Condensing High Efficiency Gas Boiler

20-100% Modulation

SERIES 2

PACKAGED BOILER

Natural Gas field convertible to LP as standard equip. except Ultra 80

Net input: 20-100%


Taco Pump 383-500-401

OPTIONAL EQUIPMENT

Wall Mounting Kit
Alarm Control Kit

383-900-100

383-500-080

Indirect-Fired Water Heaters

Direct Spark Ignition

Variable Speed Blower Assembly

Gas/Air Ratio Venturi with Air Silencer

DoE AFUE

50 VA Transformer

Combination T&P Gauge

Negative Pressure Regulation Gas Valve

Outdoor Temperature Sensor

12 AMP 110 V Circ. Relay (310 only)

Control Module with

Digital Display & Data Port

Ignition Control

High Limit & Modulating Temp Control

Low Water Protection

Outdoor Reset

DHW Priority

Two Pump Controls (Heating & DHW)

Taco Boiler Circulators:

1" flanges (80 & 105) Taco 007

1-1/4" & 1-1/2" flanges (155, 230 & 310)

Taco 0011

Flue Gas Temperature Sensor

Outdoor Temperature Sensor

Indirect-Fired Water Heaters

Matching Ultra PLUS 40, 60 and 80 Water Heaters Available

VENT SIZE / MATERIAL

3" PVC/ABS

4" PVC/ABS

Combustion Air Size

3 in.

3 or 4 in.

Water Volume

95 Gal.

105 Gal.

107 Gal.

117 Gal.

123 Gal.

Return Tapping

1" 1-1/4"

Supply Tapping

Crane Dimensions

1-1/4" 1-1/4"

53-1/2"L x 27"W x 23-1/2"H

Ultra boilers are low NOx Certified by the South Coast Air Quality Management District (Rule 1146.2) in California.

Weil-McLain Low Temp Seasonal Efficiency

Boiler return water temp=90°F and boiler outlet water temp=110°F

Net I=B=R

DOE AFUE

CSA Input (Maximum)

80 MBH

105 MBH

155 MBH

230 MBH

310 MBH

CSA Input (Minimum)

16 MBH

21 MBH

31 MBH

46 MBH

62 MBH

DOE Heating Cap.

71 MBH

94 MBH

159 MBH

207 MBH

299 MBH

Net Efficiency

93.0%

90.0%

95.0%

99.8%

93.3%

Seasonal Efficiency (Boiler return water temp=90°F and boiler outlet water temp=110°F)

Heat Rate

62 MBH

81 MBH

123 MBH

183 MBH

DOE AFUE

93.0%

92.0%

93.0%

92.8%

93.3%

Note: 310 ratings are gross output and combustion efficiency.

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Locate our Sales Offices by visiting our website:

www.weil-mclain.com

Weil-McLain

500 Blaine Street

Michigan City, IN 46360-2388

Weil-McLain Ultra Boiler Patents Pending

Form No. C-995R4(0504)

In the interest of continual improvements in product and performance, Weil-McLain reserves the right to change specifications without notice.
An intelligent system that delivers Precision Hydronic heating and hot water needs while maximizing efficiency by measuring and responding to the data parameters of your heating system.

PhD Technology is built around proven key components that when combined make the Ultra the most advanced, reliable and efficient boiler available.

The key components include...

- A negative regulated gas valve that precisely delivers gas to the boiler;
- A variable speed motor that matches combustion output to your heating needs;
- A venturi mixing body that precisely mixes air and gas providing for higher efficiency;
- System intelligence with the Ultra Control Module which maintains proper, efficient and precise hydronic heat through inputs of all system data;
- A cast aluminum mono block heat exchanger designed to operate in low temperature condensing applications;
- Pre-mix stainless steel burner designed for perfect firing rate modulation, efficiency, clean combustion and quiet operation.

The Ultra Control Module, a microprocessor electronic control, responds to signals from the room thermostat, supply water temperature sensor, return water temperature sensor, fuel temperature sensor, domestic hot water sensor, burner water switch and outdoor temperature sensor. The module automatically adjusts blower speed and gas flow rate to modulate boiler firing rate to closely match boiler output for space heating or DHW heating demand.

For fast and easy installation, combine an Ultra PLUS Indirect-Fired Water Heater with your Ultra boiler installation. Ultra PLUS water heaters come in three sizes:

- **Ultra PLUS 40**
- **Ultra PLUS 60**
- **Ultra PLUS 80**

Combined with an Ultra boiler, the Ultra PLUS water heater provides more domestic hot water when you need it, while taking advantage of the extremely high efficiency of the Ultra boiler. A standard feature of the Ultra boiler control module is domestic hot water priority control, providing quicker response time for domestic hot water demands, along with faster recovery times for the hot water tank.

The perfect match for an Ultra boiler is an Ultra PLUS Indirect-Fired Water Heater.

Ultra High Efficiency And Environmentally Friendly

All Ultra boilers feature AFUE efficiencies in the range of 98.0% - 99.0%. These are some of the highest efficiencies in the industry, however, Ultra boilers, when used in common low temperature applications have annual efficiencies of 92.0% - 93.0%. These are some of the highest efficiencies in the industry, however, Ultra boilers, when used in common low temperature applications have annual efficiencies of 92.0% - 93.0%. These are some of the highest efficiencies in the industry, however, Ultra boilers, when used in common low temperature applications have annual efficiencies of 92.0% - 93.0%.
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**Ultra High Efficiency And Environmentally Friendly**

All Ultra boilers feature AFUE efficiencies in the range of 95.0% - 98.0%. These are some of the highest efficiencies in the industry, however Ultra boilers, when used in common low temperature applications have annual efficiencies of 98.0%. The Ultra boiler exceeds all the requirements of the Department of Energy’s ENERGY STAR program.

Besides being Ultra High Efficient, the Ultra boiler is environmentally friendly. Through PhD Technology and the use of our high grade burner, the Ultra boiler produces less NOX while exceeding all current environmental codes and is certified by South Coast Air Quality Management District (Rule 1146.2) in California.
Condensing High Efficiency Gas Boiler

20-100% Modulation

SERIES 2

Nat. Gas field convertible to LP as standard equip. except Ultra 80

Natural Gas

Propane Gas

Taco Pump

80 MBH

105 MBH

155 MBH

230 MBH

310 MBH

All with 20-100% Modulation

Innovative combination of appearance, intelligence and technology.

High Efficiency

Over 92% AFUE and up to 98% for low temperature applications.

Attractive

The Ultra boiler features a new attractive design for installation in any setting.

Intelligent

Features PhD Technology - an intelligent system that delivers Precise Hydronic heating and hot water needs while maximizing efficiency by measuring and responding to the Data parameters of your heating system.

High Technology

Cast mono block aluminum heat exchanger. Gas valve, blower and venturi technology that constantly maintains optimal air and fuel ratio at all firing rates.

In the interest of continual improvements in product and performance, Weil-McLain reserves the right to change specifications without notice.

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Weil-McLain

500 Blaine Street

Michigan City, IN 46360-2388

Condensing High Efficiency Gas Boiler

RATINGS - (SIZES)

80 MBH

105 MBH

155 MBH

230 MBH

310 MBH

ALL WITH 20-100% MODULATION

Weil-McLain

500 Blaine Street

Michigan City, IN 46360-2388

Condensate Trap

with Drain Tee Assembly

Taco Boiler Circulators:

- 1" Flanges (80 & 105) Taco 007
- 1" & 1-1/4" Flanges (155, 230 & 310)

Taco 0011

Complete Jacket Assembly with Fully Removable Front Jacket Cover Adjustable Boiler Legs

Sidewall Vent/Air Termination Kit

Line & Low Voltage Pre-wired Terminal Strips

On/Off Power Switch

Line Voltage Service Receptacle

Condensate Trap

with Drain Tee Assembly

Propane Conversion Orifice

(All except Model 80)

Taco Pump

007

0011

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