoprene shaft seal shall be provided. Nameplate shall indicate design CFM, static pressure, and maximum fan RPM. Unit shall be shipped in ISTA certified transit tested packaging.

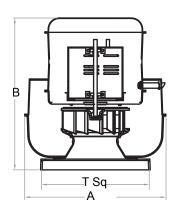
Wheel: Wheel shall be centrifugal airfoil backward inclined, constructed of fiber-reinforced vinylester resin, molded and formed in one solid piece. Wheels constructed of separately molded shroud, floats and backplate and then assembled are considered unacceptable. Wheel shall include a precision machined aluminum hub encapsulated in resin. Wheel inlet shall overlap an aerodynamic inlet cone to provide maximum performance and efficiency. Wheel shall be balanced in accordance with AMCA Standard 204-05, Balance Quality and Vibration Levels for Fans.

**Motor**: Motor shall be Totally Enclosed NEMA Design B with Class B insulation rated for continuous duty and furnished at the specified voltage, phase and enclosure.

**Bearings:** Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a cast iron pillow block housing selected for a minimum L50 life in excess of 250,000 hours at maximum cataloged operating speed.

**Belts & Drives**: Belts shall be oil and heat resistant, static conducting. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150 percent of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product**: Fan shall be model FCRUB / FCRUB-HP as manufactured by Loren Cook Company of Springfield, Missouri.



www.LorenCook.com

	Dimen	sions (inch	nes)	Unit	Max	k. CFM	Max. SP (in. w. g.)		
Size	Α	В	T Sq	weight (pounds)	FCRUB	FCRUB-HP	FCRUB	FCRUB-HP	
120	30	32 1/2	20	102	1958	1727	2.5"	3	
150	34 7/8	32 7/8	24	146	3550	2845	3	3	
180	39 3/8	42 5/16	30	194	4624	3018	2.25"	1 75"	
240	50 1/8	46 15/16	30	295	8133	5540	2	1.5"	
300	54 7/8	57	36	448	13020	9564	2.25"	2.25"	
360	65 1/4	61 7/16	42	616	19150	13184	2.25"	2	
400	65 1/4	64 13/16	48	171	22390	17302	2	2	

8







В

Loren Cook Company certifies that the FCP / FCP-66 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA

Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

For submittals, typical specifications, performance data & selection software visit lorencook.com

#### FCP / FCP-66

#### Single Width Single Inlet FRP Belt Drive Exhaust Fan

**Description**: Fan shall be a fiber-reinforced plastic resin, single width, single inlet, backward inclined airfoil, Arrangement 10, belt driven Class II centrifugal blower.

**Certifications**: Fan shall be manufactured at an ISO 9001 certified facility. Fan shall bear the AMCA certified ratings seal for sound and air performance.

Construction: The fan shall be of bolted construction with stainless steel fasteners. Fasteners in the airstream shall be encapsulated in resin to further protect against corrosion. Structural parts shall be made of either fiber-reinforced plastic resin or epoxy coated steel. All fiberglass resin to be formulated to achieve a Class I flame spread below 25. All resin surfaces shall have additional chemical, flame and ultraviolet protective top coating. A neoprene shaft seal shall be provided. The fan housing shall be field rotatable to any one of eight discharge positions and shall have an outlet discharge flange for duct connection. Unit shall have the motor and drives enclosed in an OSHA motor compartment. Nameplate shall indicate design CFM, static pressure, and maximum fan RPM. Unit shall be shipped in ISTA certified transit tested packaging.

Wheel: Wheel shall be centrifugal airfoil backward inclined, constructed of fiber-reinforced vinylester resin, molded and formed in one solid piece of the specified rotation. Wheels constructed of separately molded shroud, floats and backplate and then assembled are considered unacceptable. Wheel shall include a precision machined aluminum hub encapsulated in resin. Wheel inlet shall overlap an aerodynamic inlet cone to provide maximum performance and efficiency. Wheel shall be balanced in accordance with AMCA Standard 204-05, Balance Quality and Vibration Levels for Fans.

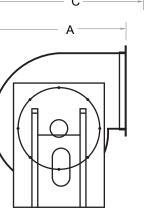
**Motor**: Motor shall be NEMA Design B with Class B insulation rated for continuous duty and furnished at the specified voltage, phase and enclosure.

**Bearings**: Construction shall be heavy duty regreasable ball or roller type in a cast iron pillow block housing selected for a minimum L50 life in excess of 250,000 hours at maximum cataloged operating speed.

**Blower Shaft**: Blower shaft shall be AISI C-1045 hot rolled and accurately turned, ground and polished with an FRP sleeve in the airstream for protection. Shafting shall be sized for a critical speed of at least 125% of maximum RPM.

**Belts and Drives**: Belts shall be oil and heat resistant, static conducting. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150% of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product**: Fan shall be model FCP / FCP-66 as manufactured by Loren Cook Company of Springfield, Missouri.



Fan		Dimension	s (inches)		Unit	Unit Max. 0		Max. SP			
Size	Α	В	C		weight	IVIAX.	CITIVI	(in. w.g.)			
Size	_ ^	Ь	FCP	FCP-66	FCP-66 (pounds)		FCP-66	FCP	FCP-66		
120	14 1/2	32 1/2	37 5/8	37	188	3899	3295	11"	12"		
150	30 11/16	35 5/8	40 1/8	38 5/8	215	5912	5020	11"	11.5"		
180	36 1/2	41 15/16	47 1/16	45 3/8	309	8936	8124	11"	14"		
225	42 7/16	51	50 3/16	48 1/8	397	14004	12655	11"	13"		
245	46 1/8	55 5/16	51 3/4	49 1/2	554	16300	14294	9.5"	12"		
270	50	31	59	56 1/2	728	21150	18325	11"	12"		
300	65 1/2	54 3/4	64 3/16	61 1/2	878	24979	22070	11"	13"		
330	59 11/16	75 3/16	66 9/16	63 9/16	1013	28900	25070	10"	11"		
365	65	78 5/16	68 13/16	65 9/16	1131	33855	29020	9.5"	11"		
\	An Subday Management										



### **Drain** (FCP series)

A drain coupling can be located in the bottom of the scroll housing. The FRP coupling is 1 inch NPT threaded coupling permanently affixed and sealed to the housing.



# Access Door (FCP series)

Bolted access door on the housing is available to provide access to the wheel for cleaning or inspection. The access door is provided with an air tight gasket seal.



## **Dampers**

#### **Backdraft Damper (FCE & FCRU series)**

An FRP gravity backdraft damper is available for installation in a roof curb. All parts of the damper, frame, blade, and axles are make from the same glass and resins as the FRP unit. Available in standard and counterbalance styles.



The FRP control damper is available for duct mounting either as a parallel blade or opposed blade design. All parts of the damper; frame, blade, and axles are make from the same glass and resins as the FRP unit. The control damper is available with either a manual quadrant control handle or a motorized (115-volt) two-position actuator. The manual quadrant control handle or motorized (115-volt) two-position actuator operates the control damper by a control shaft through the damper frame.





# Stainless Bird Screen (FCEB & FCRUB series)

# Stainless Shaft (FCP, FCEB & FCRUB series)

A 304 or a 316 stainless steel shaft is available for severe corrosive environments.

## Fiberglass Roof Curb (FCE & FCRU series)

A one piece straight roof curb is available in either 8 or 12 inch heights. The curb is standard with neoprene curb seal and damper tray. The FRP curb can be attached to metal, concrete or wood roof structures.



## LOREN COOK COMPANY

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