

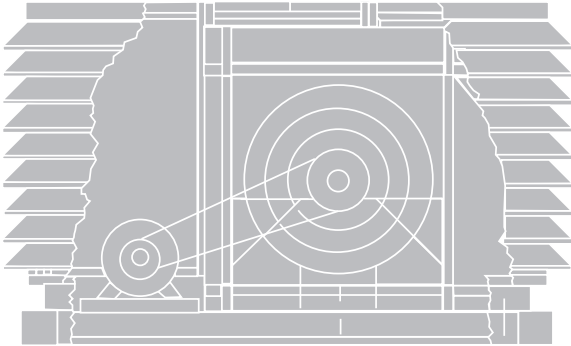
CFS



COOK

# CFS

## Centrifugal Filtered Supply Roof Blowers



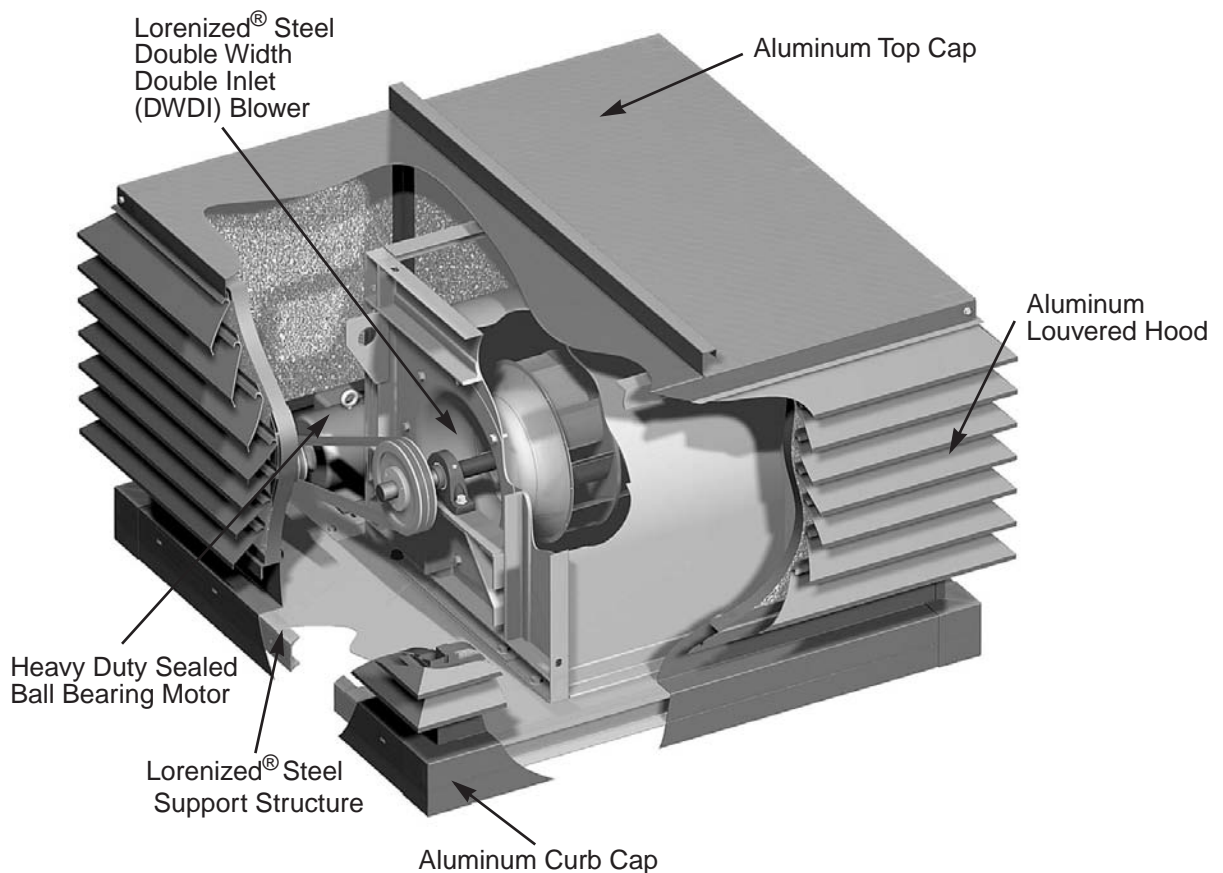
	Page
Introduction . . . . .	2
Specifications and Dimension Data . . . . .	3
Typical Installation . . . . .	4
Accessories . . . . .	5-7

## CFS Introduction

Loren Cook Company's CFS Centrifugal Filtered Supply Blowers are designed to supply filtered makeup air to buildings while offering a louvered design that is architecturally pleasing. The louvered penthouse design also allows for maximum airflow while providing a completely weather-proof unit.



- Performance ranges from 1,100 to 53,000 CFM with static pressures to 5" w.g.
- Available with wheel sizes from 12" to 36.5".





## Centrifugal Filtered Supply Blowers Roof Mounted

**Description** - Blower shall be a roof mounted, filtered supply blower, belt driven double width, double inlet (DWDI), backward inclined, airfoil blade, steel wheel, belt driven, centrifugal blower type.

**Certifications** - Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL 705) and UL listed for Canada (cUL 705).

**Construction** - The fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. Hoods shall be louvered penthouses constructed of heavy gauge extruded aluminum and continuously welded and mitered corners and shall have removable aluminum top caps. Curb cap shall be constructed of aluminum. Support structure and blower assembly shall be constructed of steel. All units shall be equipped with 2" aluminum filters of the washable and removable type. Both the frame and media shall be of aluminum material, thus insuring long life. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

**Coating** - All steel fan components shall be Lorenized® with an electrostatically applied, baked polyester powder coating. Each component shall be subject to a five stage environmentally friendly wash system, followed by a minimum 2 mil thick baked powder finish. Paint must exceed 1,000 hour salt spray under ASTM B117 test method.

**Blower Wheels and Shafts** - Blower wheels shall be non-overloading backwardly inclined airfoil type. All wheels shall be carefully trued after assembly and dynamically balanced to insure vibration free operation. Blades on all sizes shall be continuously welded to the backplate and deep spun inlet shroud. The blower shafts shall be AISI C-1040 or C-1045 hot rolled and accurately turned and polished, close tolerances shall be maintained where shaft makes contact with the bearings. Shafting shall be sized for a critical speed of at least 125 percent of maximum RPM.

**Motor** - Motor shall be heavy duty type with permanently lubricated sealed ball bearings 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 or roller type in a cast iron pillow block housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

**Belts and Drives** - Belts shall be oil and heat resistant, non-static type. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. All drives shall be designed for 150% of rated horsepower capabilities and motor drives shall be variable pitch through 5 horsepower. Oil resistant non-static belts shall be provided.

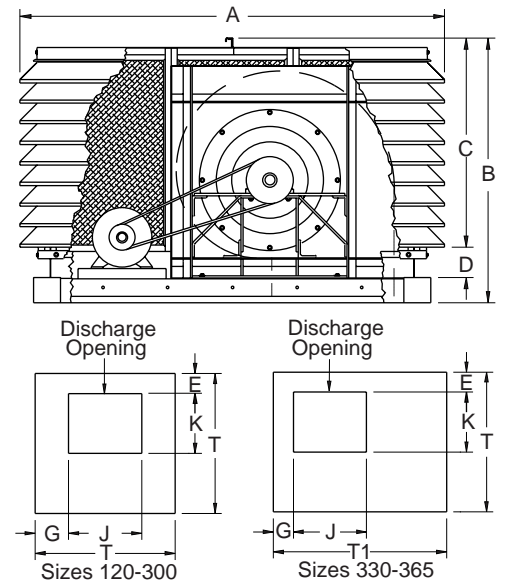
**Product** - Fan shall be model CFS as manufactured by Loren Cook Company of Springfield, Missouri.



Type CFS is furnished standard with UL 705 listing (Power Ventilator/ZACT) when furnished with factory supplied motor.



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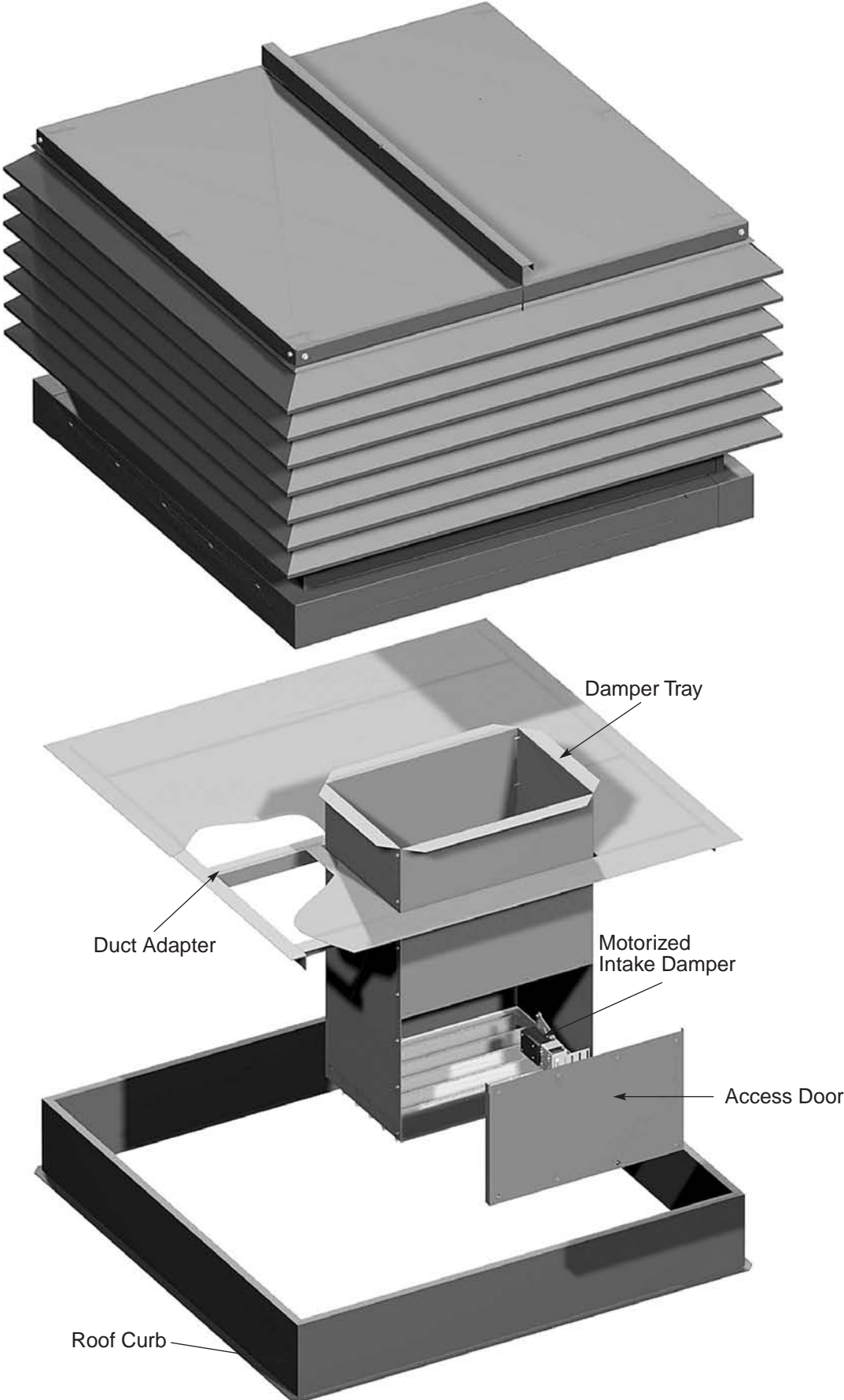
### CFS Dimension Data

Size	No. Tiers	A	B	C	D	E	G	J	K	T	T1	Max. Mtr. Frame	Ship. Weight
120	4	53	29-1/2	17-1/8	9-3/8	6-1/4	15-11/32	17-11/16	12-1/8	48-3/8	-	215T	554
135	5	58-1/4	31	20-5/8	7-1/8		16-27/32	19-15/16	13-5/8	53-5/8		215T	592
150	6	61-1/8	34-1/4	24-1/8	7-1/8		17-1/4	22	15-1/4	56-1/2		254T	710
165	7	63-7/8	37-7/8	27-5/8	7-1/4		17-5/8	24	16-15/16	59-1/4		254T	830
180	8	69-3/8	39-3/4	31-1/8	5-5/8		19-11/32	26-1/16	18-1/2	64-3/4		254T	912
195	9	72-1/4	42-3/8	34-5/8	4-3/4		19-19/32	28-7/16	19-1/2	67-5/8		256T	1045
210	10	75-1/8	45-15/16	38-1/8	4-13/16		20-1/16	30-3/8	21-5/8	70-1/2		256T	1187
225	11	78	49-7/16	41-5/8	4-13/16		20-7/16	32-1/2	23-3/16	73-3/8		256T	1258
245	11	83-3/4	50-7/16	41-5/8	5-13/16		22-1/32	35-1/16	25-1/2	79-1/8		284T	1563
270	14	89	61-15/16	52-1/8	6-13/16		22-15/32	39-7/16	27-1/2	84-3/8		286T	1964
300	15	94-1/4	65-7/16	55-1/8	6-13/16	23-5/16	43	31-3/16	89-5/8	324T	2522		
330	17	93 x 112-1/2	72-1/4	62-5/8	6-5/8	13-9/16	23-7/16	47-1/16	34-1/2	88-7/8	108-1/8	364T	3115
365	18	93 x 121	75-3/4	66-1/8	6-5/8	10-1/4	25-1/2	52-3/16	38-11/16	88-7/8	116-15/16	364T	3312

All dimensions in inches. Weights in pounds.

# CFS Typical Installation

(Optional accessories shown)



### Typical Disconnect Switches



**NEMA 1** - Indoor general purpose.

**NEMA 1 (Lockable)** - Indoor general purpose with locking capability.

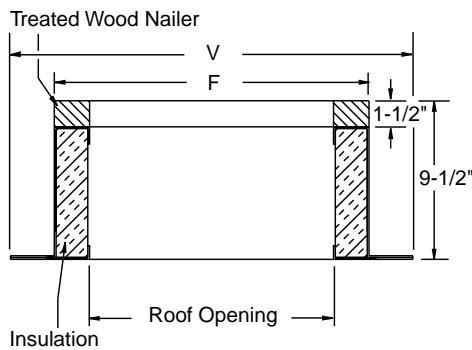
**NEMA 1 (Heavy Duty, Lockable)** - Indoor heavy duty visible blade.

**NEMA 3R** - Exterior mount, rain-tight.

**NEMA 4** - Water-tight and dust-tight.

**NEMA 7 and NEMA 9** - Lockable, indoor, explosion proof.

### Roof Curb



#### Standard Construction Features

- Minimum 16 gauge galvanized steel.
- 1-1/2", 3 lbs. density thermal and accoustical insulation.
- Continuously welded corners.
- CCA pressure treated wood nailer.

#### Options

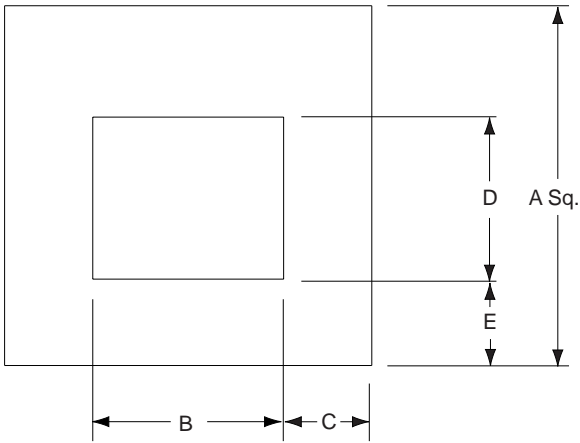
- No wood nailer (deduct 1-1/2" for actual height).
- 13-1/2" tall construction.

### Galvanized Steel Roof Curb Dimension Data

CFS Unit	Catalog Number	F Sq.	V Sq.	Roof Opening
120	RCGH-46	46-1/2	50-1/2	43-1/2
135	RCGH-52	52-1/2	56-1/2	49-1/2
150	RCGH-54	54-1/2	58-1/2	51-1/2
165	RCGH-57	57-1/2	61-1/2	54-1/2
180	RCGH-63	63-1/2	67-1/2	60-1/2
195	RCGH-66	66-1/2	70-1/2	63-1/2
210	RCGH-68	68-1/2	72-1/2	65-1/2
225	RCGH-71	71-1/2	75-1/2	68-1/2
245	RCGH-77	77-1/2	81-1/2	74-1/2
270	RCGH-82	82-1/2	86-1/2	79-1/2
300	RCGH-88	88-1/2	92-1/2	85-1/2
330	RCGH-87 x 106	87 x 106	91 x 110	84 x 103
356	RCGH-87 x 115	87 x 115	91 x 119	84 x 112

All dimensions in inches. When motor operated damper is used, a wood nailer is required.

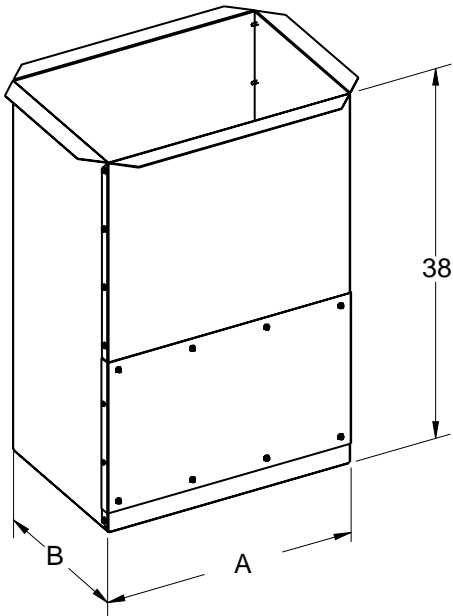
## Duct Adapter



CFS Unit	A	B	C	D	E
120	46-1/2	18-5/8	13-15/16	13-5/8	4-7/16
135	52-1/2	20-5/8	15-15/16	14-5/8	5-1/16
150	54-1/2	23-5/8	15-7/16	16-5/8	4-7/16
165	57-1/2	25-5/8	15-15/16	17-5/8	4-15/16
180	63-1/2	27-5/8	17-15/16	19-5/8	4-15/16
195	66-1/2	29-5/8	18-7/16	20-5/8	5
210	68-1/2	31-5/8	18-7/16	22-5/8	4-9/16
225	71-1/2	33-5/8	18-15/16	24-5/8	4-7/16
245	77-1/2	36-5/8	20-7/16	26-5/8	4-11/16
270	82-1/2	40-5/8	20-15/16	28-5/8	4-9/16
300	88-1/2	44-5/8	21-15/16	32-5/8	4-13/16
330	87 x 106	48-5/8	36-1/16	35-5/8	12-3/16
356	87 x 115	53-5/8	37-7/8	39-5/8	9-1/4

All dimensions in inches.

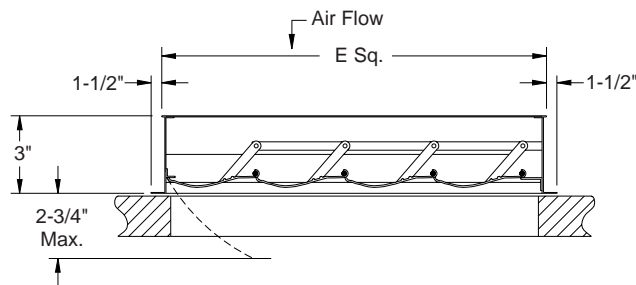
## Damper Tray



Unit Size	A	B	Damper Size	Roof Opening
120	18	13	12-1/2 x 17-1/2	17 x 22
135	20	14	13-1/2 x 19-1/2	18 x 24
150	23	16	15-1/2 x 22-1/2	20 x 27
165	25	17	16-1/2 x 24-1/2	21 x 29
180	27	19	18-1/2 x 26-1/2	23 x 31
195	29	20	19-1/2 x 28-1/2	24 x 33
210	31	22	21-1/2 x 30-1/2	26 x 35
225	33	24	23-1/2 x 32-1/2	28 x 37
245	36	26	25-1/2 x 35-1/2	30 x 40
270	40	28	27-1/2 x 39-1/2	32 x 44
300	44	32	31-1/2 x 43-1/2	36 x 48
330	48	35	34-1/2 x 47-1/2	39 x 52
365	53	39	38-1/2 x 52-1/2	43 x 57

All dimensions in inches.

### Gravity Backdraft Damper

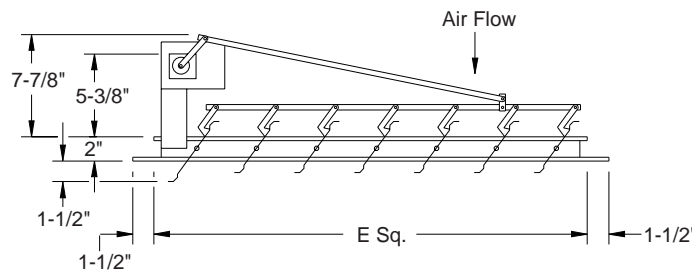


Gravity dampers feature an extruded aluminum frame, aluminum blades and aluminum hinge pins with nylon bushings.

Unit Size	A	B
120	17-11/16	12-1/8
135	19-15/16	13-5/8
150	22	15-1/4
165	24	16-15/16
180	26-1/16	18-1/2
195	28-7/16	19-1/2
210	30-3/8	21-5/8
225	32-1/2	23-3/16
245	35-1/16	25-1/2
270	39-7/16	27-1/2
300	43	31-3/16
330	47-1/16	34-1/2
365	52-3/16	38-11/16

All dimensions in inches.

### Motorized Backdraft Damper



Motorized dampers feature an extruded aluminum frame, aluminum blades and aluminum hinge pins with nylon bushings. Motors are shipped loose for field installation. Available voltages include 115V, 230V, and 460V.

Unit Size	A	B
120	17-11/16	12-1/8
135	19-15/16	13-5/8
150	22	15-1/4
165	24	16-15/16
180	26-1/16	18-1/2
195	28-7/16	19-1/2
210	30-3/8	21-5/8
225	32-1/2	23-3/16
245	35-1/16	25-1/2
270	39-7/16	27-1/2
300	43	31-3/16
330	47-1/16	34-1/2
365	52-3/16	38-11/16

All dimensions in inches.

### Additional Accessories:

- Aluminum Wheel
- All Aluminum Construction
- Side Discharge
- Internal Vibration Isolation Base
- Hurricane Resistant Construction





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