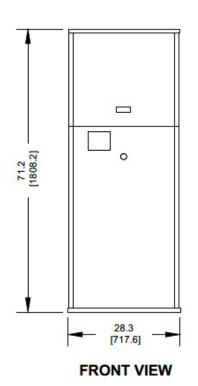
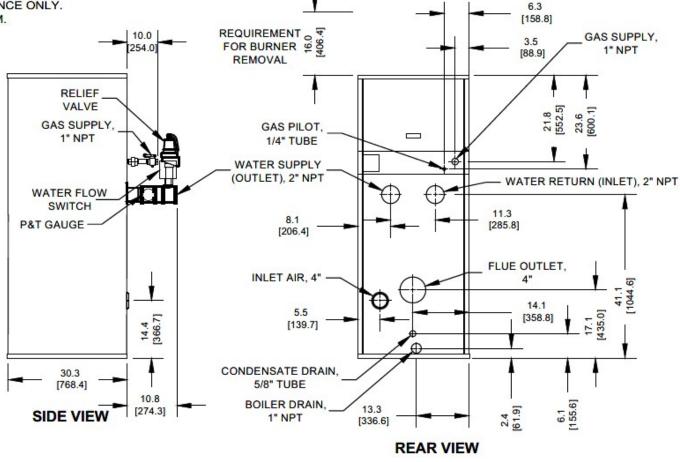


Submittal Data Sheet

NOTES:

- 1. SEE O&M FOR REQUIRED INSTALLATION CLEARANCES.
- 2. DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.
- 3. DIMENSIONS ENCLOSED IN [] ARE IN MM.





THERMAL [®] SOLUTIONS Innovative Equipment for 16t Water Systems				
PO BOX 3244 LANCASTER, PA 17601				

EVA-500

INNOVATIVE EQUIPMENT FOR HOT WATER SYSTEMS

WWW.THERMALSOLUTIONS.COM

Updated: 10/10/25

EVSUBM251001



Submittal Data Sheet

RATINGS AND CAPACITIES				
Input (MBH):	500,000	BTU/HR		
Output (MBH):	431,000	BTU/HR		
Boiler Horsepower:	12.9	BTU/HR		
Thermal Efficiency:	86.2%	BHP		
Heating Surface:	123	Sq.Ft.		
Water Content:	6.1	Gallons		
Fuel:	Natural Gas or LP Gas			
Firing Rate:	Reliable Modulation			
Burner Turndown:	3:1			

Burner Turndown:

Low NOx Emissions:

Inlet Gas Pressure (NG):

Inlet Gas Pressure (LP):

See Chart at right
See Chart at right

Shipping Weight, Approximate:

ASME Section IV (Max 160 PSIG / 250°F)

Setpoint range is 145-230°F

Adjustable, manual reset high limit setting of ≤ 240°F.

ASME H stamp MAWT is 250°F for the vessel. (For max setpoint, see Setpoint range.)

772

UL Certified to ANSI Z21.13 / CSA 4.9

UL Certified to UL 795 / CSA 3.1



lbs

DIMENSIONS / CONNECTIONS					
Height:	71 1/ 4 "	(Note 1)			
Width:	28 3/8"	(Note 2)			
Length:	30 3/8"	(Note 3)			
Supply Connection:	2" NPT				
Return Connection:	2" NPT				
Vent / Air Intake Connections:	4" Vent	4" Intake			
Condensate / Appliance Drain Connection:	5/8" Condensate Tube	1" NPT Drain			
Gas Connection:	1"				

NOTES:				
1. Height dimension is from floor to top of jacket.				
2. Length is from jacket front to jacket rear.				
3. Dimensions shown are for reference only				
,				

FLOWS AND PRESSURE DROPS					
Delta T	Flow (GPM)	△P (Ft. Hd)			
20°F△T	43 (Max)	2.93			
40°F∆T	22 (Min)	0.74			

Electrical Supply Options				
	120v/60hz/1ph (Standard)	4.5 amps		
	208v/60hz/1ph	3.5 amps		
	230v/60hz/1ph	3.4 amps		
	208v/60hz/3ph	3.0 amps		
	230v/60hz/3ph	2.9 amps		
	460v/60hz/3ph	1.5 amps		

Blower Motor	(hp)
1/2	

Relief Valve Options					
	30 psi		50 psi		60 psi
	75 psk		100 psi		125 psi
	150 psi		•	-	

Inlet Gas Pressure					
SIZE	Nat. Gas Min. ("w.c.)	LP Min. ("w.c.)	Max		
500	5.0" w.c.				
750	7.0" w.c.*	8.0" w.c.			
1000	7.0" w.c.*	0.0 w.c.			
1500	7.0" w.c.*		14.0" w.c.		
2000	9.0" w.c.*	9.0" w.c.	14.0 W.C.		
2000s	7.0" w.c.				
2500	6.0" w.c.	8.0			
3000	6.0" w.c				

^{*} NOTE: Optional natural gas train with 4" w.c. minumum inlet gas pressure ONLY AVAILABLE on sizes 750, 1000, 1500 & 2000.

^{*} This data supercedes data found on Table 3 of I&O Manual, per PRODUCT UPDATE issued June 6, 2024.



Submittal Data Sheet

STANDARD EQUIPMENT			OPTIONAL EQUIPMENT			
PRESSURE VESSEL DESIGN	BOILER EQUIPMENT		Low gas pressure venturi, 4'	'wc. (AVAII ABI F.)	ONLY on M	lodels 750-2000)
Copper Fin-tube construction	Siemens RWF55 operating control	160	[FACTORY INSTALLED OPTIC			.000.0700 2000,
Carbon steel or cast iron header design	High limit w/ manual reset safety temperature control		Line Reactor Adds voltage		n for the bl	lower's VFD. (<u>Highly</u>
Gasketless heat exchanger	Water flow switch	\mathbb{L}^{\square}	recommended for areas with dirt	y voltage .)		
ASME Section IV certified "H" stamp	Low water cut-off with manual reset safety controller		Honeywell 7800 Series di	splay with Modl	Bus Modu	le
MAWP 160 PSI & max design temp 250°F	Outlet temperature sensor	1	Line Reactor Adds voltage		n for the bl	lower's VFD. (<u>Highly</u>
5-year heat exchanger warranty	Combustion air switch	1	recommended for areas with dirt	<u>y voltage</u> .)		
20-year thermal shock warranty	Pressure and temperature gauge		Outdoor Air Sensor			
	Safety relief valve (Optional pressuress 30 - 150 PSI; See details		Condensate neutralizer:			
COMBUSTION DESIGN	above.)	1) 850 MBH		☐ 1,200 MBH
Maintenance-free ceramic burner	Single point electrical supply: (Available in: 1 and 3 phase		_	2,000 MBH		☐ 5,000 MBH
Ultr-low NOx emissions (<10ppm)	options. See details above.)	┨╸	Pump Kit (Boiler Circulation Delta T	Pump, Pump Fla	nge Kit Siz	ed based on a 20°F
Whisper quet operation (<50 dBA)	BURNER EQUIPMENT	▋▔	Delia i			
Easy to service, 99% efficient industrial air filter	UL/FM/CSD-1 gas train		Annual Maintenance Kit			
Industrial cast aluminum blower assembly	Reliable Turndown		System Temperature Sen	sor		
VFD Driven Blower	Natural or LP gas		ModBus RS485 communi			5 and Honeywell
Reliable electric spark-to-pilot ignition	Pilot gas valve / Pilot gas regulator	\mathbb{L}_{-}	Flame Safeguard Contro			
10-year burner warranty	Siemens SKP-75 gas valve		Universal comms. gtwy (E	SACnet MS/TP, BACne	et/IP, N2, Mod	dbus TCP)
Honeywell UV-Scanner	Low and high gas pressure switches with manual reset		Local / remote switch			
		┛	Alarm bell with silencing	switch		
<u>VENTING</u>	SIEMENS RWF55 OPERATING CONTROL FEATURES		, <u> </u>	General Alarm	5) (4	Boiler Status
Sealed or room air combustion	Adjustable set point		Conductor Sequencing Panel Contact your RSM with Questi		EVA applica	ations without BMS.
Direct vent (sidewall or vertical) (Cat IV)	Remote set point (0-10v or 4-20 mA)					
Conventional venting (Cat II)	Outdoor air temperature reset	- 11	Conductor Sequencing Podensing, small & large he	_		~
NOTE: This is NOT a Cat 1 Vent appliance.	Remote system temperature monitoring		dulation), and steam or ho			
			iency by selecting and moditions. The Conductor offers			, ,
		- 11	amons. The Conductor offers em (EMS) interface including	• .		0,
		and	BACnet MSTP standard. If Lo			
		gate	eway.			
		I —				
			Extended Wa	ranty Option	ac Asceil	able:
			Extended Wal	3-Year	18 AVGII 5-Year	
		1	Parts Only	<u>3-7ear</u>	<u>5-7 ear</u>	
		1	Parts and Labor	N/A		