

HEAT TREAT NEWSLETTER

Everything to do with heat treating



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INTRODUCTION

2019 marks a very special anniversary for “**WG Montgomery Ltd.**”, and “**The Monty**”. Way back in 1969 WG Montgomery Ltd. was founded by the writer’s father **William Gordon Montgomery** as a manufacturers representative firm selling new heat treating equipment - 2019 marks our 50th year in business. 2019 also marks the 20th anniversary of “**The Monty**”, a worldwide heat treating publication. While William passed away in 2017 at the age of 82 we know he would be very pleased to see that his business lives on and continues to serve the worldwide heat treating industry.

Best regards,

Gord, Dale and Jordan Montgomery

HEAT TREAT NEWS

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

Happy New Year
Dec 31, 2018



What's it Worth – Ipsen Titan Furnace
Dec 30, 2018

A captive/commercial heat treater in the Western US is closing down putting several used furnaces on the market (more details on this later). One of the furnaces is a 3 year old Ipsen Titan H2 vacuum furnace with working dimensions of 18" wide X 24" deep X 18" high, 2 bar nitrogen quenching, a maximum temperature of 2400F and diffusion pump—all in all a very desirable furnace. We have always said that the most a used furnace will fetch on the open market is half of the new price and this unit was a perfect example. It was listed at \$185,000 USD and took a grand total of 2 days to sell at almost full asking price, an asking price which as you have guessed was a little over half of the price of new. This photo does not do the furnace justice as it was in good condition.



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GRAPHITE MATERIALS

Cambridge Heat Treat, Cambridge, Canada
 Dec 30, 2018

Family owned commercial heat treater Cambridge Heat Treat in Canada had a very good year in 2018 which is what most heat treaters also found. Very much to their credit the company made a number of very substantial investments in everything from new furnaces to new controls to office and building improvements-these photos give you an idea. In the one photo you see Don and Peter Robbins who along with their sister Cheryl Mortimer (not shown) own and run the company.



Aero Engine Corporation of China (AECC) Installing Vacuum Furnaces

Dec 27, 2018

Aero Engine Corp of China is a state owned aerospace entity formed in 2016 from several previously separate companies. Within the past week French furnace builder BMI shipped two new vacuum furnaces to the company's locations in China. Both are designed for stress relieving and annealing of titanium alloy steels. Early in the new year BMI will be shipping 3 more vacuum furnaces to AECC companies in China and this will bring the total number of furnaces BMI has installed in mainland China to 63.



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Dan O'Dell, Hinderliter
Dec 27, 2018

Earlier this week we mentioned the very sad news about Dan O'Dell a long time heat treater passing away at a relatively young age. A reader sent us this photo (date unknown) from a Hinderliter Heat Treating Awards party. Danny is on the right in the Tux, Betty and Wally Bamford of Can Eng Furnaces are pictured as is John Hubbard-we are not sure about the individual holding the picture.



Lake City Heat Treating Warsaw, Indiana, USA
Dec 26, 2018

Earlier this year we had this news item about Lake City Heat Treating in Warsaw, Indiana; *“Lake City Heat Treating is pleased to announce the construction of a 6,000 square foot addition to its facility in Warsaw, IN. The company is excited about the expansion, which speaks towards its continued growth in production and expanding its heat treating capabilities. The new building also allows Lake City Heat Treating the space to bring in new machines and equipment, including a new Hot Isostatic Press in late fall 2018.”* As an update to this story we now have a picture of the new Quintus HIP unit in position in the new addition along with a comment about the relative size of the furnace; *“With a much larger capacity of 2,000 pounds per load, Lake City will be able to expand load sizes and meet customer turnaround requirements.”*



Ferronite Metal Treatment India Moves Into New Building

Dec 26, 2018

“Ferronite Metal Treatment India Pvt Ltd, a leading heating, gas nitriding and poly aimed coating company has opened its new state-of-the-art plant in Chakan Industrial Park, India. CEO Nilesh Pendharkar of Ferronite Metal Treatment India Pvt Ltd, said that the company has been serving customers across in the Electrical, Defence, Oil and Gas, Off Road equipment and Automotive industries for over 20 years. With increasing customer demands and expectations a new larger facility was needed. “The current portfolio includes Commercial Heat Treatment. We are specialised in Gas Nitriding and Poly Aimed (PA11) Coating. We also have patent rights for Nitriding, Nitro Carburising and Oxidation process. “The new plant is spread across an area of 24000 sq ft with an investment of 10 crore rupees which includes a new 1 ton Nitriding Furnace and a 1.5-ton Case Carburising Furnace. This will increase the capacity from 3 tonnes per day to 8 tonnes per day . The new plant will also add on services like liquid nitriding and Case Carburising and Hardening.”



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Danny O'Dell, Hinderliter Heat Treat
Dec 26, 2018

We regret to mention the passing of long time heat treater Danny O'Dell. Danny spent most of his working life in the industry, working as a General Manager of one of the Hinderliter Heat Treat facilities (now part of Bodycote) in the southern USA. We had several dealings with Danny and always found him a joy to work with. John Hubbard who was the owner of Hinderliter for many years describes him as *“one of the best GM’s I have ever had the privilege to work with”*. Danny will be missed. *“Danny was born on September 26, 1944 and passed away on Thursday, December 20, 2018 in Broken Arrow, Oklahoma, USA. Danny was a resident of Oklahoma at the time of passing. general manager Organizations: Member of the Broken Arrow Masonic Lodge for 34 years Wednesday December 26, 2018 , 1:00 PM at LifeChurch-Jenks St Jude’s Children’s Hospital.”*

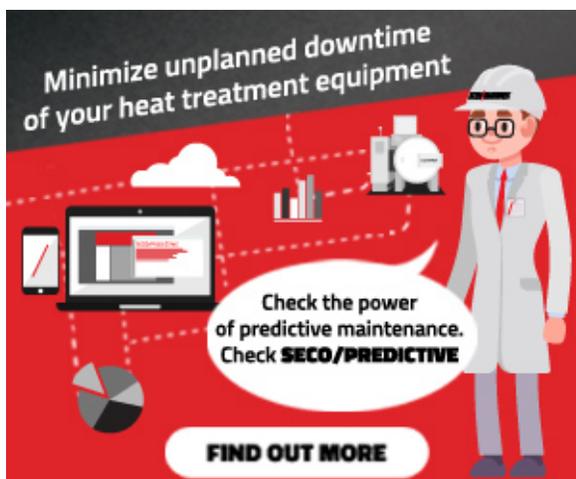


The eFlo line of Flow Meters



Can Eng Set To Install Mesh Belt Furnace Line Dec 26, 2018

“CAN-ENG Furnaces International Ltd has been contracted to design and commission a complete large capacity fastener hardening furnace system for a tier one automotive supplier based in Detroit, USA. The contract is the result of CAN-ENG successfully delivering multiple systems to this customer over a twenty year period and supports the capacity increases for the fastener manufacturing company, which offers wire processing, heat treating, coating and packaging services. CAN-ENG was contracted to see through the design and commissioning for a complete high-quality automotive fastener hardening furnace system that closely integrates a computerised part tracking and metering system, pre-washer, mesh belt hardening furnace, oil quench system, post washer, temper furnace, soluble oil system, endothermic gas generator and Level 2 automation system. The contracted system is engineered to produce at a rated capacity of 6,000lb (2,700kg) per hour. This project is currently being processed through CAN-ENG’s manufacturing and is planned for commissioning in Q1 2019.”



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Contour Hardening

Dec 20, 2018

Between ourselves and other news sources including the Indianapolis Business Journal, Contour Hardening is getting one heck of a lot of press these days, however we do have to share what we learned when we visited their facility in Indianapolis, Indiana last week. The company was founded back in 1986 by John Storm and Mike Chaplin, former engineers at Allison Gas Turbine (John unfortunately passed away this past year and Mike retired several years ago). The two applied their knowledge of gears to devise a new system for hardening based upon Induction heating which meant that from 1990 to 2000 the company was turning out 10-12 systems per year, all dedicated to gear hardening for the auto industry. 2000 meant a new location (their current one) and commercial heat treating again all based on induction. 2007 brought the facility in Silao, Mexico which now has 26 employees while Indy has almost 60. We speculated that Contour is the largest commercial induction heat treater in North America which is quite possible although they have to be very close in size to Zion Industries, another commercial heat treater. Currently the company's mix is roughly 80% heat treating and 20% machine building. With 4 metallurgists on staff, multiple engineers and a dedication to customized solutions the new CEO Ben Crawford is planning on continuing with their stated objective of providing customized solutions designed around the part. Trivia time: the company heat treats roughly 21,000 parts per day and the average price of a system is from \$300,000 to \$3 million USD. A pretty cool place to visit we have to say.





Wallwork Heat Treat, Cambridge, UK

Dec 20, 2018

Our friends at commercial heat treater Wallwork in the UK think they are being pretty witty with this news item; ***“Santa Makes Special Delivery to Wallwork Cambridge for Peter Cookson. Peter Cookson, is delighted with his early Christmas present – a newly delivered, large capacity, SECO Warwick vacuum furnace. It was too big to wrap and keep a secret but Peter was eager to have his photo taken alongside. The furnace should be operational early in the new year. Vacuum brazing has boomed at Wallwork since we established our first dedicated cell for production of complex components, including honeycomb rings and segments, in 2014. Orders for complex vacuum brazed parts are on the up from aerospace, motorsport, medical and other dynamic industries. Completing part of a £2.7 million pound investment by Wallwork, the brand new furnace will boost production capacity to meet demand.”***





**SOME LIKE IT HARD,
SOME LIKE IT SOFT.**

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Certified Heat Treating/Springfield, Ohio, USA
Dec 19, 2018

Certified Heat Treating of Springfield, Ohio, USA was acquired by Thermal Process Holdings on January 2, 2018 and was the second commercial heat treater to fall under the Thermal Process Holdings banner, the first being Diamond Heat Treat of Rockford, Illinois, USA. Calvert Street Capital Partners, Mr. John Hubbard of Bodycote fame, Lewis Lance, Don Longenette and team who form Thermal Process Holdings have been very clear that their goal is a commercial heat treat organization with annual sales of \$100 million USD (their vision can be found here <https://www.heattreating.com/news/>) After the firm's most recent acquisition, P&L Heat Treating in Youngstown, Ohio we at "The Monty" felt it was time to visit both P&L (who we spoke about last week) and Certified which we visited just this past week. Certified (General Manager, Don

Longenette) we would describe as an average sized, full service commercial heat treat operation-the full service description is due to the fact that the company offers vacuum, induction and Batch IQ processing. The batch IQ department has several very substantial furnaces with load capacities up to 6,000 pound each which are a mixture of AFC-Holcroft and Surface Combustion units. It was glaringly obvious to us that there have been substantial changes at the company and that there is a very clear vision at play here-a vision which includes substantial new investments and improvements. You can see for yourself what the company and the team look like in these photos.



Don Longenette, Mike Trimble



Don Longenette, Mike Trimble



Mike Trimble, 45 years with Certified-very impressive! Gord Montgomery



CIEFFE Industrial Furnaces, Italy

Dec 18, 2018

We have run across a very interesting rumor about Italian furnace builder <http://www.cieffe.it/en/> Rumor has it that the company has just landed a multi million dollar order from an international manufacturer for one of their facilities in China. The rumour goes on to say that the order includes multiple sealed quench furnaces (Batch IQ furnaces for our North American readers), tempers, washer and ancillary equipment. The rumor goes on to say that this is a fully automated line and that a local partner near Shanghai will be co operating on the project. While this remains a rumour we have little reason to doubt that it is true. CIEFFE is the largest new furnace builder in Italy and one of the larger ones in Europe and is a company which has gone through a number of changes at the management level in the past couple of years. However obviously customers feel comfortable that any issues have been resolved. We`re hoping to confirm this rumour in the very near future.



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Solar Manufacturing Vacuum Hot Press

Dec 18, 2018

Solar Manufacturing has successfully completed the installation and startup of a large 100 ton force Vacuum Hot Press that includes a 2-Bar Gas Fan Quench cooling system (GFQVHP) for Refrac Systems' commercial and aerospace diffusion bonding operation in Chandler, AZ.

Working with Solar's engineering team, Refrac Systems selected a derivative of the Solar Manufacturing standard HLF-5748-2IQ internally quenched 2-Bar vacuum furnace as the base design. The furnace hot zone was modified to contain a 100 ton load hydraulic ram centered over the zone which is configured to diffusion bond parts up to 36" wide x 48" long x 30" tall. Besides being specifically designed to diffusion bond large plastic injection molding dies, and concurrently quench hardening them, the system is finding applications in bonding advanced superalloy heat exchangers where the quench cooling offers significant improvement on performance.

Norm Hubele, President of Refrac Systems, states: "We really drew on the extensive engineering experience base that Solar Manufacturing has for building large gas fan quench cooled vacuum furnaces coupled with our own vacuum hot pressing experience to build this very unique hot press system."

Along the course of system design and development, a number of new and complex engineering solutions were needed in order to reduce the operational and ownership risks for the new type of furnace system. "Solar's engineering team really helped out with a lot of great design ideas and manufacturing experience, and the system really contains the most robust and reliable furnace engineering content that both companies could muster."

William Jones, CEO of the Solar Atmospheres family of companies, notes "Norm put together a team of engineers to design and build this state-of-the-art GFQVHP, and it contains many innovations. Throughout the entire process, Norm personally reviewed all aspects of the design and added

considerable insight to the development of this unique vacuum furnace system.”

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.

For more information about Refrac Systems service operation see www.refrac.com, or simply call: 800-4-REFRAC / 800-473-3722 to contact Norman Hubele or via his e-mail at norm@refrac.com.



Monday Morning Briefing

Dec 17, 2018

For our December 17, 2018 Monday Morning Briefing we are going to start off with **HALEX Group**, in Germany one of the 10 largest commercial heat treaters in Europe. If you recall we recently spoke about the company after visiting one of their plants, **HÄNDLE Härterei GmbH.**, in Tübingen, Germany (photo below). When we spoke about them they had a total of 8 plants around Europe, according to this press release they now have 9 plants; *“ARQIS has advised HALEX Holding GmbH on the acquisition of all shares in Forte Wärmebehandlung GmbH from Forte Heat Treatments Limited. Forte Heat Treatment GmbH specializes in the heat and surface treatment of metallic materials with state-of-the-art automated production lines. Forte’s quality standards are geared, among other areas, to the automotive supply industry. With 15 years of experience and around 70 employees, the company generates an annual turnover of more than eight million euros and has established itself stably in the heat treatment market. The HALEX GROUP was founded in 1990 and is a successful German corporate group with two business divisions. The Aldenhoven-based company is one of the leading manufacturers of aluminum extrusion tools and service providers for metal finishing by heat treatment and hardening techniques in Europe. HALEX now has around 460 employees and 12 locations in Germany, Italy, the Netherlands and Romania.”*

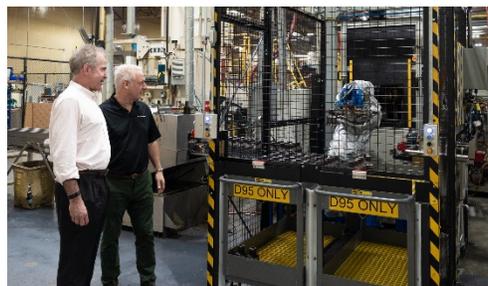


By now everybody is well aware that **P&L Heat Treating** in Youngstown, Ohio, USA was recently acquired by **Thermal Process Holdings**. It was an

interesting enough development that we at “**The Monty**” visited the company last week and came away with a better understanding of the company and why it was of interest to Thermal Process Holdings. The company was founded 40 years ago by **Bill Pociask** and since that time has grown into a 25,000 square foot facility with 15 employees and a growth rate which would be the envy of most commercial heat treaters. What would make it most interesting as an acquisition is the equipment and processes the company has to offer, namely several very advanced vacuum furnaces combined with a number of gas nitriders-both of which represent high value, high margin growing technologies. Bill entered discussions with Thermal Process Holdings roughly 11 months ago and has agreed to a one year contract with the company with the likelihood that he will continue to be involved. As a matter of fact Bill told us that he is extremely comfortable leaving the company in the hands of **John Hubbard** and company and is pleased that the name P&L will remain. We mentioned the equipment-what we saw were 5 quite new vacuum furnaces with quenching up to 12 bar and several pit gas nitriders again fairly new. We found it quite interesting that two of the vacuum furnaces and one of the nitriders (all installed within the past two years) were built by **Remix**, a Polish furnace builder who we have never run across before in North America. Future plans include a 9600 square foot addition, another vacuum furnace and another nitriders, all of which will be purchased early in the new year. Yes we can see why P&L would be of interest to anybody looking for acquisitions within the industry.



Commercial heat treater **Modern Heat Treat** in Richland Hills, Texas will shortly be receiving two additional brand new Batch IQ furnaces from furnace builder **AFC-Holcroft** in Wixom, Michigan which will be #10 and 11 if memory serves us correctly. We are looking forward to a press release with more details in the very near future. Commercial heat treater and induction supplier Indianapolis-based **Contour Hardening Inc.**, has been in the news a great deal recently and has been mentioned several times on “**The Monty**” with more news to come. However the company has been attracting attention from a number of different sources recently including the **Indianapolis Business Journal** <https://www.ibj.com/articles/71693-indianapolis-based-contour-hardening-has-new-leader-huge-growth-plans> It is quite an interesting article and even includes several quotes from Gord Montgomery of “The Monty” which shows it must have been a slow news day. The photo below shows the great man himself, **Mr. Ben Crawford, CEO** of the company and Gord Montgomery in a photo taken just last week.



Furnace builder/rebuilder **McLaughlin Services** in Avilla, Indiana, USA is doing well these days as you can see in these photos taken very recently. In the first photo we see **Jeff** and **Ryan McLaughlin** in front of a partly completed carbottom furnace. The unit is designed for 2100F and has a very unique design in that it incorporates twin cars-it is destined for a captive heat treater in the US.



Paulo, the second largest commercial heat treater in North America just issued this press release about heat treatment of **GM High Pressure Dies**; *“Paulo St. Louis Division gains approval for heat treatment of GM High Pressure Die Casting tooling December 13, 2018 Paulo is proud to announce the recent addition of the St. Louis Division to the approved heat treat sources list for General Motors High Pressure Die Casting Die Insert Material. The St. Louis Division joins Paulo’s Nashville plant on the approval list, which includes only seven approved locations in the US. The document, referred to as AWQ49657, covers approved material providers, heat treaters, and testing labs. Paulo is the only US source with two facilities on the list. The approval list references AWQ49658 which includes the heat treatment specifications for Hot Work Tool Steels for GM High Pressure Die Casting applications. The materials covered in the specification include H-13, 2367, and others. The approval process requires running test cycles and sharing minute by minute furnace information with GM Engineers who validate that the cycle conforms to the specification. Precise furnace controls and well maintained equipment are essential to meeting the specification.”*



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What's It Worth? Large 2 Bar Vacuum Furnace

Dec 14, 2018

We have often said that the two most desirable items on the used equipment market are Batch IQ Furnaces (36" X 48" X 36" or larger) and vacuum furnaces with diffusion pumps and at least 2 bar quenching (by the way to this list we would also add top notch Gas and Ion Nitriders as being extremely desirable). In our ***"What's It Worth"*** category this item fits the bill for a very desirable vacuum furnace; a fairly new GM Enterprises vacuum furnace installed at an aerospace company with working dimensions of 48" X 48" X 48", diffusion pump, 2 bar argon quenching, always used on a closed loop water cooling system, new hot zone and blah, blah, blah, blah-you get the picture. Asking price for this item is \$375,000 USD which is a ton of money-worth it? We think since a new version would be well over \$1 million USD that probably it is worth every penny and will sell quickly. We promise to update you on when this sells.



Largest Commercial Induction Heat Treater North America Dec 13, 2018

So who is probably the largest commercial Induction heat treater in North America? Well the answer will probably surprise you, Contour Hardening with location in Indianapolis, Indiana, USA and Silao, Mexico. If this surprises you, it certainly surprised us also. The company has been in the news quite a bit recently, partly because of their new CEO, Ben Crawford and most recently because of their press release that they had ordered a brand new nitriding furnace for their Indianapolis location, an announcement which caught a lot of peoples attention. We are going to give you a more in depth story about the company in the next few days but we can share this with you. Who is providing the new nitriding furnace-Gasbarre Furnace Group who will be using SSI controls.



Solar Atmospheres Promotes Mike Paponetti Dec 13, 2018

“Greenville, SC, December 12, 2018 – Solar Atmospheres South Carolina facility proudly announces that Mike Paponetti has accepted the position of Sales Manager. Prior to accepting this position, Mike was the Regional Sales Manager at our Hermitage, PA facility. Mike will lead the sales efforts to maintain and promote sales for Solar Atmospheres in the Southeastern

United States and we are confident Mike will provide our customers with exceptional support. Solar Atmospheres Southeast President, Steve Prout says, “We are excited to have Mike as a part of the Solar Atmospheres Southeast team. With over 20 years of thermal processing experience, his heat treating and brazing expertise will be a tremendous resource for our customers.” This promotion opens a vacancy for a Regional Sales Manager position at our Hermitage, PA facility. For more information on this career opportunity and to discuss joining a stable, growing company who partners with each of our customers to meet or exceed their expectations, please contact Mike Johnson at mikej@solaratm.com.”



Expanite’s Surface Hardening

Dec 13, 2018

“Expanite the Danish pioneer specializing in surface hardening of stainless steel and titanium—is widely replacing coatings in a variety of demanding applications. For more than 70 years, coatings, in their various forms, have been “the standard” to improve resistance towards wear, impact, and corrosion for stainless steel components in a great variety of industries, including food & beverage processing, oil & gas, aviation, transportation, industrial, and consumer products. However, in recent years several performance limitations associated with coatings have driven the engineering community, to seek better coating materials, as well as more cost-effective methods to apply them. Among the most promising alternatives is the patented Expanite hardening technology. Recently, one of



the world's leading manufacturers of precision nozzles and nozzle systems has converted from tungsten carbide coatings to Expanite surface hardening after experiencing quality issues with the coating cracking off. In cooperation with Expanite, they found a hardening solution that made the surface of the nozzles resistant against chipping, cracking, delamination, etc."

Heat Treat Acquisitions/P & L Heat Treating, Youngstown, Ohio, USA

Dec 12, 2018

2018 was a banner year for acquisitions in the North American commercial heat treating industry-possibly a record breaking year (if we ignore Bodycote acquiring Lindberg all those years ago). No company has been more prolific though than Thermal Process Holdings. Regular readers of "The Monty" will be well aware that in 2018 the company acquired Certified Metal Treating in Springfield, Ohio, Hudapack Metal Treating Inc., in Wisconsin and most recently P & L Heat Treating in Youngstown, Ohio. Based upon this frenzied activity we felt it was long past time to look at some of these acquisitions and the first is P & L in Ohio which we will profile later this week. In the meantime we will provide you with this picture which shows the founder of the company, Mr. Bill Pociask and part of his team in front of a REMIX vacuum furnace which forms part of the company's vacuum department.



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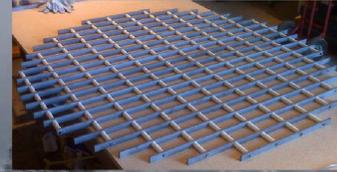
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Paulo Celebrates Milestone Anniversary

Dec 12, 2018

Paulo is celebrating its milestone 75th year in business. The company was founded in 1943 in St. Louis by husband and wife Ben and Pauline Rassieur. The two had previously worked for Central Mine Equipment Company. Pauline, after whom Paulo is named, was one of the first women to earn an engineering degree from the University of Missouri. Paulo Products Company was originally conceived as a manufacturer. Heat treatment was intended as a secondary business that would pay the bills while the firm's product manufacturing operations were developed. Paulo did manufacture some products in the early days, but helping customer succeed by offering thermal processing solutions is where the company excelled. "I think that most people are surprised, maybe even shocked, to know that my grandfather and grandmother would have given up everything that they had

done professionally to start a heat treat shop,” company President Ben Rassieur III said.

The company started humbly, renting a small storefront space in downtown St. Louis. Its first heat treating equipment was pieced together from spare parts bought from junk yards. Three-quarters of a century later, Paulo operates plants in Kansas City, Missouri; Cleveland, Ohio; Nashville, Tennessee; Murfreesboro, Tennessee and Monterrey, Mexico in addition to its flagship St. Louis operation. “I think if you look back to the very beginning of Paulo, people would be astounded to see where we are right now,” said Executive Vice President Terry Rassieur. The Rassieur family’s commitment to innovation and customer service has spurred a rich tradition of developing unique treatments and building custom equipment that allows customers in key industrial sectors to take their components to new heights. The spirit of innovation also led the company to be the first of its kind to adopt computers for ordering and invoicing in 1966. And in 1996, Paulo unveiled PICS, the Product Information and Customer Service system. This proprietary quality assurance software monitors and records treatment parameters and ensures treatments are executed consistently.

Paulo celebrates milestone anniversary St. Louis, Mo-based Paulo observes its 75th year in business as a thermal processor of critical components used in a wide array of industries Today, some of the biggest names in aerospace, automotive, power generation and other key sectors rely on Paulo to provide advanced heat treatment for their critical components. That reliance has fueled the next stage of Paulo’s growth as the company’s first international division in Monterrey, Mexico is now online. “I envision Paulo in the future to be not just one of the largest commercial heat treaters in the Midwest, but I see us having more of a global footprint,” said Emily Rassieur, an HR Management Associate and part of the fourth generation of Rassieur family leadership. “We’ve already taken steps in that direction by

opening the plant in Mexico. We'll have new opportunities in places outside of the U.S. to make an impact and have a presence."

The Rassieur family credits the company's success to the employees whose hard work made it possible. "Without our people, we're nothing. They bring so much to the table," Emily Rassieur said. "We want to thank all the dedicated employees over the past 75 years," Will Rassieur, Vice President of Sales, said. "We thank those who have worked with us in the past, work with us today and will work with us in the future."



Contour Saws Inc., Des Plaines, IL, USA
Dec 11, 2018

Saw blade manufacturer Contour Saws near Chicago, Illinois has what was at one time a large in house heat treating department consisting of a number of top loading Lindberg vacuum annealing furnaces. Their process requirements changed over the years with the result that all of the furnaces have become surplus. There is a limited market for this style of furnace but all 12 of the furnaces are in good condition and in need of a home-if you have an interest we would be happy to put you in touch. Interesting company by the way, one which is steeped in history going back to the 1940's.



Advanced Heat Treat Corp. Employee Selected as Voting Member of the Nadcap Heat Treating Task Group
Dec 11, 2018

WATERLOO, IA – December 10, 2018 – Advanced Heat Treat Corp. (AHT) Corporate Quality Systems Manager, Connie Mackey was recently selected to be a voting member of the Nadcap Heat Treating Task Group. Nadcap is a global accreditation program designed to ensure standardized and cost-effective approaches and to provide continual improvement among the aerospace and defense industry.

The task group Mackey will be serving is composed of prime contractors, government representatives and suppliers. Task group members are responsible for deploying the accreditation process, recommendations for

auditor hiring and training needs, standard and checklist development, metrics, and continuous improvement.

“It is a huge honor to be a voting member for this task group amongst so many quality and aerospace experts,” stated Mackey. “It provides AHT with an avenue to assist with both quality and technical expertise.” AHT received their initial Nadcap accreditation in ion nitriding at their corporate headquarters in 2013. In 2018, AHT was recertified, extending their accreditation until April 30, 2020 – the longest accreditation award possible.

AHT Director of Metallurgy and Quality Excellence, John Ludeman added, “Connie is a very driven person and is always looking for new opportunities within the business to stay active, share her process and product expertise, and reach higher in her professional career. This is a great opportunity to have a voice from the supplier perspective to the task group from a very knowledgeable and seasoned professional.” For more information on Nadcap, visit www.p-r-i.org/nadcap/. To view AHT’s quality certifications or learn more about their services, visit www.ahtcorp.com.



About Advanced Heat Treat Corp. Established in 1981, Advanced Heat Treat Corp. (AHT) is a recognized leader in providing superior heat treat services and metallurgical solutions to companies across the globe. Their UltraGlow® family of processes includes plasma/ion nitriding, ferritic nitrocarburizing (FNC), gas nitriding, UltraOx®, through hardening, carburizing, carbonitriding, induction hardening and many more. AHT has facilities located in Alabama, Michigan and Iowa. For more information on AHT and its services, please visit www.ahtcorp.com.



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Monday Morning Briefing

Dec 10, 2018

We will start off with an update to a news item we had last week about a company by the name of **Cold Heading Company** of Cleveland, Ohio, USA auctioning off some surplus equipment, including a number of heat treat furnaces. We made some predictions about what would happen to the equipment (you can find the details below). So how were our predictions? Almost 100% wrong much to our embarrassment. The small mesh belt line sold for \$50,000 USD, the cast link line sold for \$65,000 USD with the 2 generators included and the largest line remains on the market. Buyer for both lines was a company by the name of Total Forge of Mexico, a company we know nothing about.

“Roughly 2 years ago, Cold Heading Company closed their Lee Road, Cleveland facility and since that time the equipment (including their large heat treating department) has been sitting idle collecting dust. Tomorrow Thursday, December 6 everything goes to auction and this includes the heat treat department. This consists of an AFC 1500 pounds/hour mesh belt line, an AFC 2500 pounds/hour cast link belt line, an AFC 4,000 pounds/hour

mesh belt line and 2 AFC Endo generators-all mid 1990's vintage and all seeming complete and in reasonable or good condition. Now if we were betting people at "The Monty" this is what we expect will happen; the 1500 and 2500 pound lines will be sold to a scrap dealer, the endo generators will also be scrapped or go for almost nothing and the largest line, the 4,000 pound/hour line we would guess will either be sold or removed from the auction. AFC, the largest atmosphere furnace builder in North America is known as a premium supplier of continuous lines and generators but the reality is that very few people these days want continuous lines smaller than about 3,000 pounds per hour, cast link belt lines have little appeal these days and newer multi retort generators have largely replaced the older style units such as these. We actually hope we are wrong on these predictions as we hate to see top quality, good equipment scrapped but experience tells us this is what we can expect."



As mentioned some time ago auto parts supplier and captive heat treater **Dana** in Glasgow, Kentucky closed this year and all the remaining equipment must be removed in the fairly near future. This includes 3 1970's vintage **Surface Combustion**, gas fired 3 row pusher furnaces. The furnaces range in condition from very good to fair. Nothing wrong with the equipment and I would hate to see them scrapped but there is not a large market for used pusher furnaces. **Jorgenson Forge** out in Washington state is another facility which has closed and has surplus heat treating equipment,

in this case some carbottom furnaces. The on line auction will go until December 11. One of the furnaces available is shown below.

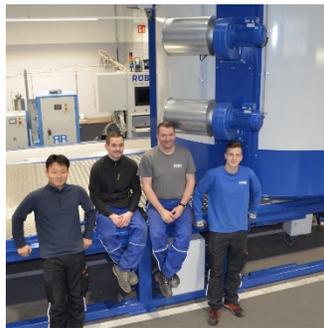


Let's move to Germany where we see that the **VTN Group is adding LPC Capacity**. VTN in Germany is a commercial heat treater with 5 locations around the country. Back in November 2015 100% of the shares of the company were acquired by Japan based **IHI Corporation** meaning that the group now has four companies serving the heat treating and PVD/CVD/PACVD coatings industries; **IHI Machinery and Furnace Co., Ltd (IMS)**, **IHI Ionbond AG**, **IHIHauzer Technocoating B.V.** and **VTN Group**. At the VTN, Witten-Herbede plant the existing fully automatic LPC line was just expanded by adding a new IHI LPC furnace. **Georg Niessen**, the CEO has this to say; *"We really believe in this technology as a future alternative to chamber furnaces and we will be adding the new IHI LPC systems in the Wilthen plant (East German) and Freiburg plant (South Germany). By this we will meet the high and increasing customer demands in the future. The big advantages we see are the high uniformity during carburizing, enhanced cleanliness of products, the elimination of intergranular oxidation layer and carburizing temperatures up to 1,050° C. The environmental friendliness is also trend-setting, there are no emissions or direct CO2 emissions. The systems used at VTN have a maximum capacity of 1,000 kg and are thus fully suitable for economic mass production."*

To this news item we will add that IHI is one of the largest manufacturers in the world when it comes to low pressure carburizing systems and to date has installed more than 300 systems with acetylene and oil quenching. The VTN Group has 5 locations around Germany with over 300 employees making them a darn big commercial heat treater. The company services most industries and has NADCAP certification. The photo below shows the brand new IHI low pressure carburizing furnace at the Witten plant.



This really cool picture shows the largest Plasma (Ion Nitridier) which **Rubig** of Wels, Austria has ever built. If it is the largest that Rubig has ever made then that means it is one of the largest built by anybody.



And to round things out we see that commercial heat treater **Pontus** in the Netherlands is now **NADCAP** certified, always a challenge but always a good thing. *“Pontus received Nadcap accreditation for demonstrating their ongoing commitment to quality by satisfying customer requirements and industry specifications .”*Achieving Nadcap accreditation is not easy: it is one of the ways in which the aerospace industry identifies those who excel at

manufacturing quality product through superior special processes. Companies such as Pontus work hard to obtain this status and they should be justifiably proud of it,” said Joe Pinto, Executive Vice President and Chief Operating Officer at the Performance Review Institute. “PRI is proud to support continual improvement in the aerospace industry by helping companies such as Pontus be successful and we look forward to continuing to assist the industry moving forward.”



Bodycote Holds Official Opening Ceremony For New Facility

Dec 7, 2018

Bodycote, the world’s largest provider of heat treatments and specialist thermal processing services, held an official opening ceremony last week at its brand new facility on the Advanced Manufacturing Park (AMP), Rotherham, Yorkshire. The new advanced heat treatment centre, now fully operational and supporting customer requirements, offers a range of heat treatment services and has been established to support the aerospace and power generation markets in the UK and Europe. The Rotherham facility was officially opened by Andy Greasley, Executive Vice President of Rolls-Royce’s Turbines Supply Chain Unit, in recognition of the enduring partnership between Bodycote and Rolls-Royce. Mr. Greasley commented: “Heat treatment and processing is a vital part of our supply chain and Rolls-Royce are delighted to be supported by Bodycote on the Advanced

Manufacturing Park in Rotherham. Close coupling of this capability to our own Rolls-Royce business is critical for our future success and our relationship with Bodycote is one that we truly value.”

Also speaking at the event, AMRC (Advanced Manufacturing Research Centre) CEO, Colin Sirett, said the new centre will bring a key capability to the Advanced Manufacturing Park: “We’ve got everything from aircraft parts through to carbon fibre chassis for supercars all being manufactured on this site; the one piece of the process that was missing was materials processing. We can cast, we can forge, we can assemble, we can machine, but the one key element that was missing is exactly what Bodycote brings to the park. So it’s great to welcome the Bodycote team here and we are looking forward to working with them for many years to come.” VIP delegates were also the first to hear about Bodycote’s plans for significant expansion of the new site, which includes the securing of extra units on the Advanced Manufacturing Park. Tom Gibbons, President of Bodycote’s Aerospace, Defence & Energy division, commented: “Due to customer demand and interest since the announcement of this new plant in July, we are investing in further capacity and technology. The additional space we secured here at Rotherham is nearly three times the size of our existing unit. We are committed to ensuring we are able to meet our customers’ demand in the years ahead.”



Braddock Metallurgical Atlanta, Georgia Expanding

Dec 7, 2018

Commercial heat treater Braddock Metallurgical in the US South East is according to that impeccable source **“The Monty”** rated as one of the largest in North America in terms of annual sales (to find out where they rank <https://themonty.com/largest-commercial-heat-treaters-in-north-america-october-2018/>) Their name comes up today because the company recently moved their Atlanta, Georgia location into a new and larger facility while at the same time expanding their batch IQ and vacuum departments. These photos give you a feel for the new location.



Cold Heading Auction/Cleveland, Ohio, USA

Dec 6, 2018

Roughly 2 years ago, Cold Heading Company closed their Lee Road, Cleveland facility and since that time the equipment (including their large heat treating department) has been sitting idle collecting dust. Tomorrow Thursday, December 6 everything goes to auction and this includes the heat treat department. This consists of an AFC 1500 pounds/hour mesh belt line, an AFC 2500 pounds/hour cast link belt line, an AFC 4,000 pounds/hour mesh belt line and 2 AFC Endo generators-all mid 1990's vintage and all seeming complete and in reasonable or good condition. Now if we were betting people at "The Monty" this is what we expect will happen; the 1500 and 2500 pound lines will be sold to a scrap dealer, the endo generators will also be scrapped or go for almost nothing and the largest line, the 4,000 pound/hour line we would guess will either be sold or removed from the auction. AFC, the largest atmosphere furnace builder in North America is known as a premium supplier of continuous lines and generators but the reality is that very few people these days want continuous lines smaller than about 3,000 pounds per hour, cast link belt lines have little appeal these days and newer multi retort generators have largely replaced the older style units such as these. We actually hope we are wrong on these predictions as we hate to see top quality, good equipment scrapped but experience tells us this is what we can expect.



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Ledvance Auction

Dec 6, 2018

And speaking of auctions we also have word about this one coming up January 28th, 2019. A lighting manufacturer by the name of Ledvance is closing a large facility in New Hampshire, USA and all of the equipment is being sold by an auction company by the name of Branford Group, a company which we have some experience with and have a high opinion of. The furnaces include a number of fairly new CM and Harper Hydrogen sintering furnaces all of which were worth over \$1 ½ million USD when purchased new in 1999, 2000 and 2001. Very specialized furnaces but for the right buyer probably a super deal. All the details can be found if you click on the link below. This photo shows a typical Harper furnace although not one of the ones in the auction.

<http://www.thebranfordgroup.com/dnn3/Auction/LEDV0119.aspx>



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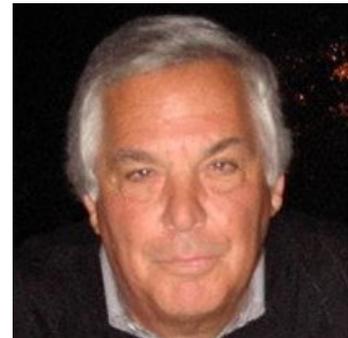


Obituary for Richard Joseph Chalet/Alcon Industries Dec 5, 2018

“Richard Joseph Chalet, 73, passed away in Hobe Sound, Florida surrounded by family on December 1, 2018 after a brave battle with pancreatic cancer. He is survived by his wife of 53 years, Marianne, his daughter Christine Georgeadis, son-in-law Stavros and grandson Ethan of Palm Beach Gardens. He is also survived by many more loved ones including his sister Elaine Sheeran and husband James of Plymouth, MA, his nieces Elizabeth Murray (Christopher), Caroline McDermod (Matthew), Catherine Cairns and three great-nieces and two great-nephews, all from the

Boston area. He is preceded in death by his sister Patricia Cairns (Richard) of Hanover, MA. Richard leaves behind his beloved dogs, Charlie, Joey and Sammie. Born in Boston, MA on January 30, 1945 to the late Nathan and Dora Chalet (DeRosa), Richard, to all that knew him, was a good-natured and caring husband, father, grandfather, brother and friend.

Richard grew up in Weymouth, MA and married Marianne (Connelly), his high school sweetheart in 1965. They had their daughter Christine a year later. Their love story spanned over 50 years with Marianne being the Yin to his Yang. Leaving the comfort of family in the Boston area, they left for Cleveland, OH in 1969 to embark on a new life and new business opportunities. It was in Cleveland that Richard founded Alcon Industries, Inc. with close friend Tom Waldin in 1977. Alcon has since become America's leading producer of heat and corrosion resistant alloy castings and fabrications. Although he "retired" to Florida in 1992 his devotion to his company and his employees continued until his passing. Richard and Marianne spent many years traveling the world, enjoying great food and wine with their close friends Tom and his wife Epp Waldin. Richard enjoyed golfing with his buddies and his weekly poker games. He loved watching action movies and was a lifelong fan of the New England Patriots and the Boston Red Sox.



Richard's love of dogs began while growing up in Weymouth, where he rescued Scamper Dog from the local pound. This was a constant theme in his life as his wife Marianne brought home many special needs dogs for "temporary fostering" but they always ended up staying since Richard could never say no. Their love of animals always resulted in a houseful of rescued dogs. Most of all, Richard loved spending time with his family and was especially proud of his grandson Ethan.

In lieu of flowers, memorial donations may be made to the Pancreatic Cancer Action Network (pancan.org) or an animal rescue site of your choice. A Funeral Mass will be held on Monday, December 10th at 11:00am at St. Christopher's Catholic Church, 12001 SE Federal Hwy, Hobe Sound, FL. Burial will follow at Riverside Memorial Park, 19351 SE County Line Rd., Tequesta, FL. The family will greet friends from 4-8pm at Taylor & Modeen Funeral Home, 250 Center Street, Jupiter, FL on Sunday, December 9th."

DOWA Thermotech Mexico

Dec 5, 2018

For 20 years now "The Monty" has been printing news stories about the worldwide heat treating industry. Some of these items are posted and forgotten which is a shame-our opinion is that it is always fun to look back and see how the story continued, such is the case today. Back in September of 2016 we had a very interesting news item about Japanese heat treating giant Dowa setting up a new facility in Mexico (our original story is further down). So did their plans go as predicted? Pretty much as it turns out. Production started in July 2017 and currently the plant has 2 gas soft Nitriding systems, 2 carburizing furnaces, 3 vacuum furnaces and one TD process furnace for surface treatment of molds which is all in line with predictions made back in 2016. As we all know the Mexican heat treating market is a very healthy one and the San Luis area is growing as fast or faster than any other area of the country when it comes to heat treating.

September 2016 News Item; *"DOWA Thermotech Mexico. One of the biggest of the big when it comes to commercial heat treating and furnace building is DOWA of Japan. We have written extensively about the company and their abilities over the years so we won't dwell on it today, rather we will tell you about their newest project which is coming along nicely. In April of*

2015 DOWA Thermotech Mexico S.A de C.V. was established in San Luis Potosi, Mexico with a working capital of \$5 million USD and a mandate to serve the heat treating needs of auto parts makers in Mexico with a focus on Japanese companies. Construction of the plant started in September of 2015, with plant completion in August of this year with equipment being installed September of 2016. All of this with an eye on a production start up of April 2017-which seems to be right on schedule. Currently the plant has 2 vacuum annealing furnaces installed, 1 soft nitriding unit, 2 gas nitriding systems and one TD process line. Future plants will see a total of 4 vacuum annealing furnaces, 6 nitriding systems, 1 TD line 3 carburizing furnaces, 4 vacuums and 2 tempers all of which will make for a very substantial heat treater. This by the way marks the first foray into the North American commercial heat treating market in North America.”



Richard “Dick” Chalet/Alcon Industries

Dec 4, 2018

It is with regret that we mention the passing of Richard Chalet Saturday, December 1, 2018. Dick was the founder of Alcon Industries of Cleveland, Ohio, USA one of the largest suppliers of fabricated and cast high temperature furnace components in North America. Many years ago we worked with Dick at Alcon and have very fond memories of him. We will provide details of his life and how he can be remembered as soon as we receive them.



Thermal Process Holdings Announces Acquisition

Dec 4, 2018

Thermal Process Holdings, Inc. (“TPH”) is pleased to announce its acquisition of P & L Heat Treating (“P&L”) based in Youngstown, Ohio. P&L is a high quality provider focused in particular on tool and die work. Bill Pociask founded P&L in 1978 and serves as President. P&L represents the fourth investment (and fifth heat treating facility) in our strategy to build a leading thermal processing company focused on value-added services. Central to this strategy is identifying and bringing together leading businesses that share a focus on safety, quality, service, and advanced technology.

John Hubbard, Chairman of TPH, said: “We are delighted to partner with Bill Pociask and the P&L team. P&L is a well-run heat treating operation

providing high quality service. Both Bill Pociask and P&L are excellent additions to the TPH group.”

Bill Pociask, founder and President of P&L commented: “I am excited to work with the TPH group of companies. There are many opportunities for us to help each other grow and continue to serve our customers. The future is very bright for P&L.”

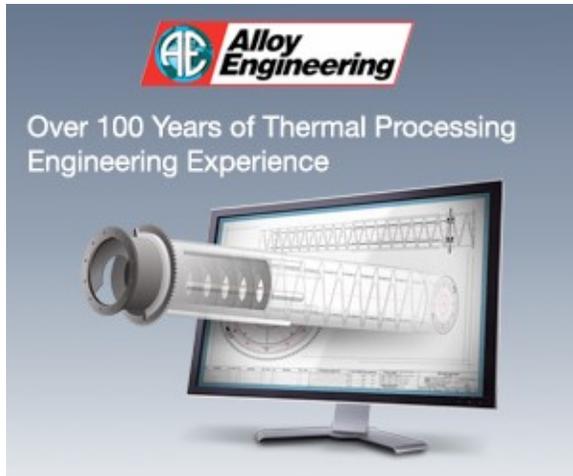
ABOUT THERMAL PROCESS HOLDINGS, INC.

Thermal Process Holdings was formed by Calvert Street Capital Partners and John Hubbard (former CEO of Bodycote, PLC) to pursue a buy-and-build strategy in the thermal processing industry. The team has a stated goal to build a diversified, professionally-managed thermal processing business generating over \$100 million of revenue. TPH also owns and operates: Diamond Heat Treat, based in Rockford, IL; Certified Heat Treating, based in Springfield, OH; and Hudapack Metal Treating, based in Elkhorn and Franklin, Wisconsin. TPH is actively seeking other add-on acquisition opportunities.

ABOUT CALVERT STREET

Calvert Street Capital Partners is a Baltimore, Maryland-based private equity firm with a focus on investing in industrial service businesses in the lower middle-market. Since its inception in 1995, Calvert Street has partnered with skilled management teams of privately held businesses to drive profitable growth and organizational transformation. TPH builds upon Calvert Street’s experience in other high-value add industrial sectors, including testing and inspection and precision machining. For more information, please go to www.cscp.com.





Alloy Engineering Company Celebrates 75th Anniversary Dec 4, 2018

November marks the 75th anniversary for Alloy Engineering Company, an industry leader in the design and manufacture of alloy equipment for high-temperature and corrosive industrial applications. The company's equipment is used for both commercial and in-house heat treating, and for processes such as annealing, hardening, carbo-nitriding, carburizing, nitriding, tempering, brazing and sintering. Alloy has grown from a humble parts fabrication company to a middle market, multi-location supplier with customers around the world. In 1974, Alloy became the first company in Ohio to establish an Employee Stock Ownership Plan (ESOP).

"This is an exciting milestone, particularly in a competitive market place," said Lou Petonovich, Chairman and CEO of Alloy. "We are happy to celebrate with our close-knit team and valued customers." Petonovich, who joined Alloy in as a plant manager in 1979, has seen his share of ups and downs during his 39 years with the company. From a United Auto Workers strike in the 1980's to double digit growth in the early 1990's, Petonovich

credits the team's passion and dedication to the customer as the primary reasons for the company's success.

"This is the strongest team we've had in our history. Everyone is working in sync, keeping in mind the core principles this company was founded on," said Petonovich. Alloy has made headlines throughout its 75-year history. They've acquired several Ohio-based companies and opened a second location in Wellington, Ohio in 2005. Alloy was also the recipient of an award for excellence in exporting from Governor Ted Strickland in 2009.

The company made waves in 1974 when it became the first company in Ohio – and one of the first in the country – to establish an ESOP. Alloy is now one of 300 companies headquartered in Ohio that offer employee ownership, a program that provides a company's workforce with an ownership interest. In an ESOP, companies provide their employees with stock ownership, often at no upfront cost to the employees.

Don Andrews joined Alloy as a draftsman in 1984 and currently serves as a senior project manager. He finds being part of an ESOP incredibly appealing. "When every person at the company is an owner, we all build wealth," said Andrews. "It allows you to have a larger vision of the company outside of your own role."

Other employees appreciate the group spirit and family-atmosphere that emerged after becoming an ESOP, noting that it's created a positive company culture. With a new management team installed in 2014, the company is well positioned to continue its growth. Alloy continues to invest in machining capabilities and vertical integration to better serve customers. According to Petonovich, the new team has their sights set on doubling the business over the next several years. Plans include launching new product lines that will create a distinct competitive advantage in what has become a mature industry. Additionally, the company plans to add new locations to help overcome the substantial freight expenses required to service distant

geographic markets. “We will be successful when we maintain focus on our two overarching objectives: satisfied customers, and secure and satisfied employees,” added Petonovich.

About Alloy Engineering Company: The company was founded in 1943 by Paul A. Menough in the attic of his Rocky River, Ohio home. Menough’s energy, expertise and spirit of entrepreneurship gave the metal parts fabrication company its legacy. In 1947 the company moved to a manufacturing facility in Berea, Ohio and in 1957 moved to its present site on Thacker Street. With the development of new alloys in the industry, the company further expanded its skills and abilities. With a global client base, Alloy partners with clients to achieve the lowest possible cost of fabrications maintenance and operations.

Media Contacts: Liz Hersh, liz@hershpr.com or 216-236-3017; Shannon Kobus, skobus@alloyengineering.com or 440-243-6800 ext. 137



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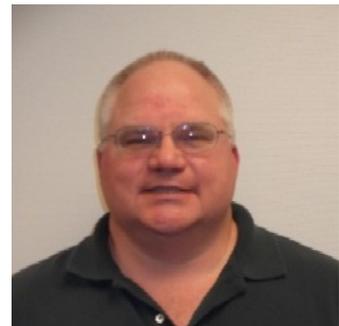
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Monday Morning Briefing

Dec 3, 2018

We start off in the USA with commercial heat treater Paulo Products; *Paulo is excited to announce the addition of **Jack Horrigan** as Quality Assurance Manager at the Cleveland Division. Jack replaces **Noel Brady** who is moving to a Corporate Metallurgy role. Noel will still be based at the Cleveland plant, but provide metallurgical support across Paulo, specifically for nickel based super alloys and Titanium. Jack joins Paulo with over 20 years in Quality roles primarily in the Titanium and special metals world. Jack will lead the Quality team at the Cleveland facility where thousands of critical Aerospace components are processed daily. After 8 years as Quality Assurance Manager Noel Brady is transitioning to a Metallurgy role where he will, along with the rest of the Corporate Metallurgical Engineering team, support all Paulo plants. His role will include process improvement, failure analysis, internal training, and customer support.*



Advanced Heat Treat Corp based in Waterloo, Iowa and with 4 facilities in the US sent us this press release about recent promotions. AHT is one of the largest commercial heat treaters in North America and the largest when it comes to Plasma (Ion) Nitriding. **"TOM HINGTGEN, KODY KOTTKE and JOEL OLTROGGE have been promoted at Advanced Heat Treat Corp. ("AHT). Hingtgen was promoted to senior project specialist. He has been with the company since 1989. Kottke and Oltrogge have both been promoted to production supervisors. Kottke has been with AHT since 2003, and Oltrogge has been with AHT since 1999."** Down in Texas there continues to be "issues" between commercial heat treater **National Heat Treat** and **Worldwide Heat Treat** both based in Texas. These issues seem to involve lots of lawyers which is always a shame. **Tempel Steel** recently added a roller hearth annealing furnace at their facility in Burlington, Ontario, Canada. Tempel manufacturers motor laminations at several locations around the world and are darn good at what they do.

Paul Blackhard has retired from auto parts supplier **TRW** (now ZF) in Lebanon, TN, USA where he was involved in the heat treating department. This location had a large in house heat treating department (maybe still has some) consisting of batch IQ furnaces which was closed down a few years ago. Last we heard the furnace were still sitting there due to environmental issues. Commercial heat treater **Hauck** in the UK has added a couple of people.; *"As part of its growth strategy, Hauck Heat Treatment has added two new Graduate Technical Sales Engineers to its team. The pair, pictured below, will support an increasingly active sales and customer communications drive across the six Hauck Heat Treatment plants in the UK. **Linita Ramgi** (right) graduated with a BEng in Industrial Engineering and Management at the Instituto Superior Técnico in Lisbon, Portugal, after which she gained an MSc in Aerospace Engineering at Coventry University. **Siraj Hussain** graduated from the University of Bradford with a*

BEng in Chemical Engineering. Both appointments compliment a wider, ongoing workforce development and investment strategy in support of the commitment to service and belief in the Companies' motto – “Our knowledge is Your strength”.



Moving to Italy we see that furnace builder **Meapforni** has a fairly full shop with a rotary hearth, continuous and a vacuum furnace all on the floor in various stages of construction.



Italian Furnace Builder **IVR** wants to brag about a Sealed Quench (batch IQ) Line they just installed. This is a completely automated line and the end customer is a French manufacturer of auto parts who installed the equipment in their plant in Italy.



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Please email Jordan at 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.

WE HAVE ATTEMPTED TO DESCRIBE ALL EQUIPMENT ACCURATELY FROM THE INFORMATION WE HAVE AVAILABLE. ANY MISTAKES ARE UNINTENTIONAL. WE DO NOT GUARANTEE THE ACCURACY OF THE INFORMATION, NOR CAN WE GUARANTEE THE PERFORMANCE OF THE EQUIPMENT OR SUITABILITY TO YOUR APPLICATION. THE EQUIPMENT IS SOLD AS-IS, WHERE-IS. WE STRONGLY ENCOURAGE YOUR PERSONAL INSPECTION OF THE EQUIPMENT BEFORE PURCHASE.

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#IQ464 Ipsen T-4 Batch IQ Furnace

Ipsen Model: T-4 Batch IQ Furnace, Serial # 52506

Type: Straight Through Atmosphere Integral Quench Furnace

Processes: Carburizing, Neutral Hardening and Carbonitriding

Heat Input: Natural Gas-Fired (8 ceramic radiant tubes)

Work Zone: 24"W x 36"D x 18"H

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

Max. Load Wt.: 850 lb at 1550F

Quenchant Heating and Cooling: Yes (SBS Oil Cooler)

Loading/Unloading: Ipsen 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 3 & 7 controllers, Digital data logging (currently tied into plant-wide SSI Super Data system), SSI eFlo Electronic Flowmeters for natural gas and air.

Insulation Type: Brick-lined

Included: Any available spare parts, Ammonia Tank.

Footprint: 5'5" Wide x 17'-10" Long x 13'-2" High per literature (We measure 93"W x 21'L x 14'H)

Alloy: Grids and baskets may be available

Asking Price \$39,000 USD

<https://themonty.com/project/itemb464-ipsen-t-4-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#IQ462 Beavermatic Batch IQ Furnace

Beavermatic Batch IQ Furnace. Standard "Beavermatic" Integral Quench Furnace which includes top cool chamber, dunk & spray wash, 1400°F atmosphere temper, charge car and air to oil heat exchanger. This furnace has a

total of eight (8) single ended radiant tubes with recuperators, four (4) on each sidewall. Quench tank is heated. Natural gas fired with a max temperature of 1950°F. Model # 46-26-I.G.LQ.F and Serial # 1192-50-1. Voltage 460/3/60. Working dimensions of 24"W x 24"H x 36"L and external dimensions of 100"W x 12'5"H x 18'L. Controls Mounted & wired in a free standing panel includes a Honeywell UDC 3000 digital controllers for control and high-limit, Honeywell UDC 5000 for carbon control and Honeywell digital round chart recorder. Very good condition and available immediately.

Asking Price \$55,000 USD

<https://themonty.com/project/itemb462-beavermatic-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#IQ460 Surface Combustion Batch IQ

Surface Combustion "Super 30" Allcase Batch IQ furnace. Working dimensions of 30" x 48" x 30". Serial number BX 37769. Early 1970's vintage. Alloy in good condition and comes with a new spare trident tube. 2,000 F operating

temperature, gas fired. Updated SSI controls. Currently installed and in good condition.

Asking Price \$45,000 USD

<https://themonty.com/project/super-30-batch-iq-30-x-48-x-30/>

Item#IQ459 Surface Combustion Batch IQ

Surface Combustion batch IQ furnace. Serial number BX 36347-1. Gas fired, 1750 operating temperature. Endo atmosphere. 800 pound capacity. Does not require a pit. Complete and installed. Updated SSI controls with oxygen probe. Alloy and brickwork in fair condition. Working dimensions of 24"W x 36" deep X 20" high. Some cast fixturing is also included.

Asking Price \$25,000 USD

<https://themonty.com/project/472/>

Item#IQ453 Williams Batch IQ's

Williams Industrial Batch, high temperature, electric, Internal Quench furnaces. 24" W X 36" deep X 24" high load size. Mid 1990s built. 2 identical units available. Currently used for solution heat treat, water and Polymer quench. Max temp. 2100F, very tight +/-10F or better uniformity. Set up for Nitrogen atmosphere. Waukee meters for air and N2 with solenoids tied to recipes. SSI Oxygen probe with panel/display. Sand Lion PLC touch screen controls for recipes, charting, temp, agitator, atmosphere control etc. Horizontal SiCarbide glow bars for heating. SiCarbide rails make up the hearth for tray support and transfer. Chain guide and roller rails over the quench vestibule. Air operated inner and outer doors. Units are in use but ready to take out for the floor space. Transfer car not included.

Asking Price \$25,000 USD Each

<https://themonty.com/project/itemb453-williams-batch-igs/>

Item#IQ451 Surface Combustion Batch IQ

Manufactured by Surface Combustion this is a batch IQ furnace. Working dimensions of 30" wide X 48" deep X 24" high. Gas fired. Nitrogen/Methanol with updated controls and an Atmosphere Engineering SmartMeth panel. Included datalogging and trending. SSi oxygen probe. Honeywell overtemp. Currently installed, complete and in good condition. Ready to go and available immediately.

Asking Price \$30,000 USD

<https://themonty.com/project/itemb451-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 \$85,000 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

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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 retrofited 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#B468 Leeds & Northrup Pit Furnace

Leeds & Northrup Pit Furnace. Standard vertical steam pit furnace with manual operated cover. The coiled heating elements are mounted to a cylindrical rack that surrounds the work area. The circulating fan is located below the work support and circulates across the elements and down through the work load. A steam inlet port is located on the bottom and a pressure relief flapper on the cover. A cooling blower is mounted to the side for accelerated cooling. Electrically heated with a voltage of 230/6/60/49 kW. Model # 09522-261CX and serial # 77-48912-1-1. Max temperature is 1250°F. Working dimensions of 22" Diameter x 26" Deep and external dimensions of 6'6" x 8'2"H. The controls are mounted in a free standing panel with main disconnect switch. There is a Honeywell digital controller, L&N analog high limit, strip chart recorder, and a process timer. Also control switches for the motors and control power. The motor starters and element contactors are mounted on the sub panel inside along with the necessary relays and fuses.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemb468-leeds-northrup-pit-furnace/>

Item#B467 Lindberg Carbottom Furnace

Lindberg Carbottom Furnace. 20,000 pound car capacity, 460V, 437 kW, 400°F to 1700°F temperature range. Fans, grid and refractory on car are new. Furnace has forced air cooling. Powered car has a VFD to control car speed. Electrically heated with a voltage of 460/6/60/437 kW. Model # 41-MT-8106-ECB-17 and serial # 868533 (1986). Max temperature 1700°F with working dimensions

of 8'W x 6'H x 10'L (will handle 12'L part) and external dimensions of 15'W x 25'H x 36"L with car. Complete controls.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemb467/>

Item#B466 Wild Barfield Carbottom Furnace

Wild Barfield Carbottom Furnace. Electrically heated with voltage of 480/3/60/110 kW. Max operating temperature is 1250°F and the serial # is AP 4074 M.

Working dimensions are 60'W x 60"H x 120'L. Controls mounted and wired in a free standing control panel includes SCR for heating elements, digital temperature controllers for control and high limit, strip chart recorder etc.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemb466-wild-barfield-carbottom-furnace/>

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#B442 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#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

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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.

For Pricing Please Contact Jordan@themonty.com
<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.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemb464-lindberg-box-furnace/>

Item#BOX463 Lindberg Box Furnace

Lindberg Box Furnace. This furnace has an air operated vertical lift door with foot pedal control. "Rod Overbend" heating elements are located in the hearth and both sidewalls. An Alloy hearth with brick piers supports the work load. The atmosphere system consists of a "Waukee" Nitrogen flowmeter and flame curtain. Atmosphere enter the furnace chamber through the rear wall. Manuals and drawings are included with this furnace. Electrically heated with a max temperature of 2000°F. Model # 11-ROMT243618-20A and serial # 859266. Voltage is 460/3/60/40 kW, 92V Secondary. Working dimensions of 24"W x 18"H

x 36"L with external dimensions of 6'W x 9'H x 8'L. Controls Mounted in a free standing panel includes a Honeywell UDC digital temperature controller, Honeywell Dial-a-Trol high limit and a Honeywell strip chart recorder. The step down transformer for the heating elements is mounted in the same enclosure. Power to the heating elements is controlled through a "Halmar" SCR. This electrical enclosure is air conditioned to prevent overheating of the SCR.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemb463-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#BOX454 Lindberg Box Furnace

Model #11-MT-489336-14. Serial #888809-L (9/1989). Electrically heated. Operating temperature of 1400F. Voltage: 480/3/60/164 kW. Working dimensions of 48" wide X 36" high X 96" deep. Controls: Mounted and wired in a free standing control panel includes SCR for heating elements, digital temperature controllers for control and high limit, strip chart recorder etc. Description: Standard Lindberg design box furnace with "Moldatherm" heating elements, vertical lift door, roller rail hearth, cast alloy tray, alloy air plenum for air

distribution, roof mounted fan and stationary powered loader/unloader. Very good condition.

Asking Price \$70,000 USD

<https://themonty.com/project/itemb454-lindberg-box-furnace/>

Item#BOX449 Lindberg Atmosphere Box Furnace

Lindberg/MPH air atmosphere box. Model Number: 11-ROMT-243624-20, Job Number: 224745. Chamber Dimensions: 24" W x 36" D x 24" H. Electrically heated 40KW. Max Temp: 2,000°F. Capacity: 1,200 lbs. @ 2,000°F. Elect. Input: 480/3/60. SCCR Rating: 65 KW. F.L.A.: 5 AMPs. Elect. Drawing: 7315-1134-OOA. Largest Motor/Load: 40 KW. Control Panel is included. Manufactured Date: September 2016. Never used this unit is available for immediate delivery with a full warranty.

Asking Price \$60,000 USD

<https://themonty.com/project/itemb449-lindberg-atmosphere-box-furnace/>

Item#BOX437 Ipsen Recirculating Box Furnace

Ipsen Recirculating Box Furnace 38" high x 43" wide x 48" deep. Gas fired, 1,000,000 BTU/hr with a max temperature: 1400 deg.F. Model Number: DL-3036. Serial Number: 60458. Updated controls, Honeywell indicating controller and overtemp. High temperature tempering furnace. Vertical lift air operated door with overhead air cylinder. Fiber board insulation. Alloy roller rail hearth. Direct fired furnace, but the heating chamber is separate from the work chamber and has a high velocity roof mounted circulating fan. Top mounted package burner. Complete combustion controls and safeties. 460/3/60 power. Test fired prior to shipment.

Asking Price \$39,500 USD

<https://themonty.com/project/itemb437-ipsen-recirculating-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/>

Item#BOX352 Pacific Scientific Box Furnace

Working dimensions of 72" wide X 120" long X 48" high, Gas fired radiant tube, maximum operating temperature of 2050F. Air operated vertical lift door, fiber lines, new refractory piers (12), hi-temp horizontal radiant tubes (6 above, 6 below), full safeties, side exhaust guard. Free standing control panel-prewired panel with Honeywell Tru-Trend circular chart and Honeywell digital controllers and overtemp. Atmosphere capable. Comes with spare radiant tubes. Very good condition.

Asking Price \$70,000 USD

<https://themonty.com/project/itemb352-pacific-scientific-box-furnace/>

CONTINUOUS FURNACES

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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#C336 BTU-TCA Series Mesh Belt Conveyor Furnace

Manufactured by BTU this is an electrically heated mesh belt furnace capable of 1100C. Heated length is 120" with a 18" wide belt and 4" clearance over belt. Metallic muffle, 10 zones of temperature control. 24" long load/unload table at each end. Overall length 29'. 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.

Asking Price \$50,000 USD

<https://themonty.com/project/itemc336-btu-tca-series-mesh-belt-conveyor-furnace/>

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#C330 Lobo Hornos Mesh Belt Furnace Line

Lobo Hornos built this mesh belt furnace line with all the engineering coming from Sunbeam. The line consists of a loader, high heat furnace, quench tank, wash, temper, and post wash. It has Honeywell, Shinha, and Siemens controls that are approximately 12 years old. The furnace has a heated length of 6 meters and a tempering length of 11.09 meters. Both the high heat and tempering lines can handle 500 KG/Hour each. The high heat furnace has an opening of 7” high by 40” wide. The tempering line has an opening of 6” high and 47” wide. Max temperature is 930 C. This mesh belt line is capable of either controlled atmosphere or Nitrogen gas. The alloy (AISI I-330, AISI I-310) and brickwork (T23& ceramic fiber) are in good condition. The quench oil is Equimsa 770 and there is a washer included. The furnace is complete in good condition and currently installed in Mexico.

For Pricing Please Contact Jordan@themonty.com
<https://themonty.com/project/itemc330-lobo-hornos-mesh-belt-furnace-line/>

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#C308 AFC Mesh Belt Hardening Furnace

Manufactured by Atmosphere Furnace Company this furnace has working dimensions of 6" high x 54" wide x 12' long (heated section). Gas fired with radiant tubes. Operating temperature of 1800F. S/N 6948. Temperature Controls: Free standing enclosed panel. Honeywell solid state digital readout indicating

controllers, L&N overtemps. L&N strip chart temperature & carbon recorder. Marathon Monitors Carb-Pro carbon control. Description & Features: Fiber lined. Heated by (9)North American 4724-2-E burners firing into recuperated U-tubes. Two zones of control. Rear zone has a roof mounted recirculating fan. Cold belt return. Furnace has a flame curtain and complete combustion controls and safeties. Includes quench tank and conveyer.

Asking Price \$75,000 USD

<https://themonty.com/project/itemc308-afc-mesh-belt-hardening-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 hardeneing 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#C283 Denton Thermal Rotary Hearth

Denton Thermal Systems (O'Brien & Gere) 2150°F Rotary Hearth Furnace System. Includes high temperature furnace, Nitrogen-Methanol Panel and Quench Press. Working Zone: 6 ft Diameter Hearth, Door Opening is 14"W x 13"H Overall Size: 9ft-8in Diameter x 10ft-10"Tall. Heating: Electric, 125 kW, 1 Zone, Globar Heating Elements. Power Requirement: 200 Amps, 480V/3Ph/60Hz. Temperature Rating: 2150°F. Water Requirement: 3 GPM. Air Requirement: 100 PSI. Controls: GE90 PLC. Honeywell Temperature Controller and Overtemp (missing but will be replaced). Marathon Monitors Carbon Control System. Includes Quench Press that was handling up to 5" Diameter bearings. Prior user reference available upon request.

Asking Price \$29,000 USD

<https://themonty.com/project/itemc283-denton-thermal-rotary-hearth/>

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. Globar 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/>

Item#C265 Sunbeam Pusher Carburizer

This is a very unusual style of furnace and perfect for carburizing of large gears, bearings or races. Working dimensions of 50" X 50" X 34" high. Operating temperature of 1750F. 3,000 pound capacity. Gas fired 12 Honeywell composite single ended recuperated tubes (recently replaced). Surface Casemate controls. 1800 gallon quench tank. System does not need a pit. Comes with a spray washer, temper and an oversized IHRE air cooled quench oil cooler. System is installed but not currently in use. Very good condition.

Asking Price \$40,000 USD

<https://themonty.com/project/item265-sunbeam-pusher-carburizer/>

DRAW/TEMPER OVENS

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#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#T357 Surface Combustion Electric Tempering Furnaces (3 available)

Surface Combustion Electric Tempering Furnaces (3 available). Bricked Lined Box Tempering Furnace complete with Alloy Roller Rail Hearth, Stainless Steel Air Baffles, Top-Mounted Recirculating Fan, and Vertical Rising Pneumatic Door. Model # BX41758-1. Serial # BX41758-1. Working dimensions of 30" Wide x 48" Deep x 30" High. Electric – 460/3/60 – 81 KW. Max operating temperature of 1400° F. Controls consist of Side-Mounted Control Panel complete with Love Series 2500 Digital Temperature Controller, Love Series 16 Digital High Limit Controller, and Honeywell Truline 12" Round Chart Recorder. Overall dimensions of 8' Wide x 7' Deep x 11'8" High. Approximate weight of 8,000 lbs.

Asking Price \$39,500 USD Each

<https://themonty.com/project/itemt357-surface-combustion-electric-tempering-furnaces-3-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#T355 Wisconsin Oven Temper Furnace

Wisconsin Oven Model EWN-610-6G, 500F, 6'W x 10'D x 6'H, overall 9'6" W x 11'D x 9'9"H, 5HP/4,500CFM recirculating fan, combination airflow, adjustable louvers, airflow switch, 900 CFM exhaust with motorized dampers, Eclipse 500,000BTU Winnox Low NOx burner, UL listed control panel, Eurotherm

Nanodac digital recorder/programmer, digital hi-limit, disconnect switch, 8 position T/C jack panel, 3" port.

Asking Price \$19,000 USD

<https://themonty.com/project/itemt355-wisconsin-oven-temper-furnace/>

Item#T354 Surface Combustion Temper

Surface Combustion "Super 30" temper. Model HFC 36-54, Serial number BX 37159-7. Gas fired, maximum operating temperature of 1400F. The unit needs some minor brick work and the circulation fan reinstalled to be ready to run. The fan was removed from service, has a new shaft which has been balanced. Footprint; 9' 7" Deep x 6' Wide x 141" High (door frame only). Weight capacity is 2000 lbs. Installed and overall in good condition.

Asking Price \$15,000 USD

<https://themonty.com/project/itemt354-surface-combustion-temper/>

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#T343 Wisconsin Temper Oven

Batch Temper 36”W X 36”H X 96”L. Manufactured by Wisconsin Oven, Model SDB-6616-10G, S/N 033899307. Natural gas fired, 1 MBTU’s/hour. Maximum temperature rating 1000F. Voltage 480/3/60/16 amps. External dimensions of 96” wide X 13’ 4” high 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 controls 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. 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. General Description; 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. Manual and drawings are included with this furnace. Very good condition.

Asking Price \$49,900 USD

<https://themonty.com/project/itemt343-wisconsin-temper-oven/>

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-temper-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#T336 Industrial Heating Equipment Mesh Belt Temper

Mesh Belt Temper Furnace 48" Wide. Continuous belt temper furnace manufactured by Industrial Heating Equipment, Model # TF-5. Inside dimensions 10" over belt, 48" wide X 12' heating. Gas fired, Eclipse package burner. Maximum operating temperature 1000 F. Temperature Controls: Free standing enclosed panel. Solid state digital readout indicating controller & overtemp. Top mounted brick lined combustion chamber houses high velocity stainless steel circulating fan. Steel lined work chamber has 8-1/2" insulation. Stainless steel mesh belt on top of edge wire belt. Very good condition.

Asking Price \$29,500 USD

<https://themonty.com/project/itemt336-industrial-heating-equipment-mesh-belt-temper/>

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 \$39,500 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 \$30,000 USD

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

Item#T290 Tempering Ovens (2 Available)

Working dimensions of 36"W x 48"D x 36"H. Shells have just been completed and buyer has the option of Gas-Fired or Electric, Hearth Height, Burner Locations (Left or Right) and Panel Location. These can be completed, fully tested and ready to ship to your facility in 8-9 weeks at a very attractive price.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemt290-tempering-ovens-2-available/>

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

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Item#G202 AFC Endo Generator

AFC-Holcroft EZ-4500 CFH Endothermic Generator. New in 2006. SSi 9200 controller. This stand-alone unit can be integrated into an array of up to 3 generators. Currently in operation. Manuals and drawing are included. Very good condition. Includes a spare retort (\$4000). Features:

- Recuperative type combustion system, providing 18% to 20% fuel savings
- High efficiency air-cooled heat exchanger
- 5:1 Automatic Turndown to produce only the gas required
- Ease access swing door for horizontal retort access
- SSi E-Z dew point analyzer
- Atmosphere Engineering endo injector

Asking Price \$55,000 USD

<https://themonty.com/project/itemg202-afc-endo-generator/>

Item#G198 Sunbeam Endothermic Generator

3,000 CFH Endothermic Generator. Manufactured by Sunbeam, model # ENG-30, S/N F-377-79. Gas fired, operating temperature of 1900F. Temperature Controls: Upgraded controls. Honeywell digital indicating controller and overtemp. Single alloy retort. Selas compressor. Waukee flowmeters. Air cooled. Package burner. Complete combustion controls and safeties. Good condition.

Asking Price \$22,500 USD

<https://themonty.com/project/itemg198-sunbeam-endothermic-generator/>

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#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#I175 Inductoheat/LepeI Induction Power Supply

This is a LepeI/ Inductoheat SP5-40 kW, 3/10 kHz SCR type induction heating power supply with a separate Heat Station (I believe this could be operated at 3 kHz but the heat station is currently arranged for 10 kHz). This is an "HS-3" Heat Station with 3 capacitors and a Jackson Transformer with ratios of 5-3 to 17-3. The Inductoheat SP5 has been a proven reliable power supply for heating and heat treating for many years. It can be used for short heat times as it has fast and consistent ramp up to set power. There is no warranty but it is sold with the assurance it is in good working order. It has recently been connected and tested in our facility. I can supply a video of the unit in operation. Start up and Training service is available at extra cost by an experienced induction heating service engineer. Excellent condition.

Asking Price \$17,500 USD

<https://themonty.com/project/item175-inductoheat-lepel-induction-power-supply/>

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#L12 Leco MicroHardness Tester

LECO Hardness Tester Model M400. "As is/where is"

Asking Price \$7,500 USD

<https://themonty.com/project/iteml12-leco-microhardness-tester/>

Item#L11 Leco Metallagraph

Leco Metallagraph.

Asking Price \$8,500 USD

<https://themonty.com/project/iteml11-metallagraph/>

Item#L10 Mitutoyo Rockwell Hardness Tester

Mitutoyo HR-521 Series 810 Rockwell Type Hardness Testing Machine (2 Available) – Two hardness testers. Model #810-202-03A. Calibrated and in good working order. May require new calibration upon installation at a new location.

Asking Price \$8,500 USD Each

<https://themonty.com/project/iteml10-mitutoyo-rockwell-hardness-tester/>

Item#L9 Wilson Rockwell Hardness Tester

Wilson Rockwell Series 2000. Capacity of 150 Kg. Power Requirements 100/120/220/240 Volts with a 3 Amp slow blow. Max power 370 VA. Frequency 47/63HZ.

Asking Price \$4,200 Euro

<https://themonty.com/project/iteml9-wilson-rockwell-hardness-tester/>

Item#L7 Leco Micro Hardness Tester

Model M400. Complete and in good condition. Unit has become surplus to the vendors organization.

Asking Price \$7,000 USD

<https://themonty.com/project/iteml7-leco-micro-hardness-tester/>

Item#L3 Microtrac Laser Diffraction Particle Size Analyzer

Manufactured by Microtrac, Model S3500. Measurement capability from 0.02 to 2800 microns. Wet and dry measurements. Complete and in very good shape.

Asking Price \$5,000 USD

<https://themonty.com/project/iteml3-microtrac-laser-diffraction-particle-size-analyzer/>

Item#L1 Spectra-Tech Infrared Microscope

Model WHK 10X 201, Reflected & Transmitted light, multiple objectives, Polaroid 4×5 attachment.

Asking Price \$6,500 USD

<https://themonty.com/project/iteml1-spectra-tech-infrared-microscope/>

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#M424 AFC-Holcroft Transfer Car

Built in 2007 this is a double ended AFC-Holcroft Charge car suitable for a 36" X 48" batch IQ furnace. Currently in indoor heated storage, complete and in excellent condition.

Asking \$27,000 USD.

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemm424-afc-holcroft-transfer-car/>

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#M420 SBS Quench Oil Coolers

SBS "Quench Airs", (9 available). We have available 9 SBS air to oil quench oil coolers "Quench Air". These are all in good condition and range in size from 2' long up to 10' long with a total of 5 different models. All are 460V. Asking from \$1,000 USD for the 2' units up to \$5,000 USD for the 10' long model.

Asking Price \$1,000-\$5,000 USD

<https://themonty.com/project/itemm420-sbs-quench-oil-coolers/>

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#M412 Atmosphere Engineering Endo Injector

3 year old Atmosphere Engineering Endoinjector for controlling output on an endothermic generator. S/N 0601-DP1, Endo Output 600-3000 CFH. Includes PLC. Good condition and less than a third of the price of new.

Asking Price \$6,500 USD

<https://themonty.com/project/itemm412-atmosphere-engineering-endo-injector/>

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, approx. 12' wide. (Includes loading at the facility)

Asking Price \$20,000 USD

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

Item#M366 Wheelabrator Rubber Belt Tumblast

Model # TBR-12, Serial # A142403, Voltage 480/3/60, 12 cubic feet, Controls – complete. Available Immediately, very good condition.

Asking Price \$55,000 USD

<https://themonty.com/project/itemm366-wheelabrator-rubber-belt-tumblast/>

Item#M363 SBS Quench Oil Cooler

Specs: S/N: 4926. Year: 2007. Three (3) Fans with side mounted disconnects. Overall Size: 6'w x 6'h x 21'l. W-RES, MAWP 75 psi @ 450°F, MBMT -20°F, 75 psi.

Asking Price \$15,500 USD

<https://themonty.com/project/itemm363-sbs-quench-oil-cooler/>

Item#M346 SBS Quench Oil Cooler

SBS "QuenchAir". SBS Corporation air/oil quench oil cooler. Single fan unit model 5084-Q4. Serial number: 2365, 230/460 voltage, overall size: 74"wide X 104"long X 55"high. Comes with disconnects. Very good condition.

Asking Price \$5,500 USD

<https://themonty.com/project/itemm346-sbs-quench-oil-cooler/>

Item#M341 AFC Charge Car

Drawing # MT-237014. Voltage 480/3/60. Suited for a 36" wide X 48" tray. External dimensions of 100" wide X 84" deep X 84" high. Side mounted control panel with Allen Bradley SLC 500 PLC Logic Control. Double ended chain driven powered charge car with roller rail top. Excellent condition.

Asking Price \$28,500 USD

<https://themonty.com/project/itemm341-afc-charge-car/>

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#VF349 GM Vacuum Furnace (Excellent Condition)

GM Enterprises vacuum furnace. The furnace is currently installed at an aerospace company, but available immediately. This facility is being closed and operations shifting to other locations around the country. As you will see, the furnace is excellent condition and has been on a closed loop water system its entire life.

- Vacuum Furnace located at Aerospace Company
- Built in 2002
- Work zone: 48" x 48" x 48"
- New Graphite Hot Zone with Moly Heating Elements
- Max Operating Temp: 2400F
- Temperature Uniformity: +/- 10F
- 35" Diffusion Pump
- Stokes 1722S pump package
- 2Bar Gas Quench – Argon
- 200 HP Cooling motor
- Work Load: 3500 lbs
- Powered Loader – in/ out, up/ down
- Gas Backfill Tank
- Spare Parts and Manuals
- Closed Loop Water System
- Elevated platform for Water System
- Alloy Base Grid – 48" w x 48" l
- Main Breaker – 800 amp

Asking Price \$375,000 USD

<https://themonty.com/project/itemvf349-gm-vacuum-furnace-excellent-condition/>

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#VF347 Vacuum Furnaces Available

We have available 6 very large, lower temperature Ipsen, Abar/Ipsen and Lindberg vacuum furnaces. Vendor would like to sell them as a package for \$500,000 USD but will consider selling individual items. Furnaces are located in California, USA and are installed but not in operation.

1. Lindberg Vacuum Furnace. Working dimensions of 42" W x 59" L x 35" H. Stokes vacuum pumps and Varian diffusion pump. Single zone of control. Operating temperature/uniformity 900F +/-25, 1000F-1400F +/-15F, 1400F-1600F +/-25F. All Metal Hot Zone. Honeywell Controls with Honeywell Paper Chart Recorder. Thermocouples; Controls type K, Load type K, SAT type N. MKS Vacuum Controller.
2. Abar/Ipsen Vacuum Furnace. Working dimensions of 51" W x 120" L x 42" H. Stokes vacuum pumps and Varian diffusion pump. 2 zones of control. Operating temperature/uniformity 900F +/-25, 1000F-1400F +/-15F, 1400F-1600F +/-25F. All Metal Hot Zone. Honeywell Controls with Honeywell Paper Chart Recorder. Thermocouples; Controls type K, Load type K, SAT type N. Inficon Vacuum Controller.
3. Ipsen Vacuum Furnaces (2 available). Working dimensions of 84" W x 120" L x 58" H. Stokes vacuum pumps and Varian diffusion pump. 2 zones of control. Operating temperature/uniformity 900-1000F +/-25F, 1000-1400F +/-25F, 1400 - 1750 +/-25. All Metal Hot Zone. Honeywell Controls with Honeywell Paper Chart Recorder. Thermocouples; Controls type K, Load type K, SAT type N. Inficon Vacuum Controller.
4. Ipsen Vacuum Furnace. Working dimensions of 83" W x 143" L x 65" H. Stokes vacuum pumps and Varian diffusion pump. 3 zones of control. Operating temperature/uniformity 900-1000F +/-25F, 1000-1400F +/-15F, 1400 -1750 +/-25. All Metal Hot Zone. Honeywell Controls with Honeywell Paper Chart Recorder. MKS Vacuum Controller.
5. Ipsen Vacuum Furnace; Working Dimensions of 60" W x 119" L x 59" H. 480 Volts. Stokes vacuum pumps and Varian diffusion pump. 2 zones of control. Operating temperature/uniformity 900-1000F +/-25F, 1000-1400F +/-15F, 1400 - 1800 +/-20. All Metal Hot Zone. Honeywell Controls with Honeywell Paper Chart Recorder. Inficon Vacuum Controller.

Asking Price 500,000 USD

<https://themonty.com/project/itemvf347-vacuum-furnaces-available/>

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-ipsen-bottom-load-vacuum-furnace/>

Item#VF340 Vac Aero Vacuum Furnace

Vac Aero Model VAH 4848 HV-2. Working dimensions of 48" X 48" X 48". Furnace includes controls, vacuum pumps (Stokes 412 roughing, 615 booster, 20" diffusion, holding), furnace quench system (gas blower, heat exchanger, gas accumulator), water cooling system (cooling tower, similar to EVAPCO LRWB).

Asking Price \$220,000 USD

<https://themonty.com/project/itemvf340-vac-aero-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#VF334 Degussa Vacuum Hardening Furnace

Year of construction 1990. The furnace name is VKSQ 80/80/120. The maximum temperature is 1350 ° C, the max. The load is 1500Kg gross, the heating capacity is 250kW, the working space is 800x1200x800mm, the permissible pressure of the system is 6bar absolute and the furnace has the possibility of convective heating. The furnace control was renewed a few years ago (Demig). Located in Germany.

Asking Price \$60,000 Euro

<https://themonty.com/project/itemvf334-degussa-vacuum-hardening-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-elnic-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#VF328 Ipsen Vacuum Furnace

Abar Ipsen Model HS-26 Vacuum Furnace. Model HS-26 Abar Ipsen vacuum furnace. Working dimensions of 24" wide X 18" high X 36" deep. Working capacity of 750 pounds. Varian HS-16 Diffusion pump and Spencer GH 3025 gas booster. All metallic hot zone. Single zone temperature control. Components included from control panel: Honeywell controllers, Honeywell paper chart recorder, and MKS vacuum instruments. Operating temperature of 2400F. 480 volts. Was used in an aerospace facility before it was very recently removed.

Asking Price \$15,000 USD

<https://themonty.com/project/itemvf328-ipsen-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#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#VF319 Vacuum Induction melting System

Manufactured by Ionex, Model 260 LB VIM, S/N 93978. Electrically heated 480/3/60/200 KVA. Work area 150 kW, 3 kHz, 260 Pound. External dimensions

of 10' wide X 10' high X 15' long. Controls; Complete with PLC and touchscreen HMI interface. 260 pound horizontal front loading VIM with water cooled stainless steel vacuum chamber. Pumping system includes a BOC/Edwards 1722 package with mechanical pump/booster and a stainless steel 20" T-M Vacuum diffusion pump. Induction power supply consists of a Pillar 150 kW, 3 kHz and includes water cooled power leads. This furnace has automatic tilt and includes two (2) crucibles. Also included with this VIM is a rotating load table that moves up and down for accurate pouring. Lot of misc. spare parts and molds are included. Excellent condition.

Asking Price \$285,000 USD

<https://themonty.com/project/itemvf319-vacuum-induction-melting-system/>

Item#VF317 Seco Warwick Twin Vacuum & Sintering Furnaces

Twin High Temperature Vacuum HT & Sintering Furnaces. Two each Seco/Warwick Model V40-35/48 Vacuum Furnaces, 1500C (2732 F) Max. operating temperature, 1600C (2912F) burn-out temperature, Work Zones: 600mm x 650mm x 1200mm (23.6" x 25.6" x 47.2"), Design uniformity +/- 10C, but with elements on all 6 sides we would expect much better uniformity, One furnace hot zone is in excellent condition and the other is nearing time for replacement, All-Metal Hot Zones (Layers: 1 Tungsten, 7 Moly, 1 Stainless Steel), Low voltage Tungsten Heating Elements, Moly hearth, Load Rating: 2850 lb. (1300 Kg), Power: 480V/3Ph/60Hz, 390 kW SCR Heating Input with 3-zone control, 420 kVA total power, Stainless steel chamber, water jacket and hot zone plenum, Controls are CompactLogix PLC with computer, touch screen and SCADA software, Leybold TTR91 pirani vacuum sensor, Edwards (Stokes) 212J mechanical pump with Edwards 607 booster pump, Gases set up for Argon cooling and hydrogen purge, Hydrogen mass flow controller, Gas quench pressure rating is 1.05 Bar absolute. Mezzanine-mounted power supplies for minimal floor space requirement. Both furnaces (2), factory loader and existing

spare parts are included at this price. Disassembly and Loading: Buyer's responsibility. Built in 2010 these furnaces were only used for 1 year. Excellent condition!

Asking Price \$275,000 USD for Both

<https://themonty.com/project/itemvf317-seco-warwick-twin-vacuum-sintering-furnaces/>

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 relined, 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 Convector 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 \$169,000 USD

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

Item#VF266 Vacuum Pump

Kinney 75 CFM Vacuum Pump. Warranty Rebuilt Kinney Model KTC-75, Part No. 804982-D, S/N 1105-Y 7710-5 mechanical vacuum pump. 12 Month warranty on rebuild. Will be repainted at rebuilders’ shop. Running without problems when removed from service.

Asking Price \$5,700 USD

<https://themonty.com/project/itemvf266-vacuum-pump/>

Item#VF243 Diffusion Pump

35" Diffusion Pump. CVC Model PMC-32C, 35" Diffusion Pumps (Today this is the Varian HS-35. Varian purchased CVC rights to this pump.) Rebuilt condition with a 12 Month warranty. 35" Throat Diameter. Bolt Circle is approx. 38-3/4" with 14 Holes on approx. 8-9/16" Centers. Flange O.D. is 41-3/4". O-Ring Center Diameter is 36-1/8". Approx. 72-3/4" Overall Height (79" on 48" x 48" shipping pallet). Note: Mating 35" Cryo-Baffle is also available for improved low-range vacuum and elimination of backstreaming (See Item# 3161 Below). 6" Foreline with approx. 9-1/2" Bolt Circle with 8 Holes on approx. 3-5/8" Centers. 1/4" dia. O-ring is approx. 8-7/8" diameter to center. Shipping Wt. with pallet approx. 2050 lb. Price in Warranty Rebuilt Condition, Painted: (with existing working elements. Add \$6,000 if you want brand new elements.)

Asking Price \$12,250 USD

<https://themonty.com/project/itemvf243-diffusion-pump/>

Item#VF242 Diffusion Pump

35" Diffusion Pump. CVC Model PMC-32C, 35" Diffusion Pumps (Today this is the Varian HS-35. Varian purchased CVC rights to this pump.) Can be purchased either in As-Is condition or in Rebuilt condition with a warranty. 35" Throat Diameter. Bolt Circle is approx. 38-3/4" with 14 Holes on approx. 8-9/16" Centers. Flange O.D. is 41-3/4". O-Ring Center Diameter is 36-1/8". Approx. 72-3/4" Overall Height (79" on 48" x 48" shipping pallet). Note: Mating 35" Cryo-Baffle is also available for improved low-range vacuum and elimination of backstreaming (See Item# 3161 Below). 6" Foreline with approx. 9-1/2" Bolt Circle with 8 Holes on approx. 3-5/8" Centers. 1/4" dia. O-ring is approx. 8-7/8" diameter to center. Shipping Wt. with pallet approx. 2050 lb. Price in Warranty Rebuilt Condition, Painted: \$ 12,250.00 (with existing working elements. Add \$4,500 if you want brand new elements.)

Asking Price \$6,400 USD

<https://themonty.com/project/itemvf242-diffusion-pump/>

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#W427 Detrex Continuous Belt Washer

Continuous Belt Washer. Natural gas fired 2500 CFH. Model # SAB-131-GG and Serial # 73769. Max temperature 160°F Wash, 200°F Dry-Off and voltage of 480/3/60. Working dimensions of 48"W x 15"H and external dimensions of 9'10"W x 10'H x 50'L. Controls Mounted and wired in free standing panel with fused disconnect. All functions of this washer in controlled through an Allen Bradley SLC PLC with touchscreen interface.

Stainless steel conveyor type belt washer with the following sequence: 3'l load end x 3'l vestibule x 9'l wash x 3'l air knife x 2'l transition x 5'l 1st rinse x 2'l transition x 5'l 2nd rinse x 3'l D.I. rinse x 3'l air knife x 10'l dry-off x 3'l unload.

Zone 1: WASH ZONE 9' 160 Deg. F

Wash zone is equipped with a 15 HP Stainless Vertical Pump 335 GPM @ 80 PSI

Stainless Steel Bag Filter Housing with 100 Micron Bag

Liquid Level Control

Pump Temperature Alarms

Inlet and outlet plumbing connections

Quick Access Marine Type Clean-Out Door

Lift-off viewing door with window

Viewing lights

Eclipse Gas Burner and heat system with stainless steel burner tube and necessary gas controls

Digital Temperature Read Out

800 Gallon Sump

Intermittent Zone 2' with Air Knife

A 20 HP pressure blower is mounted at the end of the wash zone with one air knife each above and below the conveyor belt. The volume air in each air knife is controlled with individual adjustable dampers. The blower inlet is complete with an air filter to protect the blower and remove particulate from the air stream. The filter also serves as a silencer by reducing the noise level of the moving air.

20 HP Pressure Blower rated at 1000 CFM@ 65" w.c.

Stainless Steel Air Knives

Air inlet filter with silencer

Zone 3: Rinse

First rinse with RO Reverse Osmosis

5 HP Stainless Vertical Pump 200 GPM

CPVC Spray Headers

Removable Spray nozzles

Liquid level control

Pump temperature alarm controls MAX 160 Deg. F

Inlet and outlet plumbing connections

Lift-off viewing door with window

Viewing lights

Zone 4: Rinse

Second rinse

5 HP Stainless Vertical Pump 200 GPM

CPVC Spray Headers

Removable Spray nozzles

Liquid level control

Pump temperature alarm controls MAX 160 Deg. F

Inlet and outlet plumbing connections

Lift-off viewing door with window

Viewing lights

Gas heat system with stainless steel burner tube, Eclipse Burner

420 Gallon Capacity

Zone 5: Rinse

1 HP Stainless Vertical Pump 60 GPM

CPVC Spray Headers

Removable Spray nozzles

Liquid level control

Pump temperature alarm controls MAX 160 Deg. F

Inlet and outlet plumbing connections

Lift-off viewing door with window

Viewing lights

Gas heat system with stainless steel burner tube, Eclipse Burner

100 Gallon Capacity

Zone 6: FINAL RINSE

After the product travels through the last rinse zone, it receives a spray of pure DI water flush. This DI flush consists of one spray header above and one spray header below the conveyor belt. Water to this section is provided by a remote located Deionized (DI) Water System

ZONE 6: Air Knife

A 20 HP pressure blower is mounted at the end of the final rinse zone with three air knives above and one below the conveyor belt.

20 HP Pressure blower rated at 1000 CFM

Stainless Steel Air Knives

Air inlet filter with silencer

Zone 7: Dry Zone

As the product enters the dry zone it is subjected to heated air for drying of the water. The air is pulled from the bottom of the dry chamber and travels through stainless steel air ducts through a filter, gas heated burner assembly, through the blower, and through stainless steel ducting to the zone distribution headers. In essence, the product will be baked dry. An exhaust duct has been provided to allow the removal of the high humidity air and place the module under a slight negative pressure.

20 HP pressure blower 4700 CFM

Indirect gas fired duct heater

High temperature control
Air inlet plenum
Ten upper air knives
Nine lower fixed air knives
Blower and temperature controls
Chamber exhaust
High Temperature 2 inch insulation
Blower and temperature controls
Specifications: Belt: 48" Wide x 15" Part Height Capacity

Asking Price \$125,000 USD

<https://themonty.com/project/itemm427-detrex-continuous-belt-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#W422 Surface Combustion Dunk/Spray Washer

Dunk/Spray Washer 36" X 48" X 36". Manufactured by Surface Combustion this is a Dunk/Spray batch IQ washer with working dimensions of 36" X 48" X 36". Electrically heated.

Asking Price \$22,500 USD

<https://themonty.com/project/itemm422-surface-combustion-dunk-spray-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#W406 Surface Combustion Spray Washer

Manufactured by Surface Combustion this is a Spray washer with working dimensions of 30" wide X 48" deep X 30" high. Gas fired with an operating temperature of 200F. Good overall condition.

Asking Price \$12,500 USD

<https://themonty.com/project/itemm406-surface-combustion-spray-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#O359 Maintenance Technician

MID-SOUTH METALLURGICAL seeking Industrial Maintenance Technician. Located in Murfreesboro, TN (just outside of Nashville) Mid-South Metallurgical is a well-established and growing commercial heat treating company with a diverse customer base. Mid-South offers attractive compensation and complete benefits package including Health, Dental, Vision, Long Term Disability insurance and paid vacation and holidays.

MAINTENANCE TECHNICIAN will report to Plant Manager. Responsibilities include:

- Troubleshoot and diagnose malfunctioning or inoperative mechanical and electrical equipment and systems with minimum supervision.
- Dismantle, repair, and reassemble complex equipment. Includes restoring, repairing, rebuilding, or replacing faulty or inoperative components and parts
- Proficiently troubleshoot and repair hydraulic systems, pneumatic systems, and mechanical drive systems as well as three phase electrical devices and motors, motor controls, and electronic/digital controls and devices.
- Perform work such as fabrication, assembly, welding, cutting and pipefitting.
- Maintain complex mechanical and electrical equipment and systems through a preventive maintenance program
- Operate production equipment as necessary to insure proper function and operation

- Schedule and perform preventative maintenance
- Order replacement/spare parts and supplies as needed
- Proficiently operate equipment to perform operations as necessary to accomplish required work.

QUALIFICATIONS:

Must have working familiarity with industrial and maintenance equipment, materials, tools, and procedures. Must have demonstrated experience in diagnosis and repair/replacement of electrical components, controls, and instrumentation equipment. Must have 8 years of experience in Industrial Maintenance, four of which must be in a Commercial Heat Treating operation. Familiarity with atmosphere and vacuum heat treating equipment and controls. Able to plan, organize and communicate across all levels. Must be resourceful, self-directed and able to work independently

Please send resume to ccoleman@midsouthmet.com

Item#O358 General Manager

Thermal Process Holdings is seeking General Manager candidates who are eager to grow and enjoy the personal success of leading their business' success. In our style of running Thermal Process Holdings team of businesses a General Manager is THE leader of their business. You must be technically competent in heat treating, safety, quality systems, Human Resources, customer relations, sales, maintenance of equipment and facilities, administrative duties, community relations, compliance with all laws and regulations, strategic planning, annual budgeting, monthly performance review and anything, you will be accountable for every aspect of your company's performance.

The ideal candidate will be an engineer with 5+ experience in commercial / captive heat treat. Have a burning desire to make positive things happen. Be committed to growing and developing team members and customers. High personal / business ethics. We offer very competitive pay and benefits package plus an annual performance bonus up to 30% of base pay as well as the opportunity for equity. We are an equal opportunity employer.

If you have the desire to step up contact us at: JHubbard@heattreating.com

Item#O357 Regional Sales Manager

Solar Atmospheres of Western PA – Hermitage, PA.

Solar Atmospheres is an industry leader in vacuum heat treating, brazing, carburizing and nitriding, as well as, thermal processing research and development. The primary target market for our services are the aerospace, defense, power generation and medical markets. We are a family run business that partners with each of our customers to provide services that meet or exceed their expectations.

We are looking for an Outside Sales Manager for our Hermitage PA facility, which will be responsible for the maintenance and growth of an assigned sales territory. Candidate must have previous sales experience in the metals industry or heat treating environment. Also, individuals need not live geographically close to the facility.

Some of the main responsibilities of the position will include, but are not limited to:

- Management of Sales Staff and Processes
- New Business Development
- Development of Sales Plans
- Management of Sales Cycle
- Maintenance of CRM systems
- Development and Reporting of Sales Metrics
- Customer Relationship Management
- Development and Presentation of Proposals / Quotations
- Contract Review (Commercial & Technical)

Qualifications:

- 4-year degree preferred but not required.
- Previous sales experience in the metals, metal working and/or heat treating environment a must.
- Demonstrated aptitude for problem solving and logical approach to solutions.

- Result oriented and ability to work both independently and in a team environment.
- Must possess excellent written and verbal communication skills in English.
- Ability to prioritize work and complete task both efficiently and effectively with little supervision.
- Strong technical and analytical skills.
- Prior experience with CRM systems.
- Proficiency in Microsoft applications: Word, Excel, Outlook, PowerPoint etc.
- Must possess a valid driver's license.

We offer a friendly work environment, plus good compensation and benefits. Some of our benefits include but are not limited to Medical, Dental, Vision, Short and Long Term Disability, 401K with Company Match, Employee Incentive Plan, Company Car and paid time off. Please send resumes to Chris Schubert at chriss@solaratm.com.

Item#O356 Maintenance Manager

**Vac Aero International Inc., Thermal Processing Division – Oakville, ON.
Full Time Position.**

Company Profile: For over half a century VAC AERO has been providing the very best in metallurgical services and solutions to clients around the world. Specializing in vacuum processing, VAC AERO is one of the largest subcontract aerospace heat treaters in North America. We hold numerous heat treating, brazing and quality system approvals from prime manufacturers.

Job Summary: Vac Aero's Maintenance Manager will be responsible for the completion of maintenance tasks using the highest level of quality, safety and effectiveness to ensure production requirements can be met. In addition to performing maintenance tasks, this position requires management and coordination of the activities of maintenance employees, contractor and vendors.

Responsibilities:

- Report directly to the General Manager.
- Administer and promote the company safety program to ensure a safe work environment.
- Investigate, report, provide and implement corrective actions for all safety and environmental incidents/near misses.
- Ensure preventative maintenance is being performed on all equipment and building.
- Ensure all unscheduled equipment and building repairs are performed in a timely manner.
- Performance of maintenance tasks and supervision and co-ordination of maintenance employees, contractors and vendors.
- Schedule maintenance shutdowns with production planning.
- On call availability required including nights and weekends.
- Order/purchase maintenance supplies, parts, tools, and equipment.
- Maintain inventory of supplies/parts.
- Schedule annual equipment and plant power inspections.
- Attend daily production meetings.
- Maintain maintenance records including CMMS software.
- Ensure productivity, housekeeping and quality of work standards are maintained within the maintenance department.
- Provide and coordinate training for maintenance employees.
- Promote good relations and communication between maintenance and other departments.

Job Qualifications:

- Minimum of 10 years mechanical or electrical skilled trades experience which includes management experience.
- *OR* Minimum 10 years mechanical or electrical skilled trades experience which includes management experience.
- Experience in Heat Treating would be an asset

Preferred Skills:

- Extensive experience in equipment repair (heating elements, pumps, motors, hydraulics, heat exchangers, water systems, fans, etc.).

- Proven experience in executing major work and plant shutdowns.
- In depth knowledge of preventative and predictive maintenance.
- Strong problem-solving ability.
- Strong communicator (both oral and written).
- Excellent interpersonal skills with demonstrated ability to interact with plant personnel.
- Highly motivated with ability to work with minimal supervision.
- Comfortable with heights and confined spaces.

Please Inquire With Brent Rosart at brosart@vacaero.com

Item#O355 Quality Manager

Seeking Quality Manager. An established Heat Treating Company is looking for a full time Quality Manager. This position is based in Newark, NJ. Applicant will coordinate the Quality Management System and Continuous Improvement initiatives to meet customer expectations. Major customers include aerospace, military, nuclear, automotive and agriculture.

Responsibilities:

- Maintain Quality system that meets customer Quality requirements.
- Maintain Quality manual and related procedures per Nadcap standards.
- Host/participate in audits performed by Customers.
- Host/participate in audits performed by PRI/Nadcap registrar.
- Maintain a Pyrometry system as required in AMS 2750 .
- Coordinate and conduct quarterly management Review Meetings.
- Manage a calibration recall system for periodic testing including Pyrometry and Hardness testing equipment.
- Perform external and internal audits.
- Write and review Heat Treat procedures from customer drawings, procedures and quotations.
- Ensure timely responses to corrective action requests to customers.
- Train shop employees for continuous improvement as well as for changes as a result of Corrective/Preventative Actions

- Perform RC/CA analysis for customer and interally issued NCRs.
- Support the Production Department with quality issues.

Job Requirements:

- Bachelor's degree in a technical field or a minimum of 3 years experience in quality management.
- Heat treat experience preferred.
- Must be organized and motivated.
- Plan, prioritize and organize work with appropriate timeliness.
- Must be a Team player and communicate well with others.
- Manage Metallurgical Lab.
- Must have strong verbal, written communication and interpersonal skills. Calm under pressure.
- Proficient in Microsoft Office software including Excel, Power Point and Word

Qualified applicants are encouraged to send resume
to johnquaglia@bennettheat.com

Item#O354 Metallurgist

POSITION SUMMARY: There is currently an opening for a senior metallurgist in the RBC Bearings New Product and Process Development Center, located within our Oxford CT headquarters. We are looking for a corporate level, technological leader in metallurgy and materials science who is a hands-on, team player. The person will be expected to act as consultant and metallurgical expert to all divisions of RBC, as necessary, responding to queries about materials, material acceptability, specifications, failure investigations, material performance improvements and material quality issues both internal and with our supplier base. The successful applicant will be expected to take a leadership role in material development as RBC expands its current product offering into new applications with structural and environmental challenges beyond our current knowledgebase and capability. The candidate is required to have excellent inter

personal and communication skills, be a team player that is driven to succeed within in a fast paced, challenging, and demanding environment.

RESPONSIBILITIES:

- New Product Development: Research and Development of performance enhancing materials and material heat treatments.
- Design: Support RBC engineers on materials selection and evaluation, testing, fabrication, heat treatment, and plating.
- Manufacturing: Support the evaluation of material quality, obtain and maintain NADCAP heat treat accreditation where required, consult and assist with internal/external customer concerns regarding product quality, customer audits and approvals, materials and testing, failure analysis, destructive testing, procedures, evaluation of vendors for heat treating and plating
- Metallurgical Analysis: Improve existing metallurgical laboratory and maintain a list of vendors that can provide services outside of the labs capabilities.
- Manage Corporate Metallurgy Function: Conduct bi-weekly department update meetings, coordinate the projects of two Fellow level metallurgists with more than 80 years combined experience, and oversee a lab. Technician.
- Oxford Heat Treat Department: Technically oversee and support a newly implemented heat treat department within the Oxford, CT, manufacturing facilities.

REQUIREMENTS / QUALIFICATIONS:

- BS/MS/PhD in Metallurgy, or Metallurgical Engineering, or Materials Science
- 10 + years of related experience.
- Expertise in metallurgy, thermal processing, machining, chemical processing, plating, stress relieving, material standards, material processing and potential process changes affecting material performance.

- Keen knowledge of the causes of fatigue and failure of metals, especially — but not limited to – the field of bearings.
- Anticipate travel requirements to various customers, suppliers, and RBC facilities of approximately 25%.

Please Send Resumes To WSamuelson@rbcbearings.com

Item#O353 Controls Engineer

Controls Engineer. About Super Systems Inc.: Super Systems Inc. is a light manufacturing company located in northern Cincinnati, Ohio with 65 employees. We are a leading integrator in the thermal processing industry with a dynamic workplace that includes manufacturing, software development, field service engineers and a robust research and development department. Company address: 7205 Edington Drive, Cincinnati OH 45249. Company website: <http://www.supersystems.com>

JOIN OUR TEAM! SIGN ON BONUS!! Exciting opportunity with Excellent Benefit Package including 401K match on day one! Super Systems Inc. is a growing industrial automation systems integrator looking for full time Controls Engineer. We are a leading integrator in the metal treating industry with a dynamic workplace that includes manufacturing, software development and field service engineers. Positions for field service/project engineers are currently available in Cincinnati Ohio. We are looking for talented people with a good work ethic, enthusiasm and a customer centric attitude. We offer exciting opportunities to work on challenging projects that encompass a variety of technologies. Super Systems Inc. offers a complete package of benefits including Health, Dental, Long Term disability, 401K, paid vacation and holidays. Project Engineer to design and retrofit control systems and for thermal processing equipment. Our customers are heat treating facilities across the United States. Candidate will be responsible for analyzing customer

requirements, designing and commissioning controls and SCADA equipment. FSE will be responsible for PLC programming, instrument configuration and setup, SCADA screen design, customer support, project management and end user training. This job will require 75% travel, but always home on weekends. Knowledge / Studies / Experience:

- Electrical/electronics
 - PLC programming a must; Allen Bradley a plus
 - Ladder logic
 - PID control
 - SCADA software
 - Field wiring
 - Control system integration
 - Familiarity with industrial atmosphere and vacuum furnaces a plus
 - SQL
- Education and Experience:
 - Required: 4-year Electrical or Electro-Mechanical Engineering Degree
 - Required: 5 years experienceOther:
 - Ability to travel required, approximately 50-75% U.S. travel. Always home on weekends/holidays
 - Company car
 - Will pay to relocate to Cincinnati
 - Sign-on Bonus!

Please Send Resumes To preeder@supersystems.com

Item#O352 Sales Positions

Mountain Rep, (www.mtnrep.net), a Manufacturer's Representative Firm, since 1983, is looking to open multiple offices in the United States, concentrating in the Thermal Processing Industry. Searching to mentor younger persons who want to

take a stab at sales and/or looking for that retired person who is bored and wants to get back in the industry. Management and Ownership opportunities available.

Please call Rosanne Brunello at 216 217-7769 or email her
at rosanne@mtnrep.net

Item#O345 Multiple Positions Available

Vesco-McLaughlin located in East Windsor, CT and McLaughlin Services located in Avilla, IN are looking to expand and hire people in the industry with any of the following experience:

- Hot Zone Design
- Vacuum and Atmosphere Furnace Design
- Vacuum and Atmosphere Furnace Service Experience
- Vacuum and Atmosphere Furnace Manufacturing Experience
- Electrical and Controls Experience

Please send all resumes and questions regarding positions to Ben
Tackett, btackett@vacuumengineering.com, Main: (860) 627-
7015, Fax: (860) 627-9964.

SEEKING EMPLOYMENT ADVERTISING

If you are looking for a job position ads are completely free! Simply send us a brief summary of your skills along with what you are looking for in a “Word” Document and e-mail to jordan@themonty.com Your ad will appear both on the website themonty.wpengine.com and in our monthly newsletter “**The Monty**”.

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
