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# Buderus

GB142 Series Wall-Mounted  
Gas Condensing Boiler

Output: 84.8 MBH to 214.8 MBH

Improved Efficiencies - 96% AFUE



**Efficiency, dependability and the best warranty in the market - now that's value.**

96% AFUE Efficiency

Whisper Quiet - Enclosed Housing

\*5-Year Parts and Labor Warranty for residential applications with registration

Low-Loss Header manifold for quick and trouble free installations.

Advanced easy to use control system

4 Models with Inputs from 84,800 to 214,800 BTU/Hr

**Comfortable. Efficient. Intelligent Heating.**

**Buderus**

Bosch Group

# Condensing technology - a system that pays for itself

## The GB142 Series

If you demand the most from your heating system, Buderus condensing technology is right for you. The compact wall mounted GB142 Boiler saves significant energy and delivers all this in the smallest of spaces.

With efficiency levels of 96%, the GB142 condensing boiler seems to achieve the impossible. Compared to conventional boilers, condensing boilers are up to 14% more energy efficient, rising to 30% compared to some older systems.



This is how it works: carbon dioxide and water vapor are created during the combustion of gas. The condensing boiler cools this water vapor, which condenses and thereby release additional energy – the so-called condensing heat or latent heat. Conventional systems let that energy escape unused through the chimney.

The wall mounted GB142 condensing boiler is designed to extract that additional energy from the water vapor. This modern Buderus condensing technology also produces significantly lower emissions as a result of its improved energy utilization which also benefits the environment.

The GB142 series is available in 4 sizes and covers an wide input range – from 84,800 to 214,800 BTU/HR. It is suitable for a small apartment to larger homes. Several GB142's can be combined in a cascade for increased inputs if needed.

### Feature Rich

#### Flexible installation options

Multiple venting options and compact dimensions allow the boiler to be installed practically anywhere.

#### Easy to maintain and services

The excellent accessibility of all components from the front ensures reduced service effort.



#### Standard efficiency levels to 96% AFUE

The modulating burner, made from ceramics, can vary its output from 30% to 100%. The heat exchange provides an extremely large surface making standard efficiency levels of up to 96% possible.

### 5-Year Part and Labor Warranty

All GB142 boilers feature a limited Lifetime warranty on the heat exchanger. And while we don't expect that you'll need it — it is comforting to know that Buderus offers an extended parts and labor warranty for GB142 boilers installed in residential applications. This factory warranty is provided at no charge to the original purchaser as long as the boiler is registered within 90 days of purchase at [www.buderus.us](http://www.buderus.us)

## There's a lot in it for you.

Our Engineers have packed the GB142 with lots more than just advanced condensing technology. Quiet operation, a modulating burner for an optimum match between output and demand and low-Nox emissions to name a few. With all of these benefits, this wall mounted boiler is also the perfect choice for low energy houses.

The GB142 modulating burner can vary its output from 30% to 100%. This results in a reduced heat demand, that means lower output and therefore lower energy costs. A standard efficiency of up to 96% can be achieved, thanks to the especially large heat exchanger surface and the use of condensing technology. In addition, the wide modulation range reduces the number of burner starts, which protects the boiler and reduces irritating noise.

With all these features it is easy to see how the GB142 Boiler is able to pay for itself very quickly.

### Stay in control

Conventional residential heating systems lack the subtlety and sophistication to keep your home at a desired temperature. They function at only the more basic level – ON/OFF - turning on only when the house temperature drops (as much as 2-3°F) below the thermostat setting, and the house becomes uncomfortably cool

A conventional system heats and circulates water at only one temperature – typically 170-190°F and keeps heating and circulating this high temperature water until the thermostat signals it to stop. After the boiler shuts down, the temperature in the house continues to rise – often well above desired levels – until the water in the pipes cool. This wastes expensive heating fuel and makes the house uncomfortably warm.

The AM10 outdoor reset control, standard on all GB142 models, uses advanced microprocessor technology to monitor input from an outdoor temperature sensor and compensate for outdoor temperature changes. As the temperature drops outside, the temperature in the boiler rises. As the outdoor temperature gets warmer, the boiler lowers the system water temperature. This control strategy reduces room temperature swings resulting in more consistent room temperatures and a higher degree of comfort. The ability to compensate for changes in the building's actual heat loss also results in lower energy consumption and ultimately lower fuel bills.



### Always at the ready: Hot water storage tanks



Buderus offers a complete line of indirect hot water tanks that work perfectly with the GB142 to ensure convenient DHW heating. Available in sizes ranging from 32 to 103 gallons our patented thermoglaze - glass lined tanks are designed for quick recovery rates, long-term DHW hygiene and reliable protection against corrosion.

Buderus also offers an indirect tank with a stainless steel coil that is available in four sizes: 40, 65, 80, 119 Gallons.

All Buderus DHW tanks feature a Limited Lifetime warranty.

### A Tradition of Excellence

The World's leader in hydronic heating technologies since 1825, Buderus produced the world's first low-temperature hydronic heating systems. Today, Buderus products are acknowledged as the world standard in high-efficiency, low emissions hydronic heating. All Buderus products are designed to meet strict safety and environmental regulations.

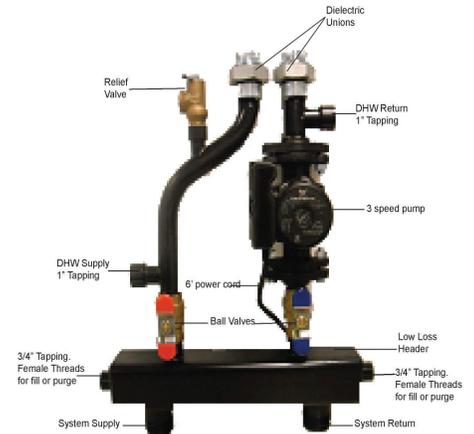
Buderus boilers are quick and easy to install and will outlast and outperform virtually any other commercial hot water heating system. They are designed for easy access and service.



## Ultra Efficient 96% AFUE Wall-Mounted Boiler GB142 Series

The state-of-the-art design of the GB142, with integrated controls, is a rare combination of outstanding quality paired with exceptional value. Utilizing advanced condensing technology, the Buderus GB142 Wall-Mounted Boiler maximizes the heating value of every cubic foot of natural gas or liquid propane. The small size and minimal clearance requirements of the GB142 Boiler provide tremendous installation flexibility. All GB142 Boilers now come with the AM10 outdoor reset control and DHW sensor for control of an indirect DHW tank. The GB142 is approved for 3" solid core PVC horizontal and vertical venting.

The small size and minimal clearance requirements of the GB142 Boiler provide tremendous installation flexibility. Thanks to the prefabricated low-loss header, the GB142 Boiler has the fastest installation in the industry. Specially designed with an appropriately sized circulator, this manifold ensures proper flow-rate through the unit. This feature greatly extends the service life of the GB142. By simplifying the piping, the GB142 manifold allows for quicker, easier, and trouble-free installation.



**Residential applications receive a free 5-year parts and labor warranty with product registration.**

Model	GB142/24	GB142/30	GB142/45	GB142/60*
<b>Performance Data</b>				
Rated Input (BTU/Hr)	84,800	106,000	160,900	214,800
Rated Output (BTU/Hr)				
(176° / 140° F)	22,700-75,200	28,100-91,500	42,500-142,000	56,800-176,300
(122° / 86° F)	25,300-83,300	30,700-102,400	47,200-158,000	63,200-196,600
AFUE Efficiency	96%	96%	96%	96%
Flue Gas Temperatures (° F)				
(176° / 140° F)	155	167	151	151
(122° / 86° F)	100	100	97	97
CO <sub>2</sub> Content at Full Load 100% (ppm)	9.2	9.2	9.2	9.2
Rated Emission Factor (ppm) NO <sub>x</sub>	24	23	23	22
Max Equivalent Vent Length (Ft.)	100	100	100	60
<b>Physical Dimensions</b>				
Height	28"	28"	28"	28"
Width	22"	22"	35½"	35½"
Depth	18¾"	18¾"	18¾"	18¾"
Weight (lbs.)	110	110	143	158
Water Content (gallons)	.65	.65	.93	1.2

### GB142 Approvals and Certifications



#### Approval Numbers

MAP # G3-0610-523  
MEA # 229-05-E

GB142 models qualify for many federal, state, local, and utility rebates such as Gas Networks in Massachusetts. Rebate programs are subject to availability and restrictions. Check our web site for information on available rebates in your area.