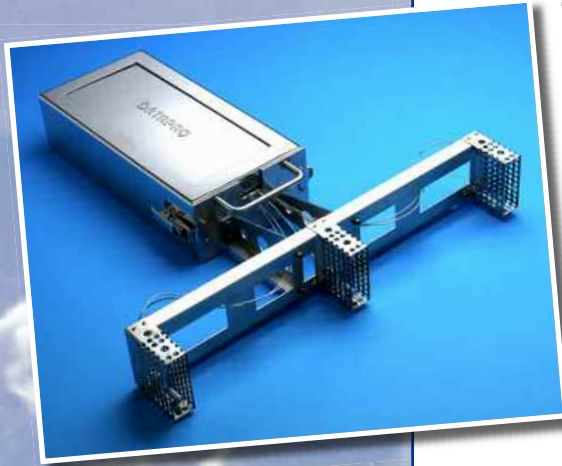


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FURNACE TRACKER

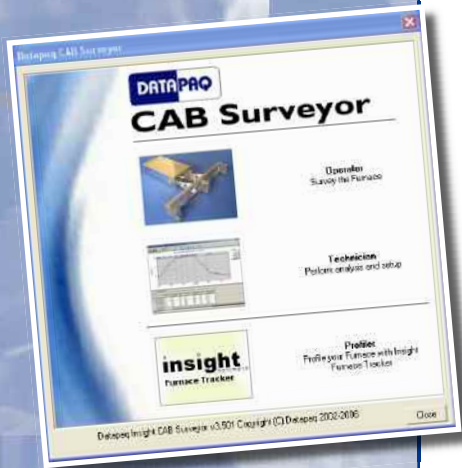
...Controlled Atmosphere Brazing (CAB) Surveyor system



The Datapaq Controlled Atmosphere Brazing (CAB) Surveyor system is a new concept of temperature monitoring in the aluminium brazing industry. It operates on the principle of monitoring the ambient temperature profile throughout the furnace, rather than monitoring the actual product temperature.

When a product satisfies all physical specifications and has the 'perfect braze', the Datapaq CAB Surveyor system is used to capture the furnace temperature profile. This is called the 'baseline profile', which is then used as a benchmark to compare all future runs against.

After the baseline profile has been created and the tolerances set, the system can then be used on a regular basis for monitoring and instant quality checks – showing immediately if the furnace is performing within specification. If furnace conditions are not within specification, product quality may suffer. Using Datapaq's NEW Insight CAB Surveyor software specifically designed for the brazing process – the database of files collected during these runs can be analysed and used for trend analysis calculations to see if furnace conditions are likely to drift out of specification in the future.



SYSTEMS - FEATURES AND BENEFITS

- The Surveyor arms holding the 6 thermocouples and the thermal barrier are combined into a single unit, enabling easy loading onto the furnace belt
- The thermocouples are locked into fixed positions ensuring accuracy and repeatability of measurement
- Light-weight and easy to use, making this system ideal for daily use as an instant quality check
- The multi purpose thermal barrier can be removed from the Surveyor arms for use as a regular Datapaq system

CAB SURVEYOR ANALYSIS SOFTWARE - FEATURES AND BENEFITS

- Archive of furnace conditions instantly available linked to furnace/product and time/date of run, so historic checks and customer audit can be easily carried out
- Statistical Process Control (SPC) and Trend Analysis show process performance and capability over the long term and into the future
 - Simple to use Wizards guide both operator and technician, step-by-step through the profiling process
 - File saving and directory structure automatically set, so no searching for lost files
 - Fast and simple re-set operation
 - Tolerance Alarms, go/no go traffic lights show instantly how the process performs on a daily basis
 - Thermocouple calibration input ensures accurate and consistent readings when replacing the thermocouples
 - Full Furnace Tracker Insight analysis software is included, so regular profiling is possible with the same system



TECHNICAL SPECIFICATIONS

TB8007 FURNACE TRACKER CAB SURVEYOR SYSTEM

THERMAL BARRIER AND SURVEYOR ARM

Overall Dimensions:	650mm(L) x 602mm(W) x 129mm(H)
Thermal Duration:	1 hour with a peak temperature of 600°C max.
Practical Thermal Duration:	4 x 60 minute runs per day through a normal CAB furnace with 75 minutes cooling time between each run
Weight:	12kg

THERMAL BARRIER

Model Number:	TB4998
Heatsink:	2 x TB1001 (included)
Dimensions (TB4998 only):	480mm(L) x 233mm(W) x 129mm(H)
Thermal Duration:	as above
Weight:	10.55kg

SURVEYOR ARM

Model Number:	TB4989
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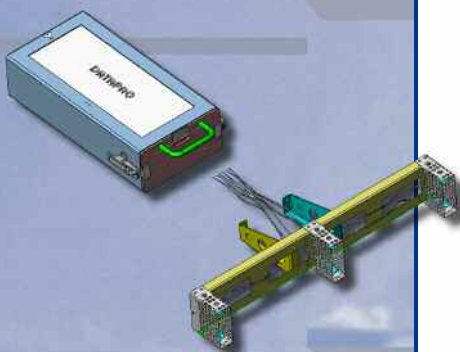
DATA LOGGER

Model Number:	DQ1860
Number of Channels:	6
Sampling Interval:	0.05 seconds to 10 minutes (fixed to 5 second intervals when using Insight CAB Surveyor software)
Accuracy:	±0.5°C
Resolution:	0.1°C
Max. Internal Operating Temp.:	85°C
Temperature Range:	-200°C to 1,370°C
Memory:	18,000 readings per channel
Battery Type:	NiMH rechargeable
Thermocouples:	Type K

THERMOCOUPLES

PA0910	4 x outer Thermocouples (1.6mm diameter, 700mm length)
PA0918	2 x inner Thermocouples (1.6mm diameter, 385mm length)
CS0900	Thermocouples Damper Mass (set of 8)
CS2039	Thermocouples Clamp Kit - standard 6 channel

The thermocouples supplied with the system are Mineral Insulated (MI) with an insulated junction to ANSI MC96.1 (special limits). Calibration certificate supplied



Europe and Asia
DATAPAQ Limited,
Deanland House, 160 Cowley Road,
Cambridge CB4 0GU, UK
Tel: +44 (0)1223 423 141
Fax: +44 (0)1223 423 306
e-mail: sales@datapaq.co.uk
Web: www.datapaq.com

North and South America
DATAPAQ Inc.
187 Ballardvale Street
Wilmington, MA 01887, USA
Tel: +1 978 988 9000
Fax: +1 978 988 0666
e-mail: sales@datapaq.com
Web: www.datapaq.com

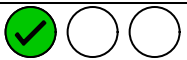
Germany
DATAPAQ GmbH
Valdorfer Straße 100
D-32602 Vlotho, Germany
Tel: +49 5733 9107 0
Fax: +49 5733 9107 27
e-mail: sales@datapaq.de
Web: www.datapaq.de



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Due to continuing product improvements, specifications are subject to change without prior notice.

CAB_Surveyor.qxp - Iss 02 - FEB08

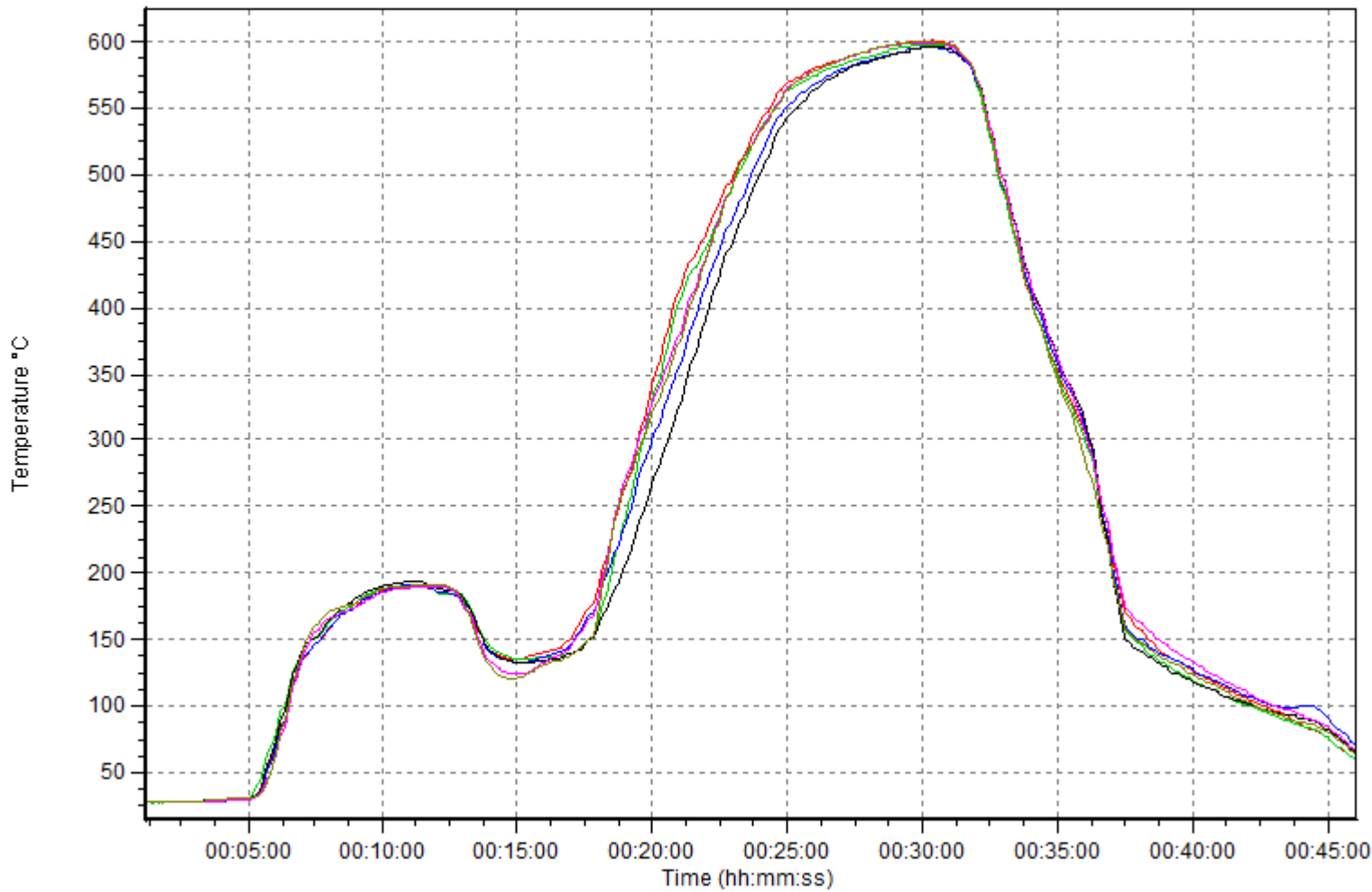


Site: CAMBRIDGE

Process:

Product:

Data Collection Details:



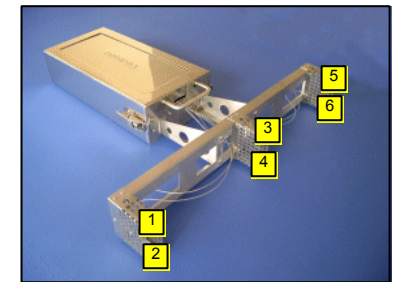
Created By	Download
Number of Probes	6
Sample Interval	0:05:00 (mm:ss.t)
Data Loaded	06/09/2004 13:24:00
Collection Started	06/09/2004 12:38:11
Max. Internal Temp.	36.0 °C
Logger ID	#9403
Operator	EEC
Process	
Furnace	CAB Furnace 1
Recipe	
Product	
Time Printed	17/06/2011 12:37:18

Notes:

Only ambient temperatures measured.



Probe Map:



Probe	Maximum / Minimum				Slopes		Peak Difference	Time Reached (hh:mm:ss)	Area Under Curve	
	Maximum (°C)	Max. Reached (hh:mm:ss)	Mean (°C)	Deviation From 0.0°C	Positive Slope (°C/min)	Mean Slope (°C/min)			Peak Difference (°C)	Area (°C)hr
#1 (°C) right top	601.5	00:30:05	268.9	+601.5	93.00	3.89	405.5 89.0	00:20:50	181.92	181.83
#2 (°C) right bottom	598.0	00:30:00	265.1	+598.0	99.00	3.74			179.03	178.94
#3 (°C) centre top	595.5	00:29:55	263.1	+595.5	90.00	4.06			177.56	177.43
#4 (°C) centre bottom	596.0	00:30:20	258.4	+596.0	87.00	3.92			174.10	173.99
#5 (°C) left top	599.5	00:29:35	268.1	+599.5	99.00	4.12			181.29	181.17
#6 (°C) left bottom	600.5	00:29:50	264.5	+600.5	114.00	3.85			178.63	178.52