

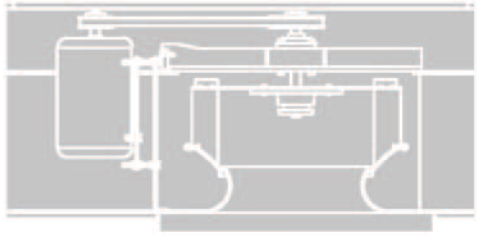
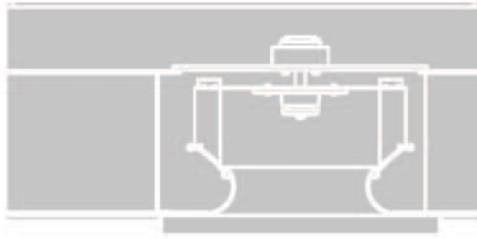
LO-PRO



COOK

LO-PRO

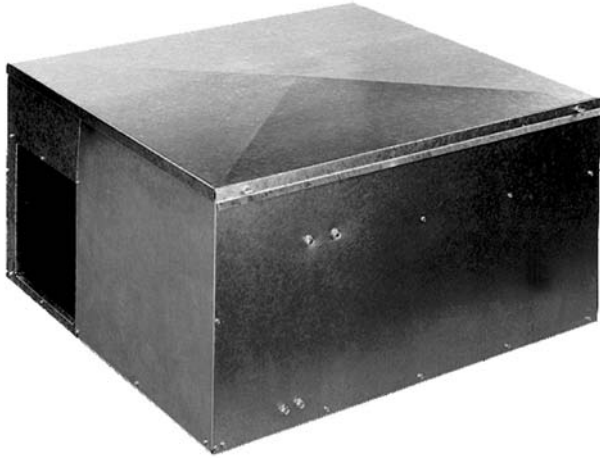
Low Profile High Pressure Roof Exhaust Ventilator



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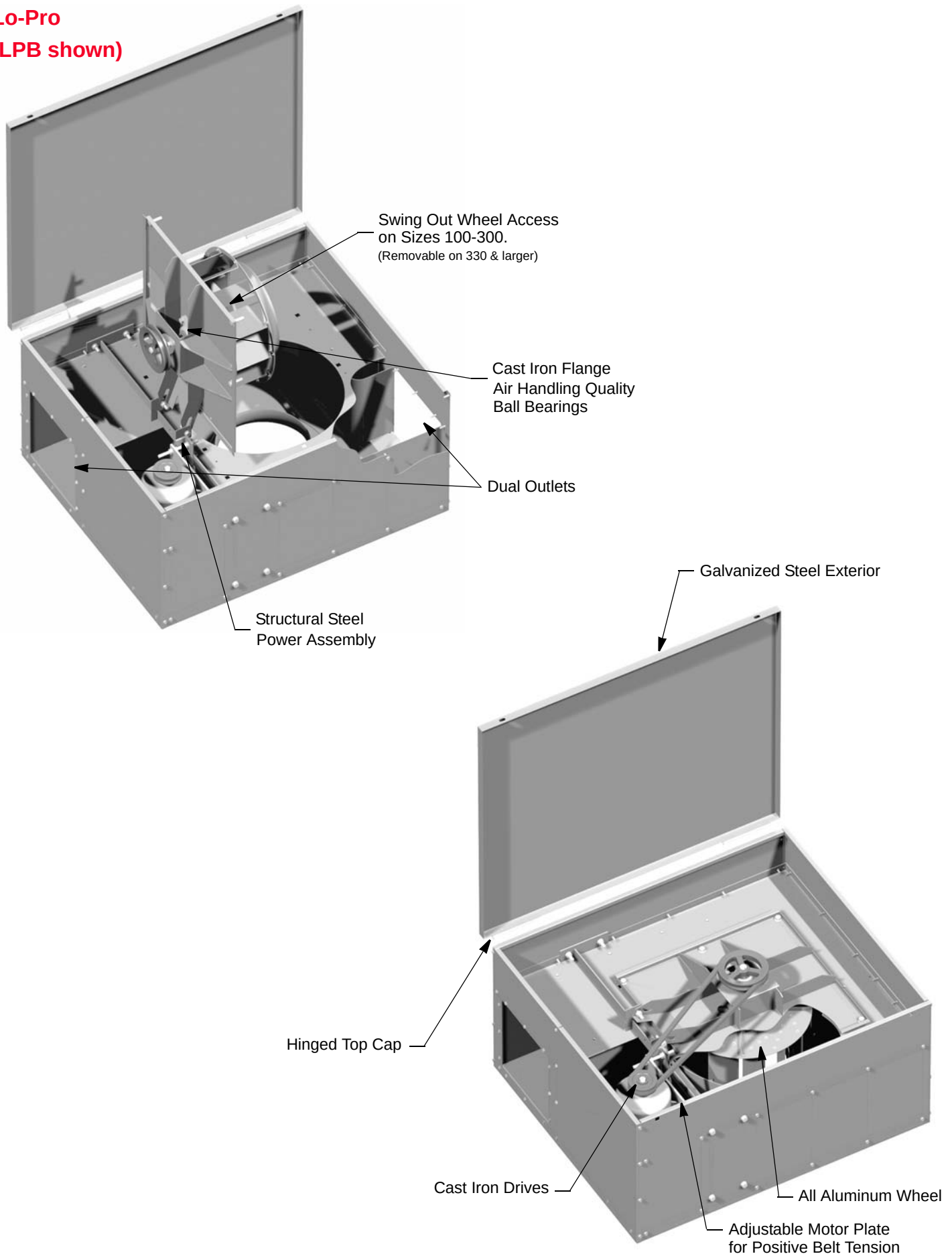
Introduction

Cook's low profile roof exhaust ventilator provides maximum performance and durability in a wide variety of applications from general ventilation to restaurant hood exhaust. The Lo-Pro's one-of-a-kind double scroll design produces higher airflow volumes and static pressures than the conventional roof exhaust ventilator.



- Heavy gauge galvanized steel exterior is designed for maximum weather protection.
- Standard hinged top access panel on sizes 100 through 300, and removable top access panel on sizes 330 through 540.
- Hinged wheel access door on sizes 100 through 300, and removable wheel panel on sizes 300 through 540 allow the wheel and fan to be cleaned without compromising the fan to ductwork seal.
- Wheels are centrifugal type featuring non-overloading, backward-inclined blades and a tapered inlet shroud.
- When provided with optional outlet diverter the LPB is available as a UL Listed 762 for Power Ventilator for Restaurant Exhaust Appliances.
- All units are licensed to bear the AMCA Certified Ratings Seal for Air and Sound Performance.
- Available in 5 direct drive sizes and eighteen belt drive sizes. Capacities range from 650 to 55,000 CFM, with static pressure from 0 to 3 inches.

Lo-Pro (LPB shown)



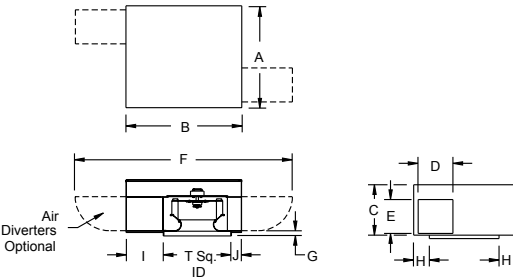
Low Profile Centrifugal Exhaust Ventilator
Roof Mounted/Direct Drive



Loren Cook Company certifies that the LPD 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 LPD is furnished standard with UL 705 listing and cUL 705 listing (Power Ventilator/ZACT) when furnished with factory supplied motor.



Description - Fan shall be a low profile, roof mounted, direct driven, upblast 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 - The fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The aluminum base shall have a one piece inlet spinning and continuously welded curb cap corners for maximum leak protection. The top cap shall have quick release latches to provide access into the motor compartment. The motor 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. Diverters shall be provided to discharge air vertically. Fan wheel and motor shall be mounted to a hinged access door for inspection and cleaning. 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 hub shall be keyed and securely attached to the fan shaft. Wheel shall be balanced in accordance with AMCA Standard 204-96, 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.

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

LPD Dimension Data

Size	A	B	C	D ID	E ID	F	G
100	22-1/16	29-7/8	13-7/8	6-11/16	6-25/32	52-3/16	2
120	25-11/16	32-3/8	15-3/8	8	8-5/32	58-13/16	2
135	28-7/16	34-1/2	16-3/8	9	9-3/16	64-1/8	2
150	31-1/8	36-11/16	17-3/8	10	10-7/32	69-3/8	2
165	33-13/16	39	18-3/8	11	11-7/32	74-11/16	2

Size	H	I	J	T Sq. ID	Shipping Weight	Roof Opening Sq.*
100	1-1/32	8-19/32	1-9/32	20	110	15-1/2
120	27/32	7-29/32	15/32	24	130	19-1/2
135	2-7/32	8-15/16	1-9/16	24	146	19-1/2
150	3-9/16	9-15/16	2-3/4	24	162	19-1/2
165	4-29/32	10-15/16	4-1/16	24	183	19-1/2

All dimensions in inches. Wights in pounds.
 *Roof opening size for curbs supplied by Loren Cook Company only.

Description - Fan shall be a low profile, roof mounted, belt driven, 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). For restaurant applications, fan shall be listed by Underwriters Laboratories (UL/cUL 762) for US and 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 aluminum base shall have a one piece inlet spinning and continuously welded curb cap corners for maximum leak protection. The top cap shall have quick release latches to provide access into the motor compartment. 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 air stream. Diverters shall be provided to discharge air vertically. Fan wheel shall be mounted to an access door for inspection and cleaning. Access door for sizes 100 to 300 shall be hinged, sizes above 300 shall be removable. 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% aluminum, including a precision machined cast aluminum hub. Wheel hub shall be keyed and securely attached to the fan shaft. Wheel inlet shall overlap an aerodynamic aluminum inlet cone to provide maximum performance and efficiency. Wheel shall be balanced in accordance with AMCA Standard 204-96, Balance Quality and Vibration Levels for Fans.

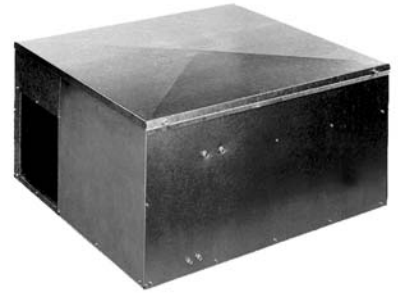
Motor - Motor shall be heavy duty type with permanently lubricated sealed ball bearings and furnished at the specified voltage, phase and enclosure.

Bearings - Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreaseable ball type in a cast iron 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. 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 LPB as manufactured by Loren Cook Company of Springfield, Missouri.

Low Profile Centrifugal Exhaust Ventilator Roof Mounted/Belt Drive



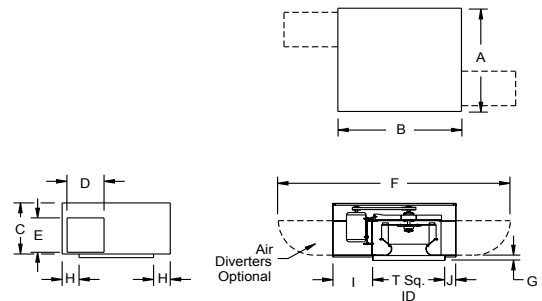
Loren Cook Company certifies that the LPB shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.



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



Type LPB is furnished standard with UL 762 and cUL 762 listings (Power Ventilator for Restaurant Exhaust Appliances/YZHW) when furnished with factory supplied motor and air diverter.



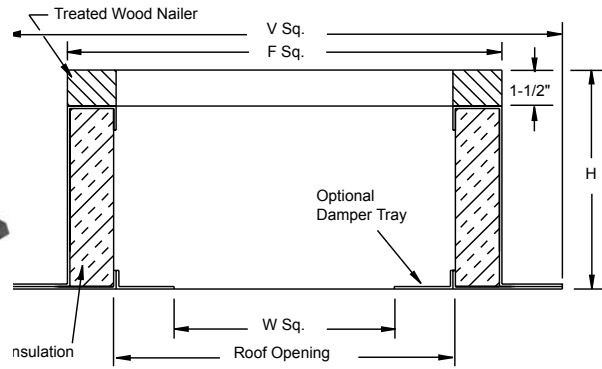
LPB Dimension Data

Size	A	B	C	D ID	E ID	F	G	H	I	J	T Sq. ID	Shipping Weight	Roof Opening Sq.*
100	22-1/16	29-7/8	13-7/8	16-11/16	6-25/32	52-3/16	2	1-1/32	8-19/32	1-9/32	20	110	15-1/2
120	25-11/16	32-3/8	15-3/8	8	8-5/32	58-13/16	2	27/32	7-29	15/32	24	130	19-1/2
135	28-7/16	34-1/2	16-3/8	9	9-3/16	64-1/8	2	2-7/32	8-15/16	1-9/16	24	146	19-1/2
150	31-1/8	36-11/16	17-3/8	10	10-7/32	69-3/8	2	3-9/16	9-15/16	2-3/4	24	162	19-1/2
165	33-13/16	39	18-3/8	11	11-7/32	74-11/16	2	4-29/32	10-15/16	4-1/16	24	183	19-1/2
180	36-1/2	40-13/16	20-3/8	12	12-1/4	79-9/16	2	3-1/4	8-7/8	1-15/16	30	224	25-1/2
195	39-1/4	49	21-3/8	13	13-1/4	90-3/4	2	4-5/8	16-3/16	2-13/16	30	276	25-1/2
210	42	50-15/16	23-3/8	14	14-9/32	95-3/4	2	6	17-1/4	3-11/16	30	302	25-1/2
225	44-5/8	52-11/16	25-1/4	15	15-5/16	100-9/16	3	7-5/16	18-5/32	4-17/32	30	378	25-1/2
245	48-5/16	55-3/16	26-1/2	16	16-1/4	105-15/16	3	6-5/32	16-17/32	2-21/32	36	475	31-1/2
270	52-13/16	58-1/4	28	17-15/16	17-31/32	115-3/16	3	8-13/32	18-5/32	4-3/32	36	530	31-1/2
300	58-3/16	63-1/8	31-1/4	19-27/32	19-11/16	125-3/16	3	8-3/32	18-11/32	2-25/32	42	740	37-1/2
330	63-5/8	66-11/16	32-1/4	21-3/4	21-13/32	132-7/8	3	10-13/16	20-9/32	4-13/32	42	810	37-1/2
365	69-15/16	71-1/16	34-1/4	24	23-7/16	143-3/8	3	10-31/32	19-5/8	3-7/16	48	1040	43-1/2
402	76-3/4	75-11/16	36-3/8	26-13/32	25-9/16	154-3/8	3	14-3/8	22-5/32	5-17/32	48	1187	43-1/2
445	84-7/16	83-5/8	40	29-1/8	28	169-5/8	3	12-7/32	21-23/32	1-29/32	60	1455	55-1/2
490	92-9/16	91-1/4	42-1/2	32	30-9/16	184-15/16	3	16-9/32	26-13/16	4-7/16	60	1675	55-1/2
540	101-9/16	97-3/8	52-1/2	29-13/16	39-1/2	217-7/8	3	17-25/32	27-1/8	4-1/4	66	2205	61-1/2

All dimensions in inches. *Roof opening size for curbs supplied by Loren Cook Company only.

Accessories

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.

Galvanized Steel or Aluminum Roof Curb

Size	Curb Catalog Number		F Sq.	H	V Sq.	W Sq.	Roof Opening
	Galvanized	Aluminum					
100	RCG-18	RCA-18	18-1/2	9-1/2	22-1/2	11-3/4	15-1/2
120, 135, 150, 165	RCG-22	RCA-22	22-1/2	9-1/2	26-1/2	15-3/4	19-1/2
180, 195, 210, 225	RCG-28	RCA-28	28-1/2	9-1/2	32-1/2	21-3/4	25-1/2
245, 270	RCG-34	RCA-34	34-1/2	9-1/2	38-1/2	27-3/4	31-1/2
300, 330	RCG-40	RCA-40	40-1/2	9-1/2	44-1/2	33-3/4	37-1/2
365, 402	RCG-46	RCA-46	46-1/2	9-1/2	50-1/2	39-3/4	43-1/2
445, 490	RCGH-58	-	58-1/2	9-1/2	62-1/2	51-1/2	55-1/2
540	RCGH-64	-	64-1/2	9-1/2	68-1/2	56-3/4	61-1/2

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

Sound Attenuator Curb*

Size	Curb Catalog Number		F Sq.	H**	V Sq.	W Sq.	Roof Opening
	Galvanized	Aluminum					
100	RCG-AT-18	RCA-AT-18	18-1/2	16	22-1/2	11-3/4	15-1/2
120, 135, 150, 165	RCG-AT-22	RCA-AT-22	22-1/2	16	26-1/2	15-3/4	19-1/2
180, 195, 210, 225	RCG-AT-28	RCA-AT-28	28-1/2	16	32-1/2	21-3/4	25-1/2
245, 270	RCG-AT-34	RCA-AT-34	34-1/2	16	38-1/2	27-3/4	31-1/2
300, 330	RCG-AT-40	RCA-AT-40	40-1/2	16	44-1/2	33-3/4	37-1/2
365, 402	RCG-AT-46	RCA-AT-46	46-1/2	16	50-1/2	39-3/4	43-1/2
445, 490	RCG-AT-H-58	-	58-1/2	16	62-1/2	51-1/2	55-1/2
540	RCG-AT-H-64	-	64-1/2	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. *Not available on UL 762 installations. **Add 8" when installed with a damper.

Average Sound Level Reduction

ODB1	ODB2	ODB3	ODB4	ODB5	ODB6	ODB7	ODB8
-5	-11	-9	-14	-18	-28	-35	-25

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.

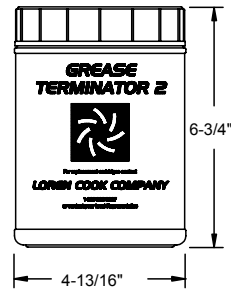
NEMA 1 (Heavy Duty, Lockable) - Indoor heavy duty visible blade.

NEMA 3R - Exterior mount, rain-tight.

NEMA 4 - Water-tight and dust-tight.

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

Grease Terminator



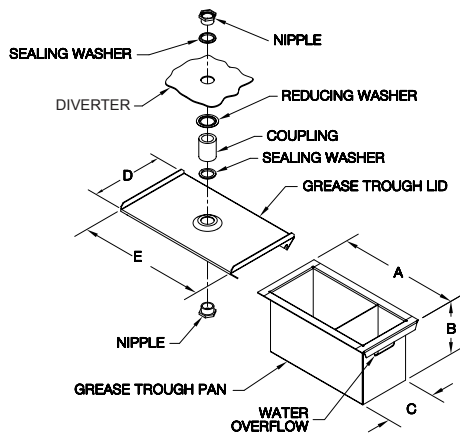
The Grease Terminator 2 is a grease-capture and containment system.

Outlet Diverters



Outlet diverters are required for UL762 Restaurant Exhaust.

Hanging Grease Trough

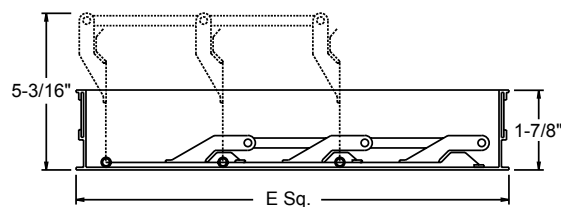


A	B	C	D	E
13-13/16	5-13/16	4-13/16	7-3/16	14-7/16

All dimensions in inches.

The hanging grease trough features an easily removable welded aluminum pan for the collection and separation of grease. The trough pan can be removed for cleaning. The grease trough is shipped loose for field mounting.

Gravity Backdraft Damper

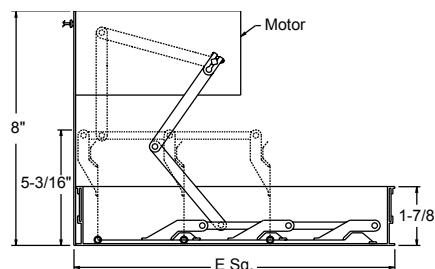


Gravity dampers feature an extruded aluminum frame, aluminum blades and aluminum hinge pins with nylon bushings. Not available on UL 762 installations.

Size	Catalog Number	E Sq.
100	BD-14	13-3/4
120, 135, 150, 165	BD-18	17-3/4
180, 195, 210, 225	BD-24	23-3/4
245, 270	BD-30	29-3/4
300, 330	BD-36	35-3/4
365, 402	BD-42	47-3/4
445-490	BD-54	53-3/4
540	BD-60	59-3/4

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 110V, 220V, and 440V. Not available on UL 762 installations.

Size	Catalog Number	E Sq.
100	BDM-14	13-3/4
120, 135, 150, 165	BDM-18	17-3/4
180, 195, 210, 225	BDM-24	23-3/4
245, 270	BDM-30	29-3/4
300, 330	BDM-36	35-3/4
365, 402	BDM-42	41-3/4
445, 490	BDM-54	53-3/4
540	BDM-60	59-3/4

All dimensions in inches.

Accessories

Fan Speed Control



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 pre-wiring is available.

Motors

Direct Drive

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

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

Optional motors:

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

Belt Drive

Single-phase motors:

- Open drip motors from 1/6 to 1-1/2 HP.
- Two-speed, motors in 1725/1140 RPM, 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.

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.



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