AC

COOK®

AC

Power Roof and Wall Ventilators

INTRODUCTION

COOK power roof and wall ventilators provide maximum performance and durability in a wide variety of commercial and industrial air moving applications. Exhaust applications include general ventilation, fume-hood, paint booth and smoke control systems.

- AC unit top cap assembly is designed to provide weather protection for the motor and drive components while maintaining easy, tool free access for inspection and maintenance.
- Standard lifting lugs, located under the top cap, provide for safe, fast and efficient lifting of the unit to a rooftop.
- One piece fan base, which includes a high-efficiency inlet venturi and continuously welded curb cap corners, ensures weathertight conditions.
- Spun aluminum baffle is designed to provide smooth, turbulent-free airflow.
- Wheels are centrifugal type featuring non-overloading, backward-inclined blades and a tapered inlet shroud.
- Accurate performance is assured through compliance with the AMCA Certified Ratings Program. All units are licensed to bear the AMCA Certified Ratings Seal for Air and Sound Performance.

ACE

Downblast Centrifugal Exhaust Ventilator

- Typically used in roof mounted clean-air exhaust applications.
- ACE available in 9 direct drive sizes and 21 belt drive sizes. Capacities range from 100 to 32,300 CFM, with static pressures from 0 to 1-1/2 inches.
- ACED-EC models with electronically commutated (EC) motors are available in 6 direct drive sizes with capacities from 63 to 2620 cfm.

ACRU

Upblast Centrifugal Exhaust Ventilator

- Typically used in roof mounted applications where it is necessary to eject contaminated air away from a rooftop.
- ACRU available in 9 direct drive sizes and 17 belt drive sizes. Capacities range from 200 to 28,800 CFM, with static pressures from 0 to 1-1/2 inches.
- ACRU-HP available in 4 direct drive and 11 belt drive high pressure sizes. Capacities range from 700 to 19,200 CFM, with static pressures from 1/4 to 2-1/2 inches.
- ACRU-XP available in 3 direct drive and 10 belt drive extended pressure sizes. Capacities range from 800 to 11,000 CFM, with static pressures from 1 to 4-1/2 inches.
- ACRUD-EC models with electronically commutated (EC) motors are available in 6 direct drive sizes with capacities from 74 to 2598 cfm.

ACW

Wall Mount Centrifugal Exhaust Ventilator

- Designed specifically for wall mounting, to discharge contaminated air perpendicular to a wall.
- ACW available in 9 direct drive sizes and 10 belt drive sizes. Capacities range from 100 to 8,200 CFM, with static pressures from 0 to 1-1/2 inches.
- ACW-HP available in 4 direct drive and 11 belt drive high pressure sizes. Capacities range from 700 to 19,200 CFM, with static pressures from 1/4 to 2-1/2 inches.
- ACW-XP available in 3 direct drive and 10 belt drive extended pressure sizes. Capacities range from 800 to 11,000 CFM, with static pressures from 1 to 4-1/2 inches.
- ACWD-EC models with electronically commutated (ec) motors are available in 6 direct drive sizes with capacities from 63 to 2620 cfm.

ACSC

Smoke Control Ventilator

- Upblast Centrifugal Roof Mounted Exhaust Ventilator is listed as Power Ventilator for Smoke Control Systems to withstand 500°F airstream temperature for a minimum of four hours (IRI) and withstand 1000°F for a minimum of 15 minutes (SBSCCI). Ambient temperature is not to exceed 120ºF.
- The UL Listing “Power Ventilator for Smoke Control Systems” is a test procedure and category which was initiated by LOREN COOK COMPANY and developed in a joint effort with UL in 1990. Several different sources were used in the definition of the test procedure. These sources include UL Standards 705, 762, 793, Southern Building Code Congress International (SBCCI) Standard Fire Prevention Code/1988, and Industrial Risk Insurers (IRI) Document E2.
- ACSC available in 17 belt drive sizes. Capacities range from 400 to 28,800 CFM, with static pressures from 0 to 1-1/2 inches.
- ACSC-HP available in 11 belt drive high pressure sizes. Capacities range from 700 to 19,200 CFM, with static pressures from 1/4 to 2-1/2 inches.
- ACSC-XP available in 10 belt drive extended pressure sizes. Capacities range from 800 to 11,000 CFM, with static pressures from 1 to 4-1/2 inches.

Model Number Chart

Direct Drive Models

100 C 15 D H EC

Fan Size
70 through 195

Model
C - ACED
R - ACRUD
RH - ACRUD-HP
RX - ACRUD-XP
W - ACWD
WH - ACWD-HP
WX - ACWD-XP

Motor RPM
10=1075
11=1140
13=1300
15=1550
17=1725

Direct Drive

Wheel Type (70-100 Only)
H - High Flow
M - Medium Flow
L - Low Flow

Electronically Commutated Motor

Belt Drive Models

150 C 4 B

Fan Size
60 through 540

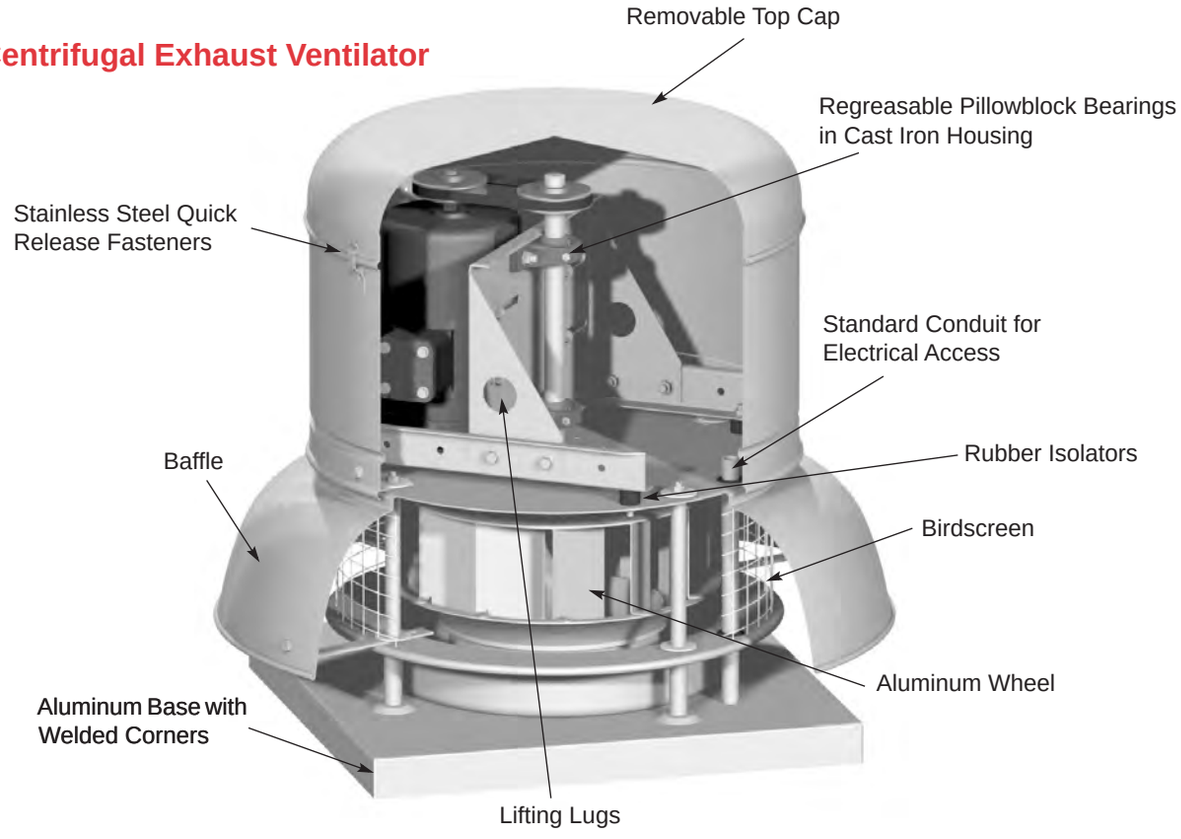
Model
C - ACEB
R - ACRUB
RH - ACRUB-HP
RX - ACRUB-XP
W - ACWB
WH - ACWB-HP
WX - ACWB-XP
SC - ACSC
SCH - ACSC-HP
SCX - ACSC-XP

Motor HP
2=1/6
3=1/4
4=1/3
5=1/2
6=3/4
7=1
8=1-1/2
9=2
10=3
11=5
12=7-1/2
13=10

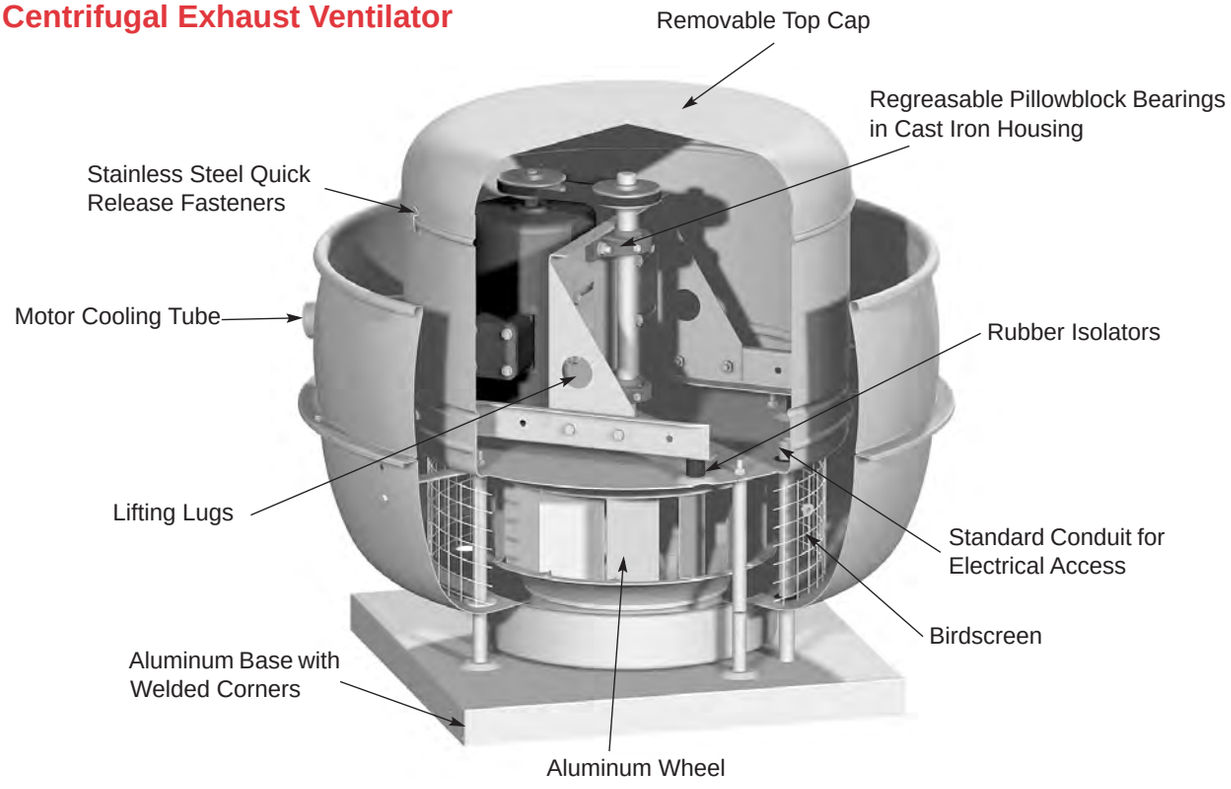
Belt Drive

CONSTRUCTION FEATURES

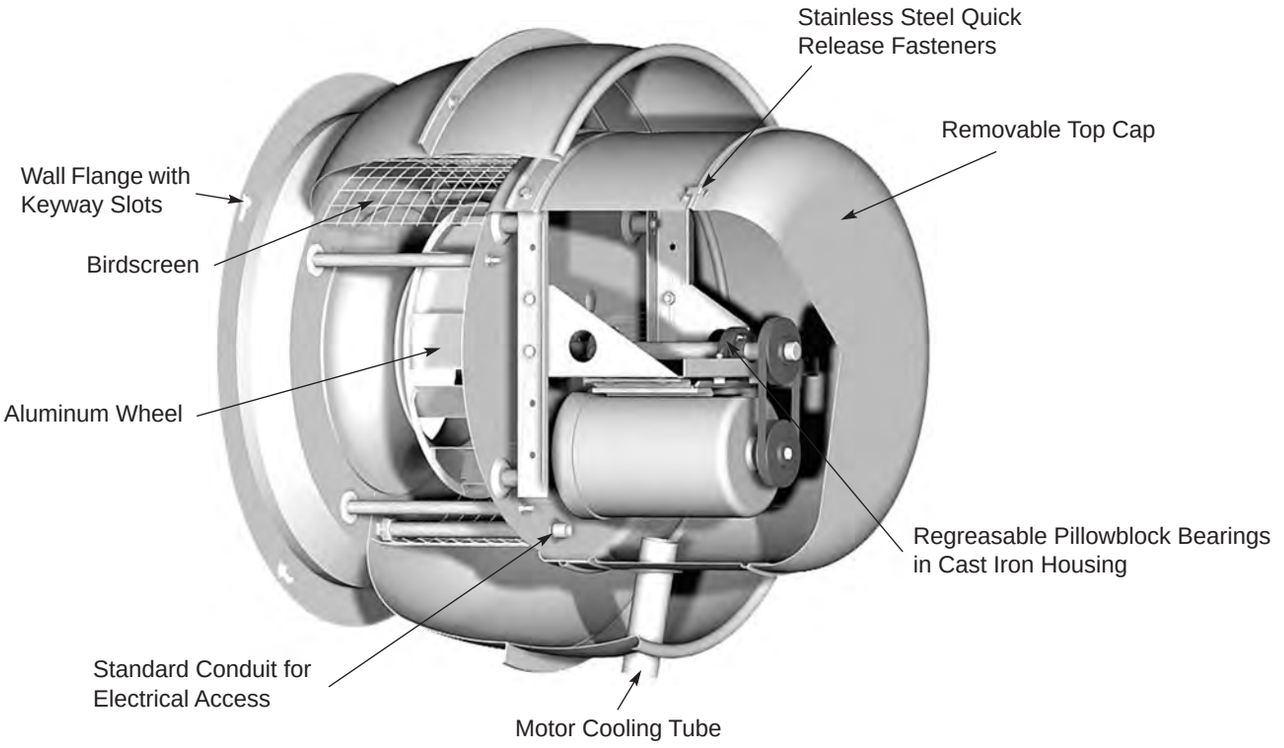
ACEB
Downblast Centrifugal Exhaust Ventilator



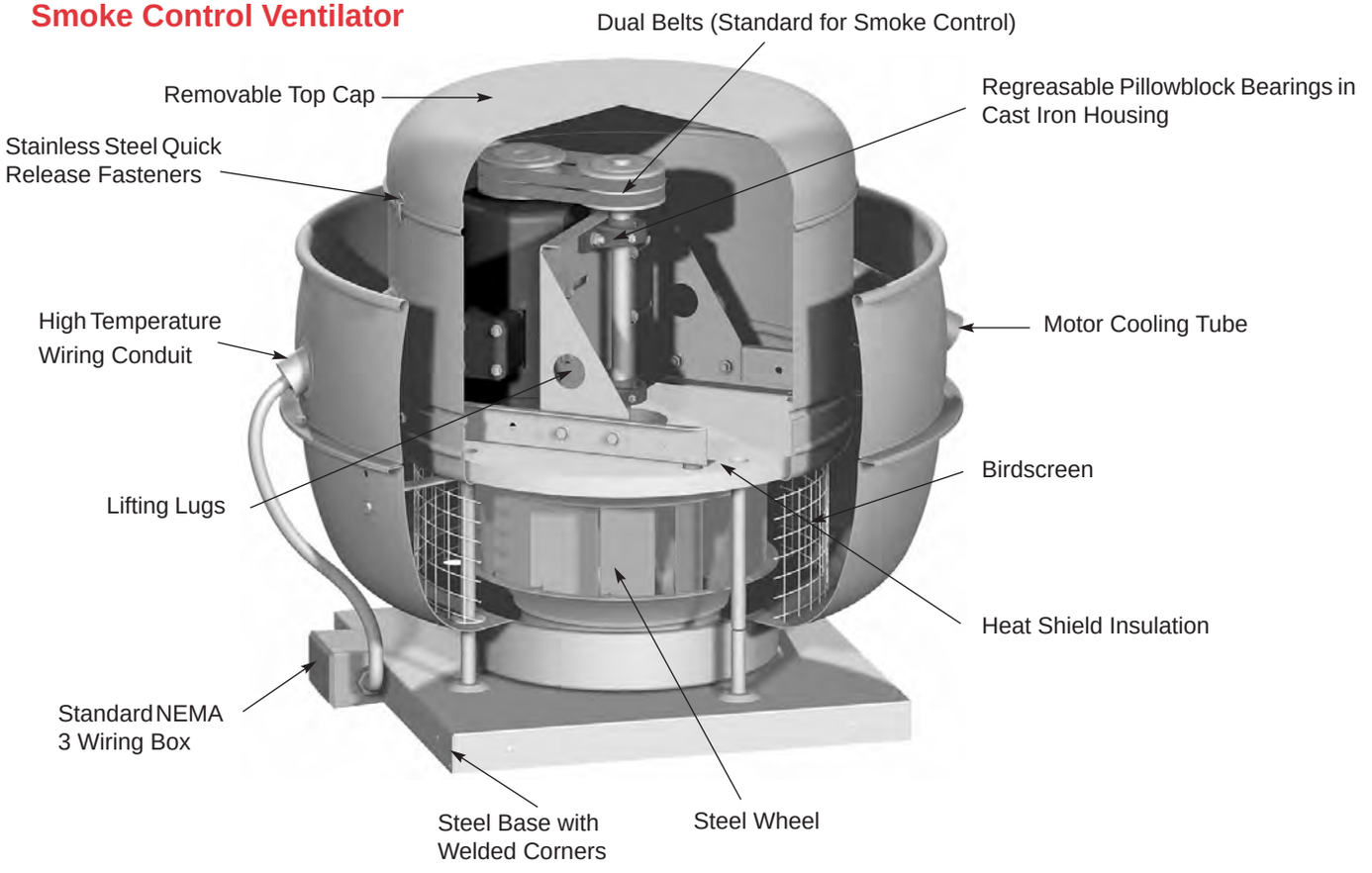
ACRUB
Upblast Centrifugal Exhaust Ventilator



ACWB
Wall Mount Centrifugal Exhaust Ventilator



ACSC
Smoke Control Ventilator

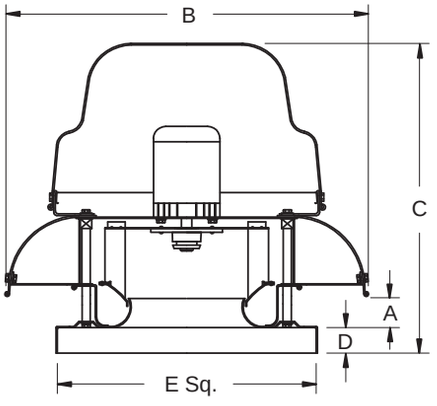


Downblast Centrifugal Exhaust Ventilator Roof Mounted Direct Drive

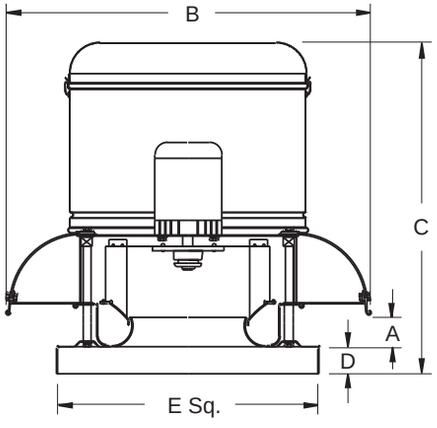
LOREN COOK COMPANY certifies that the ACED and ACED-EC shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Type ACED and ACED-EC are furnished standard with UL 705 and cUL 705 listings (Power Ventilator/ZACT).

Sizes 70 - 100



Sizes 101 - 180



Description - Fan shall be a spun aluminum, roof mounted, direct driven, downblast centrifugal exhaust ventilator.

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). Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

Construction - Fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The aluminum base shall have continuously welded curb cap corners for maximum leak protection. The discharge baffle shall have a rolled bead for added strength. An integral conduit chase shall be provided through the curb cap and into the motor compartment to facilitate wiring connections. The motor shall be enclosed in a weather-tight compartment, separated from the exhaust airstream. Unit shall bear an engraved aluminum nameplate. Nameplate shall indicate design CFM and static pressure. Unit shall be shipped in ISTA Certified Transit Tested Packaging.

Wheel - Wheel shall be centrifugal backward inclined, constructed of 100% aluminum, including a precision machined cast aluminum hub. An aerodynamic aluminum inlet cone shall be provided for 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 heavy duty type with permanently lubricated sealed bearings and furnished at the specified voltage, phase and enclosure.

Motor EC - Motor shall be an electronically commutated motor rated for continuous duty and furnished either with internally mounted potentiometer speed controller or with leads for connection to 0-10 VDC external controller.

Product - Fan shall be model ACED or ACED-EC as manufactured by LOREN COOK COMPANY of Springfield, Missouri.

Dimension Data

Size	A	B	C	D	E Sq.	Roof Opening Square*	Ship. Wt.
70	1-3/4	13-5/8	13-13/16	2	18	13-1/2	20
90	2-1/2	18-3/4	16-13/16	2	18	13-1/2	28
100	2-1/2	18-3/4	16-13/16	2	18	13-1/2	30
101	2-3/8	23-9/16	21-1/8	2	18	13-1/2	30
120	1-7/16	28-7/16	26-9/16	2	20	15-1/2	67
135	1-15/16	28-7/16	27-1/16	2	20	15-1/2	72
150	2-13/16	32-7/8	28-11/16	2	24	19-1/2	87
165	3-5/16	32-7/8	29-3/16	2	24	19-1/2	90
180	3-5/16	37-11/16	33-15/16	3	30	25-1/2	102

All dimensions in inches. *Roof opening size for curbs supplied by LOREN COOK COMPANY only. Weights in pounds.

Downblast Centrifugal Exhaust Ventilator Roof Mounted Belt Drive

Description - Fan shall be a spun aluminum, roof mounted, belt driven, downblast centrifugal exhaust ventilator.

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). Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

Construction - Fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The aluminum base shall have continuously welded curb cap corners for maximum leak protection. The discharge baffle shall have a rolled bead for added strength. A two piece top cap shall have stainless steel quick release latches to provide access into the motor compartment without the use of tools. An integral conduit chase shall be provided through the curb cap and into the motor compartment to facilitate wiring connections. The motor, bearings and drives shall be mounted on a minimum 14 gauge steel power assembly, isolated from the unit structure with rubber vibration isolators. These components shall be enclosed in a weather-tight compartment, separated from the exhaust airstream. Lifting lugs shall be provided to help prevent damage from improper lifting. Unit shall bear an engraved aluminum nameplate. 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 backward inclined, constructed of 100 percent aluminum, including a precision machined cast aluminum hub. Wheel inlet shall overlap an aerodynamic aluminum 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 - 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 pillowblock 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, 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 ACEB as manufactured by LOREN COOK COMPANY of Springfield, Missouri.

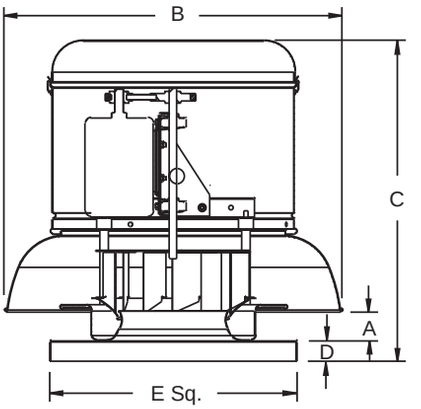
LOREN COOK COMPANY certifies that the ACEB shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Type ACEB is furnished standard with UL 705 and cUL 705 listings (Power Ventilator/ ZACT) when furnished with factory supplied motor.

Dimension Data

Size	A	B	C	D	E Sq.	Roof Opening Square*	Ship. Wt.
60	2-7/8	23-9/16	21-1/8	2	18	13-1/2	30
70	2-7/8	23-9/16	21-1/8	2	18	13-1/2	30
80	2-7/8	23-9/16	21-1/8	2	18	13-1/2	30
100	2-7/8	23-9/16	21-1/8	2	18	13-1/2	30
120	1-13/16	28-7/16	26-7/8	2	20	15-1/2	55
135	2-3/16	28-7/16	27-1/4	2	20	15-1/2	60
150	3-1/16	32-7/8	28-7/8	2	24	19-1/2	70
165	3-9/16	32-7/8	29-3/8	2	24	19-1/2	75
180	3-15/16	37-11/16	34-1/2	3	30	25-1/2	90
195	4-7/16	37-11/16	35	3	30	25-1/2	100
210	4-3/4	43-5/8	37-1/4	3	30	25-1/2	200
225	4-7/8	43-5/8	37-3/8	3	30	25-1/2	220
245	6-1/8	47-5/8	39-7/8	3	30	25-1/2	240
270	6-1/8	47-5/8	39-7/8	3	36	31-1/2	260
300	7-1/16	52-5/8	49-1/16	3	36	31-1/2	300
330	7-5/16	52-5/8	49-5/16	3	42	37-1/2	365
365	8-1/16	62-5/8	51-9/16	3	42	37-1/2	380
402	10-1/16	62-5/8	53-9/16	3	48	43-1/2	440
445	9-3/4	75-3/16	57-1/16	3	54	49-1/2	500
490	11-1/2	75-3/16	58-13/16	3	54	49-1/2	650
540	12-1/2	81-15/16	60-5/16	3	66	61-1/2	858

All dimensions in inches. Weights in pounds, less motor. *Roof opening size for curbs supplied by LOREN COOK COMPANY only.

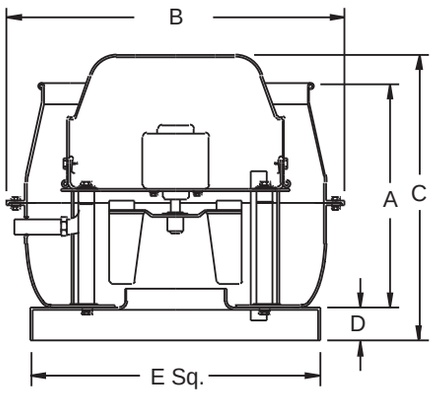


Upblast Centrifugal Exhaust Ventilator Roof Mounted Direct Drive

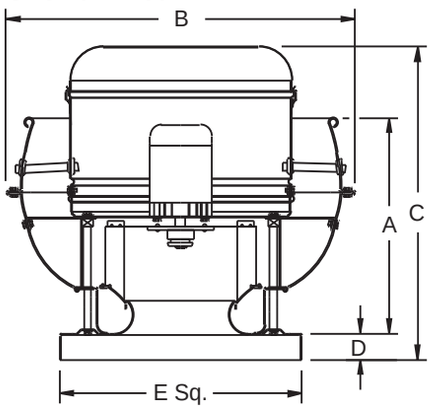
LOREN COOK COMPANY certifies that the ACRUD, ACRUD-EC, ACRUD-HP, ACRUDEC-HP, ACRUD-XP, and ACRUDEC-XP shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Type ACRUD, ACRUD-EC, ACRUD-HP, ACRUDEC-HP and ACRUD-XP, ACRUEC-XP are furnished standard with UL 705 and cUL 705 listings (Power Ventilator/ZACT).

Size 70 - 100



Size 101 - 180



Description - Fan shall be a spun aluminum, roof mounted, direct driven, upblast centrifugal exhaust ventilator.

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). Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

Construction - Fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The aluminum base shall have a one piece inlet spinning and continuously welded curb cap corners for maximum leak protection. The windband shall have a rolled bead for added strength. An integral conduit chase shall be provided into the motor compartment to facilitate wiring connections. The motor shall be enclosed in a weather-tight compartment, separated from the exhaust airstream. Unit shall bear an engraved aluminum nameplate. Nameplate shall indicate design CFM and static pressure. Unit shall be shipped in ISTA Certified Transit Tested Packaging.

Wheel - Wheel shall be centrifugal backward inclined, constructed of 100 percent aluminum, including a precision machined cast aluminum hub. An aerodynamic aluminum inlet cone shall be provided for 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 heavy duty type with permanently lubricated sealed bearings and furnished at the specified voltage, phase and enclosure.

Motor EC - Motor shall be an electronically commutated motor rated for continuous duty and furnished either with internally mounted potentiometer speed controller or with leads for connection to 0-10 VDC external controller.

Product - Fans shall be models ACRUD, ACRUD-EC, ACRUDEC-HP, ACRUDEC-XP, ACRUD-HP or ACRUD-XP as manufactured by LOREN COOK COMPANY of Springfield, Missouri.

Dimension Data

Size	A	B	C			D	E Sq.	Roof Opening Square*	Ship. Wt.
			ACRUD	ACRUD-HP	ACRUD-XP				
70	10-3/4	17-1/8	13-3/8	-	-	2	18	13-1/2	20
90	13-1/4	21-1/8	16-3/8	-	-	2	18	13-1/2	28
100	13-1/4	21-1/8	16-3/8	-	-	2	18	13-1/2	30
101	12-1/2	25-1/4	20-3/16	-	-	2	18	13-1/2	30
120	19-1/16	30-3/16	28-1/8	-	-	2	20	15-1/2	67
135	19-1/16	30-3/16	28-5/8	-	-	2	20	15-1/2	72
150	20-15/16	34-11/16	30-1/4	27-1/2	-	2	24	19-1/2	87
165	20-15/16	34-11/16	30-3/4	27-3/4	26-11/16	2	24	19-1/2	90
180	24-13/16	39-7/16	35-7/8	33-3/8	31-7/16	3	30	25-1/2	102
195	24-13/16	19-7/16	-	33-1/2	32-1/8	3	30	25-1/2	110

All dimensions in inches. Weights in pounds. *Roof opening size for curbs supplied by LOREN COOK COMPANY only.

Upblast Centrifugal Exhaust Ventilator Roof Mounted Belt Drive

Description - Fan shall be a spun aluminum, roof mounted, belt driven, upblast centrifugal exhaust ventilator.

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). Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

Construction - Fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The aluminum base shall have a one piece inlet spinning and continuously welded curb cap corners for maximum leak protection. The windband shall have a rolled bead for added strength. A two piece top cap shall have stainless steel quick release latches to provide access into the motor compartment without the use of tools. An integral conduit chase shall be provided into the motor compartment to facilitate wiring connections. The motor, bearings and drives shall be mounted on a minimum 14 gauge steel power assembly, isolated from the unit structure with rubber vibration isolators. These components shall be enclosed in a weather-tight compartment, separated from the exhaust airstream. Lifting lugs shall be provided to help prevent damage from improper lifting. Unit shall bear an engraved aluminum nameplate. 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 backward inclined, constructed of 100 percent aluminum, including a precision machined cast aluminum hub. Wheel inlet shall overlap an aerodynamic aluminum 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.

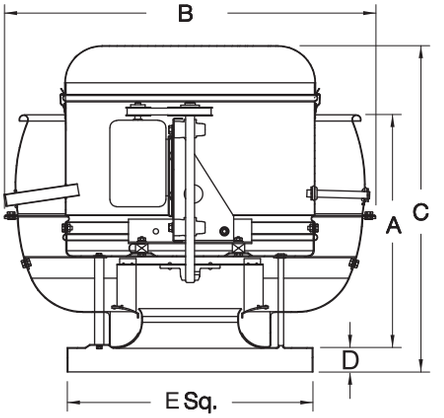
Bearings - Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a cast iron pillowblock housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

Belts and Drives - Belts shall be oil and heat resistant, 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 - Fans shall be models ACRUB, ACRUB-HP or ACRUB-XP as manufactured by LOREN COOK COMPANY of Springfield, Missouri.

LOREN COOK COMPANY certifies that the ACRUB, ACRUB-HP and ACRUB-XP shown herein are 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.

Type ACRUB, ACRUB-HP and ACRUB-XP are furnished standard with UL 705 and cUL 705 listings (Power Ventilator/ ZACT) when furnished with factory supplied motor.



Dimension Data

Size	A	B	C			D	E Sq.	Roof Opening Square*	Ship. Wt.
			ACRUB	ACRUB-HP	ACRUB-XP				
100	12-1/2	25-1/4	20-3/16	-	-	2	18	13-1/2	30
120	19-1/16	30-3/16	28-1/4	-	-	2	20	15-1/2	61
135	19-1/16	30-3/16	28-5/8	-	-	2	20	15-1/2	66
150	20-15/16	34-11/16	30-1/4	27-1/2	-	2	24	19-1/2	77
165	20-15/16	34-11/16	30-3/4	27-3/4	26-11/16	2	24	19-1/2	83
180	24-13/16	39-7/16	35-7/8	33-3/8	31-9/16	3	30	25-1/2	100
195	24-13/16	39-7/16	36-3/8	33-1/2	32-1/8	3	30	25-1/2	110
210	25-15/16	45-1/4	38-3/8	35-3/8	32-3/4	3	30	25-1/2	220
225	25-15/16	45-1/4	38-1/8	35-1/2	33-5/16	3	30	25-1/2	242
245	28-1/2	49-1/4	41-1/16	37-5/16	34-1/16	3	30	25-1/2	264
270	28-1/2	49-1/4	41-1/16	37-5/16	35	3	36	31-1/2	286
300	33-7/8	54-1/4	49-15/16	45-15/16	41-7/16	3	36	31-1/2	336
330	34-1/8	54-1/4	50-7/16	46-11/16	43-1/8	3	42	37-1/2	374
365	36-3/8	64-1/4	52-7/16	48-7/16	44-1/4	3	42	37-1/2	420
402	37-7/8	64-1/4	54-11/16	-	-	3	48	43-1/2	484
445	31-5/8	76-1/4	57-3/16	-	-	3	54	49-1/2	556
490	33-3/8	76-1/4	58-1/16	-	-	3	54	49-1/2	715

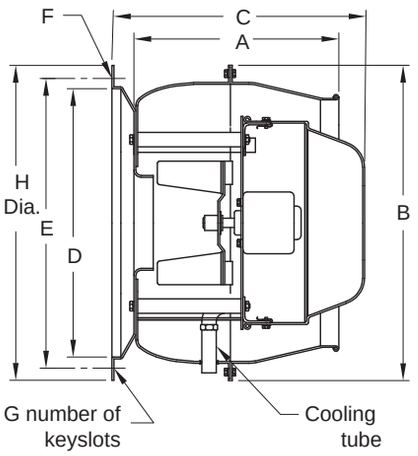
All dimensions in inches. *Roof opening size for curbs supplied by LOREN COOK COMPANY only. Weights in pounds, less motor.

Centrifugal Exhaust Ventilator Wall Mounted Direct Drive

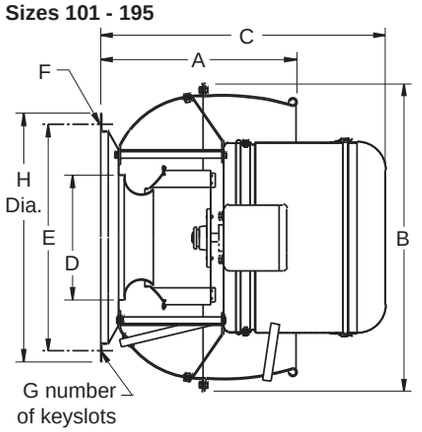
LOREN COOK COMPANY certifies that the ACWD, ACWD-EC, ACWD-HP, ACWDEC-HP, ACWD-XP, and ACWDEC-XP shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Type ACWD, ACWD-EC, ACWD-HP, ACWDEC-HP, ACWD-XP, and ACWDEC-XP are furnished standard with UL 705 and cUL 705 listings (Power Ventilator/ZACT).

Sizes 70 - 100



Sizes 101 - 195



Description - Fan shall be a spun aluminum, wall mounted, direct driven, horizontal centrifugal exhaust ventilator.

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). Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

Construction - Fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The spun aluminum wall flange shall have pre-punched keyslot holes and a mounting template with wall opening location for ease of installation. The windband shall have a rolled bead for added strength. An integral conduit chase shall be provided into the motor compartment to facilitate wiring connections. The motor shall be enclosed in a weather-tight compartment, separated from the exhaust airstream. Unit shall bear an engraved aluminum nameplate. Nameplate shall indicate design CFM and static pressure. Unit shall be shipped in ISTA Certified Transit Tested Packaging.

Wheel - Wheel shall be centrifugal backward inclined, constructed of 100 percent aluminum, including a precision machined cast aluminum hub. Wheel inlet shall overlap an aerodynamic aluminum 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 heavy duty type with permanently lubricated sealed bearings and furnished at the specified voltage, phase and enclosure.

Motor EC - Motor shall be an electronically commutated motor rated for continuous duty and furnished either with internally mounted potentiometer speed controller or with leads for connection to 0-10 VDC external controller.

Product - Fans shall be models ACWD, ACWD-EC, ACWDEC-HP, ACWDEC-XP, ACWD-HP or ACWD-XP as manufactured by LOREN COOK COMPANY of Springfield, Missouri.

Dimension Data

Size	A	B	C			D Wall Opening		E	F	G	H Dia.	Ship. Wt.
			ACWD	ACWD-HP	ACWD-XP	Square	Round					
70	12-1/8	17-1/8	13	-	-	8	8	14-1/4	3/8	4	15-1/2	20
90	14-7/8	21-1/8	16	-	-	10	10	19-3/4	3/8	4	21-1/4	28
100	14-7/8	21-1/8	16	-	-	10	10	19-3/4	3/8	4	21-1/4	30
101	13	25-3/16	21-3/8	-	-	10	10	19-3/4	3/8	4	21-1/4	30
120	18-7/16	30-3/16	28-1/4	-	-	12	12	23-1/2	3/8	4	25	67
135	18-7/16	30-3/16	28-3/4	-	-	12	12	23-1/2	3/8	4	25	72
150	20-1/16	34-11/16	30-3/8	27-5/8	-	16	14	28-1/2	3/8	8	30	87
165	20-1/16	34-11/16	30-7/8	27-7/8	26-13/16	16	14	28-1/2	3/8	8	30	90
180	22-11/16	39-7/16	35-5/8	33-1/8	31-5/16	20	18	34-1/2	3/8	8	36	102
195	22-11/16	39-7/16	-	33-1/4	31-7/8	20	22	34-1/2	3/8	8	36	110

All dimensions in inches. Weights in pounds.

Centrifugal Exhaust Ventilator Wall Mounted Belt Drive

Description - Fan shall be a spun aluminum, wall mounted, belt driven, horizontal centrifugal exhaust ventilator.

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). Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

Construction - Fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The spun aluminum wall flange shall have pre-punched keyslot holes and a mounting template with wall opening location for ease of installation. The windband shall have a rolled bead for added strength. A two piece top cap shall have stainless steel quick release latches to provide access into the motor compartment without the use of tools. An integral conduit chase shall be provided into the motor compartment to facilitate wiring connections. The motor, bearings and drives shall be mounted on a minimum 14 gauge steel power assembly. These components shall be enclosed in a weather-tight compartment, separated from the exhaust airstream. Lifting lugs shall be provided to help prevent damage from improper lifting. Unit shall bear an engraved aluminum nameplate. 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 backward inclined, constructed of 100 percent aluminum, including a precision machined cast aluminum hub. Wheel inlet shall overlap an aerodynamic aluminum 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.

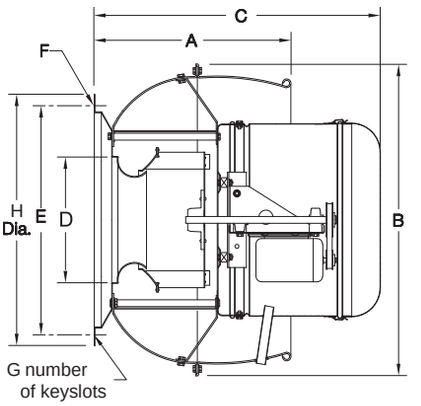
Bearings - Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a cast iron pillowblock housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

Belts and Drives - Belts shall be oil and heat resistant, 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 - Fans shall be models ACWB, ACWB-HP or ACWB-XP as manufactured by LOREN COOK COMPANY of Springfield, Missouri.

LOREN COOK COMPANY certifies that the ACWB, ACWB-HP and ACWB-XP shown herein are 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.

Type ACWB, ACWB-HP and ACWB-XP are furnished standard with UL 705 and cUL 705 listings (Power Ventilator/ ZACT) when furnished with factory supplied motor.



Dimension Data

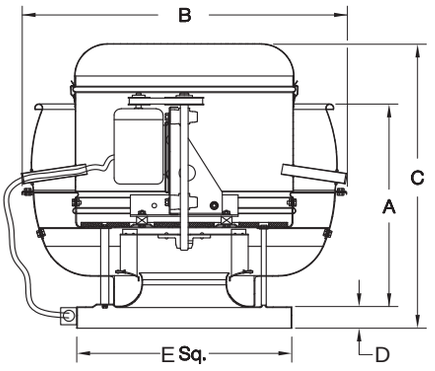
Size	A	B	C			D Wall Opening		E	F	G	H Dia.	Ship. Wt.
			ACWB	ACWB-HP	ACWB-XP	Square	Round					
100	13	25-3/16	21-3/8	-	-	10	10	19-3/4	3/8	4	21-1/4	30
120	18-7/16	30-3/16	28-1/4	-	-	12	12	23-1/2	3/8	4	25	60
135	18-7/16	30-3/16	28-3/4	-	-	12	12	23-1/2	3/8	4	25	65
150	20-1/16	34-11/16	30-3/8	27-5/8	-	16	14	28-1/2	3/8	4	30	70
165	20-1/16	34-11/16	30-7/8	27-7/8	26-13/16	16	14	28-1/2	3/8	4	30	75
180	22-11/16	39-7/16	35-5/8	33-1/8	31-5/16	20	18	34-1/2	3/8	8	36	100
195	22-11/16	39-7/16	36-1/8	33-1/4	31-7/8	20	22	34-1/2	3/8	8	36	110
210	23-11/16	45-1/4	37-3/4	34-3/4	32-1/8	24	22	39-1/2	3/8	8	41	210
225	23-11/16	45-1/4	38-1/4	35-5/8	33-7/16	24	22	39-1/2	3/8	8	41	215
245	25-5/16	49-1/4	39-7/8	36-1/8	32-7/8	24	22	43-1/2	3/8	8	45	250

All dimensions in inches. Weights in pounds, less motor.

Upblast Centrifugal Smoke Control Ventilator Roof Mounted Belt Drive

LOREN COOK COMPANY certifies that the ACSC, ACSC-HP and ACSC-XP shown herein are 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.

Type ACSC, ACSC-HP and ACSC-XP are furnished standard with UL listing for "Power Ventilator for Smoke Control Systems."



Description: Fan shall be a spun aluminum style, roof mounted, belt driven, high temperature upblast centrifugal exhaust ventilator.

Certifications: Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories as a "Power Ventilator for Smoke Control Systems" and UL listed as "Power Ventilator for Smoke Control Systems Certified for Canada". Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

Construction: The fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The spun aluminum structural components shall be constructed of minimum 16 gauge marine alloy aluminum, bolted to a rigid aluminum support structure. The steel base shall have a one piece inlet spinning and continuously welded curb cap corners for maximum leak protection. The windband shall have a rolled bead for added strength. A two piece top cap shall have stainless steel quick release latches to provide access into the motor compartment without the use of tools. An external wiring compartment with integral conduit chase shall be provided into the motor compartment to facilitate wiring connections. The motor, bearings and drives shall be mounted on a minimum 14 gauge steel power assembly. These components shall be enclosed in a weather-tight compartment, separated from the exhaust airstream. A one inch thick, three pound density foil backed heat shield shall be utilized to protect the motor and drive components from excessive heat. Lifting lugs shall be provided to help prevent damage from improper lifting. Unit shall be tested to operate at 500° F for 4 hours per IRI requirements and operate at 1000° F in excess of 15 minutes per SBCCI requirements. Unit shall bear an engraved aluminum nameplate. 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 backward inclined, constructed of steel, including a precision machined steel hub. Wheel inlet shall overlap an aerodynamic steel 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: 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 pillowblock 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, 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: Fans shall be models ACSC, ACSC-HP or ACSC-XP as manufactured by LOREN COOK COMPANY of Springfield, Missouri.

Dimension Data

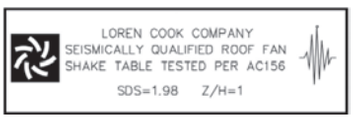
Size	A	B	C			D	E Sq.	Roof Opening Square*	Ship. Wt.
			ACSC	ACSC-HP	ACSC-XP				
100	12-1/2	25-1/4	20-3/16	-	-	2	18	13-1/2	36
120	19-1/16	30-3/16	28-1/4	-	-	2	20	15-1/2	69
135	19-1/16	30-3/16	28-5/8	-	-	2	20	15-1/2	75
150	20-15/16	34-11/16	30-1/4	27-1/2	-	2	24	19-1/2	88
165	20-15/16	34-11/16	30-3/4	27-3/4	26-11/16	2	24	19-1/2	96
180	24-13/16	39-7/16	35-7/8	33-3/8	31-9/16	3	30	25-1/2	114
195	24-13/16	39-7/16	36-3/8	33-1/2	32-1/8	3	30	25-1/2	126
210	25-15/16	45-1/4	38-3/8	35-3/8	32-3/4	3	30	25-1/2	239
225	25-15/16	45-1/4	38-1/8	35-1/2	33-5/16	3	30	25-1/2	267
245	28-1/2	49-1/4	41-1/16	37-5/16	34-1/16	3	30	25-1/2	294
270	28-1/2	49-1/4	41-1/16	37-5/16	35	3	36	31-1/2	322
300	33-7/8	54-1/4	49-15/16	45-15/16	41-7/16	3	36	31-1/2	397
330	34-1/8	54-1/4	50-7/16	46-11/16	43-1/8	3	42	37-1/2	441
365	36-3/8	64-1/4	52-7/16	48-7/16	44-1/4	3	42	37-1/2	499
402	37-7/8	64-1/4	54-11/16	-	-	3	48	43-1/2	612
445	31-5/8	76-1/4	57-3/16	-	-	3	54	49-1/2	709
490	33-3/8	76-1/4	58-1/16	-	-	3	54	49-1/2	816

All dimensions in inches. *Roof opening size for curbs supplied by LOREN COOK COMPANY only. Weights in pounds.

The ACRU & ACSC models have been shaketable tested to a spectral response acceleration of 1.93G's. (S_{DS} = 1.93). The tests were conducted in accordance with the criteria specified in AC156.

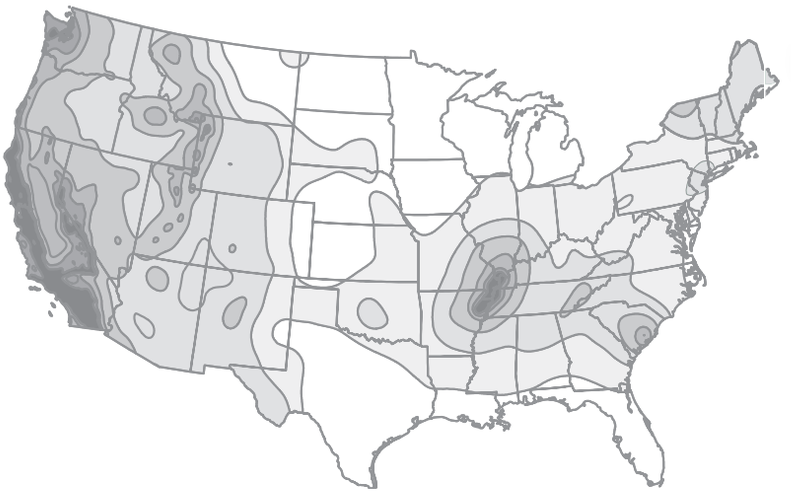
The unit and roof curb were tested as an assembly. The test were accepted by California OSHPD as part of the pre-approval of these products.

California OSHPD – Office of Statewide Health Planning and Development. OSHPD is the only state or federal organization that pre-approves mechanical equipment as seismically sound. OSHPD requires that the shaketable testing be witnessed by a California professional engineer and the test report must be reviewed by a California structural engineer.



Example of a product label.

USGS National Seismic Hazard Maps



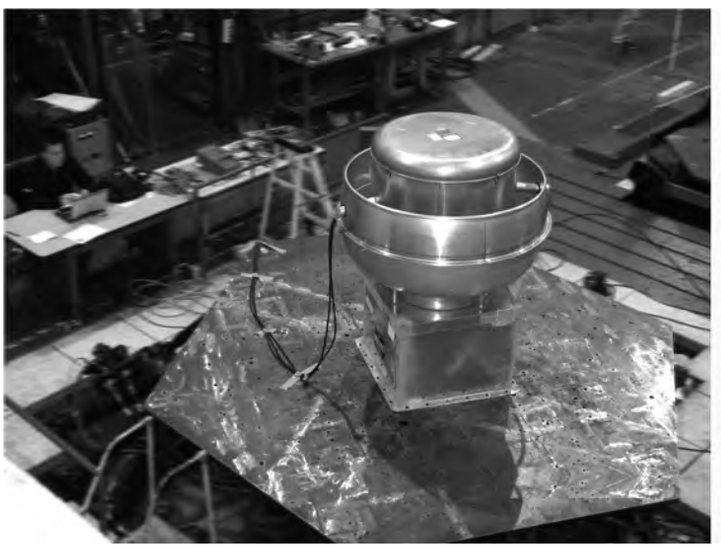
Highest hazard

32+
24-32
16-24
8-16
4-8
2-4
0-2

% g

Lowest hazard

Data from 2008



Seismic Simulation Test on Multi-Axis Shake Table

Miami-Dade County Product Control Approved
Florida Product Approval

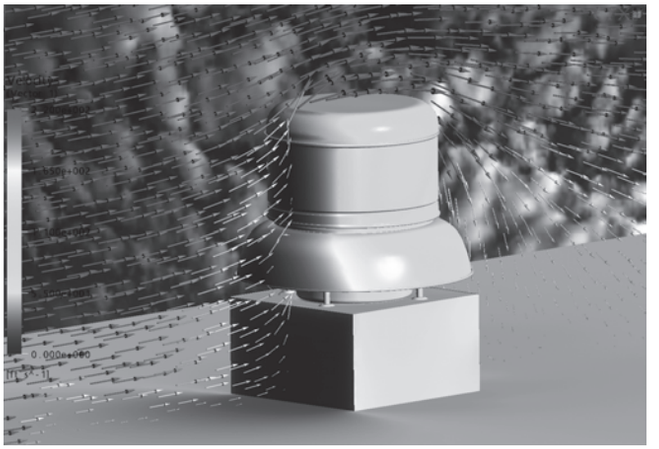
LOREN COOK COMPANY'S "Hurricane Rated Construction" option was developed for the demands of high wind and coastal areas. Through rigorous research and testing, this construction option was developed to meet the demands of Miami-Dade County's Testing Application Standards (TAS) 201, 202 and 203. Each of these fan has passed all three of the TAS testing protocols. In addition, all of these products have received approval from the Florida Building Commission.

The hurricane rated construction option was engineered so that the fans have the same physical size as the standard construction units. In addition, the fan's air and sound performance, as shown in the product catalogs and Compute A Fan® selection software, remains identical to the standard construction products Approved attachment details are included in the Notice of Acceptance documents on the Miami-Dade County Florida website (miamidade.gov) and the Florida Building Commission website (floridabuilding.org). The approved attachment details do not require the use of external tie downs to the roof. Installation of the fans to an approved roof curb must be in accordance with these details to meet the Miami-Dade County and Florida Building Commission approvals

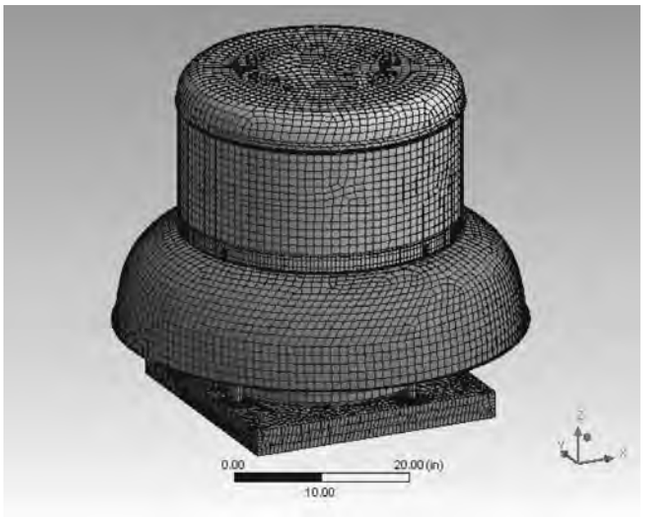
In the early stages of development, products were modeled with Computational Fluid Dynamics (CFD) to determine the stress points as air flowed around the fans at speeds of 150 MPH. Next, Finite Element Analysis (FEA) was utilized to model and evaluate stress plots. Finally, the proper material gauges and hardware were determined so the fans would survive these high wind loads.

In the next step of testing, products were placed in an aerodynamic wind tunnel. They were tested to a 150 MPH sustained wind to determine the product's resistance to wind load.

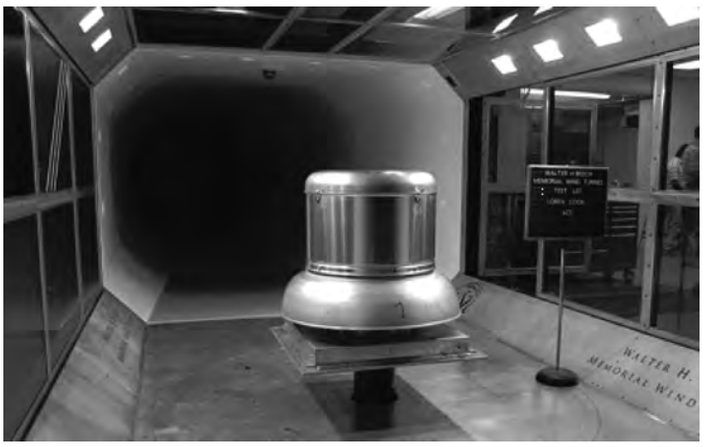
(Continued next page.)



Computational Fluid Dynamics



Finite Element Analysis



Full Scale Wind Tunnel Testing

Finally, the fans *passed not one, not two, but all three approval tests*.

TAS-201: Large Missile Impact Test - determines sufficient resistance to wind-borne debris as determined by the Florida Building Code, Section 1626 for maintaining the envelope of the building. Test employs an 8* foot Southern Pine 2" x 4" beam, weighing 9* pounds; shot from an air cannon at (50 ft/ sec) with resulting damage not to exceed specified tolerances allowed by *Section 1626.2.8*.

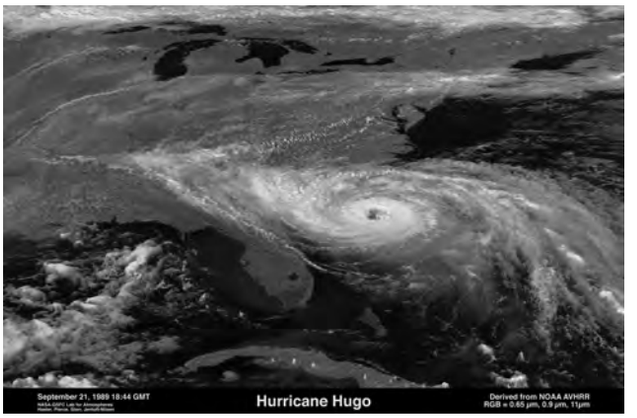
TAS-202: Uniform Static Air Pressure Test - determines sufficient resistance to wind forces as determined by Florida Building Code, Section 1620 and Section 1625 for maintaining the overall envelope of the building. Test employs a sealed pressure envelope both inside and outside of the test product (allowing for both positive and negative static pressure tests) to determine if the product provides sufficient resistance to wind forces as required by Section 1620.

TAS-203: Cyclic Wind Pressure Test - determines sufficient resistance to fatigue failure due to repeated exposure to wind pressure as required by Florida Building Code *Section 1620* . Test employs a sealed pressure envelope to repeatedly apply (671 cycles) positive and negative static pressure forces, lasting 1 to 3 seconds each, on the product surface following completion of the missile impact test.

* *Indicates an approximate value based on a range allowed by specified test standards.*

Note: High wind models do not have easy access tops.

All tests were performed in the progressive manner of TAS-202, TAS-201, then TAS-203 on the same piece of equipment in an accredited independent laboratory.



Missile Impact Testing

Pressure Testing

Products	Sizes	TAS-201	TAS-202	TAS-203	NOA Number / Expiration Date*	Florida Product Approval
ACEB	60 - 300	PASSED	PASSED	PASSED	08-0424.03 / 10-2-2013	FL11693
ACED	70 - 180	PASSED	PASSED	PASSED		
ACRUB ACRUB-HP ACRUB-XP	100 - 300	PASSED	PASSED	PASSED	08-0902.01 / 11-13-2013	FL11695
ACSC ACSC-HP ACSC-XP	100 - 300	PASSED	PASSED	PASSED		
ACRUD ACRUD-HP ACRUD-XP	70 - 195	PASSED	PASSED	PASSED		
VCRD VCRD-HP VCRD-XP	100 - 195	PASSED	PASSED	PASSED		
VCR VCR-HP VCR-XP	100 - 300	PASSED	PASSED	PASSED		
SRSH-B	60 - 270	PASSED	PASSED	PASSED	08-0314.05 / 9-4-2013	FL11691
SRSH-D	60 - 180	PASSED	PASSED	PASSED		
CPS** CPS-A** CPV**	60 - 245	PASSED	PASSED	PASSED	08-0424.02 / 10-2-2013	FL11692
TLCH-B	100 - 365	PASSED	PASSED	PASSED	09-0423.06 / 4-22-2014	FL3287
TLCH-D	70 - 180	PASSED	PASSED	PASSED		

MIAMI-DADE COUNTY APPROVED

*NOA Number / Expiration Date issued by Miami-Dade County, Florida Building Code Compliance Office, Product Control Division **Tested with Inlet Box and Curb Cap.

Automatic Belt Tensioner

The automatic belt tensioner maintains constant tension on the drive belt which offers two distinct benefits. It reduces startup and maintenance costs by continuously tensioning the belt throughout it's life and also increases belt life by reducing slippage. Engineering studies indicate properly tensioned belts can operate at 15° to 20° F cooler internal temperature than poorly tensioned belts. A drive belt industry rule of thumb is that every 18° F increase in internal temperature will reduce belt life by 50%. The automatic belt tensioner will easily double belt life compared to installations where belt tension is not properly maintained. COOK's spun aluminum fans have stainless steel quick release latches on the topcap, providing tool free access to the automatic belt tensioner and motor compartment. The drive belt can be replaced in moments (by almost anyone) without the special skills and tools normally needed to achieve proper belt tension. Too much belt tension can reduce the life of both the fan and motor bearings. The COOK automatic belt tensioner will assure proper belt tension throughout the life of the fan, maximizing bearing life and fan reliability.
Available on sizes 60 - 540.

Extended Lube Lines

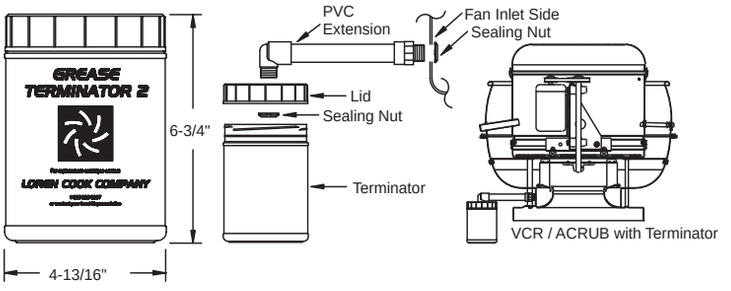
Extended lube lines provide a quick and convenient way to lubricate the bearings while the fan is operating.

Tie Downs

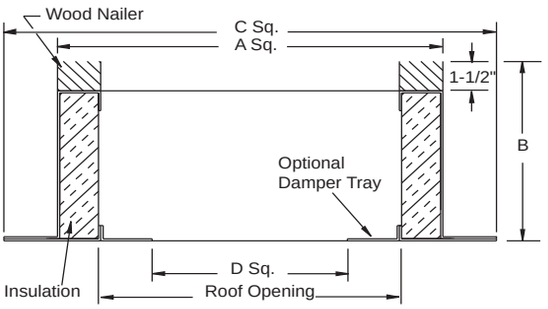
Tie downs offer locations for field attachment of the fan to the roof deck or supporting structure. The tie down points help protect against high windloads.

Grease Terminator - ACRU / ACW

The Grease Terminator 2 is a grease-capture and containment system.



Roof Curb



Standard Construction Features

- 18 gauge galvanized steel (RCG) or .080 aluminum (RCA).
- 1-1/2", 3 lbs. density thermal and acoustical insulation.
- Continuously welded corners.
- Wood nailer.

Options

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

Roof Curb Dimension Data

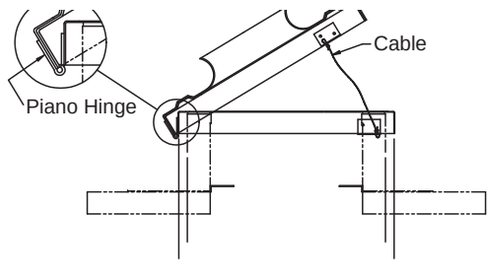
AC Unit	Roof Curb Catalog Number		Sound Attenuator Curb Catalog Number		A Sq.	Roof Curb	Sound Attenuator Curb	C Sq.	D Sq.	Roof Opening
	Galvanized	Aluminum	Galvanized	Aluminum		B	B *			
60-101	RCG-16	RCA-16	RCG-AT-16	RCA-AT-16	16-1/2	9-1/2	16	20-1/2	9-3/4	13-1/2
120-135	RCG-18	RCA-18	RCG-AT-18	RCA-AT-18	18-1/2	9-1/2	16	22-1/2	11-3/4	15-1/2
150-165	RCG-22	RCA-22	RCG-AT-22	RCA-AT-22	22-1/2	9-1/2	16	26-1/2	15-3/4	19-1/2
180-245	RCG-28	RCA-28	RCG-AT-28	RCA-AT-28	28-1/2	9-1/2	16	32-1/2	21-3/4	25-1/2
270-300	RCG-34	RCA-34	RCG-AT-34	RCA-AT-34	34-1/2	9-1/2	16	38-1/2	27-3/4	31-1/2
330-365	RCG-40	RCA-40	RCG-AT-40	RCA-AT-40	40-1/2	9-1/2	16	44-1/2	33-3/4	37-1/2
402	RCG-46	RCA-46	RCG-AT-46	RCA-AT-46	46-1/2	9-1/2	16	50-1/2	39-3/4	43-1/2
445-490	RCG-52	RCA-52	RCG-AT-52	RCA-AT-52	52-1/2	9-1/2	16	56-1/2	45-3/4	49-1/2
540	RCG-64	RCA-64	RCG-AT-64	RCA-AT-64	64-1/2	9-1/2	16	68-1/2	56-3/4	61-1/2

All dimensions in inches. When motor operated damper is used, a wood nailer is required. *Add 8" when installed with a damper

Sound Attenuator Curb: Average Sound Level Reduction

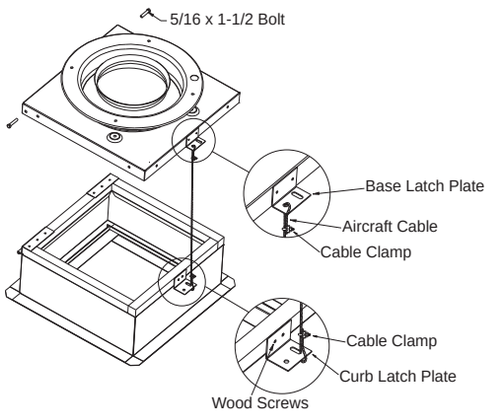
OB1	OB2	OB3	OB4	OB5	OB6	OB7	OB8
-5	-11	-9	-14	-18	-28	-35	-25

Hinged Base



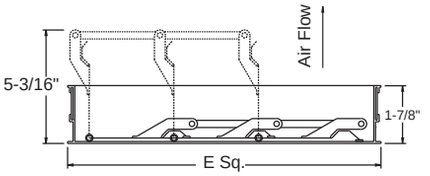
The hinged base is a factory welded sub-base, hinge and locking hasp that provides a secure and stable means of access to the inlet and interior ductwork for cleaning and inspection. Galvanized aircraft cable is installed on the hinged base to support the fan in an open position. Available on sizes 100 through 300, consult factory on larger sizes.

Hinged Base Kit



The hinged base kit is a field installed option which provides a lockable, hinged connection between the fan and curb. This allows easy access to the wheel and inlet of the fan as well as the interior ductwork. The kit includes two hinge plates, two latch plates, hinge bolts, aircraft cable and clamps. Available on sizes 100 through 300, consult factory on larger sizes.

Gravity Backdraft Damper



ACW

Unit Size	Catalog Number	E Sq.
70	BD-8	7-3/4
90-101	BD-10	9-3/4
120-135	BD-12	11-3/4
150-165	BD-16	15-3/4
180-195	BD-20	19-3/4
210-245	BD-24	23-3/4

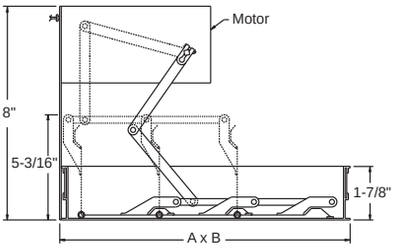
ACE / ACRU

Unit Size	Catalog Number	E Sq.
60-101	BD-12	11-3/4
120-135	BD-14	13-3/4
150-165	BD-18	17-3/4
180-245	BD-24	23-3/4
270-300	BD-30	29-3/4
330-365	BD-36	35-3/4
402	BD-42	41-3/4
445-490	BD-48	47-3/4
540	BD-60	59-3/4

All dimensions in inches.

Gravity dampers feature an extruded aluminum frame, aluminum blades and aluminum hinge pins with nylon bushings. Not available with the ACSC.

Motorized Backdraft Damper - ACE / ACRU



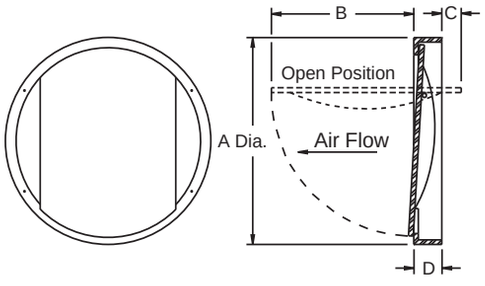
ACE / ACRU

Unit Size	Catalog Number	E Sq.
60-101	BDM-12	11-3/4
120-135	BDM-14	13-3/4
150-165	BDM-18	17-3/4
180-245	BDM-24	23-3/4
270-300	BDM-30	29-3/4
330-365	BDM-36	35-3/4
402	BDM-42	41-3/4
445-490	BDM-48	53-3/4
540	BDM-60	59-3/4

All dimensions in inches.

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 110V, 220V, and 440V. Not available with the ACSC.

Damper - ACW

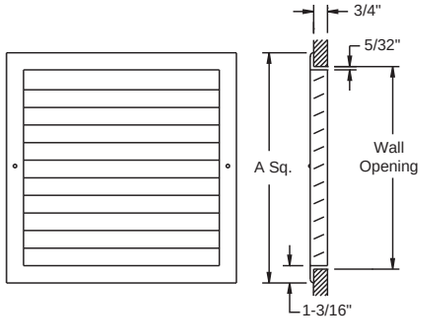


Unit Size	Catalog Number	A Dia.	B	C	D	No. of Blades
70	D-8	7-15/16	4-1/2	2	3/4	1
90-101	D-10	9-15/16	5-3/4	2-3/4	3/4	1
120-135	D-12	11-15/16	7	3	3/4	1
150-165	D-14	13-15/16	8-1/2	4	3/4	1
180	D-18	17-15/16	4	3	3/4	2
195-245	D-22	21-15/16	5-1/2	2-1/2	1	3

All dimensions in inches.

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

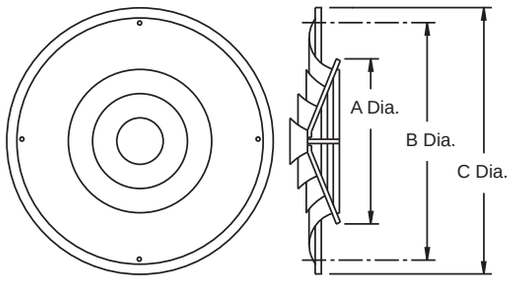
Square Inlet Grille - ACW



Unit Size	Catalog Number	A Sq.	Wall Opening	Damper	
				Model	Size
70	SG-8	10	8	BD-8	7-3/4
90-101	SG-10	12	10	BD-10	9-3/4
120-135	SG-12	14	12	BD-12	11-3/4
150-165	SG-16	18	16	BD-16	15-3/4
180-195	SG-20	22	20	BD-20	19-3/4
210-245	SG-24	26	24	BD-24	23-3/4

All dimensions in inches.

Round Inlet Grille - ACW



Unit Size	Catalog Number	A Dia.	B Dia. Mtg. Hole	C Dia.
70	G-8	7-3/4	8-1/2	12
90-101	G-10	9-13/16	10-9/16	14
120-135	G-12	11-13/16	12-9/16	16
150-165	G-14	13-13/16	14-9/16	18
180	G-18	17-13/16	21-3/4	23

All dimensions in inches.

COOK Type A Construction

COOK Type A construction option gives an AC unit superior corrosion resistance. The fan shaft and all steel fasteners exposed to the exterior environment are furnished with 304 stainless steel components. All other steel components exposed to the exterior environment are furnished with aluminum components. This option should not be interpreted to be an indication of spark resistance. Not available on ACSC.

Optional Coatings

Lorenized® is 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. Coating must exceed 1,000 hour salt spray under ASTM B117 test method.

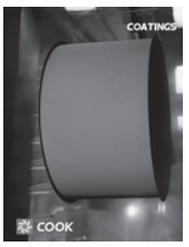
COOK Epoxy Powder is an electrostatically applied, baked epoxy powder coating. Final coating thickness is 2.5 - 3.5 mils. For outdoor applications an optional UV resistant topcoat is available to prevent cosmetic chalking of the coating.

COOK Phenolic Epoxy Powder is an electrostatically applied, baked phenolic epoxy powder coating. Final coating thickness is 2 - 4 mils. For outdoor applications an optional UV resistant topcoat is required to prevent deterioration of the coating.

COOK Easy Clean Powder is an electrostatically applied, baked modified epoxy silicone powder producing a high temperature "non-stick" coating. Final coating thickness is 1.3 - 1.7 mils.

Air Dry Phenolic (Heresite VR-504) is a conventional spray applied phenolic resin coating. Final coating thickness is 4 - 6 mils. For outdoor applications an optional UV resistant topcoat (Heresite UC-5500) is required to prevent deterioration of the coating.

Refer to the corrosion resistance guide in the Compute-A-Fan software for a listing of the coatings above and their resistance to a variety of chemicals. Additional special coatings are available.



Read more in the Coating catalog

Typical Disconnect Switches

NEMA 1

NEMA 1
(Lockable)

NEMA 1
(Heavy Duty)

NEMA 3R

NEMA 4

NEMA 7
NEMA 9

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.

Fan Speed Control

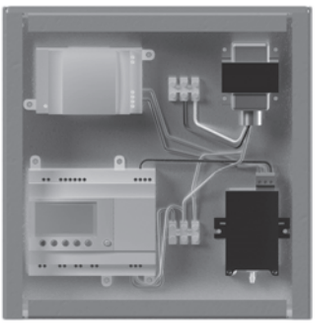
5 AMP FSC **10 AMP FSC**

COOK's FSC is a variable speed controller which can offer excellent energy conservation and lower sound levels when 100 percent of a direct drive fan operating capacity is not required. The FSC employs solid state circuitry for long life and dependability. The FSC is available only on 115V and 230V shaded pole or permanent split capacitor direct drive motors and is not available on 1140 RPM and 1725 RPM motors. The FSC is normally shipped loose for field installation. Optional prewiring is available.

Fan Speed Control for EC Motors

External Speed Control for the COOK EC Motor allows the fan speed to be adjusted remotely via an easy to read dial. The controller allows for adjustment from 20-100% of the fan speed. The controller works with the external signal version of the COOK EC Motor and requires 24 VAC power for operation. It is shipped loose for field installation.

Pressure Control for EC Motors



Constant pressure controller for the COOK EC Motor is for applications where the fan is intended to maintain a near constant pressure in a system such as dryer vents. The pressure controller reads the pressure in a duct system via the provided pressure transducer and automatically adjusts the fan rpm to maintain a preset value. The controller works with the external signal version of the COOK EC Motor and is shipped loose for field installation.

Motors

Direct Drive

All direct drive motors are standard single phase 115-volt.

- Sizes 70 through 100 are either shaded pole, permanent split capacitor type motors, or electronically commutated.
- Sizes 120 through 180 are either permanent split capacitor (1075, 1300, or 1550 rpm motors), split phase (1140 or 1725 rpm motors), or commutated.
- FSC can only be used on either shaded pole or permanent split capacitor type motors.

Optional motors:

- Two speed, single-phase open motors supplied as 1725 RPM motors are 1725/1140, or 1140 RPM motors are 1140/860.
- Explosion proof motors are available for some units, contact factory for details.
- These optional motors cannot use an FSC.

Vari-Flow® EC Motors

Electronically Commutated (EC) Motors offer significantly improved energy efficiency and controllability over traditional fractional HP motors. COOK EC motors are offered in 1/4, 1/2 and 3/4 HP sizes for 120 volt, single phase applications. These totally enclosed, non-ventilated (TENV) motors have an adjustable speed range from 500 to 1725 RPM.

There are 2 versions of the EC motor:

- The “Motor Mounted Speed Control” version includes an integral potentiometer mounted on the exterior of the motor (as shown above) for precise adjustment of the motor speed. A screwdriver is used during field balancing to set the desired speed. This is a “set it and forget it” fan speed control.
- The “External Signal Speed Control” version requires a 0-10 volt DC signal to adjust the speed of the motor. This external signal speed control option is used when you need to adjust the fan speed during typical operation. The designer may choose to change fan speed due to changes in duct pressure, building load, temperature, time, etc. This motor can be paired with our optional fan speed control or pressure controller or connected to the building automation system. The motor will operate from 2-10 VDC and will turn off when the control signal is below 1.9 VDC.

Belt Drive

Single-phase motors:

- Open drip motors from 1/6 to 1-1/2 HP.
- Two-speed, motors in 1725/1140RPM, from 1/6 to 1 HP.
- TEFC and Class 1, Group D, explosion proof motors from 1/4 to 1 HP.

Three-phase motors:

- Three-phase ODP motors from 1/4 to 10 HP.
- Two-speed, two winding motors in 1725/1140 RPM, from 1/3 to 5 HP.
- TEFC and Class 1, Group D, explosion proof motors from 1/4 to 10 HP.
- Variable Frequency Drive (VFD) compatible motors are available, contact factory for details.

All single-phase and three-phase, single speed, open drip motors listed in performance tables are shipped factory installed.

VCR Upblast Centrifugal Restaurant Exhaust Ventilator

COOK Restaurant Exhaust Ventilator provides maximum performance and durability in kitchen hood exhaust applications.

- VCR unit top cap assembly is designed to provide weather protection for the motor and drive components while maintaining easy tool free access for inspection and maintenance.
- Standard lifting lugs, located under the top cap, provide for safe, fast and efficient lifting of the unit to a rooftop.
- One piece fan base, which includes a high-efficiency inlet venturi and continuously welded curb cap corners, insures weathertight conditions.
- One piece spun aluminum leak-free baffle is designed to provide smooth, turbulent-free airflow.
- Wheels are centrifugal type featuring non-overloading, backward-inclined blades and a tapered inlet shroud.
- Optional Wall Mounting Flange is available up to size 245.
- Accurate performance is assured through compliance with the AMCA Certified Ratings Program. All units are licensed to bear the AMCA Certified Ratings Seal for Air and Sound Performance.
- Grease accessories available.

- VCR available in 6 direct drive sizes and 17 belt drive sizes. Capacities range from 400 to 28,800 CFM, with static pressures from 0 to 1-1/2 inches.
- VCR-HP available in 4 direct drive sizes and 11 belt drive high pressure sizes. Capacities range from 700 to 19,200 CFM, with static pressures from 1/4 to 2-1/2 inches.
- VCR-XP available in 3 direct drive sizes and 10 belt drive extended pressure sizes. Capacities range from 800 to 11,000 CFM, with static pressures from 1 to 4-1/2 inches.
- VCRD-EC models with electronically commutated (EC) motors are available in 6 direct drive sizes with capacities from 74 to 2598 cfm.

SRSH Tamper Proof Downblast Centrifugal Exhaust Ventilator

SRSH Tamper Proof Downblast Centrifugal Exhaust Ventilators provide maximum performance and durability in a wide variety of commercial and industrial air moving applications. All units are tested in COOK's AMCA registered laboratory in accordance with AMCA standards and are licensed to bear the AMCA Certified Ratings Seal for Air Performance. They are listed by Underwriters Laboratories (UL 705) and UL listed for Canada ($_c$UL 705).

LOREN COOK COMPANY

2015 E. DALE STREET

SPRINGFIELD, MO 65803-4637

417.869.6474

FAX 417.862.3820

lorencook.com

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