

The background of the advertisement is a photograph of an industrial facility. In the foreground, a large, cylindrical heat treatment furnace with a circular door is visible. To its right, there is a complex piece of machinery with various pipes, valves, and electrical components. In the background, more industrial equipment and structural elements of the factory are visible, including overhead pipes and support beams. The lighting is bright, typical of an industrial environment.

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INTRODUCTION

We are pleased to present to you the new and improved *“The Monty”* newsletter covering the latest news and trends in the worldwide heat treating industry. While our presentation and look have changed our content remains the same-the most up to date news and trends in the heat treatment industry.

As always, we look forward to your thoughts and comments.

Sincerely,



Gord Montgomery



Jordan Montgomery



Dale Montgomery

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HEAT TREAT NEWS

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ALD Receives Order for LPC System?

Mar 30, 2020



Now this is a very interesting rumor which started floating around just last week. We have been told that ALD in Hanau, Germany has received an order for a LPC (low pressure carburizing) system from a German auto parts supplier for e-drives. ALD is known around the world for their expertise in LPC systems. We will keep you posted if we hear more about

this rumor.



Ramada Aços/Heat Treating in Portugal

March 31, 2020



March 19 we had a summary about the heat treating industry in Portugal <https://themonty.com/heat-treating-in-portugal/> If you recall “The Monty” had planned on visiting the major heat treaters in Portugal this past week, however the COVID-19 put

an end to any possible in person visits. However the two largest heat treaters in the country were very forthcoming with photos and information and the result it that today we are able to introduce you to the largest heat treater in the country Ramada Aços.

This captive/commercial heat treater is located in the northern part of Portugal in the city of Ovar. *Ramada* has been in business for more than 75 years both as a heat treater and a distributor of steel for *Uddeholm*. The company has 13 vacuum hardening and vacuum nitriding furnaces all from French furnace builder *BMI* along with 8 sealed quench furnaces with oil quenching <https://www.ramada.pt/pt/servicos/acos-ligas/tratamentos-termicos.html> Interestingly enough at least some of the sealed quench furnaces are from a Brazillian manufacturer Brasimet which caught our attention. As you can see in our original article about heat treating in Portugal the vast bulk of the work being processed are molds for the plastic industry. We can't tell you a great deal more about the company except to say that with over 20 furnaces in operation and a history which stretches back 75 years this is a substantial heat treater by any standards.





Monday Morning Briefing

March 30, 2020



We will start off in North Carolina, USA with a story about commercial heat treater ***East Carolina Metal Treating*** expanding. Just a year ago we had this story about the company and mentioned that their division in Lynchburg, Virginia, Virginia Metal Treating would soon have a new building. Well the time is now, material has been delivered and construction is starting. We have this original story about the company along with a photo of the owner, Mr. Jamie Ramm; *“May 2019. In Raleigh, NC, USA we find a good sized commercial heat treat which has been in the news quite a bit recently, mainly because the President, Mr. Jamie Ramm keeps buying new equipment which turns into industry wide press releases. To find out what all the fuss is about we at “The Monty” decided to visit since the last time we were here was roughly 10 years ago. What we found was a 45,000 square foot building with roughly 70 employees and some real nice looking equipment which includes a row of vacuum furnaces, batch IQ furnaces, Nitrex nitriding furnaces and some Induction thrown into the mix. The company was founded back in 1976 and Jamie has been here for over 30 years. We mention about the company expanding-that is only partly true. The company has a second location, Virginia Metal Treating in Lynchburg, Virginia with 10 employees and this is the location expanding. Land has been purchased and a brand new structure of 20,000 square feet is in the works.”*



Well this isn't good-another bad heat treating job; "Hoods that unexpectedly open have caused a recall of 2,000 model year 2020 Chevrolet Silverado 2500 and 3500 and 2020 GMC Sierra 2500 and 3500 trucks with hood latch striker problems. General Motors says the striker wires may break because they *weren't properly heat treated*, allowing the hoods to open while driving. The hood striker wires can become brittle due to improper heat treatment, and the only possible warning a driver might have is the sound of striker wires rattling when they partially fracture. GM discovered the problem in October 2019, when engineers found a fractured hood latch striker wire on a company-owned 2020 GMC Sierra 2500. The following month, engineers found another fractured striker wire on another truck, causing the automaker to open an internal investigation. Hardness testing was conducted on the first striker wire and engineers confirmed the wire's metal hardness was far higher than specifications. The hood striker assembly supplier informed GM it used an alternate supplier to heat treat two batches of striker wires in January 2019." Recently we mentioned how in house heat treater *Poclair Hydraulics* in Wisconsin, USA was selling off an *ECM* vacuum carburizing system that the company has operated for a number of years. The system is still available-and the reason the company is looking to sell? They are contemplating a switch to Nitriding.



Last week we told the story of *Metex Heat Treat* in Ontario, Canada which has almost the largest capacity in North America for heat treating fasteners ordering another mesh belt furnace line. This was a 7200 pound per hour monster and it was purchased from a Canadian manufacturer by the name of Can Eng. We're not going to dwell on the *Coronavirus* too much today but we do want to mention what a German industry supplier is doing to reduce the risk of transmitting the virus-different shifts. Basically the company is now operating two shifts 5:00 - 12:30 and 1:30pm - 9:00pm which reduces the number of people in the plant at any given time. Interesting idea. While we are talking about it though we ran across this company in New Jersey, USA who is offering to debind and sinter parts at no charge if they are needed in the medical industry; *"Debinding and sintering experts DSH Technologies, a sister company of Elnik Systems, LLC, headquartered in Cedar Grove, New Jersey, USA, is offering its debind and sinter services at no charge to those working to produce additively manufactured metal parts in response to the coronavirus (Covid-19) crisis. DSH Technologies has the capability to water, catalytic and solvent debind parts that have a first stage binder as well as debind and sinter any metal parts built with a single stage binder, such as Binder Jetting."*



Recently *Hot Isostatic Pressing* has been in the news quite a bit recently because several companies have made large investments in the technology.

Two that recently invested now have NADCAP approval; *“Stack’s Hot Isostatic Pressing (HIP) Facility Completes Nadcap Audit; We are proud to announce we have completed our Nadcap audit for our hot isostatic pressing facility in Albany, Oregon. This diligent and meticulous process would not have been completed without the hardworking staff at our Albany site, and our partners, Quintus Technologies and Messer Group. We are expected to be officially Nadcap accredited in mid-late April. Keep checking back for more information.”*



And another; *“Paulo is proud to announce the addition of Hot Isostatic Pressing to the Nadcap Scope of our Cleveland Division. The Cleveland plant has held Nadcap for heat treatment, brazing, and testing for many years. The recent investment adding HIP to our portfolio of services was driven by the market need for more Nadcap approved sources for HIP. Throughout the startup phase and into early production work of non-Nadcap customer work our Quality and Operations teams knew the goal was Nadcap accreditation. In early December a three-day on-site audit was conducted which resulted in approval.”*



Ford vs; Ferrari. This final item today has a very loose connection to heat treating at best but we still found it interesting. The recent Matt Damon movie, Ford vs; Ferrari is about Ford's drive to beat rival Ferrari and win "*Lemans*" which they did in 1966 with a Ford GT40.

Only a limited number of these cars were ever built and one is owned by a commercial heat treater in Santiago, Chile by the name of "*Tratamientos Térmicos Panamericana Norte*". We have this March 2019 photo of Dale Montgomery of "*The Monty*" standing beside the GT40 and also a picture of the heat treat plant. The moral of the story? There is very good money in commercial heat treating when you have no competition.



HK 2020

Werkstoffe – Prozesse – Produkte
Materials – Processes – Products

HK 2020

20 – 22 October 2020

Cologne - Germany

Materials – Processes – Products

The organizers of the HK are confident that the event will take place in Cologne at the end of October and that the restrictions due to the Corona pandemic will have been lifted. This year, AWT is giving the event a new, fresh profile: the scientific congress will be expanded thematically and invited expert lectures on contemporary materials science trends will be presented. Additionally, also a practitioners' conference with a special focus on industrial practice in the hardening shop will be established.

Opening hours of the exhibition:

Tuesday, 20 October: 13 – 18 Free Entrance for visitors!

Wednesday, 21 October: 9 – 18

Thursday, 22 October: 9 – 16

Congress time:

Wednesday, 21 October: 9 – 18

Thursday, 22 October: 9 – 16

The final programme will be published on the website <https://www.hk-awt.de> in the middle of May. The ticket shop starts in the beginning of June.

Additional news on HK 2020:

- The congress is moving to the exhibition hall.
- Tuesday, 20 October, first day of the exhibition, "Bonus Day Exhibition", opening hours: 13.00 to 18.00. The admission for visitors to the exhibition is free!
- Two-day compact congress event on Wednesday and Thursday, 21/22 October. The scientific part will be simultaneously interpreted (German/English vice versa). The practitioners' conference HK will be held in German language. The programme jury consists of Prof. Olaf Kessler and Peter Krug (for the scientific part) and Dr. Jörg Kleff and Dr. Klaus Löser (for the practitioners' part).

- Meeting of the AWT community on Tuesday afternoon at the AWT booth at 16.00, followed by the AWT general meeting at 17.00.
- New "all-round carefree package" with the complete stand "HK-Premium" comprising stand construction, furnishing, cleaning, W-LAN; parking tickets and admission tickets

For further questions and booking exhibition stands, please contact Mrs. Müller at +49 421 3972850, contact@congressmanagement.info.

"At the HK exhibition, ALD will not only inform about its latest products, processes and services. Conversely, we also use the opportunity to inform ourselves about the latest trends and developments. We always have employees, especially in sales and development, who also attend the congress event. Of course, we also use the transferable company ticket. This gives our stand personnel and day visitors the opportunity to alternately sniff congress air. For our R & D management, participation in the congress is a "must"."



Dr. Klaus Löser, Head of Heat Treatment Division of ALD Vacuum Technologies GmbH



COVID-19 And What We Learned About “Essential Businesses”

Mar 26, 2020



We at “*The Monty*” would have to say that it is probably very fortunate that we have never had to put much thought into what constitutes an essential business-the past few days though have certainly educated us. From far and wide we have been receiving notices from US companies announcing that in spite of widespread forced shut downs due to the COVID-19 virus they will be remaining open due to their designation as either an “*essential business*”, “*essential service*”, “*critical manufacturer*”, “*Critical Manufacturing Supplier*” and a half dozen other designations. The designations refer to the fact that these companies provide services to the defense, food, energy or chemical industries to name a few. Of particular note is the number of commercial heat treaters who have these designations, *Advanced Heat Treat Corp.*, based in Iowa, *Braddock Metallurgical* in the Southeast, *National Heat Treat* in Texas and *Stack Metallurgical* in the Northwest are a just a few that come to mind. While this is one heck of a way to find out you are needed it certainly puts a perspective on how important our industry is.



SECO/WARWICK New Orders

Mar 26, 2020

“SECO/WARWICK received an order from a machine-tool manufacturer for two vacuum heat-treatment furnaces. The manufacturer purchased a multi-chamber vacuum furnace with oil quench and a high-pressure gas-quench vacuum furnace for its recently created captive heat-treat department. All of

the necessary auxiliary equipment, such as chilling water storage and pumping, were included in the package. As part of the sale, SECO/WARWICK will create and deliver process recipes for the company to make the transition to in-house heat treatment as efficient as possible. The CaseMaster Evolution (CMe), is a multi-chamber carburizing furnace with integral gas or oil quench. The Vector single-chamber, high-pressure gas-quench vacuum furnace is capable of quench pressures up to 15 bar and can perform a variety of heat-treat processes.”



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FIND OUT MORE

In House Heat Treating-Sutton Tools Australia

Mar 25, 2020



A regular feature of “The Monty” is our articles profiling manufacturing firms which do in house heat treating, today we feature an Australian company by the name of Sutton Tools. The best background from the company comes directly from their website <https://www.suttontools.com/>

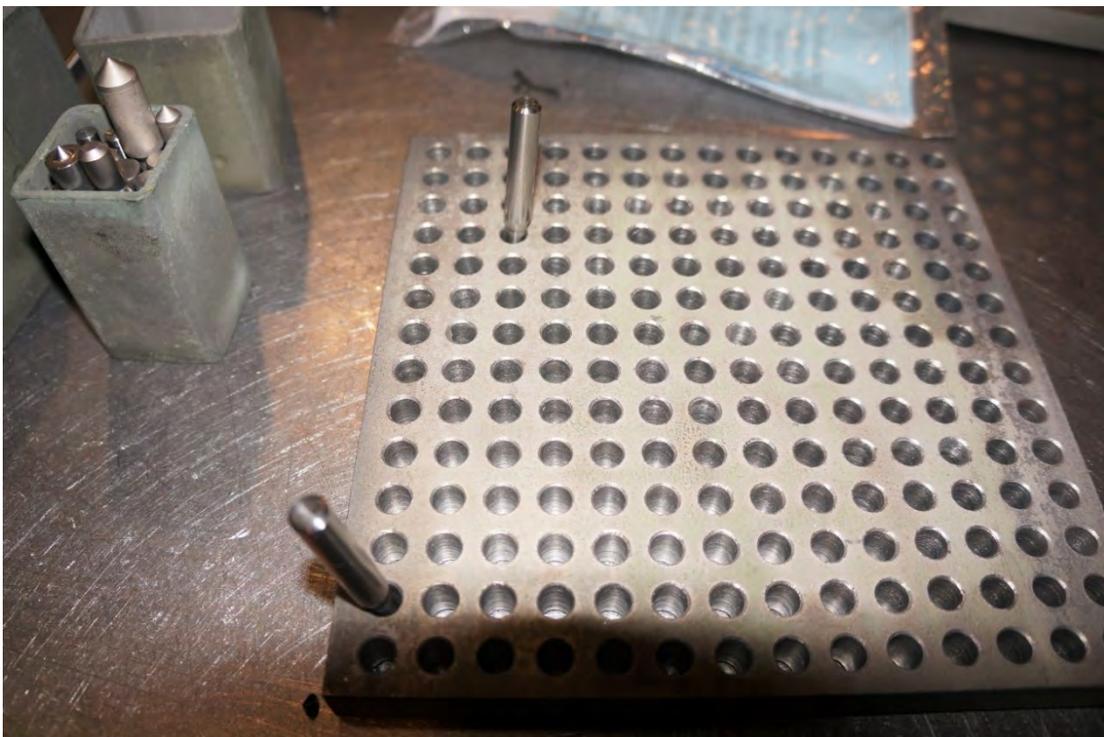
“Sutton Tools manufactures cutting tools at two sites across Victoria, both for the domestic market and for export. The bulk of general production occurs at our head office site at Thomastown, in Melbourne’s northern suburbs, with more specialized operations centred at our Maryborough facility. We also have overseas production plants in Auckland, New Zealand, and in the Netherlands.”



Sutton Tool’s state-of-the-art production processes begin with raw material preparation. High-speed steel is imported from France and Austria, as Sutton Tools has found the quality of this European-manufactured steel is superior to raw material sourced from Asia. This steel is processed to workable length & diameter, then turned, using computer controlled machines that are able to complete a number of turning operations in a single manufacturing stage.

While Sutton Tools supplies tools to a broad spectrum of industries – including general manufacturing, electronic manufacturing, automotive, medical, mining and power generation – most advancement in material technology it experiences are occurring in the aerospace, defence and oil/gas industries. The development of so-called ‘super alloys’ for these sectors is constantly pushing material performance boundaries. However, the tougher these materials become, the tougher the tools need to be to work the new generation of alloys.”

Sutton does their heat treating through a division by the name of **Surface Technology Coatings** located adjacent to the manufacturing facility in Thomastown, a suburb of Melbourne. The heat treating department consists of 3 large Abar Ipsen vacuum furnaces with quenching up to 12 bar and an Ion Nitriding system. While Surface Technology Coatings is dedicated to heat treating and coating tools for their own production they also offer commercial heat treating and claim they have the only commercially available Ion Nitrider in the country which we have no reason to doubt. Interestingly enough the Ion Nitrider is a **“NitroPlas”**, a brand or name we are not familiar with. These photos give you an idea about Sutton’s products and also a view of the heat treating department. We can say it is clean, well organized and certainly portrays an image which Sutton should be proud of.



Accurate Brazing, Greenville, SC, USA-“HIP” Installation

Mar 25, 2020

In early 2019 Accurate Brazing announced that they were joining a growing trend around the world by investing in a Hot Isostatic Press. The decision proved to be such a success that in November of 2019 the company announced they would be adding a second system (the November 2019 press release is below). Things are proceeding as they should and these two photos show the installation as of just a few days ago. The third picture shows part of the vacuum department.



“Västerås, Sweden, November 19, 2019 – Accurate Brazing, a full-service provider of specialized heat treating solutions, added Hot Isostatic Pressing (HIP) to its thermal processing capabilities earlier this year. “Based on overwhelming feedback from the marketplace, we are pleased to be moving forward with our second Hot Isostatic Press from Quintus Technologies,” says Steven Francis, president of Accurate Brazing. Both presses are of the model QIH 122 M URC®. They are equipped with the Quintus proprietary uniform rapid cooling (URC) feature, which combines HIP and heat treatment in a single process. This process is called High Pressure Heat Treatment (HPHT), and it streamlines the steps involved in material densification and heat treatment. This innovative approach also enables all processed components to cool uniformly, resulting in minimal thermal distortion and non-uniform grain growth. “The Quintus technology allows us to shorten lead times, improve product metallurgy, and eliminate some additional outside operations, which is very attractive to our customers,” says Mr. Francis. Accurate Brazing serves the aerospace and power generation industries, as well as other sectors that demand high quality and short lead times. Many of Accurate Brazing’s customers utilize additive manufacturing (AM). “The versatility of the Quintus units makes them well suited for our service business model,” says Mr. Francis.

The new QIH 122 M URC® will join the first Quintus press and the rest of the state-of-the-art equipment operating in Accurate Brazing’s newest facility in Greenville, S.C., USA. The company’s AS9100 quality management system and Nadcap accreditation attest to its ability to meet the stringent needs of its customers. Quintus will install and commission the new press. Accurate Brazing has also joined the Quintus® Care program, which ensures flawless press operation and optimized functionality at a fixed annual cost. Quintus Care also provides access to in-depth technical expertise to support successful customer applications. Both Quintus presses are configured as Quintus Modularized Solutions, which reduces infrastructure investment and saves space and energy. Both presses offer a work zone of 26.0 inches (660 mm) in diameter and 68.9 inches (1,750 mm) in height. They operate at a maximum temperature of 2,552°F (1,400°C) and a maximum pressure of 30,000 psi (2,070 bar). “The need for Hot Isostatic Pressing is steadily increasing, and we’re pleased to help Accurate Brazing meet this demand,” says Jan Söderström, CEO of Quintus Technologies. “Quintus Technologies has led the industry in advanced Hot Isostatic Pressing technology for over 60 years, so Accurate Brazing and its customers can rest assured that they are using the best equipment available.”



About Accurate Brazing; Headquartered in Goffstown, N.H, Accurate Brazing and Vacuum Heat Treatment has been creatively solving challenges in complex and detailed heat treating and brazing applications since 1989. It has a long history of serving the needs of aircraft, ground turbine and power generation markets, along with other industries that demand high quality and often operate with aggressive lead times. The company's original New Hampshire operations have grown to include three additional East Coast locations: two facilities in South Carolina and one in Connecticut. Accurate Brazing is a subsidiary of Aalberts N.V., one of the largest thermal processing companies in the world. Committed to adaptation and innovation with a clear focus on customers, Aalberts employs approximately 16,500 people at more than 150 locations in 50 countries across the globe. Read more about Accurate Brazing: www.accuratebrazing.com"





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ALD's new Sales Team for Vacuum Heat Treatment in North America

Mar 25, 2020

(Editor's Note; Next week "The Monty" will be featuring an interview with Dr. Klaus Loeser, VP of ALD)

*"ALD welcomes **Andrew Chan** in the position of Sales and Applications*



*Engineer in the sales team for Vacuum Heat Treatment Furnaces and Equipment. Together with Ronald Creed (Director of Sales North America) and **Manuel Rippl** (Product Manager North America) he is part of our new sales team for the US, Canada and Mexico. The close cooperation between ALD North America and the German HQ ALD GmbH is reinforced by frequent visits of the German team – Joachim Boss (Director Sales Heat Treatment) and Natalie Beck (Product Manager Heat Treatment) – to the US, teaming up with our US colleagues to provide best expertise in furnace technologies and processes to our vacuum heat treatment customers.*

Andrew Chan earned his Bachelor of Science in

Materials Science and Engineering from Drexel University in Philadelphia in 2009. His experience with high technology equipment sales and applications along with his materials science and engineering background makes Andrew a perfect match for his new position with ALD. Andrew joins us after nearly ten years sales experience in the vacuum metallurgy markets and previous experience in quality management of day to day operations testing heat treated samples through processes included carburizing, nitriding, carbonitriding, annealing, quench and temper, and niche heat treatment and surface treatment processes.



At the same time ALD North America's Customer Service Organization continues to expand in key geographical areas with Field Service Engineers and Technical Experts located in Northern California, East Windsor CT, Charlotte, NC, Western NY and in the South East Technology Corridor where we have several large installations of equipment supporting automotive, energy and aerospace customers.

About ALD Vacuum Technologies GmbH: ALD Vacuum Technologies GmbH is a leading manufacturer of plants and systems for the thermal and thermo-chemical treatment of metallic materials in solid and liquid form and one of the market leaders in the metal and steel industry. The product range includes heat treatment systems for hardening high-precision engine and transmission components and tools, as well as vacuum systems for melting, casting and remelting metals and alloys, metals for solar cells, special coating systems for turbine blades in aviation, atomization systems for the production of high-quality metal powder. ALD employs about 500 people at its headquarters in Hanau, Germany, and about 900 people in 10 countries worldwide. ALD is part of AMG Advanced Metallurgical Group N.V., Netherlands, a public listed technology company with leading market position and approximately 3,300 employees.”

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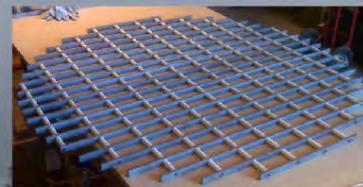
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AFC-Holcroft Names New Managing Director For European Operations

Mar 24, 2020

This could also be called “*Big Changes at AFC-Holcroft Europe*” as this news item is actually two items, the first about the new managing director of the company and the second about the company moving its European satellite office. We rummaged through our photo files to find a suitable picture and came up with this one. Taken at *Thermprocess* in Dusseldorf, Germany last June we see *Marek Kedzierzynski* on the far left and *Mark Ruetsch* fourth from the left in the back row.

“AFC-Holcroft, headquartered in Wixom, Michigan, USA, has named Marek Kedzierzynski their new Managing Director of European Operations. Kedzierzynski secedes the outgoing Managing Director for Europe, Marc Ruetsch, who plans to retire mid-year. Kedzierzynski will report to Tracy Dougherty, Vice President of Sales for AFC-Holcroft. Along with a Master of Engineering degree (M.Eng) received from University of Zielona Gora in Poland, Kedzierzynski is currently pursuing a PhD from West Pomeranian University of Technology in Szczecin, Poland. Kedzierzynski has focused on engineering and heat treating exclusively throughout his career, beginning with his start as a design engineer while still in college, while working his way thru several technical roles with major furnace equipment suppliers, and eventually moving into Sales and related activities. Upward momentum and increasing responsibilities led to high level roles including Director of Furnace Sales and Commercial Director/Member of the Board, before joining AFC-Holcroft in 2019. In addition, Kedzierzynski owned and operated his own heat treat consulting business while pursuing his university studies. He is fluent in Polish, English and Russian languages.

Kedzierzynski, says, “It is an honor to take the reins of AFC-Holcroft’s European operations from my distinguished colleague Mr. Marc Ruetsch. I am grateful to have this opportunity to join AFC-Holcroft in this role, and be able to use my education, technical know-how and sales experience on a daily basis.” He added, “I am honored to be selected to be a part of the AFC-Holcroft team.” Along with the new title, the physical office of AFC-Holcroft Europe has moved from Switzerland to Poland. A separate formal announcement will include the new address and telephone information.

About AFC-Holcroft: *AFC-Holcroft, founded in 1916, is one of the leading manufacturers of industrial furnace systems used in the heat treatment of ferrous and non-ferrous metals. The company has approximately 120 employees globally and has been part of the AICHELIN Group since 2016. AFC-Holcroft produces high quality thermal processing equipment used in the*

production of metal components, and provides related aftermarket service. Customers include both captive and commercial heat treaters who supply components to various industries such as automotive, heavy truck, industrial bearings and gears, railroad, fasteners, mining, aluminum heat treatment, and others. The company is headquartered in Wixom, Michigan, USA and has its own subsidiaries in China and Poland as well as a global partner network in Australia, Brazil, India, Mexico and Spain. www.afc-holcroft.com”



AFC-Holcroft Moving its European Satellite Office

“AFC-Holcroft, headquartered in Wixom, Michigan, USA, will be moving its European satellite office, presently located in Delémont, Switzerland, to Swiebodzin, Poland. The move was necessitated by the pending retirement of Marc Ruetsch, the current Director of European Operations, who has announced he is stepping down in mid-2020. The new Director of European Operations, Marek Kedzierzynski, will be based out of Poland, and all activity related to AFC-Holcroft’s business in Europe will continue seamlessly from this new location. The new address and telephone numbers are as follows:

AFC-Holcroft, L.L.C.

Plac Wolnosci 5 Mailbox 56

66-200 Swiebodzin

POLAND

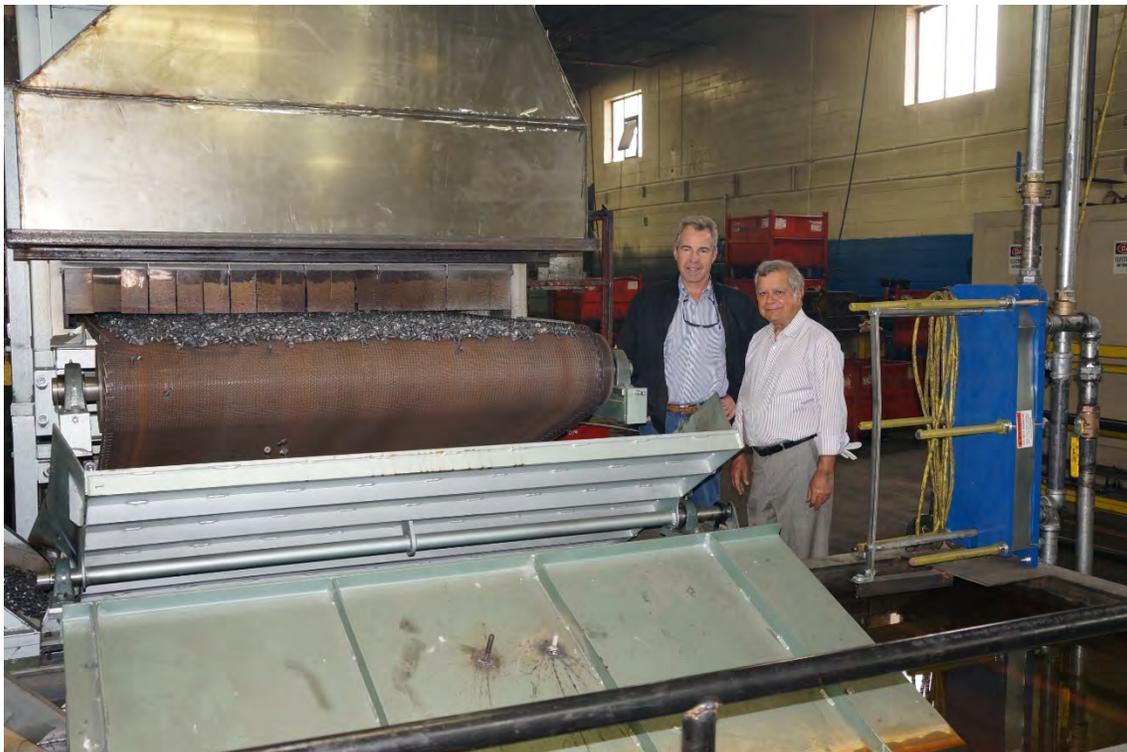
Telephone +48 68 41 61 776

Metex Heat Treat Orders Mesh Belt Furnace Line

Mar 24, 2020



Commercial heat treater Metex Heat Treat in Mississauga, Canada is bucking the trend these days with a major new investment. Just last week the company placed on order a brand new 7200 pound per hour mesh belt furnace line. The gas fired line with oil quenching and state of the art controls will be provided by a Canadian company. Metex is a family owned business founded by the President and owner Mr. Surjit Bawa Metex which has grown to be one of the largest commercial heat treaters in North America for fasteners. Currently the company has 7 mesh belt furnace lines ranging in size from 1,000 pounds per hour up to 6,000 pounds per hour with a total capacity of over 300,000 pounds per day AND this is before this newest addition. Interestingly enough the demand for their continuous heat treating is so strong that the company has asked for an expedited delivery. This photo shows the owner of the company Mr. Surjit Bawa with Gord Montgomery in front of one of the lines.



“The Monty” Exclusive

Mar 24, 2020

For almost 25 years “The Monty” has been printing the most up to date news and trends in the worldwide heat treating industry and a very large percentage of this news will only be found on “The Monty”-something we have always prided ourselves on. Sharp eyed readers have been noticing that recently we started adding a “Monty Exclusive” logo to those items which will not be found on other websites. So if you see this logo, you know it is the most up to date and exclusive news in the heat treatment industry.



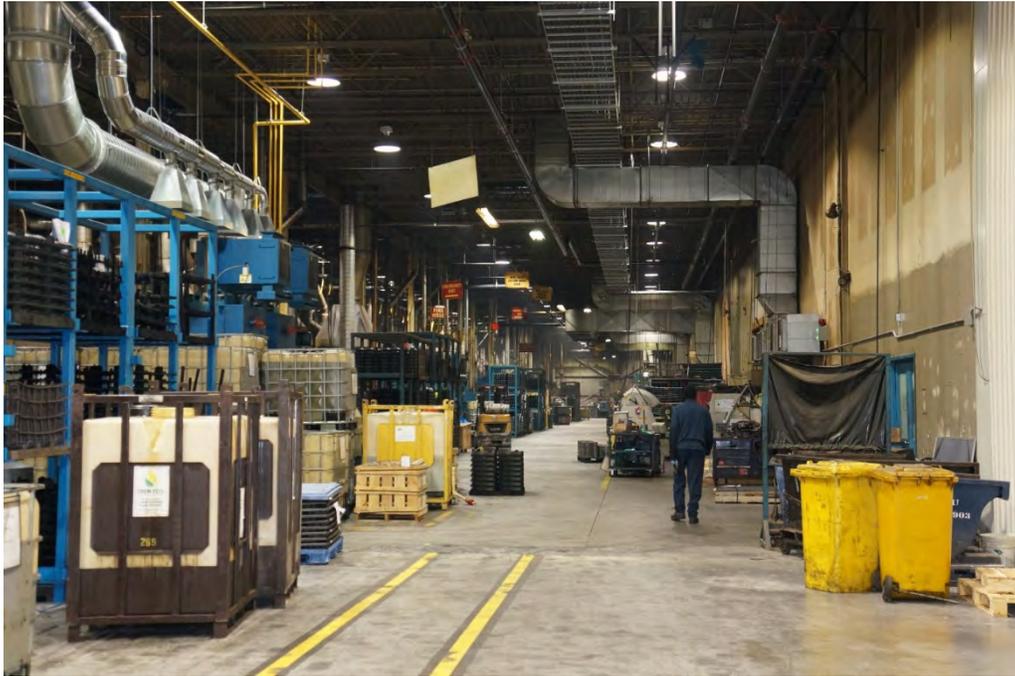
Monday Morning Briefing

Mar 23, 2020



To start off the March 23, 2020 “Monday Morning Briefing” we are going to get all of the bad news out of the way first, namely everything to do with the “corona virus”. To start off it is obvious that everything to do with the heat treating industry in North America is slowing down in a hurry. As an example at the time this was posted the governors of *California* and *Illinois* had both issued “*stay at home orders*” which would appear to mean all manufacturing is effectively shut down. This means captive and commercial heat treaters and many industry suppliers will not be in production for at least two weeks. The virus has had some very strange effects including prompting auto parts giant “*Linamar*” to consider making ventilators in addition to auto parts as we can see in this news item; “*The CEO of Linamar says the shutdown of automakers will have an effect on its operations, while at the same time the company hopes to shift its focus on manufacturing much-needed ventilators for the health care sector. The federal government is working with manufacturers to boost production of medical equipment and supplies to handle the demand in the face of the COVID-19 pandemic. In a statement emailed to GuelphToday on Friday, Linamar CEO Linda Hasenfratz said the company is actively investigating the feasibility of manufacturing ventilators, working with a variety of partners. “Linamar is working closely with government, industry experts and other manufacturing companies to find a way to expedite expanding capacity for ventilators,” said Hasenfratz. “It is a top priority for us at the moment and one we are highly focused on.” In early March, Linamar established a task force to deal with COVID-19 and is now executing on an action plan.*” Can you picture this

Linamar facility in Guelph, Ontario with 25 AFC-Holcroft batch IQ furnaces making ventilator parts instead of transmission parts-we can't.



Continuing on with “corona virus” news we see that *Metal Treating Institute* in the USA, an organization of many of the commercial heat treaters in the US and Canada is cancelling their spring meeting in Sonoma CA., because of the virus. Along the same lines MTI published this survey about what their members think of this crisis.

How are you feeling about the COVID-19 pandemic?



- 10%** ● Not very concerned. I feel it's similar to a regular flu season.
- 28%** ● Somewhat concerned. I think it's serious but not as long term as portrayed.
- 62%** ● Very concerned. I think we should be taking all the actions & steps as instructed.

From *Europe* we are looking forward to a very good news press release about a major, major furnace system order being placed. We hope and expect to have something in the near future and you will read about it on “*The*

Monty” first. These days we need more news items about furnace orders being placed and this one should fit the bill. Speaking of new orders we turn to the USA and Colombia for this one. The pictures below show a brand new *Plasma Nitrider* built by *Ion Heat* in Colombia which is in the process of being shipped to a customer in the USA. While we can’t name the customer yet we certainly will in the next few weeks. Ion Heat is a furnace manufacturer who we didn’t hear much about just a couple of years ago-that has changed as they ship more systems. By the way this system will be set up in a pit which explains why the HMI is so high in the picture below.



From **McLaughlin Furnace Group** we had this press release back in May of 2019; *“McLaughlin Furnace Group Announces Pusher Furnace Order. McLaughlin Furnace Group based in Fort Wayne, Indiana is pleased to announce that they have received an order from a major truck component manufacturer for a two row, gas fired pusher furnace. The president and owner of the company Mr. Jeff McLaughlin had this to say about the order “We are very pleased that such a substantial manufacturer should have so much confidence in our ability to provide a state of the art system on time and on budget. This is a real milestone for our company and reinforces the fact that McLaughlin Furnace Group has grown to be one of the largest and most diversified in the North American furnace manufacturing industry”. McLaughlin Group expects the furnace to be installed and in operation the fourth quarter of 2019.”*

The end customer as mentioned was **Volvo Powertrain** in Maryland, USA and McLaughlin has this update; *“McLaughlin Furnace Group is pleased to announce that this furnace installation is now complete with the furnace meeting all of the customers criteria and requirements, on time and on budget.”* The photos below show the partially completed project at Volvo and also Jeff relaxing after the job was completed.





Meritor Chicago (formerly AxleTech) has some surplus heat treating equipment. This auto parts manufacturer and captive heat treater maintains a large facility in the Chicago area, however some of the equipment has not been used for many years and is on the used market. While this includes some highly desirable *Surface Combustion* 36 X 72 X 36 batch IQ furnaces, they are older vintage and have not been used for quite some time which in this market is going to limit their desirability.



And to round things out we go back to a news item we had a week about how shipments from *China* to the rest of the world are resuming as factories there resume production. Of most interest to heat treaters are moly and alloy products sourced from the country. As it turns out it is entirely true that deliveries have resumed and are very much back on track-ahead of schedule in some cases. A small but very surmountable obstacle that we just learned about is that as shipments have resumed airfreight shipping costs have gone up slightly because of reduced flights from China meaning less competition. Well that didn't occur to us although it should have-time will take care of this.



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Nitrex - COVID-19

Mar 20, 2020

“Dear Nitrex Community, At Nitrex, the safety and well-being of our communities, employees, our customers, suppliers and stakeholders is always our priority. We recognize the important role we play in providing our Nitrex Heat Treating Solutions through our three divisions - Nitrex Turnkey Systems, Heat Treating Services, United Process Controls - including our new colleagues from G-M Enterprises, during this critical time. We are actively monitoring the COVID-19/Coronavirus situation and taking steps to help keep our communities safe. Herein, we share with you the steps we are taking.

***Aligning with public health authorities.** We have established a team dedicated to respond to this pandemic and have prepared Business Continuity Plans to ensure the continuation of products, services and customer support. We are closely monitoring updates regarding COVID-19 from global organizations such as the World Health Organization as well as various public authorities in each of the regions we operate. We continue to seek guidance from these agencies, public health officials and government agencies on an ongoing basis.*

 **WE ARE HERE FOR YOU.**

We are taking actions regarding COVID-19.

***Protecting the Nitrex community.** As our employees interact with customers, suppliers and the general public, we have taken steps to limit exposure to the virus. Strict restrictions were put in place on both international and domestic travel, limiting visitors inside our facilities, cancelling large-scale event attendance, reducing face-to-face meetings to a minimum, providing work-from-home solutions, and continue to reinforce safe behavior in every*

environment – from our industrial plants, sales offices to our administrative offices, we are promoting deep- cleaning and routine disinfection. Similarly, Nitrex has designated a COVID-19 ‘Point Team’, consisting of our top global leaders, who come together daily to discuss new efforts and best practices to effectively minimize exposure risk while also maintaining safe business operations.

Assisting our employees. We are in daily communication with our employees reminding them about the importance of good hygiene, providing health education and support whenever needed. We encourage employees who feel ill to stay at home and we have specific quarantine and communication procedures in place should an employee be diagnosed with COVID-19 or is asked to self-isolate by public health authority. Moreover, Nitrex provides comprehensive benefit packages to support employees during this period.”

Heat Treating in Portugal

Mar 19, 2020



Next week “*The Monty*” was to have visited Portugal for pleasure mixed with a little bit of business-the corona virus has put a stop to that. In lieu of a visit we will give you this summary of the heat treating market along with some pictures from one of the largest heat treaters in the country, “*TTO*”.

We are sure it will surprise no one that the heat treating market in Portugal is a small one with the vast bulk of the heat treating market revolving around the manufacturing of molds for the plastic industry. Apparently (and this was news to us) Portugal for hundreds of years was a hotbed of glass making which required molds, over the years this translated into the manufacturing of molds for the plastic industry. To give you an idea this relatively small country has over 500 manufacturers of tools and molds which are subsequently shipped all over the world. Now as we all know tooling and mold making requires some pretty high end heat treating which means that for a relatively small market there are quite a few very advanced vacuum hardening and vacuum nitriding furnaces.

In Portugal the largest captive/commercial heat treater is a company by the name of *Ramada* who has been in business for more than 75 years both as a heat treater and a distributor of steel for *Uddeholm*. The company has roughly 20 vacuum hardening and vacuum nitriding furnaces all from French furnace builder *BMI* along with 3 carburizing furnaces with oil quenching <https://www.ramada.pt/pt/servicos/acos-ligas/tratamentos-termicos.html>



A second major heat treater is *ThyssenKrupp* which probably needs no introduction. Their steel centre is complimented by their heat treating department which consists of a number of older Ipsen vacuum furnaces from the 1980's along with some newer plasma nitriders. While they have been around for quite some time they are probably half the size of their main competitor Ramada.

The newest and most aggressive heat treater in the country is a company by the name of *TTO* <http://tratamentostermicos.com/pt/> The company is a manufacturer of components for molds and they entered the heat treating market in 2005. Over the years they have continued to add new furnaces with the end result that they now have 12 vacuum hardening and vacuum nitriding furnaces all from an Italian company by the name of *Coffi*. This is in addition for several carburizing lines which service the components side of the business. Unfortunately at this date we can't give you any first hand insight, this will have to wait for another day. What we did learn though in our preparations for Portugal is that while it is a small market, it appears to be a very sophisticated one and from the photos we have seen the heat treating will rival most areas of the world.





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Commercial Heat Treating in the Age of the Corona Virus

Mar 19, 2020

Well we haven't seen this since the last great disaster, the Great Recession back in 2009. We had hoped to never see a letter like this again as it tells us about the turbulent times we are living in. However like 2009 this too will pass.

"Dear Valued Supplier,

We are in a time of unprecedented change and volatility. The risk of COVID 19, the market crash, and the impact on the price of oil, have made our market conditions nearly impossible to operate in. XXXX Heat Treating, like many other companies, is unable to meet break even rate in these current conditions. Our customers have reached out for assistance to minimize their losses. We are now asking for your support as well in these challenging times. Effective immediately, XXXX Heat Treating is requesting a minimum 15% discount on all services/items purchased from you. This is a temporary request during these extraordinary times. Our goal is to partner with our key suppliers during this time to work towards stabilizing all business operations. We all want to survive to a point of market stability. It is our belief that this is a fair and reasonable approach that gives XXXX Heat Treating and our customers a fighting chance to remain financially viable as we work through these unprecedented challenges. Please respond back with your response/proposal by end of day, March 24th, 2020.

Thank you in advance for your support and understanding. If you have any questions, don't hesitate to contact me directly. I want to thank you for your support and cooperation in this challenging time. Please stay safe."



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The image shows a large industrial furnace in a factory setting. The furnace is blue and white, with various pipes and components. The background shows other industrial equipment and a concrete floor.



Atmosphere Furnaces

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The image shows a large industrial furnace in a factory setting. The furnace is red and white, with various pipes and components. The background shows other industrial equipment and a concrete floor.

In House Heat Treating-VCST, Leon, Mexico

Mar 19, 2020

VCST is a division of the BMT Group of Belgium, a company which supplies gear drives around the world. Our interest with the company today is in their Leon, Mexico facility which we visited just over a week ago. This is a gear company, a gear company which supplies the automotive, rail and industrial markets and who heat treat their products in house. It should come as no surprise to anybody that company chose the most common and versatile style of furnace in the world to do their heat treating-standard batch IQ furnaces. Designed and built by Wixom, Michigan, USA based AFC-Holcroft the firm has 5 batch IQ furnaces with working dimensions of 36" X 48" X 36" all gas fired with endothermic atmospheres. In the past the company has had some requirements for press quenching however as we observed they have never actually brought this in house. What we saw was a clean, well run company overall with a quite impressive heat treating department. These photos will give you a better feel for VCST.



Javier Infante, Furnace Operator, Juan Gutierrez, Maintenance Manager



Juan Gutierrez, Maintenance Manager, VCST, Salvador Murillo, Operations Manager, SSi





Emitec Auction, Fountain Inn, SC, USA

Mar 19, 2020

A news item we had recently spoke about an auction featuring some surplus heat treatment furnaces being held at a company by the name of “Emitec”, in South Carolina, USA. The auction was to be held Wednesday March 18th (yesterday) but it like many things has been sideswiped by the corona virus. Guess at least for the immediate future live auctions are a thing of the past. *“As part of our Monday Morning Briefing we had a mention about an auction at a company by the name of “Emitec” in South Carolina which featured an Elinor mesh belt furnace and a Rohde chamber furnace (if you have an interest in these items scroll down to February 17th on this page). We’ve learned a bit more about the history of this plant since then and it can be found below. Interestingly enough while the original name of the company was Emitec, more recently it was known as Continental. While this was a fairly small facility it had a reasonably large heat treat as it also included 3 vacuum furnaces which are now on their way back to the parent company in Germany.”*

“Continental Automotive is closing its Fountain Inn facility, citing an inability to compete due to increased pressure related to international tariffs levied at the federal level. The Nelson Drive facility, which employs 40 people, is set to close in December. All 40 are expected to be left without jobs with Continental. As part of a release, company leaders stated that the “consolidation of manufacturing operations to other international locations will improve their manufacturing performance, maximize utilization of equipment

and resources while still being able to support the U.S. market with cost-competitive products.” Jonathan Coleman, executive director of the Laurens County Development Commission, said wheels are already in motion to help displaced workers at Continental find new positions. “We have meetings set up with them over the next two weeks,” Coleman said. “We’re going to work to get those 40 people placed in other opportunities as quickly as possible.” Continental Automotive arrived in Laurens County as Emitec in 1996. It supplies the metal substrate market for exhaust gas catalysts and metallic diesel particulate filters for vehicles and mobile machinery. In September of 2014, then Emitec made a \$3 million investment in the Laurens County facility and added 20 jobs.”



Brazilian Heat Treater Tecnotêmpera Installs Largest LPC Vacuum Furnace in South America

Mar 18, 2020

Rather an interesting story. This item tells us about a Chinese company by the name of Fulcrum installing the largest single chamber vacuum carburizing furnace in Brazil, a furnace with a capacity of 4,000 kg (roughly 9,000 pounds). Its interesting that the individual who sold the furnace is Mr. Thomas Kreuzaler, a German who we have met many times at heat treat events in Germany who moved to Brazil a few years ago. Read on;

“Tecnotêmpera, a major service heat treater in the southeast of Brazil, acquired a heat treatment line for the heat treatment of tools, large dies and functional parts. The vacuum furnace in this line has the largest payload in Brazil, a gross load of 4000 kg. Its dimensions of 1000 x 1000 x 1500 mm (39”x 59” x 39”) make it one of the largest furnaces in South America. However, it is the largest single-chamber low-pressure carburising vacuum furnace in South America. The complete semi-automatic line, which consist of a vacuum furnace, an annealing furnace, a tempering furnace, manually operated forklifts and a supervisory software, will start operation in the second half of 2020. Fulcrum, a Chinese furnace manufacturer and one of the leading technological companies in heat treatment equipment in Asia, supplies the equipment. Tecpropro is the South American representative of Fulcrum.

***About Tecnotêmpera;** Tecnotêmpera was founded 20 years ago in Guaramirim, state of Santa Catarina, and offers heat treatment service in salt, atmosphere, induction and vacuum plus controlled gas nitriding. Tecnotêmpera serves customers all over Brazil with own logistics. The company has been growing for years in turnover and process offer, running a non-interrupted 365 days/24 hours-heat treatment plant. Managing owners Luciane Bachel and Vitor Luiz Possenti stand with their names for quality, reliability and responsibility in heat treatment.*



***About Tecpropro;** Brazilian company with German management, offers management Consulting and is representing manufacturers of advanced*

equipment and components. Founded in 2015 in São Paulo, Brazil, its managing owner Thomas Detlef Kreuzaler, who started working 2009 in Brazil for Bodycote, lives and works in São Paulo/Brazil since 2014.

About FULCRUM; Fulcrum Heating System (Shanghai) Co., Ltd. (FHSS) was established in year 2013 in Shanghai. Yi Chen, managing owner, former manager at Ipsen, founded the company to produce technologically advanced and reliable heat treatment equipment with expert systems for LPC and gas nitriding.

Gasbarre Thermal Processing Systems Receives Orders for Three Batch Steam Treaters

Mar 17, 2020

Gasbarre Thermal Processing Systems recently received three separate orders for batch steam treating equipment. The batch steam treaters produce an oxide layer that promotes corrosion and wear resistance properties and provides an attractive surface finish. The three unique orders range in size from 18" to 30" in diameter and 12" to 48" deep. The gross load weight capacity ranges from 300lbs to 1800lbs with Gasbarre supplying the production tooling. The equipment is electrically heated and has a maximum operating temperature rating of 1400 °F. Steam treating processes are used in many different industries. As such, these orders will be shipped to companies that provide products to the medical, additive manufacturing, automotive and consumer products industries.



With locations in Plymouth, MI, Cranston, RI and St. Mary's PA Gasbarre Thermal Processing Systems has been designing, manufacturing, and servicing a full line of industrial thermal processing equipment for nearly 50 years. Gasbarre's product offering includes both batch and continuous heat processing equipment and specializes in Temper, Tip Up, Mesh Belt, Box, Car Bottom, Pit, and Vacuum Furnaces as well as a full line of replacement parts and auxiliary equipment which consists of atmosphere generators, quench tanks, and charge cars. Gasbarre's equipment is designed for your process by experienced engineers and metallurgists that understand your requirements. For more information on how Gasbarre Thermal Processing Systems can manufacture custom-engineered heat treating equipment solutions for your specific thermal heating requirements, contact Bill Gasbarre at (814) 590-6282 or via email at bgasbarre@gasbarre.com. You can also visit our website at www.gasbarre.com and find us on LinkedIn (Gasbarre Products Inc.), Twitter (@gasproinc), and Facebook (Gasbarre Products Inc.).

ETSA Group, Mexico

Mar 17, 2020

Yesterday as part of our Monday Morning Briefing we include a photo showing Gord Montgomery of "The Monty" along with one other individual with the promise that we would tell you the story behind the picture. Founded in 1979, Especialidades Termicas, S.A (ETSA Group) is one of the two largest commercial heat treaters in the country with 6 locations, Guadalajara, Celaya, Aguascalientes, San Juan del Rio and Mexico City. The company has 350 employees, annual sales close to \$20 million USD and a partnership with HEF-France (the salt nitriding people). We'll give you some more background including the business mix which is 85% automotive/oil components and 15% vacuum tooling. In actual number of furnaces we can say that the company has 6 vacuum furnaces, 4 nitrocarburizing, 20 batch IQ's, 3 mesh belt lines, 2 large pit carburizers, 4 bell type for annealing and 1 austemper line.

Like so many commercial heat treaters around the world this is a family owned business and the current CEO is Mr. Mario Fabian Mendez son of the founder of the company. Again like many commercials it offers a number of processes but the one which makes it most unique is the fact that a third of their business is continuous heat treating through their mesh belt furnaces. For reasons unknown to us there is little commercially available continuous furnaces in Mexico and ETSA has capitalized on this over the years. Another rather unique feature of the company is that they have an entire division dedicated to rebuilding and installing furnaces.

Commercial heat treaters around the world differ little beyond the processes they offer and ETSA is a good example of a large well run commercial operation with a long track record and a great deal of experience.



Mario Fabian Mendez, Batch IQ Department



ETSA Celaya Plant-Continuous Department



Salvador Murillo, SSi, Mario Fabian Mendez & Enrique Constantino, ETSA



Pit Carburizing Department



ETSA Vacuum Department



ETSA Celaya Facility



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“Are You Getting Paid What You Are Worth?”

Mar 17, 2020

Two of the most popular articles we have run over the years are about salaries in the Commercial heat treating industry and also in the furnace manufacturing business. Both were provided by recruiting company International Search Partners in California, USA. At the request of several of our readers we are re posting these in our “**Articles**” section.

<https://themonty.com/articles-interviews/>

Monday Morning Briefing

Mar 15, 2020

Poclain Hydraulics Inc., Wisconsin, USA exiting vacuum carburizing. Out in Wisconsin, USA Poclain Hydraulics a manufacturer of hydrostatic transmissions has decided that they will no longer be carburizing at this location and consequently their ECM vacuum carburizing system has become surplus to their needs and is available for sale. The 3 cell system was installed 20 years ago and is still in operation.



Looks like somebody is in a whole lot of trouble: “*General Motors is recalling 2020 Chevrolet Silverado 1500 and GMC Sierra 1500 pickups to fix a defect in the trucks break system. Certain Silverado and Sierra pickups were produced with brake-caliper bolts that were not heat-treated. Without heat-treating, the bolts are weaker than they should be, and there is a risk that they could fail, which would affect the trucks’ braking performance, possibly leading to a crash.*” In Mexico *Carlos Angeles Michel* was just appointed Plant General Manager of the *Bodycote San Luis Potosi* facility. Carlos is a long time Bodycote employee and previous to this he was Engineering and Maintenance Manager.

We’re getting tired of talking about Corona Virus and it’s effects on the heat treat industry but we will mention 2 Heat Treatment shows which have been sideswiped by the virus; “*The European Conference on Heat Treatment (ECHT) 2020, which was due to be held at Flanders Meeting & Convention Center, Antwerp, Belgium, from March 25-27, 2020, has been postponed.*” And in China; “*The 13th International Exhibition for Powder Metallurgy, Cemented Carbides and Advanced Ceramics (PM China 2020), organized by Uniris Exhibition Shanghai Co., Ltd, has been moved to August 12-14, 2020, following the coronavirus (Covid-19) outbreak.*”

With all the bad news out there-how about a little good news? *Nickel Pricing* continues to drop which means your base trays, baskets, grids, radiant tubes and everything else made out of alloy will continue to drop in price. Mind you this is not immediate as price changes can take a little while to work their way through the system, however the long term trend is good.



At the recent *Mexico Heat Treat 2020* event we met up with *Mr. Carlos Carrasco*, a long time rep in the country. As it turns out his rep firm is now into their third generation and he tells us about the history; *“As per our conversation please find attached the pictures of the three Carrasco’s generation in furnace business; starting in 1965 with Jorge Carrasco (now retired) who started working for a local company with a sublicensee of Sunbeam Equipment Corp. now SECO-Warwick, the actual licensee was coming from Can-Eng. Followed by Carlos Carrasco, starting in 1984, actually “Carrasco Hornos” is a sales representative of several companies such as Ajax Electric, Dubois Chemical, EFD Induction, Intek, Lucifer Furnaces, Selas Heat Technology, Seco-Warwick, Seco-Vacuum. At the present time Sebastian Carrasco, the youngest of the line will be soon be graduated as a Mechanical, Electrical Engineer in order to continue the “Carrasco Story in Furnace Business” now extended to 55 years of experience. Ing. Carlos Carrasco, carlos@carrasco.com.mx www.furnacexpert.com”*

One of the pictures below deserves a mention-the one with the Carrasco team standing in front of a vacuum furnace with a “VAS” logo on the front. The furnace was originally built by an Italian company, *TAV* for a European customer. It was later acquired by *Vacuum & Atmosphere Services* in the UK who rebuilt it and listed it for sale on *“The Monty”*. Subsequently it was purchased by captive/commercial heat treater *Bohler Uddeholm* for their facility in Puebla, Mexico which is where this photo was taken.





To round things out for today we have this photo for you. The very dapper fellow on the right is President of one of the ***largest commercial heat treats*** in North America—a heat treater with 350 employees if you can believe it. Later this week we are going to introduce you to him and his company.



International Search Partners

Mar 15, 2020

To the best of our knowledge International Search Partners (ISP) is the only recruiting company in the world which specializes in the heat treating industry. We have worked with the firm a number of times over the years and have never regretted it-as a matter of fact ISP has provided us with some very interesting articles about salaries in the North American heat treating industry, articles which we will repost this week. In this article Josh Hale talks about interview practices.

***Interview Best Practices for Employers.** It's easy to forget that interviews can be just as stressful and nerve racking for employers as they can be for candidates. That's why we've compiled some tips, tricks and best practices gleaned from over 20 years of recruiting experience to help the interview-ER complete a successful interview.*

***Pre-Interview.** Before the interview, it's good to remind yourself of the qualifications and skills (both hard and soft) that you're looking for in a candidate. It's best to do this prior to every interview to ensure you are conducting interviews in a uniform manner.*

Also, preparing sample interview questions beforehand can help avoid fumbling, “winging it” or coming across ill-prepared. While it’s important to verify information provided on a resume or profile, it’s asking more probing questions that shed light beyond what’s presented on paper that will serve you best.

Try and avoid cliché questions like “what is your biggest strength weakness?” Instead, focus on STAR questions: Situation, Task, Action, Result.

- Situation – have the candidate provide a situation where a key behavior or competency was used.
- Task – here the interviewee needs to articulate the specific task they had to achieve within the stated situation.
- Action – the candidate then must clearly convey the actions they took in the face of the situation and task at hand.
- Result – finally, the individual needs to define the results or outcomes triggered by their actions within the broader context they previously outlined.
-

During Interview. Remember, you want this interview to go well! Ideally, this candidate is the person that is going to help solve some problem you have in your organization, whether it’s filling an open role or helping with an expansion. As you begin the interview, offer a brief friendly introduction. Let the candidate know what your goal is in the interview, give an indication of the proposed length of the interview, and let them know that you are there to answer any of their questions.

It’s typically a good idea to ask follow-up questions too. Don’t be afraid to probe and get the information you need to make an educated decision, but also make sure to be aware of any interview questions that might be prohibited by state or local regulations in your area.

Remember to be careful not to let your first initial impression (good or bad) cloud the interview. Do your best to ask consistent questions to get as much information as possible. Beware of the “devils-horns effect” where one negative point shuts you off to the candidate for the rest of the interview. Similarly, beware of the “halo effect” when a candidate’s strong point (such as a high-profile position or prestigious school) rose colors your experience. It can be important to listen to your gut, but that’s just one data point. Don’t rely on this 100%.

Finally, end the experience on a positive, upbeat note. Allow some time at the end for the candidate to bring up any questions he or she might have. You can learn a lot by the questions they ask, and it also offers an opportunity for you to sell your company. Thank the candidate for their time and let them know you’ll be in touch regarding a decision or next steps.

Post-Interview. *If you're working with a recruiter, give them a call after your interview for an initial "brain dump and debrief." It's best to do this immediately after and to be candid and open with your comments and thoughts. If you're not working with a search firm, find someone internally to discuss with. This is the best way to crystalize your thoughts and decide how to proceed.*

After an initial debrief, revisit your notes in a day or so (but not longer) and decide how to proceed. If the candidate is to move forward in the process, call them and schedule next steps. Or, if you're working with a recruiter, coordinate how they are to handle moving forward. The recruiter should be able to give you some insight to the candidate's thoughts as well.

If this is not a candidate you want to proceed with, let them know with a simple email. No need to espouse on their lack of credentials, but it's a good practice, and just common courtesy, to close the loop and let them know that you won't be pursuing their candidacy further. Again, if you're working with a recruiter, you can filter this information through them, but in this case be sure to give specific reasons why it wasn't a match. The more detail you share, the better equipped your recruiter will be to find you the right match on the next one.

For over 20 years, ISP has been the premier recruiting solution for the Heat Treat industry. If you're hiring now, or exploring new opportunities for yourself, we are uniquely positioned to be your partner for success and would love to work with you! Please contact us at info@ispards.com or 619-465-9621.

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Inductotherm Heating & Welding Mexico Open House

Mar 13, 2020

Last week at the very tail end of the “Heat Treat Mexico” event in Queretaro, Induction heating experts Inductotherm held an open house at their location in Queretaro. *Robert J. Madeira, Presidente, Global Manager of Heat Treating Technologies, Inductoheat Inc.*, provided us with these photos and comments; *“During our open house we had more than 30 clients greeted by 34 Inductotherm Heating & Welding (IHW) Employees. In September of this year we will be starting our 5th year of operation. We provide tooling for most any brand of Induction equipment and support Thermatool and Inductoheat brands in Mexico. At the ASM Heat Treat Mexico event we introduced a new brand of equipment produced by Consarc and PVT of the Inductotherm Group. It will provide equipment to the budding Aerospace industry in Mexico, much of which located right here in Queretaro.”*







Bodycote's 2019 Full Year Results

Mar 13, 2020

The world's largest commercial heat treater, Bodycote released their financial results for the year ending December 31 2019 earlier today and as always they make for fascinating reading. Fascinating because as the world's only truly global heat treater their results give us an insight into the heat treating industry around the world. For instance the company mentions a slowdown in the European auto industry, investments in growing markets such as Eastern Europe (Slovakia to be exact) and Scandinavia, investments in "Hipping" in 2020 and the progress of new locations in the US. In short if you want to know which geographic areas are growing or shrinking in terms of heat treating, which industries are seeing growth and which aren't or which thermal processing technologies are growing there can be no better source in the world than Bodycote. The full financial summary is available at <https://www.bodycote.com/>

Operational highlights:

- Resilient margin³ of 18.7% despite some tough market conditions - significant actions taken to reduce costs*
- Civil Aerospace revenues up 17%*

- Specialist Technologies revenues up 3%, continuing to outperform Classical Heat Treatment (-4%)
- Emerging Markets' revenues up 5%
- Strong free cash flow conversion of 91%7
- £61m expansionary investment in strategic growth areas in 2019
- £154m acquisition of Ellison Surface Technologies strengthens aerospace business and Specialist Technologies; expected to complete Q1.
- Full year ordinary dividend 20.0p, up 5.3%



American Axle & Manufacturing-Guanajuato Manufacturing Complex Mexico

Mar 12, 2020

Any list of the largest captive heat treaters in North America would have to include auto and truck component supplier *American Axle & Manufacturing* (<https://themonty.com/project/10-largest-north-american-captive-heat-treaters/>) In terms of sales the company reported \$6.53 Billion USD in 2019, in terms of the amount of heat treating we can't even guess. We know AAM has large heat treating departments in a number of locations around the world including the US, Mexico and Poland but what that translates into in terms of number of furnaces is anybody's *guess (although one of our favorite heat treaters, who is also one of the most influential in North America, Fred Hamizadeh of AAM would certainly know <https://themonty.com/project/25-most-influential-people-in-the-north-american-heat-treating-industry/>)*

This all takes us to the AAM Manufacturing Complex in Guanajuato, Mexico which we visited last week. The complex includes several different facilities and several different heat treat departments. We are very constrained in what we can say and photos were an absolute no-go but we can at least give a broad summary. What we saw were multiple large pusher furnaces, numerous batch IQ furnaces and generators with a couple of large mesh belts thrown in. The equipment ranges in age from older right on up to almost brand new and all of it is in immaculate shape with state of the art controls. Although we were not allowed to take photos of the equipment we do have two photos we can share with you. In the **second** picture you see two of the individuals who help to keep the heat treating department running as smoothly as it does; *Ms. Claudia Olivo* and *Ms. Maria Soto* alongside *Mr. Salvador Alvarado* (SSi Mexico).





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Solar Atmospheres

Mar 12, 2020

Solar Atmospheres is one of the largest commercial heat treaters in North America. This rather interesting article appeared in a local newspaper “The Herald”. We say interesting because the article talks about how the company is handling the North American labor shortage and also how the company has grown over the years and how it continues to grow.

“HERMITAGE – Solar Atmospheres offers new employees a perk – on-the-job training – that has become unusual among industrial companies. Bob Hill, president of Solar Atmospheres, said the company is a throwback to a time in the area when steel mills boomed and teenagers could graduate from high school on a Friday and start a factory job the following Monday. Starting wages for workers are between \$17 to \$18 an hour plus benefits such as medical insurance and a 401(k) retirement plan. Potential employees should be, at minimum, high school graduates, Hill said. Solar Atmospheres needs workers who have basic math and reading skills, Hill said. The company will take care of most of the rest. “And they need to be dedicated, reliable, honest and hard-working,” he added. “We provide all of the training and teaching,” Hill said. “We have a full-time trainer for our new personnel.” The company offers true on-the-job training, he said, with more experienced employees serving as teachers and mentors. Further, it has created mockups of its equipment to teach workers in a low-stakes atmosphere. “They have dummy controls so you can push a button and nothing will be affected,” Hill said. That’s important, Hill said, because the company uses expensive vacuum heat-treating furnaces to prepare expensive materials for demanding consumers.

Solar Atmospheres provides metal heat-treating services for brazing-style adhesion, hardening and purification for a wide range of industries including the aerospace, automotive and defense industries. Its projects include proprietary work for the U.S. military, Hill said. The proof of Solar Atmospheres’ success is in its growth. It’s preparing for the fourth expansion at its Hermitage shop – the company also has facilities in Souderton, Montgomery County; Greenville, S.C.; and Fontana, Calif. Construction of the 16,000-square-foot expansion will begin in April and is expected to be complete this fall. The addition will give the company over 105,000 square feet under roof and add 10 employees to its existing 70, said Bob Hill, Solar’s president. “Initially, it will house our shipping and receiving and it will keep trucks there,” Hill said. “And I’m sure eventually we’ll be adding furnaces there.” Solar’s Hermitage plant has come a long way from its origins. The operation started out in 2001 with four employees housed inside 16,000

square feet. Located on 14 acres along Broadway Road in Hermitage, Solar Atmospheres has enjoyed steady growth. “We are very busy and we desperately need the space the addition will give us,”



Each of the previous expansions has added workers. What’s more, the expansions have brought in more equipment requiring specialized training. There’s good reason for Solar Atmospheres’ investments of time and money on its work force. The uses sophisticated furnaces to treat materials, mostly metals. Among the metals the plant treats is titanium, which doesn’t come cheap. A single batch of titanium heated in a furnace can easily top \$1 million. The 48-inch vacuum furnace the company installed in 2016, which it touts as one of the world’s largest, cost \$8 million. These treated metals are used in such areas as aerospace parts, medical equipment and military applications where rust could spell doom. The process of vacuum heating materials can remove impurities such as oils, dirt, or other meddlesome substances. “Some customers worry about the surface of their products,” Hill said. “They don’t want any discoloration in the finished product.”

Certain metal alloys can be strengthened by vacuum heating – which creates another business opportunity for Solar. The company recently added a lab at the Hermitage facility where metals can be tested for strength. Previously, customers had to conduct those tests themselves or outsource them. A big misconception is that strength and hardness are the same thing, Hill said.

Strength is the ability for a material to handle loads. The more weight a material can handle, the higher its strength. Hardness is a material's ability to resist being penetrated, dented or scratched. The Hermitage plant tests for both with laboratory equipment uses a diamond that is struck into a material – mostly metal. "If the diamond barely goes into a metal then it's hard, if it goes in deep then it's soft," Hill said. Solar Atmosphere also tests for hardness by taking a sample of the metal is taken and pulling on it like taffy. Hardness is determined by the force it takes to pull the metal apart. Hill said the company is taking a hard look at adding other services in Hermitage. "We're always looking for better ways to do things," he said."

Corona Virus & The Heat Treating Industry

Mar 12, 2020

Personally we are getting rather tired of hearing about the corona virus and we have serious doubts that it will turn out to be as serious as some predictions have suggested. Having said that though it is having an impact on the industry. For instance IHEA (*The Industrial Heating Equipment Association*) has postponed their planned Caribbean cruise which was supposed to have been March 12-16th. We have this announcement from **Anne Goyer**, Vice President of IHEA.



“The IHEA Board of Directors reached a decision this week to postpone our upcoming 4-day Annual Meeting that was to be held on a cruise ship out of Tampa, FL, due to circumstances surrounding COVID-19. I believe the biggest concern with holding the meeting was the potential for quarantine at sea, causing members to be away from work and home for an extended period of time, said IHEA Executive Vice President, Anne Goyer. “While we applaud the cruise industry for the steps they are taking to keep passengers safe and healthy, our Board felt it was in everyone’s interest to postpone the event. Royal Caribbean is allowing us to re-schedule the event so we will be alerting members of the new dates as soon as they are confirmed. In an effort to still deliver the important, timely content that was scheduled to be presented at the meeting, we are arranging for several speakers to deliver their presentations via webinars. These details will also be provided to members shortly.”

Why Do Captives Choose Vacuum Technology?

Mar 11, 2020

Last week we had two photos of a vacuum carburizing installation in a manufacturing facility in the US which begged the question; *“Why Do Captives Choose Vacuum Technology?”*

<https://themonty.com/why-do-captives-choose-vacuum-technology/>

It hit a chord based upon our feedback and one fellow at furnace manufacturer SECO/WARWICK posted these two photos of a captive operation in reaction to our comments. The before photo shows a very tired pit furnace installation with the after photo showing a brand new vacuum set up. While it is true that a vacuum installation does fit in much better in the midst of a manufacturing facility because of a lack of smoke and heat we should be fair here. Comparing the cleanliness of a new electrically heated vacuum furnace with gas quenching against an older gas fired carburizing furnace with oil quenching is not an especially fair comparison (and yes we know that the one furnace shown here does have oil quenching). Suffice to say that manufacturing has changed over the years and thankfully newer, cleaner furnaces are more the norm these days.





DELTA H Commissions Large Walk-In Oven

Mar 11, 2020

“WARREN, OR: DELTA H recently completed the installation of a large walk-in oven at Composites Universal Group (CUG), an internationally recognized composite manufacturing company specializing in the production of high-quality composite components for Aerospace, Drones, Industrial and Space applications as well as custom prototyping. The following are some of the projects at CUG: Vahana electric VTOL aircraft, Sierra Nevada Corp Dream Chaser Pressure Vessel, and Leidos Corp. Composite Beams. DELTA H CTO Richard Conway stated, “It is truly rewarding and exciting to be among the technology providers supporting these projects and to have a role in the cutting edge of transportation.”

The DELTA H Oven features an interior volume of 12’ wide, 10’ tall, and 32’ deep, with high volume New York Blower plug fan, PowerFlame gas burner, and rapid cooling / chamber pressure control. For vacuum composite processing the system features multiple part temperature as well as vacuum transducers for precision monitoring of process heating. Eurotherm Nanodac is featured with cascade control that selects the coolest part then

automatically adjust air temperature to precisely maintain the desired ramp rate, soak time, and cooling rate.

“The DELTA H Composite Oven has performed flawlessly ever since initial startup. It’s become a critical part of our Equipment listing here within CUG. We use it 2-3 times each day, 5-6 days per week. It is critical to our operations and the curing of our high temperature parts fabrication. The support from the DELTA H Team was superior from day 1 and we are glad that we selected the DELTA H Oven to be a part of the CUG family!” states Steve Ruege, President and Director of Sales at Composite Universal Group.”



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GRAPHITE  **MATERIALS**

In House Heat Treating-TREMEC, Mexico

Mar 10, 2020

Founded in 1964 TREMEC is a manufacturer of transmissions and transmission components for a number of industries including automotive, heavy truck, agriculture and defense. Based in Mexico the firm has locations in the US, Mexico and Belgium with 3 of the facilities boasting in house heat treating capacity. Last week we at “The Monty” had the chance to visit the Pedro Escobedo location near Queretaro, Mexico, a facility which produces transmissions for heavy trucks. The heat treat department consists of a few batch IQ furnaces alongside two single row pusher lines. While none of the equipment is brand new it is very clean, certainly cleaner than most heat treats and it does have state of the art controls along with one of the coolest control rooms we have seen. By the way this facility is dwarfed by their larger sister company, TREMEC in Queretaro which produces automotive transmissions. Their heat treat department is similar in the types of furnaces but much larger in size. Enough of our talking-lets get to the good part which is the pictures.





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Molybdenum Shipments From China Resume

Mar 10, 2020

The entire world is well aware of the fact that the Corona virus brought export shipments from China to a crashing halt. This included items of great importance to heat treaters, items such as alloy furnace components and fixturing and molybdenum (moly) products a material used largely in vacuum heat treating applications. “The Monty” has for years imported moly from China and as with every importer we saw our shipments come to a halt recently, partly because of the Chinese New Year and partly because of the corona virus. We are extremely pleased to be able to say that regular shipments from China have resumed and it would appear that business is getting back to normal. This photo shows Jordan Montgomery with a moly shipment we received last week albeit 3 weeks late. We are hoping that one of these days we can look back and regard this as a minor inconvenience.

<http://gvtinc.com/pages/MolybdenumProducts.htm>





Wayne Kenneth Patrick Howard/All Source Heat Treating

Mar 10, 2020

It is with regret that we mention the passing of Wayne Howard, founder and President of All Source Heat Treating in St. Catharines, Ontario, Canada. Wayne spent his entire working life in the captive and commercial heat treating industry before founding All Source Heat Treating in St. Catharines a number of years back.



“Howard, Wayne - At the St. Catharines General Hospital, on Saturday, March 7, 2020, at the age of 63 years. Beloved husband of Carol (Johnson) and dear father of Melissa (Brett) Leech and their children, Logan, Braden, Graycen, Shelby and Savannah; Michelle (Steve) Heacock and their children Madison and Haley. Brother of Stewart (Claudette) Howard. Predeceased by his parents Kenneth & Emelia Howard. Wayne was the owner of All-Source Heat Treating Inc. Cremation. A memorial service will be held at the Vineland Chapel of Tallman Funeral Homes, 3277 King St., on Saturday, March 14, 2020 at 1:00p.m. Visitation will begin at 12noon. If desired, memorial donations may be made to the Arthritis Society.”

Monday Morning Briefing

Mar 9, 2020

The *Heat Treat Mexico 2020* ASM event in Queretaro, Mexico is now concluded and filed away in the history books. Most would deem the event as a success and we have these final photos for you.



Carburizing experts ALD always have a strong presence at all the worldwide heat treat events. In this photo we see Moises García, Natalie Beck and David Bolton





Nel Hydrogen; Tom Skoczylas, Carlos Ruiz



Gord Montgomery, Carlos Torres, Mattsa

Borbet Aluminum in Auburn, Alabama is expanding. German aluminum wheel manufacturer Borbet in Alabama is expanding and our understanding is that they will be adding to their current heat treating capacity; “Manufacturer [Borbet Alabama](#) announced plans Tuesday to expand its Auburn operation with a \$23.9 million project that will create 25 jobs over the next two years. The Germany-based company was founded in 1881 as a family-run business and has become a leading European manufacturer of light metal alloy wheels for the automotive industry. Borbet has over \$1 billion in annual sales with nine global operations. The company is recognized globally as a specialist in design excellence and high-quality production.”

In Canada rumour has it that **Mr. Shawn Scott** will be setting up his own commercial heat treat operation. Shawn is a long time experienced heat treater who was with **Bodycote** in Newmarket, Ontario for many years before moving to **Bluewater Thermal** in Kitchener where he was General Manager. The Bluewater facility closed a few months back with the equipment going to auction. We understand that Shawn bought some of the equipment and will be setting up his own commercial heat treat operation. In the UK we see that **Mike Oldham** of **Vacuum & Atmosphere Services Ltd.** has been promoted to head of Projects/Vacuum Technical Manager. Vacuum & Atmospheres Services is one of the largest providers of heat treat equipment in the UK and are also the regional agents for **Ipsen**. We at “**The Monty**” will be spending some time with the company later this year.

In the US furnace manufacturer **Gasbarre Thermal Processing Systems** have been named “Outstanding Supplier” by commercial heat treater **Woodworth Inc.**, for supplying heat treating furnaces. Woodworth has plants in Michigan and Mexico and is one of the largest commercials in North America as rated by “The Monty” <https://themonty.com/project/largest-north-american-commercial-heat-treats-august-2019/> We know Woodworth quite well and have seen the Gasbarre designed and built tip up furnaces in operation-quite impressive for the enormous volumes of work the furnaces can hold.



Commercial heat treater **Hauck**, one of the largest commercials in Europe is adding capacity at their Värnamo, Sweden plant. This capacity takes the form of new Ipsen batch IQ equipment as can be seen in these photos.



McLaughlin Furnace Group of Avilla, Indiana, USA has just finished installation of this monster car bottom furnace. It has 27 million BTU of

heating and can handle loads of 120,000 pounds at one time. Our understanding it that it is one of the largest furnaces in the US mid west.



And to round things out we have this photo of a very large in house heat treater in Mexico which we visited a few days past. Later this week we will have an in depth story about the heat treatment department (which includes pusher and batch IQ furnaces) and lots of photos. If any of our readers would like to guess who the company is we will give you a free mention.



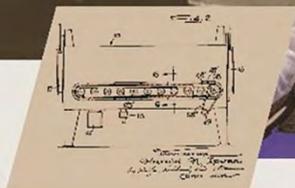


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INVENTING HISTORY



Heat Treat Mexico 2020, Queretaro, Mexico Mar 6, 2020

The ASM “Heat Treat Mexico 2020” exhibition is now concluded and as we previously reported our feeling is that while this was a relatively small show it was deemed to be a success and it was certainly well organized. Earlier this week we posted photos from the event, we have these additional pictures to share with you with several more to come next week along with profiles of several large “in house” and commercial heat treaters.



Marathon Control Systems; No heat treat show in the world would be complete without a very strong showing by controls company MSC (Marathon Systems Control)-part of the UPC (United Process Controls Group)



Jack Kalucki, Nitrex. Nitrex is known around the world for their nitriding expertise and are always well represented at every heat treat function around. In this photo Jack Kalucki of Nitrex one of the foremost experts in the world when it comes to nitriding and certainly always one of the best dressed



Jack Kalucki, Nitrex, Pete Reh, Solar Manufacturing, Rick Jones, Solar Manufacturing



HEMO; Cleaning system specialists “HEMO” of Germany was in attendance and this included the Managing Director, Mr. Andreas Fritz along with Gord Montgomery

So How Are We Doing These Days?

Mar 6, 2020

Well it would appear that the worldwide heat treatment industry in 2020 is fair to middling and certainly down from 2018 and 2019. Conversations with in-house heat treaters and commercial heat treaters in the largest heat treatment market in the world-the USA reveal that almost universally the feeling is that while business is not terrible it is certainly not great either. These feelings are supported by Metal Treating Institute (MTI) numbers which show that their members (who represent many of the commercial heat treaters in North America) see a slower economy these days. Figures range from “flat” sales in the Northeast to a sales drop of almost 20% in the North Central region of the country. However being a very optimistic bunch at “The Monty” we much prefer to look at the other side of the coin which shows that there are few if any layoffs in the industry, industry suppliers are still building and selling equipment and the general consensus is that this is a temporary slowdown. We happily concur.

In House Heat Treating, Dana Corporation

Mar 5, 2020

Earlier this week we had a summary about the massive in house heat treating department at auto parts supplier Dana Corporation in Queretaro, Mexico <https://themonty.com/dana-corporation-queretaro-mexico/>

To compliment the original story we have these additional photos showing parts of their heat treating facilities and some of the individuals responsible for keeping it running. This by the way is just the first of a few articles about in house heat treating at some of the largest manufacturers in Mexico and around the world.



Dana Forja; Gord Montgomery, Salvador Alvarado (SSi Mexico), Javier Nava (Dana Forja), Alex Garcia (Dana Inc.), Adab Marquez (SSi Mexico)



Dana Cardanes, Metallurgical Lab; Fernanda Olvera, Manuel Valencia



Dana Cardanes Batch IQ Department; Fernanda Olvera, Carlos Rodriguez



Solar Manufacturing Ships Mentor® Furnace to Virginia

Mar 5, 2020

“Solar Manufacturing recently shipped a Mentor® vacuum furnace to Virginia, for a customer servicing the Tool and Die industry. The Model HFL-2018-2IQ features a graphite-insulated hot zone, a load weight capacity up to 250 lbs., and a maximum operating temperature of 2400° F. The HFL-2018-2IQ furnace will be used for solution annealing, ageing, and brazing. Measuring 12” wide x 12” high x 18” deep, the Mentor® includes the SolarVac® Essentials Control System.



“This company is a long-time customer of our sister company, Solar Atmospheres,” states Dan Insogna, Southeast Regional Sales Manager for Solar Manufacturing. “They wanted to own a Solar furnace themselves, for smaller, in-house jobs. Cal Amenheuser, Vice President of Operations with Solar Atmospheres played a big role in connecting Solar Manufacturing with the customer. The existing relationship with Cal, and Solar Manufacturing’s reputation in the industry earned us this order. We’re all excited they chose Solar Manufacturing for their first furnace.”

Solar Manufacturing designs and manufactures a wide variety of vacuum heat treating, sintering, and brazing furnaces and offers replacement hot zones, spare parts, and professional service. To learn more about Solar Manufacturing contact Pete Reh, VP of Sales, at 267-384-5040 x1509, or via email pete@solarmfg.com or visit us at www.solarmfg.com.”



Heat Treat Mexico 2020

Mar 4, 2020

We are now at the ongoing 2 day Heat Treat Mexico 2020 event in Queretaro, Mexico. Organized by ASM this is the third time this bi-annual event has been held. While this is not a large event along the lines of an HK20 in Germany it is a well organized event and fills a niche, that of bringing together the heat treating industry in Mexico. We have these photos taken at the show just a few hours ago, and these will be complimented by a few more tomorrow. To round out this important event in the Mexican heat treat industry we will be profiling several more in house heat treaters in the area.



Gasbarre Thermal Processing Systems; Bill Gasbarre, Mark Saline, Ben Gasbarre, Humberto Bastidas



SECO Vacuum; Rafal Walczak, Carlos Carrasco



Codere; David Howard, Jose Ramirez Salvador



Ion Heat; Steven Sossa

Corona Virus & It's Effects on the Worldwide Heat Treating Industry Mar 4, 2020

As a Canadian (albeit in Mexico as we speak) the Corona Virus to date has been little more than scary headlines in newspapers with absolutely no effect on the Canadian, US or Mexican heat treat industry. However that is not the case in other parts of the world including Europe where it is having an effect on the industry. For instance all trade exhibitions in most parts of Europe have been postponed for March and April at which point further decisions will have to be made. While no major heat treatment exhibitions are planned for this period, there are a number of shows which do indeed have a heat treating aspect to them. In addition most of the major industry suppliers such as furnace suppliers have cancelled all travel except that deemed to be “unavoidable”. The turmoil and delays which this must be inflicting on the industry in terms of lost production, lengthened start up times and delay equipment decisions boggles our mind. At some point we might look back and see that this was all due to an overhyped media-time will tell.

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SSi Queretaro, Mexico

Mar 4, 2020

There can be no better example of the frantic growth in the Mexican heat treating industry than that of furnace controls company SSi. Based in Cincinnati, Ohio, USA the company set up shop in Queretaro, Mexico a number of years back and since that time their sales and support team has grown to 14 people country wide while moving into a brand new building in 2018. Support and spare parts are based in Queretaro and sales is split into 5 different regions with sales people positioned in the largest heat treating areas in Mexico. This photo shows most of the SSi, Mexico team in their Queretaro offices.



Crio Queretaro, Mexico

Mar 3, 2020

When commercial heat treater Crio set up shop in Queretaro, Mexico in 2004 it was like most start ups a relatively modest operation. Over the years we have had the opportunity to see the company grow and in 2020 we see quite an impressive company with 2 locations in operation with a third on the way.

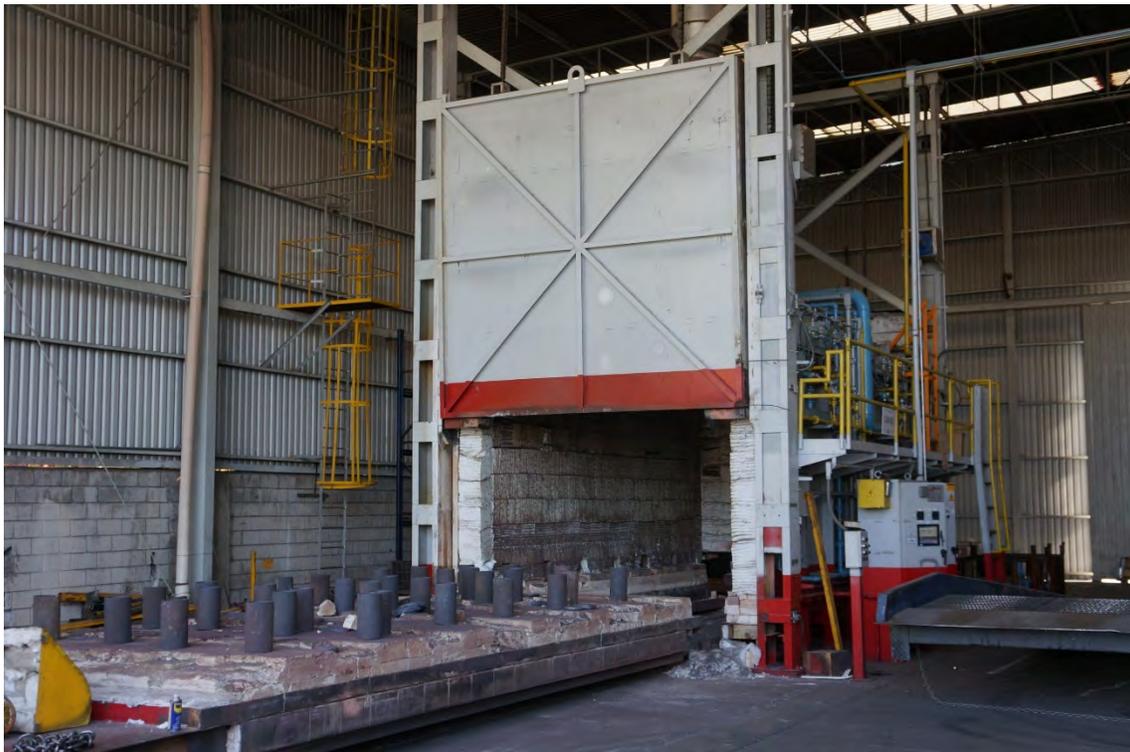
The main facility is located in Queretaro which has now expanded three times with the result that it now has 58 employees and boasts several 36" X 48" X 36" batch IQ's, a mesh belt line along with two very large carbottom furnaces. The Saltillo plant also has large batch IQ furnaces along with 2 rotary hearth furnaces aligned with press quench systems and a total of 43 employees. The third location is in San Luis Potosi and currently the building is completed with the furnaces arriving later on this year. Combined Crio currently has 11 large batch IQ furnaces, 2 carbottoms, 2 rotary hearth furnaces and two press quench systems. While the company does do a reasonable amount of aerospace work the backbone of the company is automotive work which means that the company achieved CQI-9 certification a number of years back.



Caption; Gord Montgomery, Esteban Aguilar Garcia, Enrique Mujica



The "Crio" Team



Dana Corporation, Queretaro, Mexico

Mar 3, 2020

Auto parts giant Dana Corporation needs no introduction as one of the largest in house heat treaters in North America. Many years ago the company expanded into Mexico and in 2020 this includes an enormous complex in the Mexican city of Queretaro with several large, separate in house heat treating departments. We at “The Monty” had the chance to visit it yesterday and it is certainly impressive. There is actually 3 separate facilities here, Dana Forja which has a heat treating department doing annealing in continuous furnaces, Dana Cardanes which has 7 batch IQ furnaces, roughly 40 induction lines and 11 tempers and Dana, ENCO which has 2 AFC-Holcroft UBQ furnaces along with 4 pusher furnaces. The fourth facility, CV Components has no heat treat to speak of which is where our interest ended. We were fortunate enough to be able to take a number of photos, two of which are below with more to come later this week as we continue to talk about in house and commercial heat treating in Mexico.





An interview with Mr. Patrick McKenna, CEO of furnace manufacturer Ipsen in Rockford, Illinois, USA.

Mar 2, 2020

First up, Pat, I appreciate you taking the time to speak with us. I always like to start with some background information. Last time we spoke, you told us about the foundation you earned while learning the trade and going back to graduate school. You started at Ipsen in the mid-90s, and then transitioned into commercial heat treating and brazing as a business owner for 15 years, and then returned to Ipsen in 2015...

Going from a position where you were buying furnaces to one where you are selling furnaces must have made for a very interesting experience. Did it change your perception of industry suppliers and the challenges they face?

"Having experience in both sides of the business has been very helpful Gord. I find myself using both perspectives throughout the day. Furnace builders are experts in designing, building, and servicing the equipment. Heat treaters, whether captive or commercial, are experts at operating the furnaces. I have heard others explain the difference as "one designs and builds the race car, the other is the race car driver." I have enjoyed both sides of the business, and each has its own unique set of challenges."

What have some of those life and career changes taught you as you developed into your present role as CEO of quite possibly the largest furnace builder in North America?

“One thing I’ve learned is that someone in this industry – like most industries – needs to take responsibility for their own career. A company should certainly provide advancement opportunities for their employees, but it is up to each of us to decide what we want to do and then put in the work and sacrifice necessary to achieve our goals. If we don’t know what we want to do in our careers how should the companies we work for be expected to know?”

I am fortunate to have worked at great companies along the way that held up their end of the bargain and I feel the heat-treating industry has no shortage of opportunities for people willing to put in the hard work.”

Please tell us about Ipsen as a global supplier and where Ipsen USA fits in. What are the main markets for your furnaces?

“Ipsen is one of the few truly global manufacturers of vacuum and atmosphere heat treating furnaces. We have manufacturing facilities in the U.S., Germany, India, China and Japan.

Ipsen USA is the largest of the Ipsen Group in terms of sales, and the largest market we serve is aerospace & defense – whether directly, or indirectly through commercial heat treaters.”

Let’s focus on your products now. Why is so much of your business based on aftermarket parts and services?

“Ipsen USA has an installed base of about 2,500 units, and globally the installed base is over 10,000. That alone represents a very large aftermarket opportunity, but in addition we often provide aftermarket parts and services for equipment built by other suppliers. Our aftermarket products and services have grown to almost 50% of Ipsen USA’s annual revenue.”

All of the industries you serve involve critical components, but none more so than aerospace & defense with their Nadcap requirements. How do you address the standards necessary for the aerospace industry?

“We work to stay ahead of the requirements coming down the pike by listening to customers, attending periodic technical meetings such as AMEC, and participating in industry associations such as MTI.”

I have seen a number of Ipsen press releases and news items talking about your increased field presence in the US recently. My first thought is that this is very commendable, and my second thought is that Ipsen is bucking

the trend as many companies are going the opposite direction-reducing field presence as a way to control costs. What is the driver behind this? Has it been successful?

“Our Field Service Engineers have a high ‘paid service utilization rate’, which is to say they are busy generating significant revenue. I have never considered reducing FSE headcount as a cost cutting measure. On the contrary, I want to hire as many experienced Field Service Engineers as I can find.”

Speaking of increasing your field presence, I have to ask you about people. Many in the industry moan and groan about a lack of experience. How do we change that? I am not talking about “pie in the sky” ideas to get more people in heat-treating in 20 years...how do we get more skilled people in the industry in 2022?

“You will have more experienced people in 2022 by first retaining the staff you have then investing aggressively in the development of newcomers. We have developed the Ipsen Academy training program (sessions held in 2019 and 2020) to fast-track new Field Service Engineers who have little or no experience in our industry. The year-long Academy represents a significant investment including two full-time trainers and is already proving itself a success. We have held similar Academy sessions for mechanical, electrical, and software engineers in the past as well.”

What do you see as the next logical step in the evolution of vacuum furnace design? Do you see any requirements that would encourage you to design furnaces with substantially higher quenching pressures? Is there much demand for larger size furnaces? Higher temperatures?

“We will always serve both the “standard” and “special” markets. I think it is most logical to let the customer guide our product development efforts. If a customer has a need that aligns with our technology and capabilities, we will take it on (no matter the size, temperature, performance, etc.) as long as it makes financial sense to do so. Many times these “one of a kind specials” actually end up as multiple repeat orders for us in future years.”

Are there any new products Ipsen will be bringing to the market in the near-to-medium future, which you could tell us about or even hint at?

“As mentioned above, we are continuously driven to innovate by our customers and enjoy working on the challenges they present to us on a daily

basis. We look forward to sharing press releases on these exciting and interesting projects with you and your readership when able to do so.”

Pat, I thank you for your time today.

Patrick McKenna Biography: Patrick McKenna is President and CEO of Ipsen USA, a global manufacturer of thermal processing equipment for the aerospace & defense, automotive, energy, and medical industries. Having originally worked at Ipsen USA in the mid-1990’s, Patrick returned to an Executive role in 2015 as Vice President of Sales and subsequently promoted to President and CEO in 2017. Prior to joining the Ipsen Executive Team, McKenna most recently served as Co-Founder and Vice President of Nevada Heat Treating and California Brazing (acquired by Trive Capital Partners in 2018). McKenna served on the Metal Treating Institute Board of Trustees for 10 years, holding various board positions, including President in 2016. McKenna has received several awards from MTI, including the President’s Award (2014) and the Heat Treater of the Year/Master Craftsman award (2011). McKenna holds a bachelor’s degree in mechanical engineering from the University of Illinois at Chicago and a master’s degree in manufacturing engineering from Northwestern University, where he still volunteers in the Northwestern Mentorship Program.





custom-electric.com

Abbott Furnace Receives Order for a SS Brazing Furnace-Delivery Scheduled for Q2 2020

Mar 1, 2020

“St. Mary’s, PA: Abbott Furnace Company is proud to announce that a diversified global automotive supplier, focused on metal forming, aluminum casting, fluid systems and flexible assemblies to help automakers meet their lightweight requirements, has placed an order with Abbott Furnace Company



for a continuous belt stainless steel brazing furnace to be installed in Mexico in the 2nd quarter of 2020. Abbott Furnace will design, manufacture and install the five (5) zone electrically

heated industrial furnace that is rated for 2,150° F and includes a 30” wide belt, silicon carbide muffle and will feature Abbott Furnace’s Varicool convective cooling system.

Abbott Furnace is an industrial furnace manufacturer with 35 years of experience designing and producing some of the industry’s most reliable and high performing industrial continuous process furnaces. Abbott is a leading producer of industrial sintering furnaces, annealing furnaces, tempering furnaces, brazing furnaces, heat treat furnaces, steam treat furnaces, industrial ovens, CAB furnaces, High-Temperature Furnaces and other specialty furnace

products. Abbott Furnace is a privately owned company located in St. Marys, Pennsylvania. Abbott furnaces are proudly manufactured in the USA.

Heat Treating Mexico

Mar 1, 2020

This is the week for the ASM “Heat Treat Mexico 2020” in Queretaro, Mexico- the exact dates are March 3-5. We at “The Monty” will be attending and taking the opportunity to visit some of the largest in house and commercial heat treaters in the country. This will include captive heat treater “Kerns Liebers”, commercial heat treaters “ETSA” and “CRIO”, auto parts maker “Dana” and a number of others to boot. Over the course of the week we will have photos and write ups about each. For the time being we leave you with these photos of heat treating in one of the fastest growing heat treat markets in the world- Mexico.







**We Build Heat Treating Equipment,
and We Build Relationships.**

An advertisement for Williams Industrial Service. The top half features a photograph of industrial heat treating equipment, specifically large metal racks or baskets, in a factory setting. The bottom half contains the company logo and a phone number. The logo consists of the letters 'W', 'I', and 'S' stacked vertically, with 'Williams', 'Industrial', and 'Service' written to their right. The phone number '419-353-2120' is displayed in large white text on a black background.

**Williams
Industrial
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