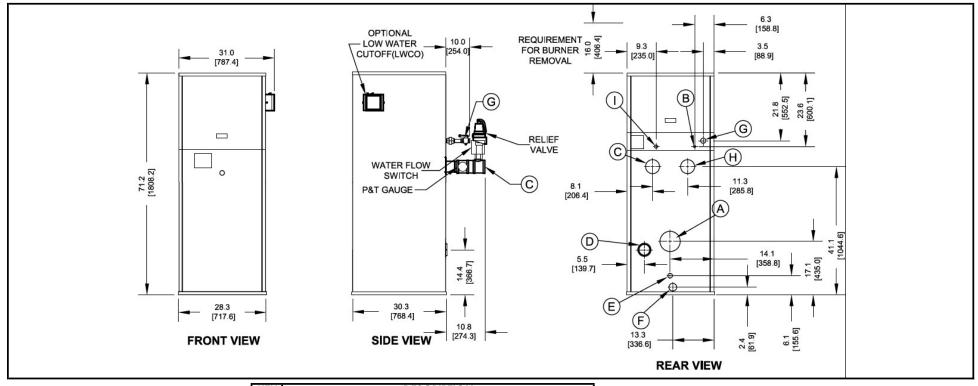


Submittal Data Sheet



KEY	<u>DESCRIPTION</u>			
Α	Flue Outlet	4" [101.6] Diameter (AL29-4C SS)		
В	Factory Installed Pilot Gas Li	1/4" [6/4] O.D. Tube		
U	Water Supply to System	2" NPT		
ם	Inlet Air	4" [101.6] Diameter		
E	Drain, Startup Condensate	5/8" [15.9] O.D. Tube SS		
F	Appliance Drain	1" NPT		
G	Gas Supply	1" NPT		
Н	Water Return from System	2" NPT		
	Optional Gas Train Vent	3/4" NPT (D.B.&B & D.B.&B w/ POC Only)		

NOTES:

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

THERMAL® SOLUTIONS NONCOME Equipment for that Water Systems	_
PO BOX 3244 LANCASTER, PA 17601	

EVO-500

INNOVATIVE EQUIPMENT FOR
HOT WATER SYSTEMS
WWW.THERMALSOLUTIONS.COM

Updated: 8/5/2025



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				

Fuel: Natural Gas or LP Gas
Firing Rate: Reliable Modulation

Burner Turndown:

Low NOx Emissions:

Inlet Gas Pressure (NG):

Inlet Gas Pressure (LP):

See Chart at right
See Chart at right

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

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.)

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UL Certified to ANSI Z21.13 / CSA 4.9

UL Certified to UL 795 / CSA 3.1



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.



Submittal Data Sheet

STAN	NDARD EQUIPMENT		OPTIONAL EQUIPMENT			
PRESSURE VESSEL DESIGN	BOILER EQUIPMENT		Low gas pressure venturi, 4"	'wc (AVAILABLE (I DNLY on Mo	dels 750-2000)
Copper Fin-tube construction	Siemens RWF55 operating control		[FACTORY INSTALLED OPTIO			
Carbon steel or cast iron header design	High limit w/ manual reset safety temperature control		Line Reactor Adds voltage	/ spike protection	n for the blo	wer's VFD. (<u>Highly</u>
Gasketless heat exchanger	Water flow switch	\mathbb{I}^{\cup}	recommended for areas with dirt			
ASME Section IV certified "H" stamp	Low water cut-off with manual reset safety controller		Honeywell 7800 Series dis	splay with ModF	3us Module	;
MAWP 160 PSI & max design temp 250°F	Outlet temperature sensor		Line Reactor Adds voltage	/ spike protection	n for the blo	wer's VFD. (<u>Highly</u>
5-year heat exchanger warranty	Combustion air switch		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.)			3 850 MBH	ſ	☐ 1,200 MBH
Maintenance-free ceramic burner	Single point electrical supply: (Available in: 1 and 3 phase			2,000 MBH	C	☐ 5,000 MBH
Ultr-low NOx emissions (<10ppm)	options. See details above.)	┨┌	Pump Kit (Boiler Circulation	Pump, Pump Flar	nge Kit Sized	d based on a 20°F
Whisper quet operation (<50 dBA)	BURNER EQUIPMENT	┪╸	Delta T			
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	\mathbb{I}_{\neg}	ModBus RS485 communi			and Honeywell
Reliable electric spark-to-pilot ignition	Pilot gas valve / Pilot gas regulator	\mathbb{L}^{\square}	Flame Safeguard Contro	ol (Boiler to BMS)	System)	
10-year burner warranty	Siemens SKP-75 gas valve		Universal comms. gtwy (B	ACnet MS/TP, BACne	et/IP, N2, Modb	ous 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		Relays:	General Alarm	(☐ Boiler Status
Sealed or room air combustion	Adjustable set point	\mathbb{I}_{\Box}	Conductor Sequencing Panel: Contact your RSM with Question		EVA applicati	ions without BMS.
Direct vent (sidewall or vertical) (Cat IV)	Remote set point (0-10v or 4-20 mA)	Ľ	Comaci your ksivi wiiii Quesik	J115.]		
Conventional venting (Cat II)	Outdoor air temperature reset		Conductor Sequencing Po			
Outdoor vent termination kit			densing, small & large he dulation), and steam or ho			
NOTE: This is NOT a Cat 1 Vent appliance.		effic	iency by selecting and mo	dulating the rig	ht boiler to	match operating
			ditions. The Conductor offers em (EMS) interface including			
•	ation only in climates where the ambient temperature will no	† and	BACnet MSTP standard. If Lo			
. , , , ,	pe protected from standing water. Install on a level platform.	3	eway.			
Do not install this appliance under an obverhang must be open on 3 sides. Never in	verhang less than 3 feet from its top. The area under the	,				
overnang most be open on 3 sides. Never it	istall allectly off carpeted hooling.	L				
			Extended War			
				3-Year	<u>5-Year</u>	10 Year
			<u>Parts Only</u> Parts and Labor	□ N/A		
			I GIIG GIIG EGDOI	11/7		