



FOR ALL YOUR THERMAL PROCESS REQUIREMENTS

CASE STUDY

140 Tonnes Stainless Steel Ladle and AOD Vessel Drying and Pre-Heating

A major stainless steel manufacturer required a new ladle drying and preheating station, transfer of an existing ladle heater and re-vamping of the controls on this and three more ladle heaters. In addition an AOD vessel heater required a similar controls re-vamp. Magma Combustion Engineering were awarded contracts to carry-out the entire works to fulfil the client's technical and health and safety requirements for both the new equipment and its installation.

AIM

To provide an additional ladle dryer/heater and replace existing controls with PLC based systems on four ladle heaters and one AOD vessel heater standards.

SCOPE OF THE WORK

This work comprised six individual projects. The first was a turn-key contract to design, manufacture, install and commission a new combination dryer and pre-heating system. This was to be dual fuel, Natural Gas and Gas Oil (diesel oil) using an Allen-Bradley PLC based logic and process control system. The heater uses a 6 MW high velocity cold air burner. The second contract was to transfer an existing ladle heater to a new position in the melting shop including combustion and control modifications as the turn-key project. Next was a sequence of contracts to update the remaining three ladle heaters and AOD vessel heater that served the functions of drying, refractory burn-in, pre-heating and maintaining.

BENEFITS

- Increased ladle heating capacity
- Upgraded combustion system to comply with BS EN 746-2
- Greater operational reliability
- Reduced Maintenance
- Modernised plant

CONTACT US

Want to know more about how Magma can help you?

- magmacombustion.com / info@magmacombustion.com
- 01709 521144 / Magma House, Rotherham, S60 1SG



For all your
thermal process
requirements.



PHOTOS

A selection of photos from this case study.



Fig. 1 Dual fuel burner and long view of heater with ladle in the working position.



Fig. 2 Dual fuel burner and long view of heater with ladle in the working position.

CONTACT US

Want to know more about how Magma can help you?

- magmacombustion.com / info@magmacombustion.com
- 01709 521144 / Magma House, Rotherham, S60 1SG

