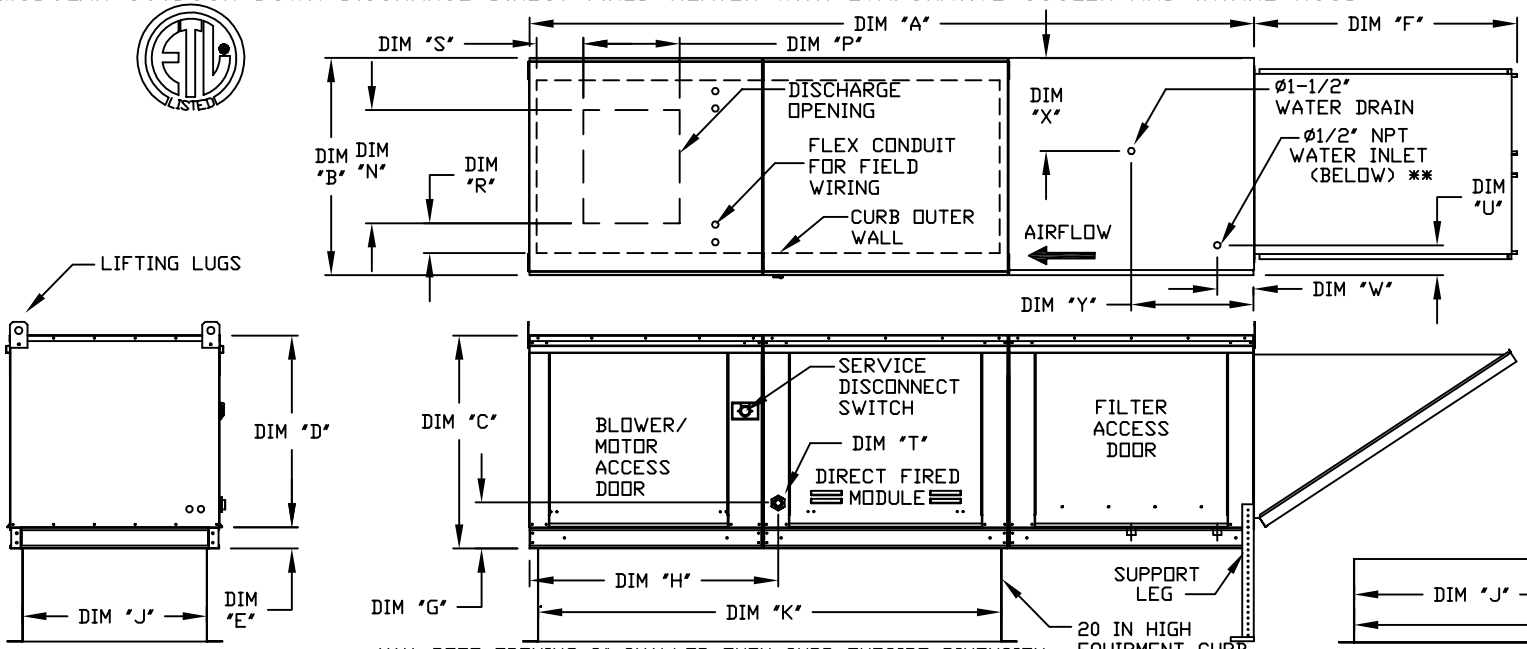
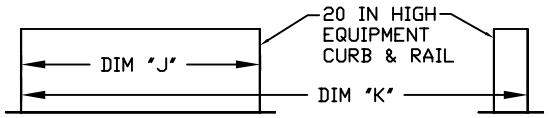
MODULAR OUTDOOR DOWN DISCHARGE DIRECT FIRED HEATER WITH EVAPORATIVE COOLER AND INTAKE HOOD

IHECDFDAH
REV.#4 01/04/2015





CURB/RAIL COMBINATION USED IN PLACE OF SINGLE CURB ON UNITS WITH 20" AND 25" BLOWERS

ALL DIMENSIONS ARE NOMINAL AND GIVEN IN INCHES.

MODEL	UNIT DIMENSIONS								CURB		DISCHARGE OPENING				WATER INLET		DRAIN OPENING		FILTER SIZE & QTY	MAX. FILTER VELOCITY
	A	B	C	D	E	F	G	H	J	K	N	P	R	S	U	W	X	Y		
D.250-G10	106-5/8	27-3/8	29-3/4	26-1/16	3-3/4	44-3/8	7-13/16	34-13/16	21	71	13-1/4	11-1/2	3-7/8	5-9/16	4-1/2	6-1/4	13	16	16"x20"x2" (3)	@3000 CFM = 572 FPM
D.500-G10	106-5/8	27-3/8	29-3/4	26-1/16	3-3/4	44-3/8	7-13/16	34-13/16	21	71	13-1/4	11-1/2	3-7/8	5-9/16	4-1/2	6-1/4	13	16	16"x20"x2" (3)	@3000 CFM = 572 FPM
D.250-G15	114-5/8	37-3/8	36-3/4	33-1/16	3-3/4	53-5/8	7-13/16	42-13/16	31	79	18-3/4	16	6-1/8	8-5/16	4-1/2	6-1/4	18	16	20"x25"x2" (3)	@6000 CFM = 696 FPM
D.500-G15	114-5/8	37-3/8	36-3/4	33-1/16	3-3/4	53-5/8	7-13/16	42-13/16	31	79	18-3/4	16	6-1/8	8-5/16	4-1/2	6-1/4	18	16	20"x25"x2" (3)	@6000 CFM = 696 FPM
D.750-G15	114-5/8	37-3/8	36-3/4	33-1/16	3-3/4	53-5/8	7-13/16	42-13/16	31	79	18-3/4	16	6-1/8	8-5/16	4-1/2	6-1/4	18	16	20"x25"x2" (3)	@6000 CFM = 696 FPM
D.500-G18	125-5/8	41-3/8	43-3/8	38-1/16	5-1/4	51-5/8	9-1/2	47-13/16	35	84	22	19	6-1/2	10-5/16	4-1/2	5-3/4	20	19	16"x20"x2" (6)	@8000 CFM = 762 FPM
D.750-G18	125-5/8	41-3/8	43-3/8	38-1/16	5-1/4	51-5/8	9-1/2	47-13/16	35	84	22	19	6-1/2	10-5/16	4-1/2	5-3/4	20	19	16"x20"x2" (6)	@8000 CFM = 762 FPM
D.1000-G18	125-5/8	41-3/8	43-3/8	38-1/16	5-1/4	51-5/8	9-1/2	47-13/16	35	84	22	19	6-1/2	10-5/16	4-1/2	5-3/4	20	19	16"x20"x2" (6)	@8000 CFM = 762 FPM
D.1000-920	153-7/8	48-7/16	51-3/8	46-1/8	5-1/4	76-3/8	13-9/16	66-5/16	42	115-3/16	24-7/8	24-7/8	8-9/16	10-5/8	4-1/2	5-3/4	23-1/2	17-1/2	16"x20"x2" (10)	@13000 CFM = 743 FPM
D.1500-920	153-7/8	48-7/16	51-3/8	46-1/8	5-1/4	76-3/8	13-9/16	66-5/16	42	115-3/16	24-7/8	24-7/8	8-9/16	10-5/8	4-1/2	5-3/4	23-1/2	17-1/2	16"x20"x2" (10)	@13000 CFM = 743 FPM
D.2000-925	163-7/8	59-3/16	58-3/8	53-1/8	5-1/4	71-3/8	13-3/4	76-7/16	52-3/4	125-3/16	31-3/8	31-3/8	10-11/16	12-7/8	4-1/2	5-3/4	28-7/8	17-1/2	20"x25"x2" (8)	@21000 CFM = 913 FPM
D.2500-925	163-7/8	59-3/16	58-3/8	53-1/8	5-1/4	71-3/8	13-3/4	76-7/16	52-3/4	125-3/16	31-3/8	31-3/8	10-11/16	12-7/8	4-1/2	5-3/4	28-7/8	17-1/2	20"x25"x2" (8)	@21000 CFM = 913 FPM

UNIT INFORMATION

MODEL	BURNER LENGTH	BTU RANGE (MBH)		GAS PRESSURE		GAS CONNECTION
		BTU LOW	BTU HIGH	MIN	MAX	"T" (NPT)
D.250-G10	6"	18	275	7" WC	14" WC	3/4
D.500-G10	12"	18	550	7" WC	14" WC	3/4
D.250-G15	6"	18	275	7" WC	14" WC	1
D.500-G15	12"	18	550	7" WC	14" WC	1
D.750-G15	18"	27.5	825	7" WC	14" WC	1
D.500-G18	12"	18	550	7" WC	14" WC	1
D.750-G18	18"	27.5	825	7" WC	14" WC	1
D.1000-G18	24"	36.6	1100	7" WC	14" WC	1
D.1000-920	24"	36.6	1100	7" WC	5 PSI	1-1/4
D.1500-920	30"	45.8	1375	7" WC	5 PSI	1-1/4
D.2000-925	48"	73.3	2200	7" WC	5 PSI	1-1/2
D.2500-925	60"	91.6	2750	7" WC	5 PSI	1-1/2

**MAX. EVAP WATER PRESSURE = 50 PSI @ 70 DEG. F

STANDARD EVAPORATIVE COOLING UNIT				
TOT. WEIGHT	MEDIA SIZE & QTY	VEL. @ MAX. CFM	NOZZLES	MAX. FLOW RATE
725 LBS	20"x25"x2" (3)	406 FPM	6	3 GPH
730 LBS	20"x25"x2" (3)	406 FPM	6	3 GPH
1020 LBS	16"x20"x2" (8)	429 FPM	10	5 GPH
1025 LBS	16"x20"x2" (8)	429 FPM	10	5 GPH
1030 LBS	16"x20"x2" (8)	429 FPM	10	5 GPH
1210 LBS	20"x25"x2" (8)	348 FPM	14	7 GPH
1215 LBS	20"x25"x2" (8)	348 FPM	14	7 GPH
1220 LBS	20"x25"x2" (8)	348 FPM	14	7 GPH
1965 LBS	16"x20"x2" (15)	572 FPM	24	12 GPH
1980 LBS	16"x20"x2" (15)	572 FPM	24	12 GPH
2565 LBS	20"x25"x2" (12)	638 FPM	30	15 GPH
2580 LBS	20"x25"x2" (12)	638 FPM	30	15 GPH

CELDEK EVAPORATIVE COOLING UNIT				
TOT. WEIGHT	MEDIA SIZE & QTY	VEL. @ MAX. CFM	NOZZLES	MAX. FLOW RATE
730 LBS	20"x24"x12"	1050 FPM	12	3.9 GPH
735 LBS	20"x24"x12"	1050 FPM	12	3.9 GPH
1015 LBS	25"x32"x12"	1080 FPM	20	6.5 GPH
1020 LBS	25"x32"x12"	1080 FPM	20	6.5 GPH
1025 LBS	25"x32"x12"	1080 FPM	20	6.5 GPH
1200 LBS	30"x36"x12"	1067 FPM	28	8.4 GPH
1205 LBS	30"x36"x12"	1067 FPM	28	8.4 GPH
1210 LBS	30"x36"x12"	1067 FPM	28	8.4 GPH
1935 LBS	38"x43"x12"	1322 FPM	35	10.15 GPH
1950 LBS	38"x43"x12"	1322 FPM	35	10.15 GPH
2525 LBS	45"x54"x12"	1304 FPM	42	12.6 GPH
2540 LBS	45"x54"x12"	1304 FPM	42	12.6 GPH

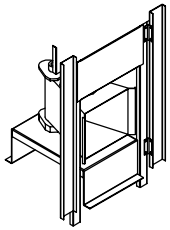
Direct Fired Profile Plate Specifications:

Description:
Direct fired burners shall have patented (US Patent No: US6629523B2), self-adjusting profile plates designed to ensure proper air velocity and pressure drop across the burner. Profile plates shall allow burners to achieve clean combustion by limiting by-product levels to a maximum of 5ppm of carbon monoxide (CO), and 0.5ppm of nitrogen dioxide (NO2).

Application:
Spring-loaded burner profile plates are engineered to automatically react to the momentum of a fresh air stream, without the need for any motors or actuators to mechanically adjust them. With this feature, all DF units are designed for demand control ventilation (DCV) requirements.

Certifications:
All profile plate assemblies shall be included in the DF unit's ETL listing and comply with combined safety standards ANSI Z83.4 and CSA 3.7 (non-recirculating DF heaters) and ANSI Z83.18 (recirculating DF heaters).

General Construction:
-Profile plates shall be formed from G90 galvanized steel.
-Profile plates shall vary in size per unit.
-Profile plates shall be mounted along the same plane as the discharge of the burner.
-Design shall incorporate properly torqued, permanently mounted spring hinges.
-Spring hinges shall be made from plated steel.



Direct Fired (DF) Profile Plate Assembly