



WEIL-McLAIN®

www.weil-mclain.com

GV90+

HIGH EFFICIENCY CAST IRON BOILER

Water | Natural/Propane Gas | 70-175 MBH
Direct Exhaust/Direct Vent | Average Efficiency 91% AFUE



LEADING HIGH EFFICIENCY
CAST IRON BOILER AT 91% AFUE

GV90+

Proven cast iron longevity
Durable design with low maintenance
Streamline controls with simple setup



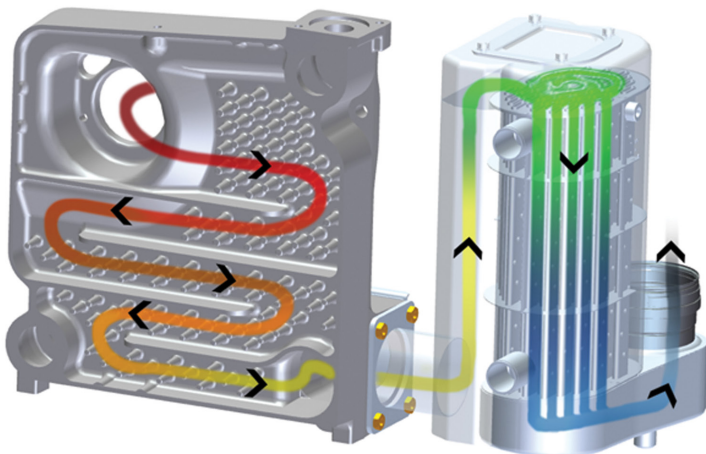
BENEFITS THAT MAKE IT LAST

MAXIMUM HEAT EXCHANGER PERFORMANCE

- Durable cast iron primary heat exchanger extends product life - it is not uncommon for cast iron boilers to last in excess of 40 years.
- Corrosion resistant stainless steel condensing secondary heat exchanger, increases efficiency up to 5% by recouping heat energy from exhaust normally wasted when vented from the building.

RELIABLE BOILER DESIGN

- Unlike most high efficiency boilers in the industry, the Weil-McLain GV90+ has extra-wide waterways (over 2") allowing sludge and debris, often present in older systems, to flow through easily. This limits scale build up, which reduces boiler efficiency, performance and can lead to premature boiler failure.
- Down-fired, counter flow boiler design improves boiler efficiency. The GV90+ offers (5) pass design in the primary heat exchanger and (2) pass design in the secondary heat exchanger maximizing heat transfer and optimizing boiler efficiency.



PROVEN CONTROL STRATEGY

- The control platform features error-proof, labeled, snap in connections. Tested at over 100,000 cycles, and boasting a failure rate of less than 1% over 20 years, it is sure to provide years of worry-free operation.
- Unlike traditional cast iron boilers, the GV90+ offers a unique control design allowing easy integration of outdoor reset to take advantage of low water temperatures and improve overall system energy cost savings.

SMART CIRCULATOR STRATEGY

- Built-in dual circulator strategy provides boiler protection - it can accept low return water temperatures (down to 60° F) with no additional mixing valves, pumps, wiring and installation labor - a savings of over \$500.
- The lower water temperature also allows homeowners the flexibility to add radiant heating for kitchens, baths or other living spaces without the added cost of special return temperature controls.

WHY WEIL-McLAIN

- Full product line to satisfy every application
- Every residential gas boiler is hydrostatically tested to ASME standards and test fired
- Backed by Weil-McLain quality and a warranty that provides peace of mind
- Unrivaled technical and field sales support
- Over a 130 year proud history, and North America's leading boiler manufacturer

BENEFITS THAT CONSERVE

- Exceeds Energy Star requirements with 91% efficiency
- Boiler sections made from recycled metals
- Lower emission levels than most boilers



BENEFITS THAT PROVIDE COMFORT

When matched with a Weil-McLain indirect-fired water heater, you will experience virtually limitless hot water for bathing, laundry, dish washing and cooking at a lower operating cost compared to most other alternatives. Our indirect-fired water heaters provide up to twice the peak flow of a tankless coil, 50% more than a comparable sized direct-fired gas water heater, and three times as much as an electric unit.

AQUA Plus®
5 Tank Sizes 35-105



BENEFITS THAT PAY

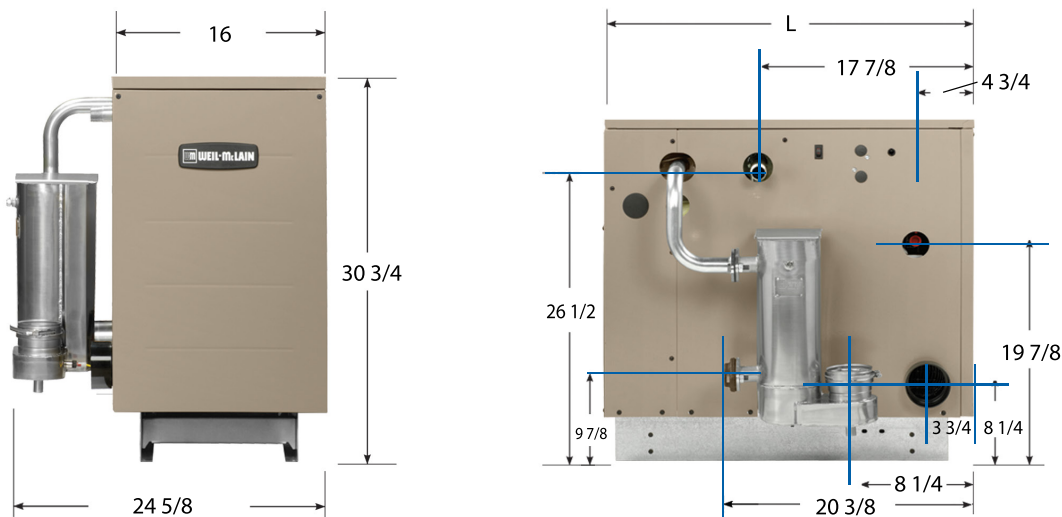
Annual estimated savings for every \$100 of fuel costs by increasing your heating equipment efficiency.

Assuming the same heat output. These are general estimations, actual results may vary.

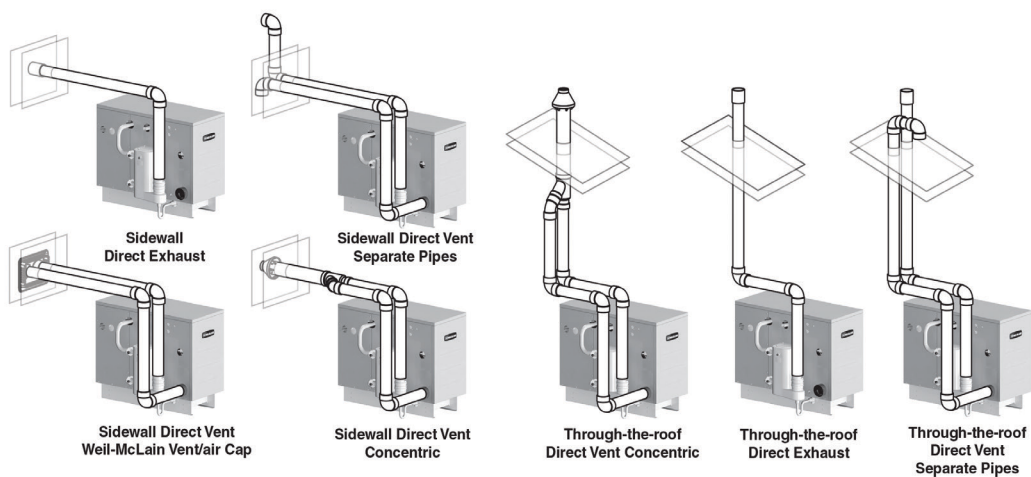
Existing System AFUE	New / Upgraded System AFUE								
	55%	60%	65%	70%	75%	80%	85%	90%	95%
50%	\$ 9.09	\$16.67	\$23.08	\$28.57	\$33.33	\$37.50	\$41.18	\$44.44	\$47.37
55%	-----	\$ 8.33	\$15.38	\$21.43	\$26.67	\$31.25	\$35.29	\$38.89	\$42.11
60%	-----	-----	\$ 7.69	\$14.29	\$20.00	\$25.00	\$29.41	\$33.33	\$36.84
65%	-----	-----	-----	\$ 7.14	\$13.33	\$18.75	\$23.53	\$27.78	\$31.58
70%	-----	-----	-----	-----	\$ 6.67	\$12.50	\$17.65	\$22.22	\$26.32
75%	-----	-----	-----	-----	-----	\$ 6.25	\$11.76	\$16.67	\$21.05
80%	-----	-----	-----	-----	-----	-----	\$ 5.88	\$11.11	\$15.79
85%	-----	-----	-----	-----	-----	-----	-----	\$ 5.56	\$10.53
90%	-----	-----	-----	-----	-----	-----	-----	-----	\$ 5.26

Source: "Furnaces and Boilers." Energy.gov. N.p., n.d. Web. 26 Apr. 2014.

- Eligible for most utility rebate programs - check your local area for details and current rebate amounts.
- GV90+ is the first cast iron gas boiler vented with PVC — saving 90% over the cost of stainless steel venting material per foot.
- Simple diagnostics significantly reduces troubleshooting time by using flashing LED lights to communicate errors — no need to decipher codes or read lengthy manuals.



INSTALLATION FLEXIBILITY WITH MULTIPLE VENTING OPTIONS



Approved vent materials include: PP*** / PVC / SS.

MODEL	INPUT MBH	DOE HEATING CAPACITY MBH (1)	NET AHRI RATING, WATER MBH (2)	DOE SEASONAL EFFICIENCY AFUE	VENT DIAMETER (3)	BOILER WATER CONTENT GAL.	LENGTH	SUPPLY TAPPING	RETURN TAPPING	GAS CONNECTION SIZE	MINIMUM RECOMMENDED PIPE SIZE	APPROX. SHIPPING WEIGHT
GV90+3	70	65	56	91.9%	3"	3.8	30 3/4"	1"	1"	1/2"	1"	313 lbs.
GV90+4	105	97	84	91.2%	3"	4.7	30 3/4"	1"	1"	1/2"	1"	353 lbs.
GV90+5	140	130	113	91.4%	3"	6.0	37 3/4"	1"	1"	1/2"	1 1/4"	423 lbs.
GV90+6	175	161	140	91.0%	3"	6.9	37 3/4"	1"	1"	1/2"	1 1/4"	464 lbs.

Notes:

(1) Based on standard test procedures prescribed by the United States Department of Energy.

(2) Net AHRI ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing needs to be added for normal piping and pick-up. Ratings are based on a piping and pick-up allowance of 1.15. An additional allowance should be made for unusual piping and pick-up loads.

(3) GV90+ boilers must be vented directly to the outside.

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

STANDARD EQUIPMENT:

- Factory Tested
- Insulated Extended Steel Jacket
- Cast Iron Sections with Built-in Air Separator
- Stainless Steel Secondary Heat Exchanger with Air Separator
- Steel Base
- Control Module with Indicator Lights
- Blower Assembly with Observation Port
- Gas/Air Manifold Assembly
- Gas/Air Orifice Plate for Natural Gas (separate plate furnished for conversion to propane)
- Stainless Steel Burner Cone and Ring Assembly
- Negative Regulation Gas Valve
- Hot Surface Ignition System
- Air Pressure Switch
- System Circulator*
- Built-in-Bypass Circulator System with Sensor for Temperature Control*
- Condensate Drain Trap
- Sidewall Vent Termination Kit**
- 40VA Transformer
- Electrical Junction Box
- 30 PSI ASME Relief Valve (boiler sections & secondary heat exchanger tested for 50 PSI working pressure)
- Water Temperature Limit Switch
- Section Block Temperature Limit Switch
- Combination Pressure-Temperature Gauge
- Drain Valve
- PP***vent material approved for use on boilers equipped with flue thermal switch only (not thermal fuse)^

ADDITIONAL EQUIPMENT:

- Concentric Vent Kit
- Condensate Neutralizer Kit
- Expansion Tank Package. #109-sizes 3 through 5; #110-size 6. Shipped in separate carton.
- High Altitude Kit
- Weil-McLain Indirect-fired Water Heaters
- Weil-McLain Pool Heaters
- Weil-McLain Baseboard Units

*Circulators supplied with boiler cannot be removed and cannot be used as a zone circulator in multiple zone systems.

** Includes inside and outside plates and hardware. ^ If necessary, order switch part #511-624-664.