

Heat Treatment

Furnace control and records that stand up to every customer audit.



Heat treaters hold tight limits on time, temperature and atmosphere. Many work for aerospace and automotive customers who audit every detail. Furnaces must run safely, pass their accuracy and uniformity tests and prove that each load was treated correctly. One bad batch can mean scrapped parts and lost approvals.

YOUR PRIORITIES

What matters most

Pyrometry compliance

Control and recording built for AMS2750 and CQI-9.

Records that pass audit

Complete, secure records for every load.

Furnace safety

Burner and atmosphere protection you can prove.

Repeatable, controlled cycles

The same cycle every time, with deviations flagged.

STANDARDS

Standards we work to

AMS2750

SAE aerospace pyrometry specification: sensors, instruments, calibration, accuracy tests and uniformity surveys.

AIAG CQI-9

Heat Treat System Assessment, used by automotive customers to audit heat treaters.

Nadcap heat treating (AC7102)

Audit criteria for Nadcap heat treating accreditation, required by many aerospace customers.

BS EN 746-1, BS EN ISO 13577-2 and -4

Safety of industrial furnaces: general requirements, combustion and fuel handling, and protective systems.

BS EN 60204-1

Safety of machinery: electrical equipment of machines, including stopping and emergency stop.

BS EN ISO 13849-1

Design of the safety-related parts of machine control systems, rated by performance level (PL).

HOW WE DELIVER



Systems we engineer

- Vacuum furnaces
- Atmosphere and sealed-quench furnaces
- Tempering, annealing and ageing ovens
- Burner management and combustion control
- Recipe management and load traceability
- Temperature recording and pyrometry data

PROJECT EXPERIENCE

Vacuum furnace

Matrix delivered the control system for a vacuum furnace. Vacuum furnaces combine pumping, heating and cooling in one tightly sequenced cycle, and their control must give repeatable results and a clear record of every load.

ISO 9001 certified • Cyber Essentials • CHAS • Constructionline • SafeContractor

Talk to us about your project

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