



## Typical Specifications For DynaFlame Hydronic Heating Boilers Models DF(N),(P)H 0500 - 1200 Models DF(N),(P)H 0502 - 1202

The heating boiler shall be a CAMUS DYNAFLAME model \_\_\_\_\_ having an input rating of \_\_\_\_\_ Btu (kW) /hr. and \_\_\_\_\_ Btu (kW)/hr output for hydronic heating.

The heating boiler shall be design certified by CSA International and shall meet the requirements of ANSI Z21.13, and CSA 4.9. The heating boiler shall be vented as a Category I non-condensing appliance or Category II condensing appliance.

### **Combustion Chamber:**

The combustion chamber shall be fully enclosed by a stainless-steel chamber inside of which is assembled a cylindrical copper coil Heat Exchanger having a maximum allowable working pressure of 160 psig (1100 kPa). An access door shall be provided for ease of service and inspection of the Heat Exchanger.

### **Burner:**

The burner shall be constructed of stainless steel. The burner shall provide equal distribution of heat through the entire heat exchanger. A window view port shall be provided for visual inspection of the boiler during firing.

### **Heat Exchanger:**

The heat exchanger shall be inspected and tested to A.S.M.E. Section IV requirements. The A.S.M.E. Section IV seal of approval will not be provided as standard for jurisdictions not requiring the A.S.M.E. Section IV seal of approval. The heat exchanger shall be a four-pass heat exchanger with maximum working pressure of 160 psig (1100 kPa). The heat exchanger is of cylindrical design, with integral copper finned tube  $\frac{7}{8}$ " I.D., 0.064" minimum wall thickness, 7 fins per inch, with nominal fin height of  $\frac{3}{4}$ ". Each end of the tubes shall be expanded by mechanical rolling process into the headers. The heat exchanger shall be gasket-less. All header castings shall be bronze. A pressure relief valve of \_\_\_\_\_ lb/hr shall be furnished with the heater.

### **Controls:**

Standard controls include an electronic proportional integrated combination limit/operator control accurate to  $1^{\circ}\text{F}$  ( $0.5^{\circ}\text{C}$ ) having a 4-20 mA output signal suitable for control of a variable frequency motor drive. The control shall also provide readouts of boiler target, differential and inlet/outlet temperatures as well as accumulated runtime. On/off switch, and full diagnostic light package shall be provided. The complete control package shall be mounted on the front panel with hinged door for easy access to all control modules. A flow switch shall be provided loose.

### **Firing Mode:**

The burner shall operate as fully modulating down to 20% for condensing and 35% for non-condensing application. Light off shall be at no more than 50% input to assure rumble free soft start.

### **Venting Options**

The following venting options shall be utilized: 1. Standard Venting. 2. Horizontal & Vertical Outside air Venting. 3. Through-Wall Venting. 4. Outdoor Venting. 5. Direct Venting.

### **Gas Train:**

The gas train shall consist of a gas valve with a pressure regulating electro-hydraulic actuator to provide slow opening, fast closing, safety shutoff and air/gas ratio control. A factory pre-set combination metering valve and orifice shall be provided for setting combustion parameters.

### **Ignition Module:**

The ignition module shall employ a proved igniter with 3 tries for ignition followed by lockout. Trial for ignition shall be 10 seconds with 15 seconds between retrieals.

### **External Jacket and Fasteners:**

The external jacket shall be of stainless steel mirror finish panels assembled utilizing interference fit locks and minimal non-strip self tap screws.

# SUBMITTAL DATA SHEET

## DYNAFLAME (HEATING) 0500-1200 and 0502-1202

Engineer: \_\_\_\_\_ Job Location: \_\_\_\_\_ Date: \_\_\_\_\_  
 Prepared by: \_\_\_\_\_ Buyer's Name: \_\_\_\_\_ Quote #: \_\_\_\_\_  
 Job Name: \_\_\_\_\_ Buyer's Address: \_\_\_\_\_

**Input & Output (MBTUH)**

Models	Non Condensing		Condensing	
	Input	Output	Input	Output
0500/0502	500	425	500	475
0750/0752	750	638	750	713
1100/1102	1100	935	1100	1045
1200/1202	1200	1020	1200	1140

**Shipping Weight (lbs.)**

Models	Non Cond.	Cond.
0500/0502	375	425
0750/0752	400	450
1100/1102	480	530
1200/1202	485	535

**Venting Non-Condensing**

Model	Vent ("V") Diameter Inches*			
	Outdoor	Cat III Up to 50 ft	Cat III Up to 100 ft	Cat I
0500	4	4	6	8
0750	6	6	8	10
1100	6	6	8	10
1200	6	6	8	10

**Venting Condensing**

Model	Vent ("V") Diameter Inches*			
	Outdoor	Cat IV Up to 50 ft	Cat IV Up to 100 ft	Cat II
0502	4	4	6	5
0752	6	6	8	6
1102	6	6	8	7
1202	6	6	8	7

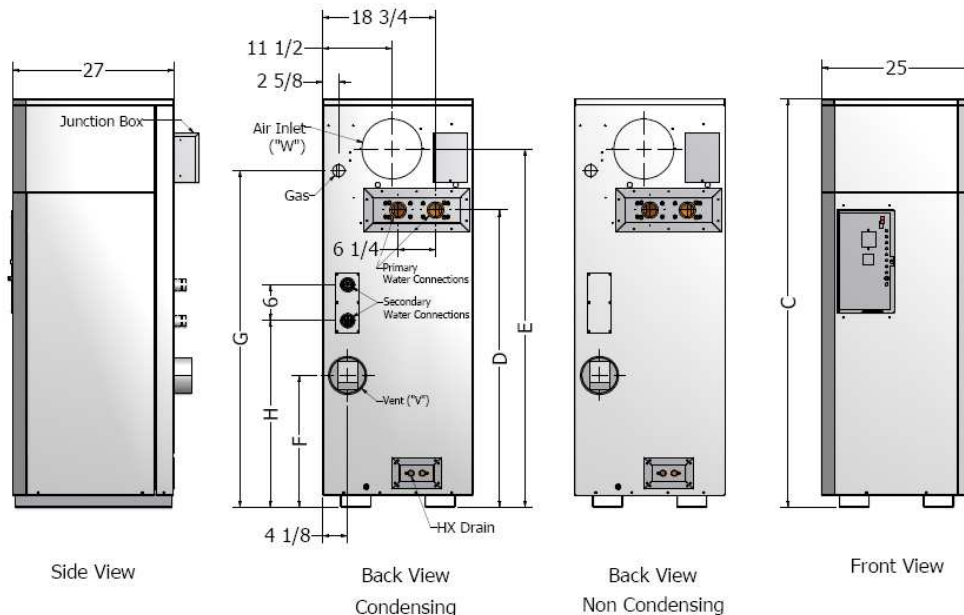
\* Models 500 thru 1200 are shipped with minimum vent opening sizes. Adapter is required for applications indicating larger vent opening

**Dimensions Non-Condensing**

Model	Height Dim. "C"	Water Conn. "D"	Air Inlet "E"	Flue Height "F"	Gas Height "G"	Air Inlet Dia. "W"	Water Conn. Prim.	Gas Conn. (NPT)
0500	45 5/8"	27"	37 1/4"	13 1/4"	33 5/8"	6"	2" NPT	1"
0750	55"	36 3/8"	46 5/8"	15 3/4"	43"	8"	2" NPT	1"
1100	68 1/4"	49 5/8"	59 7/8"	22"	56 1/4"	8"	2" NPT	1"
1200	68 1/4"	49 5/8"	59 7/8"	22"	56 1/4"	8"	2" NPT	1"

**Dimensions Condensing**

Model	Height Dim. "C"	Water Conn. "D"	Air Inlet "E"	Flue Height "F"	Gas Height "G"	"H"	Air Inlet Dia. "W"	Water Conn. Prim.	Water Conn. Second. (Grooved)	Gas Conn. (NPT)
0502	45 5/8"	27"	37 1/4"	13 1/4"	33 5/8"	17 3/4"	6"	2" NPT	1 1/2"	1"
0752	55"	36 3/8"	46 5/8"	15 3/4"	43"	25"	8"	2" NPT	1 1/2"	1"
1102	68 1/4"	49 5/8"	59 7/8"	22"	56 1/4"	31 1/8"	8"	2" NPT	1 1/2"	1"
1202	68 1/4"	49 5/8"	59 7/8"	22"	56 1/4"	31 1/8"	8"	2" NPT	1 1/2"	1"



**Primary Heat Exchanger Head Loss & Flow**

Models	Temperature Rise Across Heat Exchanger			
	30°F		35°F	
	USGPM	ΔP - Ft.	USGPM	ΔP - Ft.
0500/0502	28.0	0.7	24.0	0.5
0750/0752	42.0	1.4	36.0	1.0
1100/1102	61.6	2.7	52.8	2.1
1200/1202	68.0	2.9	58.3	2.2

**Secondary Stainless-Steel Heat Exchanger Head Loss & Flow**

Model	*USGPM	ΔP - Ft.
0502	10.0	0.4
0752	13.0	0.7
1102	22.0	1.8
1202	24.0	2.1

\*Flow for 10°F rise at high fire.

**Current drawn by Boiler @ 115 Volts single phase 60 Hz**

Models	Max Amps Draw - Boiler Only
All	7 Amps

Model # \_\_\_\_\_ # Of Units \_\_\_\_\_ Type of Gas \_\_\_\_\_

Total Input		Flow	
BTU/hr		_____ USGPM @ Allowable Pressure Drop	_____ ft.
Total Output			
BTU/hr			

Optional Accessories \_\_\_\_\_