

Hamilton EVO-XL Submittal

WATER HEATER
Models HWD 800 / 1000 / 1500

Job _____
 Engineer _____
 Contractor _____
 Prepared By _____ Date _____
 Model _____ Input _____ Unit Tag _____

Standard Equipment

- 316L stainless steel water tube heat exchanger, 160 psi ASME H or HLW
- 5:1 burner modulation
- Self-diagnostic microprocessor controls
- Externally adjustable setpoint (0-10v) per appliance
- Sealed combustion
- AL29-4C vent materials
 - Can accommodate PP, CPVC or PVC via use of appropriate adapters
- Pressure relief valve
- Flow switch
- Inlet & outlet water temperature sensor
- Exhaust temperature sensor
- Gas inlet pressure transducer
- Dual high limit (fixed & adjustable)
- 24/7 customer service
- Color LCD display
- CSD-1 compliant
- Manual reset high limit
- Condensate pressure switch
- For domestic and/or hydronic heating applications



EVO-XL
 795,000
 999,999
 1,475,000

HEAT EXCHANGER

- ASME H Inspected and Stamped for 160 PSIG Max Working Pressure
- ASME HLW
- National Board Registered
- 316L Stainless Construction
- Rolled & Formed in a Helical Pattern
- Headers—Welded 316L Stainless

ASME PRESSURE RELIEF VALVE

- 125 PSI standard
- _____ PSI Special applications, not to exceed 150 PSI

CSA DESIGN CERTIFIED—LC LISTED

- Gas Water Heaters Volume III
ANSI Z21.10.3/CSA 4.3-2019, UL 795-2016, CGA 3.4-2020
- Hot Water Boiler
ANSI Z21.13/CSA 4.9-2017, UL 795-2016, CGA 3.4-2020

CONTROLS

- 208–240V split phase, 1 ϕ Power Supply 50/60 Cycle
- Direct Spark Ignition w/Integrated Flame Sensor on Display
- Modulating Digital Control System
- High Limit Control, Manual Reset
 - 198° F – Standard
 - _____ Custom
- Side Mounted On/Off Power Switch
- Flow Switch
- Blocked Vent/Condensate Pressure Switch
- Exact Elevation Match to 9,000 feet with no De-Rate
- Gas Pressure Transducer
- CSD-1
- Manual Reset High Limit
- Exhaust Temperature Sensor

GAS TRAIN

- Manual Gas Shut-Off Valve
- Negative Pressure Gas Valve(s)
- Fuel
 - Natural Gas
 - Propane Gas

BURNER

- 316L Stainless Steel Premix
- Ultra-Low NO_x: Less than 13 PPM, adjusted for 3% O₂

CONSTRUCTION

- Indoor Construction
- Outdoor Construction
- Front Controls
- Rear Exhaust & Inlet Air Connections
- Rear Water, Electrical, Gas and Drain Connections
- Air Vent

VENTING SYSTEM INFORMATION

- Vent Termination
 - PVC
 - CPVC
 - Stainless Steel

OPTIONAL CONTROLS

- Cascade
- Low Water Cut Off
- Communication—BMS
 - LON
 - BACnet
 - Modbus

OPTIONS

- Certified System—UL 795
Model Number _____
(Must include all items listed below)
- All Stainless Steel Heater Pump Package _____
220V, 1 ϕ , 60Hz
Note: pumps are sized and supplied by factory providing 15% additional head for system connection piping.
- Condensate Neutralizer / Drain
(highly recommended for all systems)
- Electrical Panel w/Service Disconnects
- Common Gas Manifold
- Pre-Plumbed Piping Manifold
- Expansion Tank _____ – _____ PSI
- Certified Seismic

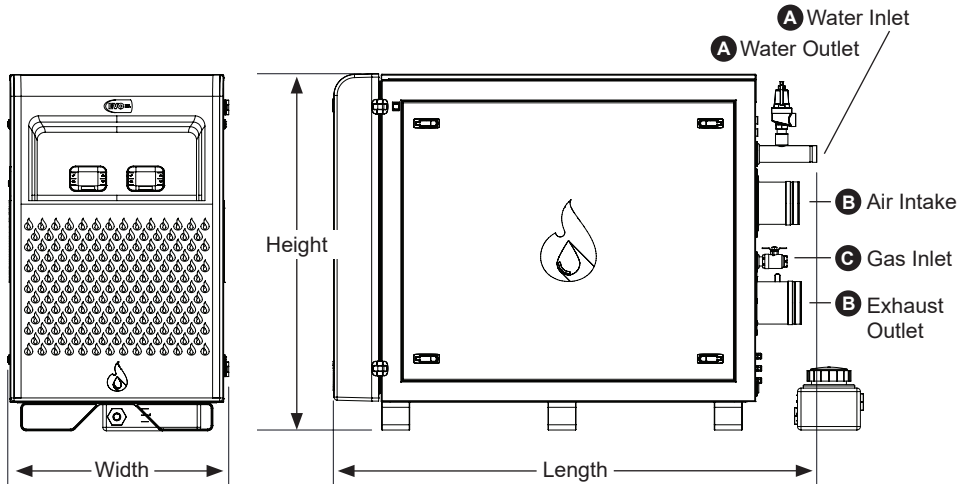


ANSI Z21.10.3/CSA 4.3-2019,
ANSI Z21.13/CSA 4.9-2017,
UL 795-2016, CGA 3.4-2020

Hamilton EVO-XL

800 / 1000 / 1500

Model _____



APPLIANCE DIMENSIONS

Heater/Boiler														
Model	Width		Height		Depth		A (VIC Groove)		B		C		Shipping Weight	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lb	kg
HWD800	31.6	803.2	51	1295	51	1295	2	50	6	152	1	25	650	295
HWD1000	31.6	803.2	51	1295	69.2	1757.4	2	50	6	152	1	25	750	340
HWD1500	31.6	803.2	51	1295	69.2	1757.4	2	50	8	203	1.5	38	850	385

APPLIANCE INFORMATION

Model	Input		Water Heater* Output		Boiler Output**		Recovery @ 100°FΔT (55.6°CΔT)		Recovery @ 80°FΔT (44.5°CΔT)		Recovery @ 60°FΔT (33.3°CΔT)		Water Flow Rate & Pressure Drop Heating	
	BTU/Hr	kW	BTU/Hr	kW	BTU/Hr	kW	GPH	LPH	GPH	LPH	GPH	LPH	GPM@FT	LPM@M
HWD800	795,000	233	up to 771,150	up to 226	up to 755,250	up to 221	926	3,505	1,157	4,380	1,543	5,841	30.2@7'	114@2.1M
HWD1000	999,999	293	up to 969,999	up to 284	up to 949,999	up to 278	1,164	4,406	1,456	5,512	1,941	7,348	38.0@8.5'	144@2.6M
HWD1500	1,475,000	432	up to 1,430,750	up to 419	up to 1,401,250	up to 410	1,718	6,494	2,147	8,115	2,863	10,822	56.8@10.3'	215@3.1M

*At 97% thermal efficiency with 86°F incoming water to heat exchanger

**At 95% thermal efficiency with 140°F incoming water to heat exchanger

ELECTRICAL CHARACTERISTICS FOR EVO PRODUCTS

208 Volt Power Supply

Model	Amps/unit	Heater Pump	Total amps Boiler
HWD 800	4.44	0.96	5.40
HWD 1000	5.88	1.32	7.21
HWD 1500	9.17	2.04	11.22

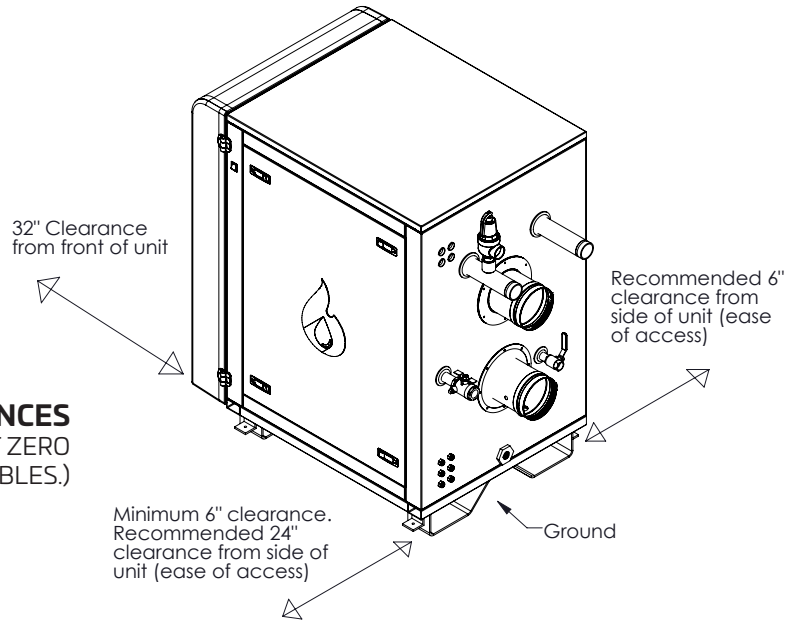
240 Volt Power Supply

Model	Amps/unit	Heater Pump	Total amps Boiler
HWD 800	3.85	0.83	4.68
HWD 1000	5.1	1.15	6.25
HWD 1500	7.95	1.77	9.72

Note: No load switching is possible directly from the BCB or CCB, it may only switch a relay signal.

RECOMMENDED SERVICE CLEARANCES

APPLIANCES CLEARANCES (NOTE: THE APPLIANCE IS RATED AT ZERO CLEARANCE TO COMBUSTIBLES.)



WATER PIPING MANIFOLD FOR EVO PRODUCTS

Model	GPM ΔP^*	Design ΔT		Minimum Manifold Pipe Size			
				Single	Double	Triple	Quad
HW 800	51.4@12'	30.0 °F	16.7 °C	2"	3"	4"	6"
HW 1000	64.7@13.2'	30.0 °F	16.7 °C	2.5"	4"	4"	6"
HW 1500	82.9@17.3'	35.0 °F	19.4 °C	2.5"	4"	6"	6"

*Water heater and piping as described above.

VENTING THE EVO

Please note: You **MUST** confirm local codes as related to venting materials, required markings, etc. Parts of Canada have very specific vent material requirements.

Model	Vent Diameter	Standard Vent Type	Optional Vent Type	Minimum Combined Vent Length	Maximum Combined Length
HW 800	6"	Stainless	Plastic	6' + (2) 90° elbows	240'
HW 1000	6"	Stainless	Plastic	6' + (2) 90° elbows	180'
HW 1500	8"	Stainless	Plastic	6' + (2) 90° elbows	400'

Note: For concrete construction or to meet certain fire codes, exhaust and inlet piping at the wall penetration to the EVO must be CPVC Schedule 40 or 80 or Stainless. The balance from the penetrated wall to the outside may be PVC Schedule 40 or 80.