

**HOOD INFORMATION - JOB#5073021**

HOOD NO	TAG	MODEL	MANUFACTURER	LENGTH	MAX COOKING TEMP	TYPE	APPLIANCE DUTY	DESIGN CFM/FT	TOTAL EXH CFM	EXHAUST PLENUM RISER(S)						TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG		
										WIDTH	LENG	HEIGHT	DIA	CFM	VEL			SP	END TO END	ROW
1	HOOD 1	5412 ESX-2	ECON-AIR	11' 0"	600 DEG	I	HEAVY	206	2266			4'	14'	2266	2120	-0.660'	0	430 SS WHERE EXPOSED	ALONE	ALONE
2	PSP	166 MISC-PSP	ECON-AIR	11' 0"	300 DEG	I	N/A	0	0								1926	430 SS WHERE EXPOSED	ALONE	ALONE

**PATENT NUMBERS**

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.  
 AC-PSP WALL (CANADA) - CA PATENT 2820509.  
 AC-PSP ISLAND (CANADA) - CA PATENT 2520330.  
 EXHAUST HOODS ND-2/BD-2/SND-2 (CANADA) - CA PATENT 2520435 C.

**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	TYPE	SIZE	MODEL #	SWITCHES QUANTITY		
1	HOOD 1	SS BAFFLE WITH HANDLES	8	16"	16"	30%	5	L55 SERIES E26	NO	WALL MNT	12'x48'x24'	TANK FS	4.0/4.0	SC-211110MA	1 LIGHT 1 FAN	YES	464 LBS
2	PSP						0									NO	106 LBS

**HOOD OPTIONS**

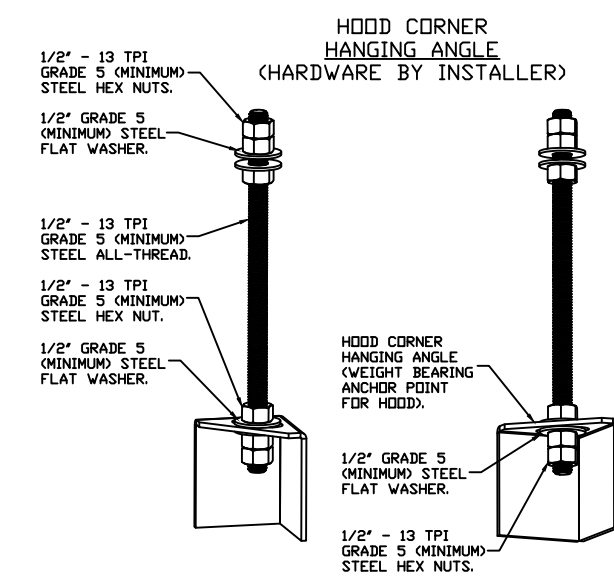
HOOD NO	TAG	OPTION
1	HOOD 1	FIELD WRAPPER 5.00' HIGH FRONT, RIGHT. LEFT QUARTER END PANEL 27" TOP WIDTH, 0" BOTTOM WIDTH, 27" HIGH 430 SS. RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 66" HIGH INSULATED 430 SS. SENSOR-CV.

**PERFORATED SUPPLY PLENUM(S)**

HOOD NO	TAG	POS	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S)				
							WIDTH	LENG	DIA	CFM	SP
2	PSP	Front	132'	16'	6'	MUA	10"	24"		642	0.221'
						MUA	10"	24"		642	0.221'
						MUA	10"	24"		642	0.221'

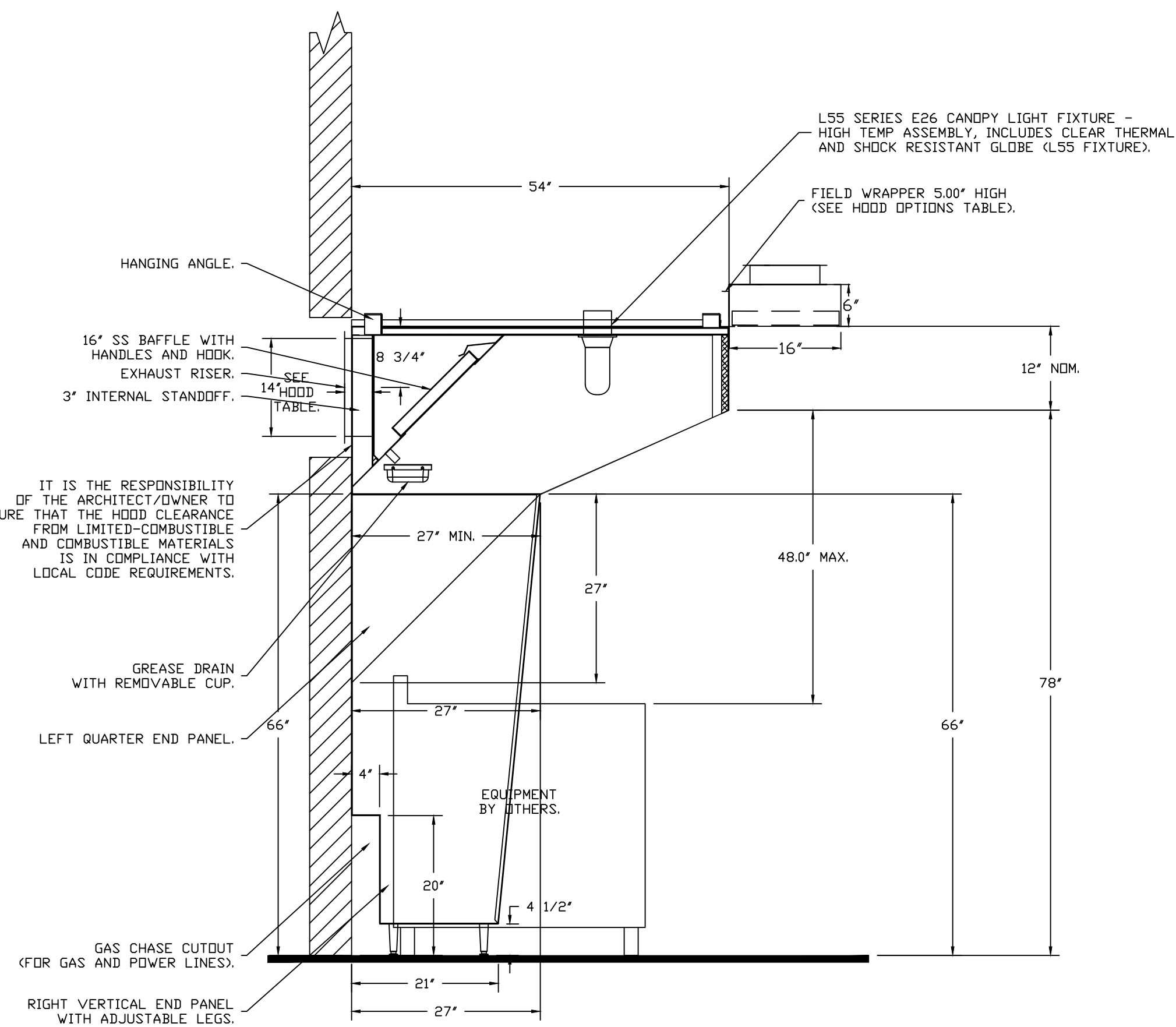
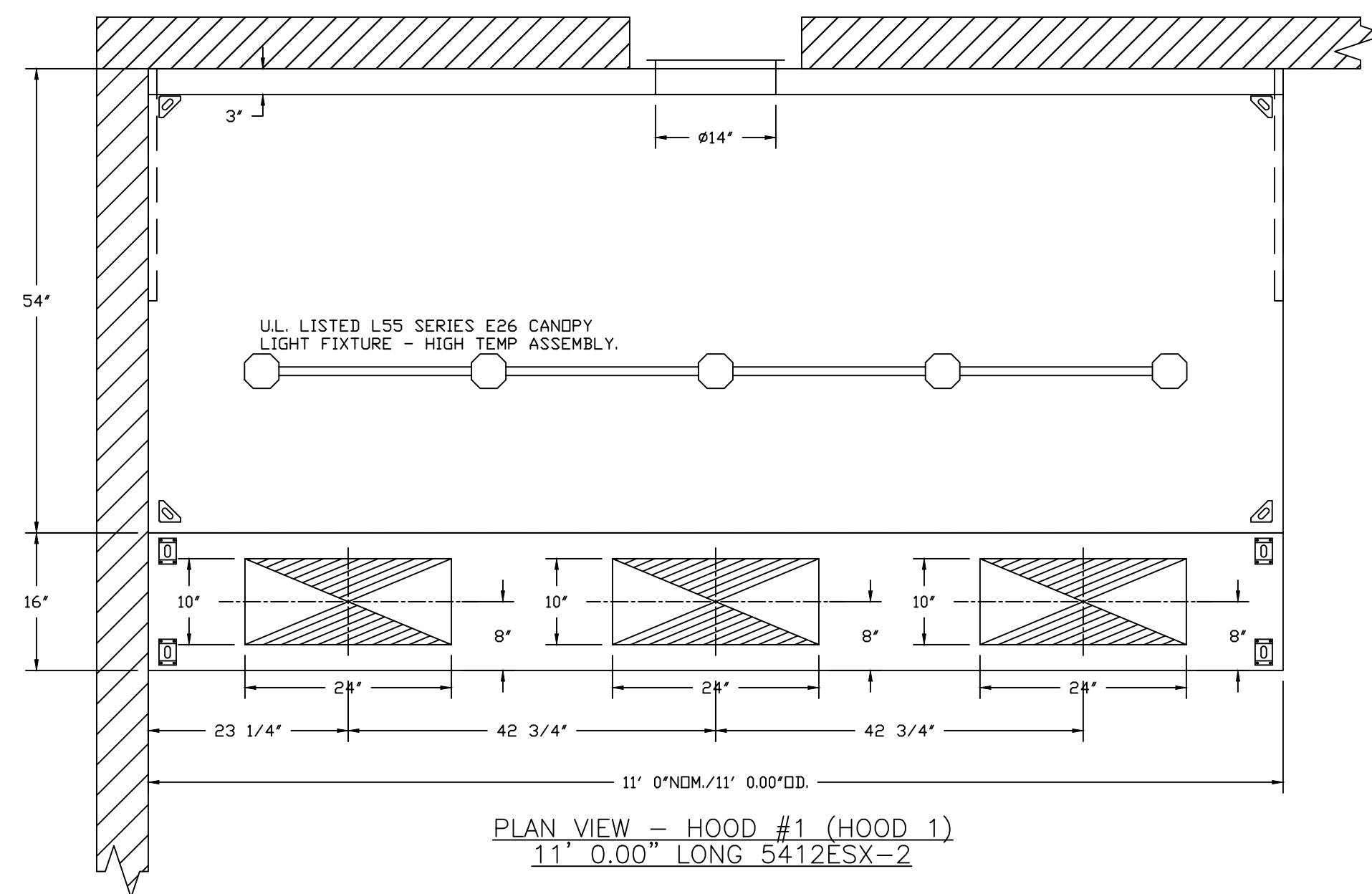
**WALL-MOUNT UTILITY CABINET**

HOOD NO	LOCATION	SIZE	UTILITY CABINET(S)				WEIGHT
			TYPE	SIZE	MODEL #	QUANTITY	
1	WALL MNT	12'x48'x24'	TANK FS	4.0/4.0	SC-211110MA	1 LIGHT 1 FAN	340.00 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 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.



**SECTION VIEW - MODEL 5412ESX-2 HOOD - #1 - 1 Rear Riser(s) (HOOD 1)**

RISER	A (HEIGHT/DIAMETER)	B (VERTICAL DIMENSION)
1	14	7.500

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH UL 710 AND NFPA 96 AND ARE RECOGNIZED BY ONE OR MORE OF THE FOLLOWING:

ETL SANITATION LISTED

ETL LISTED FILE# 3054804-001

HOOD SYSTEM IS FABRICATED & DESIGNED PER UL-710 STANDARDS

**REVISIONS**

DESCRIPTION	DATE

**econ-air**

Air Solutions

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Chimak LLC (Riverside Chicken)

405 Scott Blvd,

Covington, KY, 41011

**DATE:** 1/3/2022

**DWG.#:** 5073021

**DRAWN BY:** jcirilli

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 1

**EXHAUST FAN INFORMATION - JOB#5073021**

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	MANUFACTURER	CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	DISCHARGE VELOCITY	WEIGHT (LBS)	SONES
1	KEF 1	1	EADU85H	ECDN-AIR	2266	0.850	1480	TEAD-ECM	1.000	0.5720	1	230	6.5	717 FPM	93	16.5

**MUA FAN INFORMATION - JOB#5073021**

FAN UNIT NO	TAG	QTY	FAN UNIT MODEL #	BLOWER	HOUSING	MIN CFM	DESIGN CFM	ESP	RPM	MOTOR ENCL	HP	BHP	PHASE	VOLT	FLA	MCA	MOCB	WEIGHT (LBS)	SONES
2	KMUA	1	EAI-D.500-15D	15MF-1-MDD	A1-D.500	1000	1800	0.050	1679	TEAD-ECM	1.000	0.7660	1	230	6.5	8.2A	15A	455	15.6

**GAS FIRED MAKE-UP AIR UNIT(S)**

FAN UNIT NO	TAG	INPUT BTUs	OUTPUT BTUs	TEMP RISE	REQUIRED INPUT GAS PRESSURE	GAS TYPE	BURNER EFFICIENCY(%)
2	KMUA	132328	121742	65°F	7 IN. W.C. - 14 IN. W.C.	NATURAL	92

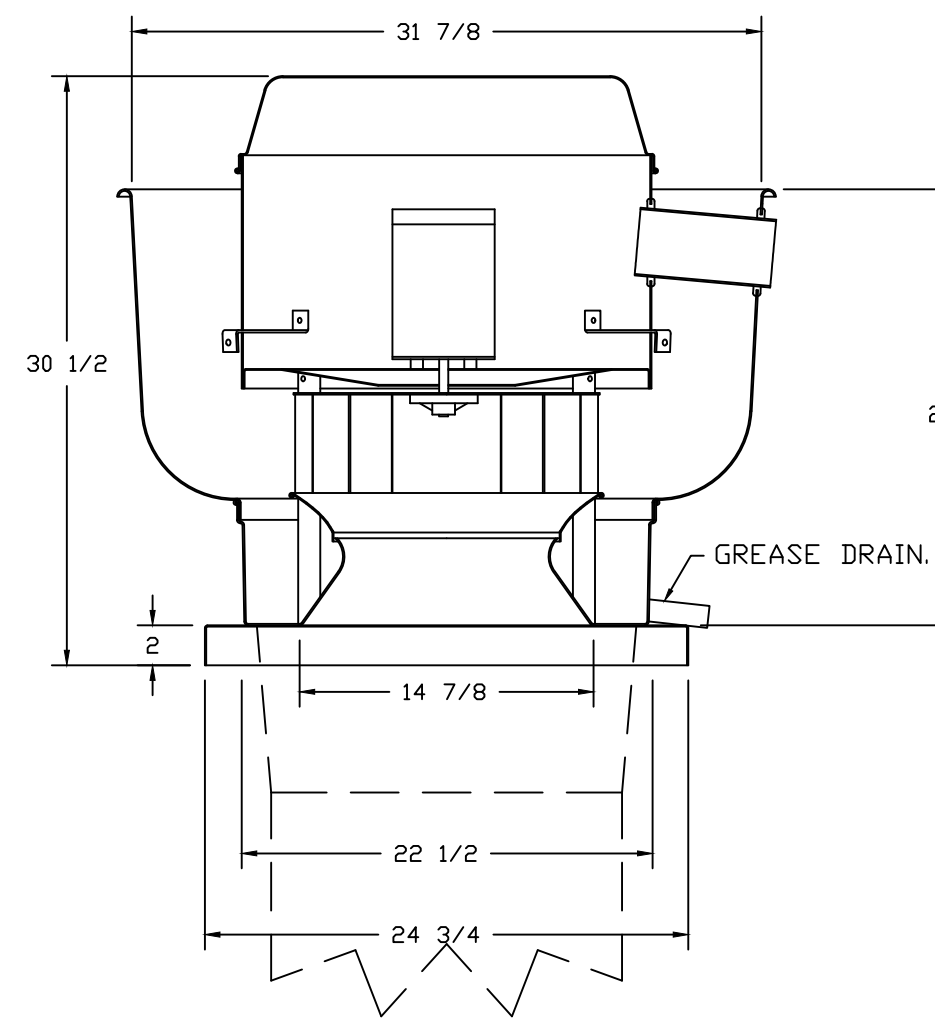
**FAN OPTIONS**

FAN UNIT NO	TAG	QTY	DESCRIPTION
1	KEF 1	1	GREASE BOX
		1	ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION
		1	UPBLAST FAN WHEEL ACCESS PORT
		1	WALL MOUNT CONSTRUCTION FOR FAN
		1	2 YEAR PARTS WARRANTY
2	KMUA	1	INLET PRESSURE GAUGE, 0-35"
		1	MANIFOLD PRESSURE GAUGE, -5 TO 15" WC
		1	MOTORIZED BACKDRAFT DAMPER FOR A1-D HOUSING - MEETS AMCA CLASS 1A RATING
		1	ECM WIRING PACKAGE - DD SUPPLY - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR)
		1	2 YEAR PARTS WARRANTY

**FAN ACCESSORIES**

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

FAN #1 EADU85H - EXHAUST FAN (KEF 1)



**FEATURES:**

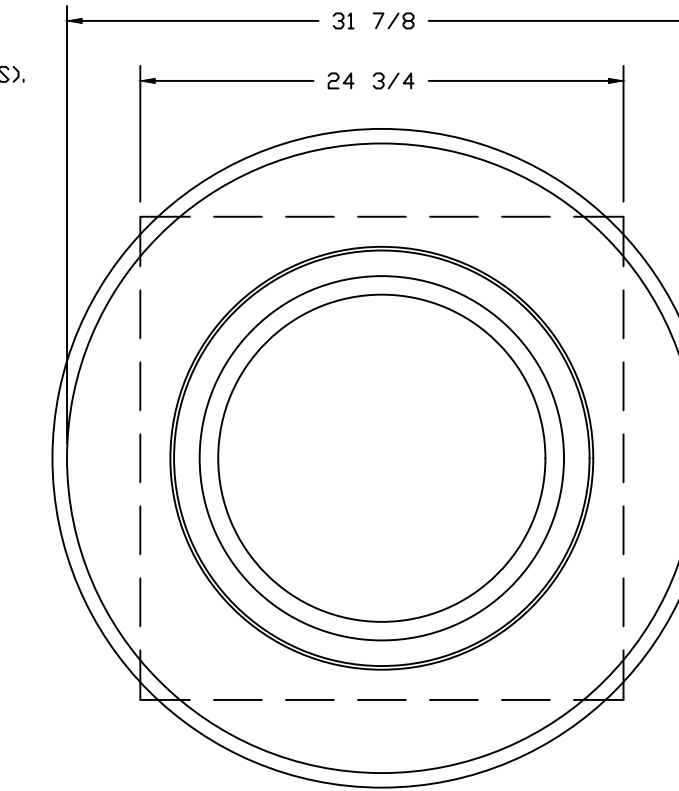
- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT 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.  
ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION.  
UPBLAST FAN WHEEL ACCESS PORT.  
WALL MOUNT CONSTRUCTION FOR FAN.  
2 YEAR PARTS WARRANTY.



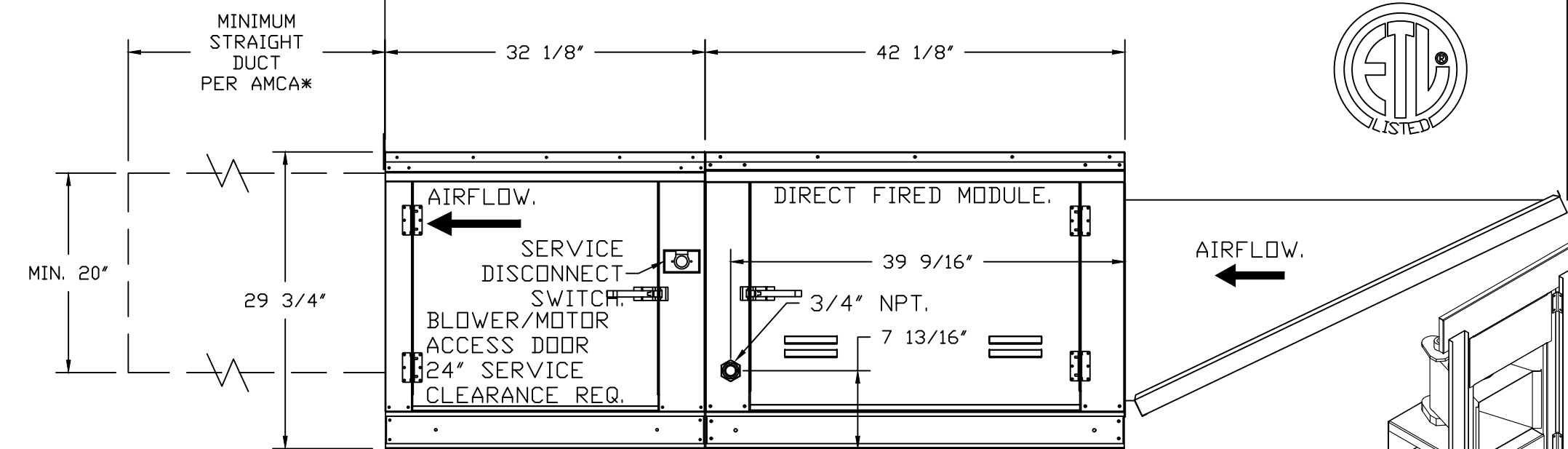
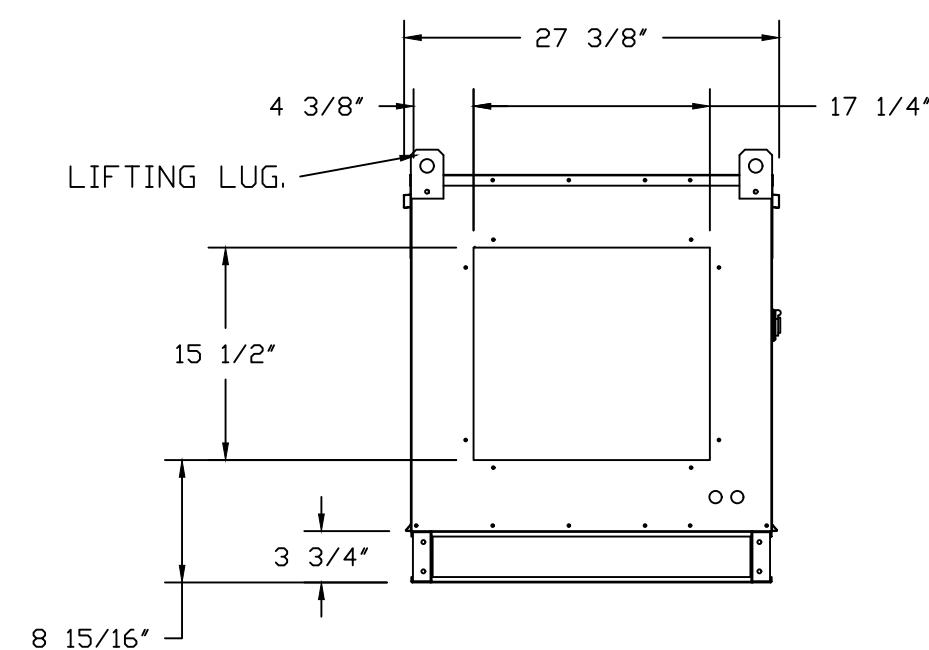
TOP VIEW

**SUPPLY SIDE HEATER INFORMATION:**

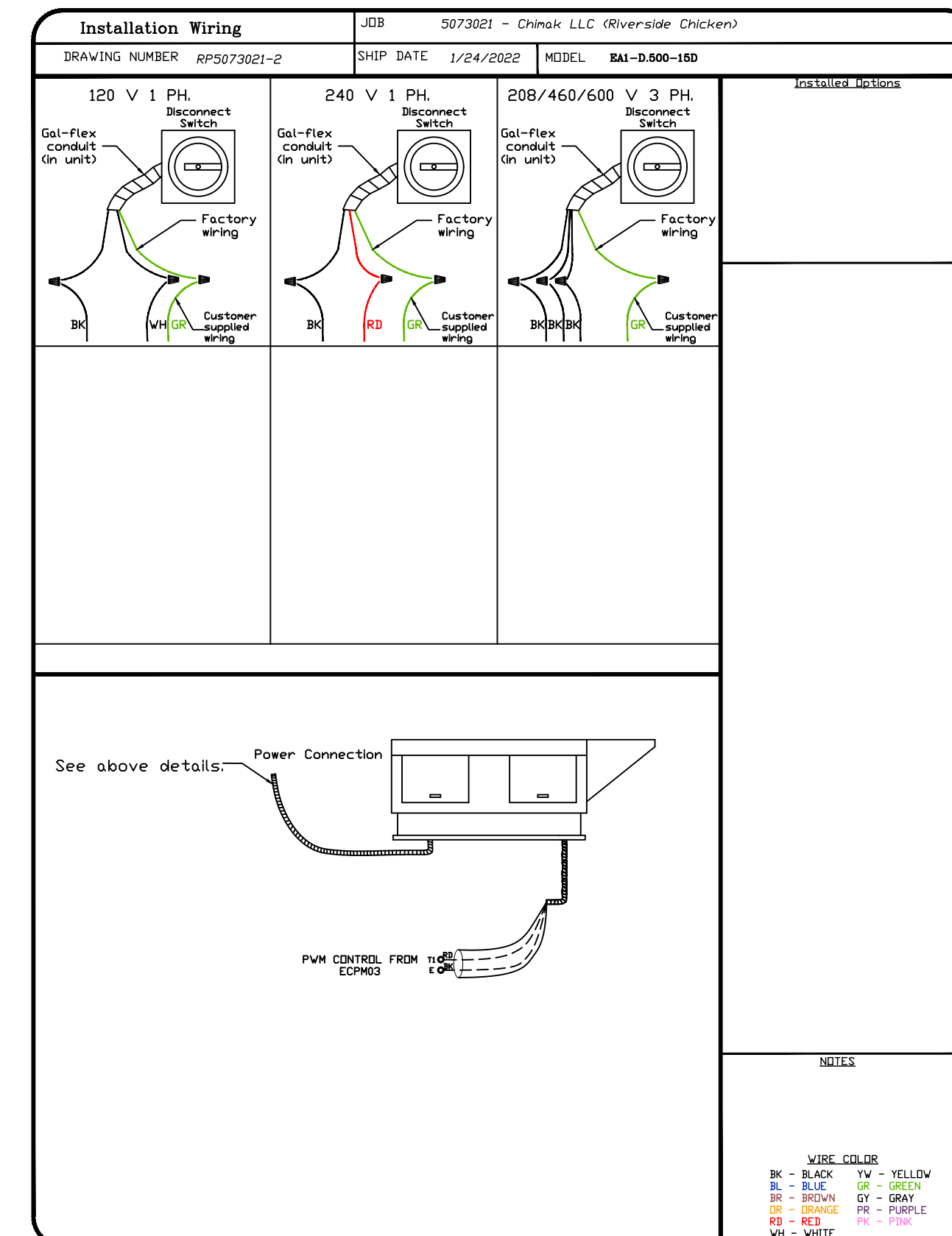
WINTER TEMPERATURE = 10°F. TEMP. RISE = 65°F.  
BTUs CALCULATED OFF ACTUAL AIR DENSITY.  
OUTPUT BTUs AT ALTITUDE OF 0.0 FT. = 124996.  
INPUT BTUs AT ALTITUDE OF 0.0 FT. = 135865.  
OUTPUT BTUs AT ALTITUDE OF 728 FT. = 121742.  
INPUT BTUs AT ALTITUDE OF 728 FT. = 132329.

1. DIRECT GAS FIRED HEATED MAKE UP AIR UNIT WITH 15" MIXED FLOW DIRECT DRIVE FAN.
2. INTAKE HOOD WITH EZ FILTERS.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. GAS PRESSURE GAUGE, 0-35", 2.5" DIAMETER, 1/4" THREAD SIZE.
5. GAS PRESSURE GAUGE, -5 TO +15 INCHES WC, 2.5" DIAMETER, 1/4" THREAD SIZE.
6. MOTORIZED BACK DRAFT DAMPER 16" X 18" FOR SIZE 1 STANDARD & MODULAR HEATER UNITS W/EXTENDED SHAFT, STANDARD GALVANIZED CONSTRUCTION, 3/4" REAR FLANGE, LDW LEAKAGE, TFB120S ACTUATOR INCLUDED.
7. ECM WIRING PACKAGE FOR SUPPLY MOTORS WITH PWM SIGNAL FROM ECPM03 PREWIRE.
8. LOW FIRE START. ALLOWS THE BURNER CIRCUIT TO ENERGIZE WHEN THE MODULATION CONTROL IS IN A LOW FIRE POSITION.
9. HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
10. 2 YEAR PARTS WARRANTY.

\*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".



DIRECT FIRED (DF) PROFILE PLATE ASSEMBLY



**WIRE COLOR**

BK - BLACK	YV - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GR - GRAY
OR - ORANGE	PK - PURPLE
RD - RED	PK - PINK
WH - WHITE	

**REVISIONS**

DESCRIPTION	DATE:

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