

# GB402 – 320 to 620kW

## High performance commercial heating

A high efficiency condensing boiler, perfect for single or multiple boiler installations in medium to large buildings, including schools, hotels, care homes, offices and commercial buildings.



Compact, quiet and perfect for both new build and renovation projects. It combines high efficiency and low emissions with a wide range of practical benefits.

### Performance with economy

Available in 5 outputs – between 320kW and 620kW – the GB402 has been developed to provide lower running costs, a reduced carbon footprint and low NOx emissions. This is achieved through the use of a powerful, lightweight cast aluminium heat exchanger and thermally insulated boiler body. The clean burning, pre-mix burner and intelligent combustion controller enable the GB402 to operate in a wide modulation range of between 20% to 100%, with a net efficiency of up to 110%.

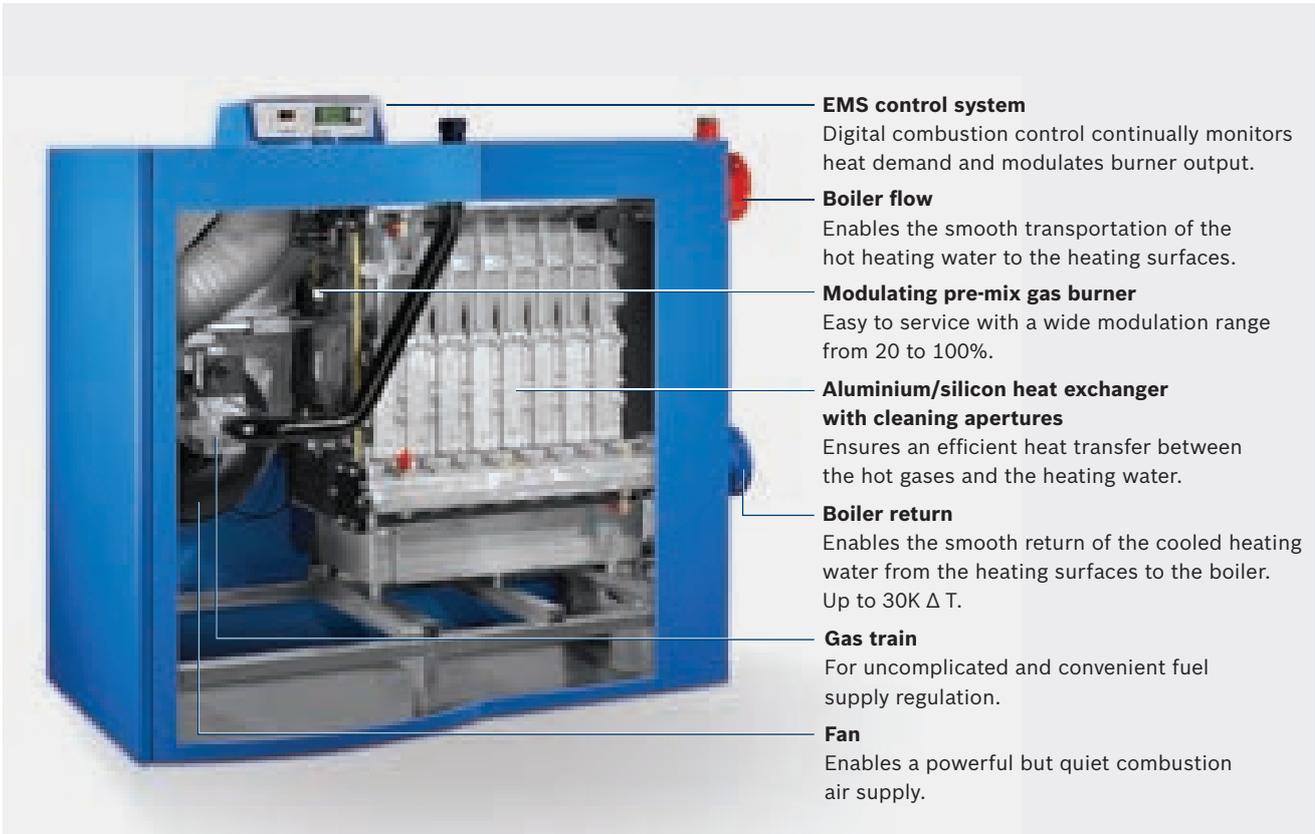
### Space-saving design

Despite its compact size, the GB402 boasts an impressive average output to weight ratio of approximately 1kg per kW. This, combined with the ability to be installed in a variety of orientations or as part of a multi-boiler cascade system, makes it a suitable option for all sizes and shapes of plant room.

### Features and benefits of the GB402 range at a glance:

- ▶ Suitable for cascading of multiple boilers
- ▶ Suitable for use with a wide range of controllers (RC35, EM10, MCM10, 4000 series)
- ▶ Optimised design of heat exchanger water- and flue- channels for maximum efficiency. Optimised for effective and robust operation
- ▶ Up to 30K  $\Delta T$  operation – optimising efficiency
- ▶ Simple commissioning and maintenance
- ▶ Fully modulating pre-mix burner
- ▶ Suitable to use with balanced flue arrangement
- ▶ Efficiency (NCV) up to 110.4% at 40/30°C
- ▶ NOx emissions below 40mg/kWhr
- ▶ Maximum operating pressure of 6bar
- ▶ Extremely quiet, operates below 60dB(A) at full load
- ▶ Weight (depending upon output) 410kg to 520kg
- ▶ Able to control fully modulating primary pumps – maximising condensing benefits\*.

\*With PM10 accessory



**Easier installation and servicing**

During installation and operation the advanced design of the GB402 will save time and money. The factory-fitted gas burner is tested and set up for the plant’s gas type, making it ready for use upon installation. Servicing is also simple. Large inspection apertures make access to components particularly easy and all internal components can be easily cleaned or replaced if necessary.

**It’s got everything**

Although the GB402 features a top-end technical design, practicality and convenience of operation have not been neglected. In spite of its substantial capabilities, its physical dimensions are such that standard plant room doorways (minimum width 781mm) present no obstacle. The casing can be removed for easy handling and to prevent damage during installation.

**Case study – Metropolitan College, Belfast**

With over 2,500 full-time students to keep warm, the new Titanic Quarter campus of Belfast Metropolitan College required reliable and efficient boilers. The three GB402 620kW units, installed by C&F Quadrant, met all the unique demands of this sizeable project, delivering not only the reliability required but the efficiency provided by cascade formation.

Two of the key features of the GB402 are the low NOx and noise levels. The unit is light in weight, yet it is extremely powerful thanks to a cast aluminium heat

exchanger and thermally insulated boiler housing. This, combined with a modulating premix gas burner and intelligent combustion controller, enables the system to deliver up to 110% net efficiency and a low NOx of 40mg/kWh or BREEAM 5 rating – which played a significant role in the overall energy efficiency of the project.

Titanic Quarter campus was named as the Environmental Project of the Year in the 2011 Sustainable Ireland Awards.

