

Heat Treat Buddy has been developed specifically for Heat Treatment Furnaces which must meet the stringent conditions of **AMS 2750D** and be **Nadcap Audit** Compliant

Features

Temperature control of single zone furnaces up to 700 Deg C

Sequence control of loading & unloading the furnace & positioning of quench tanks

Quench tank agitation, heating & cooling

Gas Flow, Pressure & ppm monitoring and control for Magnesium Castings

Data logging, user login and digest authentication as required for AMS 2750D

Handling of different **Material Specifications**

Automatically checks if different castings are compatible with each other in the same heat treatment run

Heat Treatment Stages

Solution - Pre-weld - Post-weld - **Ageing** - Custom - Precipitation

Test Bar handling & logging

Live graphs of the active heat treatment process

Dynamic replay of graphs at anytime & summary overview and IO status at each step on the graph

Route Card handling with **Bar Code or Data Matrix scanning** for automatic entry of data when loading the furnace. If a scanner is not used, all data can be manually entered.

Search for historic runs by casting serial number, melt number, date range or route card.

Monitoring equipment will record energy consumed per run and provide instantaneous data useful for maintenance etc. This may be useful for costing purposes and analysis of **energy usage**.

When new thermocouples are fitted, the serial numbers and other information can be logged. This information will be stored in the system with other heat treatment data.

As required in AMS 2750D 3.1.8.5, the duration and number of cycles each thermocouple exceeds specific temperatures can be logged. Once the allowable usage has been reached, the furnace will be disabled and/or a warning given.

Benefits

Fast implementation of proven technology in Aluminium & Magnesium heat treatment facilities

Comprehensive software tools that will:

- speed up the process and **save time**
- check compatibility of different castings on the same run
- prevent unauthorised persons changing material specs
- easily review historic graphs for non compliance
- **schedule runs** to start before personnel arrive
- maintain **integrity of data** records by means of digest authentication
- provide an open link with third party factory production control systems and **office management tools**

Upgradeable to control **multiple furnaces** for future expansion