

CFLC

ClearFire® large condensing boiler

4000-12,000 MBTU



Dimensions and Ratings

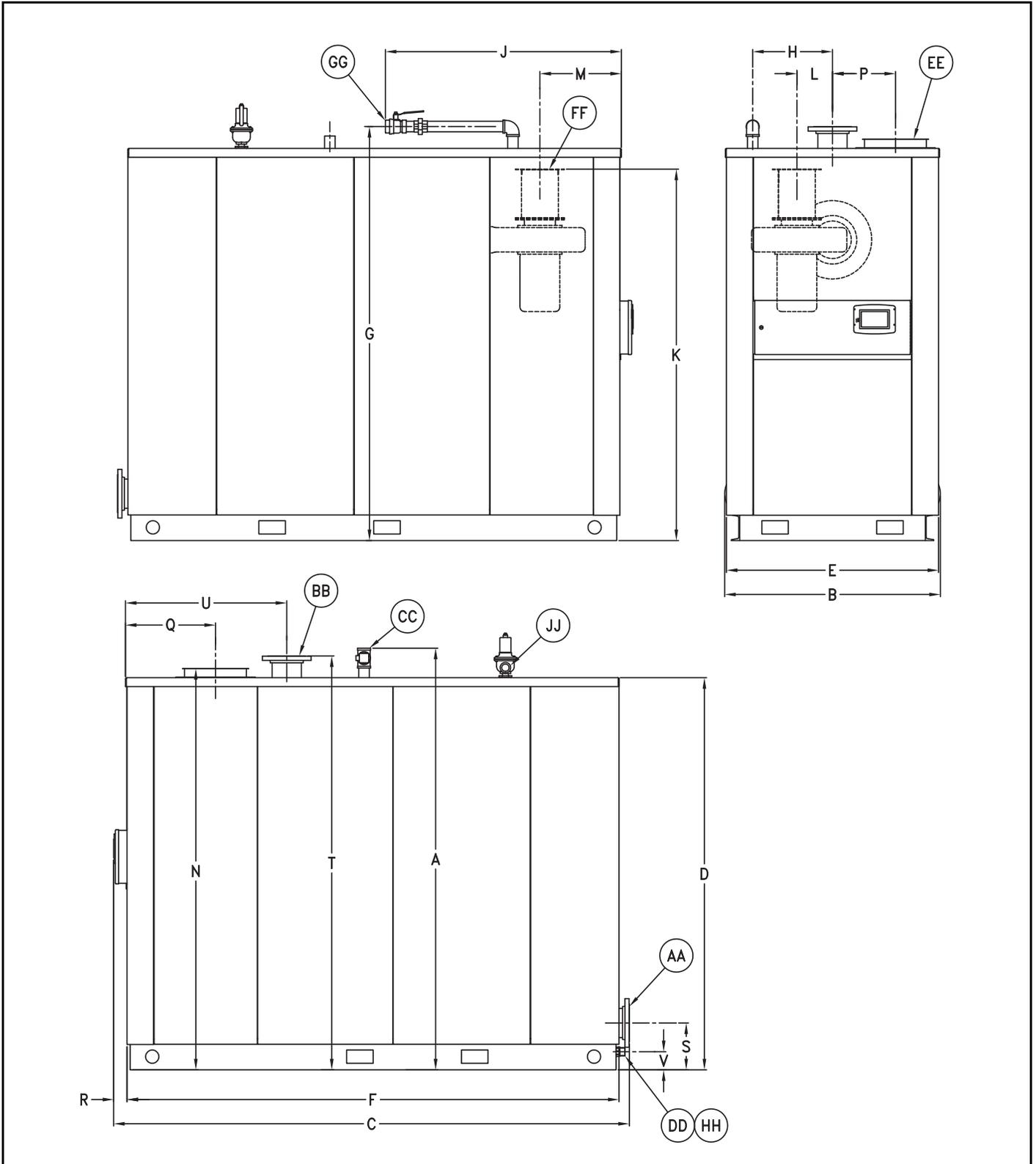


Table 1. U.S. Standard Dimensions Model CFLC Boiler

ITEM	DIMENSIONS (inches)	4000	5000	6000	8000	10000	12000
A	Overall Height	96	96	106	106	126	126
B	Overall Width	48	48	57.5	57.5	69	69
C	Overall Depth	117	117	131	131	147	147
D	Casing Height	89	89	99	99	119	119
E	Casing Width	48	48	57.5	57.5	69	69
F	Casing Depth	111.5	111.5	125.5	125.5	141.5	141.5
G	Gas Connection to Floor	94	94	104	104	124	124
H	Gas Connection to Boiler Centerline	18	18	21	21	26	26
J	Gas Connection to Front of Boiler	56.5	56.5	58	58	60	60
K	Air Inlet Venturi to Floor	84	84	95	95	114	114
L	Air Inlet Centerline to Boiler Centerline	8	8	10.5	10.5	10	10
M	Air Inlet Centerline to Front of Boiler	18.5	18.5	21	21	30.5	30.5
N	Stack Connection to Floor	91	91	101	101	121	121
P	Stack Connection to Boiler Centerline	14.5	14.5	18	18	21	21
Q	Stack Connection to Front of Boiler	20.5	20.5	23	23	32	32
R	Control Panel Projection	3	3	3	3	3	3
S	Return Connections to Floor	11	11	14.5	14.5	16	16
T	Supply Connection to Floor	94	94	104	104	124	124
U	Supply Connection to Front of Boiler	36.5	36.5	40.5	40.5	50	50
V	Floor to Drain Connection	4.5	4.5	6	6	7.5	7.5
CONNECTIONS							
AA	Water Return, 150# RF Flg	6"	6"	6"	6"	8"	8"
BB	Water Supply, 150# RF Flg	6"	6"	6"	6"	8"	8"
CC	Boiler Air Vent, NPT	2"	2"	2"	2"	2"	2"
DD	Boiler Drain, NPT	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
EE	Flue Gas, Nominal OD	14"	14"	16"	16"	20"	20"
FF	Combustion Air Option	8"	8"	10"	10"	12"	12"
GG	Gas Connection, NPT	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
HH	Condensate Drain, FPT	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"
JJ	Relief Valve outlet @ 160# Setting	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	2"
	Voltage Fan Motor	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
	Voltage Control Circuit	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60

Table 2. Metric Dimensions Model CFLC Boiler

ITEM	DIMENSIONS (mm)	4000	5000	6000	8000	10000	12000
A	Overall Height	2438	2438	2692	2692	3200	3200
B	Overall Width	1219	1219	1461	1461	1753	1753
C	Overall Depth	2972	2972	3327	3327	3734	3734
D	Casing Height	2261	2261	2515	2515	3023	3023
E	Casing Width	1219	1219	1461	1461	1753	1753
F	Casing Depth	2832	2832	3188	3188	3594	3594
G	Gas Connection to Floor	2388	2388	2642	2642	3150	3150
H	Gas Connection to Boiler Centerline	457	457	533	533	660	660
J	Gas Connection to Front of Boiler	1435	1435	1473	1473	1524	1524
K	Air Inlet Venturi to Floor	2134	2134	2413	2413	2896	2896
L	Air Inlet Centerline to Boiler Centerline	203	203	267	267	254	254
M	Air Inlet Centerline to Front of Boiler	470	470	533	533	775	775
N	Stack Connection to Floor	2311	2311	2565	2565	3073	3073
P	Stack Connection to Boiler Centerline	368	368	457	457	533	533
Q	Stack Connection to Front of Boiler	521	521	584	584	813	813
R	Control Panel Projection	76	76	76	76	76	76
S	Return Connections to Floor	279	279	368	368	406	406
T	Supply Connection to Floor	2388	2388	2642	2642	3150	3150
U	Supply Connection to Front of Boiler	927	927	1029	1029	1270	1270
V	Floor to Drain Connection	114	114	152	152	191	191
CONNECTIONS							
AA	Water Return, 150# RF Flg	6"	6"	6"	6"	8"	8"
BB	Water Supply, 150# RF Flg	6"	6"	6"	6"	8"	8"
CC	Boiler Air Vent, NPT	2"	2"	2"	2"	2"	2"
DD	Boiler Drain, NPT	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
EE	Flue Gas, Nominal OD	14"	14"	16"	16"	20"	20"
FF	Combustion Air Option	8"	8"	10"	10"	12"	12"
GG	Gas Connection, NPT	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"
HH	Condensate Drain, FPT	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"
JJ	Relief Valve outlet @ 160# Setting	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	2"
	Voltage Fan Motor	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
	Voltage Control Circuit	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60

Table 3. Model CFLC Boiler Ratings (Sea Level to 2000 Feet)

Description	Units	4000	5000	6000	8000	10000	12000
Input Max.	BTU/Hr.	4,000,000	5,000,000	6,000,000	8,000,000	10,000,000	12,000,000
	KCAL/Hr.	1,008,000	1,260,000	1,512,000	2,016,000	2,520,000	3,024,000
Natural Gas (1000 Btu/ft3)	FT3/Hr	4000	5000	6000	8000	10000	12000
Natural Gas	M3/Hr	113	142	170	226	283	340
Output at 113/86 F [45/30 C] 100% Firing	BTU/Hr.	3,840,000	4,800,000	5,760,000	7,680,000	9,600,000	11,520,000
	KCAL/Hr.	967,680	1,209,600	1,451,520	1,935,360	2,419,200	2,903,040
	BHP	115	143	172	229	287	344
	KW	1125	1407	1688	2251	2813	3376
Output at 176/140 F [80/60 C] 100% Firing	BTU/Hr.	3,480,000	4,350,000	5,220,000	6,960,000	8,700,000	10,440,000
	KCAL/Hr.	876,960	1,096,200	1,315,440	1,753,920	2,192,400	2,630,880
	BHP	104	130	156	208	260	312
	KW	1020	1275	1530	2040	2549	3059
MAWP	PSI	160	160	160	160	160	160
	BAR	11	11	11	11	11	11
Operating Temp., Max.	°F	230	230	230	230	230	230
	°C	110	90	110	90	110	90
Water Content	Gallons	395	374	559	511	871	819
	Liters	1495	1416	2116	1934	3297	3100
Weight w/o Water (Shipping)	Pounds	7,450	7,800	9,800	10,500	15,300	16,100
	Kg	3379	3538	4445	4763	6940	7303
Operating Weight	Pounds	10,743	10,918	14,460	14,760	22,562	22,928
	Kg	4873	4952	6559	6695	10234	10400
Fireside Heating Surface	ft ²	756	915	1,123	1,454	1,885	2,223
	m ²	70	85	104	135	175	207
Waterside Heating Surface	ft ²	298	344	441	546	750	862
	m ²	28	32	41	51	70	80
Standby Heat Loss	BTU/Hr	8,000	10,000	12,000	16,000	20,000	24,000
	Watts	2344	2930	3516	4689	5861	7033
Fan Motor Size	HP	5	5	7.5	10	15	20
Operating Voltage, Fan	Volts/Ph/Hz	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
Control Circuit	Volts/Ph/Hz	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60	115/1/60
Condensate Quantity Firing Nat. Gas & operating @ 130/80 F.	Gal/Hr.	24	31	37	49	61	74
	l/Hr.	92	116	139	185	232	278
Condensate Value	PH	4.5 - 5.5	4.5 - 5.5	4.5 - 5.5	4.5 - 5.5	4.5 - 5.5	4.5 - 5.5
Flue Gas Mass Flow @ 100% Firing (Natural Gas)	lb/hr	4532	5665	6,798	9,064	11,330	13,596
	kg/h	2056	2570	3084	4111	5139	6167

