

Inside . . .	Page
• Outsourcing – hope for heat treatment	3
• CCA audits: some things that CHTA members should know!	5
• Latest CCA news from SEA	5
• A good year for CHTA	7
• Diary	7
• Member news	8
• Advertiser profile	10
• Member profile	12
• Market movements	12

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:



Why use contract heat treatment?

Simeon Collins (*Wallwork Heat Treatment Ltd*) examines the case for manufacturers to use the services of CHTA members rather than conduct heat treatment in-house.

IN-HOUSE OR CONTRACT HEAT TREATMENT?

Since the Contract Heat Treatment Association was formed over 30 years ago, the question of when it would be better for an in-house heat treatment facility to cease to operate, and its processes be contracted out, has been a major point of discussion. With increasing energy cost and pressure from a global market, more companies than ever are asking themselves this very question today.

It can be a difficult decision to make: the questions of why, when and how this transition should be made are complex, with both driving and restraining forces to be considered. Here we look at some of the main arguments and show why this transition is not only possible but also how it makes good business sense.

QUALITY ASSURANCE

CHTA has 39 members on 70 sites covering the whole of the United Kingdom. Together they provide an unrivalled range of heat treatment processes incorporating high-level skills and knowledge. Quality standards such as ISO 9001 and Nadcap are indicative of the standard of work within the contract heat treatment sector and, in themselves, suggest an immediate saving to the customer when considering the costs of maintaining such measures in-house.

Many CHTA members also hold, or are

working towards, the environmental standard ISO 14001 in order to meet the needs of modern manufacturing. The high costs of waste segregation and disposal, associated with some heat treatments, can be disproportionately high for the in-house heat treater.

EFFICIENT DELIVERY / FLEXIBILITY

Whilst the quality of the product is highly important, meeting agreed delivery schedules is paramount in this age of fierce competition. Many CHTA members offer 24-hours-a-day 7-days-a-week processing and will fit in with customer's production management systems. Most also manage the transport between the manufacturer and the contract heat treater, with the effect that an in-house heat treatment department doesn't close but 'moves' to the dispatch area.

Spare capacity, combined with dedicated, knowledgeable maintenance staff, at the contract heat treater means that deliveries to the customer will be maintained. An in-house facility often works near to capacity and a breakdown leads either to delays in manufacture or additional cost when work is sent out for heat treatment.

A less obvious issue is that if parts have to be sent outside for heat treatment in these circumstances, it will usually be at a premium price. On the other hand, when a customer has regular work to place, rather than covering breakdown or overload, this leaves him in the best position to negotiate on price with the heat treater.

Contracting heat treatment out can also add value to the supply chain through contractor competition. Customers can

Ask the Expert

Q Our gas quenching process uses a lot of gas and then vents it. Can we purify and reuse that gas?

A Depending on impurities, gas volumes and ease of capture, many gases can be and are recycled. Discover how and learn how you can improve your recycling today at www.airproducts.com/recycle4. For more information, call +44 1932 24938.

(26849) Air Products are sponsors of *Hotline*

tell me more
www.airproducts.com/metals



Annemarie Weist

Global Lead,
Gas Recovery
and Recycle

take advantage of having the best combination of service and quality and even take advantage from dual sourcing their heat treatment.

REDUCED OVERHEADS

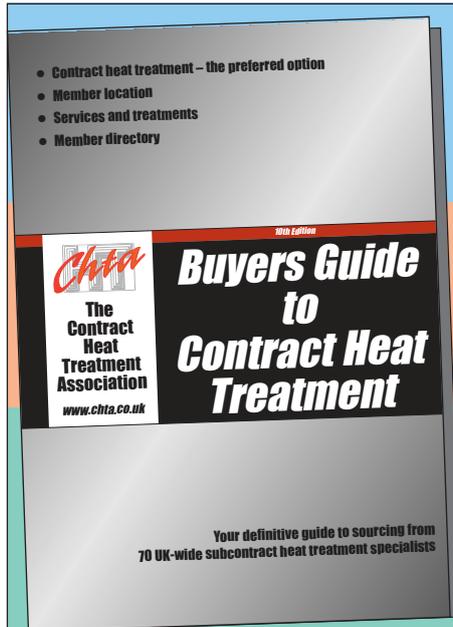
Energy cost is an increasingly major overhead to both in-house and contract heat treaters. Members of the CHTA have undertaken improvement programmes to maintain cost-effective services and, thus, competitive prices to the customer. The in-house department is often overlooked as it is only a small part of the manufacturing process or, more likely, hasn't the skills required to implement modern energy-saving heat treatment techniques. As companies strive to compete on a global stage, reduction of overheads becomes more important. Labour costs are often the most prominent of these and can be reduced by contracting out heat treatment. This may not mean redundancies, as in-house heat treatment staff could well have valuable skills to be deployed elsewhere within the business. It is also not uncommon for the contracting heat treater to employ staff from a closing in-house facility, particularly if the in-house facility is of reasonable size.

SPACE SAVINGS

In-house heat treatment departments often utilise a high proportion of company factory space. Property and rents today are both costly and if heat treatment processes are contracted out, this space can be released in a variety of ways to add value to the business. Selling off or leasing out unused space is an obvious possibility, but what about using the space for expansion of core activities?

LATEST TECHNOLOGY

As heat treatment processes evolve, there is a requirement to invest in new



For a free copy of the definitive guide to UK contract heat treatment, e-mail Nasima Khatun at nasima.khatun@sea.org.uk (tel: 0121 237 1123).

equipment, plant or consumables in order to remain competitive and at the forefront in terms of quality. Plant must also be maintained to a high standard and with good-quality heat treatment fixtures. It is often not cost-effective for in-house departments to purchase and maintain modern equipment. The contract heat treater, on the other hand, has to invest in this equipment to stay competitive with his peers. This gives the added advantage to a CHTA-member customer that his parts will be treated using the latest techniques and technology. The component will be able to evolve with time, rather than be restricted by out-of-date equipment and processes.

CHANGING OVER

Ideally, Implementation of transfer from in-house to contract heat treatment is done by a gradual change from one to the

other. One major obstacle is that, although there is a detailed specification for the heat treatment of a part, what actually happens to it over time changes and is not recorded. The gradual-change method allows these problems to be ironed out, one by one, over a period of time. Some companies may feel that they need to change from in-house to contract in one fell swoop and, so long as there is careful planning, this method also works. Most CHTA members have implemented both sorts of transfer – the important thing is to have a full and honest exchange of information before and during change over.

CASE STUDIES

Case studies showing the benefits of contracting out heat treatment are not usually made available by manufacturers, because of commercial considerations, but the following examples help to illustrate the benefits:

- An aerospace fastener manufacturer closed his heat treatment facility because of the high cost of replacing a furnace that would no longer meet quality requirements. Additional savings were made because he no longer required Nadcap approval for heat treatment. The project has been successful, with no quality or delivery issues, and the manufacturer now has reduced costs.
- A circlip manufacturer found that his vacuum furnace was very expensive to maintain because he did not have the required maintenance skills in-house. The furnace was out of action for several weeks a year and contract heat treatment was required to cover the breakdown. The furnace would also not cope with bulges in demand and so overload work was also contracted out. He sold the furnace to a contract heat treater, negotiated a reduced price for all the work, utilised the free space for expansion and benefited from 24/7 production. Again, there have been no quality issues but there has been a great improvement in delivery times, enabling the manufacturer to attract more business by guaranteeing deliveries to his customer.

TALK TO A CHTA MEMBER

If any of the above strikes a chord, manufacturers should have preliminary discussions with CHTA members to see if the concept of closing their internal heat treatment departments should be explored. It can have many benefits and, as a final thought, I do not know of any companies who have made the change and regretted it afterwards.

CHTA's website offers guidance on making best use of contract heat treatment ...

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

www.chta.co.uk

. . . your guide to sourcing from 70 UK-wide heat treatment specialists

The Contract Heat Treatment Association

CHTA WEBSITE: PRAISE INDEED

"... may I say what an excellent website you have for identifying suppliers. So clear and simple to use. I use it myself and refer companies to it."

Cecilia Davies, Specialist Sourcing Advisor,
Manufacturing Advisory Service - West Midlands (October 2006)

Outsourcing – hope for heat treatment

Bodycote's **Simon Blantern** and **David Wilkins** discuss the strategy offering major benefits to manufacturers and market expansion to CHTA members.

OUTSOURCING

In Bodycote's definition of outsourcing, we exclude the conventional subcontracting of heat treatment services, possibly via a supply chain; i.e. when no captive, in-house, capacity is involved.

Outsourcing involves a strategic decision by a component manufacturer to utilise an external provider for a service, in preference to an in-house resource. This may involve closure of an in-house facility. In its scope, an outsource project may well have a value which equates to the sales and profit of several established heat treatment businesses. Outsourcing is akin to a merger or business acquisition. It is far more strategically important and complex a process than conventional subcontracting. It requires due diligence for a successful outcome.

Outsourcing is best suited to high-capital-cost treatments/services that benefit from economy of scale and which can be carried out more efficiently by the outsource provider. It is ill-suited to the unusual or infrequent requirement, although it can be applied successfully in specialist niche services/markets which have the required critical mass.

The outcome of a successful outsource project is generally the establishment of new business which is secured under a long-term business agreement. This may be a comprehensive strategic partnership, between the service provider and the outsourcing manufacturer, or a basic time-limited agreement. In either case, exclusivity of supply is a must, as is a culture based upon mutual trust and shared business development activities.

ORIGINS

Outsourcing of heat treatment is not a new phenomenon. Its UK origins predate Bodycote's entry into the industry, since Blandburgh was successful in the mid-1970s in negotiating outsource deals with several major manufacturers, which involved closure of in-house capacity and the use of larger, more advanced furnaces.

In Europe, during the 1980s, the market leaders, such as Brukens and HIT, were also developing service offers to capture outsource opportunities; whilst, in the USA, Lindberg was another early participant. All of these market leaders

owed at least some of their growth to an early recognition and harnessing of the outsourcing trend, although the rate of development of outsourcing remains slower in the Americas than in Europe.

FACTORS DRIVING THE TREND

Global market pressures progressively came to bear on manufacturing companies throughout the Western world and the important role of outsourcing as a major element in their strategic realignment has become more evident over time.

In the late 1990s, it became a focus in the UK for DTI and CBI activities, culminating in their 1999 publication "Partnering for Profit". Various 'City' seminars on the outsource theme, within the investment community between 1998 and 2000, further promoted its application.

"... successful development of outsourcing in the UK is an increasingly significant factor, which will determine the continuing success of CHTA member companies for some time to come."

IMPORTANT BENEFITS

For us as heat treaters, the vital importance of outsourcing can be summarised thus:

- It is the only mechanism producing market expansion in otherwise stagnant market conditions, when demand for conventional subcontract support is waning.
- It offers large incremental growth in sales turnover and profitability for relatively small selling costs.

In Bodycote's case, the long-term-agreement business resulting from outsourcing now accounts for 20% of group sales and is a significant stabilising factor for our operating businesses. We continue to pursue outsource opportunities across all our activities and markets.

As with all major business change initiatives, the reliability, experience and expertise of the management team are of paramount importance. The complexities of an outsource deal require explanation and "selling" to personnel not directly involved in the discussions.

If a "champion" is available within the outsource team, this greatly facilitates this most important channel for communication and influence. The greater the knowledge of the customer's business and the longer the history of reliable service, the more likely is a successful outcome.

THE FUTURE

What does the future hold with regard to outsourcing? We can expect unremitting market pressures and the resultant migration of manufacturing to the low-cost economies for some time yet. Those manufacturers who survive in the developed economies will do so by applying outsourcing, alongside other re-structuring tools. Thus, ironically, problems produce opportunities for us to assist in the profitable survival of at least some manufacturing in the UK.

As Bodycote seeks to follow Western 'primes', both OEM's and first-tier component manufacturers, to the low-cost economies, we will do so alongside established Western companies, many of them existing clients. Our objective is to secure outsource deals with them before they in-source in their new plants in the low-cost countries.

All is not hopeless. As heat treaters, we are well placed to address the fourth purchase parameter - flexibility. This is nowadays as important as quality, price and time. Time to market is vastly shorter than in the past and product obsolescence occurs sooner. These factors, together with technology change, reduce the attractiveness of investment by manufacturers in capital-intensive technology-based services such as heat treatment, the return on which can be adversely impacted by these factors.

Since we are aggregators, serving many customers, we are much better placed to provide the required flexibility than any in-house facility, thus encouraging outsourcing. Energy cost escalation is another factor which impacts upon captive heat treatment viability to a greater degree than on CHTA members, because as aggregators we are able to operate more efficiently up to 24/7.

However, outsource deals don't last forever since all businesses change over time. As outsourcing is a once-in-a-generation (20 years?) strategic decision, and therefore not entered into (nor exited from) lightly, there is a strong incentive to long-term development of the relationship. Some deals will fail, whilst others will succeed well beyond the initial vision and objectives. Some will succeed and spawn additional deals with associated businesses.

The writers believe that successful development of outsourcing in the UK is an increasingly significant factor, which will determine the continuing success of CHTA member companies for some time to come.

Need a dedicated Heat Treatment group, industry specific engineers, providing on-site services & calibration?
Go directly to Finish.

START



You're **2 steps closer** to reducing energy costs and achieving a return on investment.

EUROTHERM FLEXIBLE SOLUTIONS

Heat Treatment

Leading the way

Jump ahead 2 spaces if you want to meet NADCAP/TS16949 legislation & other regulatory requirements.

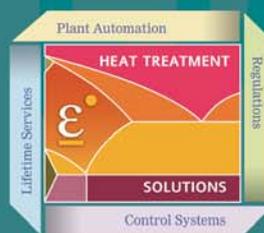


Leading the way in innovation & solutions

By Combining automation and process knowledge with validation expertise and world class specialist products, Eurotherm are able to offer an extensive range of the most cost effective Heat Treatment solutions.

For generic heat treatment solutions that meet individual requirements visit:

www.eurotherm.com/heat-treatment



Eurotherm Ltd
 Worthing
 UNITED KINGDOM
 T (+44 1903) 268500
 F (+44 1903) 265982
 E info.uk@eurotherm.com
www.eurotherm.com

CCA audits: some things that CHTA members should know!

Heat Treatment 2000 Ltd was amongst the first companies in the heat treatment sector to undergo a DEFRA/FES CCA audit. Managing Director Paul Handley thinks fellow CHTA members might benefit from his experience.

Having received considerable notice from the SEA, our audit visit took place on August 17th. We received a letter on August 30th detailing actions and recommendations, to which we had to reply by September 20th. To date, we have not received a follow-up to our response.

In checking compliance, the following points were raised. Whilst it may seem that some of these requests were "over the top", we must never lose sight of the savings to be made by being in a Climate Change Agreement.

● **Written instruction:** Instructions

regarding gathering, recording and handling of CCA data must be in place, including preparation of a pro forma record sheet (which should describe the meters, both internal and external, to be read). The sheet should have spaces for the MANUAL entry of utility readings, together with date, time and initial of the meter reader: it should also include the measure of production being used and, of course, the data for that month.

● **Error Checking:** Detailed error-checking instructions should also be in place, so that readings as charged by the supplier can be reconciled to internal readings.

● **Do not use estimates:** Any energy that is to be excluded from the claim, such as that for endothermic gas generation, should be metered and recorded on the monthly pro forma sheet.

● **Ineligible energy:** It is important to note

that, as well as factory lighting, energy used in a test house or laboratory is not ineligible.

● **Site Maps:** The site map as advised by the SEA is not considered adequate and additional diagrams should be prepared to show energy distribution systems, together with all meter locations, and also the position of any gas generators etc.

● **Scale and meter certification:** If the measure of production is by weight, then calibration-of-scale certificates will be required. Requests for a statement of the meter accuracy status and calibration strategy of the main utility supplier were also made; however suppliers were reluctant to provide anything in writing.

● **Formal appointments:** As well as the formal appointment of a site representative, a deputy also needs to be in place, as do written instructions to those responsible for recording the information.

Since our DEFRA/FES visit, SEA has issued guidance on audits and evidence packs. This was e-mailed to participants in the heat treatment CCA on November 17th.

Latest CCA news from SEA

Updates from Neil Kimpton of SEA, CCA administrators on behalf of CHTA members ...

End of Milestone Reporting

CCA participants in the EI/heat treatment eligibility criteria have now passed their End of Milestone Reporting Period. Data supplied by all 58 participating sites are currently being collated and tabulated in preparation for submission to the governmental body DEFRA.

Participating sites are reminded that, in addition to submitting a quarterly monitoring form for the complete year period of 1st October 2005 to 30th September 2006, they must submit their intentions on ring-fencing and carbon purchasing on an End of Milestone Form.

The SEA will not be publishing details on how the sector as a whole has performed against the sector target. The reasons for this are two-fold:

- Firstly, the sector performance depends not only on an accumulation of results from all participating companies, but also on individual decisions on ring-fencing and carbon purchasing, final decisions on which have not been taken by all participating companies. If you require further details on ring-fencing or carbon purchasing, please contact the SEA office.
- Secondly, individual sites should be looking to meet their own individual targets, or make up for any under-performance by purchasing carbon credits, and should not be relying on the

CCA sector to pull them through.

Further information on End of Milestone Reporting and all it entails can be found on <http://www.sea.org.uk/cca.aspx>.

New CCA interactive web pages near completion

The SEA will shortly be launching an interactive section of the CCA website. Participants in the scheme will be able to log into secure pages which will contain data specific to their agreement, including:

- base year date;
- milestone target data;
- information on invoicing;
- a tracking system of any current changes to their agreement.

Additionally, participants will be able to make quarterly monitoring form submissions through the website, thus making reporting easier and quicker for both participants and the SEA.

These pages should go live at the beginning of December, at which time a letter will be sent out to all participants detailing their log-in password.

Audits and Evidence Packs

In response to participant requests, full information on audits and evidence packs has been sent electronically to all EI/heat treatment participants and can be seen on the SEA website at: <http://www.sea.org.uk/cca.aspx?id=315>

Neil Kimpton can be contacted on 0121 237 1143 or at neil.kimpton@sea.org.uk

AWARD FOR CCA EFFORT

The role played by Lord Hoyle of Warrington in rendering heat treaters eligible for CCL rebates has been formally recognised. At the SEA Gala Dinner & Awards on 20th October, he received the prestigious Ray Alford Memorial Award for outstanding contribution to the surface engineering sector – the first winner from outside the industry in the history of the SEA Awards. The citation hailed Lord Hoyle's great commitment to the surface engineering industry and his assistance in raising its profile to the highest levels within the UK. "He played a pivotal role in obtaining the climate change agreement for the heat treatment sector which has reduced their tax burden by over £1million per annum."

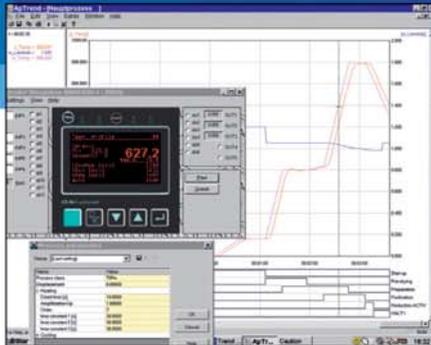


Lord Hoyle receiving the Ray Alford Memorial Award from SEA Chairman Martin Olsen (right).
(www.jtsphotography.co.uk)

KS 98-1 Advanced

It's whatever you need it to be!

- ✓ Temperature controller
- ✓ Cascade controller
- ✓ Multi-channel
- ✓ Remote I/O
- ✓ O₂ controller
- ✓ Ratio controller
- ✓ Synchronization
- ✓ Profiling
- ✓ Bar Graphs
- ✓ Trending
- ✓ Logging



PMA sets new standards for control technology in a 1/4 DIN package

Is it a DIN controller or a mini-PLC? With advanced application capabilities this controller will be whatever you need it to be. Paired with our software suite, real-time simulations and trending will make your commissioning more efficient. Heat Treat applications? Done. Boilers and Burners? Done. Autoclaves? Done.

Contact our Application Engineers to see how KS 98-1 can solve your control needs.

WEST
Temperature Control Solutions

www.westinstruments.com

West Instruments, The Hyde Business Park, Brighton, BN2 4JU. Tel: +44 (0) 1273 606271 • Fax: +44 (0) 1273 609990 • Email: info@westinstruments.com

A good year for CHTA

A progress review by **Roger Haw** who completes his maximum two-year term as CHTA Chairman in February.

The end of the year it is a good time to reflect on our achievements and consider the actions that we should be taking in the coming twelve months. This year, CHTA has made considerable strides and has enjoyed significant success in several areas, much achieved through our affiliation with the SEA.

We have, at last, managed to get our Climate Change Levy rebate scheme into operation. This must be regarded as the finest single achievement in the history of this Association. It will provide a very significant improvement in the finances and profitability of all the member companies participating in the Climate Change Agreement (CCA) for the heat treatment sector.

CHTA has also established a line of communication with the Health & Safety Executive. Providing that we actively maintain a dialogue, we can expect to be consulted on matters of health and safety affecting our industry. Such dialogue is important since it allows us to give our opinions, as users and operators of equipment and systems, before legislation is enabled.

We have also had the opportunity of making our opinions known to various active political figures through meetings arranged by SEA.

The membership of CHTA has increased as a result of the CCA scheme and there may be yet more scope for further growth. The net result is that the finances of the Association are strong, as reported at December 14th's AGM.

I am proud that these achievements have taken place during my tenure as Chairman of the CHTA, but I do not take credit for them. They are the result of the efforts of a

small band of volunteers from member companies of the Association who have given their time willingly for the benefit of our industry.



CHTA Chairman Roger Haw seen here, with wife Julie, at the SEA reception on the terrace of the House of Lords in July. (www.jtsphotography.co.uk)

THE FUTURE

Where do we go from here? I make no apology for turning, once again, to the projection of propaganda regarding the benefits that our processes give to the engineering industry, in particular, and to society in general.

We are now living in a very "green-conscious" world and only a fool would think that such considerations will go away. The green lobby will (quite correctly) become stronger and stronger. We have to note that the current policy on climate change, and penalisation of industry for energy usage, has not yet been thought beyond 2010; no doubt the politicians will devise some follow-on scheme.

Now is the time for us to start putting forward our position; we now have the channels to do this. We must project the fact that our industry provides for the reduction of carbon emissions, both in material manufacture and in subsequent shaping, forming and machining of engineering components. We must highlight that, without us, the whole of the engineering industry would use much

more energy and its products would be much less energy-efficient.

Regular readers of this publication will have noted that David Wilkins of Bodycote takes this issue very seriously and that he is very concerned that it be addressed. It would be wise to consider the argument of a well-respected man who has spent most of his long career in our industry.

We must not lose sight of the target on this issue and a major part of our efforts in the forthcoming year must address it. CHTA cannot afford to wait until the discussions start; we must be proactive in this matter as one of the best champions of the green campaign.

THANKS

In closing, I would like to thank all the people who have helped me throughout the last year and, particularly, all the members of CHTA's Management Committee, a forum where different opinions are aired, but always with good humour and sensible compromise to reach a reasonable consensus.

I am appreciative of the support from David Elliott at the SEA, and for the gentle reminders and coercion from SEA's Diana Blair who is very efficient at getting people to various meetings.

In his role as Editor of this publication, Alan J Hick has taken *Hotline* from strength to strength and it is still realising its greater potential. In his other role, as Secretary of CHTA, he offers every support that a Chairman can wish for. Thank you Alan; I do hope that the next Chairman enjoys his term of office as much as I have. Finally, thanks to CHTA members for support. Please do not forget that we operate a modern environmentally-conscious industry with people who have the best of scientific training in some very complex and serious processes. Please help CHTA to keep telling the world how good we are.

I wish you all the best of the season's greetings and hope that you have a happy and prosperous New Year.

FORTHCOMING EVENTS

Diary

February 1 2007
CHTA PUBLICITY SUBCOMMITTEE
Birmingham, England

February 7-8 2007
SOUTHERN MANUFACTURING & ELECTRONICS EXHIBITION
Thorpe Park, Surrey, England
www.industry.co.uk

February 8 2007
CHTA MANAGEMENT COMMITTEE
Birmingham, England

March 7 2007
BURNER TECHNOLOGY & SELECTION
Birmingham, England
www.bifca.org.uk

March 13-17 2007
ALUMINIUM 2000
Florence, Italy
www.aluminium2000.com

March 28 2007
BIFCA ANNUAL SAFETY & STANDARDS SEMINAR
West Bromwich, England
www.bifca.org.uk

April 18-19 2007
MIDLANDS MANUFACTURING EXHIBITION
Coventry, England
www.industry.co.uk

25-27 April 2007
5TH INTERNATIONAL CONFERENCE ON QUENCHING AND CONTROL OF DISTORTION
Berlin, Germany
www.quenching-and-control-of-distortion.com

May 1-3 2007
SUBCON 2007
Birmingham, England
www.subconshow.co.uk

May 3 2007
CHTA PUBLICITY SUBCOMMITTEE
Birmingham, England

May 10 2007
CHTA MANAGEMENT COMMITTEE
Birmingham, England

NEW VACUUM FURNACE FOR TTI

TTI Group has increased its vacuum heat treatment capability with the installation of a second TAV furnace at its Cheltenham division.

Supplied and installed by Vacuum Furnace Engineering, the new furnace was the first choice due to the excellent performance of the existing TAV furnace which has allowed the company continued success in the aerospace sector. Designed to meet the stringent requirements of the aerospace and IGT markets, the furnace is fully compliant with Nadcap, RPS 935 and AMS2750D, the standards that this sector demands.

The new furnace features increased quench capabilities of 12bar nitrogen and 6bar argon, together with built-in dewpoint meter to monitor the quench-gas quality continually. This increased quench capability is a unique feature, providing a quench pressure greater than the normal 10bar commercially available in the UK, and allows for further improved properties via the vacuum processing route.

The furnace also features convection heating and control via a sophisticated PLC system driven by a visual user-friendly GUI PC interface.

With working chamber dimensions of 600 x 600 x 900mm and a charge capacity of 600kg, the furnace is capable of meeting the requirements of both the commercial and aerospace markets.

ALPHA-ROWEN APPOINTMENT

Tipton-based Alpha-Rowen Treatments Ltd has announced the appointment of Mike Leach as General Manager of the company.

Managing Director Kevin Rowen commented: "Mike joins us at a critical point in the development of the business. I've run Alpha-Rowen Treatments since I



Mike Leach (right), the new General Manager of Alpha-Rowan Treatments Ltd, with Mike Hill, the company's Operations Manager.

**Please send your news items
for Hotline 107 by e-mail to:
mail@chta.co.uk
Deadline: February 28th**

started the company in 1987 and the time is now right for a fresh injection of energy and ideas to take the business to a new level. Mike's background is primarily heat treatment, having worked for Nitrotec Services and TTI Group for nine years, but he also has a broader manufacturing experience."

Mike Leach added: "I am extremely excited to be joining Alpha-Rowen Treatments. It has been developed into a successful business and is the foremost austempering subcontractor for spring and pressed components. The workforce is experienced and conscientious and operates a range of continuous equipment designed to cope with the varied demands of its customers. It is now ready to develop into other areas and I am looking forward to introducing new processes and services that we can offer to our customers to further improve the service we currently provide".

CHTA SUPPORT FOR WOLFSON'S WELL-ATTENDED COURSE



CHTA members were again well represented, amongst both the speakers and the 27 delegates, at the latest (71st) Wolfson Heat Treatment Centre "Understanding Heat Treatment" course, staged at SEA headquarters on October 17-19. Our picture shows (back row, l. to r.): Stuart Smith (Wallwork Heat Treatment (Birmingham) Ltd), Stuart Mitchell (Heat Treatments (Northampton) Ltd), Scott Gear (TTI Group Ltd) and Mark Travis (Wallwork Heat Treatment (Birmingham) Ltd). Front row: Nicholas Lombardi, Ryan Slater and Paul Wilson (all Stork Cooperheat (UK) Ltd) and CHTA Secretary Alan J Hick (course speaker on controlled furnace atmospheres). The next "Understanding Heat Treatment" course is scheduled for 16-18 October 2007; contact Wolfson's Derek Close for details (e-mail: derek.close@sea.org.uk; tel: 0121 237 1122).

NEW VACUUM FURNACE AT TAMWORTH HEAT TREATMENT

As part of their continual improvement programme, Tamworth Heat Treatment Ltd have installed a new vacuum furnace to complement their existing vacuum facility of seven furnaces.

The horizontal vacuum furnace has a load capacity of 400kg, working temperature up to 1300°C and a multi-directional gas-quench arrangement up to 10bar pressure.



The new vacuum furnace at Tamworth Heat Treatment Ltd.

Its main use will be for high-temperature hardening and tempering treatments, along with special processes for medical, pharmaceutical and aerospace applications.

Tamworth Heat Treatment Ltd are currently working towards aerospace quality management standard AS9100, with approval anticipated in spring 2007.

HHT (MIDLANDS) RE-ENTERS AUSTEMPER MARKET

In response to existing customers' requests to supply, HHT (Midlands) Ltd have announced that the austempering process is now available at their Darlaston plant.

The department has been re-commissioned to provide this treatment, supported with many years of processing knowledge and experience. Austempering is used extensively on presswork and wire forms to provide a strong and ductile condition to customers' specifications. Capacity is available with the plant operating 24/7 as required, allowing a rapid turnround of orders.

HHT (Midlands) Ltd have ISO 9001:2000 approval and can provide PPAP documentation if required. Contact John Craddock on j.craddock@hht.co.uk or 0121 526 4771 for further information.

CHTA AT SEA AWARDS DINNER



Guests at October's SEA Gala Awards Dinner (l. to r.): Lynn Hick, husband Alan J Hick (CHTA Secretary), Victoria Fawcett and Wallwork's Simeon Collins (member of CHTA's Publicity Subcommittee and author of our front-page article). (www.jtsphotography.co.uk)

Super Systems

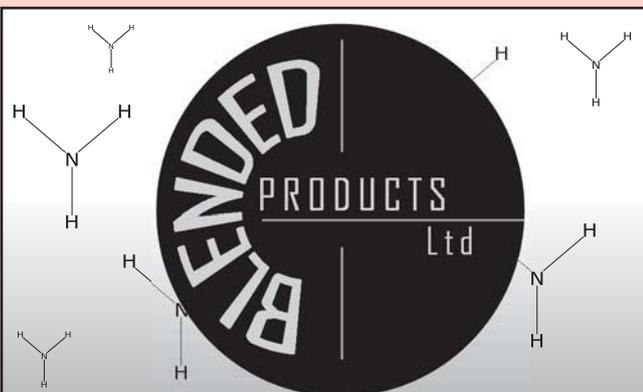
UK LTD

ATMOSPHERE EXPERTISE

- ◆ Carburing control and programming systems using SSi Gold Probe, CO or CO₂ analysers, or dewpoint meters
- ◆ Test and repair of oxygen probes
- ◆ Endothermic generator controls using lambda probes
- ◆ Nitriding controls and programmers indicating dissociation or nitriding potential (K_n)
- ◆ Dedicated heat treatment portable gas analysers and dewpointers
- ◆ Touch-screen programming instrumentation incorporating datalogging
- ◆ Computer supervisory systems
- ◆ Market-leading **CARBOTUNE** total-support package for carburing furnaces.
- ◆ Furnace troubleshooting

Tel/fax: +44 (0)121 240 1591
E-mail: matthew.cross@which.net

www.supersystems.com
Free online heat treatment software tools



Process Grade Ammonia

Reclaim Service Available

Sizes from 29kg & 56kg cylinders to 560kg drums and 18 ton bulk deliveries

Please call or visit our website
www.blendedproducts.com

Blended Products Ltd, 7 Wright Street, HULL, HU2 8HU
Tel: 01482 329333 or 01652 680555

Save money -filter your quench oil



Installation on sealed furnace (Haustrup Bodycote A/S, Denmark)

Installation on belt furnace (Scrubex, Poland)

CJC™ Fine Filters are highly efficient in removing carbon deposits, particles and water from quench oils in sealed furnaces, belt furnaces and open baths

The benefits are:

- No staining of the quenched components
- Less sludge build-up in heat-exchangers
- Prolonged lifetime of quench oil
- No or few tank cleaning sessions required
- Longer time between service intervals

These are five good reasons to invest in quality oil maintenance equipment and **SAVE MONEY!**

We can also supply CJC™ Solutions to **recover the waste oil** from drip trays and the oil skimmed off in the washing machines. CJC™ Filters for **polymer fluids** are also available

Oil Maintenance



C.C.JENSEN LTD.
Unit 26 • Enterprise City
Meadowfield Ave. • Spennymoor
Co. Durham • DL 16 6JF
Tel: 01388 420 721 • Fax: 01388 420 718
E-mail: cjt@cjcuk.co.uk • www.ccjensen.co.uk

www.cjc.dk

Codere SA

Hotline advertiser Codere SA is new to the UK. David Howard, of the company's Sales and Marketing Department, briefly outlines its activities...

Switzerland-based Codere SA is part of a chain of companies working in the supply of industrial heat treatment equipment and control/measurement systems. Identifying a gap, we entered the UK market over six months ago.

As you can see from our website (www.codere.ch), we can offer a broad range of solutions to meet your present and future heat treatment requirements. Codere is active world-wide in a number of fields, including the automotive, aeronautics, fastener, tooling, spring, precious-metal, armament and hydraulic industries, as well as international contract heat treatment shops.

Codere is finalising the construction of our new factory and this will be completed later this month. This development is a result of our growing order book, including a contract to heat treat the landing gear of the new Airbus A380.

During Codere's short time in this new market, we have joined the renowned Wolfson Heat Treatment Centre, as well as completing agreements with two local



One of Codere's System 250 modular heat treatment furnace installations at Tornos SA, Switzerland.

recognised service agents. Codere is currently negotiating with a number of companies who are interested in evaluating sales agency representation for the UK market.

Very active in Europe, Russia, Asia and South America, Codere has recently sold an installation to one of the leading fastener suppliers in Ireland.

Our Econox SA (www.econox.ch) division manufactures oxygen probes, supervision software and control systems to measure the furnace atmosphere precisely. Econox has recently introduced a new competitively-

priced product range and is currently looking for local sales distributors in the UK and Irish markets.

With a team of experienced engineers in the heat treatment field, Codere Service SA (www.codere-services.ch) offers advice, consultancy, maintenance and spare parts for any furnace in the marketplace. Second-hand furnaces can also be offered upon request.

I hope that your company will contact the Codere group when you next have a requirement to invest in or upgrade your heat treatment or control facilities.

CODERE SA

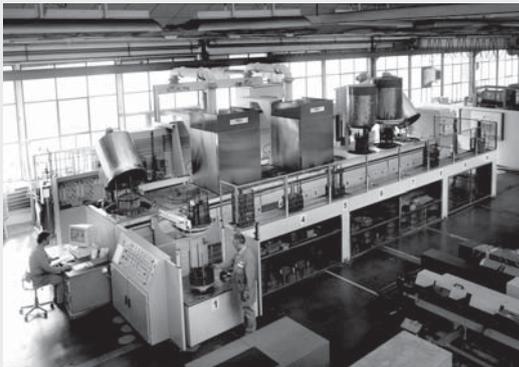
Grandes Vies 1
CH - 2900 Porrentruy - Switzerland
T: ++41 32 465 10 10
F: ++41 32 465 10 11
info@codere.ch - www.codere.ch

Products

The main product range consists of batch furnace lines in modular construction, pre-vacuum continuous batch furnaces, mesh belt-conveyor furnaces, pit furnaces, precious metal treatment furnaces and auxiliary equipment
We also supply oxygen probes and supervision software

BATCH TYPE FURNACE LINE

under controlled atmosphere, in modular construction
No mechanical locking of the charge



- Half or fully automated operation (automates + monitoring system)
- Change of heat-treatment atmospheres within minutes
- Several temperature ranges (1100°C – 1000°C – 850°C – 650°C)
- Cylindrical tight heat-treatment chamber (very long working life)
- Uniform, intense forced circulation of the furnace atmosphere
- No mechanical locking of charge, no intermediate charge support
- All modules with double jacket
- Great flexibility when changing temperatures

SYSTEM 250

Providing world-class industrial heat treatment equipment and control systems
We pride ourselves on the relationship we have built up over the years
We aim to customise our offer to meet your current needs and future requirements

Fields of activity

Consulting, development, research and manufacture of industrial furnaces

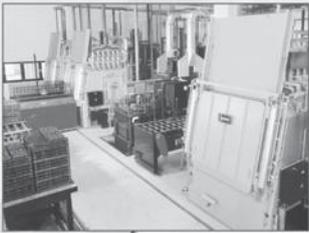
Our clients are active in the following manufacturing industries:

- Tooling & machining
- Automotive
- Aeronautics
- Medical & optical
- Fastener & spring
- Precious metal
- International heat treatment shops

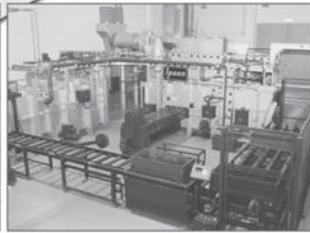


Codere prides itself on a very active sales and service network throughout Europe and Asia

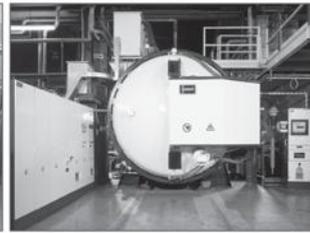
Codere has recently joined the Wolfson Heat Treatment Centre and is currently looking for local representatives in the UK and Irish market



Atmosphere Furnaces



Installation Technology



Vacuum Furnaces



multi-cell®

Total Solutions from one Source

- modular atmosphere and vacuum furnaces
- atmosphere and vacuum installation
- other processes: sintering, plasma, brazing, AvaC®
- measurement, regulation and control technology
- automation and control technology
- development of expert systems
- repair and refurbishment



IPSEN ABAR UK LTD · Unit 1A · Nechells Business Centre
 31 Dollman Street · Nechells · Birmingham B7 4RP
 Phone: 0121 / 3 59 59 - 59 · Fax: 0121 / 3 59 59 - 95
 E-mail: sales@ipsenabaruk.com · www.ipsen-international.com

Advertising in *Hotline*

Hotline is not just a vehicle for advertising from suppliers to the trade; advertisements from CHTA members are also welcome.

The 2007 single-insertion charges for black-and-white ads are:

- 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 these 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.

The deadline for booking ads in March's *Hotline* 107 is February 16th. For further details, contact *Hotline* Editor Alan J. Hick (tel: 0121 329 2970; e-mail: mail@chta.co.uk).

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**

Meltham Mills Engineering Ltd

Peter Fletcher, Marketing & Operations Director, describes the contract heat treatment activities of CHTA's newest member.

Meltham Mills Engineering (MME) operates two strands to its contract heat treatment business: surface finishing and furnace processing.

The fast-growing surface finishing activities include: induction hardening at medium and low frequencies; shot peening with field and directional air jet options; Aquablast water/grit cleaning; phosphating; and straightening.

Furnace facilities include sealed-quench and pit carburising/carbonitriding, and press quenching with 400mm capacity, supported by tempering, sub-zero treatment and comprehensive testing facilities.

A number of MME's customers use its in-house grinding facilities to receive heat-treated components ready for assembly.

The company has a long tradition of specialising in gear and drive-shaft heat treatment, derived from its roots as David Brown / JI Case tractor transmissions. These years of experience have developed techniques to minimise distortion in gears, ranging from synchro rings weighing a few grams to railway traction gears weighing hundreds of kilos, or deep induction hardening of complex profiles (splines and gear teeth) without inducing over-hardening or softening at pinch points.

In January 2006, MME purchased a new Mitutoyo CNC CMM that is used to map components before and after heat treatment in order to assess dimensional change. From these measurements, MME work with customers in order to help them remove excess stock before final grinding, reducing



Scan for dimensional change after heat treatment.

Market Movements

ANALYSIS OF QUESTIONNAIRE REPLIES RELATING TO 35 CHTA MEMBER SITES

"THIS QUARTER" =

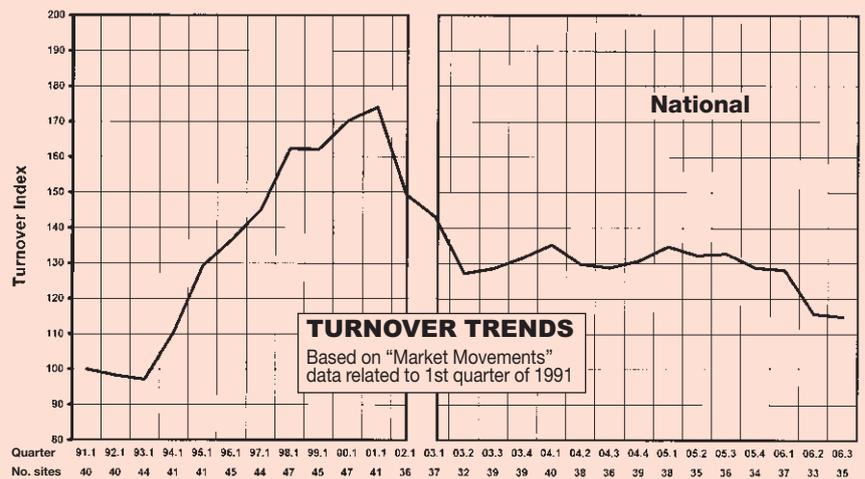
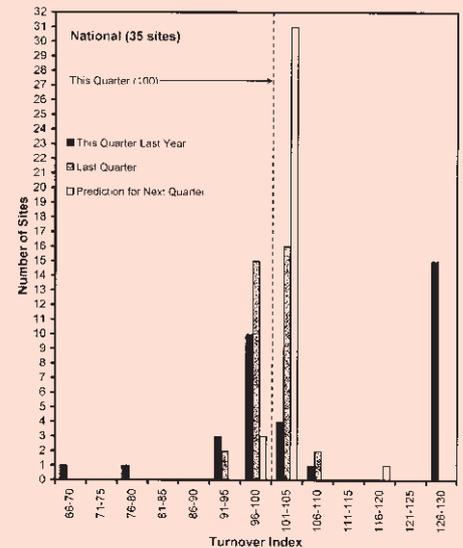
**1 JULY –
30 SEPTEMBER
2006**

= **TURNOVER INDEX 100**

National

OVERALL ANALYSIS
(35 SITES)

	Mean index
This quarter last year	110.8
Last quarter	100.7
Predicted next quarter	104.0



machining costs and times.

In conjunction with the leading UK university for mechanical power transmission, MME developed a new induction-hardening/shot-peening process that is expected to give a fifteen-fold increase in the service life of a flanged drive shaft for off-road vehicles.

It is MME's objective to work with their customers to reduce costs and improve performance of components and processes. MME see this as a win/win situation. The more competitive the customer remains, the stronger the whole supply chain.

MME contract heat treatment counts among its customers tier 1 and 2 international heavy automotive driveline manufacturers and hydraulic drive manufacturers. The company works with its customers to identify and implement the year-on-year costs-downs that are the norm in this sector. These range from long-term investments in research and capital investment to small continuous Kaizen-style increments. ISO 9001 is the minimum quality standard to which MME operates; in addition, SPC and bespoke quality standards are undertaken as required.

MME aims to enhance its customers'

competitiveness in today's fierce internationally-driven markets and to be a trusted partner in delivering long-term value.

For further information, contact Peter Fletcher on 01484 850361 or at mail@melthammills.co.uk.

STATESIDE STATS

NORTH-AMERICAN HEAT TREAT SALES UP AGAIN

After three-quarters of the year, participating members in the Metal Treating Institute's Monthly Sales Statistics Program recorded \$666.4million in sales in 2006, an increase of 8.8% over 2005 when they reached \$612.5million.

For the month of September, billings amounted to \$73.4million in 2006, a rise of 3.1% over September 2005's total of \$71.2million.

Editor's note: Over 160 companies actively participate in this monthly survey, out of a total of 266 North-American commercial heat treaters within MTI membership. According to MTI's website, there are another 267 commercial heat treaters in North America who are not members.