

CHTA launches membership drive CCL SAVINGS A MAJOR NEW INCENTIVE

It has long been thought that the 70+ sites encompassed by CHTA membership represent some 70-75% of contract heat treatment capacity in the UK. Current analysis suggest that there are some 50 subcontract heat treatment companies out there still yet to take advantage of the many benefits that membership of the Association brings.

These will be the target of an imminent new membership-drive mail shot which will stress an added benefit that CHTA members can now enjoy – exemption from 80% of CCL as a result of the SEA/CHTA CCA breakthrough reported in recent editions of *Hotline*.

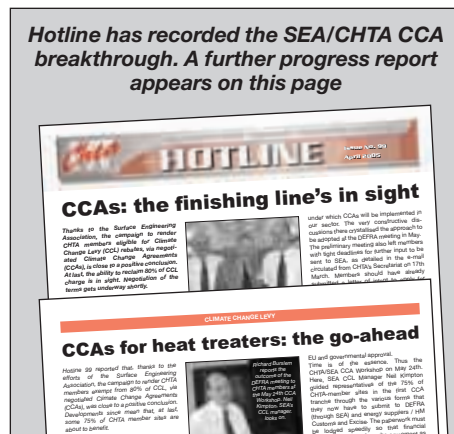
Potential members will be told that if their annual energy bill exceeds £15000, membership of CHTA offers substantial savings. This is based on the fact that the CCL charge adds roughly 10% to a heat

treater's gas and electricity bills and the costs of CCA involvement through CHTA in the first year amount to some £1275+VAT (one-off CHTA joining fee: £500+VAT / annual CHTA membership fee: £525+VAT /

SEA CCA administration fee: £250+VAT per annum per site). The saving will obviously be even greater after the first year of membership when the joining fee does not recur.

Current CHTA members, already about to maximise the savings, can help in this initiative to increase Association membership for the common good. If you know of a UK subcontract heat treater who does not share your good fortune of being a CHTA member, encourage him to contact CHTA's Secretariat for full details of how to get on board.

(Applications for CHTA membership are subject to Management Committee approval. The two main criteria for acceptance are that the applicant company trades predominantly as a contract heat treater and has appropriate quality-assurance certification).



Talking of CCAs...

Dave Elliott of SEA, CCA administrators on behalf of CHTA, tells *Hotline* that there is some mixed news on the CCA front:

We are still waiting for State Aid approval from the EU, but DEFRA have indicated that this should be received during the first half of September. Why we have to obtain State Aid approval from the EU to remove a tax which the UK Government applied, without needing the EU's permission in the first place, is beyond me but, unfortunately, that's the system. However, we do have the long-awaited PP3 form and a newly-updated PP4 form.

Fifty participating CHTA sites have submitted their completed forms and these are being forwarded to DEFRA in anticipation of State Aid approval being received shortly.

Once DEFRA have approved each of the CCAs, we will confirm and supply two more forms: the PP10 and PP11. These are the forms that will get you your rebate from your energy supplier. Full details of how to complete these will be sent at the same time.

Those CHTA members who have not completed the necessary forms, or even considered entering into a Climate Change Agreement, should contact Neil Kimpton at the SEA. His e-mail is neil.kimpton@sea.org.uk. Neil will help you

with any questions you may have regarding the scheme, and can also arrange a site visit to assist with the completion of the necessary forms if this is required.

So watch this space and here's hoping we start to get the rebate shortly.

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Guido Plicht
Senior Research Engineer



Ask the expert

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Bringing benefits to the bottom line

ONE COMPANY'S EXPERIENCE OF ISO/TS 16949:2002

Important changes to quality systems are afoot that will affect all companies operating in the automotive industry; accreditation to the QS-9000 quality management standard is currently being replaced by ISO/TS 16949:2002. All existing QS-9000 certificates will become obsolete on 15 December 2006, so companies need to consider their best course of action, says certification body NQA.

Developed by the International Automotive Task Force, in conjunction with ISO, to replace the various national quality standards, ISO/TS 16949:2002 is an essential requirement whatever your level within the supply chain. CHTA-member Heat Treatment 2000 Ltd of West Bromwich, a provider of heat treatment services to both automotive and non-automotive customers, is one of the first companies, in this particular line of business, to qualify to the new standard. Initially there was some concern that the new standard might be just another big paper exercise, but these fears were soon allayed. A key factor in this was the appointment of John Piggott, of Partners in Change, as a consultant for the project. He has considerable experience of quality systems for the automotive industry and stressed that everything the company did should be value-added and result in bottom-line improvement. NQA, the world's third-largest certification body, was appointed to audit the company for the new standard.

The first step was a three-day in-house training programme, coupled with a gap analysis. This showed that, even though customers were happy with the service they were getting, there was still a long way to go to achieve the new standard. Due to the importance of the success of this project, it was decided that both John Walsh, Quality Director, and Paul Barber, Commercial Director, should be actively involved and champion it within Heat Treatment 2000.

An automotive process approach was adopted. A process flow chart was produced, detailing the key process, and a quality management map established to show the interaction between the in-house process flow, the customer-orientated processes and the quality management system.

A 'Quality Policy' was developed, with links to the business plan and the required strategies and tactics for an efficient and effective quality management system. Sub-processes were analysed and anything that did not add value was eliminated. Procedures were documented and a process owner assigned to each key area.

Everyone in the company was trained in their role in implementing the quality management system and a review undertaken to ensure all the requirements of TS 16949 had been covered effectively. Regular management reviews were and will continue to be carried out to ensure that the system is working effectively and achieving the quality and management objectives.

Paul Barber and John Walsh said there is

no doubt it was of benefit and cost-effective to use John Piggott of Partners in Change. This reduced the time to implement the process and he helped to develop a system which is based upon the way the company operates, and not just a textbook solution.

Key benefits achieved since TS 16949 was implemented have been:

- An immediate improvement in throughput, without any capital investment.
- A reduction in internal / external rejects of up to 10%.
- A reduction in contamination to 66ppm average.
- A revised system to track urgent items requiring a one-day turn-around is showing good results and the company is approaching its goal of always meeting this requirement.
- An improved measurement of the effectiveness of the maintenance performance has been introduced.
- Employee surveys show a positive trend as a result of more involvement and empowerment.
- Customer feedback has been improved through additional surveys and improved operational performance.
- The Commercial Director has noticed an increase in new business enquiries and more congratulatory letters from customers.

Comments John Sedgley, Production and Technical Director of Heat Treatment 2000: "At the outset I was concerned that the new standard would simply increase the paperwork. However, it has improved the company's performance without increasing paperwork."

The company appreciated the positive manner in which NQA's auditor Teresa Hutchinson raised the many difficult and searching questions. The high quality of the audit demonstrated that the award of the certificate marked the achievement of a major milestone, rather than a tick in the box.

For further information, please contact:

At Heat Treatment 2000 Ltd: John Walsh or Paul Barber (tel: 0121 526 2000; e-mail: john.walsh@heattreat2000.co.uk or paul.barber@heattreat2000.co.uk).

At Partners in Change: John Piggott (tel: 01234 344070; e-mail: johnpiggott@partnersinchange.com).

At NQA: Teresa Hutchinson (tel: 01582 539 000; e-mail: teresa.hutchinson@nqa.com).



A view of Heat Treatment 2000 Ltd looking down the 2700kg/h continuous mesh-belt furnace line for hardening and tempering.

Nadcap and aerospace heat treatment

A recent press release from the **Performance Review Institute (PRI)** looks at the role of Nadcap, specifically as it relates to heat treatment and the aerospace industry, and offers the auditor's perspective.

HEAT TREATING IN THE AEROSPACE INDUSTRY

Heat treating plays an important role in the aerospace industry. Nadcap audit results have shown that an insufficient understanding of AMS2750 (Pyrometry) requirements is the most common non-conformance to the aerospace standard AS7102. This has serious implications for the industry as a whole.

Through the results of heat treating special process audits, the Nadcap Heat Treating Task Group discovered the need to help suppliers understand the requirements of AMS2750 and, as a result, created the *Pyrometry Reference Guide*. Based on this document, PRI/Nadcap created a training class: *AMS2750 Pyrometry Training*. Through these efforts, the supplier base has begun to improve in this area.

Role of Nadcap in the aerospace industry

Nadcap is an unprecedented co-operative industry effort to improve quality, while reducing costs, for quality assurance throughout the aerospace and defence industries. Nadcap is an industry-managed approach to conformity assessment that brings together technical experts from both industry and government in the Nadcap organisation. Prime contractors, suppliers and representatives from the government work together to establish requirements for accreditation, approve suppliers, and define operational program criteria.

Nadcap represents major prime contractors, suppliers, and government agencies in aerospace, defence and related industries throughout the world. Nadcap is administered by PRI, which accredits subcontractors and suppliers to aerospace and defence industry consensus standards.

Beneficiaries of improvements resulting from Nadcap are as diverse as Nadcap's 1400 customers. A participating aerospace contractor reports a saving of over \$1million annually while achieving technically-superior audits. An accredited Nadcap supplier has tracked a 97%

reduction in rework resulting from improvements to his system stemming from Nadcap requirements. Surveys performed on the Nadcap-accredited supplier base indicate an average 40% reduction in audits following Nadcap accreditation.

What happens during an audit?

During a heat treating audit, ten job audits are conducted by the Nadcap auditor, who is on site for an average of three days, depending on the scope of the audit. The auditor will review two completed jobs from cradle to grave, including test results, and four in-process jobs, which will be witnessed during the audit. The auditor will also review all pyrometry records and procedures and, if possible, witness a temperature-uniformity survey or a systems-accuracy test.

Auditor insight

US-based Bob Sartori has been a Nadcap auditor for 21½ years. Prior to working for Nadcap, he was with Bodycote Thermal Processing as General Manager. In total, Bob has been working in the aerospace industry for 28 years.

"The aerospace manufacturing market now is influenced by global competition more than at any other time in modern history. Nadcap accreditation ensures that the same quality standard will be upheld throughout the worldwide industry. The small eight-person heat treating shop must meet the same criteria for task group approval as the largest 3000-employee facility."

"As a Nadcap auditor, I have been able to see the total range of heat treating along with related processing. I have had an opportunity to see the fabrication process, as well as the thermal processing and the final product. Also, it is rewarding to revisit a facility and view the many improvements which have been made to the production systems as a result of continuing Nadcap accreditation."

A review of Nadcap auditors' credentials reveals professionals with:

- Hands-on technical experience in a field directly related to heat treating, which may be acceptable in lieu of an advanced technical degree;
- Multiple certifications in appropriate areas;
- Over 80% typically have B.S. degrees in Metallurgy/Material Science or other relevant fields;
- Over 30% typically having advanced

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

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:



degrees (M.S. and PhD) in relevant areas;

- Average years of relevant "hands-on" operator and/or quality experience generally number over 30.

In addition to their technical credentials, auditor candidates are computer literate and have registered their interest online at www.eAuditStaff.com. All Nadcap auditors have successfully negotiated an extensive screening process that includes a "team interview" by special process experts from Nadcap subscribing primes.

Arshad Hafeez, Director of Global Business Operations, commented: "PRI is proud to have the most technically-expert professionals as Nadcap auditors. Their years of experience and qualifications mean that they are able to provide a unique insight and continuous improvement within the aerospace industry. Our ongoing recruitment and evaluation of existing auditors guarantees Nadcap is the industry leader in special process quality."

Spread the word by proclaiming your CHTA membership



For use on company letterheads, literature, websites and advertisements, members can download CHTA's logo from the Members Area of the Association's website.

BODYCOTE ACQUIRES EXPERT HEAT TREATMENTS LTD

On August 19th, Bodycote International plc announced the acquisition of Expert Heat Treatments Limited (EHT) from Darchem Group plc.

EHT provides high-quality heat treatment and brazing services to UK engineering businesses from plants at Morden, Sittingbourne, Gosport and Stillington. It complements Bodycote's existing operations, particularly in the aerospace and automotive markets, in the provision of vacuum and controlled-atmosphere heat treatment services.

The acquisition of EHT increases the total number of Bodycote Heat Treatment plants in the UK to 18 and provides geographical and logistical benefits for all customers of the enlarged operation. It also brings the total number of Bodycote facilities to over 270 operating in 26 countries.

Bodycote and EHT have both followed a quality-led policy for many years and there is a strong synergy in terms of quality accreditations and customer bases. All 18 sites within Bodycote Heat Treatments UK now carry ISO 9001:2000, with 11 also having gained the prestigious Nadcap accreditation.

John Hubbard, Bodycote Chief Executive, said; "The acquisition of EHT enhances Bodycote's position as the natural outsourcing choice for major manufacturers with in-house facilities. Leading manufacturers in the aerospace, automotive and precision-engineering sectors increasingly recognise the assurance provided by a long-term business relationship with the expanding Bodycote Group, allowing them to concentrate upon their core business activities."

NEW ADI INSTALLATION EXPANDS OPPORTUNITY FOR EU FOUNDRIES

ADI Treatments Ltd has recently installed the world's largest sealed-quench austempering furnace. The new facility, costing more than £1million, provides controlled-atmosphere heat treatment services for cast iron and steel component manufacturers. The principal application will be in the production of austempered ductile iron (ADI) castings with dimensions up to 1.8m; steel fabrications can also be processed.

The furnace is an extended version of the plant operated at the company's West Bromwich factory since 1997. US market leaders AFC Holcroft, who built the original plant, were asked to customise the new furnace for larger component and batch loads. Maximum temperature is 1000°C, with gross loads of up to 2.75 tonne.



Managing Director Simon Day sizes up the new sealed-quench austempering installation at ADI Treatments.

The patented design incorporates a controlled-atmosphere batch furnace with re-circulating roof fans, radiant tubes, intermediate purge transfer chamber, enclosed vestibule and integral austempering quench tank. AFC were able to modify their proven design and enhance capability.

Particular attention was given to the circulation in the enlarged salt-quenching facility, in order to ensure homogeneity of the process and final material properties. Fast-cool facilities have been incorporated in the furnace and quench-tank modules to improve turn-around for customers. A state-of-the-art HMI was also added to enhance process and quality control.

The actual manufacture was outsourced to AFC's Mexican partners. This proved to be the most efficient and economical route for supply, with delivery time reduced to little more than six months from final confirmation of the specification. Another benefit of the manufacturing co-operation was the lower tariff applicable to imports from Mexico.

Paul Mayes, ADI Treatment's Chief Engineer, explained some of the challenges presented by the scale of the plant: "Following tests in Mexico, the unit was part-dismantled for ocean freight to the UK. However, after docking at Southampton, the consignment could not be off-loaded, because of size-handling limitations, so the furnace had to sail on to Antwerp before transshipment back to Felixstowe. A three-truck convoy made the final journey to our factory in the Midlands, the wide load requiring police escort to control overtaking for up to 50 miles at a stretch".

"Because of production commitments, we had to be ready to begin the installation immediately. Some months earlier, we excavated a large pit to house the 3m-deep sealed-quench bath and its 100

tonne of special salt. We reassembled the system in quick time with the help of several expert teams of local contractors.

"Although we designed the original factory to take further capacity, we did not foresee the need to "shoehorn" an outside machine into the only suitable position. Fortunately our calculations proved correct; we finished the installation without any re-engineering, a few centimetres clear of the lowest roof members.

Even more critical was the pit-to-furnace interfacing which also had to accommodate 14mm thermal expansion. On assembly, we found we were happily clear by 1mm. Now we are completing commissioning trials. Our furnace engineers and operators are receiving training and the system will be integrated in the company's ISO 9001:2000 protocol".

ADI Treatments Managing Director Simon Day summarised his optimism for the new facility: "Austempered ductile iron has only a 30-year commercial history, making it one of the younger engineering materials currently deployed. Recent theoretical and applied research has added greatly to our understanding of its properties and behaviour.

This has helped us to work with designers and manufacturers to find competitive solutions. For example, we were able to win a major contract to produce ADI components for wind turbines, which justified the large investment. More widely, we now have a unique facility that can provide strategic opportunities for our European foundry partners and their customers. We look forward to inviting them to our Open Day in the next few months".

BS EN 9100 FOR TECVAC

At Tecvac Ltd of Swavesey, Cambridge, all ultra-hard coatings and associated processes now conform to BS EN 9100.

This latest accreditation marks another major step forward in aerospace applications: recently, Tecvac, part of the Wallwork Group, achieved Nadcap accreditation and Wallwork Heat Treatment Ltd, at Bury, also received BS EN 9100.

The new accreditation for Tecvac covers more than 75 processes. As an extension of ISO 9000, it encompasses processes, operations and verification procedures used by the company in the application of advanced coatings, such as titanium nitride, to aerospace flying parts.

"We are pleased to extend our aerospace accreditations to complement our existing approvals from aerospace manufacturers, including BAE Systems," said Tecvac Operations Director John Rushforth. "This new accreditation follows a £1million investment in new coating technology here at Cambridge. It covers titanium nitride and titanium aluminium nitride, and extends to *Nitron MC* and *Diamolith* high-performance coatings and related surface engineering, surface preparation and heat treatment processes."

Diamolith, a new diamond-like carbon (DLC) coating developed by French company ICC, is applied by Tecvac to steel, titanium and other advanced alloys to give surfaces with hardnesses up to 4500HV (45GPa). *Nitron MC*, Tecvac's latest hard coating, provides highly-lubricious surfaces with hardnesses of over 1000HV and an ultra-low friction coefficient of 0.1.

NEW NAME FOR WHITHAM PROCESSING

CHTA-member Whitham Processing is now trading under the name Howco Special Processing.

Founded in 1982, the Howco Group is a leading-edge materials management company, supplying specialist alloys to the oil and gas industry. From the outset, the main goal was to develop a more powerful and competitive strategy that would differentiate the company from conventionally-organised service centres and enable it to deliver significant competitive advantage, while maintaining quality, value and service.

During 2001, processing excellence was brought to the group following the acquisition of Sheffield-based Henry Whitham and the first-stage machining specialist, Millhouses Engineering in Rotherham. December 2003 saw the opening of Whitham Processing, devised to enhance the group's capability and also to target the growing need for specialised bulk and component heat treatment within the steel industry.

Howco initially utilised the well-renowned

Whitham name to continue the established heat treatment processing, along with the mechanical and metallurgical testing, making use of its 10- and 30-tonne furnaces. Most recently, in early 2005, Millhouses Engineering integrated its heavy engineering facilities into the Sheffield site under the banner of Howco Special Processing.

HHT (MIDLANDS) LTD

Darlaston-based HHT Ltd (formerly Hammond Heat Treatment Ltd) has emerged from the administration stage as a new company trading as HHT (Midlands) Ltd.

HHT (Midlands) Ltd have acquired the assets, goodwill and intellectual property of HHT Ltd from Menzies Corporate Restructuring, the organisation appointed administrators on 14 June this year. The sale was completed with effect from midnight on 14 August.

HHT (Midlands) Ltd, a family-owned concern with Mr. Mohinder Pabla as Managing Director, offers a range of contract heat treatment services, including hardening and tempering, case-hardening, nitrocarburising and induction hardening. The new company is fully committed in continuing the current business activities with the existing management team, including John Craddock as Sales and Marketing Director, and increasing capacity to meet market demands as necessary.

THANKS TERRY

An unfortunate consequence of the recent takeover of Expert Heat Treatments is the loss to the contract heat treatment community of a valued supporter of CHTA and the longest-serving member of its Management Committee.



As General Manager of EHT, Terry Littlewood was part of the Association's Management Committee from the beginning of 1994 until his resignation, as Vice-Chairman, last month. He served as national CHTA Chairman in 2003-2004, his two-year term in office being particularly marked by the reinforcement of the Association's affiliation with SEA, leading to the SEA/CHTA breakthrough on Climate Change Levy.

On behalf of all members, CHTA thanks Terry for his long-time support and sterling service in taking the Association forward. Our best wishes go out to him for the future.



Keighley Laboratories Ltd

Commercial Manager Michael Emmott updates on developments at one of the UK's oldest contract heat treatment companies.

CHTA-member Keighley Laboratories Ltd is a privately-owned company, originally set up on a small town-centre site in 1920. Having the same address since then establishes stability and promotes continuity, but in no way reflects the ongoing development of our large and diverse plant and facilities, which include both heat treatment and metallurgical testing.

With a quality system assessed to ISO 9001, the heat treatment department is benefiting from major investments which include:

- Continuous sampling and computer management of furnace atmospheres, introduced to all seven pit carburising furnaces to assure quality.
- A second modern salt nitrocarburising furnace line, currently being installed.
- Computer upgrade of CNC induction machines, now being carried out.
- Access road surfaces have been repaired and upgraded.

Our technical services division, offering a fully-independent UKAS (ISO 17025) accredited metallurgical test laboratory, is also benefiting from recent substantial investments which include:

- A new large and spacious open-plan test-house office, making conditions much more friendly and comfortable for our staff and customers.
- Image capture, measurement and enhancement software, linked directly to camera, has been introduced to the microscope room. This also allows us

NEW MEMBER

CHTA welcomes as a new member: **Middleton Heat Treatments Ltd**, Whapload Road, Lowestoft, Suffolk NR32 1UL (tel: 01502 573405; fax: 01502 569625). Our contact is Roger Middleton, Director.

to communicate electronically with our customers.

- The non-destructive testing area has been separated and expanded to enable safer and more efficient handling of items.
- New testing equipment includes a 150kN tensile-testing machine, with the facility to apply loads for extended periods and produce graphically-analysed results, and a 150kN fatigue-testing machine (currently awaiting delivery), supporting the requirements of a major aerospace company.
- Alloy categorisation (positive material identification) has been extended to include a portable hand-held XRF spectrometer, as well as spark emission for those customers not requiring our full and detailed quantitative chemical analyses.
- Major repairs have been completed to the chemical laboratory where an atomic absorption spectrometer has been replaced, supplementing the recently-installed ICP analysis equipment.

On the administration front, upgrading of our accounting software will allow communication with our customers and suppliers on financial matters via the Internet, reducing time and costs.

Voice recognition has been introduced to speed up report writing. An automatic switchboard, with direct-dial and voice-mail facilities, has been installed to enhance communication with our customers, recognising that most technical and managerial staff are often not readily available due to the nature of their duties. An operator is retained to provide a personal service when this is required.

Meantime, we have entered into a Knowledge Transfer Partnership with Bradford University (Mechanical Engineering and Business Schools) and an MSc graduate (in Mechanical Engineering) will be working with us for two years to extend the range of services that we offer. Our website, www.keighleylabs.co.uk, provides a comprehensive picture of our services and confirms the reputation for technical competence built up over the last 85 years.

Diary

September 26-28 2005 23RD ASM HEAT TREATING SOCIETY CONFERENCE & EXPOSITION Pittsburgh, USA

North America's largest heat treating event returns! : www.asminternational.org/heattreat

October 5-7 2005 61ST HÄRTEREI-KOLLOQUIUM Wiesbaden, Germany

German-language heat treatment conference and exhibition: www.awt-online.org

October 20-22 2005 FOUNDRY INTERNATIONAL LONDON 05 London, England

www.mmcpublishings.co.uk

October 25-27 2005 UNDERSTANDING HEAT TREATMENT Birmingham, England

Wolfson's well-established course resurrected: www.sea.org.uk/whtc

November 8-9 2005 INDUSTRIAL FURNACE TECHNOLOGY COURSE

West Bromwich, England
www.bifca.org.uk

November 8-10 2005

SURFACE WORLD Birmingham, England

Surface finishing exhibition:
www.surfaceworldshow.com

November 10 2005 CHTA PUBLICITY SUBCOMMITTEE* Birmingham, England

November 10-12 2005 3RD ASIAN CONFERENCE ON HEAT TREATMENT AND SURFACE ENGINEERING Gyeongju (Kyungju), Korea

www.ksht.or.kr

November 17 2005 CHTA MANAGEMENT COMMITTEE* Birmingham, England



Budapest, venue for April's IFHTSE event.

December 15 2005 CHTA AGM* Birmingham, England

March 27-31 2006 THERMIC 2006 Paris, France

France's thermal processing exhibition is one of ten trade shows at *Industrie Paris 2006*: www.industrie-expo.com

April 26-28 2006 3RD INTERNATIONAL CONFERENCE ON THERMAL PROCESS MODELLING AND SIMULATION

Budapest, Hungary
English-language IFHTSE-sponsored event:
www.diamond-congress.hu/ifhtse2006

May 15-18 2006 5TH INTERNATIONAL SURFACE ENGINEER- ING CONGRESS Seattle, Washington, USA

www.asminternational.org

May 16-18 2006 SUBCON 2006 Birmingham, England

www.subconshow.co.uk

June 5-7 2006 FOUNDRY, FURNACES & CASTINGS EXPO Harrogate, England

The 17th in the series of UK "Furnaces" exhibitions, sponsored by CHTA, will be part of this new event: www.ffc-expo.com

July 4-6 2006 THERMOPROCESS KOREA 2006 Seoul, Korea

"The 4th International Heat Treatment Technology, Refractory, Furnace & Surface Finishing Industry Equipment Exhibition": www.thermotec.co.kr

September 20-26 2006 ALUMINIUM 2006 Essen, Germany

6th world trade fair and conference:
www.aluminium-messe.com

September 26-29 2006 15TH IFHTSE CONGRESS Vienna, Austria

Organised by the Austrian Society for Metallurgy and Materials in conjunction with IFHTSE: www.asmet.at/ifhtse2006

September 27-28, 2006 FURNACES NORTH AMERICA 2006 Reno, Nevada, USA

The Metal Treating Institute's conference and exposition: www.metaltreat.com

*Members wishing issues to be raised at CHTA meetings should notify CHTA's Secretary at mail@chta.co.uk.

Please send your news items for Hotline 102 by e-mail to: mail@chta.co.uk Deadline: 30th November

For the best in subcontract heat treatment services, go to . . .
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. . . your guide to sourcing from over 70 UK-wide heat treatment specialists

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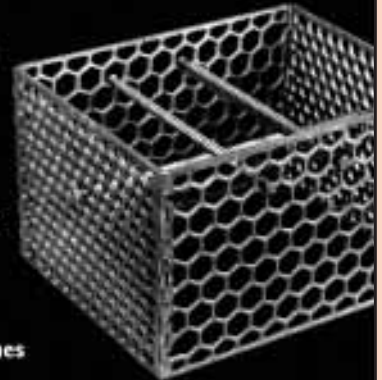
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INDUSTRIAL FURNACE TECHNOLOGY COURSE

A two-day course, for engineers and graduates who work for furnace constructors, furnace equipment companies and operators of industrial furnaces, takes place at the National Metalforming Centre, West Bromwich, on 8-9 November this year.

Organised by the British Furnace Constructors' Association (BIFCA) in conjunction with the University of Glamorgan's School of Technology, course content encompasses:

- combustion fundamentals and practice;
- heat transfer in furnaces;
- efficient operation of furnaces;
- pollution aspects;
- furnace modelling.

For further details, contact Jim Crawford, BIFCA, 6th Floor, The McLaren Building, 35 Dale End, Birmingham B4 7LN (tel: 0121 200 2100; fax: 0121 200 1306; e-mail: enquiry@bifca.org.uk; web: www.bifca.org.uk).

"UNDERSTANDING HEAT TREATMENT"

Readers are reminded that Wolfson Heat Treatment Centre's *Understanding Heat Treatment* three-day course takes place on 25-27 October this year at SEA's headquarters, Federation House, in Birmingham.

Designed to convey a general appreciation of the metallurgical/technological background to industrial processing, with the emphasis on steel heat treatment, this well-established course covers the following topics:

- basic metallurgical theory of heat treatment;
- quenching principles and practice;
- surface hardening theory and practice;
- furnace types, materials and heating methods;
- temperature measurement and control;
- salt-bath heat treatment;
- controlled-atmosphere heat treatment;
- vacuum heat treatment;
- fluidised-bed heat treatment;
- quality control/assurance in heat treatment;
- computer software to assist the heat treater.

As usual, there are preferential course fees for companies that subscribe to the Centre's services. For further information and registration forms, contact Derek Close at: Wolfson Heat Treatment Centre, Federation House, 10 Vyse Street, Birmingham B18 6LT (tel: 0121 237 1122; fax: 0121 237 1124; e-mail: derek.close@sea.org.uk; web: www.sea.org.uk/whtc).

Market Movements

ANALYSIS OF QUESTIONNAIRE REPLIES RELATING TO 35 CHTA MEMBER SITES

"THIS QUARTER" =

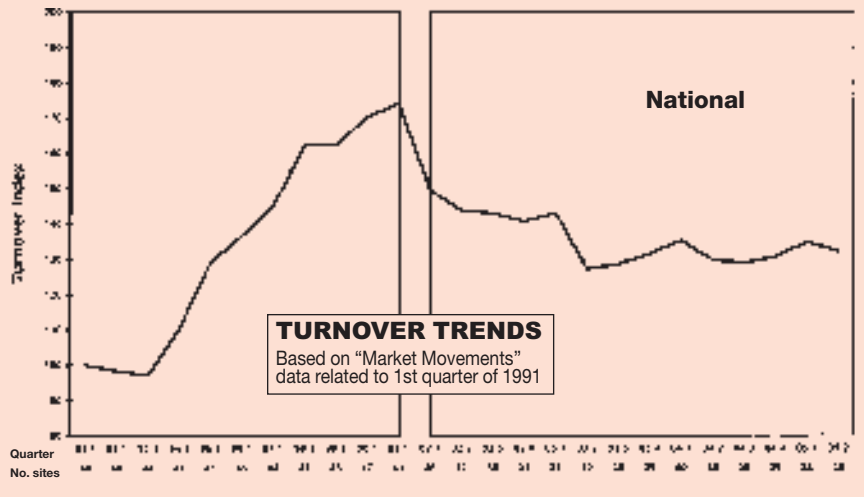
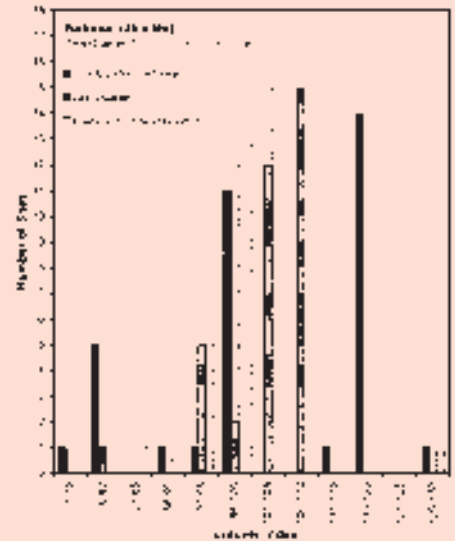
1 APRIL – 30 JUNE 2005

= **TURNOVER INDEX 100**

National

OVERALL ANALYSIS (35 SITES)

	Mean index
This quarter last year	102.6
Last quarter	101.9
Predicted next quarter	100.5



MTI

"FURNACES NORTH AMERICA" BETS ON RENO FOR 2006

The Metal Treating Institute (MTI) reports that "North America's premier "heat-treat-only" event", *Furnaces North America 2006*, will be held on 27-28 September next year at the brand-new Reno Events Center in Reno, Nevada. The host hotel will be the Silver Legacy, "the finest property in all of Reno".

FNA2006 is being designed with enhancements to interest everyone involved in the treatment of metal products. The conference will offer cutting-edge educational opportunities, presented by industry-leading experts, while the exposition will host the industry's leading equipment manufacturers and the suppliers of ancillary goods and services. Previous *FNA* events have pulled attendees and exhibitors from six continents.

FNA2006 will appeal to all of those

involved in the metal treating industry: from the owners and top executives to heat-treat floor supervisors and sales staff. MTI is the producer and sponsor of the show; the media sponsor is *Industrial Heating* magazine.

For details, e-mail event manager Scott Hardy at scott@metaltreat.com. Information can also be found on MTI's website at www.metaltreat.com.

NORTH AMERICAN FIRST-HALF SALES RISE 9.6%

Participating MTI members registered \$503million in sales for the first half of 2005, nearly a 10% increase over 2004 same-period sales which reached \$459million. June 2005 billings amounted to \$86.1million, a rise of 5.1% compared with the \$82.0million in June last year. Latest figures for July indicate sales of \$74.4million this year, up 2.8% over 2004's \$72.3million for the same month.