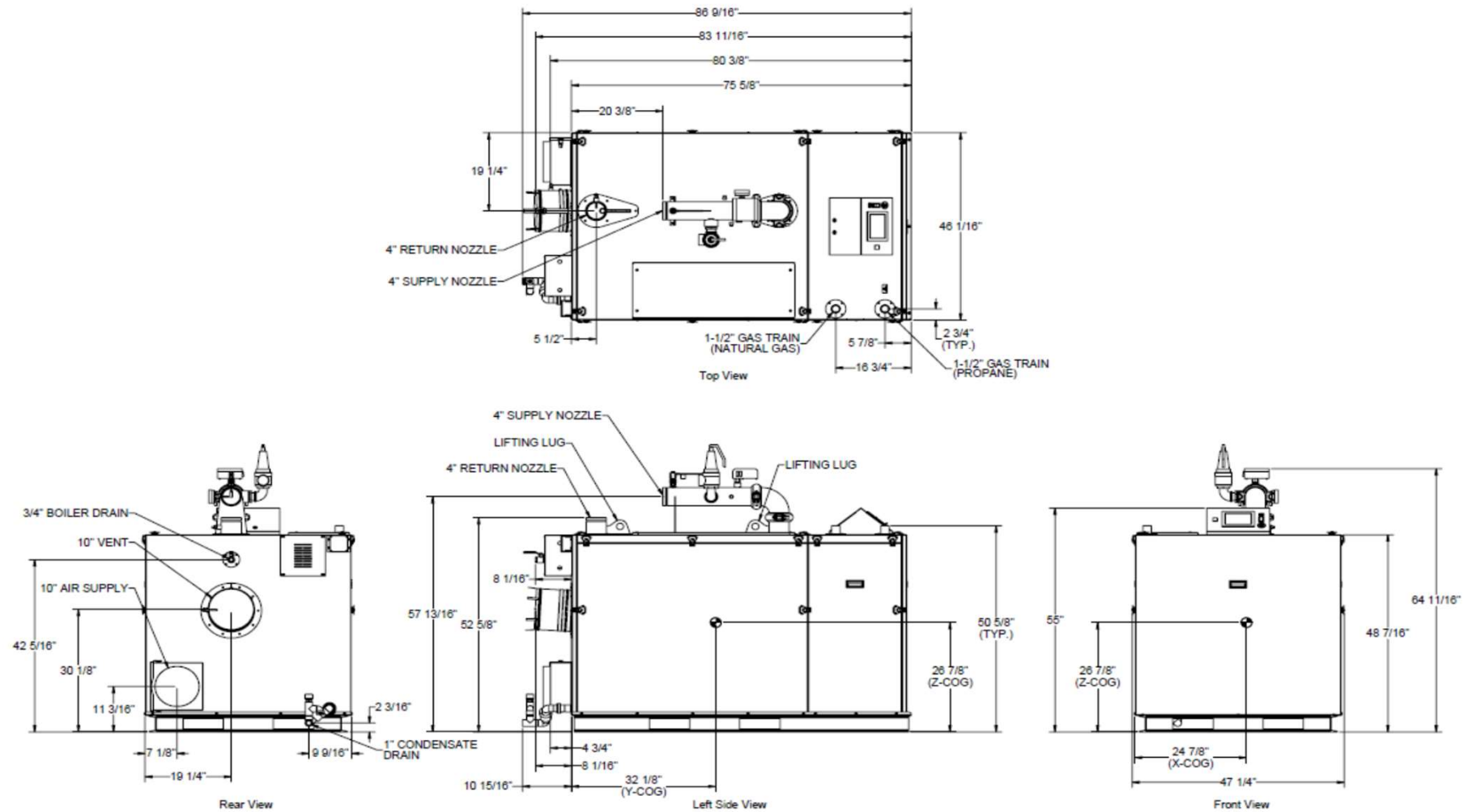


## AMP CONDENSING BOILERS - SUBMITTAL DATA SHEET



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RATINGS AND CAPACITIES		
Input - Low fire:	500,000	BTU/HR
Input - High Fire:	2,500,000	BTU/HR
Output - High Fire:	2,425,000	BTU/HR
Boiler Horsepower:	72.4	BHP
Thermal Efficiency:	97.0%	
Low Fire Thermal Efficiency:	Up to 99%	
Heating Surface:	301	Sq.Ft.
Water Content:	34.6	Gallons
Fuel:	Natural Gas or LP Gas	
Firing Rate:	Full Modulation	
Burner Turndown:	5:1	
Low NOx Emissions:	< 10 ppm	
Inlet Gas Pressure (NG):	4" wc	Min.
Inlet Gas Pressure (LP):	8" wc	Min.
	14" wc	Max.
Shipping Weight, Approximate:	2,038	lbs
ASME Section IV (Max 160 PSIG / 210°F) Setpoint range is 60-185°F Adjustable, manual reset high limit setting of ≤ 200°F. ASME H stamp MAWT is 210°F for the vessel. (For max setpoint, see Setpoint range.)		
ETL Certified to ANSI Z21.13 / CSA 4.9 ETL Certified to UL 795 / CSA 3.1		
DIMENSIONS / CONNECTIONS		
Height:	54 7/8"	(Note 1)
Width:	46	(Note 2)
Length:	75 5/8"	(Note 3)
Supply Connection:	4" Grooved	
Return Connection:	4" Grooved	
Vent / Air Intake Connections:	10"	
Condensate / Boiler Drain Connection:	1"	
Gas Connection:	1 1/2" NPT	

- 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)	Δ P (Ft. Hd)
20°F Δ T	194	19.7
30°F Δ T	129	10.5
40°F Δ T	97	6.7

# AMP CONDENSING BOILERS - SUBMITTAL DATA SHEET

## STANDARD EQUIPMENT

### PRESSURE VESSEL DESIGN

Stainless Steel Heat Exchanger  
 ASME Section IV Certified, "H" Stamp  
 MAWP 160 PSIG & Max Temp 210°F  
 Setpoint range is 60-185°F  
 Adjustable, manual reset high limit setting of ≤ 200°F.  
 ASME H stamp MAWT is 210°F for the vessel. (For max setpoint, see Setpoint range.)  
 Ten Year Limited Pressure Vessel Warranty

### COMBUSTION DESIGN

Stainless Steel Pre-Mix Burner  
 Low NOx Emissions ( < 10 ppm)  
 Full Modulation, 5:1 Turndown  
 Natural Gas, Propane or Dual Fuel (Gas/Gas)  
 4" wc (8" wc Propane) to 14" wc inlet gas pressure  
 Direct Spark Ignition System with UV Scanner  
 High/Low gas pressure switches, manual reset  
 Zero governor gas valve  
 Variable Speed Combustion Blower  
 Air Proving Switch  
 Blocked Vent Switch  
 Manual fuel changeover switch (Dual Fuel Only)

### VENTING

Category II or IV Venting  
 Individual or Common (Engineered) Vent System  
 Vertical or Horizontal  
 CPVC, PP or SS Venting \*Materials Acceptable  
 Combustion Air Intake - Sealed or Room

\* Flue system material shall be capable of continuous operation at 210°F or higher and shall be certified to UL 1738 – venting system for gas-burning appliances cat II, III and IV.

### BOILER EQUIPMENT

Concert™ Control (24 Vac)  
 High Limit Temp Control, Manual Reset  
 Low water cutoff, manual reset  
 Water Flow Switch  
 Supply & Return Water Temperature Sensors  
 Flue Gas Temperature Sensor  
 Condensate trap  
 Blocked Condensate Switch  
 Pressure & Temperature Gauge  
 ASME Relief Valve  
 (Available 30, 50, 60, 75, 100, 125 or 150 psig)

### ELECTRICAL DESIGN

#### Models 1000-2500:

- 120-208-230VAC/60HZ/1PH - High Voltage  
 (1500 to 2500 - Optional 208-230-460VAC/60HZ/3PH)

#### Models 3000:

- 208-230-240VAC/60HZ/1PH - High Voltage  
 - 208-230-240-460VAC/60HZ/3PH - High Voltage

#### Models 3500-4000:

- 208-230-240-460VAC/60HZ/3PH - High Voltage  
 - PCB (Printed Circuit Board) Fused Connections

#### 24VAC/5VDC - Low Voltage PCB

- EMS Communications  
 (Dual RJ45 Jacks for Peer-To-Peer or ModBus)  
 - Boiler Options (Sensors)  
 - Pumps (Boiler, DHW, System) & Auxiliary Devices

## OPTIONAL EQUIPMENT

☐ Hydronic Kit (Boiler Circulation Pump, Pump Flange Kit and Condensate Neutralizer)  
☐ External High Limit Temperature Control, Manual Reset  
☐ Condensate Neutralizer  
☐ Supply Header Temperature Sensor:  
☐ Outdoor Air Temperature Sensor:  
☐ EMS Signal Converter Kit (Converts Energy or Building Management System 0-10v signal to 4-20mA)  
☐ Motorized Isolation Valves  
☐ Alarm Buzzer with Silencing Switch  
☐ Gas Valve Proving Switch  
☐ Vent Adapter - CPVC  
☐ Universal Communications Gateway (BACnet, Metasys, Modbus or Lonworks)  
☐ Stackable Rack  
☐ Conductor Sequencing Panel

☐ Direct Immersion  
☐ Wired

☐ Well Immersion (with Well)  
☐ Wireless

The Conductor manages multiple condensing & non-condensing, small & large heat output, new and/or existing boilers (full modulation or on-off), 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

☐ 3-Year Parts

☐ 5-Year Parts

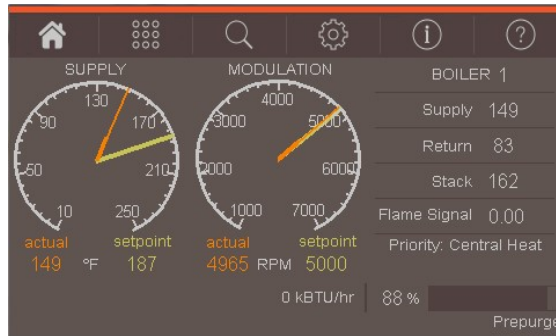
☐ 10-Year Parts

☐ 5-Year Parts/Labor

☐ 10-Year Parts/Labor

# AMP CONDENSING BOILERS - SUBMITTAL DATA SHEET

## CONCERT CONTROL FEATURES



### **Dashboard - Color Touchscreen Display, 4"**

Intuitive Icon Navigation

"Quick" Setup Menus

\*Real Time BTU/H Display

### **Two (2) Temperature Demand Inputs**

Outdoor Air Reset Curve for Each Input

Time of Day Setback Capability

(Envirocom Thermostat must be installed)

### **Three (3) Pump Control**

Boiler Pump With On/Off or Variable Speed Control

Domestic Hot Water (DHW) Pump

System Pump

Alternative Control to Combustion

Air Damper or Standby Loss Damper

Pump Overrun for Heat Dissipation

Pump Exercise

Pump Rotor Seizing Protection

### **Peer-to-Peer Boiler Communications**

Multiple Size Boiler Sequencing Up to 8 Units

\*Two (2) Boiler Start/Stop Trigger

Lead Boiler Automatic Rotation

### **Energy Management System (EMS) Interface**

\*Firing Rate and Water Temperature Based

Algorithms for Multiple Boilers; loss of EMS

signal defaults to local boiler settings

420mAdc Input/Output (010Vdc Optional Converter)

ModBus Input/Output (BACnet or LonWorks

Optional Gateway)

Simultaneous Interface with PeerToPeer

### **USB Data Port Transfer**

Upload Settings Between Boilers

Download Parameters for Troubleshooting

Import Data into .CRV Formatted Files for Performance  
Analysis

\* Unique to Concert



### **Energy Efficiency Enhancer**

AntiCycling Technology

Multiplier boiler base load common rate

Outdoor Air Temperature Reset Curve

Warm Weather Shutdown

Boost Temperature & Time

Ramp Delay

OverTemperature Safeguarding

### **Self-Guiding Diagnostics**

Identifies Fault

Describes Possible Problems

Provides Corrective Actions

Time/Date Stamp on Alarms and Lockouts

### **Unmatched Archives**

Historical Trends Collects Up to 4 months Data

Event History Up to 3000 Alarms, Lockouts and Cycle & Run Times

Alarm Limit String Faults, Holds, Lockouts and Others

Cycle & Run Time Boilers & Pumps

Resettable (Lockouts/Alarms/Cycles & Run Time)

### **Domestic Hot Water Priority**

DHW Tank Piped With Priority in the Boiler Loop

DHW Tank Piped as a Zone in the System With

the Pumps Controlled by the Concert Control

DHW Modulation Limiting

Status Screens

Sensor Monitoring and Control

### **Other Features**

Factory Default Settings

Three Level Password Security

Frost Protection

Contractor Contacts (Up to 3)

Low Water Flow Safety Control & Indication

Proportion Integral Derivative (PID) Parameters for

Central Heat, DWH, Sequencer and Fan

Built-in Brown-Out Protection