

OPERATORS MANUAL

This manual provides
Installation & Operating instructions for a
VSP hood mounted onto a Southern Pride Smoker

SOUTHERN PRIDE

NOTIFY CARRIER OF DAMAGE AT ONCE.

It is the responsibility of the consignee to inspect the container upon receipt of same and to determine the possibility of any damage, including concealed damage. Avtec suggests that if you are suspicious of damage to make a notation on the delivery receipt. It will be the responsibility of the consignee to file a claim with the carrier. We recommend that you do so at once.

ETL # for Southern Pride Smoker – 4007026
UL file # for Avtec VSP Hood – MH12966

P/N's	PP MNL1601 – English Revision 02/2016
	PP MNL1601FR – French Revision 02/2016



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Safety Procedures

- Do not attempt to service this unit yourself as removing covers may cause unnecessary exposure to dangerous voltage.
- Never connect the unit to a power source while standing in water. Wet hands and wet floors should be avoided when connecting any electrical appliance to a power outlet.
- Fans may have multiple power connections. Make sure all fans are isolated from power prior to performing maintenance.

In addition, all Avtec food service equipment is backed by some of the best warranties in the foodservice industry and by our professional staff of service technicians.

Retain this manual for future reference.

NOTICE: Due to a continuous program of product improvement, Avtec reserves the right to make changes in design and specifications without prior notice.

NOTICE: Please read the entire manual carefully before installation. If certain recommended procedures are not followed, warranty claims will be denied.

MODEL NUMBER _____

SERIAL NUMBER _____

INSTALLATION DATE _____

APPROXIMATE SHIPPING WEIGHTS

<u>MODEL</u>	<u>CRATED SIZE</u>	<u>SHIPPING WT</u>
VSP-S-MLR150	36" X 24" X 55"H	125#
VSP-S-SPX300	43" X 24" X 55"H	145#
VSP-S-SPK500	56" X 24" X 55"H	160#
VSP-S-SP700	62" X 24" X 55"H	180#
VSP-S-MLR850	36" X 24" X 55"H	125#
VSP-S-SPK1000	56" X 24" X 55"H	160#
VSP-S-SPK1400	56" X 24" X 55"H	160#
STANDARD FAN	40" X 40" X 35"H	154#
STANDARD CURB	28" X 28" X 16"H	50#
STANDARD EXTENSION	29" X 29" X 28"H	50#

Order Section

Purchase Order Process

- A. Determine Southern Pride Smoker model to be used (See Southern Pride Specification Sheets at Southern Pride Web Site)
- B. Determine type of vent hood required to meet all code requirements (See Drawing Section)
- C. Determine desired installation type (See Drawing Section)
- D. Once desired hood and installation type are established all purchase orders to be sent to an authorized Southern Pride distributor.

Contact Section

Contact a regional Southern Pride distributor for assistance and order placement. A regional authorized Southern Pride distributor can be found at www.southernpride.com or by contacting Southern Pride at (800) 851-8180.

Regulatory Section - UL

Avttec VSP Hoods

- UL File number – MH12966

Verification of UL file numbers can be found at www.ul.com. Go to the certifications tab and type in the UL file number in the UL online certifications directory.

UL listed airflow requirement for capture is 400 CFM/ft for hood lengths of 2.75 to 5.0 ft with a maximum cooking temperature of 325°F. Minimum front overhang of 30 inches and a maximum of 21 inches from the front edge of hood to cooking surface are required.

The airflow requirement was established under laboratory conditions. Greater exhaust airflows and/or reduced make-up airflows may be required for complete capture.

Southern Pride Smoker

- ETL File number – 4007026

Southern Pride's gas fired smokers have been tested and approved by Intertek Testing Services and are ETL Listed to ANSI Z83.11b-2009, CSA1.8b-2009 and NSF/ANSI Standard 4-2009. ETL Listings can be verified via Intertek's online directory of list products at www.intertek.com/directories/

Regulatory Section - IMC

The 2012 International Mechanical Code is referenced on the TTW VSP hood drawings.

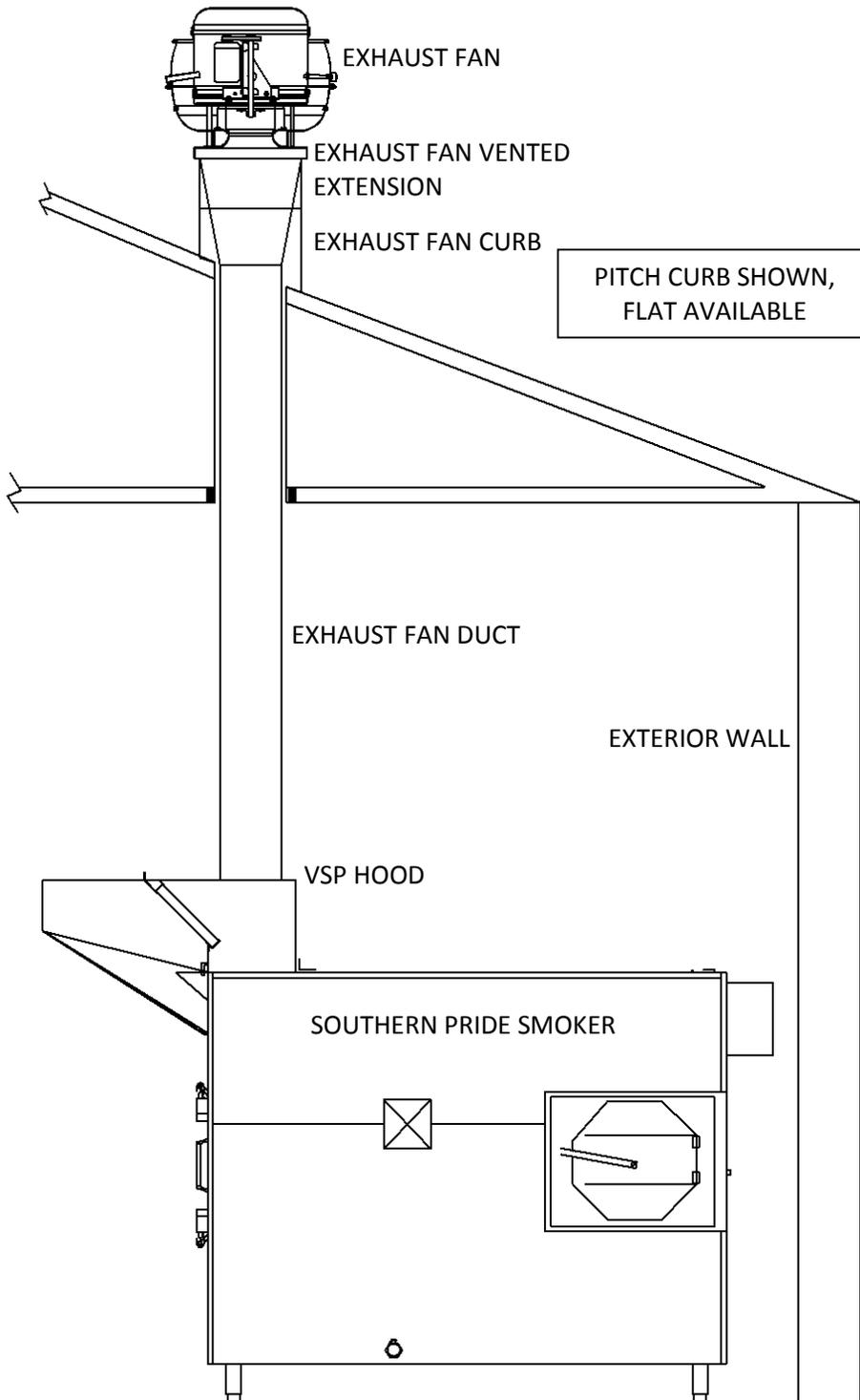
506.3.13.3 Termination Location

Exhaust outlets shall be located not less than 10 feet (3048 mm) horizontally from parts of the same or contiguous buildings, adjacent buildings, and adjacent property lines and shall be located not less than 10 feet (3048 mm) above the adjoining grade level. Exhaust outlets shall be located not less than 10 feet (3048 mm) horizontally from or not less than 3 feet (914 mm) above air intake openings into any building.

Exception

Exhaust outlets shall terminate not less than 5 feet (1524 mm) horizontally from parts of the same or contiguous building, an adjacent building, adjacent property line and air intake openings into a building where air from the exhaust outlet discharges away from such locations.

Option 1 – Indoor Installation



HOOD SYSTEM TO INCLUDE:

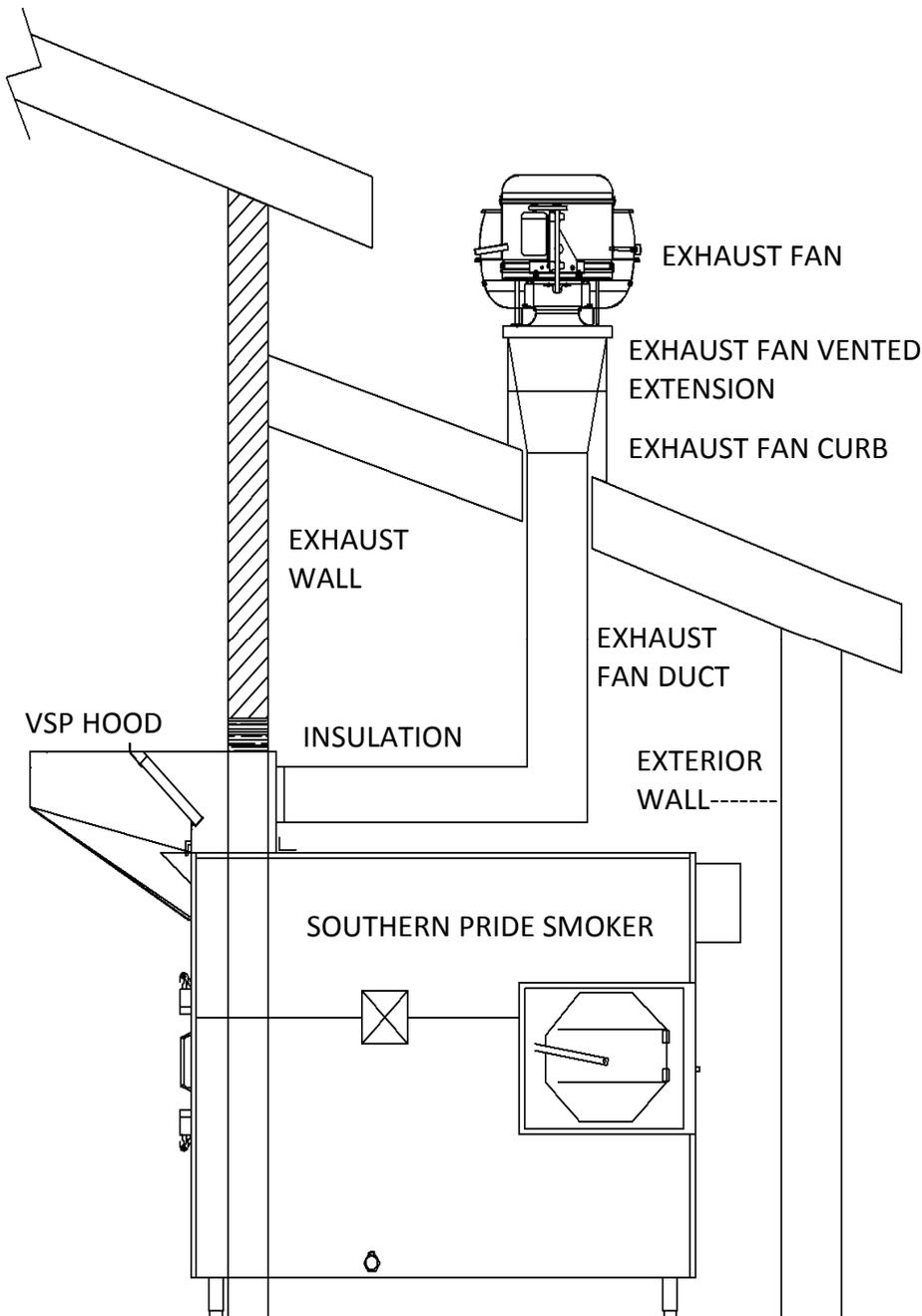
1. Ventilation Hood
2. Two Speed Fan (1320 cfm/2000 cfm) ½HP, 120V/1/60, 0.75" Static Pressure (The duct length cannot exceed 30 ft in any direction. The duct run cannot exceed 20 ft with more than (1) 90-degree offset. Duct runs exceeding the above create static pressure in the duct greater than the standard ½HP, 2-speed fan can handle. It is still advised to specify a VSP System in non-standardized installations. A local HVAC contractor should be consulted to ensure that the non-standard duct engineering is properly calculated).

3. Curb Included with Vent Extension and Hinge Kit

NOTES:

- Pitched Shown, Flat Curbs Available
- 120V/1/60 Power Standard on Exhaust Fan
- 3-Phase Power Available—consult factory
- The VSP System is not design to have integrated supply/make-up air. The HVAC contractor and air balance contractor must provide for the air being removed by the VSP exhaust hood fan.

Option 2 – Through the Wall Installation



HOOD SYSTEM TO INCLUDE:

1. Ventilation Hood
2. Two Speed Fan (1320cfm/2000cfm) ½HP, 120V/1/60, 0.75" Static Pressure (The duct length cannot exceed 30 ft in any direction. The duct run cannot exceed 20 ft with more than (1) 90-degree offset. Duct runs exceeding the above create static pressure in the duct greater than the standard ½HP, 2-speed fan can handle. It is still advised to specify a VSP System in non-standardized installations. A local HVAC contractor should be consulted to ensure that the non-standard duct engineering is properly calculated).
3. Curb Included with Vented Extension and Hinge Kit

NOTES:

- Important Note: When installing a smoker through a wall constructed of combustible material, use the Southern Pride insulation kit between the oven and the wall. Stainless steel trim kit available from Southern Pride.
- Pitched shown, flat curbs available.
- 120V/1/60 power standard on exhaust fan.
- 3-phase power available – consult factory.
- The VSP System is not design to have integrated supply/make-up air. The HVAC contractor and air balance contractor must provide for the air being removed by the VSP exhaust hood fan.

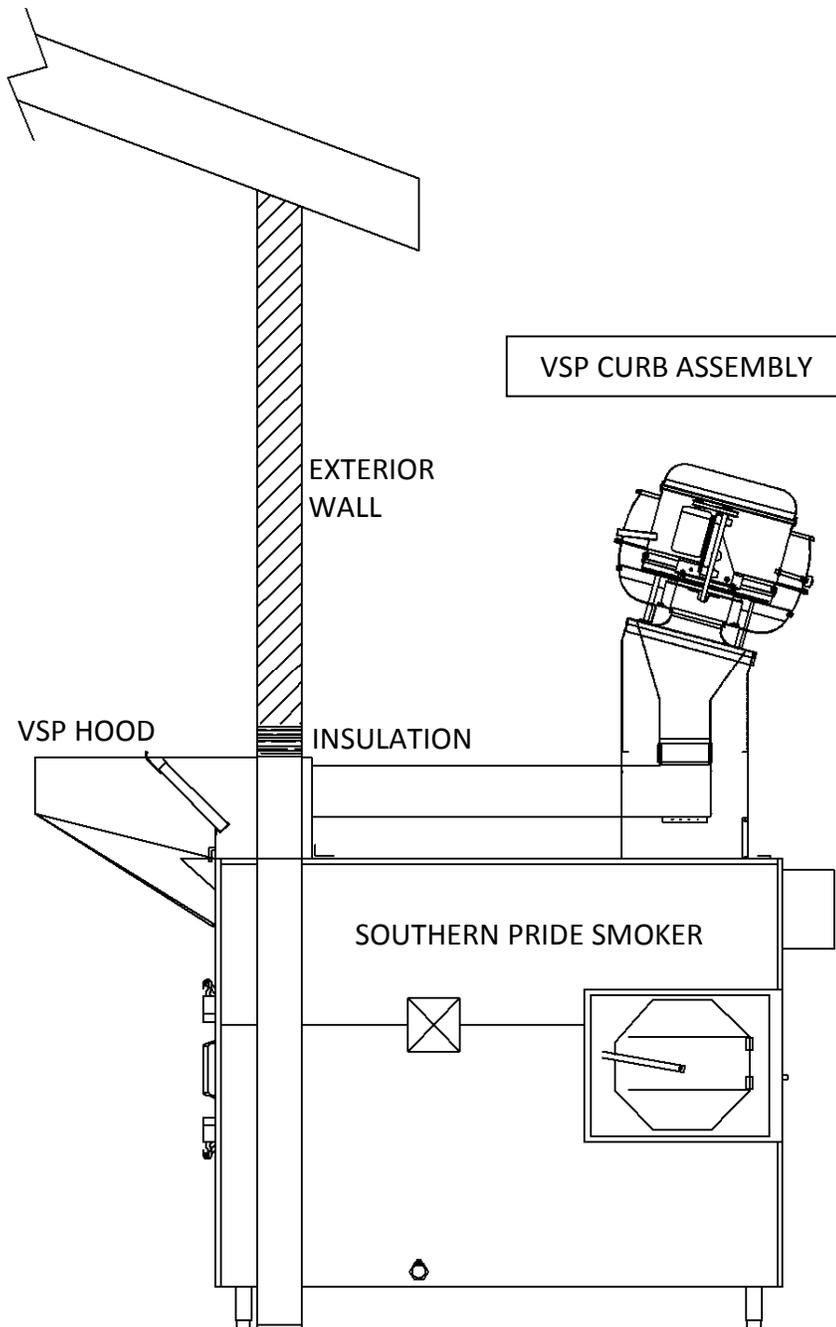
Option 3 – Through the Wall Installation with Curb Assembly for SPK-1400 Only

HOOD SYSTEM TO INCLUDE:

1. Ventilation Hood
2. Two Speed Fan (1320cfm/2000cfm) ½HP, 120V/1/60, 0.75" Static Pressure
3. VSP Curb Assembly

NOTES:

- Important Note: When installing a smoker through a wall constructed of combustible material, use the Southern Pride insulation kit between the oven and the wall. Stainless steel trim kit available from Southern Pride.
- 120V/1/60 power standard on exhaust fan.
- 3-phase power available – consult factory.
- The VSP System is not design to have integrated supply/make-up air. The HVAC contractor and air balance contractor must provide for the air being removed by the VSP exhaust hood fan.



Installation Instructions - VSP

Avtec VSP's Sit Directly on the Southern Pride Smokers

ALL AVTEC VENTILATION SYSTEMS MUST BE INSTALLED IN ACCORDANCE WITH NFPA-96, REMOVAL OF SMOKE AND GREASE LADEN VAPORS FROM COMMERCIAL COOKING EQUIPMENT. FOR ULC LISTED HOODS, INSTALLATION SHALL BE IN ACCORDANCE WITH ULC-S650.

1. Check all local codes prior to installation. Special requirements may be necessary depending upon building material construction.
2. Move crated hood to location of installation and very carefully uncrate hood.
3. Line up hood so it is pushed all the way back so the front tabs of the hood will be secured to smoker oven. See Figures 1 and 2.
4. Install self-tapping sheet metal screws and bolts and nuts provided with the hood.
5. Install grease filters into front of hood by sliding them into the filter channel built into the hood (Figure 3).

NOTE: DO NOT COVER FRONT FLUE.

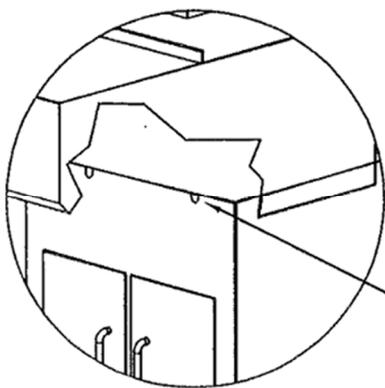


FIGURE 1

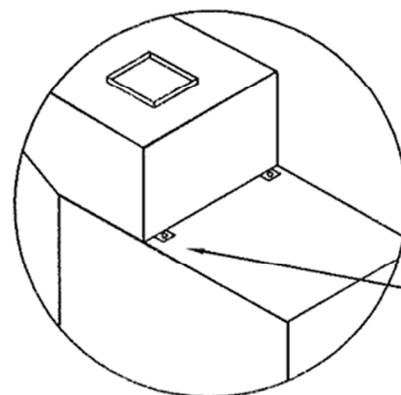


FIGURE 2

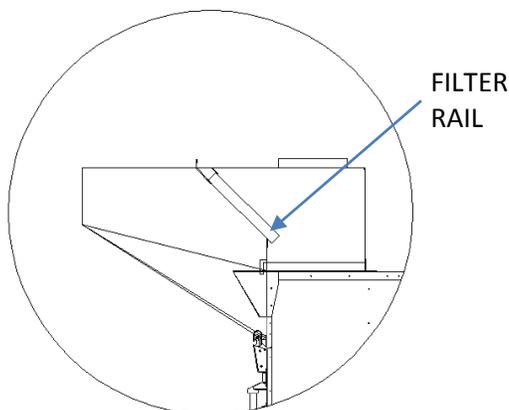


FIGURE 3

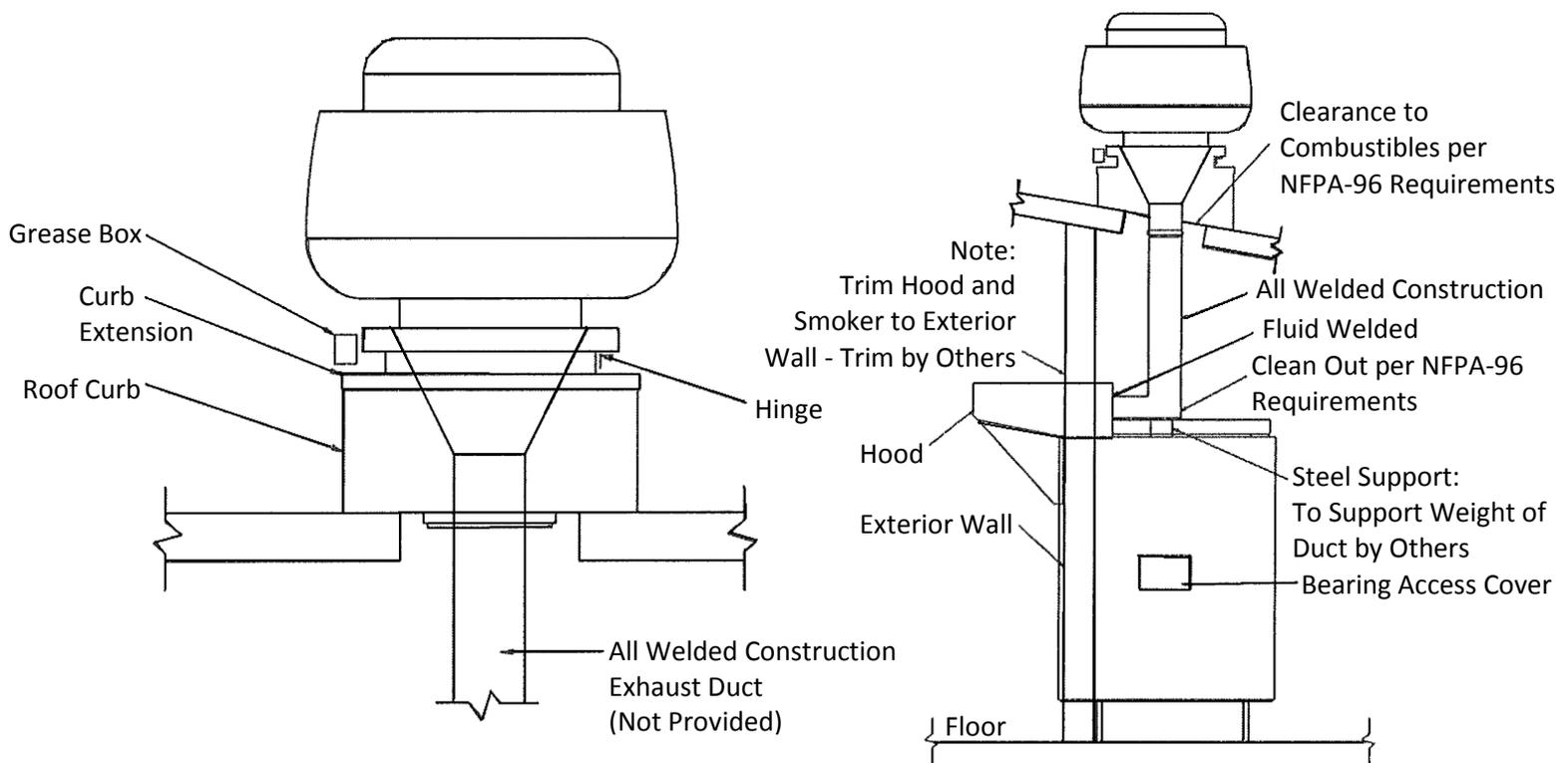
Installation Instructions – Exhaust Fan

INSTALLATION INSTRUCTIONS FOR EXHAUST FAN AND DUCT

When the 2-speed exhaust fan is installed correctly, it will operate at a low CFM when smoker doors are closed, and a high CFM when doors are open.

NOTE: The duct length cannot exceed 30 ft in any direction. The duct run cannot exceed 20 ft with more than (1) 90-degree offset. Duct runs exceeding the above create static pressure in the duct greater than the standard ½HP, 2-speed fan can handle. It is still advised to specify a VSP System in non-standardized installations. A local HVAC contractor should be consulted to ensure that the non-standard duct engineering is properly calculated.

1. Check all local codes prior to installation.
2. All exhaust fans are supplied with a minimum 18" high metal curb, hinge kit, and grease box.
3. The exhaust fan curb should be installed directly above the hood if possible. Always maintain the shortest duct run possible.
4. Cut hole and seal exhaust fan curb to roof.
5. Place exhaust fan on curb.
6. Install hinges on exhaust fan cap and metal curb. Remember to leave ample room for fan to tilt back. Fan will remain in tilted back position.
7. Install grease collection box on side of fan that has grease tube discharge.
8. The exhaust duct must be constructed of 16 gauge carbon steel or 18 gauge stainless steel. All seams must be fluid welded.
9. A duct transition should be provided below exhaust fan inlet.
10. The exhaust duct must be fluid welded to hood collar.
11. Make all necessary electrical connections and check fan for proper rotation. NOTE: Fan will exhaust air running in wrong direction.



Installation Instructions – Thru-wall VSP

INSTALLATION INSTRUCTIONS FOR EXHAUST FAN AND DUCT FOR 1400 THRU THE WALL APPLICATION – OPTION 3

1. Check all codes prior to installation.
2. The exhaust fan curb should be installed directly on top of smoker. Connect the exhaust duct to the hood collar. Secure duct with supplied nuts and bolts.
3. Secure exhaust fan curb assembly to the top of the smoker. Drive screws through flange of curb assembly in to edge of smoker. **NOTE: Only along the back edge of the smoker.** Two screws minimum. Holes may have to be predrilled through flange.
4. Install hinge kit on curb assembly and exhaust fan (provided by fan manufacturer).
5. Install grease collection box on side of fan that has grease tube discharge.
6. Make all necessary electrical connections and check fan for proper rotation. **NOTE: Fan will exhaust air running in wrong direction.**

Electrical Connection for VSP Hood to 2-Speed Exhaust Fan

WIRING FOR 120V/1/60 2-SPEED FAN APPLICATION

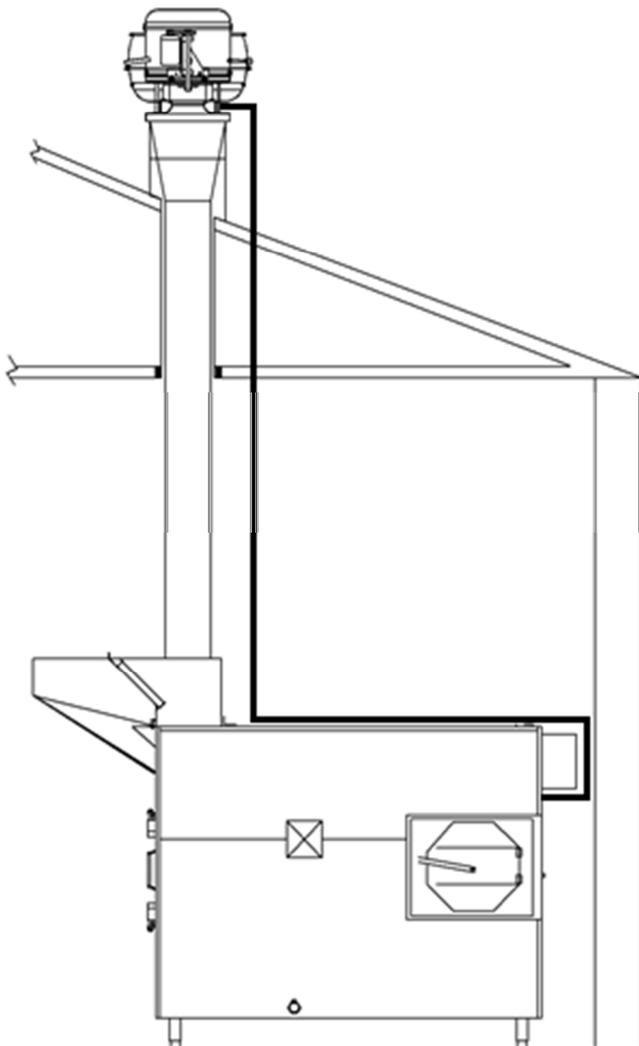
SUPPLIED FROM OVEN	SUPPLIED FROM FAN
<u>BLACK – HIGH SPEED</u>	<u>BLACK – HIGH SPEED</u>
<u>RED – LOW SPEED</u>	<u>RED – LOW SPEED</u>
<u>WHITE - NEUTRAL</u>	<u>WHITE - NEUTRAL</u>

NOTES:

- Conduit and fittings required by others.
- Connect exhaust fan disconnect to junction box supplied by Southern Pride.

NOTICE: It is recommended that a 120V outlet on a 20 AMP breaker be supplied for oven and hood system.

When the 2-speed exhaust fan is installed correctly, it will operate at a low CFM when oven doors are closed and a high CFM when doors are open.



A STANDARD TOP EXHAUST APPLICATION IS SHOWN HERE. CONNECTIONS ARE THE SAME FOR OTHER MODELS. FANS REQUIRING ABOVE 120V POWER CANNOT BE POWERED BY SMOKER. IF POWER GREATER THAN 120V IS REQUIRED, CONSULT FACTORY.

Warranty Section

Safety Procedures

- Do not attempt to service this unit yourself as removing covers may cause unnecessary exposure to dangerous voltage.
- Never connect the unit to a power source while standing in water. Wet hands and wet floors should be avoided when connecting any electrical appliance to a power outlet.
- Fans may have multiple power connections. Make sure all fans are isolated from power prior to performing maintenance.

Warranty Service Procedures

- Please have the following information before calling for service:
- Sales Order and/or Serial Number.
- Description of problem/service issue.
- Job site address, contact & phone number.

Contact Section

Contact a regional Southern Pride distributor for warranty and service issues. A regional authorized Southern Pride distributor can be found at www.southernpride.com or by contacting Southern Pride at (800) 851-8180.

Ventilation Maintenance Guide

Roof Top Systems: Make-Up Air and Exhaust Fans

1. Air intake filters should be cleaned monthly or more often as conditions dictate.
2. Check all belts for slippage and tighten as necessary.
3. Clean exhaust fan interior and wheel as required to prevent accumulation of grease that could lead to a fire hazard.
4. Electrical connections should be inspected every six months.
5. Oil and/or grease all motors and bearings every six months.
6. If supplied, check and empty grease collection cup on outside of exhaust fan.

Cleaning and Maintenance of Stainless Steel Hoods

1. Carefully wipe away gritty substances clinging to hood surface to avoid scratching.
2. Dilute ½ cup EVAC detergent with 1 gallon warm water.
3. Soak a cloth in the water detergent solution, wring out excess.
4. Rub the cloth in the direction of the grain.
5. Wipe stainless steel dry with a clean cloth.
6. Reapply stainless steel polish.
7. Empty and clean grease drain and cups as needed per your application.
8. Filters should be cleaned in a dishwasher or soak sink as needed per your application.

CAUTION

DO NOT use steel wool (Brillo Pads), scrapers, or spatulas to clean hood!

DO NOT use the following substances on or around the hood!

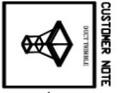
1. Chlorine or chlorine based substances.
2. Acids (e.g. mercuric chloride, ferric chloride).

Vapors of the above substances can corrode stainless steel!

APPENDIX A

VSP HOOD DRAWINGS

ITEM NO	QTY	UNIT	MFG	EXHAUST AIR-TIME				FILTERS											
				TIME PER HOUR	PER HOUR	PER HOUR	PER HOUR	TYPE	QTY	TYPE	QTY								
1	130	523	49	2000	458														



CUSTOMER NOTE
165 VCR 2 SPEED FAN (NTS) WITH VENT EXTENSION AND FLAT ROOF CURB

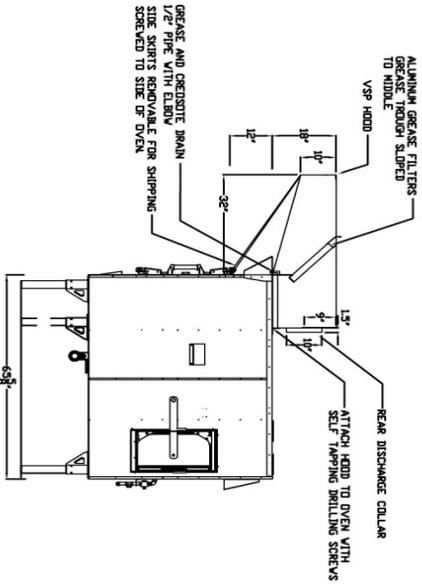
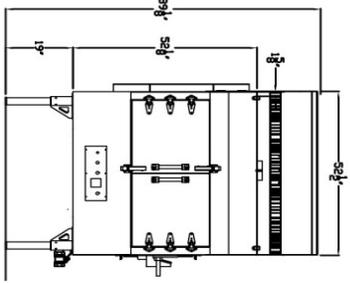
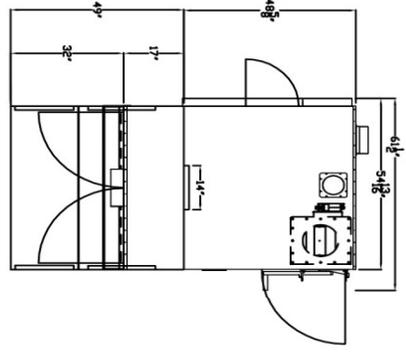
DUCT THINNE FABRICATION AND INSULATION REQUIRED BY INSTALLING CONNECTION

Uplblast Centrifugal Restaurant 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 listed by Underwriters Laboratories (UL 762) and UL listed for Canada (CUL 762). Fan shall bear the AMCA Certified Ratings Seal for Sound and Air Performance.

MAKE	QTY	MODEL #	VOL(CFM)	SPK(WC)	PVR(HPS)	MHP	RPM	SDNES	DRIVE	
CDK	1	165 VCR	2000	7/5	.441	5	1075	1235	B	
DEVL(CFM)	SE	WEIGHT(LBS)	ELECTRICAL	MOTOR ENCL	MOTOR RPM	NOTES				
840	582	176	115/7/60	DIP -3C	1725/140	Drive Less(LOW) = 92				



The Southern Pride Oven Model SPK500 is a gas fired wood burning barbecue oven for restaurant and other commercial use.

The gas and wood are burned in a common fire chamber and the products of combustion are passed through a separate chamber and are vented through a flue collar on front of the oven. Natural or L.P. - Gas is the primary fuel utilized for heating; wood is utilized as a secondary fuel for food flavoring.

The SPK500 is UL Certified (File MH11943). The oven is totally enclosed, thermostatically controlled, and has no open flame.

The model VSP-R-SPK500 Hood System (MH12966) is intended for use with the Southern Pride Model SPK 500 smoker oven. The VSP hood is UL Listed and NSF certified and is listed specifically for use with the SPK 500 oven. The VSP-R-SPK500 is designed for through the wall (TTW) oven installations.

This system is designed such that the exhaust fan operates at low air flow (1380 CFM) during cooking operation and at high air flow (2000 CFM) when the meat door is opened.

Electrical Connection for VSP Hood Two (2) Speed Exhaust Fan Note: Oven requires 20 amp/120V AC single phase - 60 Hz. breaker and a gas supply (minimum of 75,000 BTU).

- SUPPLIED FROM OVEN
- BLACK - HIGH SPEED
- RED - LOW SPEED
- WHITE - NEUTRAL

- SUPPLIED FROM FAN
- BLACK - HIGH SPEED
- RED - LOW SPEED
- WHITE - NEUTRAL

SIZE	3 / 4" = 1'
DRIVE SHAFT	
PRODUCT CODE	

SOUTHERN PRIDE SPK
 500 OVEN WITH
 VSP-R-SPK500 HOOD

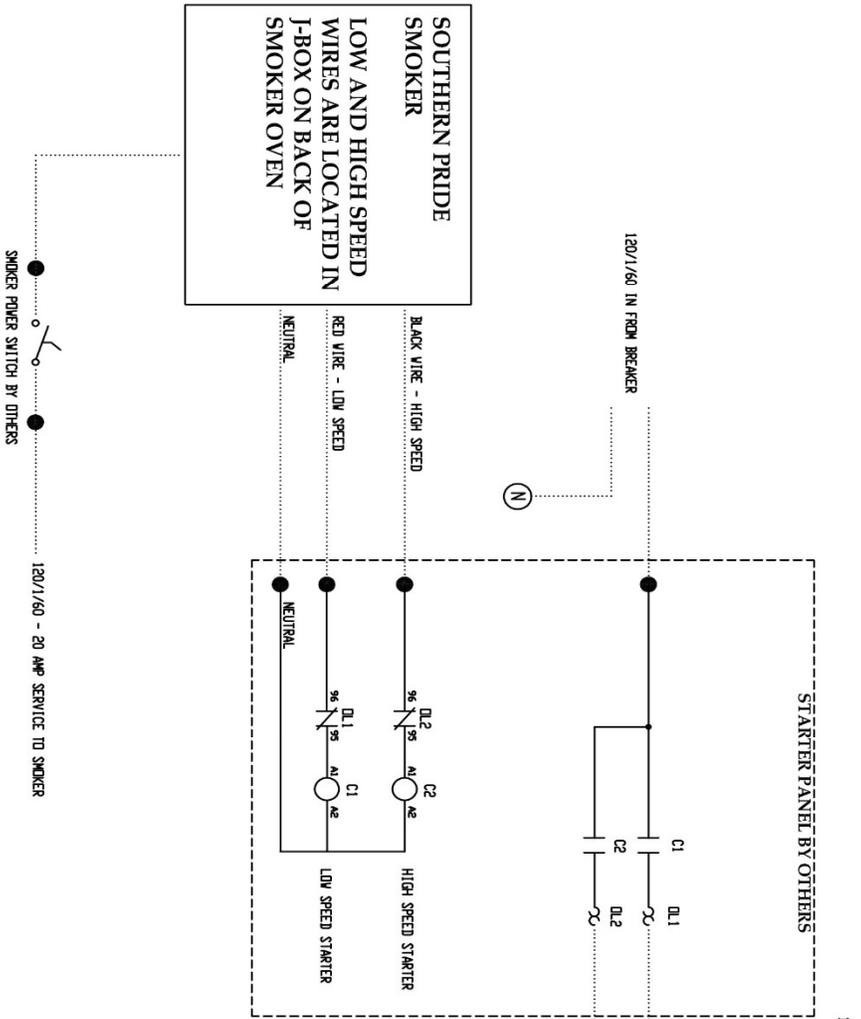
APPENDIX B

ALTERNATE VSP WIRING SCHEMATICS

INDICATES FIELD WIRING
 ALL WIRING SHALL BE INSTALLED
 PER NEC AND LOCAL CODE
 REQUIREMENTS

ALTERNATE WIRING FOR 120 / 1 EXHAUST FAN

This is a schematic for a 120/1/60 motor that is 3/4HP or larger. A Southern Pride smoker motor contact has a maximum rating of 15 amps. This schematic shows the smoker motor contacts operating a motor starter with an overload that can handle higher amp draws required by the high horse power fan motor.



2 SPEED MOTOR
2 WINDING
1725/1140 RPM
X HP
120/1/60
XX AMP ON HIGH SPEED

EXHAUST MOTOR
 HP XXXX - 2 SPEED
 WIR1
 FLA XXXXX

DATE	12-04-13	BY	
NTS			
SOUTHERN PRIDE - ALTERNATE WIRING (GENV / 1-PHASE)		1	DE 1

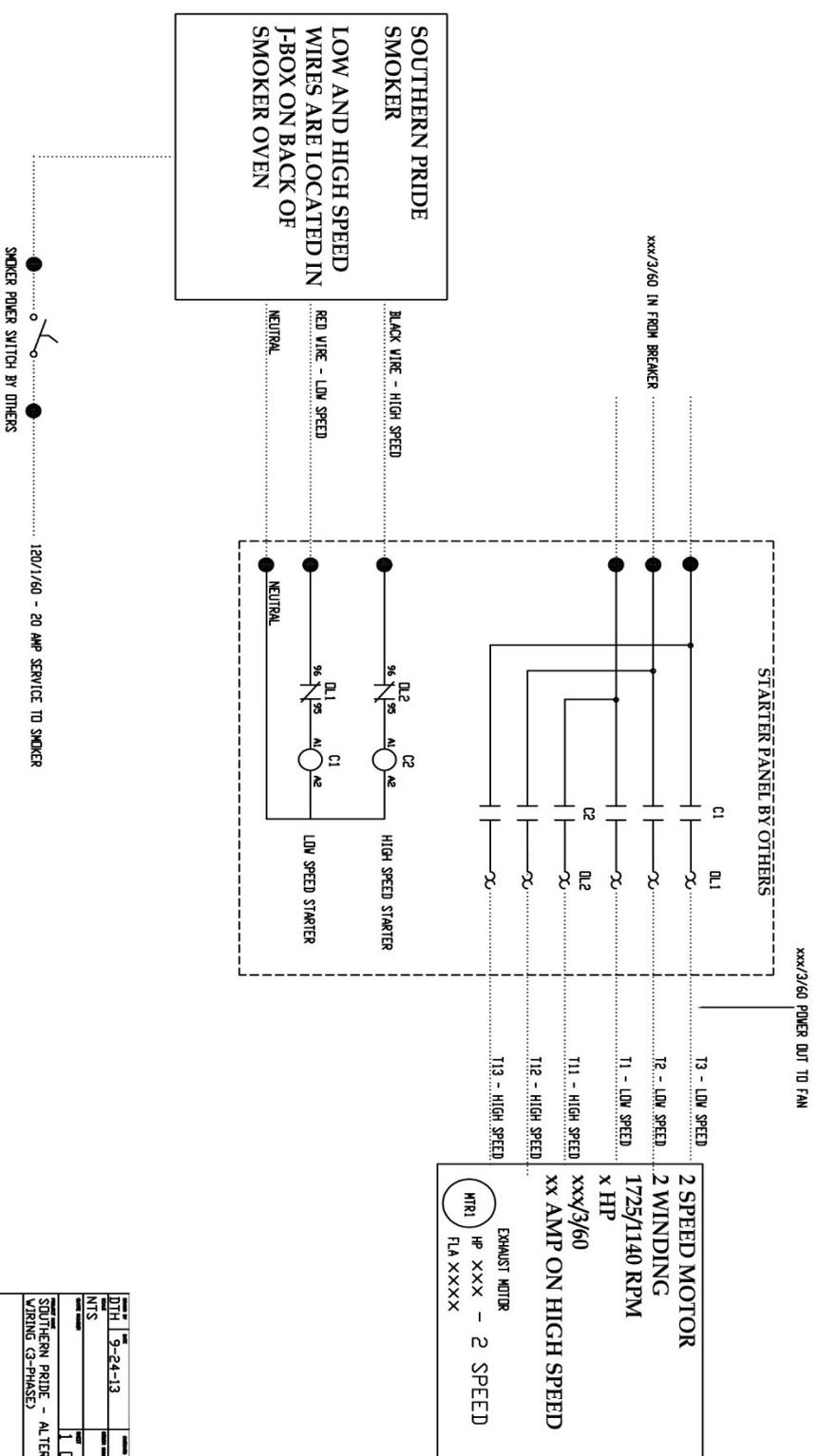
avtec
 unified brands

50 SOUTH COLUMBIA BL. WESLEY, MO. 65081 (314) 661-4400 (314) 661-3300 (FAX)

..... INDICATES FIELD WIRING
 ALL WIRING SHALL BE INSTALLED PER NEC AND LOCAL CODE REQUIREMENTS

ALTERNATE WIRING FOR 3 PHASE

This schematic is for a 208-480/3/60 motor. A Southern Pride smoker has a single motor contact for a 120/1/60 motor. This schematic shows the smoker motor contacts operating a motor starter with an overload that can handle the three phase power required by a three phase motor.



DATE	REV	BY	CHKD
01/11/13	5-24-13		
NTS			
SOUTHERN PRIDE - ALTERNATE WIRING (3-PHASE)			
1 OF 1			

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 unified brands

50 SOUTH COLUMBIA BL. VERNON, IA 48601 (563) 821-6000 FAX (563) 821-6000

APPENDIX C

TYPICAL VSP EXHAUST FAN SPECIFICATIONS



COOK



MARK: EF1

PROJECT: AS FAN1010 WITH FLAT CURB & VE

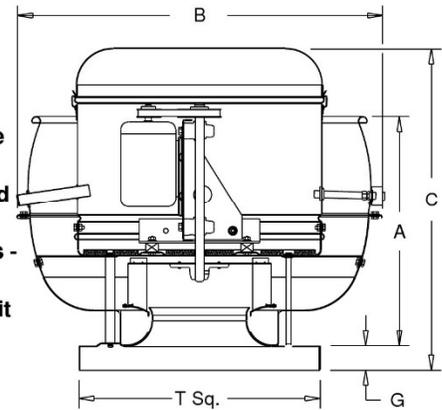
DATE:

VCR

Upblast Centrifugal Exhaust Ventilator Roof Mounted/Belt Drive

STANDARD CONSTRUCTION FEATURES:

All aluminum housing - Backward inclined all aluminum wheel - Two piece top cap with stainless steel quick release latches - One piece bottom spinning - Welded curb cap corners - Lifting Lugs - Permanently lubricated ball bearing motors - Oil and heat resistant, static conducting belts - Adjustable pitch drives through 5 hp motor - Corrosion resistant fasteners - Regreaseable bearings in cast iron pillow block housing, rated at 200,000 hours average life - All fans factory adjusted to specified fan RPM - Transit tested packaging.



Performance (*Bhp includes 13% drive loss)

Qty	Catalog Number	Flow (CFM)	SP (inwc)	Fan RPM	Power* (HP)	FEG
1	165V5B	2000	.750	1075	.460	n/a(<1HP)

Altitude (ft): 804 Temperature (F): 100

Motor Information

HP	RPM	Volts/Ph/Hz	Enclosure	Mounted
1/2	1725/1140	115/1/60	ODP -SE	Yes

Sound Data Inlet Sound Power by Octave Band

1	2	3	4	5	6	7	8	LwA	dBA	Sones
82	82	78	68	65	62	57	53	74	62	12.6

Accessories:

- PRE-WIRED 2-SPEED NEMA 3 DISCONNECT
- ROOF CURB RCG 22-9.5 H -LESS NLR
- UL762 (327Y-300DEG)
- HINGED BASE KIT
- KEYWAY GREASE TROUGH
- VE-23 VENTED EXTNSN

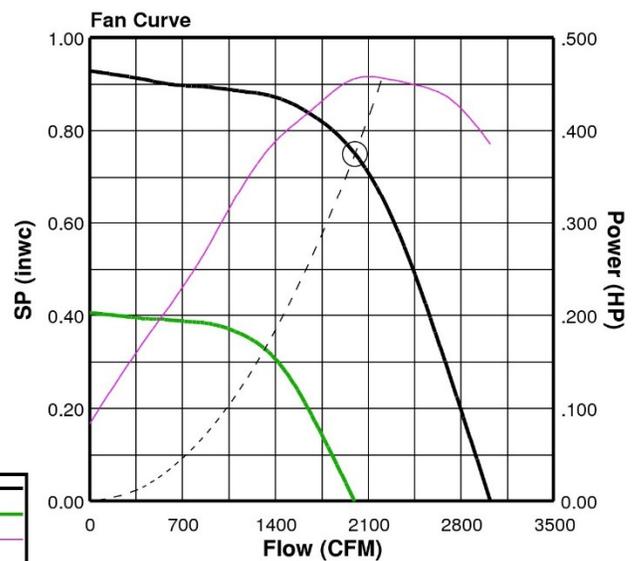
Dimensions (inches)

A	20-15/16
B	34-11/16
C	30-3/4
G	2
T Sq.	24
Roof Open. Sq.*	19-1/2

NOTE: Accessories may affect dimensions shown.

Shipping Weight(lbs)*** 176

* Roof opening size for curbs supplied by Cook only.
 ***Includes fan, motor & accessories.





COOK

PROJECT: AS FAN1010 WITH FLAT CURB & VE

DATE:

RCG

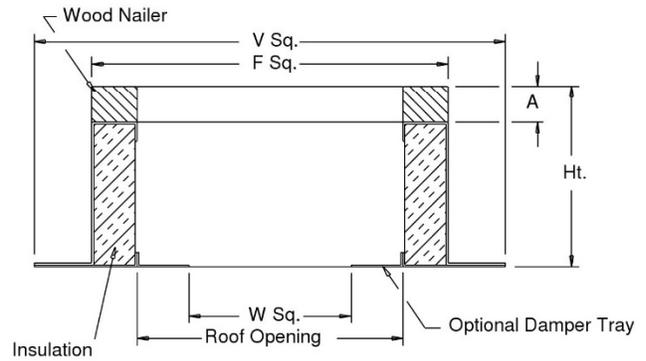
Galvanized Steel Roof Curb

STANDARD CONSTRUCTION FEATURES:

18 gauge galvanized steel - 1-1/2",
 3 lbs. density thermal and acoustical
 insulation - Continuously welded corners -
 Wood nailer.

Options:(As noted below*)

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



Dimensions (inches)

Mark	Qty	Description	Ht	Options*	A	F Sq.	V Sq.	W Sq.	Roof Opening
EF1	1	RCG 22	9.5	1;	1-1/2	22-1/2	26-1/2	15-3/4	19-1/2



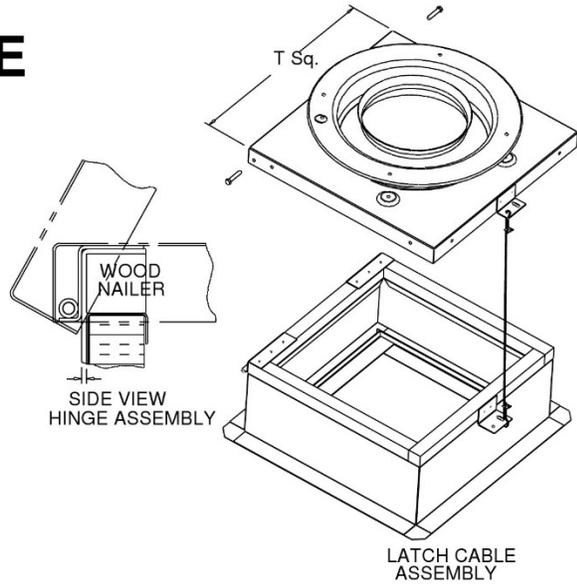
COOK

PROJECT: AS FAN1010 WITH FLAT CURB & VE

DATE:

HINGED BASE

Kit Assembly



Dimensions (inches)

Mark	Qty	Description
EF1	1	HINGED BASE KIT



COOK

PROJECT: AS FAN1010 WITH FLAT CURB & VE

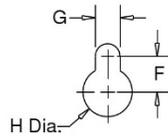
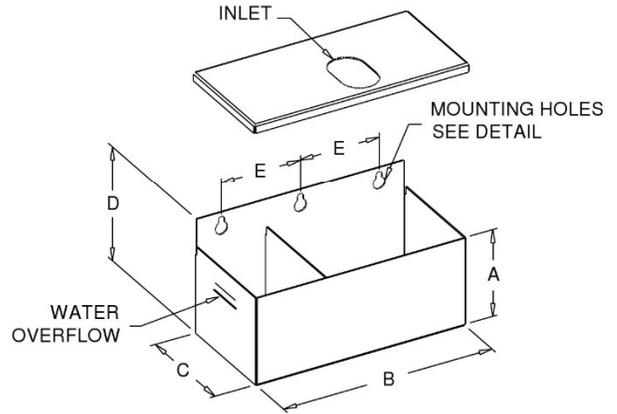
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Grease Trough

Keyway Mount

STANDARD CONSTRUCTION FEATURES:

All aluminum .063 construction - Continuously welded trough housing corners - Removable lid for servicing - Slotted mounting holes for easy removal - Baffled design for extended capacity.



MOUNTING HOLE DETAIL

Dimensions (inches)

Mark	Qty	Description	A	B	C	D	E	F	G	H Dia.
EF1	1	KEYWAY GREASE TROUGH	5	12	6-1/16	6-1/2	4-1/2	1/2	3/8	11/16



COOK

PROJECT: AS FAN1010 WITH FLAT CURB & VE

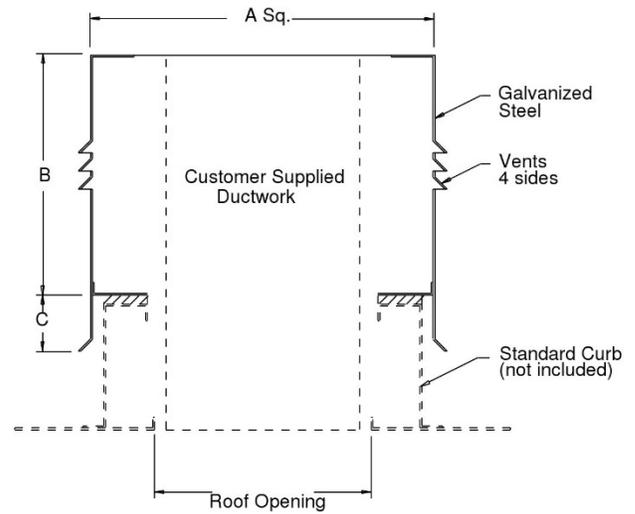
DATE:

VENTED EXTENSION

Galvanized Extension
Centrifugal Units

Note:

Roof opening size for curbs supplied
by Cook Only.



Dimensions (inches)

Mark	Qty	Description	Cat.No.	A Sq.	B	C	Roof Opening
EF1	1	VE-23 VENTED EXTNSN	VE-23	23	16	3-3/4	19-1/2

Horsepower	60 Hz AC Induction Motor						
	Single Phase		Three Phase				
	115 Volt	230 Volt	200 Volt	230 Volt	380-415 Volt	460 Volt	575 Volt
1/6	4.4	2.2	~	~		~	~
1/4	5.8	2.9	~	~		~	~
1/3	7.2	3.6	~	~		~	~
1/2	9.8	4.9	2.5	2.2	1.3	1.1	0.9
3/4	13.8	6.9	3.7	3.2	1.8	1.6	1.3
1	16.0	8.0	4.8	4.2	2.3	2.1	1.7
1 1/2	20.0	10.0	6.9	6.0	3.3	3.0	2.4
2	24.0	12.0	7.8	6.8	4.3	3.4	2.7
3	34.0	17.0	11.0	9.6	6.1	4.8	3.9
5	56.0	28.0	17.5	15.2	9.7	7.6	6.1
7 1/2	80.0	40.0	25.0	22.0	14.0	11.0	9.0
10	100	50.0	32.0	28.0	18.0	14.0	11.0
15	135	68.0	48.0	42.0	27.0	21.0	17.0
20	~	88.0	62.0	54.0	34.0	27.0	22.0
25	~	110	78.0	68.0	43.0	34.0	27.0
30	~	136	92.0	80.0	51.0	40.0	32.0
40	~	176	120	104	66.0	52.0	41.0
50	~	216	150	130	83.0	65.0	52.0
60	~	~	177	154	103	77.0	62.0
75	~	~	221	192	128	96.0	77.0
100	~	~	285	248	165	124	99.0
125	~	~	359	312	208	156	125
150	~	~	414	360	240	180	144
175	~	~	475	413	275	207	168
200	~	~	552	480	320	240	192
250	~	~	692	602	403	302	242
300	~	~	~	~	482	361	289
350	~	~	~	~	560	414	336
400	~	~	~	~	636	477	382
450	~	~	~	~	711	515	412
500	~	~	~	~	786	590	472

The information in this chart was derived from Table 430-148 & 430-150 of the NEC and Table 50.1 of UL standard 508A. The voltages listed are rated motor voltages. The currents listed shall be permitted for system voltage ranges of 110-120, 220-240, 380-415, 440-480 and 550-600 volts.

The full-load current values are for motors running at usual speeds and motors with normal torque characteristics. Motors built for especially

low speeds or high torques may have higher full-load currents, and multi-speed motors will have full-load currents varying with speed. In these cases, the nameplate current ratings shall be used.

Caution: The actual motor amps may be higher or lower than the average values listed above. For more reliable motor protection, use the actual motor current as listed on the motor nameplate. Use this table as a guide only