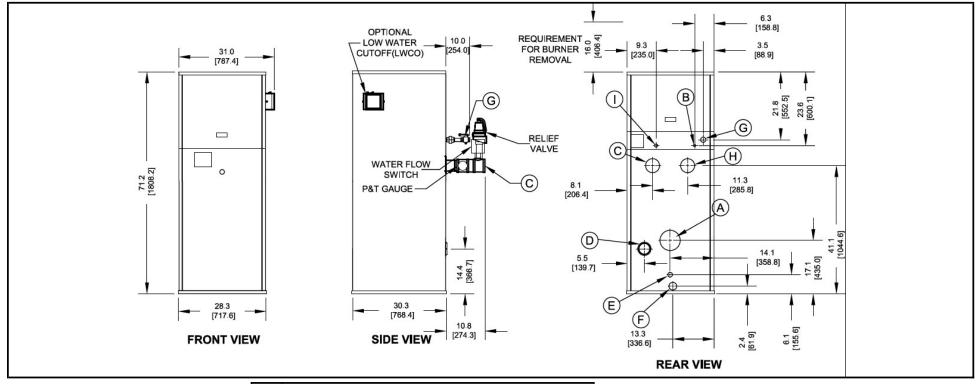


Submittal Data Sheet



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			
С	Water Supply to System	2" NPT			
D	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			
H	Water Return from System	2" NPT			
\Box	Optional Gas Train Vent	3/4" NPT (D.B.&B & D.B.&B w/ POC Only)			

NOTES:

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

THERMAL [®] SOLUTIONS Houseline Each annual for that Water Scatters					
PO BOX 3244	LANCASTER, PA 17601				

EVA-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				
Firing Rate:	Reliable Modulation				
Purpor Turndovent	2.1				

Burner Turndown:

Low NOx Emissions:

Inlet Gas Pressure (NG):

See Chart at right
See Chart at right

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

Shipping Weight, Approximate: 772

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.)

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 ps					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.*	1	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

STANDARD EQUIPMENT			OPTIONAL EQUIPMENT				
PRESSURE VESSEL DESIGN	BOILER EQUIPMENT		Low gas pressure venturi.	" wc (AVAILABLE (ONLY on <i>N</i>	10dels 750-2000)	
Copper Fin-tube construction Carbon steel or cast iron header design Gasketless heat exchanger ASME Section IV certified "H" stamp MAWP 160 PSI & max design temp 250°F 5-year heat exchanger warranty 20-year thermal shock warranty COMBUSTION DESIGN Maintenance-free ceramic burner	Siemens RWF55 operating control High limit w/ manual reset safety temperature control Water flow switch Low water cut-off with manual reset safety controller Outlet temperature sensor Combustion air switch Pressure and temperature gauge Safety relief valve (Optional pressuress 30 - 150 PSI; See details above.) Single point electrical supply: (Available in: 1 and 3 phase options. See details above.)		Line Reactor Adds voltage / spike protection for the blower's VFD. (Highly recommended for areas with dirty voltage.) Outdoor Air Sensor				
Ultr-low NOx emissions (<10ppm) Whisper quet operation (<50 dBA) Easy to service, 99% efficient industrial air filter Industrial cast aluminum blower assembly VFD Driven Blower Reliable electric spark-to-pilot ignition 10-year burner warranty Honeywell UV-Scanner VENTING Sealed or room air combustion	BURNER EQUIPMENT UL/FM/CSD-1 gas train Reliable Turndown Natural or LP gas Pilot gas valve / Pilot gas regulator Siemens SKP-75 gas valve Low and high gas pressure switches with manual reset SIEMENS RWF55 OPERATING CONTROL FEATURES Adjustable set point		Delta T Annual Maintenance Ki System Temperature Ser ModBus RS485 commun Flame Safeguard Contri Universal comms. gtwy (Local / remote switch Alarm bell with silencing	nsor ication for Siem of (Boiler to BMS) BACnet MS/TP, BACnet switch General Alarm I: Req. for multiple	ens RWF5 System) et/IP, N2, Mo	5 and Honeywell dbus TCP) Boiler Status	
Direct vent (sidewall or vertical) (Cat IV) Conventional venting (Cat II) NOTE: This is NOT a Cat 1 Vent appliance.	Remote set point (0-10v or 4-20 mA) Outdoor air temperature reset Remote system temperature monitoring	cond modu efficie cond Syster	Conductor Sequencing Flensing, small & large he lation), and steam or he ency by selecting and me litions. The Conductor offers (EMS) interface including BACnet MSTP standard. If Laway. Extended War	eat output, new of water applice odulating the rig s a single point bo I Modbus TCP/IP, onworks needed,	v and/or utions. It h ght boiler biler plant Modbus I add for th	existing boilers (full pelps improve system to match operating Energy Management RTU RS485, BACnet/IP ne separate Lonworks	