



## USER APPLICATION NOTE

# HEAT TREATMENT

Wallwork Heat Treatment Ltd is a specialist in the field of Carburising, Nitriding and Carbonitriding metals for a variety of applications in industry. Among many famous names, Wallwork contract metal heat treatment for companies such as Rolls Royce, British Aerospace and the MG Rover Group

To ensure high performance wear characteristics, surface hardening of metals, alloys and steels is a prerequisite and highly specialised task.

The process involves 'sealed quench' and 'pit' furnaces used in conjunction with gas generators necessitating monitoring and control of gas condition during processing.

In particular, single beam technology is used in Nitriding that involves the accurate measurement of ammonia dissociation resulting in cost savings in ammonia used.

The system chosen by Wallwork is also used in both Endothermic and exothermic carburising heat treatment processes.



*Typical heat treatment installation*



*The ADC MGA3000 Gas Analyser*

An MGA3000 Gas Analyser fitted with a PID Controller was selected to handle the tasks. The features of the system are:

- **Gas Filter Correlation Technology**
- **Compact 3U Rack Mount Design**
- **Menu Driven Easy to use Front Panel Controls**
- **Excellent Gas Selectivity**
- **PID Controller and Motorised Valve**
- **Remote Calibration Facilities**
- **Tried and tested Technology**
- **For Use in Hostile environments**
- **Low Maintenance requirement**
- **Best Price Performance Ratio in the market**



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