

HOOD INFORMATION – JOB#3915920

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM							TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG	
										RISER(S)									END TO END	ROW
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL	SP				
1		5424 ND-2-PSP-F	CAPTIVEAIRE	12' 0"	600 DEG	I	HEAVY	235	2820			4'	16"	2820	2020	-1.100'	2256	430 SS WHERE EXPOSED	ALONE	ALONE

HOOD INFORMATION

HOOD NO	TAG	FILTER(S)					LIGHT(S)			UTILITY CABINET(S)						FIRE SYSTEM PIPING	HOOD HANGING WEIGHT
		TYPE	QTY	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY	TYPE	WIRE GUARD	LOCATION	SIZE	FIRE SYSTEM		ELECTRICAL	SWITCHES		
1		CAPTRATE SOLO FILTER	9	20"	16"	85% SEE FILTER SPEC	4	L55 SERIES E26	NO	RIGHT	12"x54"x24"	ANSUL R102	3.0/3.0	SC-311110FP	1 LIGHT 1 FAN	YES	1039 LBS

HOOD OPTIONS

HOOD NO	TAG	OPTION
1		FIELD WRAPPER 6.00' HIGH FRONT, LEFT, RIGHT.
		BACKSPLASH 80.00' HIGH X 156.00' LONG 430 SS VERTICAL.
		INSULATION FOR TOP OF HOOD.
		RISER SENSOR INSTALL 3IN DBL.
		LEFT VERTICAL END PANEL 27' TOP WIDTH, 21' BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.
		RIGHT VERTICAL END PANEL 27' TOP WIDTH, 21' BOTTOM WIDTH, 80" HIGH INSULATED 430 SS.

PERFORATED SUPPLY PLENUM(S)

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
1		Front	156'	16'	6'	MUA	12"	28"		752	0.212"
						MUA	12"	28"		752	0.212"
						MUA	12"	28"		752	0.212"

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-BAFFLE DESIGN IN CONJUNCTION WITH A SLOTTED REAR BAFFLE DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.

FILTER IS STAINLESS STEEL CONSTRUCTION, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).

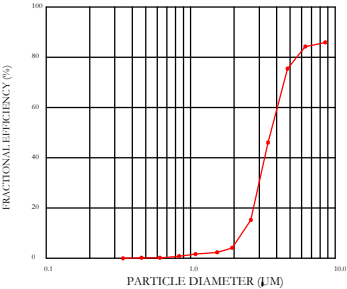
UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.

GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 85% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES OF WATER GAUGE.

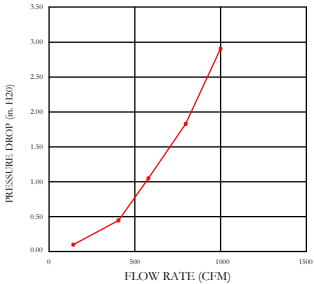
THE CAPTRATE GREASE-STOP SOLO WAS TESTED TO ASTM STANDARD ASTM F2519-05.

MANUFACTURER APPROVED FOR USE IN SOLID FUEL APPLICATIONS AS A SPARK ARRESTER.

EFFICIENCY VS. PARTICLE DIAMETER



PRESSURE DROP VS. FLOW RATE



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH:

- NFPA #96.
- NSF STANDARD #2.
- UL STANDARD #1046.
- INT. MECH. CODE (IMC).
- ULC-S649.





JOB Tabernacle Baptist Church Kitchen	
LOCATION LAKE CITY, FL, 32025	
DATE 10/28/2020	JOB # 3915920
DWG # 1	DRAWN BY reg65
REV.	SCALE 3/8" = 1'-0"



GREASE DUCT & CHIMNEY SPECIFICATIONS:
PROVIDE GREASE DUCT EQUAL TO CAPTIVEAIRE SYSTEMS MODEL "DW"
ROUND 20 GAUGE 430 STAINLESS STEEL DUCTWORK. MODEL "DW"
IS LISTED TO UL-1978 AND IS INSTALLED USING "V" CLAMP LOCKING
CONNECTIONS SEALED WITH 3M FIRE BARRIER 2000 PLUS. MODEL "DW"
DOES 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 "DW" 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 CAPTIVEAIRE SYSTEMS MODEL "DW- 2R, 2R TYPE HT, 3R, OR 3Z" ROUND 20 GAUGE
430 STAINLESS INNER DUCT INSULATED WITH A 24 GAUGE 430 STAINLESS OUTER SHELL.

CAPTIVEAIRE SYSTEMS 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

VERIFY CEILING HEIGHT

___' - ___"

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

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.

CUSTOMER APPROVAL TO MANUFACTURE:

APPROVED AS NOTED	<input type="checkbox"/>
APPROVED WITH NO EXCEPTION TAKEN	<input type="checkbox"/>
REVISE AND RESUBMIT	<input type="checkbox"/>
SIGNATURE _____	
YOUR TITLE _____	DATE _____

SYSTEM DESIGN VERIFICATION (SDV)

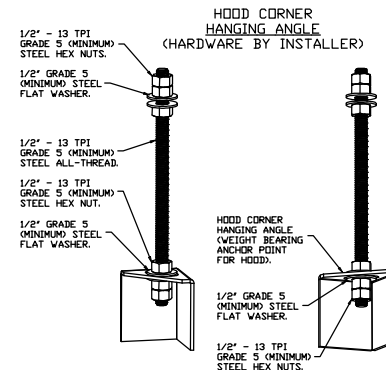
IF ORDERED, CAS SERVICE WILL PERFORM A SYSTEM DESIGN VERIFICATION (SDV) ONCE ALL
EQUIPMENT HAS HAD A COMPLETE START UP PER THE OPERATION AND INSTALLATION MANUAL.
TYPICALLY, THE SDV WILL BE PERFORMED AFTER ALL INSPECTIONS ARE COMPLETE.

ANY FIELD RELATED DISCREPANCIES THAT ARE DISCOVERED DURING THE SDV WILL BE BROUGHT TO
THE
ATTENTION OF THE GENERAL CONTRACTOR AND CORRESPONDING TRADES ON SITE. THESE ISSUES
WILL BE DOCUMENTED AND FORWARDED TO THE APPROPRIATE SALES OFFICE. IF CAS SERVICE HAS
TO
RESOLVE A DISCREPANCY THAT IS A FIELD ISSUE, THE GENERAL CONTRACTOR WILL BE NOTIFIED AND
BILLED FOR THE WORK. SHOULD A RETURN TRIP BE REQUIRED DUE TO ANY FIELD RELATED
DISCREPANCY THAT CANNOT BE RESOLVED DURING THE SDV, THERE WILL BE ADDITIONAL TRIP
CHARGES.

DURING THE SDV, CAS SERVICE WILL ADDRESS ANY DISCREPANCY THAT IS THE FAULT OF THE
MANUFACTURER. SHOULD A RETURN TRIP BE REQUIRED, THE GENERAL CONTRACTOR AND APPROPRIATE
SALES OFFICE WILL BE NOTIFIED. THERE WILL BE NO ADDITIONAL CHARGES FOR MANUFACTURER
DISCREPANCIES.

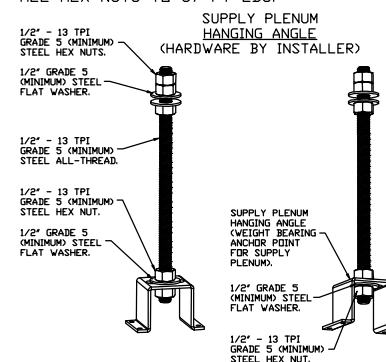
PATENT NUMBERS

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
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 HOOD HANGING
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

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.



CAPTIVEAIRE

JOB Tabernacle Baptist Church Kitchen

LOCATION LAKE CITY, FL, 32025

DATE 10/28/2020

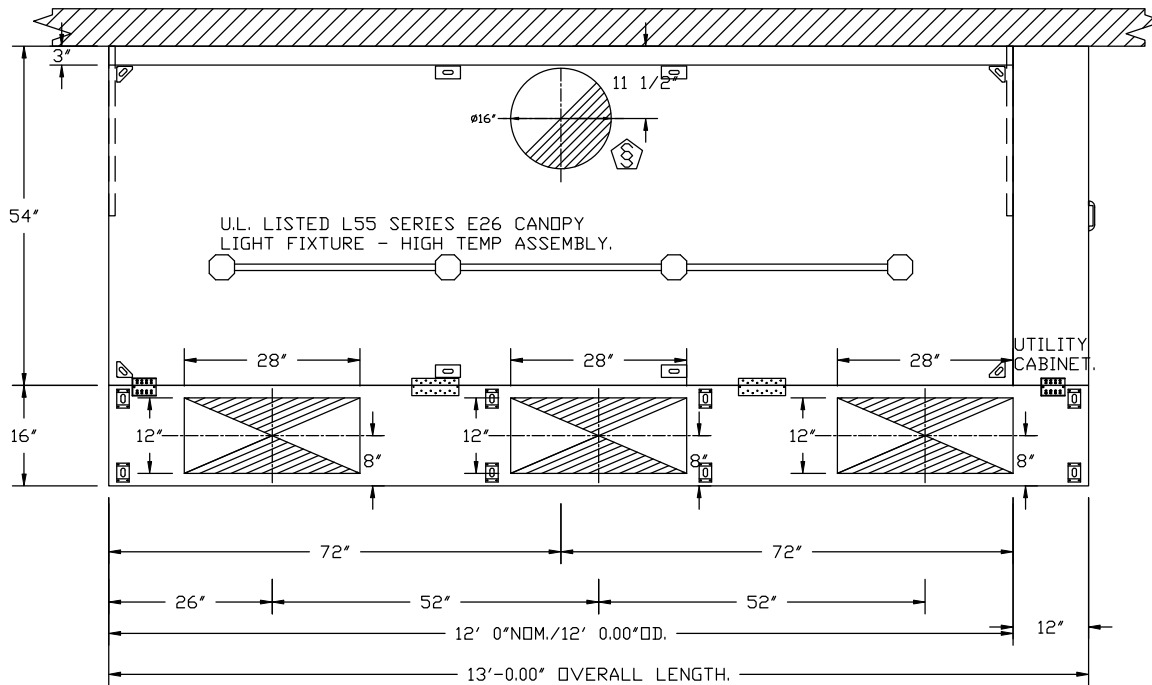
JOB # 3915920

DWG # 2

DRAWN BY reg65

REV.

SCALE 3/8" = 1'-0"

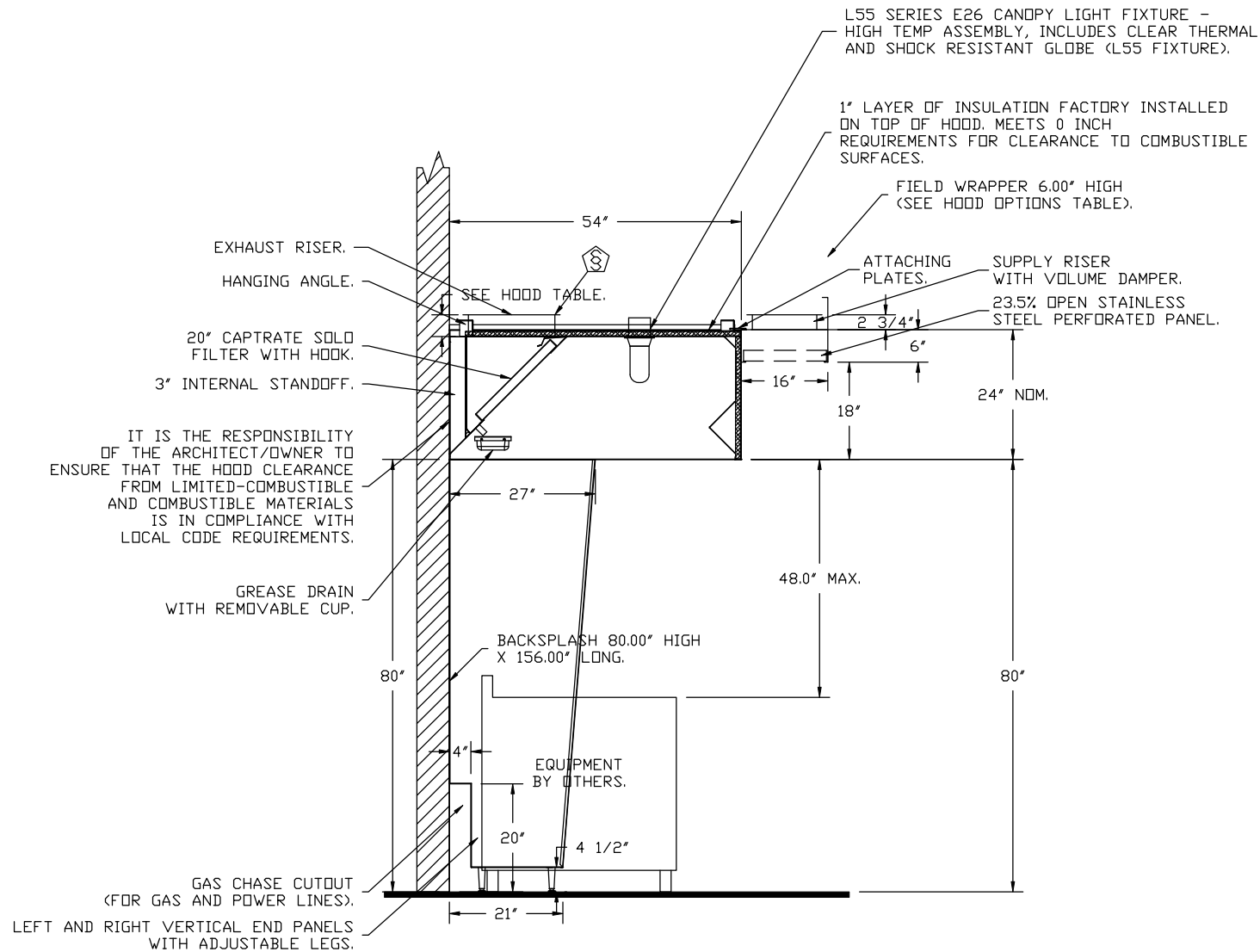


PLAN VIEW - HOOD #1
 12' 0.00" LONG 5424ND-2-PSP-F
 NOTE: ADDITIONAL HANGING ANGLES PROVIDED FOR HOODS 12' AND LONGER.



CAPTIVEAIRE

JOB Tabernacle Baptist Church Kitchen	
LOCATION LAKE CITY, FL, 32025	
DATE 10/28/2020	JOB # 3915920
DWG # 3	DRAWN BY reg65
REV.	SCALE 3/8" = 1'-0"



SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #1

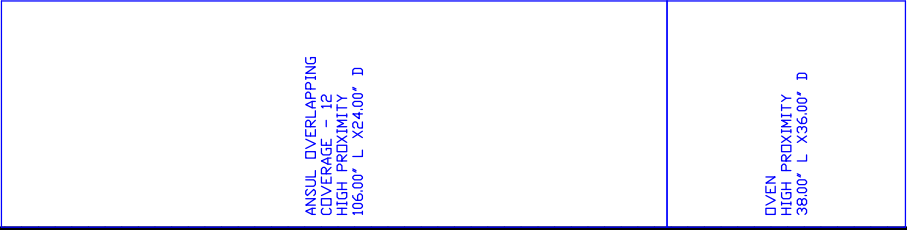
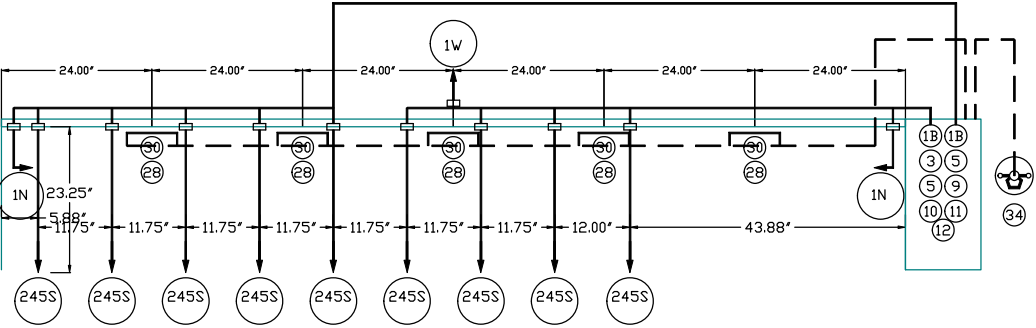
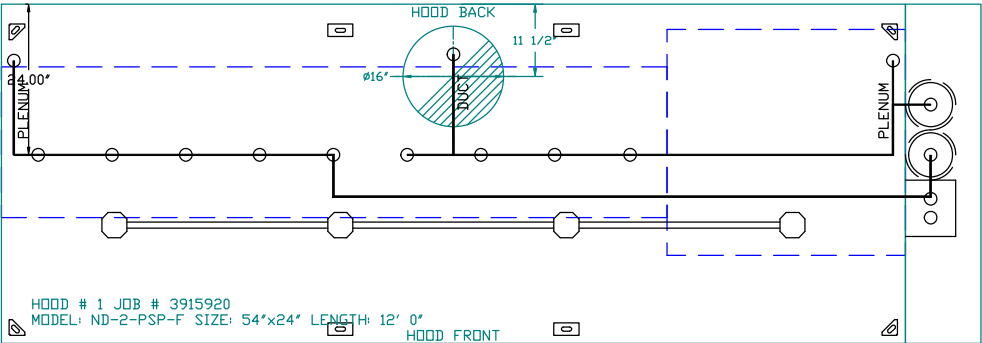


CAPTIVEAIR

JOB Tabernacle Baptist Church Kitchen			
LOCATION LAKE CITY, FL, 32025			
DATE	10/28/2020	JOB #	3915920
DWG #	4	DRAWN BY	reg65
REV.		SCALE	3/8" = 1'-0"

FIRE SYSTEM INFORMATION - JOB#3915920

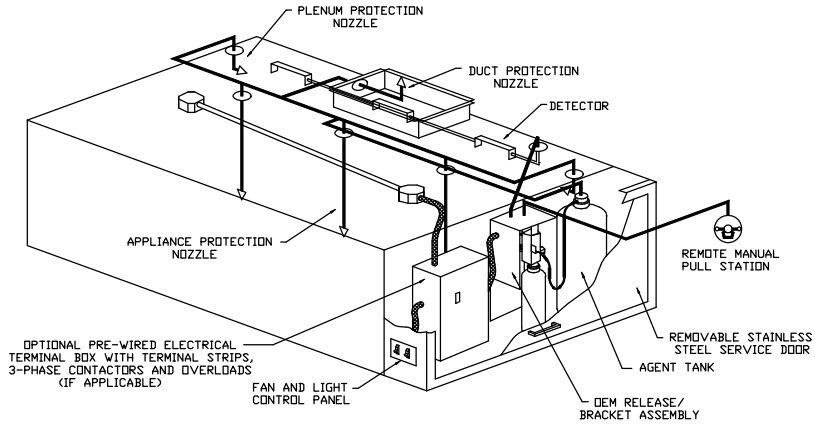
FIRE SYSTEM NO	TAG	TYPE	SIZE	FLOW POINTS	INSTALLATION	
					SYSTEM	LOCATION ON HOOD
1		ANSUL R102	3.0/3.0	21	FIRE CABINET RIGHT	RIGHT, HOOD 1



- NOTES
- FIELD PIPE DROPS AS SHOWN
 - SLEEVING, ELBOWS, TEES, AND NOZZLES SUPPLIED BY CAS.
 - RELOCATE NOZZLES IF FLOW PATTERN IS BLOCKED BY SHELVING, SALAMANDERS, ETC.
 - MAXIMUM 9 ELBOWS IN SUPPLY LINE.
 - MINIMUM 72 INCHES OF AGENT LINE FROM TANK TO FIRST NOZZLE COVERING A RANGE, FRYER, OR WOK TO REFLECT GENERAL PIPING REQUIREMENTS.
 - IF APPLICABLE, PRE-PIPED CHARBROILER DROPS ARE SHIPPED LOOSE.
 - FACTORY PIPING EXTENDS A MAXIMUM OF 6" ABOVE THE TOP OF THE HOOD.
 - APPLIANCE DIMENSIONS LISTED REPRESENT THE COOKING SURFACE SIZE, NOT THE OVERALL APPLIANCE SIZE.
 - THIS FIRE SYSTEM COMPLIES WITH U.L. 300 REQUIREMENTS.

JOB #: 3915920.
JOB NAME: TABERNACLE BAPTIST CHURCH KITCHEN.

SYSTEM SIZE: ANSUL-3.0/3.0 TOTAL FP REQUIRED: 21.
HOOD # 1 12' 0.00" LONG x 54" WIDE x 24" HIGH.
RISER # 1 SIZE: 16" DIA.
HOOD # 1 METAL BLOW-OFF CAPS INCLUDED.



TYPICAL ANSUL R-102 SYSTEM LAYOUT





JOB Tabernacle Baptist Church Kitchen	
LOCATION LAKE CITY, FL, 32025	
DATE 10/28/2020	JOB # 3915920
DWG # 5	DRAWN BY reg65
REV.	SCALE 3/8" = 1'-0"

EXHAUST FAN INFORMATION – JOB#3915920

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1		1	DU180HFA	CAPTIVEAIRE	2820	1.750	1344	ODP,PREMIUM	2.000	1.2800	3	208	6.1	651 FPM	161	19

MUA FAN INFORMATION – JOB#3915920

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	Ø	VOLT	FLA	MCA	MOCP	WEIGHT (LBS)	SONES
2		1	A2-20D	20MF-2-MOD	A2	2000	2256	0.400	898	ODP,PREMIUM	1.000	0.4020	3	208	3.8	4.8A	15A	393	8.1

FAN OPTIONS

FAN UNIT NO	TAG	QTY	DESCRIPTION
1		1	GREASE BDX.
		1	FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS.

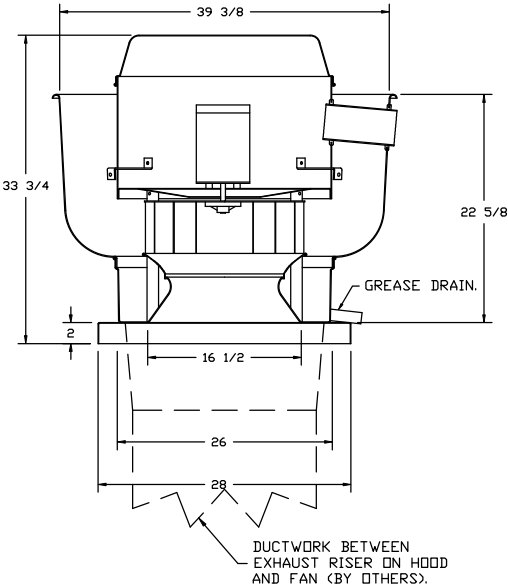
FAN ACCESSORIES

FAN UNIT NO	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
1		YES						

CURB ASSEMBLIES

NO	ON FAN	WEIGHT	ITEM	SIZE
1	# 1	34 LBS	CURB	26.500"W X 26.500"L X 26.000"H 5.000:12.000 PITCH VENTED HINGED.
2	# 2	42 LBS	CURB	31.000"W X 37.000"L X 20.000"H 5.000:12.000 PITCH ALONG WIDTH, RIGHT INSULATED.

FAN #1 DU180HFA – EXHAUST FAN



FEATURES:

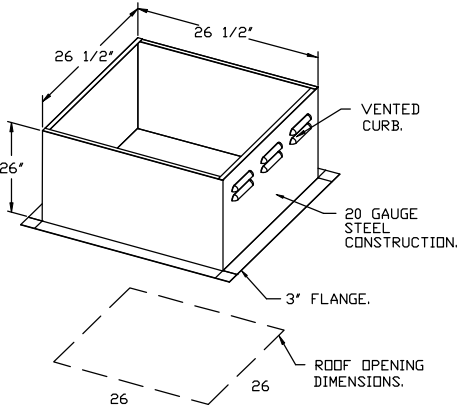
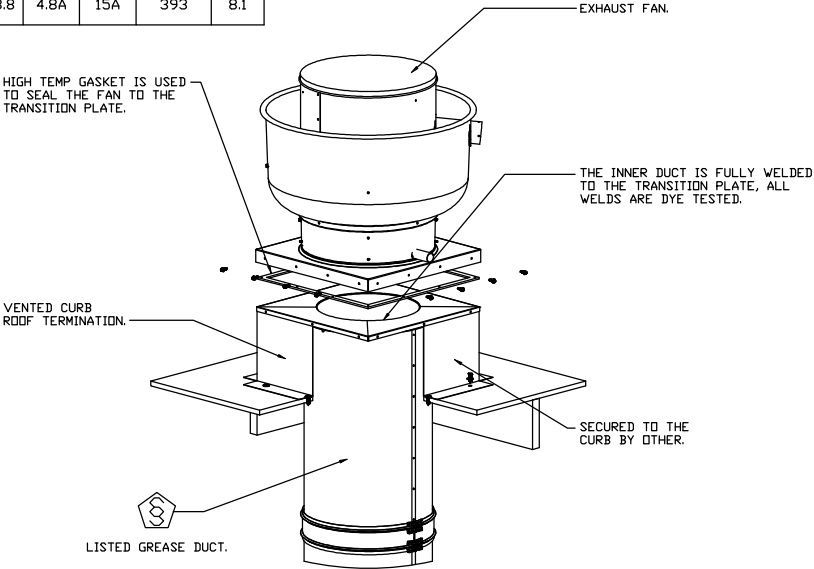
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT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

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE 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 WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

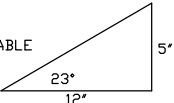
OPTIONS

GREASE BOX.
FAN BASE CERAMIC SEAL – SHIP LOOSE – FOR GREASE DUCTS.



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.

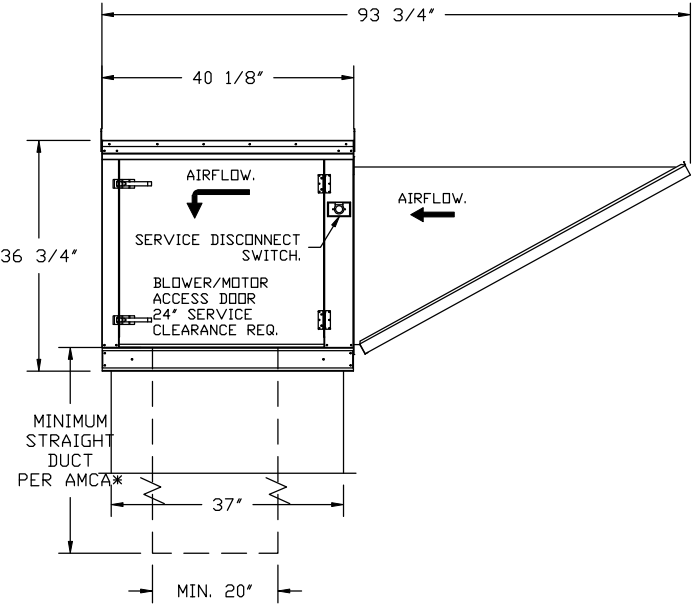
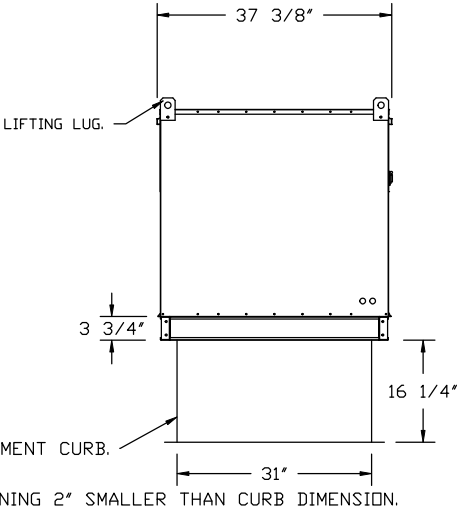
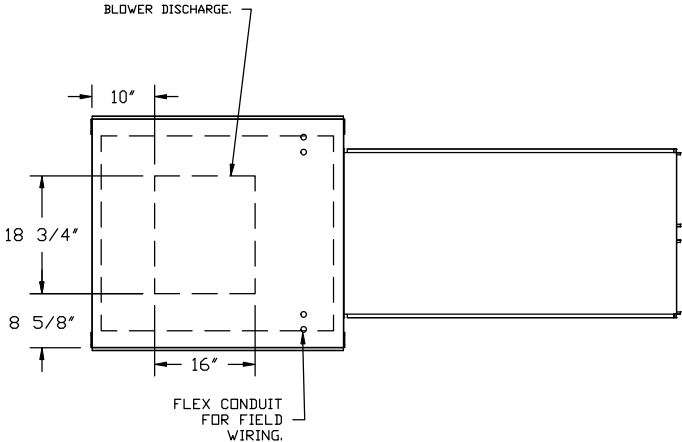


CAPTIVEAIRE

JOB Tabernacle Baptist Church Kitchen	
LOCATION LAKE CITY, FL, 32025	
DATE 10/28/2020	JOB # 3915920
DWG # 6	DRAWN BY reg65
REV.	SCALE 3/8" = 1'-0"

- FAN #2 A2-20D - SUPPLY FAN
1. UNTEMPERED SUPPLY UNIT WITH 20" DIRECT DRIVE FAN IN SIZE #2 HOUSING.
 2. INTAKE HOOD WITH EZ FILTERS.
 3. DOWN DISCHARGE - AIR FLOW RIGHT -> LEFT.
 4. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).

*NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT. SUGGESTED STRAIGHT DUCT SIZE IS 20" x 20".



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

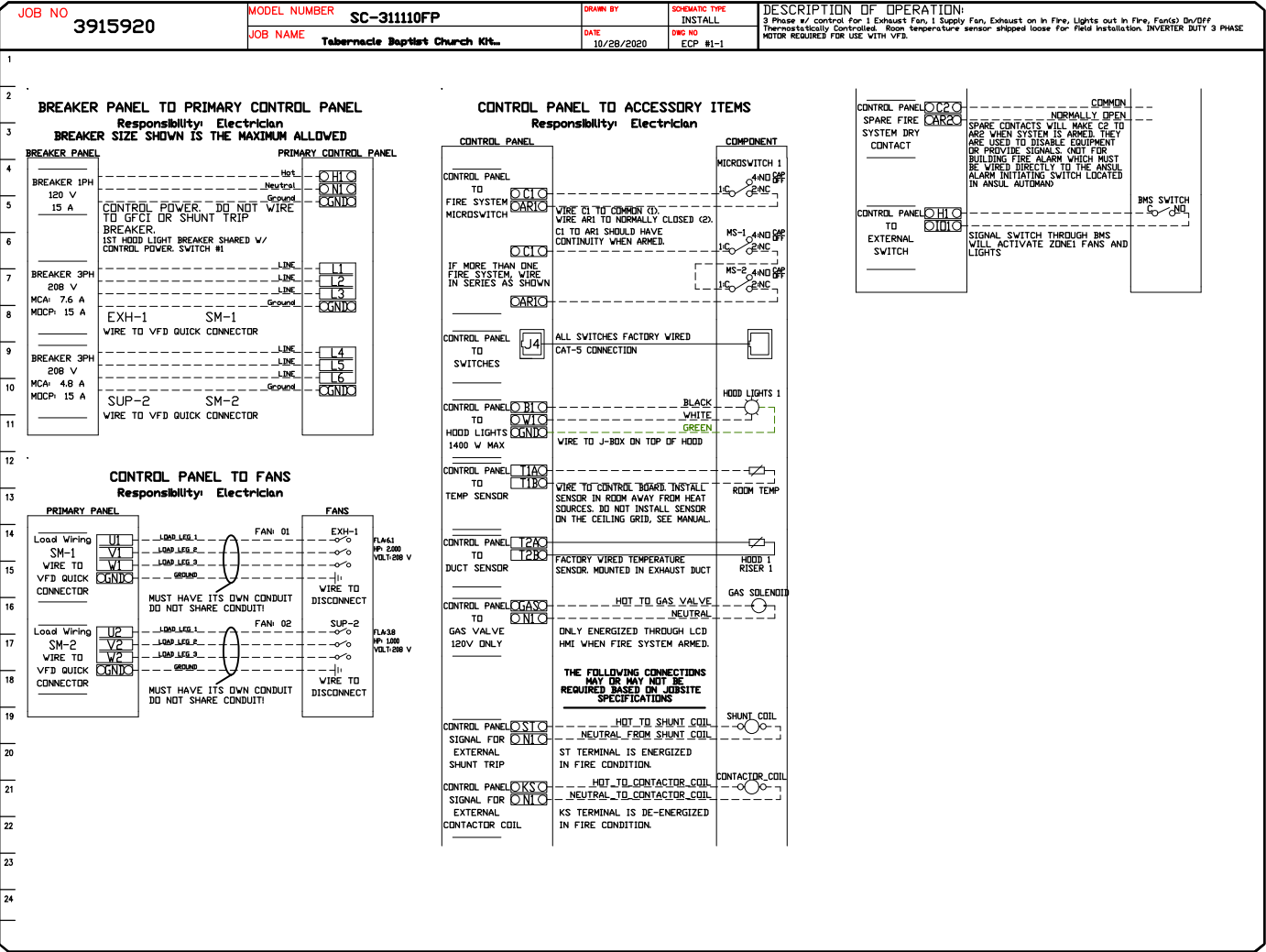
SPECIFY PITCH:
EXAMPLE: 7/12 PITCH = 30° SLOPE.



JOB Tabernacle Baptist Church Kitchen	
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DATE 10/28/2020	JOB # 3915920
DWG # 7	DRAWN BY reg65
REV.	SCALE 3/8" = 1'-0"

ELECTRICAL PACKAGE – JOB#3915920

NO	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	Ø	HP	VOLT	FLA
1		SC-311110FP	UTILITY CABINET RIGHT	04 – UTILITY CABINET RIGHT	1 LIGHT	SMART CONTROLS THERMOSTATIC CONTROL	EXHAUST	3	2.000	208	6.1
				HOOD # 1	1 FAN		SUPPLY	3	1.000	208	3.8



JOB Tabernacle Baptist Church Kitchen	
LOCATION LAKE CITY, FL, 32025	
DATE 10/28/2020	JOB # 3915920
DWG # 8	DRAWN BY reg65
REV.	SCALE 3/8" = 1'-0"