

CASE STUDY NORTH YORKSHIRE CONVERSION PROJECT



A lesson in efficient heating at North Yorkshire schools

"We choose to use EOGB as the burners are excellent quality, spares are available very quickly and we have the reassurance of technical back-up being available both over the phone and, where required, on site. Some of our engineers have also attended the EOGB commercial burner training courses."

Barry Taylor, Operations Director
at HCS Mechanical Services



Situation

In 2009, North Yorkshire County Council put in place a programme with the aim of reducing carbon emissions and energy costs within its schools.

A key element of the programme was to convert schools from oil fired heating to gas heating where practical and economically viable.

Solution

Independent heating and plumbing company HCS Mechanical Services Ltd, who are the current mechanical services framework contractor to the Council, selected EOGB to provide gas burners for the first trial installation at Sherburn High School.

Following this, and the evidence of significant savings at the site, HCS advised that EOGB should be used as the sole provider of Baltur commercial gas burners for the conversion programme.

<< Benefits

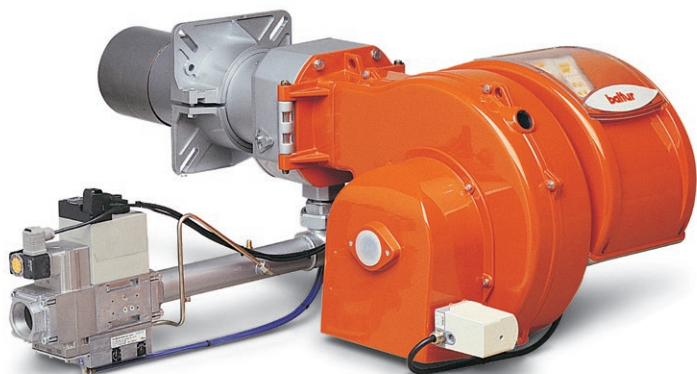
The conversion works have now been carried out at ten sites, resulting in heating bills dropping by as much as 40% (measured at the time of installation) as a result of the new burners and implementation of additional refinement measures. Carbon emissions have also been reduced significantly.

Another benefit for converting to gas at each site has been the reduction in servicing from twice a year to once a year, leading to a sizable decrease in associated costs and downtime. Furthermore, oil deliveries are no longer required to be scheduled in – eliminating issues of fuel not being delivered in time. This was previously a significant problem, often exacerbated by severe bad weather which meant that delivery vehicles couldn't get to many sites to deliver oil at all, resulting in schools having to close.

Of the sites which couldn't be converted from oil to gas (often due to a lack of a gas main in the area), approximately 70 sites were converted from gas oil to kerosene which has also been beneficial in terms of reducing CO2 emissions.

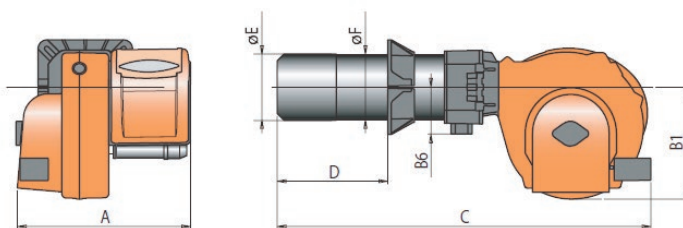
Martin Cooke, Technical Manager at EOGB, said:
"We're delighted that our Baltur commercial gas burners have played such a key role in reducing the county's costs and carbon footprint. The burners, which are now installed at many sites across North Yorkshire, use the very latest technology which ensures optimum performance combined with low emissions."

EOGB has a strong partnership with HCS Mechanical Services, with their burners chosen for around 90% of installation projects. In total, there are approximately 300 EOGB oil and gas burners installed across North Yorkshire, which is the largest county in the UK.



Technical

The EOGB Baltur commercial gas burners are available in single-stage, two-stage or fully-modulating mode with outputs from 50kW to 10,850kW. The burners have low CO2 and NOx emissions and are easy to install, enabling trouble-free commissioning which is fully supported by EOGB engineers.



Baltur TBG 85pn fully modulating gas burner

The Baltur TBG 85pn burner is a low NOx and CO emissions gas burner compliant with European standard EN676 'Classe III'. Features include:

- **Two-stage progressive/modulating operation**
- **Ability to operate with output modulation by means of automatic LC3 regulator mounted on the control panel (to be ordered separately with the modulation kit)**
- **Modulation ratio 1:4**
- **High ventilation efficiency, low electrical input and low noise**
- **Recycling combustion head able to achieve very low emissions, particularly NOx**
- **Maintenance facilitated by the fact that the mixing unit can be removed without having to remove the burner from the boiler**
- **Regulation of air flow rate for first and second stage with damper closure on standby to prevent in-flue heat dispersion**
- **Gas regulation by means of a proportional working valve that is pneumatically driven**
- **Possibility to choose gas train with valve tightness control**
- **Equipped with one 4 and 7-pole connector, one flange and one insulating seal for boiler fastening**