

# Furnace Tracker<sup>®</sup>

Complete High Temperature Profiling and  
TUS Surveying



# DATAPAQ® Furnace Tracker® System



## TRUSTED MARKET LEADER FOR OVER 30 YEARS

In the high temperature metal treatment industries, getting the exact temperature of the product and its environment is critical to the quality of the finished product, and efficiency of the production process.

DATAPAQ develops and manufactures sophisticated systems for recording and storing temperature profiles, measuring the true product and environmental temperature in heat treatment processes. From the logger and barrier design through to the critical key software analysis and reporting requirements, we have everything you need to profile your heat treatment process.

## The smarter, stronger solution ... saving you time and money



10 and 20 channel case style options  
to suit barrier design



User replaceable battery options  
(NiMH, alkaline, Hi-temp)

### DATA LOGGER DATAPAQ TP3

Made from a single piece of machined stainless steel, Bluetooth® communication options, and multiple thermocouple types over 10 or 20 channels makes the DATAPAQ TP3 the toughest and smartest data logger available.

- Ten or twenty thermocouple channels for maximum data collection on each run, with flexibility to mix thermocouple types, especially for TUS and SAT
- Bluetooth cable-free operation eliminates earth loop issues for easy, accurate, real time batch TUS surveys
- Radio frequency (RF) telemetry for data acquisition in real time provides instant decision making and production gains
- Auto applied correction factors from logger memory and printed certificates on-demand, the smart error free choice for TUS
- Logger accuracy  $\pm 0.3^{\circ}\text{C}$  ( $\pm 0.5^{\circ}\text{F}$ ) complies with the most stringent requirements set by NADCAP and AIAG
- Multiple runs and events capability to improve profile efficiency and maximize process detail, even for your longest runs
- On-board memory service log for remote diagnostics to reduce service time or returns
- Eliminates service returns for simple battery replacement

# Ultimate Protection and Versatility

## THERMAL BARRIERS

DATAPAQ has designed a comprehensive thermal barrier range combining our expertise and customer feedback to ensure the best in class usability and service life. Barriers are available in 10 or 20 channel configurations. A dedicated design team can create custom built solutions.

### Heat treatment and TUS solutions – DATAPAQ 4900 and 4000 series

Ideal use in heat treatment, aluminum, steel and uniformity survey applications

- Up to 1000 °C (1832 °F) to suit most applications
- Rugged design with floating plate technology for a longer service life

### Vacuum carburizing and vacuum heat treatment solutions

DATAPAQ 4500 and 4600 series thermal barriers for use in vacuum or non-vacuum applications

- Inconel construction for maximum robustness, even up to 1200 °C (2192 °F)
- Unique design to withstand 20 Bar/290 PSI gas quench with removable quench deflectors
- Ideal for AMS2750 and CQI-9 surveys in vacuum furnaces, reducing uniformity survey times

### Aluminum solution treatment and age hardening solutions

For use in aluminum or high temperature solution treatment

- Innovative new design to reduce setup time and improve performance
- Uniformity survey capability for CQI-9 and AMS2750
- Steel or titanium applications, including water quench, up to 1200 °C (2192 °F)

### Primary metals: Steel slab and billet reheat solutions

Proven technology designed to meet the demands of slab and billet reheat

- Designed for robust operation for up to 1300 °C (2372 °F)
- New innovative front loading design for easier setup and usability
- Full documentation with tips and techniques for easy customer setup

### Controlled atmosphere brazing solutions

Designed for harsh CAB furnaces and other suitable applications

- Designed with fully concealed microporous insulation eliminating flux and acid attacks, prolonging service life
- Low height barrier design (103 mm/4 inches) to suit CAB furnaces
- Multiple run capability allows 2 × 45 minute runs (no cooling required) or 4 × 45 minute runs (30 minute cooling time between runs)

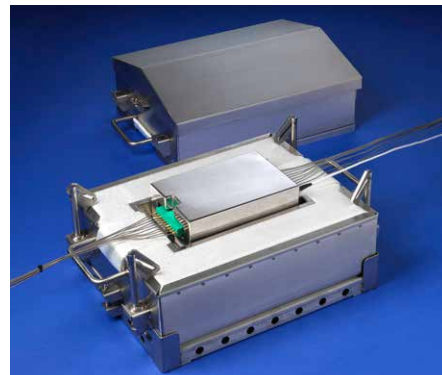
### Aluminium vacuum brazing solutions

Unique innovative new design eliminates the use of microporous insulation

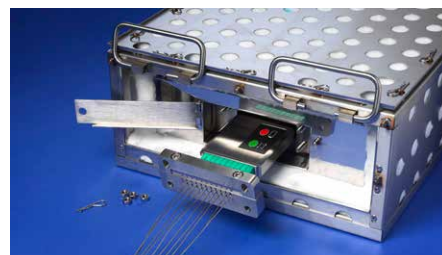
- Eliminates outgassing and micro dust for a cleaner product and furnace atmosphere, reducing rejects
- Rapid cooling times enable quick repeat use for quicker profiling of multiple furnaces
- Plasma ceramic coating eliminates metal oxidation to maintain a clean process and prolong barrier service life



TB4900 series thermal barrier



TB4500 series thermal barrier



TB4160 solution treatment system

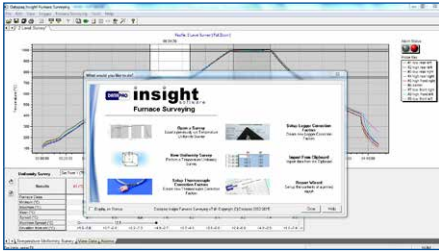


TB4000 CAB thermal barrier

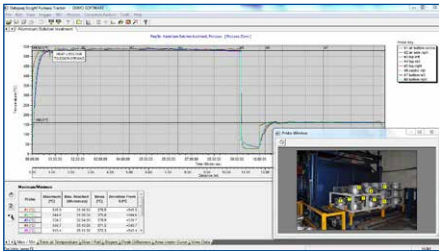


VB1150 for aluminum vacuum brazing

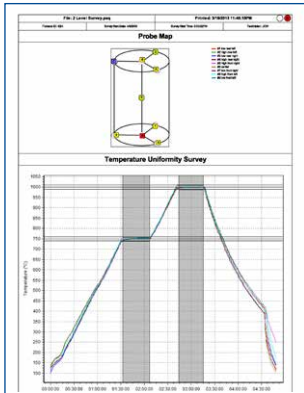
# Easy ... Intuitive ... Powerful



Easy wizard driven software



Full process documentation using process files



Fully certified TUS reporting

## THE DATAPAQ GUARANTEE

Each DATAPAQ system is supported with a full one year warranty. Complementing the warranty, we offer a yearly service and recalibration contract, which includes free software updates and loan equipment for guaranteed peace of mind.\*

\* Dependent on country.

## INSIGHT™ SOFTWARE

### Packages dedicated to your application

Don't just gather data, but convert it to information that allows you to understand, control and optimize your process.

Specialized software for TUS applications is trusted by hundreds of our customers to meet the stringent requirements of AMS2750E and CQI-9 certifications.

## New Added Value

### All the expected power of furnace Insight software with even more innovative features

- Change software language on the fly within Insight
- Bluetooth communications allows reset/download and short range wireless telemetry capabilities
- Download calibration information from logger to automatically apply correction factors
- Print calibration certificates directly from logger memory
- Thermocouple usage tracker to allow full TUS traceability
- 3D representation of Survey jig for clear documentation of probe positioning
- Stop triggers allow the user to stop the logger by time, date or temperature at process end
- Product manuals supplied in PDF with Insight software for ease of access and no lost manuals
- Improved multiple logger RF support
- Logger diagnostics tools for direct transmission of data from a remote data logger to a DATAPAQ service team for quicker response on field issues

## TM21 RF TELEMETRY

### Immediate feedback for setup and problem solving

Telemetry profiling affords instant access to live data vital for problem solving, which allows you to assess the effects of changing furnace settings as the process progresses. The user can compare real time product temperatures to process specifications.

## THERMOCOUPLES

Various thermocouples available for high temperature applications in the heat treatment and ceramic industries are specified to ANSI/MC96.1 Special Limits of Error  $\pm 0.4\%$  or  $\pm 1.1^\circ\text{C}$  ( $\pm 2^\circ\text{F}$ ), whichever is greater. Type N can be supplied for furnace survey applications.



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