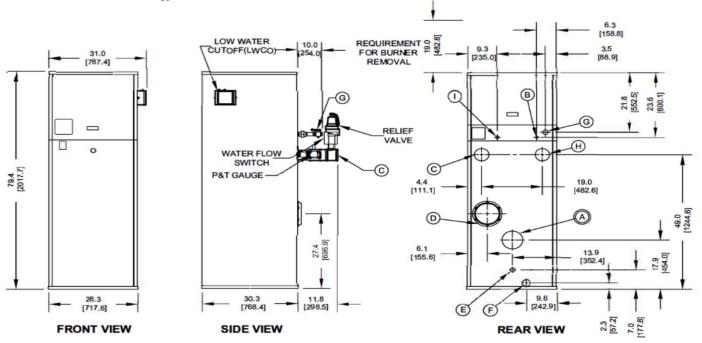
# **EVOLUTION EVA NON-CONDENSING BOILERS - SUBMITTAL DATA SHEET**

NOTES:

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



CONNECTION	DESCRIPTION		
A	FLUE OUTLET, 6" [152.4] DIAMETER (AL29-4C SS)		
B	GAS PILOT, 1/4" [6.4] O.D. TUBE		
C	WATER SUPPLY TO SYSTEM, 3" NPT		
D	INLET AIR, 8" [203.2] DIAMETER		
Ē	DRAIN, CONDENSATE, 5/8" [15.9] O.D. TUBE		
F	DRAIN, BOILER, 1" NPT		
G	GAS SUPPLY, 1 1/2" NPT		
Ĥ	WATER RETURN FROM SYSTEM, 3" NPT		
	GAS VENT, 3/4" NPT (D.B.&B. & D.B.&B. w/POC ONLY)		

GAS VENT, 3/4" NPT (D.B.&B. & D.B.&B. w/POC ONLY)							
	EVOW-1500	INNOVATIVE EQUIPMENT FOR HOT WATER SYSTEMS	Updated 11/12/2024				
PO BOX 3244   LANCASTER, PA 17601		www.thermalsolutions.com	EVOW1500-241101				

# **EVOLUTION EVA NON-CONDENSING BOILERS - SUBMITTAL DATA SHEET**

RATINGS AND CAPACITIES			FLOWS AND PRESSURE DROPS		
Input (MBH):	1,500,000	BTU/HR	Delta T	Flow (GPM)	△ P (Ft.
Output (MBH):	132,000	BTU/HR		100 (11)	Hd)
Boiler Horsepower:	3.9	BTU/HR	20°F △ T	120 (Max)	7.37
Thermal Efficiency:	8.8%	BHP	40°F △ T	<b>63</b> (Min)	1.85
Heating Surface:	264	Sq.Ft.			
Water Content:	17.4	Gallons		ctrical Suppl	y Options
Fuel:	Natural Gas or LP Gas			ph (Standard)	
Firing Rate:	Reliable Modulation		208v/60hz/1	•	
Burner Turndown:	3:1		230v/60hz/1	•	
Low NOx Emissions:	<10 ppm		208v/60hz/3	•	
Inlet Gas Pressure (NG):	7" wc - 14" wc*		230v/60hz/3	·	
Inlet Gas Pressure (LP):	8" wc - 14" wc*		460v/60hz/3	Bph	
* This data supercedes data found on Table 3 of I&O Manual, per					
Shipping Weight, Approximate:	1,327	lbs		Blower Moto	
ASME Section IV (Max 160 PSIG / 250°F)		[ <sup>A</sup> s <sub>M</sub> ]		1-1/2 hp	
Setpoint range is 145-230°F		<u>ر</u> آپ			
	Adjustable, manual reset high limit setting of $\leq$ 240°F.				Options
ASME H stamp MAWT is 250°F for the	vessel. (For max setpoint, see	Setpoint range.)	🔲 30 psi	50 psi	
ETL Certified to ANSI Z21.13 / CSA 4.9		c Dus	□ 75 psk	🔲 100 psi	1
ETL Certified to UL 795 / CSA 3.1		Intertek	🔲 150 psi		
DIMENSIONS	S / CONNECTIONS				
Height:	79 1/8"	(Note 1)			
Width:	28 1/4"	(Note 2)			
Length:	30 1/4"	(Note 3)			
Supply Connection:	3"				
Return Connection:	3"				
Vent / Air Intake Connections:	6" Vent	8" Intake		NOTE	<u>S:</u>
Condensate / Boiler Drain Connection:	5/8" Condensate Tube	1" NPT Pipe, Boiler	1. Height dime	ension is from floor to	o top of jacket.
Gas Connection:	1 1/2"		2. Length is fro	om jacket front to ja	cket rear.

3. Dimensions shown are for reference only

> 4.5 Amps 3.5 Amps 3.4 Amps 3.0 Amps 2.9 Amps 1.5 Amps

🛛 60 psi 125 psi

# **EVOLUTION EVA NON-CONDENSING BOILERS - SUBMITTAL DATA SHEET**

# STANDARD EQUIPMENT

### PRESSURE VESSEL DESIGN

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 ceremic burner Ultr-low NOx emissions (<10ppm) Whisper quet operation (<50 dBA) Industustrial-grade combustion air filter, 99% efficient Industrial cast aluminum blower assembly Variable frequency drive Electric spark-to-pilot ignition system 10-year burner warranty Robust UV-Scanner

### VENTING

Sealed or room air combustion Direct vent (sidewall or vertical) (Cat IV) Conventional ventinting (Cat II) NOTE: This is NOT a Cat 1 Vent appliance.

### **BOILER EQUIPMENT**

- Siemens RWF55 operating control
- High limit w/ manual reset safety temperature control Water flow swtich 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.)

#### **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 Remote set point (0-10v or 4-20 mA) Outdoor air temperature reset Remote system temperature monitoring

## OPTIONAL EQUIPMENT

Low gas pressure venturi, 4" wc (Available on Models 750-2000 C Double block & bleed (DB&B) Gas Train - (1) motorized & (1) solenoid valve & N.O. vent valve

IRI with Proof of Closure Gas Train - (2) motorized valves w/ POC & N.O. vent valve

#### Honeywell 7800 Series display with ModBus Module

Line Reactor Adds voltage / spike protection for the blower's VFD. (Highly recommended.)

#### Outdoor Air Sensor

Condensate neutro



□ 1.200 MBH □ 5.000 MBH

Hydronic Kit (Boiler Circulation Pump, Pump Flange Kit and Condensate Neutralizer) Sized based on a 20°F  $\triangle$ T

#### Annual Maintenance Kit

Supply System temperature sensor

ModBus communication for Siemens RWF55 and Honeywell Flame Safeguard Control (Boiler to BMS

Universal communications gateway (BgcNet MS/TP,

General Alarm

#### Local / remote switch

Relays:

Alarm bell with silencing switch

Boiler Status

Conductor Sequencing Panel: (Required for multiple EVA boiler applications without BMS); Contact Regional Manager with

The Conductor manages multiple condensing & noncondensing, small & large heat output, new and/or existing boilers (full modulation), and steam or hot water applications. It helps improve system efficiency by selecting and modulating the right boiler to match operating conditions. The Conductor offers a single point boiler plant Energy Management System (EMS) interface including Modbus TCP/IP, Modbus RTU RS485, BACnet/IP and BACnet MSTP standard. If Lonworks needed, add for the separate Lonworks gateway.

Extended Warranty Options Available:

	<u>3-Year</u>	<u>5-Year</u>	<u>10 Year</u>
Parts Only			
Parts and Labor	N/A		