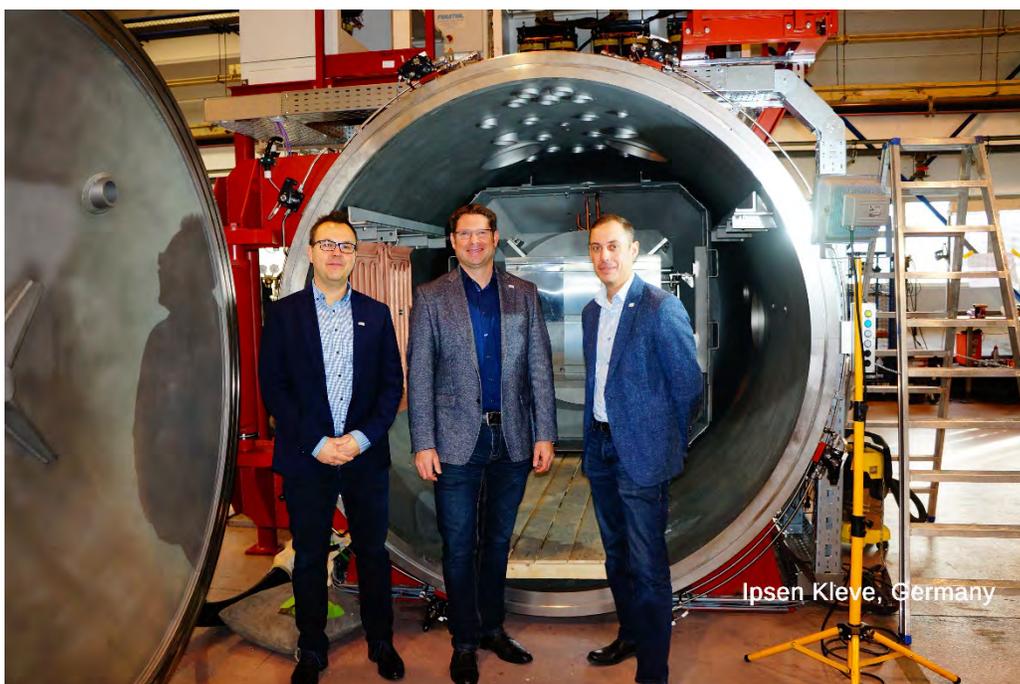


HEAT TREAT NEWSLETTER

Everything to do with heat treating



Ipsen Kleve, Germany

If you would like the information contained in this newsletter daily instead of monthly, visit us at www.themonty.com daily & you don't have to wait for the most up to date, relevant Heat Treat News in the industry.

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INTRODUCTION

The November 2019 issue of ***“The Monty”*** has everything a heat treater needs to know. In this issue we talk about whether CFC fixturing is becoming a trend and point to a very definite trend - that of the growth in Hot Isostatic Pressing. We have some very unfortunate news, the passing of Bernie Parry of AFC-Holcroft and Lance Miller, President of Metal Treating Institute for many years. We speak of auctions, auctions which include an enormous vacuum furnace and one which includes a number of batch IQ furnaces with working dimensions of 36” X 72” X 36”. Tales of new furnace installations are always a “staple” of each edition of ***“The Monty”*** and this issue is no exception. We talk of a commercial heat treat in California closing and we talk of one in Germany expanding. In short if you want to know about the latest news and trends in the heat treating industry along with the most up to date used furnace listings this issue has everything for you.

Wishing you a Very

Merry Christmas and a Happy New Year!

Sincerely Gord, Jordan and Dale Montgomery.



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HEAT TREAT NEWS

The Website of Choice for Captive and Commercial Heat Treaters Since 1999

Bernie Parry, Celebration of Life

Nov 29, 2019

Recently we mentioned the passing of Mr. Bernie Parry, an individual who spent his entire working life involved in the new furnace industry. A Celebration of Life for Bernie Parry will be held on December 5 in Wixom, MI., USA. Please send an email to sales@afc-holcroft.com if you would like details regarding timing & address for the event. Bernie's son Stephen put together a video for the Celebration Of Life which is available on YouTube at <https://youtu.be/pj4IqDcjHnE>.

Rochester Steel Treating Achieves Nadcap

Nov 29, 2019

Commercial heat treater Rochester Steel Treating in Rochester, New York recently became Nadcap certified and well as achieving AS 9100D & ISO 9001:2015. RST is a full service heat treater offering carburizing, nitriding, induction hardening and vacuum hardening. We had to have a photo to go with this news item so we rooted through our files and came up with this one which we took back in 2017 showing part of the RST team standing in front of a new addition to the plant.



*Longtime Rochester Steel Treating Works employees – Keith Heiden, left, technical director; Angel Bonilla, vacuum operator; Dave Kailburn, head of maintenance – stand in front of its new million-dollar vacuum processing furnace
(Photo: Provided by Rochester Steel Treating Works)*



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Happy Thanksgiving!

Nov 28, 2019

We at The Monty hope you enjoy your Thanksgiving with family and friends!



Stack Metallurgical Investments

Nov 28, 2019

Out on the US west coast, commercial heat treater Stack Metallurgical is making some very substantial investments. A local newspaper had this interesting article. *“Snow may have been predicted for later in the day and it may have been cold and the crowd may have been standing in the field on Marion Street with all the excitement and suspense of children on Christmas Eve, but the immense object being hoisted into the sky Tuesday wasn’t Santa’s sleigh – it was a gift for Albany’s titanium casting industry. Stack Metallurgical, which specializes in metal works and offers heat treatment and hot isostatic pressing (HIP), has been settling into Albany. On Tuesday, President Nels Plough watched as the puzzle’s last piece was dropped in. The equipment, a hot isostatic press, arrived in Albany from*

Sweden and stood several stories high as crews steadied it with the help of a crane to lift up over the roof and into the building. “This is a huge deal for us,” Plough said. “It’s a game changer for our company.”

Before Stack Metallurgical’s arrival, titanium casting was outsourced to companies in Washington and California. Economic Development Manager Seth Sherry said the company’s Albany presence would mean the local metals industry could keep their business here rather than outsourcing outside of the state. The main HIP unit was tagged at about \$18 million when it came before the Albany City Council in October. The cost of the entire project was expected to cost \$25 million. The council approved a \$745,000 loan to the company on Oct. 10.

The three pieces of the HIP were expected to be in place by Tuesday afternoon. Tuesday’s move-in day made good on a promise from Stack CEO Doug Puerta, who released a statement last year. In the statement, he said the company would invest \$30 million in the city, including purchasing land, erecting a building and bringing in a \$20 million HIP furnace. “We are truly delighted to bring large-scale HIP capacity to the Northwest U.S. market,” Puerta said in the release. “HIP is a complimentary service to our existing portfolio of offerings. Stack has always worked closely with its clients to make smart investments to support their metal processing needs. By expanding into HIP, we’ll be in a position to offer a really outstanding value proposition of capability, capacity, quality and service.”



Jim Merryweather Joins Commercial Heat Treat Wallwork

Nov 28, 2019

“Jim Merryweather has joined Wallwork Group as Vacuum Brazing Technical Sales Engineer. Over the last two years the company has invested £2.7 million in world class vacuum brazing facilities to meet growing demand. “It is an exciting

time to be joining Wallwork, they are experiencing significant orders from the aerospace sector – especially for critical hot engine parts like honeycombs, blades, vanes and more. I will be working with both UK and international clients alongside Peter Cookson our Vacuum Brazing Group Manager to help meet the challenges ahead,” Tim explained Tim has previously worked for Radshape Sheet Metal, Knight Strip Metals and VBC Group.

Experience has been gained with both aerospace OEMs and MROs. Project involvement includes Rolls-Royce, Lockheed Martin, GE, Siemens and Reaction Engines. “Helping customers with research and development is a large part of our work in the vacuum brazing department. Fostering a close working relationship is essential for long-term aerospace programmes and Wallwork having AS9100, Nadcap and many prime approvals gives them confidence in our ability to meet their advanced technical needs. Likewise, in motorsport, we can bring top teams all the experience gained from aerospace to help them rapidly develop winning components,” Tim added.



While mainly based at the company’s Cambridge site, Tim will also operate from Manchester, Birmingham and Newcastle. He will also become a regular in the Wallwork exhibition stand team and is especially looking forward to meeting customers on their Farnborough International Airshow stand in July 2020.”

John Deere, Waterloo, Iowa

Nov 27, 2019



John Deere out in Waterloo, Iowa, USA suffered a small fire Monday of this week at their downtown Waterloo heat treating facility. It appears that it occurred in the ducting but luckily everybody reacted quickly and efficiently and damage was very limited. John Deere is rated as one of the 10 largest captive heat treaters in North America by “The Monty”.

Solar Atmospheres, Western PA Constructs New Brazing/Assembly Room

Nov 27, 2019

Hermitage PA, November 26, 2019 – Solar Atmospheres of Western PA has completed construction of a new brazing and assembly room. Though built primarily to accommodate a large aluminum brazing project for a specific customer, the room will be used for other brazing and assembly work, as well. The temperature- and humidity-controlled room provides a clean environment for the critical assembly and alloying methods employed by Solar. All inventories of the clean components for final assemblies will be safely stored within the new space. Bob Hill, President of Solar Atmospheres of Western PA, states: “During successful development and prototype runs, our customer, along with Solar management, understood that in order to bring this critical aluminum brazing project to full production a separate braze/assembly room would be needed. We worked together with our customer to develop the best space that is in close proximity to the vacuum furnace being utilized.” For additional information about Solar Atmospheres, contact Mike Johnson at 1-855-934-3284 or mikej@solaratm.com, and visit us at www.solaratm.com.



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Heat Treat Mexico 20

Nov 27, 2019

March 3-5 ASM will be presenting Heat Treat Mexico 20 in Queretaro, Mexico <https://www.asminternational.org/web/heat-treat-mexico/home> Topics to be covered include CQI-9 for the automotive industry, NADCAP for the aerospace industry and discussions about carburizing furnaces and vacuum furnaces to name just a few. We at “The Monty” attended this event back in September 2016 and we found it to be well worthwhile-not the size of the really big shows but a very good cross section of the heat treating community in Mexico. By clicking on the Heat Treat Mexico 20 ad on this page you can find out everything you need to know about the show. We searched through our files and came up with these pictures from the event back in 2016. In the first you see **Gord Montgomery** and **Mario Mendez** who owns the largest commercial heat treater in Mexico-**ETSA**. In the second we see gentlemen from the two largest furnace builders in Mexico, **Nutec Bickley** and **Mattsa**.



Wittman Harterei, Uchingen, Germany

Nov 26, 2019

We recently visited commercial heat treater Wittman Harterei in Germany for the purpose of seeing their just completed expansion and new equipment additions. We did a full write up about the company at that time but we missed this photo. In it we can see the brand new portion of the facility which houses their nitriding department.



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People News

Nov 26, 2019

Remember how we mentioned a week ago how **Mike Arnold** a heat treat engineer working with one of the largest commercial heat treaters in Michigan had parted ways with the company? As it turns out he now has a really cool new position, that of **Heat Treat Process Coach** at **Ford Motor Company** in Michigan. We have no idea what this title means but it does sound like it could be a really fun job. Mike by the way has been heavily involved in vacuum carburizing of automotive transmission components and as we all know Ford maintains one of the largest vacuum carburizing installations in North America in Lima, Ohio which has numerous ECM furnaces. The fit is obvious. Commercial heat treater **Metlab** in PA, USA has a new Quality Manager, **Daniel Lewis** as we can see in this press release. And Metlab's claim to fame? The company runs some of the largest pit carburizing furnaces in North America.

“Metlab continues to build a successful business by providing quality heat treating and surface finishing services for its customers. To continue this legacy, Metlab has recently hired Daniel Lewis as the Quality Manager for the company. Mr. Lewis oversees a wide range of processes and procedures, including production planning and material management. The focus of his position is to be continually reviewing and updating the company’s quality procedures. “Quality is embedded in all of Metlab’s procedures and policies.” Lewis states. “Continual monitoring and improvement ensure efficient processes and consistently meeting our customer’s specifications. The work performed by the Quality Department is a critical element in the value of our services, but the most important thing is that we work with production management to ensure work consistently moves out the door.” Mr. Lewis is very familiar with all the heat-treating processes with a recent BA of in Materials Science & Engineering from Drexel, and on-the-job experience as a Metallurgical Engineer and Plant Metallurgist. To leverage the entire range of his expertise, Mr. Lewis is also involved with



metallurgical consulting to help with customer investigations by providing solutions and establishing preventative measures and processes.”

Monday Morning Briefing

Nov 25, 2019

We see that **Chicago Powdered Metal Products Co.**, a powdered metal manufacturer of auto components recently closed their Schiller Park, Illinois, USA plant. We knew little about this operation other than the fact that their heat treat was pretty typical for a powdered metal/sintering operation, a bunch of mesh belt sintering furnaces and some tired Endothermic generators. The picture below shows one of the furnaces.



Furnace builder **Nakal** of Russia tells us they have just started up a brand new roller hearth furnace in Ho Chi Minh City, Viet Nam. This is a Continuous roller hearth furnace, model SRO-3.60.3/11 designed for normalizing of pipes up to 18' long. Working dimensions of the furnace are 6000 mm long X 300 mm wide X 300 mm high with 3 zones of control and an operating temperature of 1100C. Nakal completed the installation, startup and commissioning of the furnace in October 2019 and the system is now in operation. Nakal is far and away the largest new furnace builder in Russia.



We happened to see that **Mr. Stephen Harris** is celebrating his 11th year as CEO of commercial heat treater **Bodycote**. After this length of time we feel we can give

him the ultimate compliment and say that he is a real heat treater. Come December 1, 2019 we are looking forward to publishing an interview with Stephen. By the way we have interviewed quite a number of prominent heat treaters over the years, the complete list can be found at <https://themonty.com/interviews/> We see that **Bill Baxter** of commercial heat treater **Premier Thermal** was recently promoted to Regional Manager-good for him. To find out how Premier compares in size to some of the other commercial heat treats we would suggest <https://themonty.com/largest-commercial-heat-treats/> *“Premier Thermal is pleased to announce that Bill Baxter has been promoted to Regional Manager with responsibility for NitroSteel and our North Vernon, IN Atmosphere Annealing facility. Bill is responsible for all aspects of plant operations and supporting new business development for both plants. Bill has been leading our Atmosphere Annealing North Vernon, plant since 2010. Prior to joining the company Bill was at Air Products and Chemicals in Applied Research and Development, the Plant Manager-Commercial Metal Heat Treating at ThermoFusion, Plant Manager at Bodycote, and Group Quality Manager at Bodycote. He has a B.S. in Metallurgical Engineering and Materials Science from Carnegie Mellon University.”*



ALD Thermal Treatment (the vacuum carburizing people) are pretty pleased with this **General Motors** award as they should be; *“GM Supplier Quality Excellence Award for the 5th time 22. November 2019 Mr. Muhammed Odeh, the General Motors (GM) supplier quality engineer, visited our ALD Thermal Treatment Inc. (Port Huron, MI, USA) plant to officially present the GM Supplier Quality Excellence Award for 2018. This is our 5th consecutive year for this prestigious award since 2014. ALD Thermal Treatment Inc. was once again recognized as a Supplier of the Year for providing Heat Treatment Services.”*

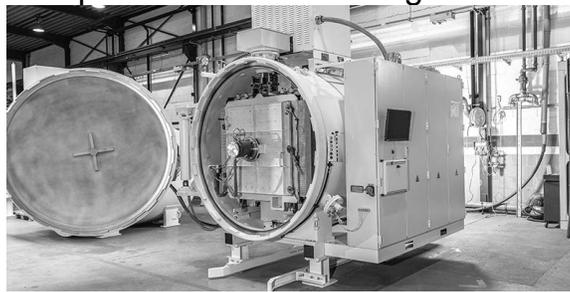


Koyo Bearings in Orangeburg, SC, USA to close. This press release tells us pretty well everything we need to know about the upcoming closure of Koyo Bearings in Orangeburg, SC. The only thing it doesn't tell us is what heat treating is done at this plant-that's why we have "**The Monty**". The captive heat treat department at this facility consists of 6 Koyo furnaces (3 mesh belt, and 3 batch) and 4 quench presses; "*The Koyo Bearings manufacturing facility in Orangeburg will end manufacturing operations by March of 2021. The company's parent corporation, JTEKT North America (JNA), made the announcement Wednesday. "After careful consideration, our Koyo Bearings facility in Orangeburg, SC will cease manufacturing operations by March 2021. The facility's current distribution center operations will continue," JTEKT officials said in a statement released Wednesday afternoon. "Production will ramp down based on customer demands, and we are committed to open and advanced communication to our 362 team members at the Orangeburg facility."*

Shanghai Heat Treatment. According to this press release Shanghai Heat Treatment in China is entering into a partnership with an Italian manufacturer of quenchant. "*Shanghai Heat Treatment Co., LTD. and Italy's Thurckon Heat Treatment Technology Co., Ltd., witnessed by the Chinese and Italian governments officially signed a strategic cooperation agreement, looking forward to creating a better future for both sides.*" This press release caught our attention as we are very familiar with the company and it's owner **Mr. Kent Zuo**. When China liberalized their restrictions on private ownership a number of years back Kent saw an opportunity and took what was a government owned commercial heat treat and turned it into one of the largest commercial heat treaters in the country. Obviously he is continuing to grow the company and this includes partnerships with foreign companies. One of the photos below shows Kent back in 2010 when we visited his facility.



And to round things out commercial heat treater **Härdservice** in Kolbäck, Sweden just installed a brand new Ipsen Turbo2Treater M with 12 bar quenching. This is the second vacuum furnace the company has installed at this location and this particular unit just entered production 2 weeks ago.



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Let's keep in touch:









Lance Miller, Metal Treating Institute

Nov 22, 2019

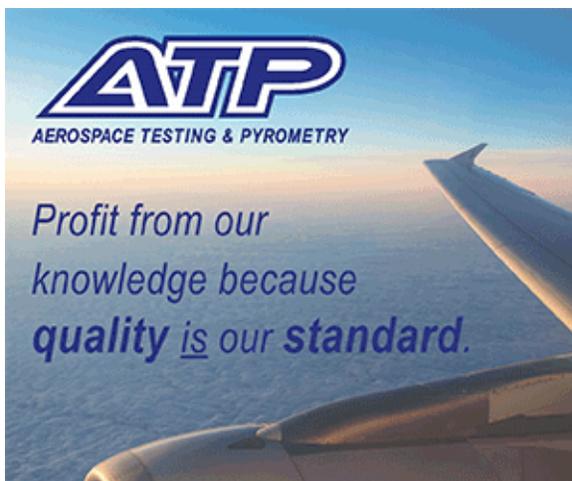
For those of you who aren't familiar with MTI (Metal Treating Institute) it is the largest organizations of commercial heat treaters in North America. **Doug Peters** of **Peters Heat Treating** in Meadville, PA has these very touching comments about the passing of Lance Miller, who was Executive Director of MTI for 31 years. *"Today one of the Heat Treating industry greats passed. **Mr. Lance Miller** was the Executive Director of the Metal Treating Institute for 31 years. He epitomized the Institute's human spirit. In his eyes it always belonged to the Members. When it is all said and done, the amount of money in the Treasury won't mean a thing. Lance's legacy of belonging, kindness, and dignity will live within the Metal Treating Institute forever."*



Ipsen To Ship Large Pusher Furnace

Nov 22, 2019

In Kleve, Germany furnace manufacturer Ipsen is preparing to ship this very impressive 2 row pusher furnace. We have few details to add except to say that it is for a captive heat treater in Europe. This is what the furnace looked like when we visited this facility just a few weeks back.



Bodycote Trading Update – 20th November 2019

Nov 21, 2019

Bodycote, the world's largest commercial heat treater issued a trading update for the 4 month period from July 1 to October 31, 2019. As always it makes for interesting reading as it gives us a real insight into which areas, both geographic and sector wise are doing well and which are not doing as well. All the details can be found at <https://www.bodycote.com/> By the way you can look forward to an interview with **Mr. Stephen Harris**, the CEO of Bodycote December 1, 2019 on this page.

Summary and Outlook; *Bodycote's performance in the period reflected a continuation of the trends of the first half, with civil aerospace revenues growing strongly; and the automotive and general industrial market sectors remaining soft. Cost control initiatives remain a priority, with a particular focus on the areas of our operations where we are seeing revenue weakness. Consequently, margins and underlying cash generation remain strong. Overall, Bodycote's Board is confident that the Group's full year result will be in line with current market expectations.*

Trading Update; *Market conditions during the period have remained as they were at the half-year. Group revenue for the period was £244.7m, 1% higher than last year (1% decline at constant currency). Growth in both Specialist Technologies and Emerging Markets improved. Specialist Technologies' revenue grew 6% during the period (5% at constant currency) while Emerging Markets' revenue grew 14% (12% at constant currency). Group revenue for the 10 months to 31 October 2019 was flat, with the period result representing a marginally improving trend on the first-half growth rate.*

All percentage movements in the following review of the Group's markets compare to the same period from July to October 2018, at constant currency, unless otherwise stated.

Civil aerospace revenue grew ahead of the background market. Total civil aerospace revenue grew 14%, with North America again registering particularly good growth, benefiting from an increase in both content and volume of LEAP engines.

Energy revenue declined 2%, as growth in subsea was more than offset by weakness in North American onshore revenue. Industrial Gas Turbines (IGT) revenue registered modest growth against the comparable period for the first time in two years, although it is too early to assume that this resumption in growth will continue.

Car and light truck revenue declined 6%. Western Europe continued to be the main area of weakness, with revenue dropping 14%. We have now passed the anniversary of the introduction of the Worldwide Harmonised Light Vehicle Test Procedure (WLTP) regulations in Europe.

However, poor visibility on the future direction of the market leads us to continue to prepare ourselves for all eventualities.

General industrial revenue was 6% lower, with capital expenditure related revenues continuing to be soft as macroeconomic uncertainty remains heightened.

On a divisional basis, ADE revenues were up 6% to £103.4m at actual rates (up 3% at constant currency, and also up 3% for the 10 months to 31 October 2019), while AGI revenues were down 3% to £141.4m (down 4% at constant currency, and for the 10 months to 31 October 2019, down 5%).



Ashland Precision Tooling LLC., Ashland, Ohio, USA

Nov 21, 2019

Just yesterday there was an auction at Ashland Precision Tooling LLC, in Ohio, a company which described itself as a “Forge Tooling & Bearing Component Manufacturer”. The equipment being auctioned off included all the usual blah, blah, blah stuff but also some heat treating equipment most notably a Plateg Plasma nitridizer/coater with working dimensions of 24” X 28”, built in 1997, an electric Surface Combustion 36 X 48 batch IQ furnace and a Surface endo generator. While we still don’t know what the Surface equipment sold for we do understand that the Plateg unit sold for \$50,000 USD which caught our attention. Plateg is based in Germany and while they make good systems they are seldom heard of in North America due to their very limited north American marketing and restricted technical support.



Bernie Parry

Nov 20, 2019

It is with great regret that we mention the passing of Mr. Bernie Parry truly a legend in the North American heat treatment industry. Originally from Wales Bernie’s entire working life was spent working with the best known furnace manufacturers in North America and consequently many, many captive and commercial heat treaters around the world worked with Bernie at one time or another. I believe all who knew him would agree that he was always precise, impeccably well dressed and extremely knowledgeable about heat treating-in all my time spent with Bernie I believe only once did a customer ask him a question for which he did not have an answer. He will be missed both personally and professionally by all in the industry. We will have more details about Bernie’s life later this week. Gord Montgomery

"It is with great sadness that I must announce the passing of Bernie Parry. Bernie was a long-time colleague and friend to many of us. He started working at Atmosphere Furnace Company (AFC) in 1996 and had previously worked at a number of other heat treat equipment manufacturers, including Holcroft, starting in the industry in 1968. Bernie retired almost six years ago but had stayed connected at AFC-Holcroft and periodically helped out with special projects. Throughout his long career he was well known throughout the heat treat industry as one of the most knowledgeable people with all aspects of heat treatment equipment. He was a long term mentor to me and many others throughout the years. We pass on our prayers and heartfelt condolences to his family and friends. We will keep everyone aware of any future plans to honor Bernie's life. Like many of you, I will miss my dear friend. Bill Disler, CEO, AFC-Holcroft.



Sue and Bernie Parry - Bernie with his son, Stephen and his grandson Evan

An advertisement for PhoenixTM Systems for TUS Measurements. The top left features the PhoenixTM logo, a stylized orange and blue phoenix. To the right of the logo is the text "PhoenixTM" in blue, "Phoenix Temperature Measurement" in smaller black text, and a small graphic of three colored squares (yellow, red, blue). Further right is the slogan "... where experience counts!". Below this is the main heading "Systems for TUS Measurements" in bold black text. The central image shows a large industrial metal furnace with its door open, revealing internal components. In the foreground, there is a blue device labeled "PTM1220" with the PhoenixTM logo, and several coiled cables. At the bottom, the website "www.phoenixtm.com" and email "info@phoenixtm.com" are listed.

An advertisement for Aichelin group. The top part features the "Aichelin" logo in red, with "group" in smaller black text below it. The central image is a close-up of a person's eyes, which are a striking red color. At the bottom, the text "Focus on Technology" is written in white on a dark grey background.

Accurate Brazing Adds Second Hot Isostatic Press from Quintus Technologies

Nov 19, 2019

*“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 Quintus Technologies; Quintus Technologies is the global leader in high pressure technology. The company designs, manufactures, installs, and supports high pressure systems for sheet metal forming and densification of advanced materials. Quintus has delivered over 1,900 systems to customers within industries such as aerospace, automotive, energy, and medical implants. The company is headquartered in Västerås, Sweden, with a presence in 45 countries worldwide. For more information, go to www.quintustechnologies.com

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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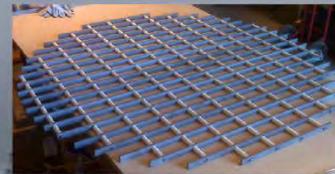
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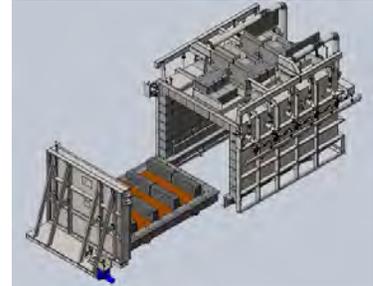
Gasbarre Supplies a Car Bottom Furnace to a US Based Manufacturer of Excavating Equipment

Nov 19, 2019

“Gasbarre Thermal Processing Systems recently manufactured and commissioned a High Temperature Car Bottom Furnace for a Southern US Manufacturer of Excavating Equipment. The furnace has a work zone of 84 inches wide by 144 inches long by 48 inches high with a 16,000 lbs. load capacity. The operating temperature is 1000°F (538°C) to 2282°F (1250°C), and will be used for stress relieving, normalizing, and other high temperature processes. The furnace was purchased to replace an existing furnace, which gave the customer improved operating efficiency and higher temperature processing capabilities. The heating system features low emissions gas-fired burners with a custom designed control scheme to meet the customers strict NOx and CO requirements. The furnace meets AMS 2750 temperature uniformity requirements across a wide temperature

operating range, and was custom designed to fit into the customer's existing space in their facility.

Located in Plymouth, MI, Gasbarre Thermal Processing Systems has been designing, manufacturing, and servicing a full line of industrial thermal processing equipment for over 40 years. Gasbarre's product offering includes both batch and continuous heat processing equipment and specializes in Temper, Tip Up, Mesh Belt, Nitriding, Box, Car Bottom, Pit, and Vacuum Furnaces as well as a full line of replacement parts and auxiliary equipment which consists of atmosphere generators, washers, quench tanks, and charge cars. Gasbarre continues to service and support J. L. Becker brand equipment and custom designs and manufactures thermal processing equipment to meet customer's specific needs.



For more information on how Gasbarre can manufacture custom-engineered heat treating equipment solutions for your specific thermal processing requirements, please contact Patrick Weymer at (815) 721-6467 or via email at pweymer@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.).”

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Kern Liebers, Mexico Adds More Vacuum Nitriding Capacity

Nov 17, 2019

This week we start off with a news item from Mexico about captive/Commercial heat treater **Kern Liebers** in Queretaro adding some more vacuum nitriding capacity. *“Rohde Installs New Vacuum Nitriding Furnace at Kern Liebers Mexico Plant; In these pictures we see a brand new Rohde furnace that has been installed at the Kern Liebers plant located in Queretaro, Mexico. This is the 3rd Rohde furnace at this plant. It is a vacuum nitriding pit furnace with working dimensions of 160/350. Over the years Rohde has delivered several furnaces to Kern Liebers’ plants worldwide. This new furnace will start production in January 2020 at the Queretaro plant. In the one picture below we see from left to right: Luis Andrade (Kern Liebers, Mexico), Tim Lotz (Rohde), Emmanuel Cabrera (Kern Liebers, Mexico) and Stefan Braun (Rohde).”*



Mike Arnold

Nov 17, 2019

Mike Arnold, Heat Treat Engineer at **ALD Thermal Treatment** in Port Huron, MI., USA has parted ways with the company to try new challenges. ALD in Port Huron is one of the largest single location heat treats in North America and specializes in vacuum carburizing of automotive transmission components. While we don't have a photo of Mike we do have these picture of the facility which were taken earlier this year by **Jordan Montgomery**.



Steve Hutchinson, Braddock Metallurgical

Nov 17, 2019

Down in the US Southeast **Braddock Metallurgical** are the “big boys” on the block when it comes to heat treating—we have this people news from the company; *“Braddock Metallurgical Aerospace Services congratulates **Steve Hutchinson**, General Manager – Boynton Beach, FL facility on his retirement. We thank Steve for all the years of dedicated service and commitment to Braddock Metallurgical. His contributions, knowledge, and passion have been integral to the success and growth of the company. He will be greatly missed but his retirement is well deserved. We hope Steve is blessed in his retirement with much joy, rest, and many successful fishing trips.”*



Heat Treat Equipment Auctions

Nov 15, 2019

For reasons completely unknown to us there appears to be a significant number of auctions featuring used heat treat equipment coming up in the near future. The details of two of these auctions can be found in the “Hilco” banner ad. The one auction features an enormous Abar Ipsen vacuum furnace which is located at a closed Aerojet Rocketdyne facility in California. The second covers all of the

equipment at the Bluewater Thermal facility in Canada which recently shut down. These by the way are only two of several auctions to be held in the next few months featuring heat treat equipment.



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AUCTION

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Valley Metal Treating Inc. To Close

Nov 13, 2019

We have been told that commercial heat treater Valley Metal Treating Inc., in Pomona, California, USA will be closing their doors within the next two weeks. We know little about the company beyond the fact that it is a small to medium sized operation which offers a wide variety of processes. We always find it upsetting to see any company having to close their doors but particularly so in this case as the company is over 70 years old. While we don't know the details behind the closing we did run across this posting from a customer which appears to put the blame on the stringent California environmental regulations.

“Established in 1936, Valley heat treat is forced to close its doors because of California air quality control management. The upgrades required were not feasible and so yet another company closes here in SoCal. Regulations are getting out of hand and affecting 1000's of local business. Plating companies have been hard hit here as well. After using Valley for decades, we are now forced to look elsewhere and that sucks.”





Sauber Motorsport To Install Quintus HIP System

Nov 13, 2019

Seems like every time we turn around these days we hear about Quintus selling another HIP system. If you would like a nice, clear, easy to read article about why Hot Isostatic Pressing seems to be attracting so much attention these days we would suggest reading this interview with the CEO of the company Mr. Jan Söderström. By the way the photo that accompanies this news item was taken just last week at Paulo in Cleveland, Ohio, USA during their open house to showcase their brand new Quintus system.

<https://themonty.com/project/mr-jan-soderstrom-quintus-technologies-interview/>

“Sauber Motorsport AG, a part of the Sauber Group of Companies, launched a long-term partnership with Title Sponsor Alfa Romeo in 2018 and have now chosen Quintus Technologies to supply their hot isostatic pressing (HIP) equipment. “The partnership with Quintus is an important milestone on Sauber Engineering’s Additive Manufacturing journey” said Christoph Hansen, head of technical development at Sauber Engineering AG. “The implementation of the hot isostatic pressing process adds massive value in bringing performance to our car as well as for the demanding needs of our customers. By using Quintus’s HIP technology, the Sauber Group will be able to push the boundaries of what we do even further and bring the materials we produce to an outstanding level.”



With the QIH 21 M URQ®, Alfa Romeo Racing has access to Quintus’s proprietary URQ® technology, which allows heat treatment and cooling to be combined in a single process, known as high-pressure heat treatment. The QIH 21 M URQ® has an operating temperature of 2,552°F (1,400°C). “We are excited to be partnering with one of the most iconic Formula One teams—Alfa Romeo Racing,” said Jan Söderström, CEO of Quintus Technologies. “This collaboration brings together two organizations at the forefront of advanced development and product innovation in the AM field. Working with Alfa Romeo Racing also gives us at Quintus a unique opportunity to show a large audience how well the modern HIP technology optimizes material properties.”

Solar Manufacturing Ships Furnace to Science and Technology Lab

Nov 13, 2019

“Solar Manufacturing has shipped a vacuum furnace for processing additive manufactured parts to a large science and technology laboratory. The lab requires the furnace to further their research and development work. Built with Solar Manufacturing’s SolarVac® Polaris control system and a graphite-insulated hot zone, the furnace is designed to accommodate loads up to 36” wide x 36” high x 48” deep, with a maximum weight of 5,000 lbs. Operating at a vacuum level of 10-5 Torr, with maximum temperatures up to 2400 °F, and quench pressure of two bar, the furnace will be commissioned by year’s end.

“Solar Manufacturing was awarded the order because we offered the best solution for this customer’s vacuum furnace needs,” comments Dan Insogna, Solar Manufacturing’s Southeast Sales Manager. “Our knowledge and experience of the Additive Manufacturing market set us apart from the competition. We are pleased to provide a solution to the growing research and development efforts within the Additive Manufacturing Industry, and we know our Solar Manufacturing vacuum furnace is the right tool for job.”



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.”

South-Tek Systems Expands

Nov 13, 2019

South-Tek is becoming a fairly well known name in the business of on site nitrogen generating systems for the heat treating industry making this a rather interesting news item.

“South-Tek Systems LLC, a leading designer and manufacturer of nitrogen generators for a diversified worldwide marketplace, will move into an existing 66,000-sq.-ft. building on US Highway 421 in Wilmington as part of an enhanced growth strategy that includes additional hiring and new products. Established in Wilmington in 1997, the company was privately held until its November 2018 acquisition by Pflingsten Partners LLC, a Chicago-based private equity group. South-Tek began quietly considering a move to larger space three years ago, according to Alan Norman, the company’s vice president of operations. “At that time, there wasn’t much space in Wilmington larger than 40,000 square-feet,” Norman says. With the acquisition by Pflingsten last year, the company stepped up its site search with a call to WBD. “In receiving additional resources for growth, we knew we needed to move,” he says. With its vast contacts in Greater Wilmington’s industrial real estate market, WBD had heard of an available building that could fit the company’s growing needs. “Scott [Satterfield] connected us with the right agent and got the ball rolling,” says Norman. The company hopes to relocate to its new facility next month, a move that will take its operations from 28,000 square-feet to 66,000 square-feet. “We’re expecting tremendous growth in the next five years – people, revenue, products, everything,” says Scott Bodemann, president of South-Tek Systems. A major wave of reinvestment in marketing, R&D and product development is behind the wave of growth. Thus far in 2019, for example, South-Tek has added 17 jobs to its workforce, bringing its headcount to 64. “In

considering both office and manufacturing space, we've reached the maximum capacity of South-Tek's current facility," says Bodemann. "We are excited to transition into the larger building as it will increase our efficiencies as well as allow us to better plan for the future needs of our customers."



Greg Pope and Paul Cairney of South Tek along with Aaron Ackerman an established rep in the Michigan area.

ALD Vacuum Technologies Supplies Single-Chamber Vacuum Furnace to the Aerospace Industry

Nov 12, 2019

"Since 1989 the first generation of ALD's single-chamber vacuum furnaces has been running reliably in the production facility of Oerlikon Metco Coatings GmbH in Salzgitter, Germany. In September of this year, a purchase order for another state-of-the-art furnace, a type ALD MonoTherm®. This furnace also meets Nadcap and AMS requirements. With the existing ALD system and the new unit, Oerlikon Metco Coatings will be able to double their heat treatment capacity for vacuum heat treatment of critical aerospace components."



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Gasbarre Partners with Humberto Bastidas and Thermal Technic Furnace Solutions in Mexico

Nov 12, 2019

“Gasbarre Thermal Processing Systems recently met and partnered with Humberto Bastidas from Thermal Technic Furnace Solutions. Current and future customers can now experience the benefit of having a local Mexico resident that speaks Spanish and prides himself on providing the best possible customer service he can. Humberto has many years of experience in the heat treating field and market place and is a welcome extended addition to the Gasbarre team! Gasbarre will be working with Humberto and his team to launch a Spanish version of Gasbarre.com in the coming weeks and will assist with other marketing efforts in that region. Please join us in welcoming Humberto Bastidas to the Gasbarre family.

Located in St. Marys, PA, Gasbarre Thermal Processing Systems has been designing, manufacturing, and servicing a full line of industrial thermal processing equipment for over 40 years. Gasbarre’s product offering includes both batch and continuous heat processing equipment and specializes in Temper, Tip Up, Mesh Belt, Nitriding, Box, Car Bottom, Pit, and Vacuum Furnaces as well as a full line of replacement parts and auxiliary equipment which consists of atmosphere generators, washers, quench tanks, and charge cars. Gasbarre continues to service and support Sinterite brand equipment and custom designs and manufactures thermal processing equipment to meet customer’s specific needs. For more information on how Gasbarre can manufacture custom-engineered heat treating equipment solutions for your specific thermal heating requirements, please contact Mark Saline at (814) 834-2200 or via email at msaline@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.).”





Live Onsite & Webcast Auction
5 December 2019 10:00 am ET
Kitchener, Ontario, Canada



Live Onsite & Webcast Auction
10 December 10:00 am PT
Rancho Cordova, California, USA

Complete Thermal Processing Facility

Allcase, Temper, Uni-Draw & Aging Furnaces,
Aluminum Heat Treat, Mesh Belt Lines,
Salt Bath, Charge Cars & Heat Treat Lab



Preview: 4 December 2019, 8:00 am - 4:00 pm ET
or by appointment

- (15) Allcase, Temper, Uni-Draw, High-Heat & Aging Furnaces - to 2000°F, Gas-Fired
- (2) CAN-ENG Aluminum Heat Treat Systems, Continuous Systems Integrated into Lean Manufacturing Cells
- (2) Mesh Belt Lines with Quench System
- (2) DEDP Charge Cars
- Heat Treat Salt Bath System
- Endothermic Generator, 3600-CFH
- Complete Heat Treat Lab

Contact: John Sharpe

jsharpe@hilcoglobal.com | +1 416.252.1955
hilcoind.com/sale/bluewater

Missile & Rocket Propulsion Manufacturing Facility

Composite Structure Forming,
Advanced Large Capacity Heat & Vacuum
Treating, CNC Machining, QA & More



Preview: 9 December 2019, 8:00 am - 4:00 pm PT
or by appointment

- Abar/Ipsen Vacuum Compression Braze Furnace
- Baron 10' Autoclave
- Baron 72'L x 15'W x 13'6"H Pass-Through Oven
- Grieve 10'W x 22'L x 8'H Walk-In Oven
- (7) Grieve, Despatch & Baron Electric Ovens
- (2) Environmental Test Chambers
- (3) Heated Platen Compression Molding Presses
- AVR/Hamilton Standard Electron Beam Welder

Contact: John Magnuson

jmagnuson@hilcoglobal.com | +1 847.504.3204
hilcoind.com/sale/aerojet

Regal Beloit, Valparaiso, Indiana, USA to Close

Nov 12, 2019

Back in early October of 2019 we had a news item about how Regal Beloit in Valparaiso, Indiana might be closing. According to local news sources (below) it has been determined that the plant will close at some future date. It's a real shame to see a company which produces such high end parts, in this case helicopter bearings close down. They are mentioned here because the facility has a fairly large in house heat treating department which includes several batch IQ furnaces, freezers and a reasonably large vacuum heat treating department.

“VALPARAISO, October 15; Wisconsin-based Regal Beloit Corp. and the union representing workers have reached an agreement about the closing of a helicopter bearing factory in Valparaiso. According to our partners at [The Times of Northwest Indiana](#), the decision will cost between 160 to 170 workers their jobs. The company decided to close the plant after workers went on strike this summer who were upset over wages and out-of-pocket healthcare expenses. The workers are members of the International Association of Machinists Local 2018. The publication reports workers went on strike in June and then decided to end the strike in late August after Regal said it would close the plant so the two sides could resume negotiations. But the only agreement that was reached was on the terms of the closing, according to the Times. The publication says Regal Beloit has not yet determined when the factory will close. The company says workers can apply for open positions at their plant in Monticello or any other Regal facility. “Regal is, unfortunately, still moving forward with closing the plant,” International Association of Machinists & Aerospace Workers spokeswoman LaToya Egwuekwe-Smith said. “However, they have not yet said when. An effects agreement covering severance and benefits was reached with the company and approved by the membership.” The factory, which ran for more than 100 years as McGill Manufacturing, was acquired by Regal Beloit five years ago. It provided bearings to helicopter makers like Sikorsky Aircraft and Bell Helicopter.”



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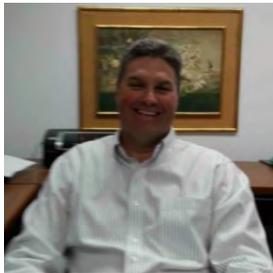
Monday Morning Briefing

Nov 11, 2019

We start off our Monday Morning Briefing for December 11, 2019 with people news starting with **Mary Springer** of commercial heat treater **Thermtech** in Wisconsin, USA. *“At their October 2019 Meeting in Vancouver, Canada the Metal Treating Institute (MTI) recognized Mary Springer from Thermtech in Waukesha, WI with the Heritage Award. The Heritage Award is MTI’s most prestigious award. The Heritage Award is given to a MTI member in recognition to the individual with a lifetime commitment to the betterment of the heat treating industry with one or more notable accomplishments. MTI President, Pete Jamie Jones from Solar Atmospheres stated during the award ceremony, “When it comes to our industry, Mary is a tireless volunteer who cares deeply about making a difference and serving where needed. Over her career she has made a big impact on the MTI as well as our Foundation. She exemplifies what being a difference maker looks like in the heat treating industry.” Only 13 other people have received the MTI Heritage Award since 1933. Thermtech has been a MTI member since 1985. MTI would like to say “Thank You” to Mary Springer for her commitment and work in the heat treating industry.”*



Chuck Gee recently became Vice President Sales and Marketing at **California Brazing** out in California. Chuck comes from a heat treat background having worked with companies such as Bodycote and HiTech Metallurgical over the years. Going through our notes we found this news item about California Brazing which dates back to January of this year; ***"JANUARY 2019 POSTING Trive Capital Partners Acquires California Brazing. Well we now have our first acquisition in the North American commercial heat treating industry for 2019. An equity firm by the***



name of Trive Capital just announced that they have acquired California Brazing with two locations, California Brazing in Newark, CA and Nevada Heat Treating, located in Carson City Nevada. Both locations were owned by Rich Penrose, a very well known individual in the North American heat treating community. It has been pretty common knowledge for some time that the company was for sale with rumors suggesting that buyer to be an equity firm but this is the first definite news. Sales for the two locations are estimated to be in the range of \$25 million USD per year."

In Poland **Mr. Chris Fita** recently became Plant Manager of the **Bodycote** location in Rzeszow after spending several years with the company as Sales Development Manager. This facility is fairly new, having been built in 2015 as you can see in this press release from that year; ***"JUNE 2015 POSTING. Bodycote, the world's largest thermal processing services provider, recently opened a new heat treatment site on Wroclaw, Poland as part of its expansion strategy in Eastern Europe. Building on this investment Bodycote today announces its intention to open another Greenfield heat treatment site in the aviation valley close to Rzeszow, Poland. The new facility will support the manufacturing supply chains in this region and is expected to be operational by second half of 2016. Initially, vacuum heat treatment, vacuum brazing, and nitriding will be offered. Other processes will follow as demand for heat treatment services in the region continues to grow. Additional customer supporting services are likely to include HVOF and plasma coatings, vacuum oil quench and aluminum heat treatment. The new facility will hold international quality standards***



including Nadcap and AS 9100, as well as OEM approvals. First-tier suppliers to United Technologies Corporation (UTC), Rolls-Royce and SAFRAN, among others, will be supported.”

We now move to Upstate, New York, USA to see what **Mr. Gregg Bixler** is up to.



Gregg has worked with family owned **Elmira Heat Treat** for over 25 years now, for most of that time as Facilities Maintenance Manager. Very recently we see that he was promoted to Assistant Plant Manager. Gregg is one of the more competent Maintenance people we have run across in the industry so we have no doubts but that he will do a great job in

his new position.

Now this is quite a furnace isn't it? It has appeared on the used equipment market in North America and comes out of a closed down **Aerojet Rocketdyne** facility in the US. Apparently it was built by **Abar Ipsen** back in 2002 and is a model HR-120 X 152 VC which means it has working dimensions of 120" X 152" long-6 bar quenching. Its quite a furnace and looks to be in very good shape but how it actually works we can't tell you as it is a design we are not familiar with. We can tell you that it will be going to auction soon and we will have all the details, along with details about the auction getting rid of all of the equipment at what once was the **Bluewater Thermal** facility in Kitchener, Canada.



And speaking of big furnaces how about this one? This has been built by French furnace builder **BMI** for a customer in China who will use it for vacuum annealing and stress relieving of titanium alloy large welded parts. Capacity is 10,000 pounds.



To round things out for the week we have this interesting write up about **Härtha Hardening Industries** in Weissenburg, Germany;

As you can see below we have been able to visit several of the **Härtha Hardening Industries** (commercial heat treating) locations around Europe over the course of the past year. A visit to Germany last week gave us the chance to see the company's location in Weissenburg, which was the first time for us. This particular facility was founded in 1997 and works closely with their sister facility in Cadolzburg (founded in 2008) which is 70 km away. The two plants have a total of 92 employees headed by managing director Mr. Thomas Bückert which makes this a fairly good sized commercial heat treatment plant. This particular plant in Cadolzburg is quite specialized with a number of Plasma Nitriding furnaces, combined with vacuum furnaces and gas nitriding systems – all designed to serve the automotive, medical and extrusion die industries. It's a pretty cool plant, absolutely immaculate and one of the largest Plasma Nitriding locations in Germany. We see in these photos **Mr. Mario Neuwerth** who is the plant manager (dark sweater) along with **Joern Rohde** of **ROHDE Schutzgasöfen GmbH** and **Gord Montgomery**.

“JULY 5/2019; Regular readers of “The Monty” will be aware that over the course of the past year the name “Härtha Hardening Industries” has been popping up with increasing regularity in our news items which is really no surprise as we ranked the company as one of the larger commercial heat treaters in Europe <https://themonty.com/largest-european-commercial-heat-treaters-february-2019/>. After recent visits to their HÄNDLE location in Tübingen, Germany and their SABO plant in Boxtel, The Netherlands we had the opportunity just last week to see their headquarters in Aldenhoven, Germany where we learned more about the company as a whole which makes for a rather interesting story;

The HALEX Group, managed by the Halex Holding, Germany has two divisions; Halex Extrusion Dies and Härtha Hardening Industries- combined the company has 14 subsidiaries with a total of 550 employees, all based in Europe. As usual our interest starts and ends with the heat treating portion of the business, Härtha Hardening. The company entered the commercial heat treating business as a family business in 1993 with a facility in Weissenburg Germany and over the years other locations have been added including HÄNDLE in Tübingen, Germany (2016), SABO in Boxtel, The Netherlands (2016) a greenfield expansion of Härtha in Verona, Italy (2018) and the acquisition of Forte in Stollerg, Germany (2018). The end result is a total of 9 independent heat treat shops in 4 countries.

Now that we have covered the Group as a whole let's have a look at the Aldenhoven location We would consider the plant to be larger than the average commercial heat treat in Europe with over 50 employees, a production floor of 1,625 m2 and sales of over 6.5 million Euros annually. The focus of this plant is largely on vacuum hardening and gas nitriding, though also offering various other processes And our impression-well these photos tell the story. A nice clean modern shop, with clean, quite new equipment-impressive in short and we look forward to seeing some of the other Härtha locations in the future.”





Paulo, Cleveland, USA

Nov 8, 2019

Yesterday we had two photos which were taken at commercial heat treat Paulo in Cleveland, Ohio, USA during their open house to showcase their brand new Quintus HIP (Hot Isostatic Press System) system. The “Hipping” process reflects a small but growing trend in the commercial heat treatment industry in North America with several companies entering the market in the past year. In July of this year we had a news item about this project and the company overall-this can be found below but at this point we can share a little more information with you. Currently this plant has a total of 41 furnaces, 35 of which are vacuum furnaces. The building expansion which is mentioned below and can be seen in one of the photos below will allow the company to install 12 more vacuum furnaces in the years to come as well as another HIP system. Overall the company invests over \$10 million USD back into the company on an annual basis. You can see why this company has grown and prospered since it was started in 1943.

“JULY 2019 POST And Speaking About Hot Isostatic Pressing-Paulo

It's always interesting to see trends developing in the industry and certainly the expansion of Hot Isostatic Pressing in the commercial heat treating market can be considered a trend (although with the initial cost of the equipment being quite high we certainly do not expect Joe's Bar & Heat Treat to be entering the market). Last year Paulo announced that they were investing in the technology and the company has kindly provided us with this update about the installation.

“Exciting news from Paulo’s Cleveland Division where the Hot Isostatic Press has been delivered and is currently being installed. The furnace arrived after a long voyage from Sweden where it was built by Quintus Technologies. The modular elements as well as the pressure vessel and yoke are being set in place currently. The installation is on schedule and the vessel is slated to be ready for production early September. The 30,000sqft expansion to house the HIP vessel is complete and will provide the Cleveland Division room for additional expansion to support customer needs. Rigging is nearly complete as the many large components are set in place, the heaviest is the yoke, weighing in at over 80,000lbs. The yoke contains the vessel while under pressures, which can reach 30,000 psi. Also pictured are the power and pumping modules which form the structure around the vessel. Paulo is excited to add HIP to its service offerings especially in light of the recent growth of additive manufacturing.

“Many of the products we heat treat are HIP’ed prior to us receiving them, adding HIP allows us to be a one stop shop for many customers as well as growing our presence in the world of Additive Manufacturing,” said Phil Harris, Marketing Manager. Installation and startup will continue for several weeks with both cold and hot testing and training to be completed by September. The construction of the expansion is nearly complete as seen below. Founded in 1943, Paulo is one of the largest providers of thermal processing and metal finishing solutions in North America. Headquartered in St. Louis, Paulo operates six divisions servicing the Midwest, Great Lakes, and Southeast regions of the United States and northern Mexico.”



Mr. Johan Hjärne, Sales Manager, Quintus Technologies, Mr. Ben Rassieur, CEO, Paulo

Wisconsin Oven Ships Multi-Zone Web Dryers For Drying And Curing Carbon Fiber

Nov 8, 2019

“Wisconsin Oven is pleased to announce the shipment of two (2) Electrically Heated Multi-Zone Curing Ovens to the composites industry. These ovens will be used to cure carbon fiber threads. One of the curing ovens has six (6) zones and is rated for 250° C (482° F). and has work chamber dimensions of 19’0" wide x 16’4" long x 2’0" high. The second oven has two (2) zones and is rated for 260° C (500° F) with work chamber dimensions of 19’0" wide x 41’4" long x 2’0" high. Guaranteed temperature uniformity of $\pm 5^{\circ}$ C @ their respective maximum temperature ratings was documented with a profile test for both ovens.”



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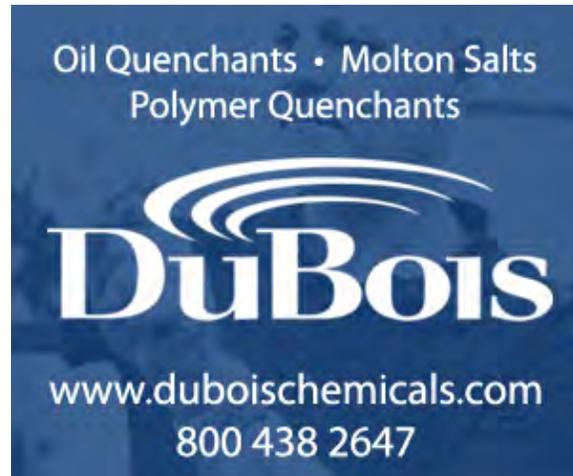
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The advertisement features a white and blue ELO-X induction oven with a control panel. A glowing, multi-colored circular graphic resembling an eye is positioned above the oven. The background is dark with a blue glow.

Oil Quenchants • Molton Salts
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DuBois

www.duboischemicals.com
800 438 2647

The advertisement has a dark blue background with white text. It features the DuBois logo, which consists of three curved lines above the company name. The contact information is provided at the bottom.

Paulo, Cleveland, Ohio, USA Open House

Nov 7, 2019

Earlier today commercial heat treater **Paulo** (who we have rated as the second largest commercial heat treater in North America <https://themonty.com/largest-commercial-heat-treats/>) had an open house to celebrate the ribbon cutting ceremony of their brand new **Hot Isostatic Press System**, at their Cleveland, Ohio plant. **Jordan Montgomery** from “**The Monty**” was in attendance and has provided these photos-we will have more details about this event along with more photos Friday of this week.



Aichelin Service Group, Ludwigsburg, Germany

Nov 7, 2019

Based in Austria the Aichelin Furnace Group is amongst the largest furnace builders in the world so it is rather odd to see that the spare parts/service department for the company is located in another country-Germany to be exact. Since 2004 the Aichelin Service Group has been based in Ludwigsburg, Germany which is near the major city of Stuttgart-at this point some background is in order. When the service group was formed the logic was that the service and spare parts department of any company can become secondary to that of building new equipment, hence the decision was made to set up a completely separate company, “Aichelin Service Group” near the city of Stuttgart which was where Aichelin originally started and where many of the company’s installations are located. Since that time the service group has grown and prospered, so much so that it now had annual sales of 45 million euros and employs 140 people around the world with 80 people in this location alone. At some point in the past the decision was made to provide spare parts and service for any brand of furnace

which means today the group spends 20-25% of their time on competitors equipment. It's an interesting concept and one which we have run across a couple of times recently although this sounds like the first example since it dates back 15 years now. In this photo you can see a couple of the people responsible for this success; Mr. Stephan Mueller, Head of Product Development, Carsten Stoelting, CEO of Aichelin Service Group and Gord Montgomery.



Heat Treat 2019 Detroit, Michigan, USA

Nov 6, 2019

We are rolling out our last few photos from the recent "Heat Treat 2019" exhibition in Detroit, Michigan.



Greg Pope and Paul Cairney of South-Tek Systems with Aaron Ackerman of Met Pro in Michigan



Jordan Montgomery, Heat Treat Central



Ryan and Jeff McLaughlin, Ben Tackett, McLaughlin Furnace Group

CFC Fixturing-A Growing Trend?

Nov 6, 2019

CFC (Carbon Fiber Composite) furnace fixtures have been around for quite some time but have always occupied a very tiny portion of the worldwide furnace fixture market with the vast bulk of fixturing being made of either 330SS material for fabricated fixturing or an equivalent cast material, HT or HU. The benefits of CFC are very clear, an almost indefinite lifespan, no distortion and very light weight.

Balanced against this is the fact that CFC is damned expensive which means up until recently it was only found in aerospace vacuum furnace applications. Having said that over the course of the past few years it has enjoyed quite a bit of success for holding automotive transmission components in vacuum carburizing situations, and it now appears ready to see some success in endothermic/oil quench situations. We have run across a number of captive and commercial heat treaters who are in the process of testing

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CFC fixturing in these applications with the main driver being the reduced weight. Consider that the fixtures will last almost for ever and the reduced weight can mean up to a few hundred pounds more of actual product in a batch IQ furnace load and the numbers become quite interesting. Not for a second are we predicting that CFC is going to take over the market any time soon but we do predict that it will become more known. To give you a bit more of an idea about CFC products these two pictures were taken last week at **Graphite Materials** in Germany, a substantial supplier to the worldwide CFC market. The pictures give you a fair idea about what a facility for producing CFC fixtures actually looks like.



The End of An Era-B&W Heat Treating, Kitchener, Canada

Nov 5, 2019

October 1 2019 we had the news item below about commercial heat treater B & W Heat Treating (Now Bluewater Thermal) closing their doors for good. All the details are below including a mention about how the Beingessner family owned and ran the company for many years. As a kind of farewell the entire Beingessner family gathered at the now closed facility just yesterday for a last look. In the photo below we see from the left; Gord Montgomery, Dr. Claire Beingessner, Jim Beingessner, Jerry Beingessner, John Beingessner (now running commercial heat treat Aberfoyle Metal Treating also in Ontario) and Mr. Brian Reid of Park Thermal. December 5th 2019 the equipment will be auctioned off by Hilco Industrial in partnership with Park Thermal.

October 1/2019. "As ranked by "The Monty" Bluewater Thermal Solutions <https://bluewaterthermal.com/> is one of the largest commercial heat treaters in North America with 12 different heat treating and brazing facilities in the USA and Canada. Unfortunately we have been informed that yesterday, September 30th 2019 the facility in Kitchener, Canada closed for good. The history

of this location is quite fascinating; it was founded in 1945 and for many years was owned by the Beingessner family until they sold to Gibraltar Steel in 2002 at which point the company had annual sales of approximately \$15.5 million (Canadian) making it the largest commercial heat treater in Canada at that time. It remained part of the Gibraltar commercial heat treating division (which included the Carolina Commercial facilities-now part of Bodycote) until Gibraltar sold off the entire division which was renamed Bluewater Thermal.”

September 27, 2019. *“Filing Type: Receivership. Company Counsel: Chaitons. Trustee: Farber. Applicant: Cerberus Business Financial; B&W Heat Treating Canada, a Kitchener, Ontario-based supplier of heat-treating services for customers with aluminum, steel, alloy or metal parts that require heat treatment, was placed in receivership on September 27 on application by Cerberus Business Financial, owed together with certain other lenders approximately US \$3.0 million. Until several years ago, the largest and most profitable part of the company’s business was processing engine blocks for its main customer, which represented approximately 37% of the company’s revenue. In 2015/2016, the customer transferred its business to Mexico, away from the company. As a result of the loss of business, the company has suffered operating losses for several years. Despite attempts to scale back costs, the company was unable to return to profitability and made the decision to sell the business and its assets. A sale process has led to a proposed transaction with Hilco, which will be completed through the receivership. Farber was appointed receiver. Counsel is McMillan for the applicant and Chaitons for the company.”*





Ipsen, Kleve, Germany

Nov 5, 2019

October 28th, 2019 as part of the "Monday Morning Briefing" we had some notes about our recent visit to furnace manufacturer Ipsen at their headquarters in Kleve, Germany. As a follow up to that visit we have these additional photos along with a caption for each, describing in a bit more details what we are looking at.



Ipsen Kleve, Germany has an in house welding department for manufacturing vacuum furnace housings and pressure vessels up to 20 bar abs.



Another high vacuum furnace with stainless steel furnace housing for brazing. This furnace will be equipped with a molybdenum hot zone and turbo- molecular vacuum pumps. Installation will be in a clean room and the ultimate vacuum is in the range of 10^{-7} mbar/ torr. Left to right; Oliver Obladen, Michael Simon, Dr. Bora Özkan



Left to right; Oliver Obladen, Michael Simon, Dr. Bora Özkan standing in front of a continuous 3- Chamber High Vacuum Furnace. This furnace is equipped with a pre- chamber (1), inner doors, internal loading systems, heating chamber (2) and cooling chamber (3). During operation the gas-/ fan cooling takes place in the cold cooling chamber and the hot zone stays on temperature.



System Expert Oliver Obladen is showing the new Ipsen VacTreater. The Ipsen VacTreater was launched in October 2019 with the slogan “Revolution from Tradition” and comes with dedicated and pre-configured packages for different industry sectors <https://vactreater.com/>



Monday Morning Briefing

Nov 4, 2019

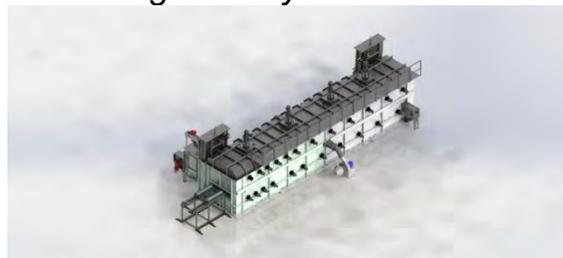
According to this press release **Voestalpine** in the Czech Republic recently added a **Nitrex Nitriding system**. While we personally have not had a chance to visit this particular facility we have seen several around the world including this one in South Africa and we can say that without exception each is absolutely top notch in terms of heat treating technology; *“The High Performance Metals Division of Voestalpine AG in the Czech Republic has expanded its heat treatment capabilities with the addition of a Nitrex system for nitriding and surface hardening stainless steel for various applications. The new pit-type furnace, an NX-820 model, is configured to process 31.5" diameter by 78.75" high (800 mm by 2000 mm) workloads that weigh up to 3850 lbs (1750 kg) and complements a prior Nitrex system installed in 2008 that combined NitregR-C gas nitrocarburizing technology with ONCR post-oxidizing technology for processing firearms.*

As part of the new system order, Voestalpine and Nitrex have expanded their cooperation, granting Voestalpine the exclusive rights to commercialize NitregR-S and Nano-ST technologies in the Czech Republic. “The agreement builds on a strong partnership and confirms the market potential of hardening technologies for stainless steels. Under the terms of the license, Nitrex will work closely with Voestalpine to help meet their customer demands with research and process development for a variety of applications, materials, and markets,” said Marcin Stoklosa, Special Projects Manager of Nitrex Metal. Since 2005, Nitrex Metal has

been building a lifelong customer relationship with voestalpine and its affiliates – Assab, Assab Steels, Assab Tooling, and Böhler-Uddeholm. Today, the company operates twelve Nitrex nitriding and nitrocarburizing systems in nine countries including China, the Czech Republic, Hungary, Indonesia, Poland, Slovakia, Taiwan, Thailand, and Turkey.”



Remember this press release from **McLaughlin Furnace Group** in Indiana, USA about a pusher furnace order from earlier this year? Our understanding is that furnace run off will take place the end of November with the furnace being shipped and installed shortly thereafter; *“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.”*



In Tonawanda, New York commercial heat treater **B&W Heat Treating Inc.**, is adding 6,000 square feet and more capacity in an effort to be a “one stop shop” for their customers. B&W is a family owned company in its second generation and is now the only commercial heat treater in the Buffalo, New York area.



Mike Wright of **HEF USA** has decided to retire after 40 years in the the field of liquid nitrocarburizing although he does plan on starting a consulting business- Mike was Sales and Service Manager for the company. Few commercial heat treaters in the world have the experience that HEF does when it comes to liquid nitrocarburizing and the company is rated as one of the largest commercial heat treaters in Europe according to "**The Monty**". <https://themonty.com/largest-european-commercial-heat-treaters-february-2019/> During the recent Heat Treat 2019 exhibition in Detroit we mentioned a rumor about Plasma Nitriding supplier **Ion Heat** landing a nice order for brand new plasma nitriding system from a customer in the USA-we can confirm that this was certainly true although we can't provide the name of the customer. We can also say the company has landed some more work involving some of their current equipment in the US. We predict that Ion Heat is going to become a fairly well known name in North America for Plasma (Ion) nitriding systems. This photo was taken at the show and shows the owner of the company **Mr. Andres Bernal** in the centre and to his left **Steven Sossa**.



For some time we have been mentioning a really interesting opportunity for an ambitious heat treater, an opportunity which is still available. A small **Commercial Heat Treat** in the Rocky Mountain area of the US is for sale and the ideal new owner would be an experience commercial heat treater who has always wanted to run his own operation and at the same time live in one of the most beautiful areas of the USA. This is a small company but quite profitable-for more details Jordan

Montgomery jordan@themonty.com The former **TorqTek** facility in Charleston, SC, USA is now completely closed with most of the equipment removed. This was a supplier of automotive components which was acquired by American Axle a few years back. We mention the company because at one time it had a fairly substantial heat treat department.

We still have a few photos from the recent heat treat exhibitions in the USA and Germany which we have not yet shared, here are a couple more. In addition we have a number of interesting news items from Germany to share with you over the course of the next couple of weeks.



And to round things out commercial heat treater **Hauck** in Eindhoven, Netherlands recently expanded their facility by 1,000 square meters and added the vacuum furnace you see in the attached photo. We have rated Hauck as the second largest commercial heat treater in Europe as you can see here <https://themonty.com/largest-european-commercial-heat-treaters-february-2019/> Showing once again how small the global heat treating industry is we should mention that Hauck's parent company Aalberts Industries bought commercial heat treater Applied Process in the US early this year moving them into the ranks of one of the largest commercials in the USA.



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HEMO GmbH Cleaning Systems-An Interview with Andreas Fritz, Managing Director

Nov 1, 2019

Today we are very pleased to offer you an interview with Mr. Andreas Fritz, Managing Director of HEMO GmbH based in Ötisheim, Germany a major supplier of some of the most advanced cleaning systems in the world <https://themonty.com/project/mr-andreas-fritz-managing-director-hemo-gmbh/>. We are not going to go into too much detail about the company at this point as Andreas gives us a very good background in his interview-however we will share with you a couple of photos of the plant as we say it Tuesday of this week. The plant itself is brand new and production is roughly 70% custom systems, 30% standard products and overall about a third of the systems they produce are for heat treatment applications. As you can see in these photos the factory is filled almost to capacity with partially completed systems, all which are vacuum based. The first photo shows Mr. Tom Weiss, Sales Manager on the left, and Mr. Volker Hoesel, Managing Director on the right. The system you see behind them is very shortly going to be shipped to a captive/commercial heat treater in North America-unfortunately we are not allowed to share the customer's name but it is one which would be recognized by many heat treaters in North America. All we can really add is that boy these guys make top end cleaning systems.



Used Ipsen “Titan” Furnace Sold

Nov 1, 2019

The “Titan” line of vacuum furnaces which were introduced by Ipsen a number of years back have proven to be quite a success story with well over 300 built and sold-this success translates into a high resale value. For instance this unit; Model 5100-TITAN, s/n 5100-B013-B3 4039, built in 2013 came on the market 2 weeks ago and was offered by a used equipment dealer in Iowa, USA. There was no asking price, rather this took the form of an auction and it took exactly 2 weeks to sell. While we don’t know the final sale price we do know that there were a number of offers made and our understanding was that the final sale price was quite respectable.



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Please email Jordan at [**jordan@themonty.com**](mailto:jordan@themonty.com) all pertinent information including asking price (which we strongly recommend) age, condition and if possible photos. When selling please keep in mind that we do NOT ask for an exclusive sales agreement – ***if we don't sell it we don't get paid – PERIOD***. You can't lose by listing with **themonty.com** we sell your equipment or we don't get paid-period.

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BATCH IQ FURNACES

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#IQ469 Surface Combustion “Super 30” Batch IQ Furnace

Manufactured by Surface Combustion this is a Batch IQ furnace with working dimensions of 30" X 48" X 30". Batch IQ furnace S/N BX-41206-1. Electrically heated with top cool and updated SSI controls. Built approximately 1980. Set up for endo atmosphere with ammonia addition. Currently installed but not in use. Furnace is complete, installed and ready to go. Shut down approximately 5 months ago. Excellent condition.

Asking Price: \$49,000 USD

<https://themonty.com/project/itemiq469-surface-combustion-super-30-batch-iq-furnace/>

Item#IQ468 Surface Combustion “Super 36 Allcase” Furnaces (2 available)

“Proelectric” 36" X 48" X 30" High Surface Combustion batch IQ furnaces (2 available). Serial numbers BC-42068-1A and BC-42068-1B. Electrically heated with a maximum operating temperature of 1900F. Top cool, state of the art SSI touch screen controls and SSI oxygen probes. Quench oil filters and rear handlers. Both built in 1983. Currently running on endothermic atmosphere. Very good condition, complete and currently installed. Shut down very recently. **Asking \$69,000 USD Each**

<https://themonty.com/project/itemiq468-surface-combustion-super-36-allcase-furnaces-2-available/>

Item#IQ465 Surface Combustion “Super 36” Batch IQ Furnace

Manufactured by Surface Combustion in 2001 this is a gas fired batch IQ furnace with working dimensions of 36" X 48" X 36" and a weight capacity of 3500 pounds. Set up for endo atmosphere. Pneumatically actuated quench elevator , top cool, furnace fan and updated SSI touch pad controls. Currently installed but not in use. Very good condition.

Asking Price \$160,000 USD

<https://themonty.com/project/surface-combustion-super-36-batch-iq-furnace/>

Item#IQ463 Ipsen T-7 Batch IQ Furnace

Ipsen Model: T7-1000-DGM Batch IQ Furnace. Serial #52044. Type: Straight Through Atmosphere Integral Quench Furnace

Processes: Carburizing, Neutral Hardening and Carbonitriding

Heat Input: Natural Gas-Fired (12 Silicon Carbide Radiant Tubes)

Work Zone: 30"W x 48"D x 20"H

Max. Temp: 1850°F (Typically operated at 1750°F)

Max. Load Wt.: 1350 lb at 1550F

Quenchant Heating and Cooling: Yes (SBS Oil Cooler)

Loading/Unloading: Ipsen “T7 Trans. Loader” powered Front-end Loader and Roller Unload Table

Pit Required: None

Carbon Control: SSI Gold Probe

Controls: Super Systems, Inc. 9120 touch screen, with SSI Series 7 & 7SL controllers, Digital data logging (currently tied into plant-wide SSI Super Data system)

Insulation Type: Brick-lined

Condition: Refurbished by Unitherm, Converted to Eclipse Recuperative Burners (still under warranty)

Included: Any available spare parts, Ammonia Tank.

Footprint: 8'-6" Wide x 27' Long x ~14-1/2' High

Alloy: Grids and baskets may be available

Asking Price \$59,000 USD

<https://themonty.com/project/itemvf350-ipsen-t-7-batch-iq-furnace/>

Item#IQB461 Surface Combustion Batch IQ

Surface Combustion Batch IQ Furnace. Standard Surface Combustion Integral Quench Furnace with single quench cylinder and rear handler. This furnace has "Trident" type radiant tubes with Eclipse burners and Eclipse recuperation. Natural gas fired 1,000,000 BTU's. Serial Number BX-35790-1. Max operating temperature 1750°F with a voltage of 460/3/60. Working dimensions of 30"W x 20"H x 48"L. Approximate external dimensions 10'w x 10'h x 15'l. Controls: Mounted and wired in a free standing panel includes a current SSi control system with PLC and computer. Very good condition and available immediately.

Asking Price \$65,000 USD

<https://themonty.com/project/itemb461-surface-combustion-batch-iq/>

Item#IQB445 Surface Combustion Batch IQ's (3 Available)

Surface combustion gas fired batch IQ furnaces model "Super 36". Working dimensions of 36" wide X 48" deep X 32" high. Late 1980's vintage. Casemate controls, SBS quench oil filter. Set up for endo atmosphere with ammonia addition. Furnaces were in operation until February 27th 2018, now in indoor storage in the Detroit, Michigan area. Complete and in good operating condition. Alloy and brickwork in reasonably good condition.

Asking Price \$99,000 USD Each Loaded On A Truck

<https://themonty.com/project/itemb445-surface-combustion-batch-iqs-3-available/>

Item#IQ442 SOLO Quenching Machine

SOLO Quenching Machine 209-30/30 6981 – 1150 °C. Built by Solo of Switzerland this is a SOLO 209-30/30 model. This furnace was manufactured in 1991. Quenching machine for self-hardening and oil quenching. Composition: quenching Bell Furnace, nitrogen quenching unit, tempering furnace, oil quenching unit, controller / programmer, operator panel, temperature controller, hydraulic control. Dedicated for austenitizing, annealing, tempering, oil quenching, quenching under nitrogen. Max. temperature: 1150°C. Main voltage: 3 x 400 V – 50 Hz. Power input: 10 kW. Effective load dimensions: Diameter 300 mm*Height 300 mm. Max. loading weight: 20 kg. Protective gas: N2 or mixture N2 to max. 5 % H2. Overall dimensions: Height 2200mm, width 2070mm, depth 2250m. Possibility of mounting and commissioning by the manufacturer (SOLO). Located in France. Good condition. All manuals included.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemb442-solo-quenching-machine/>

Item#IQ441 GM Batch IQ Furnace

GM Batch IQ with Top Cool. Manufacturer: GM. Type: Integral Quench Furnace with Top Cool. Heated: Natural Gas – 1.2 M BTU's/Hour. Max. Temperature: 1450-1875 deg. Voltage: 460/3/60. Work Area: 36"W x 36"H x 48"L. Controls: All mounted in two freestanding panels next to the furnace Includes motor starters relays, pushbuttons, signal lights etc. Honeywell indicating controller and overtemp. Honeywell circular chart recorder for recording temperature. Carbon control system.

Description: Furnace has (4) "U" shaped radiant tubes mounted vertically, (2) on each side wall. Heated by recuperated burners. Alloy roller rail hearth, alloy circulating fan, dual quench cylinders, top cool chamber and heated quench tank. Brick lined with fiber roof. Rear handler system, 1998 vintage. Installed, complete and operational. Condition: Very Good. Availability: Immediate.

Asking Price \$150,000 USD

<https://themonty.com/project/itemb441-gm-batch-iq-furnace/>

Item#IQ439 Surface Combustion Batch IQ Furnace

Surface Combustion "Allcase" batch IQ furnace with working dimensions of 36" X 48" X 30" high. Natural gas heating, 1 MBTU's/Hour. Maximum operating temperature of 1750F, voltage 460/3/60. External Dimensions: 10'W x 12'H x 15'L. Controls: All mounted in a panel attached to the furnace includes motor starters relays, pushbuttons, signal lights etc. Honeywell digital strip chart recorder for recording temperature, indicating controller and overtemp. Partlow controls for oil heating/cooling. Description: Surface Combustion Allcase Furnace with (6) "U" shaped radiant tubes mounted vertically 3 on each side wall. Fiber lined. Alloy roller rail hearth, alloy circulating fan, dual quench cylinders, top cool chamber and heated quench tank. Furnace has some missing components (temperature controls, pressure switches, ignition transformers, regulator) which will be replaced prior to shipment. Condition: Very Good.

Asking Price \$80,000 USD

<https://themonty.com/project/itemb439-surface-combustion-batch-iq-furnace/>

Item#IQ438 Holcroft Batch IQ Furnace Line

Holcroft Batch IQ Furnace Line. Model GP2500. Serial Number S/N #CJ-4233. Installed new in 1980. Gas fired, working dimensions of 30" X 48" X 30" and a capacity of 2500 pounds. Furnace was operational until shut down on 11/30/17 when plant closed. Also included is a double ended charge car (Holcroft) to handle loads of 30" X 48" and a Holcroft Spray/Dunk washer with heating system 30" X 48" X 30". Complete, in very good condition and ready to go.

Asking Price \$60,000 USD

<https://themonty.com/project/itemb438-holcroft-batch-iq-furnace-line/>

Item#IQ398 Sauder Batch IQ Line

Sauder Batch IQ Line. Serial Number 881978-83. Electrically heated 480/3/60/150kW total load. Maximum operating temperature of 1850F. Working dimensions of 24" Wide X 24" high X 36" long. Controls; Mounted and wired in an enclosure attached to the right hand side of the furnace includes a Marathon 10 Pro digital temperature controller, Marathon Carbpro digital carbon controller, Barber Colman analog high limit and a Honeywell digital strip chart recorder. Three power meters are face mounted to the same enclosure which monitor power in each zone of the furnace. A Halmar "SCR" power controller controls power to the heating elements. Two (2) Allen Bradley PLC controllers are mounted in the same enclosure. Standard In/Out Integral Quench Furnace w/Top Cool. This line consists of IQ furnace with top cool, heated quench tank, charge car, dunk & spray washer, temper furnace, SBS oil cooler, scissors table, atmosphere flow panel and several spare parts. Very good condition. Asking \$125,000 USD for the complete line. Shipping Dimensions:

Temper Oven: 72"W x 11'H x 72"L

Washer: 80"W x 10'3"H x 120"L

Furnace: 109"W x 11'H x 96"L

Quench: 106" x 10'H x 72"

Top Cool: Skid – 5' x 5' x 6'H

Charge Car: 78"W x 60"H x 86"L

Misc. skids, flow panel, SBS, spare parts

Asking Price \$125,000 USD

<https://themonty.com/project/itemb398-sauder-batch-iq-line/>

BATCH FURNACES

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#B474 New Pyradia Inert Atmosphere Retort Furnace

Furnace Construction: Bottom Loading Retort Electric Furnace w/ Semi-Automatic Electro-Pneumatic. Loading Cart. Ceramic Fiber Insulation. RA330 Sealed Retort Construction. Primed & Painted 3/16" Steel Shell. Working Dimensions: \varnothing 36" x 30"H. Retort Inside Dimensions: \varnothing 44" x 36"H. Design Temp: 2000F. Working Temp: Up to 1800F. Uniformity: +/-25F @ 1800F. Heating Power: 180KW, Watlow SCR. Heat-Up Ramp: Ambient to 1800F in 120 min (loaded oven). Max Gross Load: 800lbs. Heating Element Type: Sandvik ROB Heating System w/ APM Heating elements. Furnace Atmosphere: Argon/H₂ Mix (<4%). Voltage: 600/3/60. Amperage: 200 amps. Recirculation Fan: Plug Type, Radial, 3 HP, Water Cooled. Cooling: External to retort, 5 HP blower with additional 1/2 HP forced air fan. Instrumentation: AMS2750E, Type B compatible. Gas Panel: Complete Ar/H₂ gas panel with flowmeters, pressure regulators, manual & solenoid valves & flow switches, SSI O₂ sensor, SSI Dew point sensor. Controls: NEMA 12 electrical enclosures, Micrologix PLC, Kep 7" Touchscreen HMI, Eurotherm Nanodac Temperature Controller, Eurotherm 3216 Limit Controller, Eurotherm 6100A, Digital Chart Recorder w/ Up to 12 Recording Inputs for Load TCs, Batching capability, Bar Code, Scanner, Uninterrupted Power Supply (UPS), 1-Ton Air cooled Temptek TCU, CSA Approved. Extras: 2x Forced Air Cooled Tables, 2X Carbon Fiber Fixture Grids. NEW!

Asking \$375,000 Canadian (Approximately 295,000 USD)

<https://themonty.com/project/itemb474-pyradia-inert-atmosphere-retort-furnace/>

Item#B473 Pit Carburizing Furnaces (2 available)

Manufactured by Surface Combustion these are gas fired units with an operating temperature of 1750 F. SSI controls. Working dimensions of 48" X 72". Endo

atmosphere with recirculating fan in the bottom. Currently installed but not in use. Excellent condition.

Asking \$150,000 USD Each Loaded On A Truck

<https://themonty.com/project/itemb473-pit-carburizing-furnaces-2-available/>

Item#B472 Ionitech's Plasma Nitriding Cold-Wall furnace

Ionitech's Plasma nitriding Cold-Wall furnace ION-75CWI, with 2 Chambers and one control. The furnace is capable of Plasma Nitriding, Plasma nitrocarburising, and Post-oxidation, processing big and small parts and tools. The furnace has been used for 4 years at Ionitech's facility and has been taken care of perfectly – it is good as new. It still works daily. It has been retrofitted to work with our absolutely user-friendly touchscreen control panel. The process is really easy to control. Ionitech gives full time support as maintenance and technology after purchase. Working dimensions of Chamber 1 are Ø 1000 mm x 1100 mm and max weight of tool for processing 1500 kg. Chamber 2 – Ø 750 mm x 2000 mm and max weight of tool for processing 1500 kg. Purchase can be done with only one chamber. Located in Europe.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemb472-ionitechs-plasma-nitriding-cold-wall-furnace/>

Item#B471 Lindberg Pit Nitrider

Lindberg Pit Nitrider. Lindberg Cyclone "Pit Nitriding" furnace with removable fan assembly & retort. There are twelve (12) bolt locks which seal the fan assembly to the gasket on the retort. Fan assembly sets on a steel stand when not in use. Alloy retort sets in a steel support when not in use. Electrically heated with a voltage of 230/3/60/105 kW. Model # 3896-E12 and serial # 14030. Max operating temperature is 1250°F. Working dimensions of 36" diameter x 84" deep with external dimensions of 5'w x 9'4"H x 7'l – Furnace Only. Controls mounted and wired in a free standing panel includes all necessary controls for proper operation.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemb471-lindberg-pit-nitrider/>

Item#B452 AHT Fluidized Bed Furnace

Applied Heat Technologies (AHT) fluidized bed furnace. Treatment chamber is 300 mm diameter x 900 mm deep (roughly 12 in diameter x 36 in deep.) Maximum temperature is 1050 °C (1922°F). Maximum load is rated at 50 kg at 1000 °C (110 lb at 1832 °F) and 90 kg at 570 °C (198 lb at 1058 °F.) Mark® fluid bed furnace controller software. Silicon carbide heating elements, 25 kW, configured in delta. Piping is set to accept nitrogen, argon, hydrogen chloride (HCl), and hydrogen gasses. Inert material is P120 grit aluminum oxide (Al₂O₃) powder. The fluidized bed is designed to deposit vanadium carbide (and other carbides with correct chemistry) onto steel. The fluidized bed system comes with a propane burner, HCl detection system, and scrubber system. The system also has a hood and quench bed that came with it but these have not been used and it cannot be verified that they work. The fluidized bed system with scrubber is currently operational but is not being used. Almost new heating elements with one spare included. **Asking Price \$99,000 USD**

<https://themonty.com/project/itemb452-aht-fluidized-bed-furnace/>

Item#B448 Kleenair Products Tip Up Style Furnaces

Tip Up Furnaces (3 available). Manufactured by Kleenair Products these “Tip Up” style furnaces have working dimensions of 60” wide X 60” high X 72” long. Natural gas heating-1200CFH. Maximum temperature 1500F & 2000F. 460/6/60 electrical. External dimensions of 8’W x 10’6”H (closed) x 14’L Each, 13’6”H when open. Controls: Temperature controls are missing. There is one (1) control cabinet which houses the flame relay modules, motor starters etc. and is common to all three (3) furnaces. Description: Currently available are two (2) 1500°F furnaces and one (1) 2000°F furnace. There is also one (1) loader and one (1) quench tank. Furnaces are ceramic fiber lined with Eclipse “TJ” direct

fired burners. Burners fire from top rear and bottom front under the refractory piers. Dual hydraulic cylinders open/close the furnace cover. One (1) common hydraulic power unit for all three (3) furnaces. We will separate the line to sell individually or as a whole. We can provide hydraulic power units for each furnace. Very good condition.

Asking Price \$55,000 USD Each

or

\$150,000 USD For All Three

<https://themonty.com/project/itemb448-kleenair-products-tip-up-style-furnaces/>

Item#B436 Lindberg Pit Gas Nitrider

36" x 60" pit gas nitrider (Lindberg Homo Nitrider – electric) built in late '70's, c/w with Super Systems Gas Nitriding Control system built in 2012. System was operational up until decommissioning last year, when it was replaced with new equipment. Price includes fixtures shown in pictures.

Asking Price \$50,000 USD

<https://themonty.com/project/itemb436-lindberg-pit-gas-nitrider/>

Item#B426 Plateg Plasma Nitriding Unit

Manufactured by Plateg this is a Plateg Puls Plasma Nitriding unit. Type; Hot Wall Plasma Nitriding Furnace (Tandem). Built in 1997, the programmer was replaced in 2017. Working dimensions of 1000 mm diameter X 1250 mm high. Load capacity 1000 kg. Installed power 95 kW, 400 V, 50 Hz, 160 A. Located in Turkey.

Asking Price \$98,000 Euro

<https://themonty.com/project/itemb426-plateg-plasma-nitriding-unit/>

Item#B415 J.L.Becker Car Bottom

J.L. Becker Car Bottom. Working Dimensions are 96" wide x 180" Long x 66"High with a Maximum Temperature of 1,800 Deg. F. Natural Gas fired with 4.3 Million Btu's. Serial Number: J 2060. Double Ended Car Bottom with Air Operated Doors to accommodate Dual – Full Length Motorized Cars. Each Car is 108" wide x 200" long with Castable Refractory Floor Insulation – Sand Sealed. The Furnace is Fiber/Refractory Lined with 8 Tempest Burners (4) per side wall, firing opposite and opposed. The Exhaust Flues are floor level mounted for excellent temperature uniformity. Temperature Controls : Free Standing Panel Honeywell Digital Controls and Honeywell Tru-line Circular Chart Recorder.

Asking Price \$95,000 USD

<https://themonty.com/project/itemb415-j-l-becker-car-bottom/>

Box Furnaces

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#BOX469 SierraTherm Forced Convection Elevator Batch Oven

SierraTherm LTCC16-24-4A 8500 Series Forced Convection Elevator Batch Oven. The internal dimensions of the chamber are approximately 18" inches wide by 18" inches deep by 24" inches high. The advertised temperature achievable is 1050°C. The Oven comes with the two computers, one monitor, one mouse, & one keyboard, as shown. One computer has the SierraTherm Furnace Monitoring System Software loaded on it, as shown. The power requirements are 240Vac 3-phase 60Hz. Each of the computers power-up although only one has the SierraTherm Furnace Monitoring System Software loaded on it.

Asking Price \$42,500 USD

<https://themonty.com/project/itembox469-sierratherm-forced-convection-elevator-batch-oven/>

Item#BOX468 SierraTherm Elevator Hearth Box Furnace

Model; LTCC-16-24-4A. Voltage; 240V 3Ph 109A 60Hz. Maximum operating temperature of 1050 degrees C. Working dimensions of 16" high x 24" wide x 24" deep.

General Application Parameters:

- o Maximum Temperature Rating: 1050° C
- o Atmosphere System: Designed for air atmosphere.
- o Heating Method: Ceramic fiber block with imbedded resistive wire heating elements.
- o Batch processing: bottom load elevator

Rated to 1050 °C, this SierraTherm Series features an energy efficient, ultra clean, low mass refractory heating chamber. All models include the MicroTherm

Windows based user interface with 20 segment temperature and gas flow programming. Temperature cycling can be programmed using starting and ending temperature, rise and cooling rates, and time duration. Multiple vertical heated zones, as well as power trimming to all four element panels (left, right, front, back) provide for precise temperature stability and control throughout the process chamber. A sophisticated atmosphere inlet and exhaust system features four independently adjustable gas inlets and corresponding exhaust ports to efficiently extract burn-off effluents throughout the process chamber. Excellent condition.

Asking Price \$59,500 USD

<https://themonty.com/project/itembox468-esierratherm-elevator-hearth-box-furnace/>

Item#467 L & L Special Furnace Box Furnace

Model MDL.FB777-FA11-01-G394-480R39H96, Serial Number H496LN.

Electrically heated 480/3/60/150 kW/187 Amps. Maximum operating temperature of 1800F. Working dimensions of 72"W x 72"H x 72"L (7'Cube Inside), outside dimensions of 9'W x 12'5"H x 8'L. Controls; Mounted and wired in a free standing NEMA 1 enclosure with fused disconnect on the left hand side of the furnace. Honeywell UDC digital temperature controls for control and high limit. Strip chart recorder and process timer is also included. SCR provides consistent power to the heating elements. A cooling blower with filter helps with cooling the enclosure. Furnace is lined with ceramic fiber on all sides, top, and bottom between the castable piers. The door is a double hinged right hand swing type door with four (4) hand wheel clamps for a tight seal. The furnace hearth consists of 4 rows of castable spaced evenly for forklift loading. Hearth capacity is 10,000 pounds. Alloy based nickel chrome coiled heating elements are located on both side walls, rear wall and door which provides uniform heating. There is a 2 HP roof mounted fan in this furnace. Door limit switch cuts power to the heating elements and fan when the door is open. Very good condition.

Asking Price \$47,500 USD

<https://themonty.com/project/item467-l-l-special-furnace-box-furnace/>

Item#BOX466 Grieve Top Loading Furnace

Model# PT-3642, Serial# 140. Manufactured by Grieve this is a top loading furnace with working dimensions of 36" Wide X 42" Deep X 36" Long and a capacity of 31.5 cubic feet. Electrically heated 460/3/60 @ 70 KW, 2,000 F maximum operating temperature. Description; Manually operated counter balance door, brick lined, helical coil Kanthal heating elements on all four sides, gasketed cover fully self contained. Temperature Controls; Honeywell "Dial a Troll" control with "Dial a Pak" Overtemp. Built in 1982. Very good condition.

Asking Price \$14,500 USD

<https://themonty.com/project/itembox466-grieve-top-loading-furnace/>

Item#BOX465 Electra Box Furnace

Electra Box Furnace. Floor model high temperature box style furnace with a manually operated vertical lift door with counterweight for easy operation. A door limit switch cuts power to the elements when the door is opened. The furnace is refractory lined and has a silicon carbide hearth plate supported on brick piers. Twenty four silicon carbide elements mounted horizontally across the furnace chamber, 12 elements over the top and 12 under the hearth for good uniform heating. Electrically heated with a max operating temperature of 3000°F. Model # 6724 and serial # 1184. Voltage of 460/3/60/16 kW. Working dimensions of 8"W x 6"H x 30"L and external dimensions of 44"W x 90"H x 70"L. Controls are located on the right hand side at the rear of the furnace. There is a Barber Colman model 560 digital controller, a Barber Colman 560 high limit and a Barber Colman strip chart recorder. Also on the rear of the unit in a protected area is a Robicon SCR to control the elements and a high limit contactor. A voltage reduction transformer is mounted on the framework under the furnace chamber.

Asking Price \$8,500 USD

<https://themonty.com/project/itemb465-electra-box-furnace/>

Item#BOX464 Lindberg Box Furnace

Lindberg Box Furnace. Pneumatically operated vertical lift door with convenient foot pedal operator. The door slides up and down on the sloped front breast plate. A flame curtain is mounted directly under the door. A limit switch activates a solenoid to start the flame curtain to burn off any escaping atmosphere. The interior is refractory lined. Heavy gauge rod style heating elements are located on both side walls, and on the floor under the alloy hearth plate for excellent temperature uniformity. The alloy hearth pan has 2" high sides to prevent product from falling off the pan. Flow meters attached to the side of the furnace regulate the flow of atmosphere into the furnace. There is an Endothermic gas flow meter and a Natural Gas flow meter. Electrically heated with a max temperature of 2000°F. Model # RO 122410-A and serial # 19229. Voltage is 480V/3/60/15 kW, 67V. Working dimensions of 12"W x 10"H x 24"L with external dimensions of 54" wide x 64" long x 85" high. Controls are mounted and wired in a separate enclosure. There is a Leeds & Northrup digital temperature controller with display screen and a Leeds & Northrup model 2077 high limit safety. Control switches are flush mounted on the front of the panel. The panel has a Square D flange mounted fused disconnect switch. Honeywell flame safety relay, purge timer relays and control transformer are mounted inside the enclosure A second enclosure with circuit breaker disconnect switch houses the Halmar SCR power controller. A step down transformer is supplied to provide low voltage to the elements.

Asking Price \$7,500 USD

<https://themonty.com/project/itemb464-lindberg-box-furnace/>

Item#BOX458 Noble Furnaces Box Furnace

Manufactured by Noble Furnaces this is a gas fired box furnace capable of 2,000F. Furnace has a vertical lift front door with a charge car and retort.

Furnace has working dimensions of 8' X 8' X 6" high (approximate). 330SS retort has working dimensions of 70" diameter X 42" high. Vendor has been processing aerospace parts in an argon atmosphere in the retort, however furnace can be used without the retort. Excellent condition, currently installed and in operation.

Asking Price \$80,000 USD

<https://themonty.com/project/itemb458-noble-furnaces-box-furnace/>

Item#BOX425 Lindberg Box Furnace

Manufactured by Lindberg. Working dimensions of 42" high x 48" wide x 14'-0" long. Electrically heated 480/3/60, 160 KW. Operating temperature of 2000F. Temperature Controls: Free standing enclosed panel with updated Honeywell controls, including circular chart recorder, SCR controls, back up contactors and step down transformers for the heating elements. Description & Features: Fiber lined. Heated by Nichrome ribbon heating elements on both side walls. Two zones of control. Air cylinder operated door. Includes motor driven load/unload system. 8000 pound capacity. Originally installed at Boeing. Condition: Good. Vendor will repair the back wall, replace all broken element hanger modules and provide and install serviceable heating elements.

Asking Price \$85,000 USD

<https://themonty.com/project/itemb425-lindberg-box-furnace/>

Item#BOX397 Drever Atmosphere Box Furnaces

"Lift-Off" Atmosphere Box Furnaces (2 available). Manufactured by Drever. Effective working dimensions of 10'6" Wide x 35' Long x 6' High. Gas fired-12,000,000 BTU/Hr. Max. Operating temperature of 1450F. Description; Ceramic Fiber Lined, Vertical Rising Atmosphere "Lift-Off" Furnace complete with (26) U-Shaped Radiant Tubes, North American Burner System, (4) Top-Mounted Alloy Circulating Fans, (4) Zones of Control, Stationary Hearth, "Knife-Edge"

Atmosphere Seal, and Hydraulic Lifting Cylinders on each end of furnace. Furnace is capable of 100,000 lb. loads. Instrumentation; Free-Standing Control Panel with Honeywell PLC Digital Temperature Controller, and Honeywell Flame Safety System. Very good condition. Overall dimensions of 15'11" Wide x 41' Long x 13'6" High. Approximate weight 70,000 pounds. Units each can hold up to 100,000# loads and were used prior for tempering/normalizing wire rod and bar stock. Both of these have top mounted recirculating fans and are "atmosphere capable", good for FNC work.

Asking Price \$325,000 USD Each

<https://themonty.com/project/itemb397-drever-atmosphere-box-furnaces/>

Item#BOX374 R&G Services Atmosphere Box Furnace

Atmosphere Box Furnace. Manufacturer: R&G Services, Inc. Inside Dimensions: 18" high x 32" wide x 36" deep. Heated: Electric, 230/3/60, 60 KW. Temperature: 2100 deg. F Model Number: EB-183236 Serial Number: 77021 Temperature Controls: Updated indicating controller and overtemp. Description & Features: Air operated vertical rising door. Slanted face plate. Brick lined with silicon carbide hearth. Heated by heavy Nichrome ribbon heating elements. Atmosphere inlet and burn-off. Flame curtain with controls and safeties. Condition: Very good. Furnace will be cleaned & painted, repaired as necessary, checked out & test fired prior to shipment.

Asking Price \$18,000 USD

<https://themonty.com/project/itemb374-rg-services-atmosphere-box-furnace/>

CONTINUOUS FURNACES

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#C350 BTU Mesh Belt Furnace

Manufactured by BTU Engineering in Massachusetts, USA this is a mesh belt furnace/dryer, Model TFF141-590N48GT. Belt is 9" wide with 2 ½" clearance over belt. Electrically heated with 19' of heating and a 17' dryer. Operating temperature of the furnace is 1000C and dryer is 200C. Dryer has 4 zones of control and furnace has 5 zones of control. Currently installed and in operation. Very good condition.

Asking Price \$5,000 USD

<https://themonty.com/project/itemc350-btu-mesh-belt-furnace/>

Item#C349 Rotary Hearth Furnace & Press Quench System Available (EUROPE)

Located in Spain we have available an electrically heated Aichelin rotary hearth furnace, HESS quench press and continuous belt washer also made by Aichelin. Rotary hearth furnace was producing 50Kg/hour of parts but based upon the heating power of 100Kw the furnace is capable of 350-400Kg/hour. Operating temperature of 800-900C, maximum temperature 950C. Atmosphere N₂ + CH₃OH. Controller with a CO-CO₂ analyzer with a Carb-o-Mat controller. HESS press quench system can handle parts to a maximum diameter of 360mm. The entire system was built in 1990 for a major auto parts supplier but saw very limited use, 16,400 hours (approximately 2-3 years) production in total. Currently in indoor storage. **Asking price for the entire system is 150.000€**

Also available is an Ipsen batch temper furnace model Ipsen DL 10 G with working dimensions of 760x1220x760mm. Gas heated with Ipsen Burners and

kromschroeder control. Maximum operating temperature of 450C. Built in 1994, very good condition. **Asking 22.000€**

An Ipsen batch washer is also available, model Model: WSD 10 G. Built in 1994. **Asking Price: 8.500€**

<https://themonty.com/project/itemc349-rotary-hearth-furnace-press-quench-system-available-europe/>

Item#C348 BTU Belt Furnace 1100°C

Manufactured by BTU this is a high temperature mesh belt furnace.

Model BTU TFCA94-6-54E48GT, Serial Number RFMT-1. Max Temperature of 1100°C. Hydrogen Capabilities, Belt is 9" wide with 4" clearance over the belt. 6 zones of control with a heated length of 54" heat and a 48" long cool zone. Gas Tight. Excellent condition.

Asking Price: \$69,500 USD

<https://themonty.com/project/itemc348-btu-belt-furnace-1100c/>

Item#C347 SierraTherm Series 2500

SierraTherm Series 2500. Vintage: 2000. Model: 9K9-117C91-

9NCHS. Brazing and Copper Firing Conveyor Furnace. One

Owner – company closed due to retirement of owner bought new from

SierraTherm. Full Manuals included.General Specifications. Belt Width: 9

inches. Heated Length: 117 inches. Cooling Length: 91 inches. Product

Clearance above belt: 1" with 2" baffles. Temperature: 1050 degrees

C. Atmosphere: N2 or H2. Input Power: 200/240VAC. 3Ph, 3 Wire, 50/60 Hz,

46kVA max. Zones Heated: Nine [9]. Entry / Exit Tables: 24". Overall Length 292

inches. Height: 50 inches. Width: 44 Inches. Conveyor Height:

36 inches. Leveling Range: +-1. Belt Speed Range minimum: 1.0/min. Belt

Speed Range maximum: 10.0/min. Weight approximate: 4000 lbs

Asking Price: \$89,500 USD

<https://themonty.com/project/itemc347-sierratherm-series-2500/>

Item#C345 BTU-TCA Series Belt Conveyor Furnace

Specifications:

BTU-TCA Series Belt Conveyor Furnace

Metallic muffle

120" heating chamber

4" clearance above the belt

18" wide belt

10 Zones

1100 degC. Max.

24" each..loading and unloading tables

OAL: 29.0 Ft

Microprocessor controls

76 KW, 440/3/60

Overtemp. protection

Water cooling sections

N2 curtains front and back with burn-offs

Protective atmosphere: DA with N2 purge

\$50,000.00 USD Loaded on your truck

\$42,000.00 USD Where is/as is

<https://themonty.com/project/itemc345-btu-tca-series-belt-conveyor-furnace/>

Item#C342 Two CM High Temperature Pusher Furnaces

Each system includes ...Common frame with power and control components. Heavy gage welded construction. Atmosphere containment doors with protective atmosphere flushing. "Moly" elements wound a ceramic tube muffle. Alumina brick insulation. Water jacketed cooling section. Microprocessor temperature controller. Phase angle fired SCR control units. Overtemperature protection controller. Type "C" thermocouples.

Model 345-48-3Z. 4" opening x 5" wide x 48" long heating chamber, 3 zones. 54 KW, 480/3/60. Hydrogen/Nitrogen atmosphere with safety system. Max. temperature rating: 1700 deg.C.

Asking Price: \$23,450.00

Model 366-48-1Z. 6" opening x 6" wide x 48" long heating chamber, single zone. 45 KW, 480/3/60. Hydrogen/Nitrogen atmosphere with safety system. Max. temperature rating: 1700 deg.C.

Asking Price: \$22,550.00

<https://themonty.com/project/itemc342-two-cm-high-temperature-pusher-furnaces/>

Item#C341 CI Hayes Mesh Belt Furnace

Used CIHayes Conveyor Type Muffle Furnace. Super Solitaire 27. NH3 & Nitrogen Inlet Flowmeters. Combustible atmosphere system with N2 purge. Inconel Muffle with internal hearth plates. Furnace (6) Nichrome Ribbon Elements. AD150 (6) Nichrome Ribbon Elements 314SS Mesh Belt rated 3# per linear foot loading @ 2000F. Type: Model LAC-MB-030627-AD. Hot Zone: 27" Long Heated Length, 6" wide Mesh Belt, 3" Work Height. Overall Dim.: Approx 2-1/2' Wide x 5' High x 20' Long. Max Temp.: 2100F (1150C) Continuous at 2000 deg.F Elec Utilities: Furnace 18kw, Contactor Power Switching, Wired 240/3/60. AD150 15kw, Contactor Power Switching, Wired 240/3/60 Controls: Honeywell Temp Control & Honeywell Overtemp Control, Both. Furnace and 150 CFH Ammonia Dissociator. Rear mounted Belt Drive with Indexing Control. Digital speed readout 0-20ipm. Extended Front Entrance Tunnel with Nitrogen Curtains and Burn-off Stack.

Asking Price 18,000 USD Loaded On A Truck

<https://themonty.com/project/itemc341-ci-hayes-mesh-belt-furnace/>

Item#C339 Can Eng Mesh Belt Furnace

Operating temp. to 2050 F. Work zone: 18" wide x 12" high x 132" heated, 33' stainless steel cooling section. Power: 575 volt, 3 phase. 176 KW. 2 zone

temperature control. Brick lined chamber. Silicon carbide heating elements above and under the belt. Silicon carbide hearth tiles. 2 tap transformers. Approximate overall size: 8' wide x 7' high x 60' long.

Asking Price 14,900 USD

<https://themonty.com/project/itemc339-can-eng-mesh-belt-furnace/>

Item# C337 Mesh Belt Furnace Line, 4,000 Pounds/Hour

Manufactured by Atmosphere Furnace Company in 1995 this is a complete mesh belt furnace line designed for hardening of fasteners. Gas fired. 4,000 pounds per hour capacity. Line included Metro Scale loading system, hydraulic bin dumper, vibratory shaker and scale, belt width 60". Oil quench and temper. Line is complete, installed but has not been run recently. Very good condition. More details and photos to come.

Asking Price \$250,000 USD

<https://themonty.com/project/item-c338-mesh-belt-furnace-line-4000-pounds-hour/>

Item#C335 SOLO Compact Belt Furnace

Compact belt furnace 321-7-90 6677 1000°C. Built by Solo of Switzerland this is a SOLO 321-7-90 model. This furnace was manufactured in 1990. Composition: Loading frame, heating part with frame, cooling part with frame, unloading frame, driving system, conveyor belt, NH3 cracker 3m3/h, distribution for treatment and cabinet gas, operator panel. Dedicated for annealing under cracked ammonia, brazing and hardening. Max. temperature of 1000 °C Heated length: 900 mm, cooled length: 1500 mm, channel section: 80 x 40 mm, Main voltage: 3 x 380 V – 50 Hz / TN, power input: 10,5 kW, gas generated: 75% H2 and 25% N2 (NH3), effective height with belt: 30 mm, conveyor belt width: 70 mm, external dimensions: L 5300 mm x I 800 mm x H 1250 mm. Perfect condition, 11 manuals included. Located in France.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemc335-solo-compact-belt-furnace/>

Item#C324 C.I. Hayes Mesh Belt Furnace

LAC Type. Work Zone: 12" Wide Belt, 12" High work area, 12' heat, 12' cool with 3 zones of temperature control. 1120C maximum temperature (2000F operating temperature). Power: 220V, 75KW, 212Amp, 60Hz , 3Ph. "Air Products" Gas Mixing Panel (N2, H2). Footprint: 9'W x 54'L (90'L Belt), 10'H + ductwork. Extra set of cooling muffles.

Asking Price \$49,500 USD

<https://themonty.com/project/itemc324-c-i-hayes-mesh-belt-furnace/>

Item#C323 Aichelin Cast Link Furnace Line

The line consists of a loading table, cast link belt hardening furnace, oil quench, cross conveyor, post wash and two continuous tempering furnaces. High belt is 24" wide X 300" long with a capacity of 336 Kg/h. Nitrogen/Methanol atmosphere. Electrically heated 300 kW. Operating temperature of 1650F. Quench oil tank holds 7,000 litres. Air/oil quench oil cooler. Post wash has oil skimmer. Both tempering furnaces are electrically heated, 57 kW each. Belt widths 20" X 250" long. Maximum operating temperature of 575F. Installed in 2005 and used for processing automotive bearings. Recently removed from operation and now in indoor storage. Excellent condition.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemc323-aichelin-cast-link-furnace-line/>

Item#C321 Ipsen Austempering System

Ipsen Model SG500, S/N52822. Shaker hearth style hardening furnace is capable of 500 pounds/hour, 1850F operating temperature, gas fired 800,000

BTU's/hour with an 18" wide tray. Temper has an operating temperature of 800F and a heat input of 300,000 BTU's. Controls on both are Honeywell UDC units. Entire system consists of a magnetic conveyor loading system, Ipsen shaker-feeder-hopper. Mitsubishi variable speed AC drive on salt conveyors, 900 gallon wash tank with 30" conveyor and 280 gallon rust inhibitor tank with 32" conveyor. Currently installed but not in production. System is in reasonable condition but has not been used for some time.

Asking Price \$20,000 USD

<https://themonty.com/project/itemc321-ipsen-austempering-system/>

Item#C314 Wellman Roller Hearth Furnace

Manufactured by Wellman in 1982. Model #AL-81-180 RH, S/N 180. Working dimensions of 60" Wide x 42' Long x 14" High – 4800#/HR. Electric – 480/3/60 – 469 KW (over (4) Zones of Control). Operating temperature of 1650° F. Brick Lined Atmosphere Capable Roller Hearth Furnace complete with (4) Zones of Control, Heating Elements above and below Rolls, Transformers, 25' Slow Cool Chamber (Air Cooled with Fans), and Variable Speed Drive. Free Standing Control Panels with Watlow Digital Controllers ((1) Per Zone), Watlow High Limits, and SCR Power Controls. Overall dimensions; Entrance Chamber: 12'Wide x 14' Long x 10' 6" High. High Heat Chamber: 10' 6" Wide x 30' Long x 10' 6" High. Cooling Zone: 12' Wide x 27' Long x 10' 6" High. Approximate weight 80,000 pounds. Very good condition.

Asking Price \$225,000 USD

<https://themonty.com/project/itemc314-wellman-roller-hearth-furnace/>

Item#C301 Rogers Engineering Cast Link Furnace Line

Manufactured by Rogers Engineering 4,000 pounds/hour cast link belt furnace line consisting of a 1750F high heat furnace and 1700F temper furnace. Serial #

CC-3977-0 (1997). High Heat Furnace: 48"W Omega Cast Link Belt, 4" pitch, 3" sides. Furnace has a 30'L heating section. Four (4) zones of control with three (3) roof mounted in the last three (3) zones. Maximum operating temperature of the hardening furnace is 1750°F. Furnace is radiant tube heated with recuperators. Furnace is currently set up for Endothermic w/Enriching Natural Gas & Air. Total BTU's for hardening furnace is 3,180,000 BTU/HR. Controls; All mounted in a free standing panel includes Allen Bradley PLC w/HMI Touchscreen, Honeywell UDC Digital Temperature Controls, SSi Carbon Controls. Voltage 480/3/60/200kW.

Tempering/Anneal Furnace: 60"W mesh belt with support rollers. Furnace has a 35'L heating section. Four (4) zones of control with four (4) roof mounted fans. Maximum operating temperature is 1700°F. Total BTU's for the tempering/annealing furnace 3,790,000 BTU/HR. Please note that this furnace has two (2) different modes of operation. Click on 'PDF" below for more information on the different modes of operation.

The sequence of this furnace is as follows:

- Load parts into pre-wash dump loader
- Pre-Wash, 190°F, Gas Heat
- Parts vibrate onto mesh (soft load) then onto cast link belt.
- High heat cycle
- Quench cycle, 200°F, Gas Heat, 8000 Gallon
- Wash cycle, 190°F, Gas Heat
- Temper cycle
- Oil blackening cycle

Includes:

- 5600 CFH Air Cooled Endothermic Gas Generator
- SBS Air to Oil Heat Exchanger which consists of three (3) 5 H.P. fans.-

Manuals & Drawings

Very good condition, available immediately.

Asking Price \$650,000 USD

<https://themonty.com/project/itemc301-rogers-engineering-cast-link-furnace-line/>

Item#C269 C.I. Hayes Mesh Belt Furnace

Working dimensions of 5" over belt, 12" wide X 120" of heated length. Electrically heated 230/3/60, operating temperature of 2100F. Model LAC. Temperature controls are new state of the art, control panel with Honeywell solid state digital readout controller and overtemp for each of three zones, includes volt and amp meters. Full alloy muffle in hot zone. 20' long sealed water jacketed cooling. Global heating elements over and under the belt. (3) zones of control. (4) argon flowmeters. Dayton AC inverter provides adjustable belt speed. Updated SCR controls. Muffle and belt are new. Very good condition.

Asking Price \$29,000 USD

<https://themonty.com/project/itemc269-c-i-hayes-mesh-belt-furnace/>

DRAW/TEMPER OVENS

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Item#T380 Gruenberg Walk In Oven 450F

ID: 68" wide x 72" deep x 72" high, electric—480/3/60—48kw; 450F recirculating complete with insulated floor, Honeywell digital controls, double swing out front doors. Taken out of production 3 months ago.

Asking Price \$5,000 USD

<https://themonty.com/project/itemt380-gruenberg-walk-in-oven-450f/>

Item#T379 Grieve Oven 36" x 36" x 36"

Manufacturer: Grieve

Inside Dimensions: 36"high x 36"wide x 36"deep

Heated: Electric 460/3/60, 33 Amps, 24 KW

Temperature: 1250 deg.F

Model Number: AB-1250

Serial Number: 95862A1008

Temperature Controls: Partlow Circular Chart Recorder MRC5000.

Watlow Control. Partlow 1161 overtemp.

Description & Features: 1 HP fan motor. Air flow switch. Double swing—open doors. Front to back horizontal air flow. Stainless steel interior. Provisions for 5 shelves, 4 included. Checked out and operational.

Condition: Excellent

Asking Price \$18,500 USD

<https://themonty.com/project/itemt379-grieve-oven-36-x-36-x-36/>

Item#T378 Despatch Recirculating Walk In Oven

Inside Dimensions: 66"high x 54"wide x 68"deep

Heated: Gas fired. 250,000 BTU

Temperature: 500 deg.F

Model Number: V-41

Serial Number: 53101

Temperature Controls: Updated solid state controls.

Tempco CEC-4100 controller. Honeywell overtemp.

Description & Features: Double swing open doors, horizontal air flow, insulated floor with tracks for a cart, powered exhaust blower, top mounted combustion and fan chamber. Atmospheric type burner system. Complete combustion controls and safeties. Oven will be cleaned and painted, checked out and test fired prior to shipment.

Asking Price \$16,500 USD

<https://themonty.com/project/itemt378-despatch-recirculating-walk-in-oven/>

Item#T377 Despatch Aluminum Horizontal Heat Treat Equipment

Manufactured by Despatch Industries this is a horizontal quench aluminum furnace with working dimensions of 40" X 40" X 40". Serial number 162815.

Normal operating temperature 1000F, maximum operating temperature of 1050F.

Electrically heated, heater capacity 125KW. Control voltage 120V-1PH-60HZ.

Designed to heat treat aluminum parts for BF Goodrich. Rated for 500 pounds per load with a heating time of 30 minutes. Complete and in very good condition.

Asking Price \$99,000 USD

<https://themonty.com/project/dispatch-aluminum-horizontal-heat-treat-equipment/>

Item#T376 Grieve Oven 60" x 60" x 60"

GRIEVE TRUCK OVEN TCH-550. Hardworking ovens designed for baking, drying, preheating or any other application where a dependable source of heated

air to 550°F is required. Complete with temperature controllers that offer the latest in heat-sensing technology and built-in floor level guide tracks that make truck loading easy.

Vintage: 2017

ID: 60" x 60" x 60"

125 CU FT

OD: 80" x 91" x 74"

550°F

Blower: 2000 CFM, 2 HP

6" Insulation

Double Doors

24 kW

175,000 BTU

Control Accuracy: $\pm 0.3\%$

Uniformity: $\pm 5^\circ\text{F}$

Temp Ramp: 38 min

Weight: 3160 lbs

2 years old – low use, dark mark on back panel is a *scuff*. UL LISTED CONTROL PANEL. Standard Truck Ovens from Grieve meet the requirements of National Fire Protection Association Standard 86, Industrial Risk Insurers, Factory Mutual and OSHA standards. For some applications, such as those involving flammable solvents or hazardous locations, the above organizations require additional safety devices.

- Controls – Digital, microprocessor based, thermocouple actuated, indicating temperature controller
- Modulating burner on gas ovens
- Motor control push buttons and on-off heat switch
- LED pilot lights
- Safety Equipment—Electric Oven
- Adjustable, thermocouple actuated, manual reset excess temperature interlock
- Separate heating element control contactors

- Recirculating blower air flow safety switch
- Safety Equipment—Gas Oven
- Adjustable, thermocouple actuated, manual reset excess temperature interlock
- Electronic flame safeguard protection
- 325 CFM powered forced exhauster for combustion venting
- Exhauster air flow safety switch
- Recirculating blower air flow safety switch
- Purge timer
- High gas pressure switch
- Low gas pressure switch
- Two pilot safety shutoff valves with leak test stations
- Two main safety shutoff valves with leak test stations
- Valve position indicator on main safety shutoff valves
- Choice of air flow patterns specially adapted for truck processing
- Aluminized steel interior
- Aluminized steel exterior with enamel finish
- Brushed stainless steel control panel face
- Explosion venting latches
- 6" of 10 lbs/cf density industrial rockwool insulation
- Built-in baffles prevent radiant heat
- Silicone rubber door gasket
- Insulated floor with truck tracks
- Adjustable fresh air intake and exhaust dampers
- High pressure recirculating blower

Asking Price \$17,500 USD

<https://themonty.com/project/itemt376-grieve-oven/>

Item#T375 Grieve Walk-In Oven 5'W x 5'L x 6'H

Manufacturer: Grieve

Type: Walk-In Oven with Cart

Model: WTH 566-750

Maximum Temperature: 750F

Work Zone: 5'W x 5'L x 6'H

Footprint: 7'W x 7'L x 9'H

Manuals and electrical schematics included

Power: 460V, 84A, 3Ph, 60Hz

Heat Input: 60KW

Fans: Exhaust fan and circulation fan (largest motor 5HP)

Controls: Honeywell UDC 2300 Temperature Controller and analog high limit controller

Uniformity: Appears to have been designed as +/-10F, was last used as if it was +/-25F

Condition: Excellent

Asking Price \$24,500 USD

<https://themonty.com/project/itemt375-grieve-walk-in-oven/>

Item#T374 Pacific Scientific 30" x 48" x 30" Electric Temper
Pacific Scientific 30" x 48" x 30" Electric Temper. Model PKMD 100-E. Serial number: 662-0208P . Heating: Electrically. Power Req: 65 KW, 460 Volt, 3 Phase. Max Temperature: 1450°F.

Asking Price \$15,000 USD

<https://themonty.com/project/itemt374-pacific-scientific-30-x-48-x-30-electric-temper/>

Item#T373 Pacific Scientific 30" x 48" x 30" Electric Temper
Pacific Scientific 30" x 48" x 30" Electric Temper. Model PKMD 100-E. Serial number: 662-0420. Heating: Electrically. Power Req: 65 KW, 460 Volt, 3 Phase. Max Temperature: 1450°F. Nitrogen Capable.

Asking Price \$14,500 USD

<https://themonty.com/project/itemt373-pacific-scientific-30-x-48-x-30-electric-temper/>

Item#T372 Selas (Pacific Scientific). Model PKMD 100-E

Selas (Pacific Scientific). Model PKMD 100-E, Serial number 662-0585. Working dimensions: 30"X 48" X 30". Max Temp: 1450°F. 65 KW, 460 Volt, 3 Phase. Very good condition.

Asking Price \$17,500 USD

<https://themonty.com/project/itemt372-selas-pacific-scientific-model-pkmd-100-e/>

Item#T371 Recirculating Box Type Draw Oven

Lindberg Model 152418-E12 recirculating box type draw oven. Working dimensions of 18" high X 15" wide X 24" deep. Electrically heated 230/3/60, operating temperature of 1250F. This is a standard Lindberg "Cyclone" design . Coiled Nichrome heating elements are housed in a separate chamber. A high velocity paddle wheel fan delivers the heat to the work chamber and provides for good uniformity. Plug type swing open door. Brick lined door, stainless steel interior. Provisions for two shelves, one shelf included. Furnace will be checked out and reconditioned, cleaned, painted and test fired. Includes a 30 day warranty. Very good condition. ALSO AVAILABLE ARE 4 OTHER TOOL ROOM BOX DRAWS IN STOCK.

Asking Price \$5,950 USD

<https://themonty.com/project/itemt371-recirculating-box-type-draw-oven/>

Item#T369 Surface Combustion Temper Super 36

Serial numbers BC-42071-1A and BC-42071-1B. Working dimensions of 36" wide X 48" deep X 30" high. Electrically heated with a maximum operating

temperature of 1400F. Shared control panel. Built in 1983. Very good condition. Currently in operation, available September 2019.

Asking Price \$35,000 USD Each

<https://themonty.com/project/itemt369-surface-combustion-temper-super-36/>

Item#T368 Surface Combustion Super 30 Temper

Manufactured by Surface Combustion in 1972 this is an electrically heated temper with working dimensions of 30" X 48" X 30". Serial Number BC-39686. Maximum operating temperature of 1250F. Currently installed but not in use. Complete and in good condition.

Asking Price \$29,000 USD

<https://themonty.com/project/itemt368-surface-combustion-super-30-temper/>

Item#T366 Wisconsin Temper Oven

Wisconsin Oven Model EWN-618-6E, NEW in 2012, 500F, Inside 6' W x 18' D x 6' H, Outside 9'6"W x 19'3"D x 9'11", 96KW on 480V/3/Approx. 133 Amps, 10HP/8,600CFM recirculating fan, 1HP/9CFM forced exhaust, UL listed control panel, shipping weight 6,500 lbs., uniformity (+/-)10, viewing window, 8 port jack panel, doors front and rear, digital controller, safety disconnect switch, emergency stop button, horizontal airflow, aluminized steel interior, high limit control, adjustable louvers, aluminized steel interior

Asking Price \$39,950 USD

<https://themonty.com/project/itemt366-wisconsin-temper-oven/>

Item#T360 Wisconsin Oven

Model SBH-222, 650F, inside dimensions 2'W x 2'D x 2'H, horizontal airflow, Allen Bradley Panel View Plus 600, hi-limit, door switch, audible/visual alarm, 240/3 with 12 KW heater, Honeywell chart recorder, 2 shelves.

Asking Price \$7,900 USD

<https://themonty.com/project/itemt360-wisconsin-oven/>

Item#T359 Seco Warwick Vacuum Temper Furnace

Model VTR-5050/48. Serial Number 586/2005. Purchased 3/21/2006. Work Zone Dimensions, 36W X 48D X 24H. Originally qualified for 900°F to 1260°F with +/- 10°F uniformity. Vacuum pump is Stokes Model 212-11, Blower is Stokes Model 310-41. The operating system is Wonderware Intouch. Internal circulation fan. 460 VAC 3 phase. The buyer will be responsible for removal. The furnace will be available for removal in April 2019. It is currently still in operation.

Asking Price \$50,000 USD Or Best Offer!

<https://themonty.com/project/itemt359-seco-warwick-temper-furnace/>

Item#T358 Wisconsin Oven Like New (2 Available)

Wisconsin Oven Model EWN-55-5G8, 800F, 5'W x 50'D x 6'H, overall 9'6" W x 11'D x 11'H, 10HP/7000CFM recirculating fan, combination airflow, adjustable louvers, airflow switch, 600 CFM exhaust, Eclipse 450,000BTU burner, UL listed control panel, Honeywell recorder, Honeywell programmer, digital hi-limit, disconnect switch, vertical rise doors on both ends, insulated floor, exhaust hood. Excellent Condition.

Asking Price \$29,500 USD Each

<https://themonty.com/project/itemt358-wisconsin-oven-like-new-2-available/>

Item#T356 Wisconsin Oven Temper Furnace

Wisconsin Oven Temper Furnace. Recirculating gas fired batch temper with air operated vertical lift doors on each end. Eclipse package burner with roof mounted recirculating fan distributes heated air in a combination air flow pattern. Roller rail hearth with chain guide. Furnace includes two (2) scissor lift tables.

Manuals & drawings are included with this furnace. Natural Gas – 1 MBTU's/Hour. Model # SDB-6616-10G and serial # 033899307. Max operating temperature is 1000°F with a voltage of 480/3/60/16 Amps. Working dimensions of 36"W x 36"H x 96"L with external dimensions of 96"W x 13'4"H assembled (10'6"H shipping) x 11'L. Controls mounted and wired in an enclosure with fused disconnect attached to the side of the furnace. Temperature controllers consist of a digital Barber Colman 560 digital for temperature and a Barber Colman digital "Limitrol" 75L high limit. ATC process timer to control heating cycle and Barber Colman digital round chart recorder. Allen Bradley switches for control power, circulation fan, ignition and gas valve reset. Signal lights for control power, air flow, high/low gas pressure, purge, etc. Eclipse package burner with Honeywell flame safety, UV scanner and spark ignition.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemt356-wisconsin-oven-temper-furnace/>

Item#T352 Pyradia Tempering Oven

Pyradia Oven 48" X 48" X 48". Electrically heated oven manufactured by Pyradia. Model P06P048048048HMTGV, Serial Number 2002-12-15977-1. Working dimensions of 48" X 48" X 48". Operating temperature of 1200F. Recirculating fan. 600 volts, 3 phases, 54KW. Vertical lift Door with double pivots. Convection style, 32,000 CFM. Built in 2004 this oven has been used for a total of 40 hours and should be considered like new.

Asking Price \$39,000 USD
<https://themonty.com/project/itemt352-pyradia-tempering-oven/>

Item#T349 Eclipse Recirculating Box Furnace

Recirculating Box Type Draw Furnace. Manufacturer: Eclipse. Inside Dimensions: 30"high x 42"wide x 96"deep. Heated: Gas fired. Temperature: 1250

deg.F. Model Number: Box Draw. Serial Number: 3424-00773. Temperature Controls: Updated controls, Honeywell indicating controller and overtemp, circular chart recorder. Description & Features: Vertical lift air operated door. Brick lined. Alloy roller rail hearth. Seven adjustable roof baffles. Rear combustion chamber with atmospheric burner and high velocity recirculating fan. Complete combustion controls and safeties. Includes manual load table. Condition: Very Good, Operational.

Asking Price \$39,500 USD

<https://themonty.com/project/itemt349-eclipse-recirculating-box-furnace/>

Item#T342 Precision Quincy Recirculating Walk In Oven

Recirculating Walk In Oven. Manufactured by Precision Quincy. Working dimensions of 72"high x 48"wide x 120"deep. Gas heated, 300,000 BTU's per hour. Operating temperature of 450F. Model EC-410, S/N 25766.

Temperature Controls: Partlow indicating controller and overtemp. Side mounted control cabinet. Double swing open doors, horizontal air flow. Powered exhaust blower, rear mounted combustion and fan chamber. Atmospheric type burner system. Complete combustion controls and safeties. Air flow switch. Oven will be checked out and test fired prior to shipment. Approximate shipping weight 4,310 lbs.

Asking Price \$16,500 USD

<https://themonty.com/project/itemt352-precision-quincy-recirculating-walk-in-oven/>

Item#T341 McLaughlin Services Temper Furnace

Temper Furnace 36" X 48" X 36". Made by McLaughlin Services. Working dimensions of 36" X 48" X 36", 5,000 pound capacity. Gas fired 750 cfh @ 2-5 PSI, 750,000 BTUH. Operating temperature 250F to 1400F, +-10F. Electricity; 40 Amps, 480V/3Ph. Compressed Air; 100 psi, Intermittent. Temperature Controls;

Super Systems 9130 Temperature Controller with 12" Touchscreen, Super System 7SL 1/16 DIN Limit Controller. Logic Controls; Allen Bradley Micrologix PLC is included for alarming and sequencing.

Asking Price \$91,000 USD

<https://themonty.com/project/itemt341-mclaughlin-services-temperature-furnace/>

Item#T340 Safed/Borel Annealing Furnace

Safed/Borel Annealing Furnace built in 1991. The working dimensions consist of: Diameter 400 mm, Height 500 mm. External Dimensions: 1800 mm x 1767 mm x 2412 mm. Maximum Temperature: 650 C with a maximum load capacity of 100 kg (not including baskets). Main voltage is 3 x 400V / 50 Hz, Control voltage is 230V / 24V. This setup includes a Eurotherm programmer, threshold controller, recorder, programmable clock, timing relay, control for water flow, vacuum pump, pressure reducer, and fire engine. Located in France.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemt340-safed-borel-annealing-furnace/>

Item#T335 Despatch Temper

Batch Oven 37"H X 37"W X 25"D. Batch type recirculating oven manufactured by Despatch, Model V-29-STD. Inside dimensions of 37" high X 37" wide X 25" deep. Electrically heated 480/3/60, 12 KW. Operating temperature of 500F. Serial number 126552. Temperature Controls: Partlow indicating controller and Honeywell overtemp, timer. Double swing open doors. Side mounted recirculating fan. Adjustable horizontal air flow. Provisions for 12 shelves, 4 shelves included. Powered exhaust blower. Oven has been checked out and test fired and is ready for immediate shipment. Excellent condition.

Asking Price \$5,500 USD

<https://themonty.com/project/itemt335-despatch-temper/>

Item#T325 Despatch 3-Station Temper Furnace

Manufactured in 1980 by Despatch Industries, Inc. 3 Independently loaded and operated furnace stations with shared panel. Tops elevate off bases for loading and unloading. Work Zone: 22"W x 40"L x 25"H Each. Hearth Height: Estimated at 36-40" (Can measure for you). Max. Temperature: 850°F with a Uniformity of +/- 25°F (Center area of 12"W x 20"L x 10"H meets +/-10°F). Electrically heated with a power of 490V/3Ph/60Hz. 3 West 4400 Temperature Contrl. & West 6700 Hi-Limit. (We can quote upgrade to new Super Systems, Inc. controls, if desired.). Just rebuilt. New heating elements, new hearth ceramics, New stainless steel side panels, new paint.

Asking Price \$20,000 USD

<https://themonty.com/project/itemt325-despatch-3-station-temper-furnace/>

Item#T320 Pifco Conveyor Oven

Electrically heated 2 zone conveyor oven 480/3/60/144 kW. Maximum operating temperature of 600F. Work area; 72"W x 12"H x 25'L heated length. External dimensions 9'W x 10'H x 40'L – approx.. Controls; Mounted and wired in a free standing panel includes an Allen Bradley PLC with PanelView Plus 1000 touchscreen interface. Power to the heating elements are controlled through two (2) Allen Bradley "SCR" power controllers, one (1) for each zone. An Allen Bradley PowerFlex "VFD" controls oven conveyor belt speed. Standard two (2) zone electrically heated conveyor oven with a wire on edge belt. This oven has a 10'L load end and 8'L unload end with cooling. Access doors with "Brixon" door latches on both sides of oven and one in each heating chamber. Very good condition.

Asking Price \$59,000 USD

<https://themonty.com/project/itemt320-pifco-conveyor-oven/>

Item#T318 Eisenmann Box Tempers (4 Available)

Large Box Tempering Ovens (4 available). Built by Eisenmann in 2002, Model # HN-FNC-002. Working dimensions of 108" Wide x 96" Deep x 64" High. Natural gas fired, 3.2 million BTU's per hour. Operating temperature of 1200F.

Description; Stainless Steel Lined Recirculating Box Tempering Oven complete with Top-Mounted Alloy Recirculating Fan (20 HP – 13,000 CFM), Rear-Mounted Heater Box with Eclipse Burner System, Alloy Skid Hearth, Forced Cool Down Fan System (7,333 CFM), Vertical Rising Motor Driven Front Door, and Stationary Loading Table.

Instrumentation; Free Standing Control Panel with Eurotherm Digital Set Point Programmable Temperature Controller, High Limit, Chessel Strip Chart Recorder, and Honeywell Flame Safety System.

OVERALL DIMENSIONS: Oven: 13' Wide x 20' Long x 17'8" High (includes Door Structure. (Shipping Dimensions: 12'6" Wide x 20' Long x 10'8" High). Loader: 9'6" Wide x 12" Long x 4' High. Approximate weight 20,000 pounds. Excellent condition, operational.

Asking Price \$72,500 USD

<https://themonty.com/project/itemt318-eisenmann-box-tempers-4-available/>

Item#T303 Pifco Temper Furnace

S/N 8177 built in 1988. Working dimensions of 126" long x 60" wide x 40" high. Overall dimensions of 13' x 11' x 11' high. Comes with load and unload discharge tables and combustion fan. Maximum operating temperature 950 deg. F. Rated for 250 pound net weight x 37.4in long tray loaded every 15 minutes. Furnace holds three (3) trays. Approximate nineteen (19) minutes to operating temperature. Forty-five minutes in furnace @ 15 minute load cycle. Heated by one gas burner approximate rating 600,000 BTU/hour. Utilities required: 1000

BTU natural gas @ 5PSI, 480v 3Ph 60Hz. Water 80 deg. F maximum @ 20PSI. Compressed air 60PSIG minimum. Adequate drain for water. Good condition.

Asking Price \$20,000 USD

<https://themonty.com/project/itemt303-pifco-temper-furnace/>

Item#T286 Lindberg Box Temper

Model 11-7212048-G14, S/N 24947. Working dimensions of 72" wide X 120" long X 48" high. Gas fired with a maximum operating temperature of 1200F. Vertical lift-air operated door, brick lined, 5 course refractory hearth, alloy roof baffles, alloy side wall ducts, dual zone burners-roof mounted combustion chambers with dual belt driven fans. Free standing prewired control panel. Good condition.

Asking Price \$65,000 USD

<https://themonty.com/project/itemt286-lindberg-box-temper/>

GENERATORS

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#G201 South Tek Nitrogen Generating System

Manufactured by South Tek Systems of Wilmington, NC., in 2012. Model STS N2-GEN 250S. Output of 2875 SCFH at 99.5% purity. Footprint of 48" X 50" X 119". Shipping weight of 3925 pounds. Installed but not in use. Excellent condition.

Asking Price \$30,000 USD

<https://themonty.com/project/itemg201-south-tek-nitrogen-generating-system/>

Item#G199 2000 CFH Endothermic Generator New 2015

Manufactured by Unitherm Industries in 2015. Model EG 2000, Serial Number 102113-2. 2,000 CFH capacity. Maximum operating temperature 2000F. Natural Gas fired. SSI atmosphere controls includes AC-20, Series 7 Temperature control, 7SL Hi Limit. Installed but not in use. Excellent condition. Last operated December 31/2018.

Asking Price \$29,500 USD

<https://themonty.com/project/itemg199-2000-cfh-endothermic-generator-new-2015/>

Item#G197 Lindberg Ammonia Dissociator

Manufactured by Lindberg. 1,000 CFH. Model Number: 16-1000-HYAM. Serial number 26004. Electrically heated, 460/3/60, 30 KW, 37.6 amps. Operating Temperature: 2000 deg.F. Temperature Controls: Honeywell indicating controller and overtemp. Standard Lindberg design with vertical sealed catalyst chamber. Ceramic fiber insulation. Nichrome heating elements. Air cooled heat exchanger. Includes pressure gauges, SSOV, Waukee DA flowmeter. Includes operating

manual and drawings. Very good condition. Unit is complete and guaranteed operational.

Asking Price \$11,500 USD

<https://themonty.com/project/itemg197-lindberg-ammonia-dissociator/>

Item#G196 Surface Combustion Endo Generator

Surface Combustion 5000 CFH Endo Generator. Serial number AC 42332-1A. Maximum temperature 1950F. Barber-Coleman controls with digital recorder and over temp. Air cooled. Shipping dimensions of 8'5" W X 10'1" high X 8'11" long. Very good condition. Included is a new pump.

Asking Price \$31,500 USD

<https://themonty.com/project/itemg196-surface-combustion-endo-generator/>

Item#G178 Sargeant & Wilbur Ammonia Dissociators (4 Available)

Built by Sargeant & Wilbur, 4 electrically heated Ammonia Dissociators. Model GAD3000E. 3,000 CFH capacity. Maximum temperature 1759F. Voltage 480/3/60/60 kW. External dimensions of 5'W x 6'H x 8'L. **Controls:** Mounted and wired in a free standing panel includes the following:

- Yokogawa UT 350 digital control for dissociator undertemp.
- Yokogawa UT 350 digital control for dissociator overtemp.
- Yokogawa UT 350 digital control for dissociator temperature control.
- Two(2)Yokogawa UT 350 digital controls for vaporizer lower/upper zone.
- Yokogawa UT 350 digital control for vaporizer overtemp.
- All necessary signal lights, timers etc.

Mounted in the same control cabinet are three (3) SCR's. Two (2) "Halmar Robicon" and one (1). "Ametek". One is for dissociator heating elements and the other two are for vaporizer lower/upper zone heaters.

Description: Electrically heated Ammonia Dissociator suitable for supplying up to 3000 CFH of atmosphere with a composition of 75% Hydrogen and 25% Nitrogen. This atmosphere is obtained by cracking anhydrous ammonia vapor in a catalyst filled vessel maintained at a temperature of 1700°F to 1850°F. Incoming ammonia pressure is reduced before retort entry. At the outlet of the retort the hot dissociated ammonia passes through a dry cooler where the gas is cooled to near room temperature. It then passes through a flowmeter and on to the consuming device. This dissociator includes a Sargeant & Wilbur Ammonia vaporizer. This dissociator is provided with two (2) catalyst filled heat resisting alloy retorts. The retorts are mounted within the insulated dissociator heating chamber. The heating chamber consists of heavy Mullite T-Slot tiles. Retorts are heated with Sinuous-wound Nichrome Ribbon Heating elements which are mounted in the tile slots. The element tails and studs extend through the rear wall of the dissociator. Elements can be removed through the rear wall without having to unpack furnace insulation etc. A step-down transformer (480V to 240V 112.5 KVA) is included. Manuals and drawings are also included. Very good condition.

Asking Price \$29,500 USD

<https://themonty.com/project/itemg178-sargeant-wilbur-ammonia-dissociators-4-available/>

Item#G176 Surface Combustion Endo Generator

Manufactured by Surface Combustion. Natural gas heated 675 CFH/HR. Model # RX 35-75-3V. Maximum temperature 1950F. 7500 CFH capacity. Controls are complete, water cooled. SSi atmosphere controls and Atmosphere Engineering "Endo Injector". Very good condition, ready to go.

Asking Price \$75,000 USD

<https://themonty.com/project/itemg176-surface-combustion-endo-generator/>

Item#G173 Lindberg Endo Generator

4500 CFH, gas fired. Retorts and brickwork are in excellent condition however it requires temperature controls and an air cooler (vendor has partially completed changing from water cooling to air).

Asking Price \$17,500 USD

<https://themonty.com/project/item173-lindberg-endo-generator/>

Item#G169 Gasbarre / Sinterite Endo Generator

3000 CFH, electrically heated 460/3/60/63 Amps/50kW. New in 2006. External dimensions of 106" wide x 75" deep x 116" high. Controls are enclosed in a panel attached to the side of the generator. Honeywell UDC 3200 digital temperature controller and Honeywell UDC 2500 digital high limit safety. Control switches with indicating lights are flush mounted in the enclosure. Flange mounted fused disconnect switch for control power. Separate non fused disconnect for the main power. Waukee flow meters are manifold mounted for incoming and outgoing gases. Flow meters include: Natural Gas 0-1000 CFH, Air 0- 2500 CFH, (3) Mixed Gas 0-1500 CFH and Endo 0- 3500 CFH. Step down transformer for reduced voltage to the heating elements. Electrically heated 3 retort generator. Refractory lined shell with vertically mounted retorts. Total of twelve (12) silicon carbide heating elements, 6 on each side are mounted through the chamber for good uniform heating of the alloy retorts. The natural gas and air pass through a Waukee "mixor" valve then into the Waukee gas pump. Mixed gas enters the 3 "mixed gas" flow meters, through the Selas fire checks and enters the top of the retorts. The gas travels through the catalyst filled heated retorts and exits at the bottom. The exiting Endothermic gas passes through water cooled chambers then finned cooled air heat exchangers then through the Endothermic flow meter. A pressure regulator is supplied on the exiting gas piping. Good condition.

Asking Price \$29,500 USD

<https://themonty.com/project/itemg169-gasbarre-sinterite-endo-generator/>

INDUCTION HEATING SYSTEMS

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#I184 Pillar Mark 11 100kW 10 kHz Power Supply

Manufacturer: Pillar

Model No. Mark 11

Mfg. Date: 1996

100 kW, 10 kHz

Runs well, in good condition. Was running until recently when uninstalled.

Asking Price \$15,000 USD With Shipping Included

<https://themonty.com/project/itemi184-pillar-mark-11-100kw-10-khz-power-supply/>

Item#I183 Pillar Single Spindle Induction Scanning System

Manufactured by Pillar Induction this is a Model; AB7102-107/MK 11, Serial Number 3815. Voltage; 480V/3/60/266 Amps/222 KVA. Power supply; 200 kW, 3 kHz with a 24" Scanner. System is skid mounted with a footprint of 8'W x 10'H x 12'L. Controls; Mounted and wired inside an enclosure with fused disconnect includes an Allen Bradley SLC5/04 with touchscreen interface. This system includes a Pillar MK 11 200 kW, 3 kHz power supply, stainless steel DI water system w/plate & frame heat exchanger, 24" scanner attached to heat station and stainless steel electrically heated quench tank. Very good condition.

Asking Price \$75,000 USD

<https://themonty.com/project/itemi183-pillar-single-spindle-induction-scanning-system/>

Item#I182 2007 Ajax/Tocco 48" Vertical scanner

2007 Ajax/Tocco 48" Vertical scanner (42" max hardening length). Single spindle with a 300# weight capacity

Touchscreen controls with 15" monitor. Recipe storage for 500 part files. Quality assurance signature monitoring includes: Energy monitor at the coil, quench pressure, flow and temperature 400 KW, 1.1 – 3.0 kHz power supply integrated to the vertical scanner. Both scanner and power supply are in excellent operating condition.

Asking Price \$75,000 USD

<https://themonty.com/project/itemi182-2007-ajax-tocco-48-vertical-scanner/>

Item#I181 Pillar Induction Heat Treat System 50 kW, 50 kHz

This is an automatic Lift and Rotate Machine with a single lift position and TWO heat stations allowing for heating in two different locations in one machine cycle. The two heat stations are controlled by a transfer switch that transfers power from one position to a second position. This is a manual load/unload automatic cycle machine with Allen Bradley controls and Panelview 1000 operator interface. It has an automatic door close/open and light curtain for operator safety. Power Supply is a Pillar MK11 50 kW, 50 kHz IGBT Type. Entire unit is mounted on a common base for easy transport and re-installation. Other details include:

Rotational Drive Speed (Variable): 0- 200 RPM

Integral Quench Reservoir: 100 Gallon

Dimensions (Induction Heater) (L x W x H): 155" x 120" x 115"

Weight Estimate: 20,000 Lbs.

Asking Price \$49,500 USD

<https://themonty.com/project/itemi181-pillar-induction-heat-treat-system-50-kw-50-khz/>

Item#I179 Semi-Automatic Pin Hardening System 25kW, 3/10 kHz

Ajax Pachydyne 25kW, 3/10 kHz pin annealing/hardening system. This is a small automatic system for Induction Heat Treating small pins. Includes a power supply with matching heat station and a small fixture for heating and drop quenching small diameter parts. Also includes a small conveyor to drag out the parts from the quench container and water to water cooling and recirculating system and a quick-change coil bus adapter. Good condition.

Asking Price \$14,900 USD

<https://themonty.com/project/item179-semi-automatic-pin-hardening-system-25kw-3-10-khz/>

Item#I178 Inductoheat Pick & Place Induction System

Used Inductoheat Automated 100kW, 400 khz pick and place heat treating machine. This machine has been taken out of production due to completion of a contract. It is in good working condition and is still connected to power. It can be run for the buyer prior to shipping. It was used to harden a gear part 45" in dia. Could possibly be retooled for different part processing within the limits of the machine capabilities. This machine includes a SOLID STATE TRANSISTOR (Thermatool) power supply. These are very heavy-duty power supplies which are generally made by Thermatool for tube welding operations that usually run 24/7. This machine includes:

- Input conveyor with gating and part pickoff locator.
- Three arm Pick and Place mechanism that picks one part from the infeed position, one part from the heating position and one part from the cooldown station. All are transferred at the same time.
- Head Position includes placement into the heating coil, air operated part hold down, rotation, heating and quenching. Quick Change Coil Adapter is also included.
- Cooldown/Exit Idle position includes cooling quench flow.
- Exit position with push off onto exit conveyor with reject station

- Auto Lube System • Quench cooling and recirculating system with bag filter
- Water cooling and recirculating system.
- PLC Control with Panelmate interface
- Most Drawings and DVD Manual Included.
- Optional 6 Ton Chiller available.

Asking Price \$85,000 USD

<https://themonty.com/project/item178-inductoheat-pick-place-induction-system/>

Item#I177 Ajax 2 Station Spindle Scanners

This is an integrated Ajax 2 Station (single spindle per station) 150 kW, 10 kHz Scanner System. It has a single SCR type power supply with a transfer switch to send power to station A or B. It has a single shared Quench Recirculating System with bag filter, single shared Water Recirculating System. Each station has a PLC Control and servo control. PLC is A/B SLC 5/03, Pacific Scientific Servos, and Nematron MMI. Also has Quick Change Coild Adapters (would cost about 4-5k today). This was built in 1998 but appears to have been well maintained and contains currently serviceable components.

Asking Price \$89,500 USD

<https://themonty.com/project/item177-ajax-2-station-spindle-scanners/>

Item#I174 Ajax Tocco Induction Power Supply & Heat Station

Manufactured by Ajax/Tocco in August 2005. 480V three phase input is rated to be 1.2MW (1200KW). 660V three phase input is rated to be 2.2MW (2200KW). Unit requires three phase input of 480V, 2500A. System is deigned to work at 2.5 kHz in frequency. Requires 65 GPM of cooling. Buyer must have a dedicated transformer at the three phase input for this machine. Buyer must provide their own coils, bus, and water-cooled cables to attach power supply to heat station and heat station to coils. Limited warranty available. Note: Currently set up to

work at 480V input voltage. In order to switch to 660V, buyer needs to change the input breaker. Excellent condition.

Asking Price \$120,000 USD

<https://themonty.com/project/item174-ajax-tocco-induction-power-supply-heat-station/>

LAB EQUIPMENT

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#L22 ATM Brilliant 250H Wet Saw

Available is an ATM Brilliant 250 H wet saw and ATM pump with wash down and filtration. Saw can accept a 12 inch blade. This unit is operated manually, works well and is in daily use. daily. Vendor has upgraded his lab and this is surplus.

Asking Price \$8,000 Canadian (roughly \$5,500 USD) or best offer.

<https://themonty.com/project/iteml22-atm-brilliant-250h-wet-saw/>

MISCELLANEOUS HEAT TREAT EQUIPMENT

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#M434 Cryogenic Processor with Integral Tempering

Type: Cryogenic chamber with integral heater

Work Zone: 18"W x 42"L x 18"H (height can be increased to 34" with extension box)

External dimensions: 30"W x 61"L x 35"H

Temperature: -300F to at least +350F

This heavily insulated cryogenic chamber has an integral tempering heater. The unit can connect to a Liquid Nitrogen tank or a Dewar with an insulated hose.

The cryogenics and the heater work well. The temperature controller and the chart recorder need to be repaired as they are outdated. A height extension box for processing larger parts is included. The unit is on wheels.

Selling As-Is.

Asking Price \$12,000 USD

<https://themonty.com/project/itemm434-cryogenic-processor-with-integral-tempering/>

Item#M433 Surface Combustion Charge Car 36x48

Built by Surface Combustion this is a double ended charge car for use with a 36" X 48" furnace. Model DEDP 36-48 Charge Car. Serial #BC42070-1. 460V, 3 phase, 60hz. Excellent condition and still in use. Available September 2019.

Asking Price \$29,000 USD

<https://themonty.com/project/itemm434-surface-combustion-charge-car-36x48/>

Item#M432 Super Systems 9200 Control System

For sale Super Systems 9200 control system mounted in free standing panel including multiple spare HMI touch screens and spare power supplies

Asking Price \$19,000 USD

<https://themonty.com/project/itemm432-super-systems-9200-control-system/>

Item#M431 Eclipse Singe Ended Recuperative Burners (20 available)

We have 20 Eclipse single ended recuperative burners and 20 65 inch long silicon carbide inner and outer tubes for sale. Also 20 Honeywell flame relays and all solenoids and gas and air valves also 20 ignition transformers. This system is still installed. New in 1998 and used very little. We can provide removal and packaging. We prefer not to separate. Burners and tubes are currently mounted vertically but can be installed and operated horizontally. These burners are good for any atmosphere furnace such as belts or batch or pits.

Best Offer

<https://themonty.com/project/itemm431-eclipse-singe-ended-recuperative-burners-20-available/>

Item#M427 Used Houghton MAR-TEMP Oil 355

Mar-Temp 355 is a high performance accelerated hot quenching oil suitable for use at temperatures of up to 375°F (190°C). It is based upon solvent-refined mineral oils and contains a specialty formulated additive package which provides accelerated quenching characteristics and excellent oxidation resistance and thermal stability. Mar-Temp 355 has a high flash point and will provide long life under arduous operation conditions.

Features & Benefits

- Short vapor phase and fast maximum cooling rate for optimum hardness and physical properties
- Premium hot quenching (martempering) oil providing maximum distortion control of quenched components eliminating the need for rework due to distortion
- Excellent oxidation and thermal stability: Resists formation of sludge and breakdown of oil in use to ensure maximum oil life

22,000 Liters are available immediately and 16,000 Liters in a month or two.

Asking Price \$1.25 USD Per Litre (Located In Canada)

<https://themonty.com/project/itemm427-used-houghton-mar-temp-oil-355/>

Item#M426 Midbrook Belt Washer

Midbrook hurricane 5024, stainless steel conveyor through feed type 4-stage parts washer, s/n 44674 (2004), 24" x 24" opening, wash/rinse/rinse/blow off/dry stages, allen-bradley panelview 1000 control, stainless steel metal mesh belt conveyor, demagnetizer, 24" wide plastic infeed and outfeed power belt conveyors. Comes with over 50' of automated feed conveyor. Currently installed without power.

Asking Price \$89,000 USD

<https://themonty.com/project/itemm426-midbrook-belt-washer/>

Item#M425 Kolene Salt Bath Nitriding Line (gas)

Manufactured by Kolene this was purchased new in 1995 by the vendor. This is gas fired with pot dimensions of 42" diameter X 6' deep. Was typically producing 1,000 pounds per hour but capable of more. Line includes the following;

- 3 overhead transfer cranes
- Air scrubbing unit
- Bronco continuous belt blasting unit, large very effective machine with 36" belt and 8 multi directional blasting motors (vendor will sell this separately)
- 3 vibratory polishers
- Many fixtures
- Used salt*

- New salt*
- Extra pot (weld repaired)
System is installed and was in operation until late 2018. Complete and in good condition.

Asking Price \$365,000 USD For Everything

<https://themonty.com/project/itemm425-kolene-salt-bath-nitriding-line-gas/>

Item#M421 Berg Chiller

Brand: Sterling. Model: GPAC-20 (2014 mfg. year). Capacity: 5 ton. Voltage: 460V/3/60. In good condition.

Asking Price \$8,000 USD

<https://themonty.com/project/itemm421-berg-chiller/>

Item#M417 Soluble Oil Dunk Tank

Working dimensions of 30" X 48" X 30". Tank has a capacity of 2500 pounds. Includes chart recorder, cooler, recirculation pump, and controls. This could easily be modified or used to water quench aluminum. Good condition.

Asking Price \$8,000 USD

<https://themonty.com/project/itemm417-soluble-oil-dunk-tank/>

Item#M416 Wheelabrator

Wheelabrator 6' Diameter. 6" Diameter table blast wheelabrator. 30 HP belt drive. Installed and in use until March 2018. Recently reconditioned with rebuilt auger. Brand New wheel and wheel housing. Good controls with pneumatic operated control and timer to shut down wheel and notify operator when cycle is complete. Very reliable machine in excellent condition. Table is mounted on the door with full access for overhead crane.

Asking Price \$75,000 USD

<https://themonty.com/project/itemm416-wheelabrator/>

Item#M414 Vacuum Residual Gas Analyzer (3 Available)

Pfeiffer Vacuum PrismaPlus QMG220 Compact Mass Spectrometer, Mass Range 1-200 amu, Catalog # PT M06 211 111, Residual Gas Analyzer. Unused these were new in Dec. 2015 and are still in original factory packaging. Warranty expired, but still factory supported. Each set consists of the following;

1. 1 Each, Quadrupole electronics QME220, P/N PTM28612
2. 1 Each, Quadrupole analyzer QMA200, P/N PTM25253
3. 1 Set, QMS220, Accessories & Spare Parts
4. 1 Each, SP 220, (033-0038 43202) Power Supply 90-264VAC, 2.1mm R/A (24 V Output)
5. 1 Each, 45-0007 43024 UTP-Patch-Cable, 3m, Crossed, Red
6. 1 Each, B4564309YX Inficon Mains Cable (USA) LNPE, AWG 18, 2.5m
7. 1 Each, 45-0006 UTP-Patch-Cable, 3m, 1:1, grey 43024
8. 1 Each, PT882400-T Quadera-software, Version 4.61 12/10/2015 for Windows 7 or XP (32-bit Pro)
9. 2 Each, PrismaPlus QMG220 Operating Instructions (1-English & 1-German)
10. 1 Each, Test Reports and Configuration
11. 1 Each, PT R 26 002 Compact Full Range Vacuum Gauge PKR 251, DN 40 CF F
12. 1 Each, PT 448 250-T Sensor Cable

Asking Price \$8,800 USD Shipping Included

<https://themonty.com/project/itemm414-vacuum-residual-gas-analyzer-3-available/>

Item#M411 SBS Quench Oil Coolers (2 Available)

Air to oil quench oil coolers manufactured by SBS Corporation. 480V/6/60. External dimensions of 6' wide X 5' high X 21' long. This unit has three (3) NEMA type disconnect switches mounted on side of unit. Standard "SBS Quench Air" air cooled heat exchanger with removable tube manifold, propeller fans for moving air across the tube bundle, flanged inlet & outlets, three (3) NEMA type disconnect switches mounted on the side of the heat exchanger. This unit has a removable top that has louvers for directing the air horizontally instead of vertically. Good condition.

Asking Price \$13,500 USD Each

<https://themonty.com/project/itemm411-sbs-quench-oil-coolers-2-available/>

Item#M380 Bronco Wheelabrator

Model# SLC500. 36" Mesh Belt –VFD drive. 8 – 20hp Blasting Wheels – VFD drive. Media separator, Torrit dust collector. Some spare parts are also included. Well maintained and works well. Footprint – 30' long, 16' high, aprox. 12' wide. (Includes loading at the facility)

Asking Price \$20,000 USD

<https://themonty.com/project/itemm380-bronco-wheelabrator/>

VACUUMS FURNACES

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#VF362 Abar Ipsen Model HR-120x152VC Vacuum Furnace

This vacuum furnace manufactured by Abar Ipsen in 2002 has a Hydrogen Purge, Graphite Hot Zone, Controlled Cooling and a "Rotator System". Working Dimensions of 120" D x 120" L (Rotator); 84" W x 84" H x 152" L (Hearth). Maximum load and temperature; 5000-Lbs @ 2400°F (w/ Hearth); 2500-Lbs @ 2200°F (w/ Rotator). 6 Bar positive pressure cooling. Argon backfill and partial pressure hydrogen purge. Graphite heating elements, Graphite Board & Felt insulation. Varian DS602 35" diffusion pump with Stokes vacuum pumps. Compuwatch control system with Allen Bradley Panelview 1400E PLC. Honeywell chart recorder and Honeywell overtemp indicators. Inficon Digital vacuum gauges, oxygen analyser, moisture monitor, cooling system and tower. All details available upon request. Excellent condition. Still installed.

Best Offer

<https://themonty.com/project/itemvf362-abar-ipsen-model-hr-120x152vc-vacuum-furnace/>

Item#VF361 Sunbeam Vacuum Furnace

Description: Front Loading Sunbeam Vacuum Furnace. Currently in storage but has been operational in the past year. Well maintained and in excellent condition. Used exclusively for Aerospace brazing applications. All manuals, prints and maintenance records are available.

Specifications:

- Model: 4014
- Work Zone: 48" H x 48" W x 60" L

- Pumps: Stokes 212 roughing, MD Pneumatics 5514 blower, Varian 32 Diff and Welch 1376 holding.
- Max. Temperature: 2400 Degrees F
- Uniformity: +/- 15 F
- Power Requirements: 460/3/60

Controls:

- CompuVac control cabinet, new in 2008.
- AllenBradley Model SLC5/05 PLC.
- Two Televac Pirani Gauge Tubes.
- Televac Cold CathodeGauge Tube.
- Honeywell Digital Chart Recorder.
- Honeywell Over-temperatureController.
- Compuvac Work Station with Flat Panel Touchscreen.
- MM200 TelevacVacuum Gauge.

Also included are extra heating elements, loader and serpentine furnace rack.

Asking Price \$125,000 USD

<https://themonty.com/project/itemvf361/>

Item#VF360 Vacuum Aluminum Brazing Furnace

Manufacturer: PV/T, Inc. (Now an Inductotherm Group company)

Type of Furnace: Vacuum Aluminum Brazing

Work Zone: Horizontal, 24" Wide x 37" Long x 33" High

Temperature Rating: 1250°F

Used for: Brazing Radiators

Design Temperature Uniformity: +/- 5°F (6 zones of control)

Hot Zone Design: Rectangular Shape, Elements all 4 sides, top & bottom

Hot Zone Condition: Good

Vacuum Pumps: Varian HS-16 Diffusion Pump (New in 2005), Stokes 412-H Roughing Mechanical Pump, Stokes Mechanical Booster Pump, Welch 1402 Holding Pump

Floor Space Requirement: 8 ft x 11ft for furnace, 2 ft x 5 ft for control panel

Power Requirement: 480V/3Ph/60Hz, 200 Amp Disconnect

Controls: Honeywell, Barber-Coleman

Accessories Included: Loader, Water Cooling System (as shown in photos)

Disassembly: No charge, Just pay for rigging

Asking Price \$95,000 USD

<https://themonty.com/project/itemvf360-vacuum-aluminum-brazing-furnace/>

Item#VF359 Stokes 412 Vacuum Pump and Stokes 612 Booster

We have available a fully reconditioned Stokes Model 615-1 booster pump, Lot 78506-37, S/N 88878S00599 and a reconditioned Stokes 412 Vacuum pump. Both units have been serviced regularly and are completely rebuilt.

Asking Price \$15,000 USD For Both

<https://themonty.com/project/itemvf359-stokes-412-vacuum-pump-and-stokes-612-booster/>

Item#VF358 Abar Ipsen 10-Bar Vacuum Furnace

Manufacturer: Abar Ipsen

Type: 10-Bar Vacuum Furnace, Internal Quench

Furnace Model: H-66x48

Date: 1994

Work Zone Size: 48"W x 50"L x 48"H

Max. Temperature: 2300F (operated 900F-2220F)

Temperature Uniformity: +/-15F

Hot Zone: All Metal

Control Thermocouple: Type S

Process: Used for Steels and Titanium

Cooling Gas: Argon and Nitrogen

Quench: 10 Bar Quench with Internal Cooling Fan

Blower motor: Recent rebuild/upgrade to VFD, 350HP
Typical vacuum level: 10^{-6} Torr with 2 micron leak rate reported
Diffusion Pump: Varian 35"
Mechanical Pump: Stokes 412J-14
Vacuum Booster Pump: Edwards 900-615-MHRR 09/16
Furnace Footprint: 21'W; 22'L door closed; 27'L door open; +10'L Loader and Rails
Panel Footprint: 8'W x 3'L x 7'H
Included: Loader, (2) ea. Serpentine Load Support Grids
Description: Metal shielded hot zone, needs new elements and shield repairs, or you can convert to graphite insulated hot zone.
Controls: Honeywell AC90 recipe controller, Honeywell UDC 2000 over-temperature controller, Televac MC300 vacuum gauge, SSi Touchscreen Digital Chart Recorder, Dewpoint Panametrics Moisture Monitor Series 35, SSi Series 7 diffusion pump oil temperature controller

Asking Price \$250,000 USD

<https://themonty.com/project/itemvf358-abar-ipesen-10-bar-vacuum-furnace/>

Item#VF357 Abar Ipsen Rebuilt Vacuum Furnace

- Manufacturer: Abar Ipsen
- Model: HR 46X72
- Condition: Rebuilt in 2015, used through 2016. Very good.
- Hot Zone: 36"W x 24"H x 72" deep, Moly, New in June 2015
- Elements: Moly
- Controls: New Ipsen control panel, new in 2015.
- Temperature: 2400F
- Diffusion Pump: 32" Varian Diffusion Pump (new in 2015).
- Pumps: Stokes 212 mechanical pump was rebuilt in early 2016. Welch 1398 holding pump was rebuilt in 2015. Stokes 615 blower recently rebuilt.
- Estimated Footprint: 21' Wide (+ water surge tank which could be relocated 4'x10'x6'H). 24' Deep (+10' deep loader). 12' High. Spool piece adapter added to

remove need for diffusion pump pit.

- Power: 480 Volts, 3 Phase, 60 Hz
- Loader Included, 10' Long x approx. 3.5' Wide.
- 2-Tier TZM Moly Grid Fixture, 36" Wide x 72" Long x 18.5" Tall.
- Cold Trap: Liquid N2 fed Cold Trap
- Status: Furnace is currently disassembled in storage. Furnace was in production until January 1st, 2017.

Asking Price \$350,000 USD

<https://themonty.com/project/itemvf357-abar-ipsen-rebuilt-vacuum-furnace/>

Item#VF355 Vacuum Furnace Control Panel

Built by Loy Instruments in 2014 for use on an Abar Vacuum furnace. System consists of a free standing, 2 door panel with Honeywell 900PLC with Honeywell Over Temp and Televac vacuum controller. Panel was used for 2 years before it was removed from service. Panel has always been in a controlled atmosphere environment maintained at 70F. Very clean and in excellent condition. New this was \$60,000 USD.

Asking Price \$26,000 USD

<https://themonty.com/project/itemvf355-vacuum-furnace-control-panel/>

Item#VF353 Bottom Load Vacuum Furnace 60" X 60"

Vac Aero Rebuilt Bottom Load Vacuum Furnace, working dimensions of 60" x 60". Model: VAV-6060-BL. Hot Zone: Moly face with graphite insulation. Vacuum Pumps: 35" Diffusion Pump, Stokes 1722 Package. Quench System: 125 HP external quench. Rebuild in progress: Complete exterior reconditioning. Interior of pipes, fna house and vessel receive sand blasting and new high temp white epoxy paint. New hosing. New hot zone. New quench heat exchanger. Rebuilt 125 HP motor. Rebuilt mechanical pump and blower. (New controls available at extra cost). PHOTO BELOW SHOW FURNACE BEFORE REBUILD.

Asking Price \$495,000 USD

<https://themonty.com/project/itemvf353-bottom-load-vacuum-furnace-60-x-60/>

Item#VF350 Ipsen Bottom Load Vacuum Furnace

Model VVFC, Serial number #57411. Working dimensions of 48" X 48". Max. temp 2300F. 225KW heating power. 2 speed 25 HP cooling fan. Increased internal heat exchanger coils. Insulated hot zone with moly hot face. Stokes 412 mechanical pump with ROOTS CONNERSVILLE 1016 booster. New SSI programmer/controller. Built 2/6/78. Graphite heating elements and graphite hearth. Installed but not in use. Good condition.

Asking Price \$99,000 USD

<https://themonty.com/project/itemvf350-ipsen-bottom-load-vacuum-furnace/>

Item#VF348 C.I. Hayes Vacuum Furnace

C.I. Hayes Vacuum Furnace. The front door is mounted on an I-Beam trolley and slides to the side for access to the interior. Quench section is located directly in front of the heat chamber with a hydraulically operated door separating the chambers. Hot zone is lined with graphite felt backed up with ceramic fiber blanket. Six graphite rod elements are mounted horizontally across the chamber, 3 over and 3 under the work area. Hearth rails support the work load. Hydraulic cylinder transfers the load between the chambers. Hydraulic pumping system lowers and raises the work load into the tank. There is a Kinney vacuum Electrically heated with a voltage of 480/3/60/20 kW. Model # VCQME and serial # 16482 (1987). Max operating temperature is 2400°F. Working dimensions of 8"W x 6"H x 14"L with external dimensions of 5' wide x 9' 6" long x 8' 5" high Furnace only – not including pumps, transformer. Controls are mounted and wired in a separate enclosure. There is a Honeywell DCP 511 programmable controller and a Honeywell round chart recorder / high limit with digital readout. MKS vacuum gauge indicates vacuum level in the quench area and the heat chamber. Control switches for all functions of the furnace including

temperature, vacuum, nitrogen backfill, gas fan and oil agitator are flush mounted in the enclosure. Controls for transferring the load and elevator controls are located next to the furnace door. Voltage reduction transformers with DC power drivers are mounted in a NEMA 12 enclosure.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemvf348-c-i-hayes-vacuum-furnace/>

Item#VF344 C.I. Hayes Vacuum Furnace

Built by C.I. Hayes this is a VCH-202436 Single Chamber Vacuum Furnace. Work dimensions of 20”h x 24”w x 36”d. Max. Temp.: 2450 deg.F. Connected Load: 125 KW, 440/3/60. All Graphite Heating Chamber. Vacuum Components: Mechanical Pump/Blower Combo (16” Port For Addition Of Diffusion Pump). High Volume Recirculating Gas Cooling System. Programmer Controller, OT Protection, Two Recorders. Previously used for sintering of stainless steel magnetic material and the quench is capable of hardening alloy materials. Hot zone in good condition. Furnace is presently in storage.

Asking Price \$90,000 USD

<https://themonty.com/project/itemvf344-c-i-hayes-vacuum-furnace/>

Item#VF342 Ipsen Bottom Load Vacuum Furnace

Ipsen Bottom Load Vacuum Furnace 48” X 54”. Completely Re-Manufactured IPSEN 48” Dia x 54” High Vertical Bottom Loading Vacuum Furnace for your Heat Treating and Brazing requirements. This furnace complies and meets the SAE Aerospace Material Specification AMS2750 Latest Revision E (AMS2750E) and NADCAP. Operating temperature from 800°F (427°C) to 2400°F (1315°C). Temperature uniformity ±10°F (±6°C) between 1004°F (540°C) to 2400°F (1315°C). Equivalent to Class 2 Furnace in AMS2750E standards. Circular one-piece gas plenum/hot zone support structure provides strong, uniformly

expanding support for elements Work Zone Dimensions are 48" (1219 mm) Diameter x 54" (1372 mm) High. Hot Zone Insulation is composed of the following layers:

Hot Face

First Layer

Second Layer

– 0.060" Thick Graphite Foil with CFC Sheet at ends

– 1.00" Thick High Purity Graphite Felt

– 1.00" Thick High Purity Graphite Felt

Hearth gross load weight capacity of 3000 lbs (1361 kilograms) at 2400°F (1316°C). Ultimate Vacuum (nominal) 10-5 Torr Range. Re-manufactured Stokes 412H-11, 300 C.F.M. (8,500 litres per minute) mechanical roughing pump. Re-manufactured Stokes 900-615, 2,000 C.F.M. (56,600 litres per minute) as blower pump. Re-manufactured Varian NHS-35" Diffusion pump, pumping speed 50,000 litres per second. Comes with Safety Guard against hot body surfaces. New Leybold Trivac 8B, 5.7 C.F.M.(161 litres per minute) Rotary Vane Vacuum pump as holding pump. New Oil Mist Filter System for pumping system exhaust. One (1) Re-manufactured External 4400 CFM 50HP Spencer Turbine Co. Gas Fan Cooling Motor and heat exchanger system. One (1) Re-manufactured step-up transformer for Gas Fan Motor. One (1) Backfill Reservoir Gas Tank @ 120 p.s.i.g of 5,000 litres capacity. Argon Quenching To Maximum 2 Bar. Consider this basically a new furnace with a 12 month warrantee. Asking \$525,000 USD with start up and training included. Half the price of new.

Asking Price \$525,000 USD

<https://themonty.com/project/itemvf342-ipen-bottom-load-vacuum-furnace/>

Item#VF335 ALD Vacuum Carburizing Furnace

Loading Dimensions : Width 400 x Length 400 x Height 400 mm. Loading

Capacity : 80 kg max. Cooling Fan Motor : 75 kW, 3000 rpm for 10 bar

N2. Vacuum System : Leybold SV100 Mechanical Pump. Leybold WA501 Roots

Pump. Leybold E250 Mechanical Pump. Leybold WA1001 Roots Pump. Vacuum Level : $<5 \times 10^{-2}$ mbar. Leak Rate : $<5 \times 10^{-3}$ mbar l/s. Heating Zone : 120 kW, 2 zones. Plasma Chamber : 60 kW, 1 zone. Diffusion Zone : 180 kW, 3 zones. Max. Temperature : 1250 °C (Heating chamber). Operating Temperature : 800-1100°C. Process Gases : Nitrogen, Methan, Argon, Hydrogen. Installed Power : 700 kVA, 3x400V 50 Hz. Manufacturing Year : 2002.

Asking Price \$75,000 Euro

<https://themonty.com/project/itemvf335-ald-vacuum-carburizing-furnace/>

Item#VF331 Elnik Vacuum Furnace

High Temperature Vacuum Furnace 2300. Manufactured by Elnik this is a MODEL T-3000 unit, built in 1993. The vacuum furnace consists of a watercooled cylindrical chamber, a molybdenum hot zone with tungsten heaters, a roughing pump, a holding pump, a diffusion pump, a heat exchanger assembly, and all associated valving.

- The furnace runs on 480 volts
- Working dimensions of 18" X 18" X 18"
- External dimensions of furnace 6' X 6', water tank 5' X 5'
- Ultimate vacuum 10^{-5}
- Stokes roughing pump Model 148 H-9
- Holding pump (Walsh) 1402
- Varian diffusion pump – VHS-6
- Water system – Model WCS 305-ET with a 300 gallon stainless steel recirculating tower model 1CT4-64
- 2300F operating temperature
- Ut35 temperature controller controls the temperature of the furnace as programmed by the operator via the computer's profiler utilities
- Complete and in Good Condition

Asking Price \$19,950 USD

<https://themonty.com/project/itemvf331-elnik-vacuum-furnace/>

Item#VF330 Surface Combustion Vacuum Furnace

Surface 2-Bar Quench Vacuum Furnace. Model# HVPI 484824. Maximum Temperature: 2400F. Power requirements: 460/3/60, 275 KW. Hot Zone Dimensions: 48" Wide x 48" Deep x 24" High. External Dimensions: 12' Wide x 12' Deep x 11' High. Features: Horizontally Loaded Vacuum Furnace complete with 412 Stokes Vacuum Pump, Roots 615 Booster Pump, 2 Bar Quenching, Graphite Heating Elements, "Autoclave" Style Swing-Out Front Door, and Powered Big Joe Loader. Also Included is (1) Crate of New Spare Heating Elements and Connectors. Controls: Free-Standing Control Panel complete with Marathon Monitors Digital Temperature Controller, Honeywell Digital High Limit, and Honeywell Round Chart Recorder. Condition: Very good – Operational. Approx. Weight: 25,000 lbs

Asking Price \$119,000 USD

<https://themonty.com/project/itemvf330-surface-combustion-vacuum-furnace/>

Item#VF327 Surface Combustion Vacuum Temper Furnace

Working dimensions of 36" x 48" x 24" and is approximately 23 years old. The equipment is in good condition with Honeywell HC900 Controls, Telvac Vacuum Control & Sensors, Honeywell UDC 2000 overtemp control, Stokes 412 Vacuum Pump, Controls Concepts SCR, McLeen Cabinet Cooler. Brand New Heating Elements ready to be installed. Internal Fan Circulation. This unit was pulled from service to make room for a new Vacuum furnace just recently. Max Temp 1500° F, 480 Volt / Three Phase.

Asking Price \$50,000 USD

<https://themonty.com/project/itemvf327-surface-combustion-vacuum-temper-furnace/>

Item#VF326 Ipsen Vacuum Furnace

Ipsen 924 Vacuum Furnace. Ipsen Model: VFC-924-R Vacuum Furnace S/N: 58699. Working dimensions of 32" wide X 53" deep X 26" high. Maximum operating temperature of 2400F, recently surveyed from 1400-2000F at +-25F. Molybdenum faced hot zone. Stokes 412 roughing pump, Stokes 615 booster pump, and Varian HS-20 diffusion pump. 40 HP fan. Water cooled. One zone of control. Honeywell controllers and chart recorder. MKS 937B Vacuum Gauge Controller. Good operating condition. 480 Volts. Was used in an aerospace facility before it was very recently removed.

Asking Price \$80,000 USD

<https://themonty.com/project/itemvf326-ipsen-vacuum-furnace/>

Item#VF321 Ipsen Vacuum Furnace

- Manufacturer: Ipsen
- Model: VFC-524, working dimensions of 24" wide X 36" deep X 24" high
- Temperature: 2400F
- Moly-faced hot zone
- Graphite heating elements
- 18" Ipsen Diffusion Pump
- Stokes 412H-10 mechanical pump
- 50 kVA power transformer
- Top-mounted cooling fan with 15 HP Motor
- New control Panel with Athena AT25 Digital Temp Control, Hastings Series 310 Digital Vacuum Controller, and L&N strip chart recorder.
- Currently in storage in San Diego, CA area

Asking Price \$58,000 USD

<https://themonty.com/project/itemvf321-ipsen-vacuum-furnace/>

Item#VF320 Thermal Technologies Vacuum Furnace

High Temperature Vacuum Furnace. Manufactured by Thermal Technologies LLC, Model 121224G. Working dimensions of 12" wide X 12" high X 24" deep. Maximum load weight of 200 pounds. Operating temperature of 1565C, maximum temperature of 2000C. Operating vacuum level 10-2 torr range. Ultimate vacuum level 10-3 torr. Process gas argon. Front and rear doors. Graphite heating elements with rigid fibrous graphite insulation panels (hot zone is NOT installed but virtually all the components are included) 125jVA power supply. Rotary vane pump , Trivac B Leybold Model D65B (53CFM). Eurotherm Model 2704 high performance controller/programmer with SpecView software. Furnace comes complete with parts washer.

Asking Price \$75,000 USD

<https://themonty.com/project/itemvf320-thermal-technologies-vacuum-furnace/>

Item#VF316 AVS Vacuum Furnace

Manufacturer: Advanced Vacuum Systems (AVS). Model: HMF-24-24-48-1100, S/N 4-1284-0683 Approx. 1990. Chamber: Cylindrical, Horizontal, Stainless Steel with front & rear access doors for ease of maintenance. Hot Zone: Used, All-Metal Moly/SS Shielded Hot Zone with Moly Elements and Moly Hearth Ass'y. Vacuum System: Stokes Mechanical Pumps and Varian Diffusion Pump (Typ. 10-4 to 10-6 Torr ultimate) Pumps: Varian HS-20 warranty rebuilt Diffusion Pump. Stokes 310 warranty rebuilt mechanical blower pump (booster). Stokes 212 warranty rebuilt Mechanical Roughing Pump. Holding Pump for diffusion pump. Power: 480V/3Ph/60Hz, 300 Amp, 250 KVA Heating. Floorspace Requirement: Approx. 15' x 15' x 11'H. Work Zone: 24"W x 48"D x 24"H. Max. Temperature Rating: 1100°C (2012°F) Max. Load Rating: > 1500 lb. Upgraded Controls: SSI 9220 Controller with 12.1" Advantech Touch Screen HMI and built in digital data acquisition, SSI Series 804L Hi-Limit, SR12 Remote Input Satellite Recorder, New Allen-Bradley Micrologix 1400 PLC, Televac vacuum instrument & gauges. Gas Cooling: External VFD Drive Blower and Heat Exchanger, 1 Atmosphere Pressure. Other: Included – 24" x 48" used 2-Tier Molybdenum Grid

Fixture. Both front and rear doors have ports for adding end heating elements, if desired (not included). Rear door also has a port for a circulation fan, if desired (not included).

Asking Price \$170,000 USD

<https://themonty.com/project/itemvf316-avs-vacuum-furnace/>

Item#VF315 AVS Vacuum Furnace (Rebuilt)

Manufactured by Advanced Vacuum Systems (AVS) this furnace has a Model Number HMF-24-24-48-1100, S/N 4-1284-0490. Built approximately 1990. Chamber: Cylindrical, Horizontal, Stainless Steel with front & rear access doors. Hot Zone: New in 2015, All-metal, shielded (Moly and Stainless Steel), Moly Hearth, Moly Elements. Hot Zone rated for 2400F. Vacuum System: Currently 10-9 Torr, Cryogenic and Turbomolecular Dry Pumps. Pumps: CTi Cryogenics 10" Cryo Ultra High Vacuum Pump; MAGintegra 10" High Vacuum Turbomolecular Pump (New in 2015); Pfeifer Balzers Duo 120 2-stage Rotary Vane Roughing Pump; Agilent Technologies SH-110 Dry Scroll Holding Pump for Cryo. Power: 480V/3Ph/60Hz, 300 Amp, 250 KVA Heating, Hunterdon VRT with Halmar Power Control. Floorspace Requirement: Approx. 15' x 15' x 11'H. Work Zone: 24"W x 48"D x 24"H. Max. Load Rating: > 1500 lb. Controls: ProVac computer based control system. New in 2015. Gas Cooling: External VFD Drive Blower and Heat Exchanger, 1 Atmosphere Pressure. Loader: Included. Cooling Water: 90 GPM @ 25-40 PSIG (40 Max.), Open Drain. Air: 1 cu. ft./hr @ 80-100 PSIG. Inert Gas: 35 cu. ft./Load @ 6-8 PSIG. Other: Includes 24" x 48" 2-Tier Molybdenum Grid Fixture, Has blanked off 20" port for easy change to diffusion pumping, if desired. Both front and rear doors have ports for adding end heating elements, if desired. Rear door also has a port for a circulation fan, if desired.

Asking Price \$195,000 USD

<https://themonty.com/project/itemvf315-avs-vacuum-furnace-rebuilt/>

Item#VF314 Ipsen Bottom Load Vacuum Furnace

Work Zone: 60" Diameter x 96" Tall with a Temperature of 2400F. Diffusion pump: 35" diffusion pump, with port and right angle valve. Manufactured in the 1980's with a Power of 480V/3Ph/60Hz; 600kW. Hot Zone: 2008 reline, graphite elements. Cooling Gas: Was running Argon; capable of 1-Bar cooling. Top mounted cooling fan. Water Cooling: Includes Dry Cooler closed-loop AquaVent water cooling system; 2005, 200 GPM, Plate & Frame Heat Exchanger with Thermacare fiberglass Tower.

Asking Price \$325,000 USD

<https://themonty.com/project/itemvf314-ipsen-bottom-load-vacuum-furnace/>

Item#VF313 GT Technologies Top Loading Vacuum Furnaces

Top Loading Vacuum Furnaces (2 available). Manufactured by GT Technologies, Model # AMPF-4836HP – 2015. Working dimensions of 1200mm diameter x 900mm High. Operating temperature of 2100C. Controls by Loy Instruments (Honeywell graphic touchscreen). This unique ultra high temperature furnace is high vacuum, has resistance heating with all graphite hot zone and graphite felt insulation for high efficiency operation. 480 volt 3PH 50/60 HZ, 160 KVA. Maximum load 1,000 KG. Double Wall Stainless Steel Vessel construction. Platform with Stairs included. Halogen Gas Purge equipped, Dry Vacuum Pumping System with Blower. Graphite Purity levels to less than 5ppm. Cycle time 72 – 84 hours. 10 – 3 Torr vacuum level achievable. Options: Exhaust Scrubber System, Overhead Crane. Very good condition.

Asking Price \$175,000 USD Each

<https://themonty.com/project/itemvf313-gt-technologies-top-loading-vacuum-furnaces/>

Item#VF312 Vacuum Furnace

2400C Vacuum Furnace. Capable of 2400C (4320F). Working dimensions of 10" high x 22" wide x 36" deep element-to-element. External dimensions of 86" high x 76" wide x 85" deep. 480 volts, 3 phase, 225 kw. This unit is capable of both vacuum and atmosphere operation. Graphite rigid board insulations, graphite heating elements on all 4 sides, graphite hearth plate, 6 channel digital chart recorder, Yokogawa UP 550 digital programmable controller. High accuracy Raytek digital optical pyrometer. All New Vacuum Chamber – Tested and Certified and new graphite hot zone. Very good condition.

Asking Price \$149,000 USD

<https://themonty.com/project/itemvf312-vacuum-furnace/>

Item#VF299 Sunbeam Vacuum Furnace

Model # 40236, Serial Number F-170-82. Working dimensions of 36" wide X 120" long X 36" high. Maximum operating temperature of 2552F (1400C). 460 volts, 400Kw, 3 phase. Honeywell digital program control, Honeywell digital overtemperature control, Honeywell strip chart (inoperative) and Granville-Phillips 375 Convectron vacuum controller in enclosed panel. Double walled water cooled horizontal load vessel. Interior has a molybdenum liner with graphite heating elements on both walls, roof and floor. 20 HP cooling fan mounted in rear. Pumping system consists of a Stokes 412-11 mechanical pump with Roots booster. Power to the heating elements is through VRT's. A battery powered loader is included. Some of the heating elements were damaged during shipment and will need to be replaced by buyer.

Asking Price \$95,000 USD

<https://themonty.com/project/itemvf299-sunbeam-vacuum-furnace/>

Item#VF282 AVS Vacuum Debinding/Sintering Furnace

This is a horizontal graphite vacuum debinding sintering furnace for steel MIM parts completely rebuilt from top to bottom by AVS in 2010. Working volume – approximately 18 cubic feet, 28" wide x 26" high x 42" long graphite retort, 1500#

capacity. Temperature – rated for continuous operation at 1400°C ±10°C in vacuum, 1450°C burn-out. 50μ ultimate vacuum; leak rate <10μ / hour, CEDORT (Clean, Empty, Dry, Outgassed, Room Temperature). De-bind system – nitrogen or argon sweep gas, 0 – 100 torr differential pressure controlled by PLC and automatic I-to-P modulating vacuum valve, binder trap, condenser assembly; options available for hydrogen gas and burn-off. De-bind lines heated to keep vapor from condensing in vacuum lines. Fast cooling with circulation fan and automatic gas re-circulation ports. Control system – AVS ACE™ control/data acquisition system. Estimated cold-to-cold cycle time of 16 to 20 hours with AVS “Fast Cool” option. Horizontal jacketed chamber – 60” dia. x 80” long, nominal dimensions, flanged, on legs. SA-516-70 mild steel construction on water jackets and door + body flanges. Stainless Steel inner jacket & dished head plus all power ports Front-loading chamber with 2 doors – both doors on adjustable hinges, with buna o-rings, manual clamps, for operation from 50 millitorr vacuum to 3 psig positive pressure; rear door opens for service. Ports – rough line on side of chamber, delube line from bottom, fan housing flange on rear door Additional PORTS added to the system to accommodate future system modifications for processing ‘sinter-hard’ P/M materials – a total of up to 7 additional ports ranging from 18” in diameter down to 1” in diameter will be added. Further details available upon request. Currently installed and in excellent condition.

Asking Price \$149,000 USD

<https://themonty.com/project/itemvf282-avs-vacuum-debinding-sintering-furnace/>

WASHERS

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, let us know.

Item#W431 Surface Combustion Dunk Spray Washer 36x48x30

Manufactured by Surface Combustion in 1983 this is a dunk/spray washer with working dimensions of 36" wide X 48" deep X 30" high. Serial number BC-42072-1. Maximum temperature of 180F. Installed and in operation. Very good condition. Available September 2019.

Asking Price \$25,000 USD

<https://themonty.com/project/itemw431-surface-combustion-dunk-spray-washer-36x48x30/>

Item#W428 Abar Ipsen Parts Washer

Model WRD-5-G Dunk/Spray washer. Serial number 60099. Working dimensions of 24" X 36" X 24", maximum load capacity 1200 pounds. Gas heated. 460/3/60 electrical. Currently installed. Very good condition.

Asking \$19,900.00 USD.

<https://themonty.com/project/itemw428-abar-ipсен-parts-washer/>

Item#W426 Mart Corporation Table Washer

Mart Corporation Table Washer. Equipped with: Thermal Insulated Skins, Rinse Pump for Hand Wand, Wash-Rinse, Gas Heat, Oil Skimmer, Variable Pressure Switch Low-High, Rinse Pump Off-Auto, Turntable Off-On, Turntable Jog, 24 Vee-Jet Wash Nozzles, Oscillating Manifold 4 Revolutions Per Minute, 30 Minute Cycle Timer, 55 HP Duplex Pumps 399 GP, Reservoir Capacity 967 Gallons 260 Gallon Sludge Capacity, Table Load Capacity 20,000 lbs. Initial Heat Up Time 45-60 Minutes. Note: Unit is in very good condition. Table Bearings are good all

maintenance up to date, recent items include, turntable drive replaced, as well as pump rebuild. Heated with natural gas. Model # Hurricane 84 and Serial # H3013. Max temperature 140°F – 180°F with a voltage of 480 3 Phase 60 HZ, 71 FLA. Working dimensions of 84" Diameter x 75"H and external dimensions of 143" W x 139"H x 125"L – 16,000 pounds. Controls Mounted and wired in an enclosure attached to the left hand side of the washer includes.

Asking Price \$49,000 USD

<https://themonty.com/project/itemm426-mart-corporation-table-washer/>

Item#W425 Proceco Rotary Table Washer

Proceco Rotary Table Washer. Standard Proceco "Typhoon" stainless steel rotary table washer with 2000 pound table capacity. This washer has a wash stage, rinse stage and electrically heated blow-off stage. Wash tank is 600 gallons, rinse tank is 295 gallons. 25 HP wash pump, 360 GPM, 40 psi. 7-1/2 HP rinse pump, 115 GPM, 60 psi. Manual and drawings are included with this washer. Washer options include the following: Center Nozzle Pipe (CNP), Full Flow Filtration, Exhaust Blower, Oil Skimmer, Fresh Water Rinse, Oil Coalescer, PLC Controls, Stainless Steel Construction. Electrically heated with voltage 460/3/60/39 Amps. Model # HD 62-60-S-2000-CO-2-R-BO-SS and Serial # 96-224. Working dimensions of 62" Diameter x 60" High with external dimensions of 8'W x 16'H (11'H shipping) x 13'L. Controls Mounted and wired in a free standing panel includes an Allen Bradley SLC 500 PLC control with operator interface flush mounted to the door. There are three (3) digital temperature controllers, 1 for 1st stage, 1 for 2nd stage and 1 for blow-off stage. Excellent condition and available immediately.

Asking Price \$55,000 USD

<https://themonty.com/project/itemm425-proceco-rotary-table-washer/>

Item#W415 Surface Combustion Parts Washer

Manufactured by Surface Combustion of Ohio this is a spray washer with working dimensions of 30" X 48" X 30" high. Radiant tube gas heat and rotary drum oil skimmer and separate skim tank located on back of wash. This is partially reconditioned . It is in overall good condition. BEST OFFER.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemm415-surface-combustion-parts-washer/>

Item#W348 Ipsen Automatic Dunk/Spray Washer

Model #WRD-11, Serial Number 57690. Working dimensions of 36" wide X 48" deep X 24"+ high, 2200 pound capacity. Electrically heated, 72KW. Companion washer-In/Out or straight through design. Door each end, Cal Rod element bundle. 12" wide belt oil skimmer, air operated-full width elevator rack for submerged oscillation, overhead spray rinse. Overall dimensions of 7' 5" wide X 5' 4" long X 11' 8" high.

Asking Price \$35,000 USD

<https://themonty.com/project/itemm348-ipsen-automatic-dunk-spray-washer/>

Item#W314 Holcroft Dunk/Spray Washer

Model GPWS 24-36-24. Electrically heated, 480/3/60/50 amps. Working dimensions of 24" wide X 24" high X 36" deep. External dimensions of 96"W X 143" high X 124" long (91" without skimmer attached). This is a standard dunk/spray washer with 4 Warren Electric immersion heaters. Spray nozzles are arranged over and all sides of the wash area. Load height is 51" from floor to top of rollers. Wheel centres are 14-1/2". Controls are mounted and wired on the right hand side of the washer and includes all necessary pushbuttons and signal lights. There is a dunk cycle timer and spray cycle timer. A Honeywell UDC 2000 digital temperature controller controls wash temperature. Good condition.

Asking Price \$18,500 USD

<https://themonty.com/washers/>

EMPLOYMENT OPPORTUNITIES ADVERTISING

The cost is \$150.00 USD per month for a minimum of two months. Payment can be made by Visa or Check. Opportunities should be in the form of a “Word” document and e-mailed to jordan@themonty.com All “Employment Opportunity” ads can include your company logo and will automatically appear both on the website and in the monthly newsletter “The Monty”.

Item#O381 Chief Operating Officer

A Midwest Heat Treater is seeking a hands-on, results-minded and strategic Chief Operating Officer with a high sense of urgency and strong leadership skills to oversee operations. The candidate will be responsible for ensuring operational excellence across the organization. The primary tasks will be to increase our organization’s productivity, efficiency, and profitability.

Responsibilities:

- Leads and directs the day to day operations. This includes providing leadership and direction to the management team to ensure new opportunities to accelerate growth.
- Drive continuous improvement initiatives that will result in safe, compliant, and cost-effective processes.
- Oversee employee productivity, building a highly inclusive culture to ensure team members thrive and organizational outcomes are met.
- Help improve our maintenance program with an organized system. Direct, lead, minimize equipment downtime.

Qualifications:

- 15+ years of heat treat experience.
- 5+ years of Top Management experience.
- Bachelor’s degree in business or equivalent.
- Leadership skills, with steadfast resolve and personal integrity.
- Diagnose problems quickly and foresight into potential issues.

- Oversee operations of the company and work of executive.
- Design and implementing business operations.
- Establishing and enforcing policies that promote company culture and vision.
- Strategic planning and business development experience.
- Strong written and verbal and presentation skills.
- Strong leadership and organizational skills.

Culture: Candidate will demonstrate the ability to work in a family owned and team-oriented culture where they foster a fast learning and continuously improving organization that will enhance our competitiveness and profit.

Benefits: Medical, dental, 401K, paid time off, and holiday pay.

How to Apply: Applications will be accepted until the position is filled. To apply, please email your resume and cover letter to info@tcht.com.

Item#O380 Vacuum Furnace Operator

Byron Products. 3781 Port Union Road, Fairfield, Ohio 45014

Compensation: \$15-\$20 / Hour

Employment Type: Full Time

Shift: 2st Shift & 3rd Shift

Benefits: 401k, Dental, Life, Health, Vision, Online Heath & Wellness Program

Why Work Here? “The Byron Products environment is about team effort and taking pride in your hard work. We care about our employees and do our best to offer them a happy and balanced work life.”

Job Summary: We are seeking full-time vacuum furnace operators to assist us at our first plant in Fairfield.

Responsibilities and Duties:

- The employee will need to be able to do the following:
- Ability to work from furnace operation and calibration sheets and furnace logs with minimal supervision.

- Operates a variety of standard power tools and equipment.
- Maintains records and logs, as needed.
- Performs duties as needed or assigned by Production Manager
- Ability to follow oral and written instructions and to communicate effectively.
- Ability to work cooperatively with others. Excellent work history and attendance record.

Qualifications:

- Valid driver's license
- Graduation from high school / GED or experience in a variety of trades or manufacturing work; or any equivalent combination of education and experience which would provide the required knowledge, skills, and abilities.
- Pre-Employment drug screen required and random drug test throughout the year

Experience:

- Experience working with vacuum, atmosphere brazing and tempering furnaces (Knowledge and experience of furnace set-up, operation and every-day maintenance): 1 year (Preferred)
- Experience working to FAA, and ISO specifications concerning aerospace furnace brazing and heat treating: 1 year (Preferred)
- Experience using various tight tolerance measuring instruments including micrometers and calipers.

Work authorization: United States (Required)

Work Location: Plant 1 (3781 Port Union Road, Fairfield, Ohio 45014)

Pay Frequency: Weekly

About Byron Products: Byron Products is a thermal processing company specializing in Brazing, Heat Treating, Welding, & Coatings. Byron Products has earned a reputation as a leader in supplying quality parts and services for a wide and diverse group of clients.

“WHATEVER IT TAKES” is our motto at BYRON PRODUCTS. By that statement we are dedicated to supplying our customers with the best service at competitive pricing in the brazing, heat treating, welding and plasma coating business. Being able to react with personalized and professional service is what has allowed us to be in business and grow since 1982.

Company Website: www.byronproducts.com

Company Phone: 513-870-9111

Item#O379 Seeking Machine Maintenance Worker

Byron Products. 3781 Port Union Road, Fairfield, Ohio 45014

Compensation: \$18-\$25 / Hour

Employment Type: Full Time

Shift: 1st Shift

Benefits: 401k, Dental, Life, Health, Vision, Online Health & Wellness Program

Why Work Here? “The Byron Products environment is about team effort and taking pride in your hard work. We care about our employees and do our best to offer them a happy and balanced work life.”

Job Summary: We are seeking a full-time maintenance worker to assist with our Fairfield properties.

Responsibilities and Duties:

- The maintenance employee will need to be able to do the following:
- Perform regular maintenance needs on equipment and facilities
- Basic mechanical, electrical, plumbing and welding skills

Qualifications:

- Valid driver’s license
- Reliable transportation
- Must possess own tools
- Able to respond to after-hours emergency calls as part of rotating on-call

- Graduation from high school / GED or experience in a variety of trades or manufacturing work; or any equivalent combination of education and experience which would provide the required knowledge, skills, and abilities.
- Pre-Employment drug screen required and random drug test throughout the year

Experience: Maintenance: 1 year (Preferred)

Working Authorization: United States (Required)

Work Location: Multiple locations (We have 4 plants located within a mile of each other)

Pay Frequency: Weekly

About Byron Products: Byron Products is a thermal processing company specializing in Brazing, Heat Treating, Welding, & Coatings. Byron Products has earned a reputation as a leader in supplying quality parts and services for a wide and diverse group of clients.

“WHATEVER IT TAKES” is our motto at BYRON PRODUCTS. By that statement we are dedicated to supplying our customers with the best service at competitive pricing in the brazing, heat treating, welding and plasma coating business. Being able to react with personalized and professional service is what has allowed us to be in business and grow since 1982.

Company Website: www.byronproducts.com

Company Phone: 513-870-9111

Item#O378 Seeking Experienced Inside Sales Manager

About CEL: Cleveland Electric Laboratories (CEL) is a family-owned business that has served our customers since 1920 by proudly providing top-quality, configure-to-order products and exceptional customer service. We place the highest importance on serving the needs of customers while focusing on quality, efficiency and integrity. CEL is looking for the right candidate possessing the character, experience, and drive to continue our expansion.

Summary: CEL is seeking Inside Sales Manager experienced in pyrometry or industrial/aerospace heating applications. The Inside Sales Manager will manage the entire sales administration process, analyze/create pricing, drive new revenue growth, and develop the inside sales team. They will collaborate with

numerous departments, so it's essential that they have excellent communication skills and are effective in a team environment. The Inside Sales Manager should be able to build a high-performing team to ensure customer satisfaction.

Principal Duties and Responsibilities:

- Manage inside sales representative team & the business development team
- Accurately and efficiently evaluates product cost and establishes pricing
- Analyze cost and pricing trends at a product line/market level
- Coordinate wide variety of quotations from transactional orders to project level bid proposals
- Quotation, Contract Review, and Sales Order Entry process-owner
- Executes business development strategy through development of a tactical plan
- Liaise with Application Engineering, Engineering, and Quality on new product configurations
- Works closely with Sales, Certification Lab, Quality, and Production in a professional and timely manner
- Knowledge, Skills, and Abilities Required:

Education: BS (Business/Engineering) preferred:

- Experience: 7+ years in a supervisory/management capacity in a sales, marketing, or product management role, preferably in an industrial product manufacturing environment. Preferential consideration for individuals with a background in industrial pyrometry or thermal experience.
- Must be an effective communicator with solid interpersonal skills to serve cross-functional stakeholders (Customers/Outside Sales/Production/Purchasing/Engineering/ Certification & Quality)
- High problem-solving, organizational, analytical, and numerical capabilities

If Interested Please Contact Brittany Bowles at: bbowles@cel-tcg.com

In Parting

We always enjoy comments, feedback and constructive criticism. Thanks for your feedback and don't hesitate to let us know your thoughts. Don't forget to visit us daily at www.themonty.com.

Gord Montgomery,

William G. Montgomery Limited

Phone: 905 271-0033

Email: gord@themonty.com

