

## Inside . . . Page

- Awards herald success of ADI Treatments 3
- Quality: food for thought 4
- Training: what's your priority? 5
- Changes to the CRC Scheme 5
- Size of the surface engineering market? 5
- Metal theft on the rise again 6
- Diary 6
- Member profile 8
- Market movements 8

## CHTA Secretariat

Items for inclusion in *Hotline* and enquiries about CHTA activities should be addressed to:

**Contract Heat Treatment Association**  
c/o SEA, BJGF Federation,  
Federation House, 10 Vyse Street,  
Birmingham B18 6LT  
Tel: 0121 329 2970 (or 0121 237 1123)  
Fax: 0121 237 1124  
E-mail: mail@chta.co.uk  
Website: [www.chta.co.uk](http://www.chta.co.uk)

CHTA Secretary and *Hotline* Editor:  
Alan J. Hick B.Sc., C. Eng., FIMMM

The Contract Heat Treatment Association is not responsible for the statements made or opinions expressed by contributors to *Hotline*.



CHTA is affiliated to the Surface Engineering Association



## CHTA Secretary wins Individual Achievement Award

At October 22nd's Surface Engineering Association Gala Dinner and Awards event, staged at the House of Lords, CHTA Secretary Alan J. Hick was proud to receive the prestigious Ray Alford Individual Achievement Award from host Lord Hoyle (left), Honorary President of SEA. Also seen in our photograph is Su Chadda of sponsors Sumari Business Systems. Further details on page 3.



New CHTA member Con Mech Heat Treatment is profiled on page 8.



## Ask the Expert

**Q** How can I avoid decarburisation in annealing semi-finished products?

**A** Decarburisation of semi-finished steel parts, like tubes, is a typical issue in continuous annealing furnaces. With the new Air Products Nitrogen/Endo system, the atmosphere blend can be adjusted and controlled, preventing decarburisation and resulting in a bright surface finish.

### tell me more

[www.airproducts.co.uk/metals](http://www.airproducts.co.uk/metals) Tel: +44 (0)1270 614314; E-mail: apbulkuk@airproducts.com

Air Products are sponsors of *Hotline*



**Guido Plicht**

Head of Metals  
Processing Applications  
Technology

# Sophistication, made Simple

data acquisition gas nitriding sensors vacuum atmosphere



To see our range of dedicated heat treatment control equipment, visit the new website:

[www.supersystemsuk.co.uk](http://www.supersystemsuk.co.uk)

For Quotations E-mail [info@supersystemsuk.co.uk](mailto:info@supersystemsuk.co.uk) or Telephone 0121-329-2627



## **FSM** Furnace Spares & Maintenance Ltd

### Engineering Solutions for the Heat Treatment Industry

With a full 'in-house' facility for bespoke furnace design and manufacture of heat treatment plant and associated equipment, we provide our customers with rapid, practical and cost-effective solutions to their needs.

#### SERVICES

- DESIGN • CONSULTANCY • COMBUSTION SYSTEMS
- COMMISSIONING • FAULT FINDING
- REFURBISHMENT • ELECTRICAL • INSTALLATION
- REPAIRS/ MAINTENANCE
- IN-HOUSE MACHINING • REFRACTORIES

#### ALLOY PRODUCTS

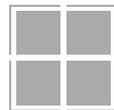
- WORK BASKETS • RETORTS • MUFFLES • FANS
- RADIANT TUBES • JIGS & FIXTURES • GRIDS • DRIVE DRUMS & ROLLERS • CAST LINK & MESH BELT • ELEMENTS

With 10-tonne overhead craneage facilities, our factory features mild-steel fabrication and alloy welding workshops and a fully-equipped machine shop

For an in-depth view of our services, visit our new website:

[www.furnacespares.com](http://www.furnacespares.com)

**FSM** Tel: +44 (0)1922 458330 Fax: +44 (0)1922 456402  
E-mail: [furnacespares.maintenance@fsmail.net](mailto:furnacespares.maintenance@fsmail.net)



## Almorgroup

### HEAT TREAT SERVICES

#### SUPPORT YOU CAN RELY ON

- Furnace Upgrades and Energy-saving Burners
- Alloy Fabrications including Jigs, Fixtures, Retorts, Muffles, Radiant Tubes and more .....
- Replacement Parts and Consumables
- Atmosphere Controls
- New Furnaces and Ovens including Installations from Aichelin
- Site Services, Maintenance Contracts, Training and Plant Assessments
- Vacuum Furnace Services

Now incorporating Mormet Fabrications



Vacuum furnace spares & service

For more information visit: [www.almor.co.uk](http://www.almor.co.uk)

Tel: +44 (0)115 986 8773 Fax: +44 (0)115 986 6716

Email: [sales@almor.co.uk](mailto:sales@almor.co.uk)

A PARTNER OF

**AICHELIN**  
[www.aichelin.com](http://www.aichelin.com)



*The Surface Engineering Association Awards honour excellence across a whole spectrum of business activities. The most prestigious, the Ray Alford Award for Individual Achievement, was presented to Alan J. Hick in recognition of his long-term service to two organisations now affiliated to SEA.*

Alan J. Hick has been Secretary of the Contract Heat Treatment Association since its inception 37 years ago and has

steered it through many difficult periods to remain an invaluable force today. From 1973 to 2004, metallurgist Alan combined the CHTA role with his main occupation as Manager of Wolfson Heat Treatment Centre, then based at Aston University, Birmingham. There he acted as an authoritative technical source for industry and developed relationships with other national and international heat treatment organisations. He was also proud Editor of Wolfson's world-renowned *Heat Treatment of Metals* journal for over 30 years.

Now semi-retired, Alan continues as Secretary of CHTA and Editor of its much-enhanced *Hotline* newsletter, the latter post one he has enjoyed since 1997.

The award judges commented: "Alan Hick has made an inestimable contribution to the success and wellbeing of the CHTA, is a man of very high professional ethics and



*At October's SEA Awards at the House of Lords (l. to r.): CHTA Vice-Chairman Paul Handley, award-winner Alan J. Hick, SEA CEO Dave Elliott and CHTA Chairman Richard Burslem.*

is a very worthy winner of this award." Honoured to have won from a strong list of contenders, Alan thanks those who kindly nominated him for the award.

## Awards herald success of ADI Treatments

*The achievements of a CHTA member were also recognised at the SEA Awards event where ADI Treatments Ltd was a close runner-up in both the marketing and quality categories.*

ADI Treatments Ltd was launched in 1997 to develop new markets for austempering heat treatments utilising sealed-quench furnace technology. The initial focus was on assisting ductile iron foundries to deliver tough wear-resistant castings for niche applications. As the business progressed, some automotive systems suppliers were attracted by the potential cost savings, weight reduction and improved material properties achievable with the austempering process. Through 2007, the company became a leading partner with Eurozone manufacturers, to supply serial austempered ductile iron (ADI) parts for medium and heavy trucks. By 2008, volumes peaked and the subsequent downturn brought significant threats to the business.

### Market review

The company's earlier success had created an overdependence on the transport and machinery sectors; a major diversification was needed.

An opportunity was identified in the burgeoning green-energy markets. Potential customers were already known via existing relationships with the iron foundries; indeed the market was being targeted as part of a growth strategy. At the same time, the company recognised the increasing premium placed on quality and environmental issues by leading players in the industry.

### Market and business development

In 2005, a decision had been taken to

acquire an additional batch processing furnace to meet growth forecasts from truck manufacturers. Fortunately, the same plant was able to process individual large castings including components for wind turbines, enabling an easy entry into this market.



*Recipients of ADI Treatments' two SEA awards: Arron Rimmer and Simon Day with Lord Hoyle.*

Nevertheless, during 2007 it became clear that energy systems would not only increase in number but also in size (as the industry gears up for 10MW machines). The decision was taken to procure a bigger customised furnace for 1850mm-diameter parts, and the delivery was expedited. Working with customers and end-users, cast alloy composition and heat treatment parameters were also developed quickly.

The scale and capability of the new furnaces were selected to outstrip international competition and to match the foreseeable requirements of European turbine designers. While similar projects are underway in the USA, the size of the castings and the austempering plant are somewhat smaller. Europe retains the lead in the technology at

present and ADI Treatments Ltd, already the largest plant of its kind in the commercial heat treatment field, continues to plan for expansion in this sector. A new factory is under construction in Germany.

### Quality and environmental qualifications

To further enhance its appeal in green markets, the company co-operated with business standards specialists E9 to attain the latest environmental and health & safety qualifications.

ADI Treatments Ltd is now certified to ISO 9001:2000, ISO 14001:2004 and BS/OHSAS 18001:2007, and is preparing to operate the business later this year under the integrated management system, PAS 99. In-house procedures include management of large quench salt baths, salt reclamation, and the concomitant energy and safety issues. The standards provide assurance to customers requiring quality and security from a single source of supply.

### Centre of excellence

ADI Treatments Ltd has become a centre of excellence in Europe for wind turbine component heat treatments; there are particularly strong links to manufacturers in Germany and Spain. In addition to epicyclic gearboxes for wind systems, parts employed in wave, tidal and low-head turbines are now being processed.

Export now accounts for 70% of turnover (38% in 2008), largely through development of green-energy business.

Running 24 hours a day with 21 people, the business has been made efficient. Profitability was maintained in 2009 despite the downturn; turnover has returned almost to 2008 levels (£3M).



## Food for thought

Celebrating World Quality Week in November, our Nadcap friends PRI e-published a series of articles highlighting a different aspect of quality each day. With kind permission, three are reproduced (unanglicised) here.

### I guess we've just always done it that way...

The standard North American railroad gage (i.e. distance between the rails) is 4 feet 8.5 inches because that's how they were built in England and US railroads were built by English immigrants. Why did the English build them like that? Because the first rail lines were built by the same people who built the pre-railroad tramways, and that's the gage they used. Why did they use that gage? Because the people who built the tramways used the same tools that they used for building wagons, which used that wheel spacing. Why did the wagons have that particular wheel spacing? If they tried to use any other spacing, the wagon wheels would break on some of the old, long distance roads in England, because that's the spacing of the wheel ruts. Who built those old roads? The ancient Romans built the first long distance roads in England. Their chariots formed the initial ruts, which everyone else had to match for fear of destroying their wagon wheels. When you see a Space Shuttle, there are two big booster rockets attached to either side of the main fuel tank. These are solid rocket boosters (SRBs). Reportedly, the engineers who designed them would have preferred them wider, but they had to be shipped by train to the launch site. The railroad line from the factory runs through a tunnel in the mountains. The SRBs had to fit through that tunnel, which is slightly wider than the railroad track and the railroad track, as you now know, is about as wide as two horses' behinds. So, a major Space Shuttle design feature of what is arguably the world's most advanced transportation system was determined thousands of years ago by a horse's back end.

**Whether this story is true or not, it gives us the opportunity to consider our own work: what do you do that you've just always done that way? Could it be improved?**

## Evidence removed...

Lack of proper communication has the potential to negatively impact quality. These amusing communications illustrate the implications of using vague language, as well as the age-old potential for conflict and confusion between operational departments and functions, and the long-suffering tolerance of service and maintenance staff in support of operational personnel found in all industries.

Technical problem or defect reported by pilot or crew	Remedial action or answer reported by maintenance engineer
Something loose in cockpit.	Something tightened in cockpit.
Left-inside main tyre almost needs replacing.	Almost replaced left-inside main tyre.
Unfamiliar noise coming from No. 2 engine.	Engine run for three hours. Noise now familiar.
Aircraft handles funny.	Aircraft told to straighten up, fly right and be serious.
Whining sound on engine shutdown.	Pilot removed from aircraft.
Dead bugs on windshield.	Live bugs on back order.
Suspected crack in windshield.	Suspect you are right.
Evidence of leak on right main landing gear.	Evidence removed.
Mouse in cockpit.	Cat installed.
Target radar hums.	Reprogrammed target radar with lyrics.
Noise coming from under instrument panel - sounds like a midget pounding on something with a hammer.	Took hammer away from midget.
Friction locks cause throttle levers to stick.	That's what they are for.
DME volume set unbelievably loud.	DME volume set to more believable level.

© Businessballs.com - the free work/life resources website. Extract used with permission. The full listing (of funny aircraft maintenance engineers 'gripe sheets' or 'squawk reports' comments) can be seen at: <http://www.businessballs.com/airtrafficcontrollersfunnyquotes.htm>.

**Are you always clear in your communication? Could it be improved?**

## Clean up this mess...



The Site Manager is doing his daily inspection of the facility. As he walks around, he narrowly avoids slipping in a puddle of water on the floor. He calls over the nearest staff person and, pointing to the water, says "Clean up this mess! I nearly fell over - it's dangerous!" and continues his tour of the site. The following day, as he's walking through the same part of the building, he slips over because there is water on the floor. Spotting the same member of staff, he calls "Hey! Didn't I tell you to clear that up? You're in big trouble, buddy - I just fell over!" The employee points to a pipe running the length of the ceiling and explains "I did clean it up yesterday but there is a leak in this pipe so however much I mop the floor, there's still water on it. It's real strange because that pipe is quite new." The Site Manager, realizing that only immediate corrective action had been completed, determined to get to the root cause of the problem. When he gets back to his office, he calls the Maintenance Manager. The Maintenance Manager checks through the records and reports that the pipe is only a few months old, but he's not surprised it's leaking because it wasn't the one he wanted to order. The Purchasing Manager had vetoed his preferred pipe as being too expensive. The Site Manager calls the Purchasing Manager and tells him off, asking "Why did you make the Maintenance Manager buy a sub-standard pipe? Now it needs to be replaced, which will cost more!" "But Sir," came the response, "any orders over a certain amount have to be run past you and you refused to authorize the first request as it was just too much money to pay for a pipe." "Ah," thought the Site Manager, "now what?"

**Having an effective root cause analysis and correction system is vital to quality. Could yours be improved?**

# Training: what's your priority?

"In a service industry such as ours, a reliable high-calibre workforce is perhaps the single most important ingredient for success". Thus observed former CHTA Chairman Ian Brown bemoaning the growing difficulty of "Recruiting our Greatest Asset" in *Hotline* 69 (September 1997). Whilst the thrust of Ian's heartfelt article related to the appointment of suitable graduates, today the broader general concern revolves around training staff to fill key posts and carry our industry forward. Articles in recent issues of *Hotline* have examined the scope and limitations of the options currently available for technical training in heat treatment. The emphasis hitherto has focused on the lack of suitable ongoing metallurgical training courses for technicians in our sector. After discussion in depth at our AGM this year, the matter climbed up the agenda of CHTA's Management Committee. An

immediate step was to encourage Bradford College to establish a day-release "ONC in Manufacturing Engineering (Metallurgy)" course to start this academic year. Disappointingly, this proposal failed to come to fruition so soon due to that institution's resources currently being overstretched.

Despite the sophisticated process controls now available to our industry, metallurgical expertise remains vital. Accordingly, CHTA's Management Committee is intent on identifying answers to the training dilemma. Its deliberations will be aided by a consensus of CHTA member views; for example:

- Should effort continue to focus on encouraging the establishment of appropriate part-time courses?
- Is e-learning now the preferred route?
- Are there other approaches worthy of consideration?

## UNDERSTANDING HEAT TREATMENT



CHTA-member representatives were amongst the 20 delegates at Wolfson Heat Treatment Centre's 75th "Understanding Heat Treatment" course in October (l. to r.): Kate Snodin and Marco Scourtis (Keighley Laboratories), Ian Kirsh (Bodycote Heat Treatments), CHTA Secretary Alan J. Hick (a course speaker), James Harris (TTI Group), Rob Heywood (Meltham Thermal Engineers) and James Redworth (TTI Group). Wolfson Manager Derek Close ([derek.close@sea.org.uk](mailto:derek.close@sea.org.uk)) advises us that the next "Understanding Heat Treatment" course is scheduled for 11-13 October 2011.

**Please address your thoughts on training to [mail@chta.co.uk](mailto:mail@chta.co.uk).**

## ENERGY

*Whilst there have been no further developments regarding the Climate Change Agreement target negotiations, SEA's Dave Elliott reports on...*

# Changes to the CRC Scheme

Recently the Government released its Comprehensive Spending Review to the nation. One part of this review included changes to the way in which the Carbon Reduction Commitment will operate and its impact on all participants of the scheme. The Government has announced that:

*"The CRC Energy Efficiency scheme will be simplified to reduce the burden on businesses, with the first allowance sales for 2011-12 emissions now taking place in 2012 rather than 2011. Revenues from allowance sales totalling £1billion a year by 2014-15 will be used to support the public finances, including spending on the environment, rather than recycled to participants. Further decisions on allowance sales are a matter for the Budget process."* [Spending Review 2010: UK Government]

Limited information is available at this stage, but we believe there are three major issues which should be raised to all participants:

- Participants will no longer need to purchase allowances in April 2011. The first year of allowance purchase is now scheduled for April 2012.
- The revenue recycling scheme has been removed and all payments made for allowances will not be recycled to participants in the October recycling payment based on the league table.
- The league table is no longer directly about cost. The investment in early action metrics such as Carbon Trust Standard and smart metering (AMR) is now wholly about reputational risk on the league table with a secondary consideration on reducing energy usage.

### What next?

Information is limited at this stage and this note reflects my understanding of the changes at this point in time. However, the following could well be on the horizon shortly:

- The changes to the scheme could create greater stability on carbon prices.
- Potential changes to the Climate Change Levy could be shelved as part of this review due to the potential for double taxation on CRC participants. What will the future hold for CCL? – more than likely, increases over and above RPI.
- The revenue calculations suggested by the Government, which shift between 2012 and 2013, could be a sign of an increased carbon floor price to £18 from £12.
- Customers who have submitted information in the 3MWh to 6MWh bracket should prepare for full inclusion in future years.

## REPORT

# Size of the surface engineering market?

Updating market predictions from an earlier DTI-sponsored analysis, the NASURF-commissioned 1998 report "2005 Revisited – the UK Surface Engineering Industry to 2010", reaffirmed the very important significance of surface engineering to the UK economy and its key role as an enabling technology in many industrial sectors.

The report forecasted the 2005 annual UK market for surface engineering (including surface heat treatments) as "being worth at least £21.3bn and affecting manufactured products worth over £143bn".

How does the market shape up now? SEA has commissioned two of the previous authors, Prof. Richard John Artley and Prof. Allan Matthews (now Professor of Surface Engineering at the University of Sheffield) to revise their 1998 assessment. Their new report, "The UK Surface Engineering Industry 2010", can soon be viewed by members on SEA's website at [www.sea.org.uk](http://www.sea.org.uk).

### AIR PRODUCTS SPONSORSHIP

CHTA is delighted to announce that Air Products plc will again be kindly sponsoring both the Association's website and *Hotline* in 2011. Their much-valued support now extends to an unbroken period of twelve years.

**Please send comment and news items for March's Hotline 123 to: [mail@chta.co.uk](mailto:mail@chta.co.uk) Deadline: February 21st**

### CHTA MEMBERSHIP FEES

Annual CHTA membership fees for 2011, invoiced via BJGFF, remain at the same level as in 2010.

**METAL THEFT ON THE RISE AGAIN**

Members are advised that police forces across the country are reporting that metal thefts have increased dramatically over recent weeks.

It is therefore an appropriate time to review any security measures that are in place in order to minimise the risk of becoming a victim of this criminal activity.

It may also be prudent to review insurance arrangements to ensure that adequate cover is in place to compensate for not only the replacement of any plant, machinery and goods owned by the company, but also the business interruption that may result as a consequence of theft.

Finally it is important to ensure that contracts with customers are subject to terms and conditions of business that clearly state liability in the event that goods belonging to third parties are stolen.

# Diary

January 27 2011  
CHTA PUBLICITY SUBCOMMITTEE\*  
Birmingham, England

February 10 2011  
CHTA MANAGEMENT COMMITTEE\*  
Birmingham, England

March 9 2011  
BIFCA Technical Series:  
BURNER TECHNOLOGY  
West Bromwich, England [www.bifca.org.uk](http://www.bifca.org.uk)

March 17 2011  
BIFCA SAFETY & STANDARDS SEMINAR  
West Bromwich, England [www.bifca.org.uk](http://www.bifca.org.uk)

March 23-25 2011  
EUROPEAN CONFERENCE ON HEAT TREATMENT  
2011 & 3RD INTERNATIONAL CONFERENCE ON  
HEAT TREATMENT AND SURFACE ENGINEERING  
OF TOOLS AND DIES  
Wels, Austria  
The theme of the European Conference is 'Quality in  
Heat Treatment'. [www.asmet.at](http://www.asmet.at)

April 6 2011  
BIFCA Technical Series:  
FURNACE MODELLING  
West Bromwich, England [www.bifca.org.uk](http://www.bifca.org.uk)

April 28 2011  
CHTA PUBLICITY SUBCOMMITTEE\*  
Birmingham, England

May 5 2011  
BIFCA Technical Series:  
FURNACE AND BURNER CONTROLS  
West Bromwich, England [www.bifca.org.uk](http://www.bifca.org.uk)

May 12 2011  
CHTA MANAGEMENT COMMITTEE/ AGM\*  
Birmingham, England

June 7-9 2011  
SUBCON 2011  
Birmingham, England [www.subconshow.co.uk](http://www.subconshow.co.uk)

\*Members wishing issues to be raised at CHTA meetings should notify CHTA's Secretary at [mail@chta.co.uk](mailto:mail@chta.co.uk)

**CHTA AGM: 12th MAY 2011**

**ASK THE MEMBERS**

CHTA members are urged to publicise the virtues of the "Ask the Members" feature of the Association's enhanced website. As an adjunct to "Find a Heat Treater", it's being used increasingly by visitors seeking to source specific heat treatment capacity.

*For the best in subcontract heat treatment services, go to . . .*

**[www.chta.co.uk](http://www.chta.co.uk)**

*. . . your guide to sourcing from over 60 UK-wide heat treatment specialists*



**The  
Contract  
Heat  
Treatment  
Association**

## Advertising in Hotline

Hotline welcomes advertising (other than recruitment) from CHTA members and suppliers to the trade.

### 2011 RATES

Single-insertion charges for black-and-white ads:

- Quarter page (121mm high x 86mm wide): £173+VAT;
- Half page (121mm high x 178mm wide or 254mm high x 86mm wide): £305+VAT;
- Full page (254mm high x 178mm wide): £546+VAT.

For full-colour ads, add an extra £230+VAT to each of the above charges.

Advertisers in four consecutive quarterly editions of Hotline are entitled to a series rate where all of the above prices are discounted by 20% per insertion.

Deadline for booking ads in March's Hotline 123 :

**February 14th**

For further details, contact Hotline Editor Alan J. Hick

Tel: 0121 329 2970; e-mail: [mail@chta.co.uk](mailto:mail@chta.co.uk)

## FLUID BED FURNACES

Diameter: 200 - 1300mm    Depth: 600 - 2000mm  
Temperature: 0 - 1100°C    Uniformity =  $\pm 5^\circ\text{C}$



- Low capital and maintenance cost
- Design specific to requirements
- All thermal processes inc. nitriding, hardening, etc
- Meets Nadcap temperature uniformity
- Suppliers to aerospace / medical / general engineering
- Over 20 years experience

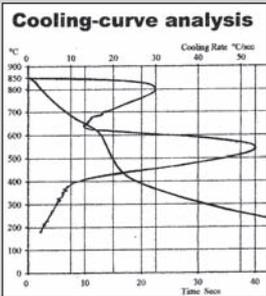


**Claytonholdings.com**  
**0121-511-1203**  
**[dw@claytonholdings.com](mailto:dw@claytonholdings.com)**

# Quench oil regeneration

**COST-EFFECTIVE / ENVIRONMENTALLY SOUND**

- Spent quench oils brought back to original specification by removal of contaminant water/solids and replenishment of additive packages.
- Result: clean, dry and sterilised quench oils, at a fraction of the cost of virgin products.
- Cooling-curve analysis available to confirm quenching performance characteristics.
- Negates disposal problems.
- Unique combination of technical expertise and practical experience gained through over 50 years of oil reconditioning and recovery.
- Accredited to ISO 9001/2000 and ISO 14001.



**MIDLAND OIL REFINERY LTD**

Tel: 0121 585 6006

Fax: 0121 585 5405

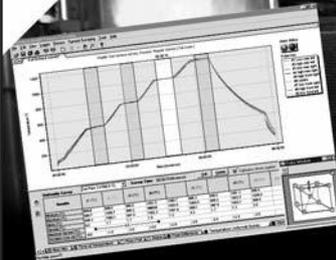
E-mail: info@midlandoil.co.uk

Shelah Road, Halesowen,

West Midlands B63 3PN

www.midlandoil.co.uk

**NOW  
UPDATED FOR  
AMS 2750  
REVISION D**



## Temperature Uniformity Surveying ...

**With a Datapaq system and Insight Survey analysis software you can...**

- Minimise downtime and cut costs
- Supervise, report and make all relevant Temperature Uniformity Surveying calculations to AMS 2750D specification
- Profile continuous furnaces to see actual product temperatures
- Receive real time data from within the furnace to make instant decisions

DATAPAQ Limited,

Deanland House, 160 Cowley Road, Cambridge CB4 0GU, UK

Tel: +44 (0)1223 423141

Fax: +44 (0)1223 423306

Email: sales@datapaq.co.uk

Web: www.datapaq.com

**DATAPAQ**

## Heat resistant castings Jigs, Fixtures, Furnace Furniture

Our specialist service for nickel chrome castings is based on over 40 years experience of the heat treatment business.

*Our services include:*

**Design**

**Pattern making**

**Reverse engineering**

**Benchmark quality**

**Competitive prices**

**Unbeatable delivery times**



**www.wallworkcastalloys.com**



Wallwork Cast Alloys

Tel 0161 797 9111

**PROFIT FROM OUR  
EXPERIENCE**

## PREMIUM GRADE ANHYDROUS AMMONIA



**Competitive Pricing & Nationwide Delivery**

**56kg cylinders, 530kg drums  
up to 18 ton bulk deliveries**

**NOW ISO:9001 APPROVED!**



**Call us for details on 01652 680555  
or visit www.BlendedProducts.co.uk**

**Elsham Wold Ind Est, Brigg, Nth Lincolnshire, DN20 0SP**

## Con Mech Heat Treatment

New CHTA member Con Mech Heat Treatment Division celebrates twenty years of first-class achievement under the leadership of Bob Beetham.



Now a director, Bob Beetham joined the company as a manager in 1988, with a remit to develop a heat treatment facility for in-house work. His commitment and vision far surpassed the initial target and he has taken County-Durham-based Con Mech Heat Treatment ([www.conmechheatreatment.co.uk](http://www.conmechheatreatment.co.uk)) into the 21st century as one of the UK's most respected contract heat treaters.

In 1988, Con Mech Engineers set up its new wear-blade manufacturing site in the North East. Bob came on board and created the heat treatment department. Initially, one hardening furnace was built along with a water quench. Great emphasis was put on the water-quench process in order to achieve the full potential of the boron steel used in the manufacture of the blades.

The embryonic department moved into rapid expansion. Using his previous experience and expertise, Bob designed and built a second tempering furnace to temper the blades in the range 200 to 300°C.

Once the heat treatment of the Con Mech product had been successfully established, Bob focused his attention on the subcontract side of the business. The target was met and success in this sector led quickly to the commissioning of more furnaces, along with the installation of a polymer-quench facility. Bob enjoyed all aspects of the role and was particularly keen on problem-solving – whether research and development of procedures or designing and building the plant to meet customers' increasingly-complex needs.

By 2004, the department included a range of six furnaces, two quench tanks - water and polymer - and an impressive shot-blast facility.

Continuing success and demand for superior-quality heat treatment led to the completion of the second phase of the heat treatment division in 2007. The new building houses two furnaces, 6.5m long, and an innovative quench tank. Planned expansion is to continue development over the next three years, designing and building a further two furnaces.

Currently the division supplies heat treatment services to the oil and gas industry, along with the mining, power-generation, defence and railway sectors. It has a strong and stable management team, supported by a quality and inspection department. Bob's right-hand man, manager Alan Sykes, joined in 2005.

# Market Movements

ANALYSIS OF QUESTIONNAIRE REPLIES RELATING TO 31 CHTA MEMBER SITES

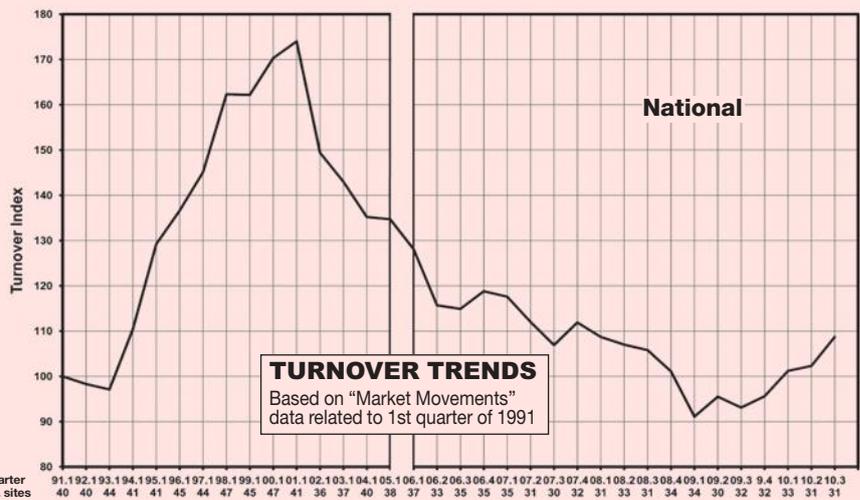
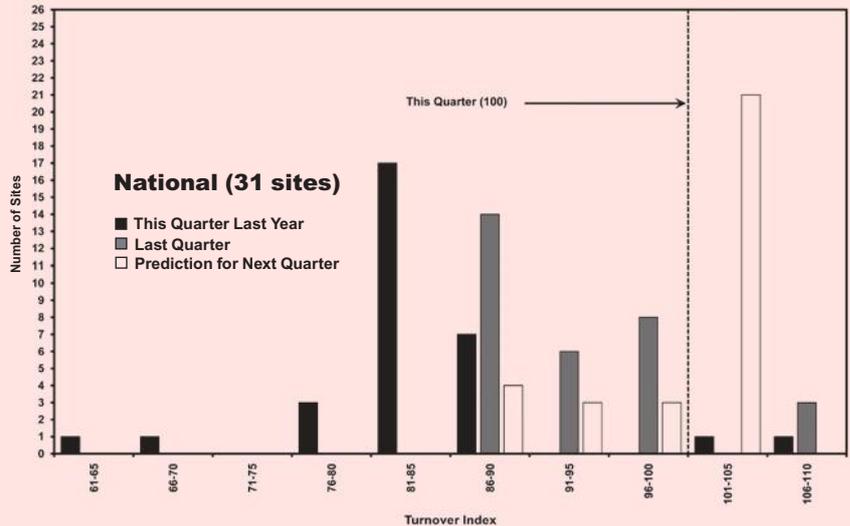
“THIS QUARTER” =

**1 JULY –  
30 SEPTEMBER 2010**

= **TURNOVER INDEX 100**

**OVERALL ANALYSIS  
(31 SITES)**

	Mean index
This quarter last year	<b>84.2</b>
Last quarter	<b>94.1</b>
Predicted next quarter	<b>100.1</b>



It seems that there's no stopping Bob Beetham inventor, problem-solver and inimitable heat treatment engineer. Earlier this year, Con Mech Heat Treatment commissioned a water-quench facility (6.5m long x 2m wide x 1.2m deep) which is approximately double the capacity of a traditional quench tank. This has already proved its superiority in the heat treatment of larger sections and batch sizes and has attracted a number of new customers.

Bob is always looking for fresh challenges and welcomes approaches from new customers who would like him to apply his skills to solving their problems. He can be contacted on 01207 288303 or [b.beetham@conmecheng.co.uk](mailto:b.beetham@conmecheng.co.uk).

## STATESIDE STATS

### NORTH AMERICAN 2010 SALES UP 24.8% SO FAR

CHTA counterparts participating in the Metal Treating Institute's Monthly Sales Statistics Program reported heat-treating sales of \$583.1million for the first nine months of 2010, a gain of 24.8% from the \$467.4million posted for the January-September period of 2009. September billings amounted to \$71.5million, an increase of 34.2% compared with September 2009's \$53.3million.

The latest returns indicate October sales of \$72.6million, an increase of 31.2% over October last year when billings amounted to \$55.3million.