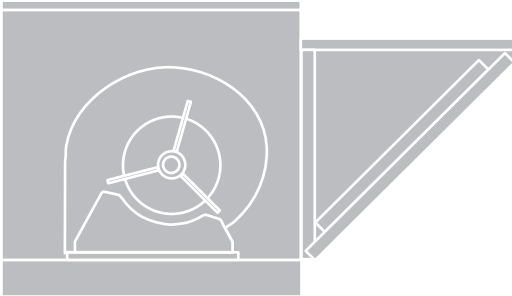


KSP

KSP

Filtered Kitchen Supply Packaged Ventilator



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INTRODUCTION

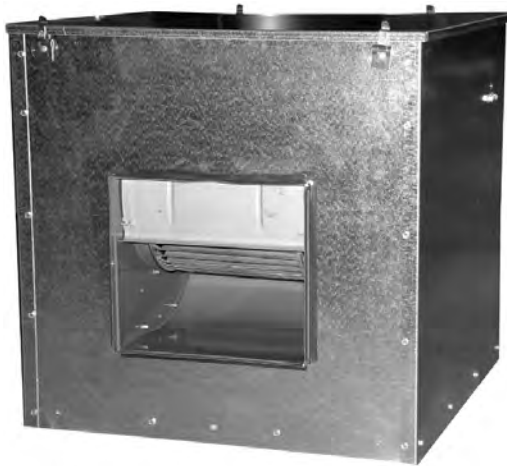
Loren Cook Company's KSP product line provides maximum performance and durability in kitchen supply applications. The KSP product line includes both KSPD direct drive units and KSPB belt drive units. The KSPD is available in 3 different cabinet sizes with flow rates ranging from 100 CFM to 1800 CFM and static pressures up to 0.75 inches. The KSPB is available in 6 different sizes with wheel diameters ranging from 9" to 20", with flow rates from 400 CFM to 12,000 CFM and static pressures up to 1.75 inches.

KSP - Bottom Discharge



- The insulated top cover provides weather protection for the motor and drive components.
- Quick release latches provide tool-free access for inspection and maintenance of motor and drive components.
- Blower assembly is supported by rubber isolators to reduce noise and vibration level transmitted to the supporting structure.
- Integral 3" skirt with pre-punched mounting holes for ease of installation.
- Intake hood with 1" permanent, washable aluminum filters standard.

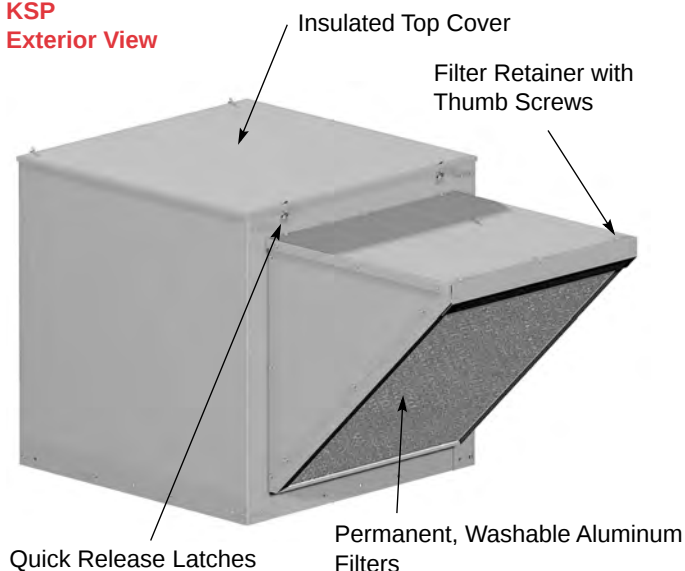
KSP - Side Discharge



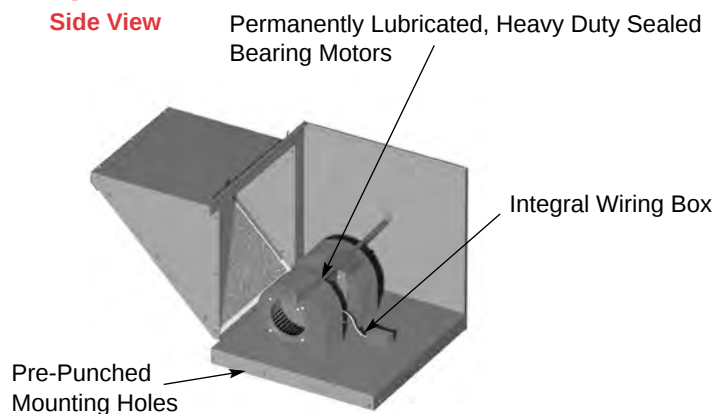
- Reinforcing cross breaks in intake hood top to prevent drumming.
- Minimum 18 gauge galvanized steel housing.
- Corrosion resistant fasteners.

Standard Construction Features

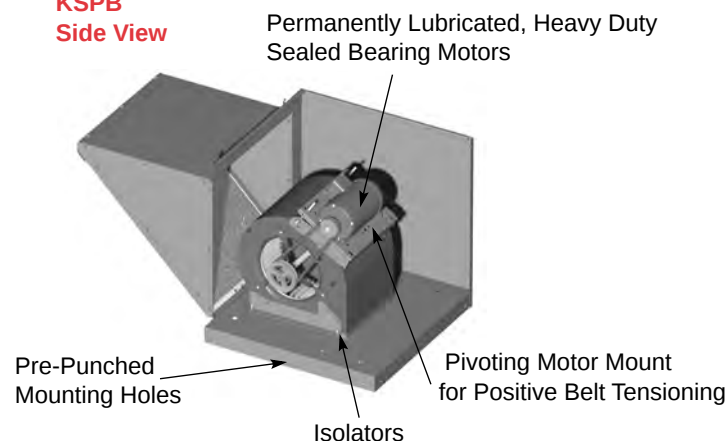
**KSP
Exterior View**



**KSPD
Side View**

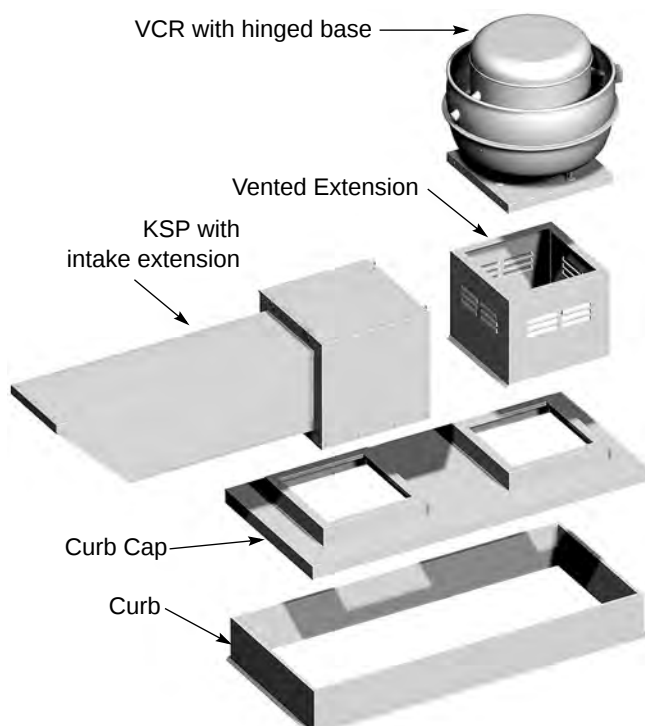


**KSPB
Side View**



NFPA 96 Typical Specifications

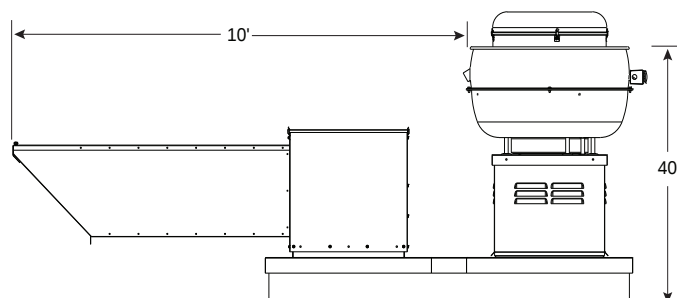
The NFPA 96 specification unit shall be a Cook VCR unit and Cook KSP unit mounted on a Cook Common Curb cap. The VCR shall include a hinged base or hinge kit, a vented extension, a drain tube to direct grease away from the fan, and a NFPA 96 compliant grease collection device such as the Cook aluminum grease trough or Cook Grease Terminator. The KSP unit shall include an intake extension. This will provide the minimum dimensions required to meet NFPA 96 requirements.



NFPA 96 Requirements

The exhaust fan must be installed so that the outlet of the fan is a minimum of 40 inches from the roof surface and the welded duct terminates at the bottom of the fan a minimum of 18 inches from the roof surface. The inlet of the supply fan must be a minimum of 10 feet away from the outlet of the exhaust fan. Where a 10 foot horizontal separation is not possible a 3 foot minimum vertical separation is acceptable and a special extended vented extension is required.

Standard Installation



Filtered Kitchen Supply Packaged Ventilator Side or Bottom Discharge Direct Drive



Bottom Discharge



Side Discharge



Loren Cook Company certifies that the KSPD 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 comply with the requirements of the AMCA Certified Ratings Program.



Type KSPD is furnished standard with UL 705 listing (Power Ventilator/ZACT).



Type KSPD is furnished standard with cUL listing (Power Ventilator).

Description - Fan shall be a side intake, roof mounted, direct driven, centrifugal filtered supply fan.

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 Air Performance.

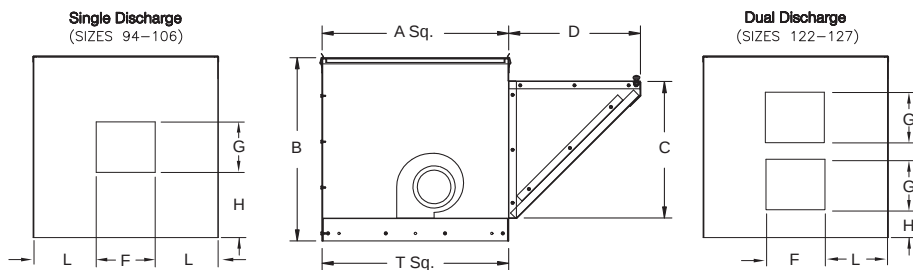
Construction - Fan shall be of bolted construction utilizing corrosion resistant fasteners. Housing shall be minimum 18 gauge galvanized steel, bolted to a minimum 16 gauge steel fan base with prepunched mounting holes. Unit shall be provided with an insulated top cover and one inch washable permanent aluminum filter. The motor assembly shall be mounted on rubber vibration isolators. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

Wheel - Wheel shall be centrifugal forward curved type, constructed of galvanized steel. Wheel shall be balanced in accordance with AMCA Standard 204-05, Balance Quality and Vibration Levels for Fans.

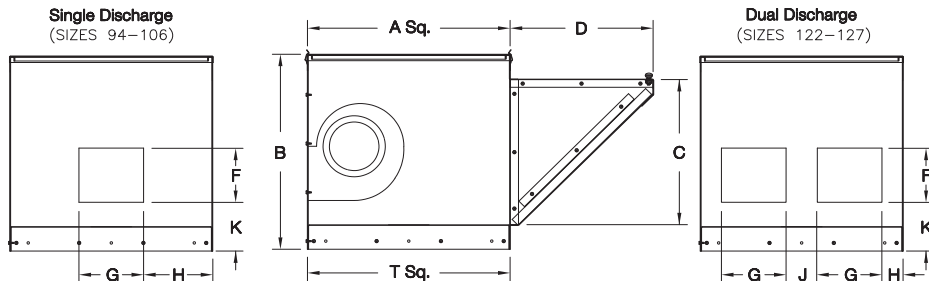
Motor - Motor shall be open drip proof type with permanently lubricated sealed bearings and built-in thermal overload protection. Motor shall be furnished at the specified voltage.

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

Bottom Discharge Duct Connection Dimensions



Side Discharge Duct Connection Dimensions



KSPD Discharge Dimension Data

Model	A Sq.	B	C (Height x Width)	D	T Sq.	Material Gauges		Approx. Ship Wt.
						Housing	Base	
94 - 99 KSPD	24-11/16	24	18 x 18-1/4	17-1/4	24-1/4	18	16	190
103 - 106 KSPD	28-11/16	27	21 x 22-1/4	20-1/4	28-1/4	18	16	210
122 - 127 KSPD	32-11/16	32-1/4	26-3/16 x 26-1/2	25-5/8	32-1/4	18	16	270

All dimensions in inches, weights in lbs.

KSPD Dimension Data for Outlet

Size	F	G	H	J	K	L
94, 95	3	4-9/16	9-13/16	-	6-1/4	10-5/8
96, 97	3-7/16	4-7/8	9-5/8	-	6-1/4	10-7/16
98, 99	3-7/8	5-5/8	9-1/4	-	6-1/4	10-1/4
103-106	3-7/8	8-9/16	9-13/16	-	6-1/4	12-3/16
122-124	4-7/8	6-7/16	6-7/8	6	3-7/16	13-11/16
125-127	4-7/8	6-1/4	4-7/8	10	3-15/16	14

All dimensions in inches.

Description - Fan shall be a side intake, roof mounted, belt driven, centrifugal filtered supply fan.

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 construction utilizing corrosion resistant fasteners. Housing shall be minimum 18 gauge galvanized steel, bolted to a minimum 16 gauge steel fan base with prepunched mounting holes. Unit shall be provided with an insulated top cover and one inch washable permanent aluminum filter. Internal blower and motor assembly shall be mounted on rubber vibration isolators. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA Certified Transit Tested Packaging.

Wheel - Wheel shall be DWDI centrifugal forward curved type, constructed of painted steel. 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 (Size 90-180) - Bearings shall be permanently lubricated, sealed ball type selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

Bearings (Size 200) - 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 housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

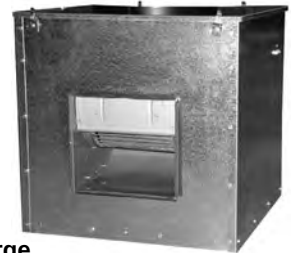
Belts and Drives - Belts shall be oil and heat resistant, non-static type. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150 percent of the installed motor horsepower. The variable pitch motor drive must be factory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

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

Filtered Kitchen Supply Packaged Ventilator Side or Bottom Discharge Belt Drive

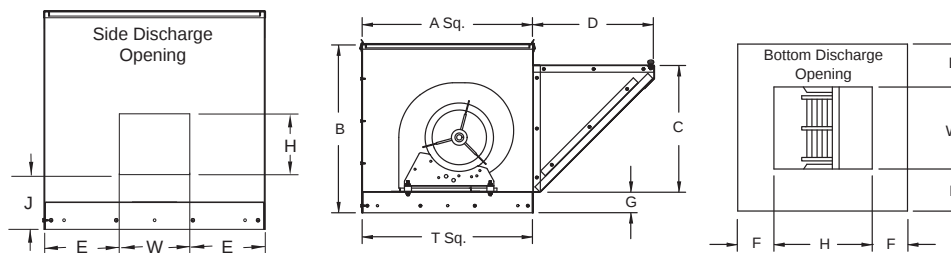


Bottom Discharge



Side Discharge

Loren Cook Company certifies that the KSPB 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.



KSPB Dimension Data

Model	A Sq.	B	C	D	E	F	G	T Sq.
90 KSPB	24-11/16	24	18 x 18-1/4	17-1/4	6-7/32	7	3	24-1/8
100 KSPB	28-11/16	27	21 x 22-1/4	20-1/4	7-5/8	8-7/16	3	28-1/8
120 KSPB	32-11/16	32-1/4	26-3/16 x 26-1/2	25-5/8	8-3/8	8-3/4	3	32-1/8
150 KSPB	32-11/16	37-7/8	31-5/16 x 28-1/2	30-3/4	6-7/8	6-5/16	3	32-1/8
180 KSPB	36-11/16	41-7/16	35-7/16 x 30-1/4	34-13/16	7-1/4	5-5/16	3	36-1/8
200 KSPB	48-11/16	49-7/16	37-7/16 x 42-1/4	36-13/16	11-11/16	12-15/16	3	48-1/8



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



Type KSPB is furnished standard with cUL listing (Power Ventilator) when furnished with factory supplied motor.

Model	Discharge Opening (H x W)	J	Filters		Material Gauges		Roof Opening Square*	Approx. Ship Wt. Lbs.
			Qty.	Size	Base	Housing		
90 KSPB	10-1/8 x 11-9/16	5-1/4	1	17-3/4 x 22-3/4	16	18	19-1/2	183
100 KSPB	11-1/4 x 12-7/8	5-1/4	1	21-3/4 x 27	16	18	23-1/2	218
120 KSPB	13-5/16 x 15-3/8	5-1/4	1	25-3/4 x 34-3/8	16	18	27-1/2	253
150 KSPB	15-3/4 x 18-3/8	5-1/4	2	20-3/4 x 28	16	18	27-1/2	327
180 KSPB	18-3/4 x 21-5/8	5-1/4	2	23-5/8 x 29-3/4	16	18	31-1/2	392
200 KSPB	24-7/8 x 24-3/4	5-3/4	2	25 x 41-3/4	16	18	43-1/2	589

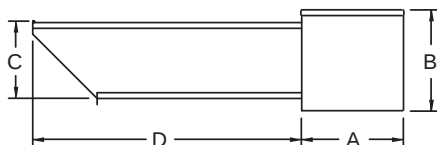
All dimensions in inches. *Roof opening size for curbs supplied by Cook only.

ACCESSORIES

Intake Extension



The KSP Intake Extension is available for all sizes. Constructed of heavy gauge galvanized steel, the extension must be supported at the intake end by an equipment support. Filters are installed at the intake end as in the standard unit. An optional backdraft damper can be installed in the intake extension (See Page 8). A KSP with an intake extension is required for NFPA 96 installations where physical limitations of the roof permit its usage.

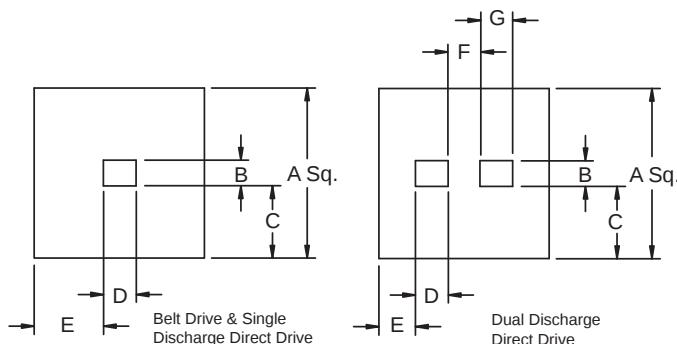


Model	A Sq.	B	C (HxW)	D
90 KSPB	24-3/16	24	18 X 18-1/4	92-1/2
100 KSPB	28-3/16	27	21 X 22-1/4	80-5/8
120 KSPB	32-3/16	32-1/4	26-3/16 X 26-1/2	80
150 KSPB		37-3/8	31-5/16 X 28-1/2	80-5/16
180 KSPB	36-3/16	41-7/16	35-7/16 X 30-1/4	73-5/16
200 KSPB	48-3/16	49-7/16	37-7/16 X 42-1/4	54-5/16

All dimensions in inches.

Duct Adapter

A duct adapter provides for easier installation of ductwork prior to placing the fan on the roof curb.



Model	A Sq.	B	C	D	E	F	G
90 KSPB	22-1/2	10-1/8	6-3/16	11-11/16	5-7/16	-	-
100 KSPB	26-1/2	11-1/4	7-5/8	13	6-3/4	-	-
120 KSPB	30-1/2	13-7/16	8-9/16	15-1/2	7-1/2	-	-
150 KSPB	30-1/2	15-3/4	7-3/8	18-1/2	8	-	-
180 KSPB	34-1/2	18-3/4	7-7/8	21-3/4	6-3/8	-	-
200 KSPD	46-1/2	24-7/8	10-13/16	24-7/8	10-13/16	-	-
94, 95 KSPD	22-1/2	3	9-3/4	4-9/16	8-15/16	-	-
96, 97 KSPD	22-1/2	3-7/16	9-9/16	4-7/8	8-13/16	-	-
98, 99 KSPD	22-1/2	3-7/8	9-5/16	5-5/8	8-7/16	-	-
103, 106 KSPD	26-1/2	3-7/8	11-5/16	8-9/16	8-15/16	-	-
122, 124 KSPD	30-1/2	4-7/8	12-13/16	6-3/16	6-1/16	6	6-3/16
125, 127 KSPD	30-1/2	4-1/4	13-1/8	6-1/4	4	10	6-1/4

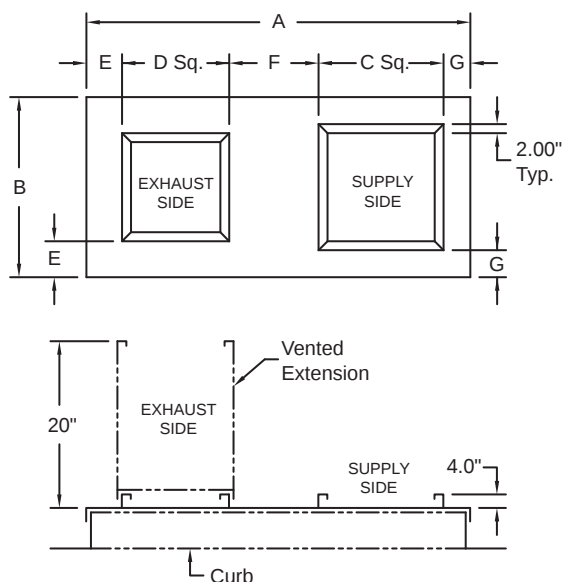
All dimensions in inches.

Common Curb Cap



The curb cap is designed to allow both the exhaust and supply fans to be mounted on the same roof curb. This reduces installation time and requires only one roof opening.

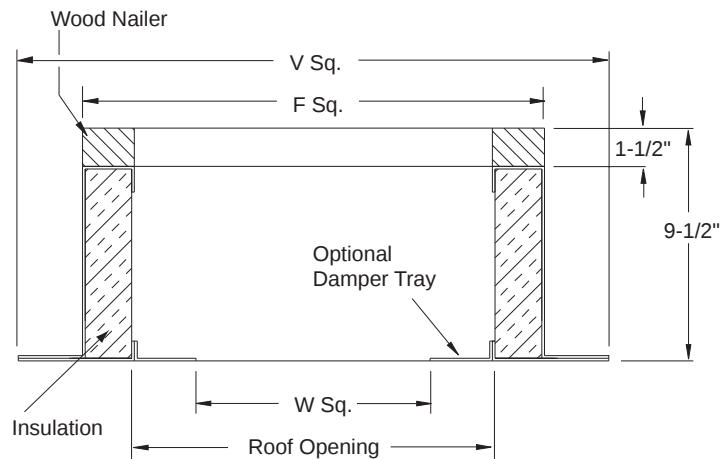
The curb cap, when used with the Loren Cook Company type ACRU, LPB or VCR and KSP with intake extension, will meet the NFPA 96 requirement of a minimum ten feet separation between exhaust fan outlet and supply fan intake.



KSP Size	VCR Size	A	B	C Sq.	D Sq.	E	F	G
90	120-135	72-1/2	34-1/2	23-3/8	18-5/8	8	17	5-5/8
90	150-165	72-1/2	34-1/2	23-3/8	22-5/8	6	15	5-5/8
90	180-195	72-1/2	34-1/2	23-3/8	28-5/8	3	12	5-5/8
100	150-165	78-1/2	34-1/2	27-3/8	22-5/8	6	19	3-5/8
100	180-225	78-1/2	34-1/2	27-3/8	28-5/8	3	16	3-5/8
120	180-245	84-1/2	36-1/2	31-3/8	28-5/8	4	18	2-5/8
150	180-245	92-1/2	40-1/2	31-3/8	28-5/8	6	22	4-5/8
150	270-300	92-1/2	40-1/2	31-3/8	34-5/8	3	19	4-5/8
180	210-245	104-1/2	46-1/2	35-3/8	28-5/8	9	26	5-5/8
180	270-300	104-1/2	46-1/2	35-3/8	28-5/8	9	26	5-5/8
180	330	104-1/2	46-1/2	35-3/8	40-5/8	3	20	5-5/8
200	270-300	120-1/2	52-1/2	47-3/8	34-5/8	9	27	2-5/8
200	330	120-1/2	52-1/2	47-3/8	40-5/8	6	24	2-5/8

All dimensions in inches.

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

- No wood nailer (deduct 1-1/2" from height).
- 13-1/2" tall construction.
- 3" cant (add 4" to V Sq. dimension).

Roof Curb

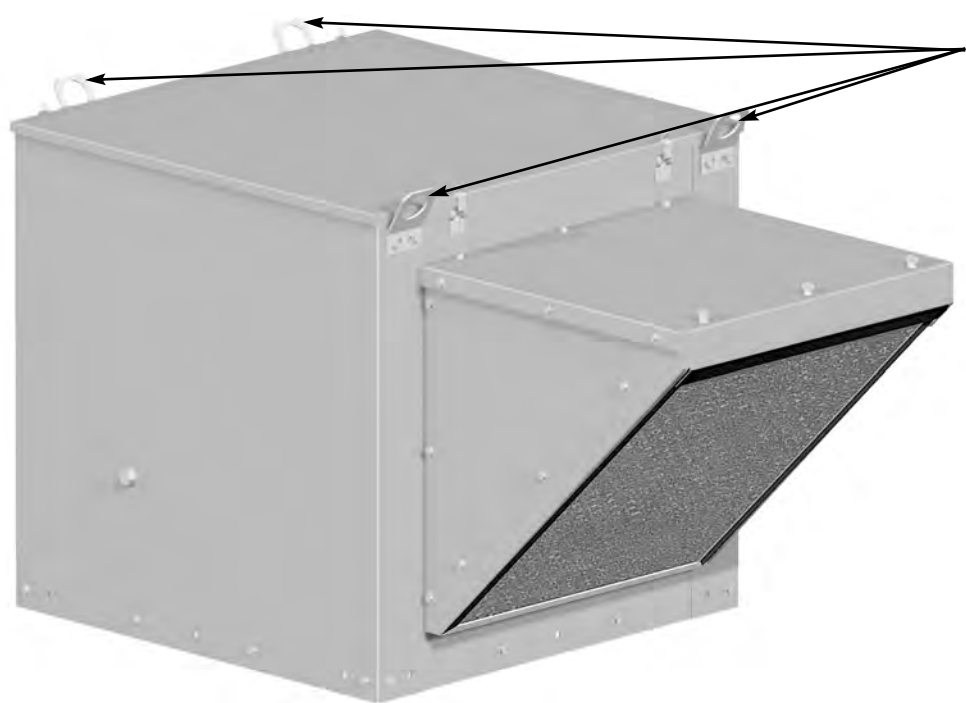
KSP Unit	Catalog Number		F Sq.	V Sq.	W Sq.	Roof Opening
	Galvanized	Aluminum				
90	RCG-22	RCA-22	22-1/2	26-1/2	15-3/4	19-1/2
100	RCG-26	RCA-26	26-1/2	30-1/2	19-3/4	23-1/2
120, 150	RCG-30	RCA-30	30-1/2	34-1/2	23-3/4	27-1/2
180	RCG-34	RCA-34	34-1/2	38-1/2	27-3/4	31-1/2
200	RCG-46	RCA-46	46-1/2	50-1/2	39-3/4	43-1/2

All dimensions in inches.

Common Curb

KSP Size	VCR Size	Catalog Number	F	V	Roof Opening
90	120-195	RCG-33 x 71	33 x 71	37 x 75	30 x 68
100	150-225	RCG-33 x 77	33 x 77	37 x 81	30 x 74
120	180-245	RCG-35 x 83	35 x 83	39 x 87	32 x 80
150	180-300	RCG-39 x 91	39 x 91	43 x 95	36 x 88
180	210-330	RCG-45 x 103	45 x 103	49 x 107	42 x 100
200	270-330	RCG-51 x 119	51 x 119	55 x 123	48 x 116

All dimensions in inches. *Damper tray not available on common curb.



Lifting Lugs

The addition of these heavy duty bolt on lifting lugs provides for safer, faster, more efficient lifting of the KSP unit onto a roof top. Lifting lugs are available on all sizes.

ACCESSORIES

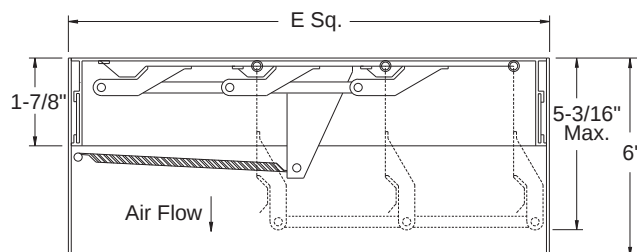
Dampers

Loren Cook Intake Backdraft Dampers (BDI) and Motorized Intake Backdraft Dampers feature extruded aluminum frames, aluminum blades and aluminum hinge pins with nylon bushings.

The Intake Backdraft Damper features a spring return for closing. Maximum operating temperature is 200°F (95°C).

Motors on Motorized Intake Backdraft Dampers are non-overloading type available in 115, 230, or 460 voltage, single phase. Size 200 KSP (BDMI-42) uses two motors. In addition, a wood nailer must be supplied on a 9-1/2 inch curb. Maximum operating temperature is 130°F (50°C).

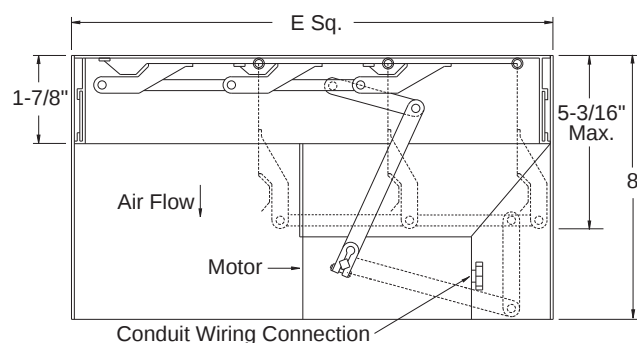
Intake Backdraft Damper (Curb Mounted)



KSP Unit Size	Catalog Number	E. Sq.
90	BDI-18	17-3/4
100	BDI-22	21-3/4
120, 150	BDI-26	25-3/4
180	BDI-30	29-3/4
200	BDI-42	41-3/4

All dimensions in inches.

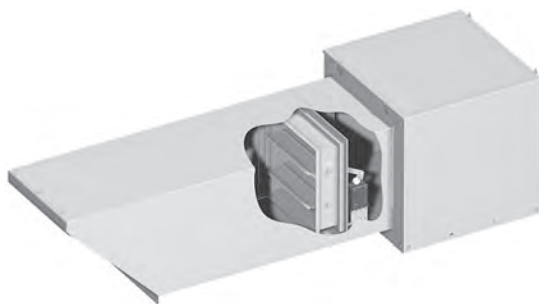
Motorized Intake Backdraft Damper (Curb Mounted)



KSP Unit Size	Catalog Number	E. Sq.
90	BDMI-18	17-3/4
100	BDMI-22	21-3/4
120, 150	BDMI-26	25-3/4
180	BDMI-30	29-3/4
200	BDMI-42	41-3/4

All dimensions in inches.

Intake Dampers (Extended Intake Mounted)



Motorized intake dampers are available factory mounted inside the extended intake to prevent backdraft.

Disconnect Switches

NEMA 1 - Indoor, general purpose

NEMA 1 (Lockable) - Indoor, general purpose with lockable switch

NEMA 3R - Exterior mount, weather resistant

NEMA 4 - Water tight, dust tight



NEMA 1



NEMA 1
(Lockable)



NEMA 3R



NEMA 4



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