

[ Air ]

[ Water ]

[ Earth ]

[ Buderus ]



# Buderus

125BE Series

Low-NOx Residential Oil Boilers  
Output: 73 MBH to 121 MBH

## Improved Efficiencies



**Good for the planet. Great for your home.**

High Efficiency AFUE 90%<sup>+</sup>

Low-NOx Emissions

Patented Flexible Cast Iron Resists  
Thermal Shock

Superior Heat Retention

Approved for B5 Fuel Oil

Limited Lifetime Warranty

Qualifies for 30% Federal Tax Credit

**Comfortable. Efficient. Intelligent Heating.**

**Buderus**

Bosch Group

# Innovative, Environmentally Friendly Technology

## The 125BE Series

The Buderus 125BE boilers represent the best of innovative heating technology. Designed in Europe, where fuel costs are significantly higher and environmental regulations are more stringent, each 125BE System is designed to maximize the heating value of every ounce of fuel, and to be environmentally conscious. Bringing new advances in oil burning technology, the 125BE uses a modern, low emission, high efficiency oil burner that burns cleaner with less impact on



the environment. With over a quarter of a million G125BE Systems installed, this proven European technology, boasts the highest efficiency for an oil boiler in the market and offers you an environmentally conscious boiler for your home.

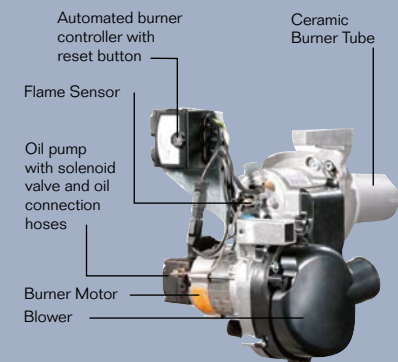
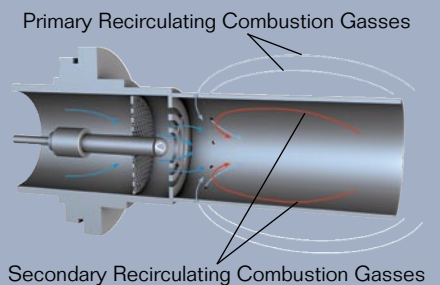
### Intelligent heating — Added comfort

The 125BE boiler includes many technological advantages. It is constructed of our patented GL-180M cast iron to ensure that the boiler resists thermal shock and it is designed without a heat-consuming refractory or target wall. The sections are securely joined together and sealed by profiled, beveled steel push nipples ensuring a long life with no leakage, while special compounds provide an exhaust gas-tight seal for safe and efficient operation. A full 3½" of thermal insulation surround the boiler, including underneath, virtually eliminating standby and stack temperature losses, improving efficiency. Additionally the 8 flue baffles on a 125BE enhance heat transfer and contribute to the very high 90+ AFUE. Every 125BE System is factory tested to ensure years of dependable operation. All these features combine to maximize heat transfer and fuel efficiency as well as minimizing service and maintenance calls.

### Low Emission BE Burner

The state-of-the-art Low-NO<sub>x</sub> Buderus BE burner on the 125BE burns at lower temperatures than conventional burners. The ceramic burner tube is designed to recirculate combustion gases, which assists in vaporizing the liquid oil droplets and lowers the flame temperature. The complete combustion that results means more than just efficient use of the fuel that is burned. It also means nitrogen oxide—NO<sub>x</sub>—formation is inhibited, and that virtually no soot is produced. Not only do you get more heat from each drop of fuel, the boiler stays cleaner resulting in fewer service calls, plus there are fewer emissions into the environment.

Flue gas recirculation ensures complete gasification of oil droplets, clean combustion and higher efficiencies.



### Unparalleled energy efficiency

No matter how much you want to save, keeping your home comfortable and warm is a high priority. You can do both with a Buderus 125BE System. The Annual Fuel Utilization Efficiency (AFUE) is an industry measurement used to indicate the amount of energy a boiler is converting to heat. With an AFUE of 90%+, a 125BE System will use less fuel than even a new conventional boiler and because of its low-NOx burner it will run as clean and efficiently 20 years from now as it did the first year. With an AFUE of 90%+ (Annual Fuel Utilization Energy) the G125BE has the industry's highest AFUE for a non-condensing oil boiler. The GB125BE adds condensing technology to the boiler to utilize the hot flue gases for even higher efficiencies and AFUE ratings.

### Intelligent heating — Added comfort

The Logamatic 2107 which is standard on the GB125BE or as an option for the G125BE is a weather responsive energy management system. Its microprocessor-based controls, will intelligently control both your heat and domestic hot water. The Logamatic 2107 has options available for room sensor and the ability to control a mixing station for mixed temperature applications.



Logamatic 2107 features include:

- Domestic hot water priority
- DHW recirculation pump operation
- Automatic Summer/Winter change over
- Compatible for integration of solar panels
- Condensate protection
- Outdoor reset
- Vacation mode
- LCD display

### Designed for easy installation and maintenance for all applications

A 125BE System is ideal for new installations or as a replacement boiler. Two CSA approved venting options for the G125BE and 3 concentric vent options for the GB125BE allow a wide range of installation possibilities. Standard features on a Buderus 125BE System include integrated handles for ease of transporting, adjustable rubber screw-in feet for leveling, rear tappings and flue connection for efficient piping, baffles and clips for adjusting stack temperatures, front access plugs and a reversible full "swing" burner door.

### Buderus — A tradition of excellence

The world's leader in hydronic heating since 1825, Buderus products are acknowledged as the world standard in high-efficiency, low emissions systems. Buderus boilers are quick and easy to install and will outlast and outperform virtually any other hydronic heating system. They are designed for easy access and service. With appropriate maintenance, Buderus boilers deliver the highest possible efficiencies throughout the lifespan of operation.

### Need Hot Water?

Pairing a Buderus domestic hot water tank with a 125BE boiler will extend your



tank with a 125BE boiler will extend your savings to your hot water needs. A Buderus tank is so well insulated that it loses less than 1/4°F per hour. Available in a vertical model and a space-saving horizontal model that installs under the boiler, these tanks have a higher recovery rate than stand-alone or tankless

coil models. This Buderus System will give you years of consistent high efficiency with minimal service calls.

### The Ultimate in Fuel Conditioning

A Tigerloop® Ultra™ oil de-aerator and high efficiency oil filter comes standard on every 125BE. This guarantees only conditioned oil is delivered to the burner, resulting in additional fuel economy, plus a cleaner burn, with lower emissions.

In addition, your heating contractor will appreciate its ease of installation and maintenance, simple routing of oil lines, easy mounting on the side of the boiler, as well as a vacuum gauge to indicate the condition of the filter and a viewing window showing the condition of the oil.



# Low-NOx Residential Oil Boilers

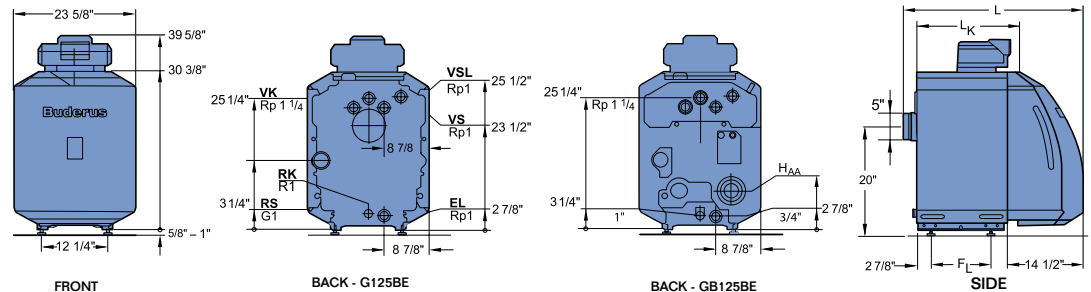
## 125BE Series

All 125BE models feature a Buderus GL-180M Cast Iron Boiler, Buderus BE Low-NOx Burner, and a Tigerloop® Ultra™ oil de-aerator. The G125BE models are available with a Buderus 2107 Logamatic control or a Honeywell aquaustat. The Buderus 2107 Logamatic control is standard on the GB125BE condensing models.

Model	CONVENTIONAL			GB125BE/22		CONDENSING		GB125BE/35	
	G125BE/21	G125BE/28	G125BE/34	131/86°F	176/140°F	131/86°F	176/140°F	131/86°F	176/140°F
<b>Performance Data</b>									
Gross Output (MBH)	73	97	118	76*	75	102*	100	124*	121
Net IBR (MBH)	63	84	103	67*	65	90*	87	109*	105
# of Sections	3	4	5	3		4		4	
Firing Rate (GBH)	0.60	0.75	0.95	0.60		0.75		0.95	
AFUE %	90.7	90.3	90.0	91.2		91.1		91.0	
<b>Piping Connections</b>									
Vent Connection Size	5"	5"	5"	Buderus concentric 80/125		Buderus concentric 80/125		Buderus concentric 80/125	
Supply	1½"	1½"	1½"	1½"		1½"		1½"	
Return	1"	1"	1"	1"		1"		1"	
<b>Dimensions</b>									
Total Boiler Length (L)	34¾"	39¾"	44"	37½"		42¾"		42¾"	
Boiler Block Length (LK)	21¼"	25¾"	30½"	25¾"		30½"		30½"	
Boiler Feet Spacing (FL)	11¾"	16¼"	20½"	11¾"		16¼"		16¼"	
Dry Weight (lbs.)	386	459	513	423		503		503	

\* IBR/Gama numbers are only tested and certified at the 176/140°F temperatures. These numbers are based on internal testing.

Abbreviations	
VK	Boiler Supply
VS	Connection (plugged)
RK	Boiler Return
RS	Connection (plugged)
EL	Boiler Drain (Connection for drain valve)
VSL	Connection (plugged)



### Clearance Requirements:

Front - 24" Side - 15" Rear - 20" Top - 6"  
Galvanized Vent Pipe 18" Flex Insulated Oil Vent 1"

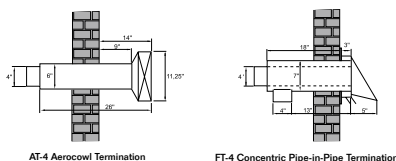


LOW NOx



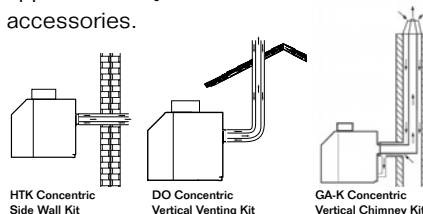
### G125BE Venting Information

One of the two CSA certified terminations are required for use with G125BE series boilers for direct vent applications. Both terminations require 1" clearance. Chimney venting is also possible.



### GB125BE Venting Information

There are three concentric vent options: horizontal, vertical through the roof, or through the chimney. The venting kits provide the basic material needed, your application may need additional venting accessories.



Full swing burner door for superior access and ease of maintenance

**Buderus**  
Bosch Group

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