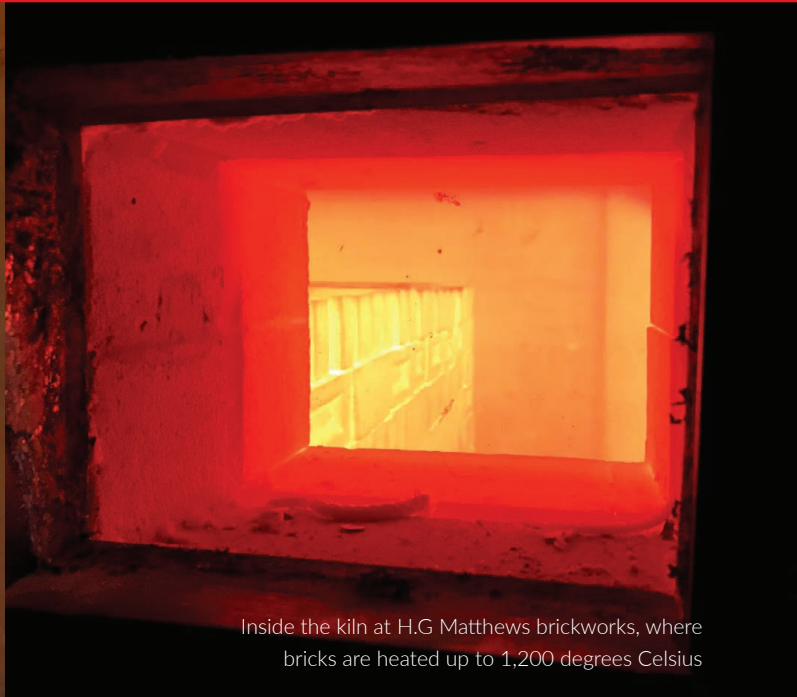




CASE STUDY H.G MATTHEWS



Inside the kiln at H.G Matthews brickworks, where bricks are heated up to 1,200 degrees Celsius

BUILDING ON SUCCESS AT H.G MATTHEWS

“Brickmaking is an energy intensive industry and by using these burners in our process, which use far less energy, we have seen a significant decrease in our running costs.”

Jim Matthews, Owner, H.G Matthews

EST. 1923
H.G.MATTHEWS

SITUATION

Brick manufacturer H.G Matthews, selected Baltur UK to provide a more efficient heating solution to improve production at its brickyard, which produces 3 million bricks every year.

The new heating solution involved the installation of six Baltur TBG 45ME gas burners, producing a total output capability of 900kW.

In addition to manufacturing regular finished bricks, H.G Matthews produces specialist bricks, which are handmade to unique dimensions with specific finishes and a custom glaze. In order to avoid cracking, inconsistent coloration or surface defects, glazed bricks must be heated in a kiln following a very specific temperature curve.

SOLUTION

The existing oil burners had a limited turndown ratio and could only operate on high-fire due to the basic controls fitted, resulting in a production yield of only 50%.

By installing modulating gas burners with custom PLC controls, Baltur UK engineers were able to specify the rate of temperature increase as well as hold specific temperatures, resulting in most production cycles achieving a 100% yield. A function was also implemented to monitor the temperature and cool down phase so, if the furnace is operated overnight, any production issues can easily be traced and fixed.

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<< BENEFITS

Due to the successful installation of the new Baltur burners, which have doubled the output from 50% wastage to almost zero, two more furnaces have been built with at least one more planned.

Martin Cooke, Technical Director at Baltur UK, said:

“The burners installed are extremely effective for this application and have virtually eliminated wastage in the firing process. The Baltur TBG range of fully-modulating burners is well established and provides optimum combustion and performance which means that heating can be controlled in a much more efficient manner.”

Jim Matthews, Owner, H.G Matthews, said:

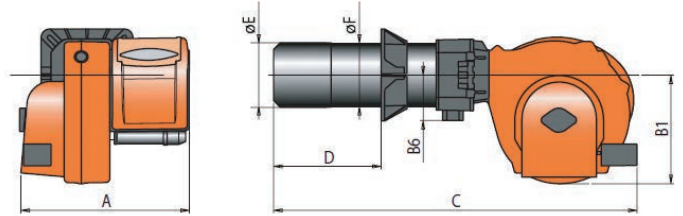
“Over many years we have developed a bespoke process for making our unique bricks and this new heating solution, which has been tailored to our specific needs, will be instrumental in improving our production yield. Brickmaking is also an energy intensive industry and by using these burners in our process, which use far less energy, we have seen a significant decrease in our running costs.”



The new burners installed at H.G Matthews incorporate custom PLC controls which have significantly improved production yield

TECHNICAL

The Baltur fully modulating gas burner range is available with outputs from 50kW to 45MW. The burners have low CO and NOx emissions and are easy to install which enables a trouble-free commissioning which is fully supported by Baltur UK engineers.



Baltur TBG 45ME fully modulating gas burner

The Baltur TBG 45ME burner is a low NOx and CO emissions gas burner compliant with European standard EN676 'Classe III'. Features include:

- Gas-fired burner CE certified according to standard EN676
- Two-stage progressive/modulating operation (modulation ration 1:4)
- Continuous modulation operation by installing P.I.D controller in the control panel
- Partial combustion gas recirculation blast pipe with low NOx emissions (class II)
- High ventilating efficiency, low electrical input, low noise
- Regulating combustion air and blast-pipe
- Hinge opening on both sides for easy access to the combustion head when burner is installed
- Fully closing air damper on shutdown
- Electrical panel that connects by 4 and 7 pole plugs/ sockets (standard accessories)
- Electrical panel with protection rating of IP44
- Sliding boiler coupling flange to adapt to head protrus