#### FOR QUESTIONS, CALL THE Sales & Service REGION 23 PHONE: (919) 573-1522 EMAIL: Info@ventilationdirect.com

## HOOD INFORMATION - JOB#4931432

					MAX							EXHA		LENUM			TOTAL		HODD C	DNFIG
HOD1	TAG	MODEL	MANUFACTURER	LENGTH	COOKING	TYPE	APPLIANCE		TOTAL			F	RISERC	<u>s)</u>			SUPPLY	HOOD	END TO	í I
ND	1 HG	Madec	MANOT HOTOKEK	LENGIN	TEMP		DUTY	CFM/FT	EXH CFM	VIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP	CFM	CONSTRUCTION	END	ROW
1		5424	VENTILATION	Q/ 0#	600	т	HEAVY	275	2200				16″	2200	1576	-0.524*	1760	430 SS	ALONE	
		VX-2-PSP-F	DIRECT	00	DEG	1		E/J	2200			٣	10	2200	13/6	-0.324	1760	WHERE EXPOSED	MEUNE	MEUNE

### HOOD INFORMATION

				FILTER	(2)			LIGHT(S)					UTILITY CABINET(S)			FIRE	наар
	TAG					EFFICIENCY @ 7			WIRE			FIF	RE SYSTEM	ELECTRICAL	SWITCHES		HANGING
ND	ING	TYPE	QTY	HEIGHT	LENGTH	MICRONS	QTY	TYPE	GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #			WEIGHT
1		SS BAFFLE WITH HANDLES	5	16″	16″	30%	υ	L55 SERIES E26	ND							ND	425 LBS

## HOOD OPTIONS

	ND	TAG				1	OPTION			
	1		BACKSPLASH	80.00″	HIGH	Х	96.00″	LONG	430 S	S VERTICAL.
l	1		RISER SENSOR	INSTALL	. 3IN	DBL.				

## PERFORATED SUPPLY PLENUM(S)

Наар									RISERC	S)	
	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	WIDTH	LENG	DIA	CFM	SP
						MUA	12″	24″		586	0.155″
1		Front	96*	18″	6″	MUA	12″	24″		586	0.155"
						MUA	12″	24″		586	0.155″



	<i>J0B</i> 8' Hood	
- •	LOCATION Spring Lake,	NC,
~T	<i>DATE</i> 6/10/2021	<i>JOB</i> # 4931432
5	DWG # 1	DRAWN BY
	REV.	<i>SCALE</i> 3/8" = 1'-0"

 GREASE DUCT & CHIMNEY SPECIFICATIONS: PROVIDE GREASE DUCT EQUAL TO VENTILATION DIRECT MODEL "VDW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "VDW" IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "VDW" DDES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE. PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL "VDW" HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS. IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 OR UL-103 HT LISTED DOUBLE WALL GREASE DUCT OR DOUBLE WALL CHIMNEY EQUAL TO VENTILATION DIRECT MODEL "VDW- 2R. 2R TYPE HT. 3R. DR 37" ROUND 20 GAUGE

EQUAL TO VENTILATION DIRECT MODEL "VDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

VENTILATION DIRECT RECOMMENDS THE USE OF LISTED, PRE-FABRICATED ROUND GREASE EXHAUST DUCT TO REDUCE STATIC PRESSURE IN THE SYSTEM, MINIMIZE INSTALLATION AND INSPECTION TIMES, AND ENSURE DUCT IS LIQUID TIGHT	HVAC DISTRIBUTION NOTE HIGH VELOCITY DIFFUSERS OR HVAC RETURNS SHOULD NOT BE PLACED WITHIN TEN (10) FEET OF THE EXHAUST HOOD. PERFORATED DIFFUSERS ARE RECOMMENDED.
VERIFY CEILING HEIGHT '"	APPROVED AS NOTED

YOUR TITLE

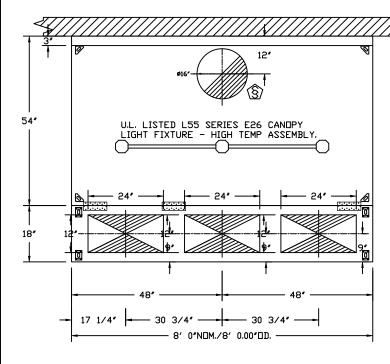
HEIGHT REQUIRED TO VERIFY THAT HOOD FITS SPACE AND TO SIZE THE ENCLOSURE PANELS

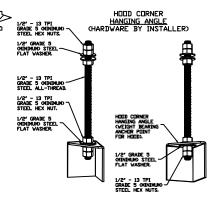
DATE



PATENT NUMBERS

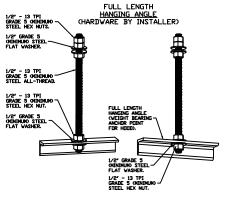
AC-PSP (UNITED STATES) - US PATENT 7963830 B2. AC-PSP WALL (CANADA) - CA PATENT 2820509. AC-PSP ISLAND (CANADA) - CA PATENT 2520330.





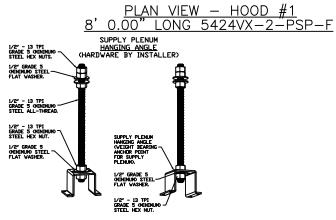
#### ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2' - 13 TPI HANGING ANGLE MUST BE SUPPORTED WITH 1/2' - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2' - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HODD HANGING DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.



#### ASSEMBLY INSTRUCTIONS

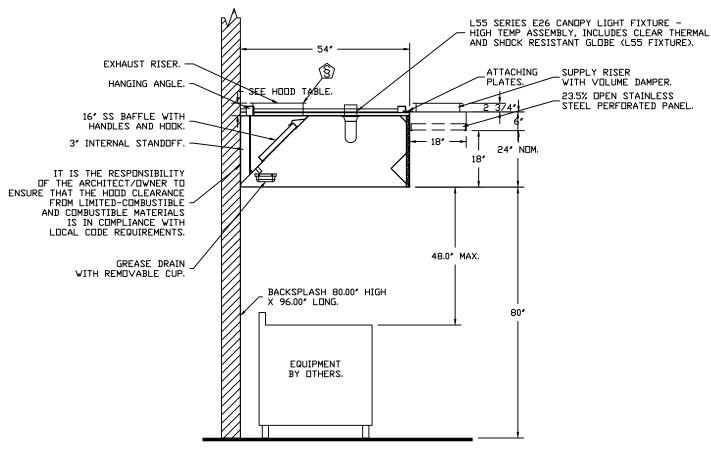
ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 ANCHORS. SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR FULL LENGTH HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT, TORQUE ALL HEX NUTS TO 57 FT-LBS.



### ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2' GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN, MUST USE DOUBLED HEX NUT CONFIGURATION ABOVE CEILING ANCHORS, SINGLE HEX NUT BENEATH HANGING ANGLE IS ACCEPTABLE FOR PSP HANGING ANGLES. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.





<u>SECTION VIEW - MODEL 5424VX-2-PSP-F</u> <u>HOOD - #1</u>



## EXHAUST FAN INFORMATION - JOB#4931432

FAN UNIT ND	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	VEIGHT (LBS)	SONES
1		1	VXD85	VENTILATION DIRECT	2200	0.750	1413	DDP	0.750	0.5030	1	115	9.8	696 FPM	98	15.2
MUA	FAN	INFO	RMATION - JOB#493143	2										1	- 	

	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCP	VEIGHT (LBS)	SONES	
2		1	VA1-G10	G10D	A1	-	1760	0.500	915	ТЕАП-ЕСМ	1.000	0.5750	1	115	11.6	15.6A	25A	197	20	

FAN OPTIONS

FAN UNIT ND	TAG	QTY	DESCRIPTION
1		1	GREASE BOX.
1		1	2 YEAR PARTS WARRANTY.
2			ECM WIRING PACKAGE-SUPPLY - PWM SIGNAL FROM ECPMO3 PREWIRE (TELCO MOTOR), CW ROTATION.
		1	2 YEAR PARTS WARRANTY.

# FAN ACCESSORIES

FAN UNIT	TAG		EXHAUST	-		SUPF	۲Ľ۲	
ND		GREASE CUP	GRA∨ITY DAMPER		SIDE DISCHARGE		MOTORIZED DAMPER	WALL MOUNT
1		YES						

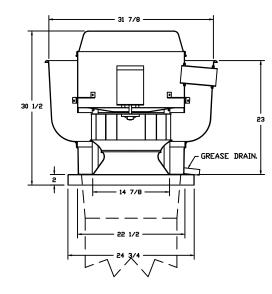
# <u>CURB ASSEMBLIES</u>

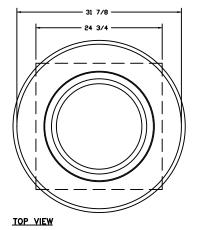
	ND	ON FAN	WEIGHT	ITEM	SIZE
	1	# 1	36 LBS	CURB	23.000"W X 23.000"L X 20.000"H ALONG LENGTH, RIGHT VENTED HINGED.
	2	# 2	29 LBS	CURB	21.000"W X 21.000"L X 20.000"H ALONG LENGTH, RIGHT.
[	3		29 LBS	EXHAUST ADAPTER	FREM 31.000'SQ TE 26.500'SQ X 9.000'H.



	<i>JOB</i> 8′ Hood	
- •	LOCATION Spring Lake,	NC,
<b>∼</b> T	<i>DATE</i> 6/10/2021	<i>JOB</i> # 4931432
	<i>DWG</i> # 5	DRAWN BY
	REV.	<i>SCALE</i> $3/8'' = 1'-0''$

### FAN #1 VXD85 - EXHAUST FAN





### FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS). - ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST EXHAUST FAN MUST DPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH VOULD CAUSE UNSAFE OPERATION.

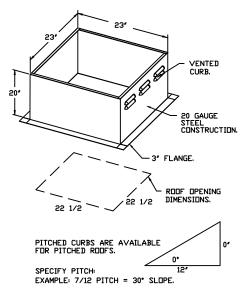
### ABNORMAL FLARE-UP TEST

EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (36°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.



GREASE BOX. 2 YEAR PARTS WARRANTY.

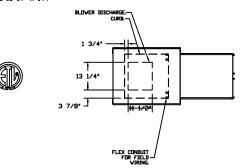
> (ID) Intertek

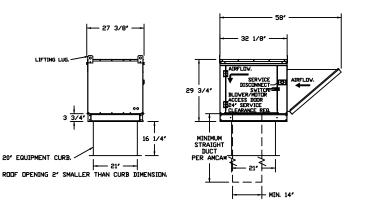


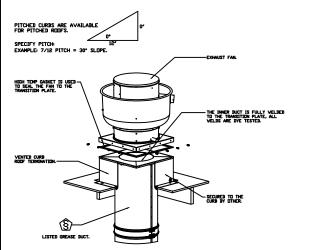
		<i>J0B</i> 8′ Hood		
		LOCATION Spring Lake,	NC,	
BUILT BRANNER VITHA Na. 96	Ventilation Direct	DATE 6/10/2021	<i>JOB</i> # 4931432	
NE SE		<i>DWG</i> # 6	DRAWN BY	
		REV.	<i>SCALE</i> 3/8" = 1'-0"	

FAN #2 VAI-GIOD - SUPPLY FAN 1. DIRECT DRIVE UNTEMPERED SUPPLY UNIT VITH 10° BLOWER IN SIZE #1 HOUSING VITH SPEED CONTROL, DISCONNECT SVITCH. 2. INTAKE HOOD VITH EZ FILTERS-LOW CFM. 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT. 4. ECM VITNIG PACKAGE FOR SUPPLY HOTORS VITH PVM SIGNAL FROM ECPMO3 PREVIRE. 5. HINGED DUDBLE VALL INSULATED DOOR ASSEMBLY (BURNER/BLOVER SECTION). 6. 2 YEAR PARTS VARRANTY.

\*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS DUTLINED IN AMCA PUBLICATION 201. VHEN USING RECTANGULAR DUCTWORK, ELBOYS MUST BE RADIUS THRAIT, RADIUS BACK VITH TURNING VAMES. FLEXIBLE DUCTWORK AND SQUARE THRAIT/SQUARE BACK ELBOYS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK VILL CAUSE SYSTEM FFFECT. SYSTEM EFFECT VILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW, DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY VAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE. SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14".







٩ GREASE DUCT & CHIMNEY SPECIFICATIONS: PROVIDE GREASE DUCT EQUAL TO VENTILATION DIRECT MODEL "VDW" ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "VDW" IS LISTED TO UL-1978 AND IS INSTALLED USING "∨" CLAMP LOCKING CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "VDW" DDES NOT REQUIRE WELDING PROVIDING IT HAS BEEN INSTALLED PER THE MANUFACTURES INSTALLATION GUIDE PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 12' ON CENTER. PER MANUFACTURES LISTING MODEL 'VDW' HORIZONTAL RUNS LESS THAN 75 FT. CAN BE SLOPED 1/16" PER 12", HORIZONTAL RUNS MORE THAN 75 FT. CAN BE SLOPED 3/16" PER 12". DUCT SHOULD BE SLOPED AS MUCH AS POSSIBLE TO REDUCE THE CHANCE OF GREASE ACCUMULATION IN HORIZONTAL RUNS,

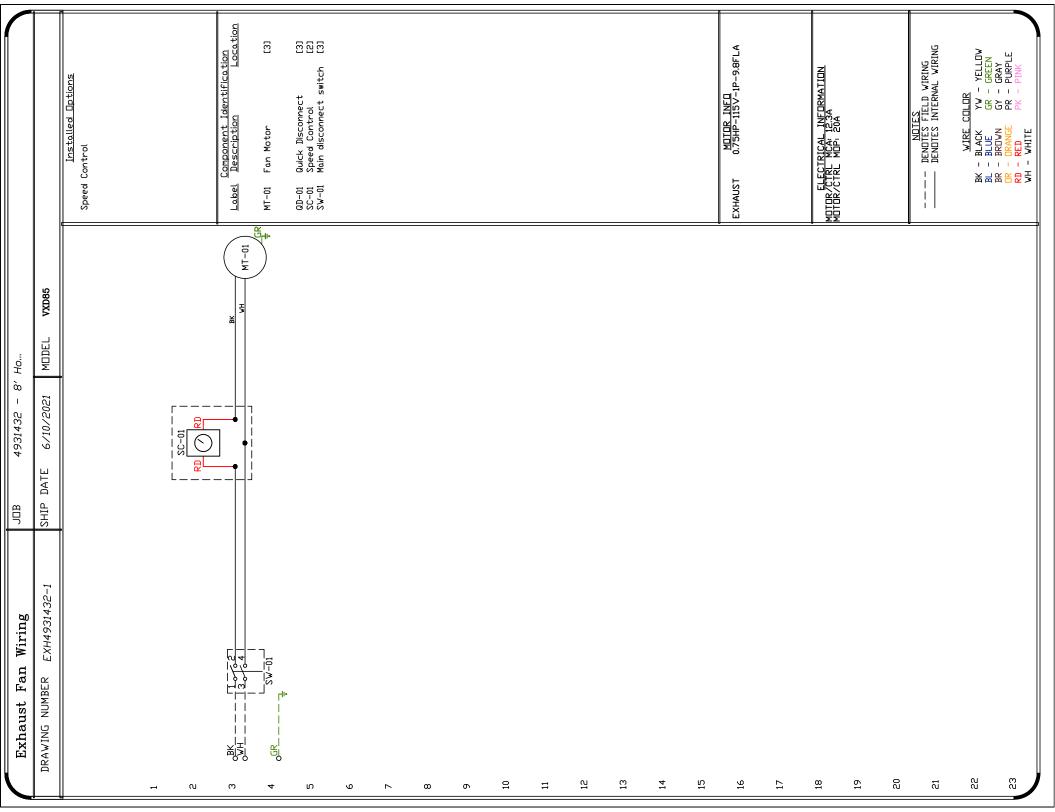
IF THE DUCT OR CHIMNEY IS WITHIN 18 INCHES OF COMBUSTIBLE MATERIAL, PROVIDE UL-2221 DR UL-103 HT LISTED DOUBLE WALL GREASE DUCT DR DOUBLE WALL CHIMNEY EQUAL TO VENTILATION DIRECT MODEL "VDW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE 430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS DUTER SHELL.

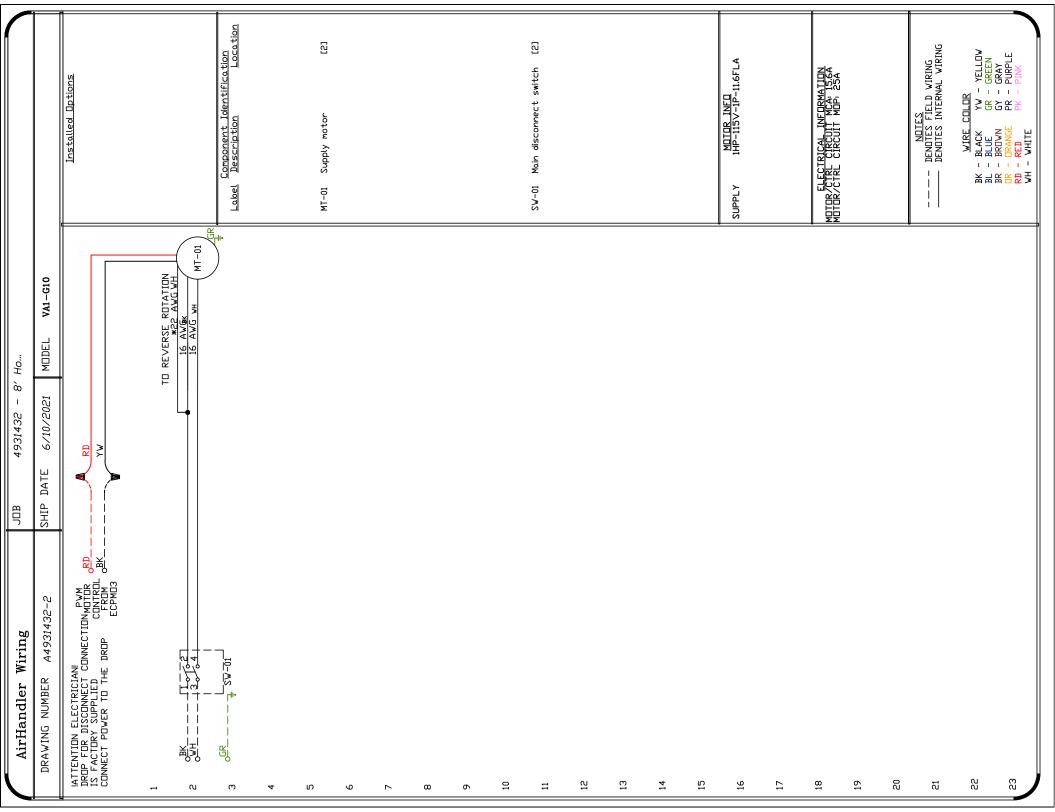
### CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED	
APPROVED WITH NO EXCEPTION TAKEN	
REVISE AND RESUBNIT	
SIGNATURE	
YOUR TITLE DATE	

_		JOB 8' Hood
		LOCATION Spring
	Ventilation Direct	<i>DATE</i> 6/10/2021
		<i>DWG</i> # 7
		REV.

	<i>JOB</i> 8' Hood								
t	<i>LOCATION</i> Spring Lake, NC,								
	<i>DATE</i> 6/10/2021	<i>JOB #</i> 4931432							
	DWG # 7	DRAWN BY							
	REV.	<i>SCALE</i> $1/4'' = 1'-0''$							



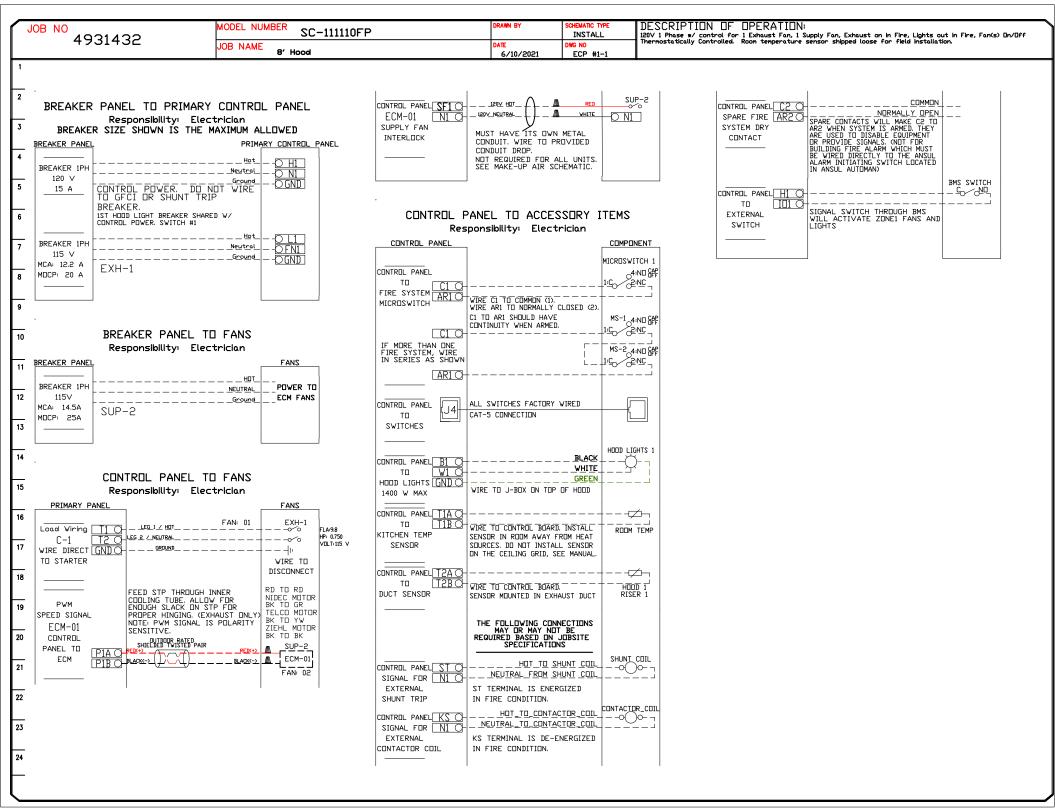


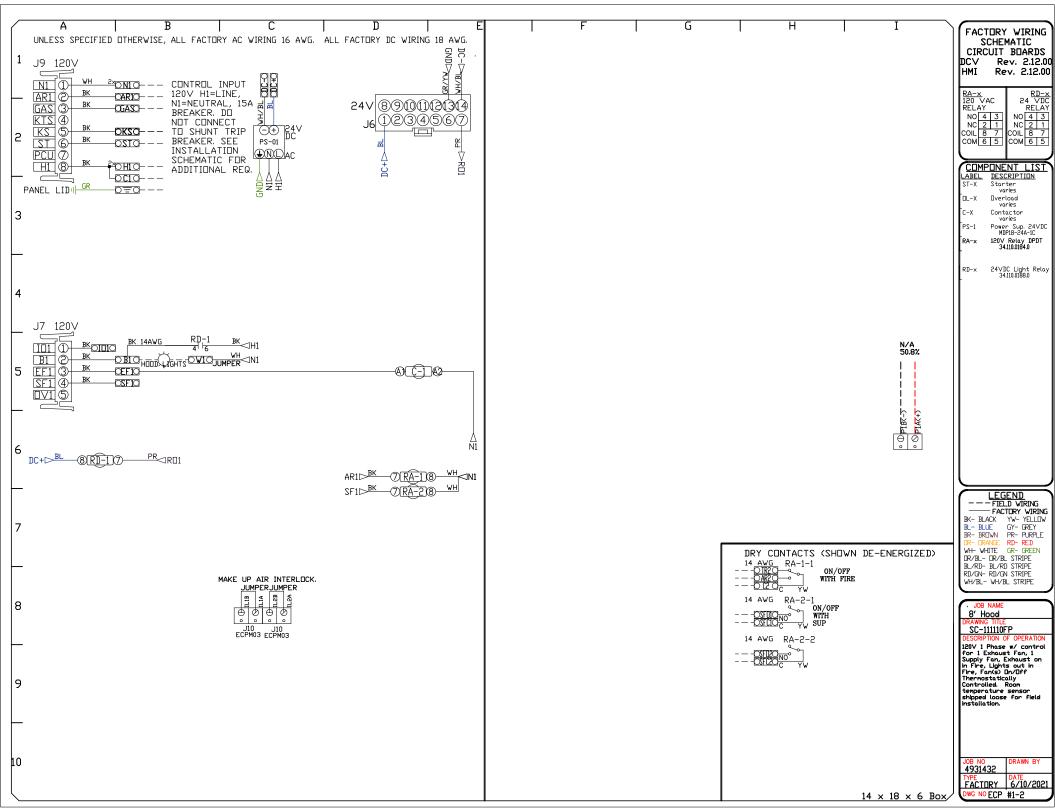
# ELECTRICAL PACKAGE - JOB#4931432

ND	TAG	PACKAGE #	LOCATION	SWITCH	HES	OPTION	FANS CONTROLLED				
	-			LOCATION	QUANTITY		TYPE	ф	HP	VOLT	FLA
	SC-111110FP		WALL MOUNT IN SS BOX	05 - SS WALL	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL	EXHAUST	1	0.750	115	9.8
1	1	SC-IIIIOFP	WALL MUUNT IN 33 BUX	MOUNT BOX	1 FAN	SMART CONTROLS THERMOSTATIC CONTROL	SUPPLY	1	1.000	115	11.6



	<i>JOB</i> 8′ Hood						
	<i>LOCATION</i> Spring Lake, NC,						
T N	<i>DATE</i> 6/10/2021	<i>JOB #</i> 4931432					
	<i>DWG</i> # 10	DRAWN BY					
	REV.	<i>SCALE</i> 3/8" = 1'-0"					





				-					
DIAGRAM FOR F	TIELD WIRING	E INSTALLATION REQUIREMENTS.	D	E	F	G	Н	II	FACTORY WIRING SCHEMATIC CIRCUIT BOARDS DCV Rev. 2.10.00 HMI Rev. 2.10.00
14 AVG 1 PH <u>OLIO<sup>BK</sup></u> 115 V <u>OLIO<sup>BK</sup></u> 20 A	L 1T1	MTR:EXH-1 CDNT:100-K12D10 FLA:9.8 HP:0.750							RA-x    RD-x      120    VAC    24    VDC      RELAY    RELAY    RELAY    RELAY      NO    [4]    3    NO    [4]    3      NC    [2]    1    NC    [2]    1      COIL    8    7    COIL    8    7      COM    6    5    COM    6    5
									COMPONENT LIST LABEL DESCRIPTION ST-X Starter varies C-X Contactor varies SM-X VFD varies

(	
	FACTORY WIRING
	BK- BLACK YW- YELLD
	BL- BLUE GY- GREY
I	BR- BROWN PR- PURPLE
I	OR- ORANGE RD- RED
I	WH- WHITE GR- GREEN
I	OR/BL- OR/BL STRIPE
I	BL/RD- BL/RD STRIPE
I	RD/GN- RD/GN STRIPE
	WH/BL- WH/BL STRIPE

LR-X Line/Load Reactor varies

8' Hood
DRAWING TITLE
SC-111110FP
DESCRIPTION OF OPERATION
120V 1 Phase w/ control
for 1 Exhaust Fan, 1 Supply Fan, Exhaust on
in Fire, Lights out in
Fire, Fan(s) On/Off
Thermostatically Controlled, Room
temperature sensor
shipped loose for field
installation.

DRAWN BY

JOB NO 4931432 TYPE DATE FACTURY 6/10/2021 DWG NO ECP #1-3

14 × 18 × 6 Box

### DUCTWORK #1 PARTS - JOB#4931432

TAG	PART #	CFM	GPM	ZONE	CO∨EREDBY	SP	WEIGHT	VELOCITY	QTY	DESCRIPTION
P1	VDW1647LT	2200				-0.0153	24.89	1575.63	1	SINGLE WALL DUCT 16" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P2	VDW1647LT	2200				-0.0153	24.89	1575.63	1	SINGLE WALL DUCT 16" DIAMETER, 47" LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P3	VDW1629LT	2200				-0.0095	15.68	1575.63	1	SINGLE WALL DUCT 16' DIAMETER, 29' LONG, FLANGE AT BOTH ENDS. STAINLESS STEEL.
P4 ASSEMBLED W/P5	VDW1630AJDKIT	2200				-0.0069	20.06	1575.63	1	SINGLE WALL DUCT ADJUSTABLE, 16' DIAMETER, 29.5' LONG, FLANGE AT DNE END WITH A 16' ADJUSTABLE COLLAR - STAINLESS STEEL.
P5 ASSEMBLED W/P4	VDW2316TP	2200					8.03	1575.63	1	DUCT TO CURB TRANSITION, 23' CURB TO 16' DUCT, 16 GA ALUMINIZED. USED ON BDU15, DU75 & 85.
SYSTEM AT P5						-0.571	0.00			
	V3M-2000PLUS						0.80		2	DUCT - 3M FIRE BARRIER 2000 PLUS SILICONE - USED AS SEALANT TO SEAL DUCT JOINTS.
	VDW16CLASY						1.18		4	DUCT "V" CLAMP WITH NEW DESIGN 14 GA BRACKETS, 16" DUCT, ASSEMBLY.
TOTAL WEIGHT							99.87			

SINGLE WALL FACTORY BUILT DUCTWORK

- ALL DUCTWORK IS REQUIRED TO BE INSTALLED WITH THE MAXIMUM SUPPORT SPACING LISTED BELOW.

- FOR A COMPLETE LIST OF APPROVED SUPPORT METHODS, SEE THE INSTALLATION AND OPERATION MANUAL.

- DUCTWORK SHALL SLOPE NOT LESS THAN 1/16' PER LINEAR FOOT TOWARDS THE HOOD OR AN APPROVED GREASE COLLECTION RESERVOIR.

- WHERE HORIZONTAL DUCTS EXCEED 75 FEET IN LENGTH, THE SLOPE SHALL NOT BE LESS THAN 3/16" PER LINEAR FOOT.

DUCT DIAMETER	HORIZONTAL SUPPORT (FT)	VERTICAL WALL SUPPORT (FT)	VERTICAL CURB SUPPERT (FT)
51	10'	10'	24'
6'	10'	10'	24′
7'	10'	10'	24′
8'	10'	10'	24'
10"	10'	10'	24′
12*	10'	10'	24'
14"	10'	10'	24′
16*	10'	10'	24′
18*	10'	10'	24'
20"	10'	10'	24′
22″	10'	10'	24'
24″	10'	10′	24′
26″	10'	10'	24'
28″	10'	10'	24′
30"	10'	10'	24′
32″	10'	10'	24'
34″	10'	10'	24′
36″	10'	10'	24′

DO NOT LEAK TEST USING SMOKE BOMBS CONTAINING CHLORINES/CHLORIDES, CONSULT WITH CAPTIVEAIRE FOR PROPER LEAK TESTING METHODS.

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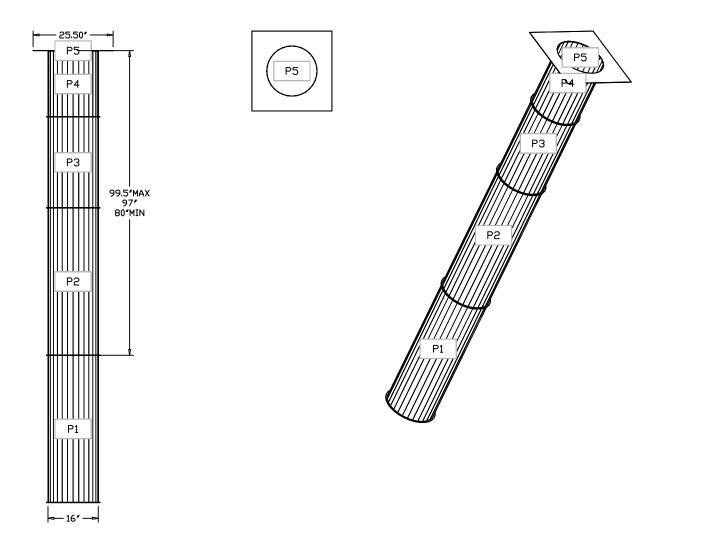
DUCTWORK #1 FRONT VIEW

ШL		Ц			
P1					
		П			
				1	
- 16"					
	16 <b>″</b> ·				



	<i>JOB</i> 8' Hood		
	LOCATION Spring Lake, NC,		
<b>~</b> T	DATE 6/10/2021	<i>JOB #</i> 4931432	
<b>, 1</b>	<i>DWG #</i> 14	DRAWN BY	
	REV.	SCALE 3/8" = 1'-0"	

DUCTWORK #1 SIDE VIEW DUCTWORK #1 TOP VIEW DUCTWORK #1 SE VIEW





4931432