Typical Specifications For:
MicoFlame Grande Domestic Hot Water Supply
Models MFW 2010, Through MFW 4000

The domestic hot water boiler shall be a CAMUS MicoFlame model _____ having an input rating of _____ Btu (kW) /hr. and having a recovery capacity of _____ GPH (LPH) at 100^0F (56^0C) for DHW.

The domestic hot water boiler shall be design/certified by CSA International and shall meet the requirements of ANSI Z21.10 & CSA 4.3. The heater shall be optionally vented as a Category I conventional appliance or a Category III appliance.

Combustion Chamber:
The combustion chamber shall be fully enclosed by high temperature fiberboard refractory, which is of modular interlocking construction for ease of replacement.

Burner:
The burner shall be constructed of rugged low maintenance metal fiber supported in a steel casing. The burner shall provide equal distribution of heat through the entire heat exchanger. Maximum input per burner shall be 1,000,000 Btu/hr.

Heat Exchanger:
The heat exchanger shall be suitable for a maximum allowable working pressure (M.A.W.P.) of 160 psig (1100 kPa) and shall be of a two-pass design employing integrally finned 7/8" copper tubes. All castings shall be bronze. A pressure relief valve of _____ lb/hr shall be furnished with the heater. There shall be ready access to the heat exchanger to permit internal and external inspection and cleaning of the tubes.

Controls:
Standard SmartFlame 780014 combination limit/operator control accurate to 1^0F (0.5^0C). 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. The control shall have 8 preset modes to allow operation of the heater as hydronic heating with outdoor reset, DHW or remote enable.

Firing Mode:
The heater shall operate as on/off, two-stage, three stage or four-stage.

Gas Train:
The gas train shall consist of a combination control incorporating a main manual gas valve, dual main valve seats, a pilot valve and pilot regulator.

Ignition Module:
The ignition module shall provide for intermittent ignition and continuous retrial. Trial for ignition shall be 15 seconds with 5 minutes between retrials. Each ignition module shall control a maximum input of 1,000,000 Btu/hr.

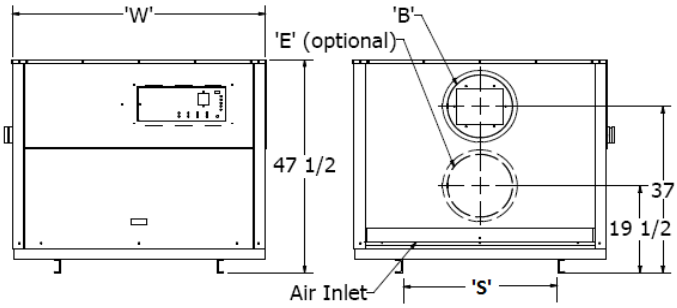
External Jacket and Fasteners:
The external jacket shall be of stainless and enameled steel panels assembled with crimptite non-strip self tap screws.

Input & Output Range

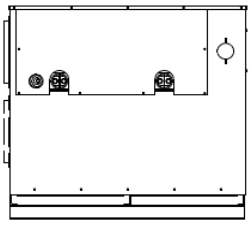
			Non-Condensing		Condensing	
Model	Input [BTU/hr]	Input [kW]	Output [BTU/hr]	Output [kW]	Output [BTU/hr]	Output [kW]
2010/2012	2,000,000	585.6	1,700,000	497.8	1,900,000	556.3
2500/2502	2,500,000	732.0	2,125,000	622.2	2,375,000	695.4
3000/3002	3,000,000	878.4	2,550,000	746.6	2,850,000	834.5
3500/3502	3,500,000	1,024.8	2,975,000	871.1	3,325,000	973.6
4000/4002	4,000,000	1,171.2	3,400,000	995.5	3,800,000	1,112.6

SUBMITTAL DATA SHEET – MICOFLAME GRANDE

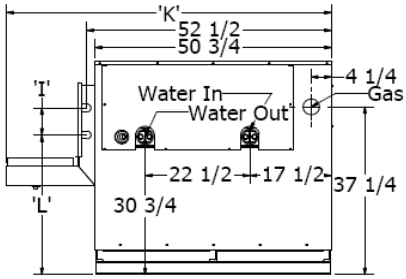
Engineer: _____ Job Location: _____ Date: _____
Prepared by: _____ Buyer's Name: _____ Quote #: _____
Job Name: _____ Buyer's Address: _____



Front View | **Rear View Non-Condensing Option**



Side View (Left) Non-Condensing Option



Side View (Left) Condensing Option

Dimensions and Specifications

Model	'I'	'K'	'L'	'W'	'S'	Water Connection+	Approx. Weight: Gas Connection	Approx. Weight: Non-Condensing [lbs.]	Approx. Weight: Condensing [lbs.]
2010/2012	6	68	34 5/8	54 5/8	33 3/8	3	1 1/2	1,585	1,635
2500/2502	6	72	34 5/8	78 7/8	58	3	2	1,675	1,745
3000/3002	6	72	34 5/8	78 7/8	58	3	2	1,750	1,820
3500/3502	6	72	34 5/8	103	81 3/4	4	2 1/2	2,000	2,070
4000/4002	6	72	34 5/8	103	81 3/4	4	2 1/2	2,200	2,270

+ Note water connections are 3" grooved at header

Venting

Model	'B' Dia. Venting*: Outdoor	'B' Dia. Venting*: Sidewall or Condensing	'B' Dia. Venting*: Standard	'E' Dia.: Air Inlet**
2010/2012	12	12	14	12
2500/2502	14	14	16	14
3000/3002	14	14	16	14
3500/3502	16	16	18	16
4000/4002	16	16	18	16

*Non-condensing models are shipped with standard vent opening size unless sidewall venting is specified
**Appliance may be provided with two openings that can be combined into this size.

Heat Exchanger Head Loss & Flow

Model	20°F USGPM	20°F ΔP-ft.	30°F USGPM	30°F ΔP-ft.	35°F USGPM	35°F ΔP-ft.
2010/2012	170	5.1	113	2.4	97	1.8
2500/2502	200*	8.2	141	4.3	121	3.3
3000/3002	200*	8.2	170	6.2	146	4.5
3500/3502	200*	10.2	198	10.2	170	7.7
4000/4002	200*	10.2	200*	10.2	194	9.8

Recovery Capacity Non-Condensing

Model	100°F Rise GPH	56°C Rise LPH	80°F Rise GPH	44°C Rise LPH	60°F Rise GPH	33°C Rise LPH	50°F Rise GPH	28°C Rise LPH	40°F Rise GPH	22°C Rise LPH	20°F Rise GPH	11°C Rise LPH
2010	2038	7705	2548	9631	3397	12842	4077	7598	5096	19263	10192	72813
2500	2548	9631	3185	12039	4247	16052	5096	9450	6370	24078	12740	91016
3000	3058	11558	3822	14447	5096	19263	6115	11340	7644	28894	15288	109219
3000	3058	11558	3822	14447	5096	19263	6115	11340	7644	28894	15288	109219
4000	4077	15410	5096	19263	6795	25683	8153	15120	10192	38525	20384	145625

Recovery Capacity Condensing

Model	100°F Rise GPH	56°C Rise LPH	80°F Rise GPH	44°C Rise LPH	60°F Rise GPH	33°C Rise LPH	50°F Rise GPH	28°C Rise LPH	40°F Rise GPH	22°C Rise LPH	20°F Rise GPH	11°C Rise LPH
2012	2278	8612	2848	10764	3797	14353	4556	7605	5695	21529	11391	81379
2502	2850	10773	3563	13466	4750	17955	5700	9458	7125	26933	14250	101805
3002	3420	12926	4274	16157	5699	21543	6839	11348	8549	32315	17098	122150
3502	3989	15079	4986	18848	6648	25131	7978	13238	9973	37697	19945	142494
4002	4559	17232	5698	21540	7598	28719	9117	15128	11397	43079	22793	162839

Model # _____ # Of Units _____ Type of Gas _____

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

Total Output _____ BTU/hr Recovery Rate _____ USGPH @ _____ ^{0}F

Optional Accessories _____

99-0068
Rev 01