

# AMP

Commercial High Efficiency Condensing Boilers and Water Heaters



AMP-L  
399-999 MBH



AMP  
1000-3999 MBH

## Maximum Capacity Minimum Space

### SAVES SPACE

- Reduced footprint, zero clearance (AMP-L models)
- Stackable/rackable design doubles MBH/sq.ft. (AMP-L stackable as boiler model only)

### STREAMLINES REPLACEMENT

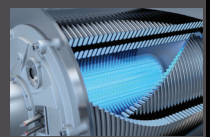
- 3-in-1 vent connector (AMP-L models), multiple venting options
- Up to 300 equivalent ft. of venting on AMP models (200 equivalent ft. for AMP-L models)
- Simplified wiring - separate low/high voltage boards

### SIMPLIFIED SPECIFICATION & INSTALLATION

- CSD-1 built-in (gas train & controls)
- Advanced Concert™ control system
  - Touch screen with intuitive navigation and menus
  - Cascade up to 8 boilers
  - Data/event logging
- Modbus connectivity

### RELIABILITY & SERVICEABILITY

- Commercial-grade water tube heat exchanger
- Easy access to all boiler service locations
- Complete control panel access: slide out (AMP-L models), external (AMP models)



**THERMAL**<sup>®</sup>  
**SOLUTIONS**  
Innovative Equipment for Hot Water Systems

# AMP-L Boilers & Water Heaters



- CSD-1 compliant
- Double MBH per sq. ft.
  - Stackable, hardware included (boiler models only)
  - Zero clearance
- Fits through standard doorways
- Modbus connectivity, cascade up to 8 individual units
- Outdoor models available – no upcharge
- 3-in-1 vent connector (CPVC, PP, SS)
- Venting of up to 200 (combined) equivalent ft.
- 10:1 turndown, natural gas or LP
- Easy service and maintenance – complete service access to burner, combustion chamber, and slide-out boiler control vestibule
- Warranty: 10-year limited heat exchanger, 1-year parts & burner



## PRESSURE VESSEL

- Stainless steel watertube heat exchanger
- ASME Section IV-certified, "H" Stamp
- MAWP 160 PSIG, design temp 210°F
- CSD-1 compliant

## COMBUSTION

- Stainless steel pre-mix burner
- Low NOx emissions (<10 ppm);
- Full modulation, 10:1 turndown
- 4" wc to 14" wc inlet gas pressure
- 8" wc LP min
- Direct spark ignition system
- High/low gas pressure switches w/ manual reset
- Combustion air switch
- Modulating gas valve
- Variable speed combustion blower
- Air proving switch & blocked vent switch

## VENTING

- CPVC, polypropylene or stainless steel materials acceptable
- Air intake – sealed combustion or room air
- Category II or IV venting
- Individual or common (engineered) venting systems

## EQUIPMENT

- Concert™ control
- High limit w/ manual reset safety temperature control
- Low water cutoff w/ manual reset
- Water flow switch
- Supply & return, and water temperature sensors
- Flue gas temperature sensor
- Condensate trap
- Blocked condensate switch
- Pressure & temperature gauge
- ASME safety temperature & pressure relief valve (boilers: 50 PSI standard; 30, 60, 75, 100, 125, or 150 available - water heaters: 150 PSI standard)

## ELECTRICAL

### High voltage printed circuit board (PCB)

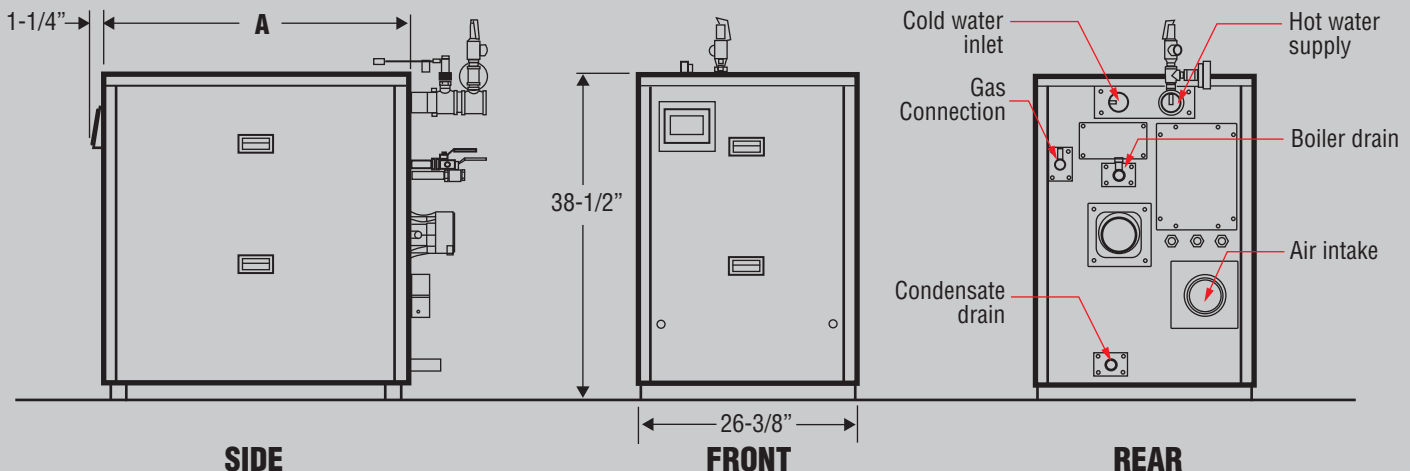
- 120 VAC / 60 Hz / 1PH power supply
- 120 VAC manual reset external limit contacts
- Three sets of pump contacts
- PCB fused connections

### Printed circuit board (PCB)

- 24 VAC enable/disable sensor contacts
- 24 VAC proving switch or manual reset ext. limit contacts
- 24 to 120 VAC lockout alarm contacts
- 24 VAC EnviraCom thermostat contacts
- DHW demand contacts
- Remote header sensor contacts
- DHW tank sensor contacts
- Peer-to-peer communication contacts
- EMS interface contacts
- Remote 4-20mA contacts

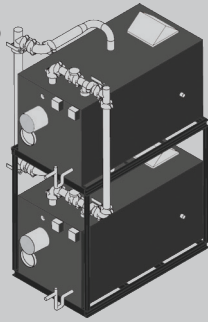
AMP-L Dimensions (Inches)

Model	A	Vent Connection	Gas Connection NPT	Supply (NPT)	Return (NPT)
AMP(W)-400	37-3/4	4	3/4	2	2
AMP(W)-500	37-3/4	4	3/4	2	2
AMP(W)-650	53-7/8	6	1	2	2
AMP(W)-800	53-7/8	6	1	2	2
AMP(W)-1000L	53-7/8	6	1	2	2



# AMP Boilers & Water Heaters

- CSD-1 compliant
- 50% smaller footprint compared to competitors
- Stackable with optional racking system
- Top water connections saves space
- Modbus connectivity, cascade up to 8 individual units
- 5:1 turndown, natural gas or LP
- AL29-4C, PP, or CPVC venting, up to 300 (combined) equivalent feet
- Complete access to burner and combustion chamber for ease of service
- Warranty: 10-year limited heat exchanger, 1-year parts & burner



### PRESSURE VESSEL

- Watertube stainless steel heat exchanger
- ASME Section IV-certified, "H" Stamp
- MAWP 160 PSIG & design temp 210°F
- CSD-1 compliant

### COMBUSTION DESIGN

- Stainless steel pre-mix burner
- Low NOx emissions (<10 ppm)
- 4" wc to 14" wc inlet gas pressure
- 8" wc LP min
- Direct spark ignition system
- High & low gas pressure switches w/ manual reset

- Zero governor gas valve
- Variable speed combustion blower
- Air proving switch
- Blocked vent switch

### VENTING

- CPVC, polypropylene or stainless steel materials acceptable
- Air intake - sealed combustion or room air
- Category II or IV venting
- Individual or common (engineered) venting systems

### EQUIPMENT

- Concert™ control
- High limit w/ manual reset safety temp. control

- Low water cutoff w/ manual reset
- Water flow switch
- Supply & return water temperature sensors
- Flue gas temperature sensor
- Condensate trap
- Blocked condensate switch
- Pressure & temperature gauge
- ASME safety temperature & pressure relief valve (boilers: 50 PSI standard; 30, 60, 75, 100, 125, or 150 available - water heaters: 150 PSI standard)

### ELECTRICAL

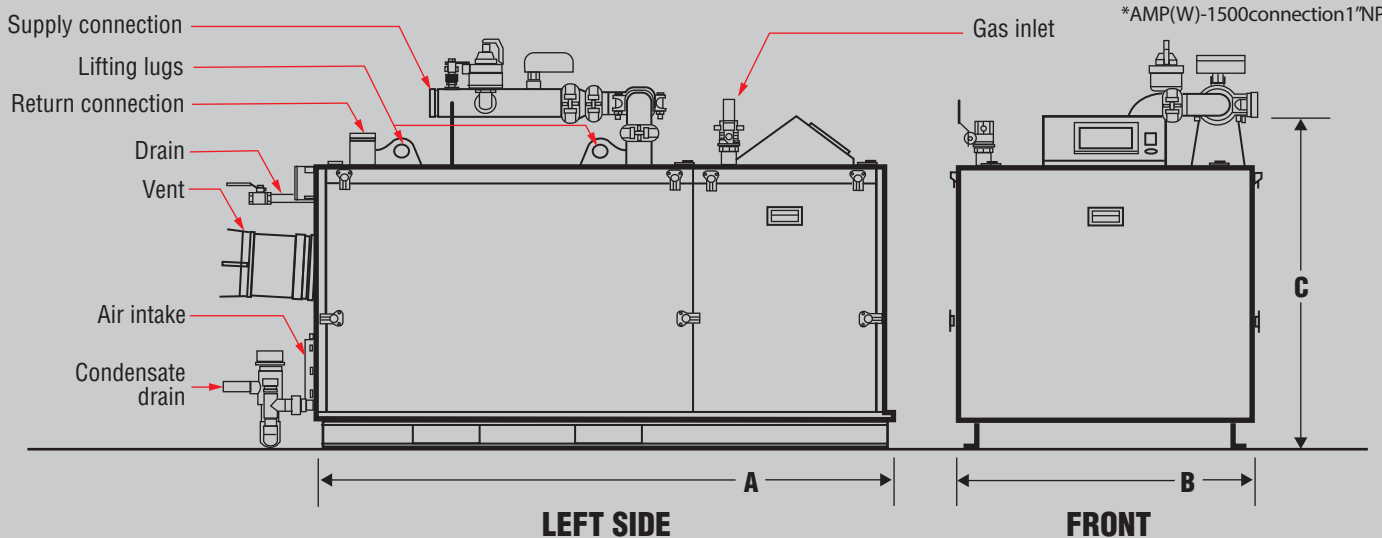
- High voltage printed circuit board (PCB)
- 120, 208 or 240VAC / 60 Hz / 1PH power supply
- VAC manual reset external limit contacts

- Three sets of pump contacts
- PCB fused connections
- Printed Circuit Board (PCB)
- 24 VAC enable/disable sensor contacts
- 24 VAC proving switch or manual reset ext. limit contacts
- 24 to 120 VAC lockout alarm contacts
- 24 VAC EnviraCom thermostat contacts
- DHW demand contacts
- Remote header sensor contacts
- DHW tank sensor contacts
- Outdoor air sensor contacts
- Peer-to-peer communication contacts
- EMS interface contacts
- Remote 4-20mA contacts

AMP Dimensions (Inches)

Model	A	B	C	Vent Connection	Gas Connection NPT	Supply (NPT)	Return (NPT)
AMP(W)-1000	45-1/2	34-1/4	42-3/4	8	1	3	2-1/2
AMP(W)-1250	45-1/2	34-1/4	42-3/4	8	1	3	2-1/2
AMP(W)-1500	66-1/8	34-1/4	42-3/4	8	1-1/4*	3	2-1/2
AMP(W)-2000	66-1/8	34-1/4	42-3/4	8	1-1/4	3	2-1/2
AMP(W)-2500	76	46	55	10	1-1/2	4	4
AMP(W)-3000	76	46	55	10	1-1/2	4	4
AMP(W)-3500	98	46	55	10	2	4	4
AMP(W)-4000	98	46	55	10	2	4	4

\*AMP(W)-1500connection1"NPT



# AMP/AMP-L

## Technical Information



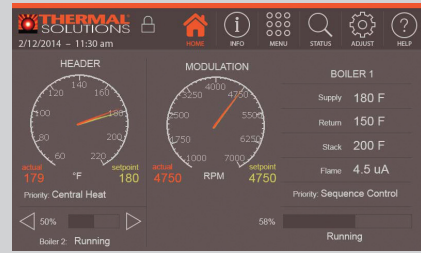
Advanced Control System

AMP-L <sup>3</sup> Ratings & Specifications						
Model	Input (MBH)		Gross Output (MBH)	DHW Recovery <sup>2</sup> (GPH)	Thermal Efficiency (%)	Approx. Shipping Weight (lbs.)
	Min	Max				
AMP-400	40	399	387	—	97	460
AMPW-400 <sup>1</sup>	40	399	391	470	98	460
AMP-500	50	500	485	—	97	470
AMPW-500 <sup>1</sup>	50	500	490	588	98	470
AMP-650	65	650	631	—	97	530
AMPW-650 <sup>1</sup>	65	650	637	764	98	530
AMP-800	80	800	776	—	97	560
AMPW-800 <sup>1</sup>	80	800	784	941	98	560
AMP-1000L	99	999	969	—	97	600
AMPW-1000L <sup>1</sup>	99	999	979	1176	98	600

NOTES:  
 1. Water heater model  
 2. Based on 40°F to 140°F temperature rise  
 3. All AMP-L boiler and water heater models are Energy Star certified

AMP Ratings & Specifications						
Model	Input (MBH)		Gross Output (MBH)	DHW Recovery <sup>2</sup> (GPH)	Thermal Efficiency (%)	Approx. Shipping Weight (lbs.)
	Min	Max				
AMP-1000 <sup>3</sup>	200	1000	970	—	97	922
AMPW-1000 <sup>1,3</sup>	200	1000	980	1188	98	922
AMP-1250 <sup>3</sup>	250	1250	1213	—	97	922
AMPW-1250 <sup>1,3</sup>	250	1250	1225	1485	98	922
AMP-1500 <sup>3</sup>	300	1500	1455	—	97	1217
AMPW-1500 <sup>1,3</sup>	300	1500	1470	1782	98	1217
AMP-2000 <sup>3</sup>	399	1999	1939	—	97	1217
AMPW-2000 <sup>1,3</sup>	399	1999	1659	2376	98	1217
AMP-2500	500	2500	2425	—	97	2281
AMPW-2500 <sup>1,3</sup>	500	2500	2500	2970	98	2281
AMP-3000	600	3000	2910	—	97	2281
AMPW-3000 <sup>1,3</sup>	600	3000	2940	3564	98	2281
AMP-3500	700	3500	3395	—	97	2281
AMPW-3500 <sup>1,3</sup>	700	3500	3430	4158	98	2281
AMP-4000	799	3999	3879	—	97	2281
AMPW-4000 <sup>1,3</sup>	799	3999	3919	4752	98	2281

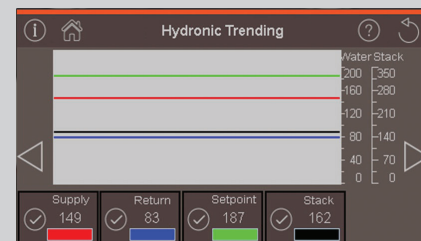
NOTES:  
 1. Water heater model  
 2. Based on 40°F to 140°F temperature rise  
 3. Energy Star certified



- Color touchscreen, real time readouts
- Intuitive navigation
- 3-level password protection



- Self-guided diagnostics
- Fault identification and correction
- Factory default settings
- Timed setback capability



- Time/date stamp on reports
- Stores up to 4 months of data
- Calculates cycle and run times
- Resettable



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