

WEIL-McLAIN



EG

SERIES 4

**HIGH-EFFICIENCY
GAS BOILER
FOR
WATER OR STEAM**

NET LOAD RANGE

**HOT WATER:
53,000 to
209,000 BTU/Hr.**

**STEAM:
192 to
750 sq. ft.**

AMERICA'S MOST COMPLETE LINE OF CAST IRON BOILERS
RESIDENTIAL . . . COMMERCIAL . . . INDUSTRIAL . . . INSTITUTIONAL

EG

HIGH-EFFICIENCY GAS BOILER

WEIL-McLAIN

MICHIGAN CITY INDIANA

The Weil-McLain EG is a versatile cast iron gas boiler for water or steam. It is available in two models:

- EG-SPD—with standing pilot
- EG-PID—with intermittent electronic ignition system.

Both models are furnished with an automatic vent damper to increase operating efficiency and save fuel.

The EG is designed and engineered for fast installation ... reliable operation ... convenient servicing ... high efficiency ... and long life.

Most important, the EG is made by Weil-McLain, America's leading name in cast iron boilers for over a century.



EG
for Steam



EG
for Water

DESIGN ADVANTAGES



- 1 **HIGH OPERATING EFFICIENCY.** Saves fuel.
- 2 **AUTOMATIC VENT DAMPER.** Saves fuel by preventing heat from escaping up the chimney when the burners are not operating.
- 3 **VENT PROVING CONTROLS.** Rollout thermal fuse element and spill switch shut down the boiler if blockage occurs in either the boiler or venting system.
- 4 **COMPACT DESIGN.** Saves valuable space. Horizontal draft hood reduces headroom requirements.
- 5 **WIRING HARNESS.** Designed, labeled, and color-coded to help assure correct wiring.
- 6 **TANKLESS HEATERS—ADDITIONAL EQUIPMENT.** Boilers available with openings for tankless heaters.
- 7 **CONVENIENT SERVICING.** Easily accessible controls ... top cleaning ... vertical flueways.
- 8 **NEW PARTS APPROACH.** Repair parts furnished in convenient kits with everything needed.
- 9 **STEEL JACKET.** Durable powder-coat finish in Weil-McLain blue ... insulated to retain heat and clear of the floor to prevent rust.
- 10 **STAINLESS STEEL BURNERS.** Feature quiet ignition and extinction. Burners provide fixed primary air ... no air adjustment required.
- 11 **5-YEAR HOMEOWNER PROTECTION PLAN—OPTIONAL.** Covers boiler parts supplied by Weil-McLain and labor for all eligible repairs. Available through participating installers.

WEIL-McLAIN **5** HOMEOWNER PROTECTION PLAN YEAR

AUTOMATIC VENT DAMPER



A tested and approved automatic vent damper is furnished as standard equipment on all units except the EG-75. The damper prevents heat from escaping up the chimney when the boiler is not operating to increase efficiency, save fuel. Simple plug-in connectors assure mistake-proof wiring.

CAST IRON CONSTRUCTION



EG boiler sections are made of durable cast iron for strength and long life. It's not uncommon for Weil-McLain cast iron boilers to last 35 years or more.

The vertical flue passages are studded with heat pins that cause the hot gases to swirl about, scrubbing the entire surface of each section for maximum heat transfer.

Modern elastomer sealing rings in the port openings assure a permanent water-tight seal. The flexibility and elastic memory of these seals (unlike metal push nipples) prevent leaks caused by thermal expansion and contraction.

A special high-temperature sealant between boiler sections assures gas tightness.

All boilers are shipped with the sections factory-assembled in one block for ease of installation.

Individual sections, as well as the assembled section block are hydrostatically tested before shipping.



CONTROL SYSTEMS

EG-SPD

The EG-SPD is furnished with a standing pilot system electrically interlocked with the automatic vent damper.

When the thermostat calls for heat—

- Circulator starts and damper begins to open
- When the damper is proven open (in approximately 15 seconds) the gas valve opens to ignite the main burners

When the thermostat is satisfied—

- Circulator stops; damper begins to close
- Gas valve closes
- Damper is fully closed within approximately 15 seconds

If boiler water temperature reaches the high limit setting—

- Gas valve closes
- Damper closes in approximately 15 seconds
- Circulator keeps running



EG-PID



Operating sequence is the same as above except there is no constant burning pilot. Instead an electronic spark ignites the pilot. The PID system features a Weil-McLain UCM universal ignition control module.

EG BOILER FOR TANKLESS HEATERS—ADDITIONAL EQUIPMENT

EG-35 through 75 boilers are also available with openings for tankless heaters. The boiler is furnished with two openings in the left-end section—one for a water heater, the other for a steam heater. Heater cover plates are installed. Tankless heaters are available—see additional equipment.



WATER HEATER



STEAM HEATER

TANKLESS WATER HEATER CAPACITIES

Boiler Number	Heater Number	Intermittent Draw GPM** 100°F Avg. Temp. Rise	Continuous Draw GPM** 100°F Avg. Temp. Rise	Inlet and Outlet Sizing	Temp. Control Tapping
WATER					
EG-35	E-624	3.00	1.80	1/2"	3/8"
EG-40	E-624	3.00	2.00	1/2"	3/8"
EG-45	E-624	3.25	2.40	1/2"	3/8"
EG-50	E-626	4.00	2.50	1/2"	3/8"
EG-55	E-626	4.25	3.20	1/2"	3/8"
EG-65	E-632	5.00	4.00	1/2"	3/8"
EG-75†	E-632	5.25	4.80	1/2"	3/8"
STEAM					
EG-35	35-S-29	3.00	1.60	3/8"	3/8"
EG-40	35-S-29	3.00	2.00	3/8"	3/8"
EG-45	35-S-29	3.25	2.40	3/8"	3/8"
EG-50	35-S-29	3.25	2.80	3/8"	3/8"
EG-55	35-S-29	3.50	3.20	3/8"	3/8"
EG-65	35-S-29	3.75	4.00	3/8"	3/8"
EG-75	35-S-29	4.00	4.80	3/8"	3/8"

**Weil-McLain ratings based on 60 PSI (domestic) water pressure at heater.
†Capacity of water per minute heated from 60°F to 140°F with 200°F boiler water temperature.
*Continuous draw—no recovery period.
†Tankless heater not available for EG-75-SPD.

RATINGS



Boiler Number	Input BTU/Hr.	DOE Heating Capacity BTU/Hr.**	Net I-B-R Ratings***			DOE Seasonal Efficiency Percent (AFUE)						Chimney Size
			Sq. Ft. Steam	Steam BTU/Hr.	Water BTU/Hr.	Water			Steam			
						SPDN	SPDL	PIDN	SPDN	SPDL	PIDN	
EG-30-*	75,000	62,000	196	47,000	55,000	82.2	84.2	84.3	81.0	82.9	83.0	5" I.D. x 20'
EG-35-*	100,000	83,000	258	62,000	73,000	82.0	83.7	83.6	81.3	82.5	82.9	5" I.D. x 20'
EG-40-*	125,000	104,000	325	78,000	91,000	82.5	84.3	84.0	81.5	83.2	82.9	6" I.D. x 20'
EG-45-*	150,000	125,000	392	94,000	110,000	82.4	84.0	83.5	81.6	83.0	82.9	6" I.D. x 20'
EG-50-*	175,000	145,000	454	109,000	128,000	82.9	84.4	83.8	81.9	83.7	82.8	7" I.D. x 20'
EG-55-*	200,000	167,000	521	125,000	146,000	82.5	84.2	83.8	81.9	83.5	82.8	7" I.D. x 20'
EG-65-*	250,000	209,000	654	157,000	183,000	82.6	84.0	84.0	82.0	82.8	83.0	8" I.D. x 20'
EG-75-*	300,000	240,000	750	180,000	209,000	-	-	-	-	-	-	8" I.D. x 20'

* Add to boiler number "W" for water, "S" for steam. Add "SPD" to designator for boiler with standing pilot. Add "PID" to designator for boiler with intermittent electronic ignition system. For SPD models add "N" for natural gas, "L" for propane (propane not available for PID). Add "T" to designator for boiler with tankless heater openings. Add "F" to prefix for factory-assembled fire-rated package boiler (steam only sizes 30 thru 55). Example: EG-30-S-SPDN.
 ** Based on standard test procedures prescribed by the United States Department of Energy.
 *** Net I-B-R ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing need be added for normal piping and pick-up. Water ratings are based on a piping and pick-up allowance of 1.15; steam ratings on an allowance of 1.303. An additional allowance should be made for unusual piping and pick-up loads.
 NOTE: EG Boiler is CSA design certified for installation on noncombustible flooring only. Tested for 50 PSI working pressure. Not suitable for multivolt systems.

ENGINEERING DATA

Boiler Number	Number & Size of		Dimensions--Inches			Gas Connection Size* Natural and Propane	Minimum Recommended Pipe Sizes			Approx. Shipping Wt.-Lbs.
	Supply (NPT)	Return (NPT)	D	V	W		Forced Water Supply and Return**	Steam Riser and Header***	Steam Equalizer	
EG-30	2-3"	2-2 1/2"	5"	6"	17"	1/2"	1"	2"	1 1/2"	380
EG-35	2-3"	2-2 1/2"	5"	6"	17"	1/2"	1"	2"	1 1/2"	380
EG-40	2-3"	2-2 1/2"	6"	6 1/2"	21 1/4"	1/2"	1 1/4"	2 1/2"	1 1/2"	465
EG-45	2-3"	2-2 1/2"	6"	6 1/2"	21 1/4"	1/2"	1 1/4"	2 1/2"	1 1/2"	465
EG-50	2-3"	2-2 1/2"	7"	9"	25 1/2"	1/2"	1 1/4"	2 1/2"	1 1/2"	545
EG-55	2-3"	2-2 1/2"	7"	9"	25 1/2"	1/2"	1 1/4"	3"	1 1/2"	545
EG-65	2-3"	2-2 1/2"	8"	9 1/2"	29 3/4"	3/4"	1 1/2"	3"	1 1/2"	630
EG-75	2-3"	2-2 1/2"	8"	9 1/2"	34"	3/4"	2"	3"	1 1/2"	695

* Sizes shown are gas connection sizes. Gas piping from meter to boiler to be sized according to local utility requirements.
 ** All supply and return sizes are based on a 20°F temperature rise through the boiler.
 *** 24" minimum from water line to header.

DIMENSIONS



CONTROL TAPPINGS

LOCATION	SIZE	STEAM	WATER
C	1/2"	Electrode-Type Low-Water Cutoff	Plugged
D	1/2"	Drain	Drain
E	1/2"	Safety Valve	Safety Relief Valve
G	1/2"	Plugged	Piping to Compression tank or Auto. Air Vent
H	1/2"	Gauge Glass and/or Low-Water Cutoff	Plugged
J*	1/2"	Try-Cock Tappings	-
L	1/2"	Syphon, Pressure Gauge, High-Limit Control	Combination Pressure-Temperature Gauge
S	1 1/2" (Steam) 1/2" (Water)	Skin Tapping	-
		-	Limit Control

* Available only on special request.

STANDARD EQUIPMENT

ALL BOILERS

- Limited Lifetime Warranty on Water Boiler
- Sections; 10 Years on Steam Boiler Sections
- Factory Assembled Section Block
- Insulated Extended Jacket
- Horizontal to Vertical Draft Hood
- Automatic Vent Damper (additional for EG-75)
- Combination Gas Valve for 24 Volt
- Non-Limiting Pilot Burner
- Stainless Steel Burners
- Electrical Junction Box
- Spill Switch
- Rollout Thermal Fuse Element

WATER BOILERS ONLY

- Built-in Air Separator
- 30 PSI ASME Relief Valve (boiler sections tested for 50 PSI water working pressure)
- Combination Pressure-Temperature Gauge
- High-Limit Control
- 40VA Transformer with Receptacle for Circulator Relay
- Plug-in Circulator Relay

STEAM BOILERS ONLY

- 15 PSI ASME Relief Valve (boiler sections tested for 15 PSI steam working pressure)
- High Limit Pressure Control
- Low Water Cut-Off-Electrode Type
- 40VA Transformer
- Steam Pressure Gauge
- Syphon
- Gauge Cocks and Glass

HIGH EFFICIENCY MODEL-SPD

- Constant Burning, Thermally Supervised Pilot System
- Thermocouple

HIGHEST EFFICIENCY MODEL-PID

- Intermittent Electronic Ignition System with Well-McLain UCM Universal Ignition Control Module

ADDITIONAL EQUIPMENT

- Package Steam Boiler-factory-assembled and fire-tested (P-EG-30 thru 55 only)
- Left End Section with Openings for Tankless Heaters
- Tankless Heaters, Heater Cover Plates, and Controls
- Automatic Vent Damper for EG-75 with Electronic Ignition
- Gas Conversion Kits

In the interest of continual improvement in products and performance, Well-McLain reserves the right to change specifications without notice.



Locate our Sales Offices by visiting our website:
www.well-mclain.com

Well-McLain
 500 Blaine Street
 Michigan City, IN 46360-2388