

[ Air ]

[ Water ]

[ Earth ]

[ Buderus ]

# Buderus

GA124–GA244 Gas Boilers

Sealed Combustion |  
Draft Induced



## Quality Doesn't Cost—It Saves!

High Efficiency—AFUEs Above 85%

No Chimney... No Problem

Whisper Quiet Operation

Streamlined Control System

Sealed Combustion and Draft  
Induced Venting Design

Flexible, Corrosion Resistant  
GL-180M Cast Iron

Limited Lifetime Warranty

70,000 to 259,000 BTU/Hr Input

Comfortable. Efficient. Intelligent Heating.

**Buderus**

# GA124 – GA244

## Intelligent Heating—By Design

Buderus, the world leader in hydronic heating technology, manufactures the highest quality boilers based on centuries of experience. With its innovative design and quality manufacturing, a Buderus boiler will outlast and out-perform virtually any other residential hot water system in the world.



My GA124 is whisper quiet. Thanks to its time tested reliability and construction it maintains a comfortable environment without the excess noise found in other boilers.

The GA124 and GA244 are designed in Europe, where fuel costs are significantly higher and environmental regulations are more stringent. Established in 1731, Buderus uses state-of-the-art techniques in the design and manufacturing of its boilers.

Manufactured with the patented Buderus GL-180M flexible cast iron, the sections are tightly joined together and sealed by profiled, beveled steel push nipples, ensuring a long life. Special compounds provide a gas-tight seal for safe and efficient operation. And, thanks to the GL-180M cast iron's flexibility, this boiler resists thermal shock under conditions of rapid temperature change.

## Intelligent Heating—By Design

Buderus GL-180M silicone injected, gray cast iron has excellent corrosion resistance, exceptional casting characteristics, and 40% greater flexibility and elasticity as well as high thermal conductivity. Buderus developed the special substances that are impregnated during the casting process to improve the mechanical properties of cast iron. The graphite precipitates into smaller, modified flakes which produce GL-180M cast iron with 40% greater elasticity and a high silicone barrier for corrosion protection. Gray cast iron obtains its superior material characteristics primarily from a high carbon (graphite) and silicone content. Additional elements further enhance the properties of the GL-180M. The graphite appears in two different forms in the microstructure: nodular form producing excellent tensile strength and great elasticity and graphite flakes producing excellent corrosion resistance against acidic combustion products.



Special compounds provide a gas-tight seal for safe and efficient operation. And, thanks to the GL-180M cast iron's amazing flexibility, this boiler resists thermal shock under conditions of rapid temperature change.

**GA124–GA244 Series Gas Fired Sealed Combustion and Draft Induced Boilers set new standards for efficiency, quality and comfort. Tight mechanical rooms, no combustion air—no problem!**



### Versatility

The GA124 and GA244 Models allow for two venting configurations to best suit your demands. Choose from horizontal with concentric single wall penetration or vertical with a special “through the roof” system. The GA124 has been approved for use with Heat Fab, Z-Flex, Flex-L and Pro-Tech 3" AL 29-4C Steel materials (4" for GA244/62 Models).

### Quality

The GA124 and GA244 Boilers are manufactured by Buderus, the world's leader in cast iron boiler design and production. They feature flexible GL-180M cast iron designed to resist thermal shock for long life, a high silicone cast iron surface provides excellent corrosion resistance and a deluxe, heavy gauge blue enamel jacket is the trademark of Buderus quality.

Quality and advanced engineering are also proven in the operation of the boilers. Staggered, contoured fins provide optimum heat transfer and efficiency, while an integrated draft inducer gives the added benefit of whisper quiet operation. All of this is packaged in an attractive design with front accessible controls, and all piping connections are in the rear for a clean, finished appearance any homeowner will appreciate.

### Efficiency

The GA124 and GA244 Series Boilers are available in natural gas or propane, and feature AFUE ratings up to 85.2% for high efficiency and top performance. Stainless steel premixed factory tested burners allow for low emissions, and a full 3 inches of thermal insulation virtually eliminate standby loss and stack temperature losses. Buderus boilers are designed for a long life, providing efficiency, and durability for the homeowner that is unsurpassed by the competition.

All sections of a Buderus Boiler are tightly joined and sealed with profiled, beveled steel push nipples and use a patented GL180-M flexible cast iron. It's nice having peace of mind when it comes to our customers heating needs.

### Superior Design

- Whisper quiet operation with integrated draft inducer.
- Clean combustion, extremely high efficiency, economical operation, and longevity.
- Buderus boilers are the perfect central heating source for single or multiple family homes and guarantee reliable heating for many years.
- Attractive design with front accessible controls, all piping connections in the rear for finished appearance.

# Upgrade Your System for Added Comfort to Your Home!

Once you have a Buderus boiler you can add a Buderus indirect fired hot water tank, an optional Buderus Logamatic control or both. The Logamatic control maximizes your comfort and fuel savings, it will also accommodate specialized heating applications such as radiant flooring. Combined, this premium heating system will provide years of exceptional comfort and economy...for little more than the cost of a standard replacement components.



## Domestic Hot Water Tanks

The Buderus indirect fired domestic hot water tanks are designed to fit any specialized need. To maximize space, the ST-tanks can be paired with the GA244 for improved recovery rates. These tanks increase boiler efficiency, system longevity and minimize the need of service calls, when paired with a Buderus boiler.

The tanks are designed with many features to aid in maintenance, such as easy access ports for interior cleaning, extra thick Magnesium anode rods and Thermoglaze® interior tank coating to protect against corrosion and aid in cleaning. To help maximize efficiency the tanks are so well insulated against heat loss, they lose less than a ¼° F per hour.



## Convenient Logamatic Control

The Buderus Logamatic Controls, designed to work with Buderus boilers, significantly increase the efficiency of your heating system. The Controls maintain a comfortable environment by measuring indoor and outdoor

temperatures in order to automatically and effectively regulate the temperature of the boiler. This allows the boiler to use less fuel while keeping your home exactly as warm as you want it. The Logamatic Controls also include the convenience of a setback feature for nighttime as well as a domestic hot water priority option. So, no matter how hard the heating has to work on a cold day, there will always be hot water for showers. All control functions are able to be customized by you. Additionally, the Buderus Logamatic R2107 is designed with a built-in self diagnostic system to aid in maintenance and reduce service costs.

## Panel Radiators

A cleaner, quieter, and more comfortable source of heat ... Buderus manufactures a whole range of high-quality radiators to precisely match your taste in decor and satisfy heating requirements. Panel radiators produce two types of heat: radiant and convected. Radiant heat, like the sun, warms objects rather than just the air, creating a greater sense of warmth faster and at lower room temperatures. Forced hot air or fin-tube baseboard systems only produce heat that warms the air (i.e., convected heat). The design of Buderus radiators eliminates noise, ... no more clanking and hissing. Our radiators require less space than baseboard enabling greater flexibility with furniture placement. And Buderus' unique styling also minimizes areas where dust and dirt can collect.



Venting Requirements for the GA124		
Sealed Combustion	Horizontal Venting	Vertical Venting
Maximum Length		
GA124/17	50'	50'
GA124/23	50'	50'
GA124/30	42'	45'
Room Air	Horizontal Venting	Vertical Venting
Maximum Length		
GA124/17	50'	50'
GA124/23	50'	50'
GA124/30	42'	45'
Flexible Intake Pipe	Horizontal Venting	Vertical Venting
Maximum Length		
GA124/17	30'	30'
GA124/23	20'	30'
GA124/30	20'	30'

Venting Requirements for the GA244		
Sealed Combustion	Horizontal Venting	Vertical Venting
Maximum Length		
GA244/37	50'	40'
GA244/44	40'	40'
GA244/53	50'	50'
GA244/62	50'	50'
Room Air	Horizontal Venting	Vertical Venting
Maximum Length		
GA244/37	50'	40'
GA244/44	40'	40'
GA244/53	50'	50'
GA244/62	50'	50'

\*10 foot maximum length for all models using co-axial pipe (also known as concentric or double wall pipe).



### Quick-Fit™ Modular Piping System

The Quick-Fit System takes only minutes to connect and includes all the piping, valves, circulating and control elements to feed both radiant floor heating zones and conventional high-temperature heating zones. Not only will a Quick-Fit System save time and money on any boiler installation it also eliminates incorrect valve or motor installations. Additionally it ensures a clean, finished and professional installation. The Quick-Fit System consists of three main components, the Quick-Mix Mixing Station for radiant flooring applications, the Quick-Pump Station for high-temperature zones and the Quick-Header Manifold for multi-temp heating systems. The Quick-Fit System can be used to connect virtually any piping arrangement.

# GA124

Model	GA124/17	GA124/23	GA124/30
<b>Performance Data</b>			
Input Rate BTU/Hr	70,000	94,000	123,000
DOE Heating Capacity BTU/Hr	59,000	79,000	104,000
Net IBR BTU/Hr	51,000	69,000	90,000
AFUE %	85.2	85.1	85.0
<b>Piping Connections</b>			
Pressure Drop @ 20° F Δ T (In WC)	18.8	22.9	32.2
Vent Connection Size	3"	3"	3"
Gas Connection	1/2"	1/2"	1/2"
Air Intake Connection	3"	3"	3"
Boiler Supply & Return	1"	1"	1"
<b>Physical Dimensions</b>			
Ignition Type	Intermittent	Intermittent	Intermittent
Number of Burners	2	3	4
Overall Boiler Length	22"	22"	22"
Boiler Width	23 1/2"	23 1/2"	23 1/2"
Height	34 1/4"	34 1/4"	34 1/4"
Dimension A	7 1/4"	8"	9 1/4"
Dimension B	3 1/8"	6 3/4"	10 1/4"
Dry Weight (lbs.)	229	240	337

## Venting Requirements for the GA124

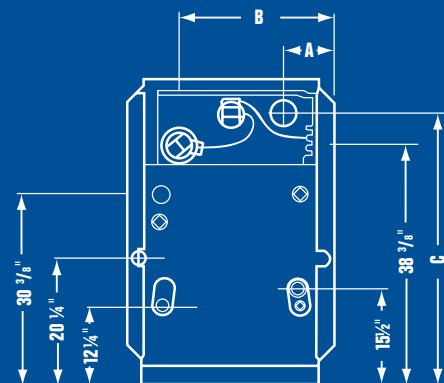
**Intake:** Use 3" galvanized pipe or flexible pipe. See tables on page 4 for specific Venting Requirements.

**Exhaust:** Use 3" approved AL29-4C stainless steel venting material (Heat-Fab, Flex-L, Pro-Tech, Z-Flex) Use condensate drain as starting piece at 3" boiler exhaust connection. One 90° elbow is equivalent to 10' of equivalent length, 2 45° elbows equivalent to 10' of vent pipe Maintain minimum 1" clearance to combustibles for vent pipe in unenclosed spaces (Flex-L, Z-Flex) Slope exhaust system upward from the boiler 1/4" per foot. Use high temperature silicone (GE 106 or equivalent) for sealing of vent component.

## Approvals and Certifications

### Approval Numbers

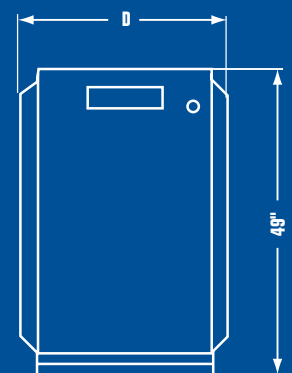
MEA 117-02-E  
CRN No# 1494.9C  
G3-0404-45



Rear View



Side View



Front View

# GA244

Model	GA244/37	GA244/44	GA244/53	GA244/62
<b>Performance Data</b>				
Input Rate BTU/Hr	156,000	182,000	220,000	259,000
DOE Heating Capacity BTU/Hr	128,000	148,000	181,000	212,000
Net IBR BTU/Hr	111,000	129,000	157,000	184,000
AFUE %	85.0	85.0	84.8	84.6
<b>Piping Connections</b>				
Pressure Drop @ 20° F Δ T (In WC)	1.3	1.8	2.1	2.4
Vent Connection Size	3"	3"	3"	4"
Gas Connection	3/4"	3/4"	3/4"	3/4"
Air Intake Size	4"	4"	4"	4"
Boiler Supply & Return	1 1/2"	1 1/2"	1 1/2"	1 1/2"
<b>Physical Dimensions</b>				
Ignition Type	Intermittent	Intermittent	Intermittent	Intermittent
Number of Burners	4	4	5	6
Overall Boiler Length	26 3/4"	26 3/4"	26 3/4"	26 3/4"
Boiler Width	25 3/4"	25 3/4"	29"	32 3/4"
Height	49"	49"	49"	49"
Dry Weight (lbs.)	634	635	688	772
Water Content (gal.)	6.1	6.1	7.1	8.2
Dimension A	7 3/8"	7 3/8"	7 7/8"	7 7/8"
Dimension B	17 1/2"	17 1/2"	20 7/8"	24 1/2"
Dimension C	43 3/4"	43 3/4"	43 3/4"	43 3/4"

## Venting Requirements for the GA244

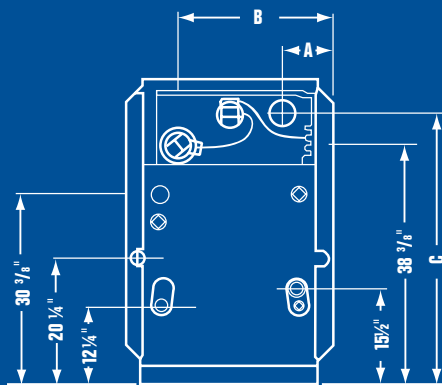
**Intake:** Use 4" galvanized pipe or flexible pipe. See tables on page 4 for specific Venting Requirements.

**Exhaust:** Use 3" approved AL29-4C stainless steel venting material (Heat-Fab, Flex-L, Pro-Tech, Z-Flex). Use 4" approved AL29-4C venting material for the 62 model. Use condensate drain as starting piece at boiler exhaust connection. One 90° elbow is equivalent to 10', 2 45° elbows equivalent to 10' of vent pipe. Maintain minimum 1" clearance to combustibles for vent pipe in unenclosed spaces (Flex-L, Z-Flex). Slope exhaust system upward from the boiler 1/4" per foot. Use high temperature silicone (GE 106 or equivalent) for sealing of vent component.

## Approvals and Certifications

### Approval Numbers

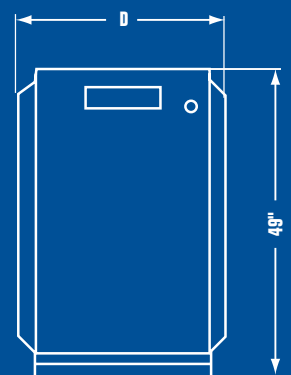
MEA 272-04-E  
CRN No# 1597.9C  
G1-0606-22



Rear View



Side View



Front View

# GA124 – GA244

## Sealed Combustion | Draft Induced Gas Boilers

GA124–GA244 Series Gas Fired Sealed Combustion and Draft Induced Boilers set new standards for efficiency, quality and comfort. Tight mechanical rooms, no combustion air—no problem!



### A Tradition of Excellence

The World's leader in 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 hot water 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.

In 2008 Buderus became a member of the Bosch Group, representing the Bosch, Buderus and FHP brands with products that are designed to improve efficiency, reliability and are environmentally friendly. Bosch Thermotechnology offers floor-standing and wall hung boilers, water heaters, solar systems, heat pumps, control systems and tankless water heaters.

### Special Features

Model	GA124	GA244
Approved for closet installation with 2" clearances	●	●
Approved for installation on combustible floor with non-combustible base	●	●
Quick electrical disconnect for easy wiring	●	●
Controls accessible behind front panel	●	●
Concentric vent terminal adaptable to stainless steel venting systems	●	●
Burner tray easily removed for service and LP conversion	●	●
All rear tappings for clean, finished appearance	●	●
Adjustable, leveling legs for ease of installation	●	●
Easy air adjust plate to set up for different vent lengths	●	●
Stackable on top of LT Series domestic hot water tanks	●	●

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