

HEAT TREAT NEWSLETTER

Everything to do with heat treating



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CONTENTS

INTRODUCTION

HEAT TREAT NEWS

USED & NEW EQUIPMENT

- Batch IQ
- Batch
- Box
- Continuous
- Draw/Temper
- Generator
- Induction
- Lab Equipment
- Miscellaneous
- Vacuum
- Washers

BUSINESS OPPORTUNITES

IN PARTING

INTRODUCTION

In this, the June 2019 issue of “***The Monty***” you will find over 60 pages of heat treatment news from around the world. Read about the ongoing installation of a pusher furnace in Mexico, an Ion Nitriding project in Queens, New York, a new heat treat facility in Sweden, Specialty Steel Treating in the US adding vacuum capacity and the trend of gun manufacturers to move their manufacturing facilities to the US Southeast. These few items and almost 100 others like it will be found in this issue.

Best Regards,

Gord, Dale and Jordan Montgomery

3 Reasons to bring your Temperature Uniformity Surveys in-house

At Fluke Process Instruments, we understand that Temperature Uniformity Surveys (TUS) are time consuming and can require hours of production downtime. However, they are required in the aerospace and automotive industries when working to standards such as AMS2750E and CQI-9.

1 Save Money

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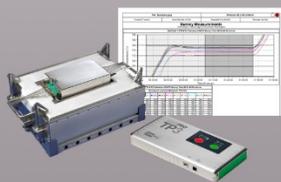
2 Save Time

To avoid spending time re-running tests, the Datapaq Insight™ Software saves your calibration information for thermocouples and loggers and notifies you before recalibration is required. Reports are also stored electronically for easy recall during audits.

3 Better Control

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Contact a Fluke Process Instruments TUS system expert

HEAT TREAT NEWS

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Monday Morning Briefing

Jun 3, 2019

We are going to start off in Indiana, USA. It comes from **Ben Crawford** who has made a real name for himself in the North American heat treating industry, most recently as CEO of Contour Hardening. It's a rather unusual press release in that we don't see any obvious connection with the heat treating industry however we have been assured that with time everything will become clear; *"ETI, an OEM manufacturing company that for over 50 years specializes in designing and manufacturing products for effectively managing the environment, announced today that they have completed the acquisition of assets from a global manufacturing company headquartered in Indiana. The acquisition is a carve out of the metal fabrication and machining division located in Indianapolis, Indiana. ETI FAB, Inc is the newly formed entity and has completed the build out of a 30,000 square foot building and is completing the installation of the assets located in Westfield, IN. ETI FAB was able to retain the highly skilled employees and will remain as a leading contract manufacturer of metal and aluminum parts that will serve a variety of industries on a global scale. The facility will manufacture parts to customer designed drawings and produce parts for ETI improving speed in the support of its products. ETI FAB's services include metal fabrication by laser cutting, forming, bending, stamping, welding and machining.*

"Acquiring capability to metal fabricate allows the ETI network to be more insular. This acquisition is our first step in creating our future picture" stated Ben Crawford, President and CEO of the ETI companies. Crawford further stated, "In working closely with the company that the assets were acquired from, we're particularly excited about retaining employees that have been operating this equipment for many years. I'm truly grateful for the support and collaboration that has provided a smooth transition to ETI. Their guidance supporting employees and customers is

very much admired". ETI FAB has begun fulfilling customer orders and will be in full production in June. "The team that has been assembled is a high-performing team that I'm thrilled to lead" stated "Jeff Frazee, Plant Manager of ETI FAB. Frazee further commented "Our commitment to safety, quality, employees and customers is our guiding precept".

McLaughlin Furnace Group is excited to announce we will be partnering with **Larry Hindle** of **Summit Controls**. Larry will be assisting McLaughlin Furnace Group in Controls, PLC Programming and Electrical Panels. We are excited about the experience that Larry brings to McLaughlin Furnace Group and we believe that he will help our company continue to expand and change the industry. Picture order: L-R: Damon Butler, Ryan McLaughlin, Jeff McLaughlin, Larry Hindle, and Ben Tackett.



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This news item caught our eye because we have some knowledge of the heat treating department at **Diamond Chain**. For years it included rotary retort furnaces and perhaps still does however we do know that they were considering a switch to mesh belt lines; *“The Timken Company acquired Diamond Chain Company, a supplier of high-performance roller chains for industrial markets, from Amsted Industries. Indianapolis, Ind.-based Diamond Chain has manufacturing operations in the U.S. and China and employs approximately 370 people. The company uses enhanced heat-treatment processes that help pins maintain rigidity in the most challenging environments. Diamond Chain also utilizes laser fabrication to drastically cut manufacturing times for custom-made chain attachments. The acquisition increases Timken’s presence in the global roller-chain market by adding a product line used in a range of applications. It also gives Timken additional opportunities to deliver more value for customers in the industrial distribution, material-handling, agriculture and construction industries.”*

Furnace manufacturer **ALD** in Hanau, Germany is finding business to be pretty darn good which has led to an expansion of their facility something we mentioned a few months back. We now have a photo of the construction and include also a photo of the inside of the plant which we took the last time we visited the company.



From Western Canada we have this heat treating news from commercial heat treater **Thermex**; *“The Thermex Team is very excited for the first flame startup of our newest, and largest, internal quench furnace, a “Super 36” that significantly increases our carburizing and through hardening capacity. This furnace features automated process monitoring and control (times, temperatures, atmosphere, quench) for consistency and quality load to load. Next week is for temp uniformity surveys and test loads, with coupons to be assessed in our in-house metallurgical lab. The week after – customer parts!”*



We all know that commercial heat treating is a family dominated industry which makes this item the norm rather than the exception. In **Tonawanda, NY** we find family owned commercial heat treat B&W Heat Treating Company (by the way there are not many commercial heat treaters left in Upstate, New York). The company concentrates on stress relieving, tempering and sand blasting and for years it has been run by Cliff Calvello. Time marches on and Cliff's son Kevin is buying the business from his father and assuming the title of President with Cliff moving to Chairman of the Board. As a third generation family owned business we wish them the best of luck.



From **Alloy Engineering**, an alloy fabricating company in Berea, Ohio, USA (whose banner ad can be found on this page) we have this tidbit; *“Alloy Engineering, founded in 1943 in a Rocky River home, fabricates alloy parts for high-temperature and corrosive-resistant industrial applications. It also boasts Ohio’s first Employee Stock Ownership Plan, or ESOP, established in 1974. The plan is recognized as the first for an Ohio company by the Ohio Employee Ownership Center (OEOC). At 45 years old, it’s also the long- est-running ESOP in the state. “Today, the company is 100% owned by 100% of eligible employees,” said Lee Watson, Alloy’s president and CEO. “Every employee is eligible to be in the plan after one year of service; they’re vested fully after three years of employment.” Rather than resting on its laurels, the 75-year-old company, with annual revenue between \$25 million and \$30 million, is taking old-school values and an old-school work ethic to new heights by further concentrating on the well-being of its almost 100 employees.”*



SISTEMAS AUTOMOTRICES DE Mexico/New Pusher Line

May 31, 2019

Back in February of this year we told you the story of auto parts supplier SISTEMAS AUTOMOTRICES DE Mexico installing a brand new pusher furnace line. Well the story is almost finished as the line is now ready for final acceptance and run off as you can see in the one photo below. To really complete the tale you can see the furnace arriving, being unloaded, installed and now pretty well complete.

SISTEMAS AUTOMOTRICES DE Mexico Installs Pusher Line While pusher lines are not as popular as they once were they certainly still have their place as we can see here. Transmission components manufacturer SISTEMAS AUTOMOTRICES has just completed the installation of a brand new 3 row pusher at their facility in Northern Mexico. The line was provided by AFC-Holcroft and MATTSA (their licensee in Mexico) in record time which emphasizes the great partnership of both companies in the furnace business in the USMCA region. The first photo from SISTEMA shows the holding chamber and quench tank arriving, and the other two photos show the furnace being unloaded and subsequently installed.



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The image shows a hand holding a handheld electronic device labeled 'Probe Buddy'. The screen displays temperature readings: 1780°F and 1150.0mV. Below the screen are several buttons for navigation and control. The United Process Controls logo is visible at the bottom of the device.

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The advertisement features a dark blue header with 'TRUSTED PARTNER' in white. Below this, the text 'NITRIDING & NITROCARBURIZING' is prominently displayed in bold. Underneath, it lists 'Turnkey Systems | Technologies | Complete Solutions'. At the bottom, the Nitrex logo (a stylized 'N' in red and yellow) and the website 'www.nitrex.com' are shown.

Epiroc To Build Captive Heat Treat Department

May 30, 2019

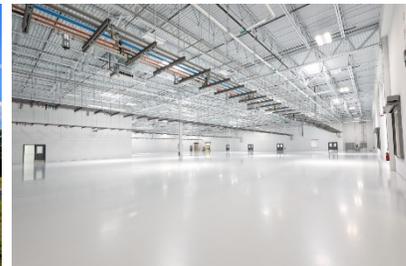
It is seldom that we run across heat treat news items from Sweden but this makes the second within a week. Since we could only find one “Epiroc” photo to go with this item (showing one of their products) we widened our search to find another photo from the Swedish heat treating industry and seized upon the one below. This was taken 3 years ago at a *Bodycote* facility in Gothenburg and shows *Gord Montgomery* on the left, *Harald Rothof KGO* and two members of the *Bodycote* team; *“Epiroc has held a groundbreaking ceremony for its new heat treatment plant for rock drills at one of its global manufacturing hubs in Örebro, Sweden. With heat treatment an essential part of rock drill manufacturing, the top-modern plant – to be built through an expansion of the current workshop building – will further boost rock drill quality and performance, according to Epiroc. It will also lower customers’ total cost of ownership and enable higher production volumes, the company added. Helena Hedblom, Epiroc’s Senior Executive Vice President Mining and Infrastructure, said: “The investment is a key step toward ensuring that this first-class manufacturing site remains as productive and competitive as possible for the long term.” Production at the 1,400 m² heat treatment plant will be able to run 24 hours a day thanks to automation. It is expected to be up and running by late-2020. Energy efficiency is a key focus for the design of the plant, with, for example, residual heat recycled internally to heat buildings.”*



Oerlikon Huntersville, North Carolina, USA

May 29, 2019

There is a lot of blah, blah, blah stuff here but to a long story short this brand new facility will have high pressure vacuum furnaces which is what interests us; *“Oerlikon, a global provider of surface solutions, equipment, advanced materials and materials processing, is inaugurating a new \$55 million Innovation Hub & Advanced Component Production facility in Huntersville, as part of its ongoing US growth strategy. The facility will serve as a cornerstone of Oerlikon’s additive manufacturing business in the US. The 125,000 square foot facility currently employs about 60 people and is fully functional. The additive manufacturing production facility is Oerlikon’s second location in North Carolina – the other site being a center that provides manmade fibers, in particular, carpet yarn systems. The new facility consists of R&D laboratories, a large-scale 3D printing area, CNC machining and high-pressure heat treatment facilities. The backbone of the plant consists of inert gas systems, chilled water systems, purified compressed air systems, as well as a tightly controlled temperature and humidity HVAC system.”*



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- Single Washers
- Dual Washers
- IQF
- Box

The advertisement features a large industrial furnace in the center, with a red and white Diablo logo in the top left corner. The background is a dark, fiery red and orange gradient.

SOLAR
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keep you down

The advertisement shows a collection of various metal parts, including pipes, rods, and bolts, arranged on a blue surface. The SOLAR MANUFACTURING logo is at the top, featuring a stylized sun icon.

SSi Travelling Road Show

May 29, 2019

On June 5, controls company Super Systems Inc. (SSi) will be hosting a one-day training seminar in Mississauga, Ontario which talks about lots of heat treating “stuff” including NADCAP and CQI-9. SSi has been doing these events for years around North America with pretty good success. We will snap a couple of pictures during the event next week.



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- Package #1 & #2 - PLUS Company Logo on Event Website and Signage

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Kimber Manufacturing Moving to Alabama-Trends in the Heat Treating Industry

May 28, 2019

Kind of in passing last week we learned that gun manufacturer *Kimber Manufacturing* was closing down most or all of their production in Yonkers, NY and moving to Alabama. This story very much got our attention because it was not that long ago when we mentioned that fellow gun manufacturer *Remington* in Ilion, NY had also made the decision to move to Alabama. This lead us to do a bit of research and as it turns out these two companies are just the tip of the iceberg and join others such as *Beretta* and a whole slew of others which have made the decision to move from the Northern US to the Southern US for the reasons mentioned in this really excellent article from *Larry Keane*, Senior Vice President and General Counsel for the National Shooting Sports Foundation. Why this story is of interest to us is that virtually all of these companies has (had) an in house heat treating department and because this is firearms manufacturing you are looking at high end heat treating including *Carburizing* and both *Gas* and *Plasma Nitriding*. To give you an idea these photos show part of the in house heat treating department of gun manufacturer *Glock*.

“Georgia’s new Governor, Brian Kemp, may want to send New York Gov. Andrew Cuomo a thank you note and a bushel basket of peaches. That’s because another New York-based, firearms-related business has made the decision to expand its operations not in the Empire State with its highly restrictive gun control laws, but in this case in Georgia with its far friendlier business and political climate. Check-Mate Industries, based in West Babylon, N.Y., makes handgun and rifle magazines, among other firearms-related equipment as well as life-saving devices for the medical industry. The company is an original equipment manufacturer for firearms makers and the U.S. military. The diversified company describes its offerings this way, “Check-Mate Industries’ products are 100 percent designed, developed and manufactured in the United States. Since 1972, the company has operated as a tool & die, stampings and assemblies manufacturer.” Now, much of that production will take place in Thomasville, Georgia.

Remember The SAFE Act; In New York, Cuomo led the effort to outlaw standard-capacity magazines. In hurry-up lawmaking in Albany in early 2013 to pass his so-

called *SAFE Act*, it was mandated that magazines could henceforth hold only seven rounds. Since magazines manufactured in that capacity are rare, to say the least, it was then decided that residents could own magazines capable of holding a maximum of 10 rounds, but they could no longer load them to full capacity. Larger capacity magazines were outlawed. Owning one of those could earn you jail time,

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although Niagara, Chautauqua and Erie County prosecutors now say they will not enforce that portion of the state statute. The *SAFE Act* also broadened the state's definition of "assault rifle," to include firearms with any "military-style" feature including telescoping stocks and flash suppressors. It also required every single modern sporting rifle to be registered with the state, be sold or moved out of state. Others Went Before; Check-Mate is not the first New York-based firearms business that chose to

expand someplace other than their home state. About a year ago, Yonkers-based Kimber Manufacturing, best known for its 1911-style pistols and classic sporting rifles, announced an expansion in Troy, Alabama, where it doubled production capacity. Remington Arms Company made the decision in 2014 to move production from its historic Ilion, N.Y. facility to a new factory in Huntsville, Ala. A move south is not necessarily the only more gun-friendly direction for a company to travel. Citing *SAFE Act* passage, Kahr Arms moved its headquarters

from New York to Pike County, Penn. and subsequently opened an adjacent factory.

A Tale Of Two Capitals; The difference in state capitals, government policies and political leadership could not be more striking. Even as Cuomo and his political allies in Albany keep finding new ways to pressure gun manufacturers, he has also vilified the NRA and expanded his assault on the Second Amendment, as Frank Miniter detailed last month. Former Georgia Gov. Nathan Deal, on the other hand, welcomed firearms manufacturers to Atlanta to speak with the state legislature about their concerns. On hand for one session were representatives from Glock, Daniel Defense, Honor Defense and Trulock Chokes, among others. Gov. Deal also announced last year that Taurus USA was breaking ground on a \$22.5 million, 200,000 square-foot production facility bringing 300 jobs to the community of Bainbridge. Current Gov. Brian Kemp proudly campaigned and won election to succeed Gov. Deal on his defense of Georgians' right to keep and bear arms.”





SOME LIKE IT HARD,
SOME LIKE IT SOFT.

www.haertha.de

Monday Morning Briefing

May 27, 2019

McLaughlin Furnace Group Announces Pusher Furnace Order. McLaughlin Furnace Group based in Fort Wayne, Indiana is pleased to announce that they have received an order from a major truck component manufacturer for a two row, gas fired pusher furnace. The president and owner of the company **Mr. Jeff McLaughlin** had this to say about the order *“We are very pleased that such a substantial manufacturer should have so much confidence in our ability to provide a state of the art system on time and on budget. This is a real milestone for our company and reinforces the fact that McLaughlin Furnace Group has grown to be one of the largest and most diversified in the North American furnace manufacturing industry”*. McLaughlin Furnace Group expects the furnace to be installed and in operation the fourth quarter of 2019. In Sweden we see that commercial heat treater **Huskvarna Hårdverkstad** has invested in a brand new **Ipsen vacuum carburizing system**. Having some experience with the Swedish heat treating market we can say that it is not large compared to Germany,

France or the USA but it is certainly sophisticated with some of the most advanced heat treating technologies available in the world.

The **AvaC**® Process
Vacuum Carburizing With Acetylene



Bodycote Trading Update. What to hear how the worlds biggest commercial heat treater is doing these days? *“Bodycote, the world’s leading provider of heat treatment and specialist thermal processing services, is issuing a trading update covering the four-month period from 1 January to 30 April 2019 (“the period”), ahead of the Company’s 66th Annual General Meeting. Current trading; Group revenue for the four months ended 30 April 2019 was £245m, 1% higher than the same period last year (flat at constant currency). On a divisional basis, ADE revenues were up 6% to £100m (up 4% at constant currency), while AGI revenues were down 3% to £145m (also down 3% at constant currency). Within the overall Group result, Specialist Technologies’ revenues grew 3% at constant currency, while Emerging Markets’ revenues grew 6%.*

The following review of the Group’s markets quotes all movements based on growth against the same period in 2018, at constant currency.

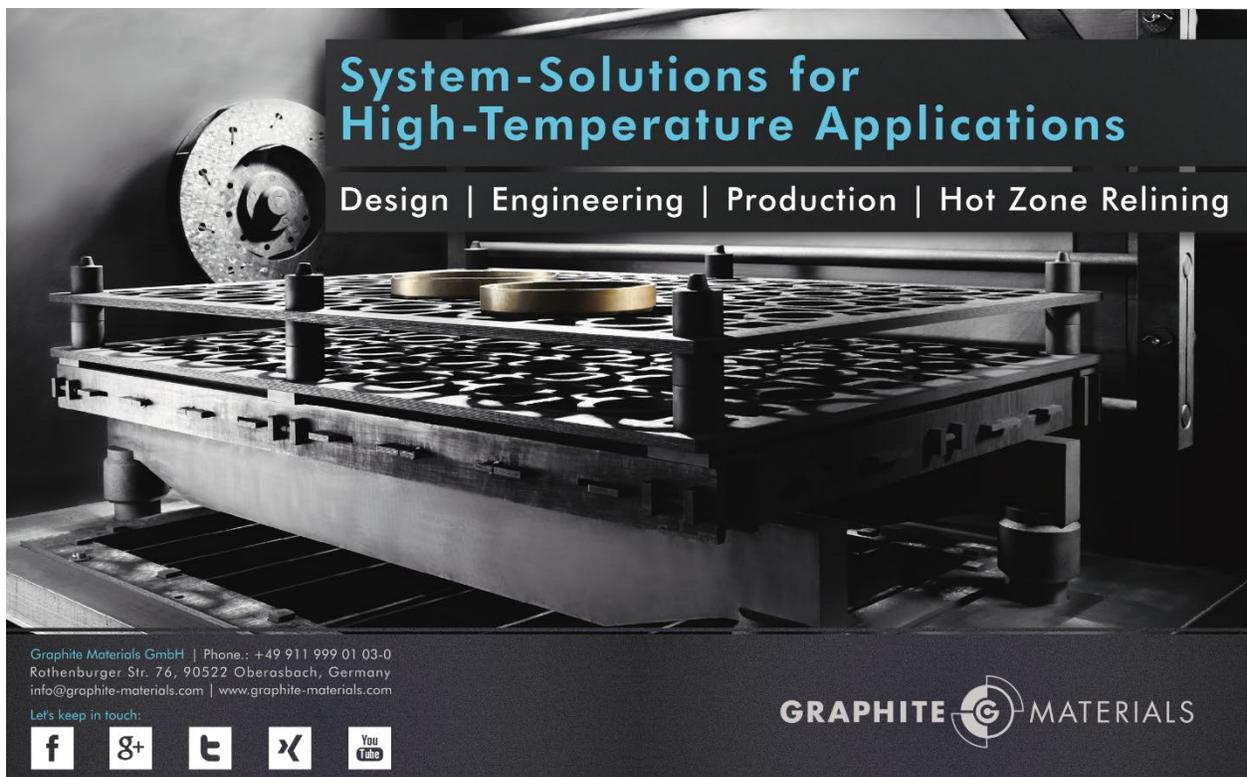
Aerospace and defence revenues grew 15%, with the strong growth trend seen through the second half of last year continuing into 2019.

Automotive revenues fell 4%, with car & light truck revenues negatively impacted by lower production volumes, particularly in Western Europe. Year on year growth comparisons in car & light truck are somewhat skewed, however, as the first half of 2018 was particularly strong due to manufacturers accelerating deliveries ahead of the introduction of the WLTP regulations.

General industrial revenues were 6% lower, with good growth in the emerging markets more than offset by weakness in the developed economies. The revenue declines in the developed markets are due to the impact of business that was discontinued in H2 2018, as well as what appears to be some hesitation in customers' capital investment decisions.

Energy revenues were broadly flat, with stronger revenues from subsea projects offsetting a decline in North American onshore oil & gas revenues as a result of customer destocking.

Summary and Outlook; In the first four months, we have seen excellent growth in civil aerospace revenues, offset by anticipated weakness in automotive and general industrial revenues against strong comparatives from the same period last year. The full year outlook for civil aerospace remains strong, and revenue growth for Specialist Technologies' is also expected to be good. With easing comparatives in automotive in the second half of the year, and provided current macroeconomic conditions do not deteriorate, year on year growth should strengthen. The Board's expectations for the full year remain unchanged."



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GRAPHITE  **MATERIALS**

From Italy **Nitrex** has send us this press release about a new installation; *“Family-owned heat treatment company **GalvanoTechnik**, situated in Lombardy, Italy, has expanded its surface treatment services portfolio to include NitregR controlled nitriding, NitregR-C nitrocarburizing as well as ONCR in-process oxidation treatments. Nitrex System Combines 3 Technologies into 1 Platform; The company invested in a compact Nitrex system, model NXK-609, configured to process 23.5" diameter by 35.5" high (600mm by 900mm) workloads that weigh up to 1300 lbs (600 kg). The system complies with the temperature uniformity requirements of AMS 2750E, in addition to meeting specifications ASM 2759/10, which make it possible to consistently achieve the required metallurgical and mechanical properties for controlled nitriding. Other advantages of the NXK series include a reduced footprint and a system configuration that combines three process technologies into one platform.”*



Wisconsin Oven sent us this news item about two rather unusual ovens they recently supplied. *“Wisconsin Oven Corporation announced the shipment of two (2) Electrically Heated Four Zone Two Drawer Ovens to a manufacturer in the oil and gas industry. The batch ovens will be used for pre-heating drill pipe motor tubes and cores. The ovens have sufficient capability to heat 15,000 pounds of steel from 21°C to 120°C in approximately 90 minutes in a pre-heated oven.”*



Our friends at furnace builder **SECO/WARWICK** send us this press release; *“SECO/WARWICK Group’s subsidiary based in Meadville PA, has been awarded a major contract to build and commission a specialized [aluminum](#) solution heat treating furnace for a U.S. customer. The new furnace, which is AMS2750 compliant and Nadcap capable, will be engineered and manufactured in Pennsylvania. Per AMS2750, both temperature uniformity and time to quench are critical factors necessary to achieve favorable and consistent material properties. The furnace is designed to maintain temperature uniformity of +/- 5° F. To achieve the critical “time to quench” sequence, SECO/WARWICK will*

include its unique load handling system, which will also reduce loading and unloading time between batches, improving efficiency and throughput. Because of the unique design of its rapid loading/unloading capability, it will achieve near-continuous product processing in what would otherwise be defined as a batch furnace. The furnace will be used to heat treat products for use in automotive, aerospace and medical applications. The furnace is engineered to load, heat treat, quench and discharge with minimal operator assistance.” And to round things out **Furnacare Inc.**, issued a press release about a furnace they sold to a mint; “Furnacare Inc., a TAV Group Company, sold a TAV horizontal vacuum furnace with a maximum temperature of 2462°F (1350°C) to an international mint. The furnace, which has useful dimensions of 400 mm (15.7 inches) wide x 400 mm (15.7 inches) high x 600 mm (23.6 inches) long, has high-speed quenching with up to 25 bar of helium with an optional recovery circuit. A large pumping group allows for rapid evacuation of the chamber and high operating vacuum level. In addition, a closed-loop gas cooling system combines high flow capacity and pressure to guarantee fast and uniform cooling of the load. The wide surface of the heating elements and the possibility to heat up the load with auxiliary convection at lower temperatures allow fast and uniform heating ramps and shorter cycles. A SCADA system provides comprehensive monitoring and the control of the furnace.”



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Precision Gear Inc., College Point, NY, USA

May 23, 2019

A few weeks back as part of a Monday morning briefing we ran a photo of a brand new Ion Heat Ion Nitrider and told you that when the time was right we would tell you where the unit is located. Well now is the time and we can tell you that the system is up and running at a manufacturer of top end aerospace gearing by the name of Precision Gear Inc., located in College Point, NY <http://www.precisiongearinc.com/> We are not in a position to add any further details about the heat treating department of the company except to say that it is a very impressive company. In this photo we see Jordan Montgomery of “The Monty” standing beside the Ion Heat system.



www.soloswiss.com

Atmosphere Furnaces

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Continuous furnaces



Midwest Vacuum Pumps Expands Rep Network

May 23, 2019



MIDWEST VACUUM PUMPS, A LEADING VACUUM PUMP REBUILD COMPANY LOCATED IN TERRE, HAUTE, INDIANA IS PLEASED TO ANNOUNCE THE ADDITION OF TWO NEW SALES REPRESENTATIVE



COMPANIES: **MOUNTAIN REP**

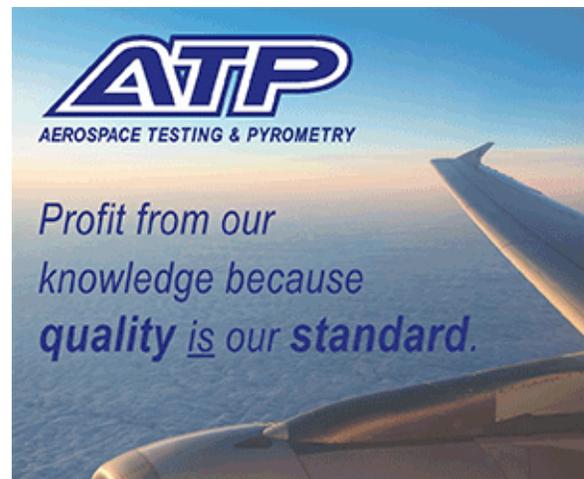
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MVCS, Inc., Mike Mercer, Jr., Cathy Benskin, 1909 N. 30th Street, Terre Haute, Indian 47804, www.mercer-vcs.com



custom-electric.com



Specialty Steel Treating Adds Vacuum Hardening Capacity

May 23, 2019

Commercial heat treater Specialty Steel Treating in East Granby, CT, USA recently added this really impressive Ipsen vacuum furnace which can be seen behind (from the left), Ryan Kollmorgen, Jordan Montgomery, Justin Kollmorgen and Andres Bernal (Ion Heat). Specialty is a family owned commercial heat treater and one of the largest in the USA with large facilities in Farmington Hills, Michigan and Fraser, Michigan. While the Michigan locations of Specialty are very strongly based on the automotive and bearing industries the CT location is quite different in that it focuses on the aerospace and firearms industries. This is a really impressive location and features a number of very impressive vacuum furnace alongside atmosphere equipment. Quite typical of the industry is that fact that Dennis Kollmorgen has run the plant for years and his sons Ryan and Justin, who have both worked for Specialty for quite some time have done a tremendous job in the industry helping to run this plant. Jordan Montgomery a third generation heat treater is also featured in this photo. Andres Bernal (who we can also see in this picture) probably needs no introduction as the CEO of one of the fastest growing Plasma Nitriding supplier in the world.



Cihan Balaban, Fornax Software, Turkey

May 23, 2019

There is a fellow in Turkey by the name of Cihan Balaban who is the “go to man” in Turkey for anything related to the heat treat industry. For many years he was part owner of a company by the name of **Sarvion** which provides everything to do with heat treating, SSI controls, gas burners, alloy components, furnaces and generator catalyst. Over the years we have spent some time with Cihan visiting the large, very sophisticated and growing Turkish heat treat market. The world keeps changing and Cihan recently sold his shares in Sarvion and opened a new company by the name of Fornax Software who surprise, surprise offer products for the heat treating industry <http://www.fornaxsoftware.com/> The photo below was taken about four years back at a Bodycote facility in Turkey, Cihan is second from the left, Matt Cross of SSI, UK is to his left and Gord Montgomery is on the far right.



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Zastava Arms Buys SECO/WARWICK Furnace

May 22, 2019

All the way from Serbia we have this press release about a recent SECO order; *“In addition to aerospace, automotive, and energy industries, defense is one of the sectors where SECO/WARWICK Group provides standard or customized heat processing equipment and technologies. Recently, the company has partnered with Zastava Arms (from Serbia), who purchased a new SECO/WARWICK high temperature box furnace. The furnace will replace dated equipment, providing Zastava Arms with new technology including tighter temperature uniformity within the heating chamber, and fully automated temperature controls. “We chose the SECO/WARWICK technology based on our previous experience and because it is a perfect fit into our Quality Management System by providing the real time control systems that ensure high quality product and profitable operation.*

Zastava Arms has been a supplier to the defense industry for many decades and can stay among top defense suppliers thanks to investments to high quality technology,” said Manager of Department of Technology – Mr. Vladan Živković, Zastava Arms. *“We have enjoyed a long partnership with Zastava Arms and are pleased to continue to supply advanced technology solutions for every heat treatment application. As a technology partner, we are positioned to support our customer’s growth by offering a wide range of service and equipment options especially for the very demanding industries represented by our partner,”* commented Jarosław Talerzak, Vice President of Thermal Segment at SECO/WARWICK.”



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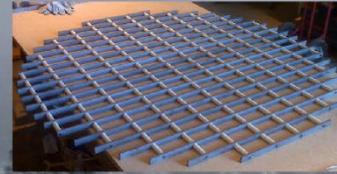
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Bill Gornicki, Diablo Furnaces?

May 21, 2019

Well the news this past Friday was Bill Gornicki parting ways with furnace manufacturer ALD, the news today is that Bill Gornicki is now CEO of furnace manufacturer Diablo Furnaces; *“Bill Gornicki is appointed Chief Executive Officer (CEO) of both Diablo Furnaces and Machine Tool Builders (MTB). May 20th, 2019...Effective immediately, Diablo Furnaces announces the appointment of Bill Gornicki as Chief Executive Officer (CEO) of both Diablo Furnaces and Machine Tool Builders (MTB) based in Machesney Park, Illinois. With 29 years’ experience in the thermal processing industry, Gornicki, brings a fresh perspective with proven results to leverage the dynamic and diversified companies’ offerings of heat-treating furnaces and gear machinery forward to achieve new sales levels. Sustained improvement and long-term growth will be cultivated by Gornicki being intimately focused in operational excellence, expansion of product breadth and*

capabilities in existing and new markets. Please welcome and congratulate Bill Gornicki in this new role. Diablo Furnaces is an original equipment manufacturer (OEM) of IQF (Internal Quench) Furnaces, Tempers, Box, Belt, Continuous, Car Bottom, Rotary, Pit, Washers, and other custom heat-treating equipment required for captive and commercial heat treaters. Machine Tool Builders is a remanufacturer, recontroller and custom-manufacturer of gear shaping, hobbing and grinding machines. MTB also is the North American sales and service representative for Burri GmbH of Germany and Donner+Pfister AG of Switzerland. Burri GmbH manufactures generative grinders and wheel profiling machines, and Donner+Pfister AG manufactures and remanufacturers gear and Maag gear grinding machines. For additional information on this release, contact Anne Miner at 815-636-7855, ext. 223 or 815-558-4542.”



Thermcraft Incorporated. Winston-Salem, North Carolina

May 21, 2019

For years we have been running across Thermcraft at all the various heat treat shows but we have never known a great deal about the company, so when the opportunity presented itself to visit the company we jumped at it. Thermcraft has almost 80 employees in a 75,000 square foot building and what they are very good at is custom designed, electrically heated furnaces, control systems, ovens and high temperature heaters. We very much doubt that they are very often the low bidder because everything we saw was absolutely top end. These pictures should give you a bit of an idea about the firm.



Tom Crafton, Gord Montgomery



Part of the Thermcraft Team including Tom Crafton, President on the right and Bob Reinhart, Sales in the middle.

Monday Morning Briefing

May 20, 2019

We start off with an interview with **Mr. Brian Reid of Park Thermal**. The link to the interview and associated photos can be found on our home page at <https://themonty.com/project/brian-reid-park-thermal/> From Brian Reid and Park Thermal we move on to our friends at **Contour Hardening** in Indianapolis, USA for this announcement; *“Contour is proud to announce the promotion of **Neil Merrell to Vice President** effective immediately. Neil’s proven leadership and more than twenty years of experience with Contour has made him an invaluable member of the Contour team and has fully prepared him to accept a more strategic leadership role as Contour enters a new era in the company’s development. Neil Merrell is only the second person in Contour’s 37-year history to hold the role of Vice President. Contour co-founder, Mike Chaplin, was the first to hold this title at the company’s founding in 1986. “Neil’s a machine. He just never stops.”, Said Ben Crawford, President & CEO, Contour. Crawford added, “Every day he proves just how invaluable he is to our team here at Contour. Speaking for both myself and the Board of Directors, it’s an honor and privilege to offer Neil this long overdue recognition and promotion”. ABOUT CONTOUR HARDENING; Contour (www.contourhardening.com), based in Indianapolis, Indiana, with additional operations in Silao, Mexico, is an innovation-driven company with a strong portfolio of products and services that significantly*



improve heat treat processing techniques for products across multiple industries around the globe.”

Located in the very small town of Blenheim, Canada we find **Dorssers Inc.**, a captive heat treater and manufacturer of pellet mill dies. The company has made our news section a couple of times over the years in the form of press releases for new equipment purchases (*an example from 2003 is below*). The company recently made the news again when they received an award from energy company Enbridge. We mention them today because in this photo you can see the President of the company standing in front of the firm's two SECO bottom load vacuum furnaces. In addition to these units the company also has a very impressive vacuum carburizing system which is relatively new; *“Press Release 2003 Dorssers, Inc., has expanded their heat treat operation with the installation of two SECO/WARWICK Elevator Hearth Vacuum Furnaces with Convection Heating, rotating hearth, and 2 Bar gas cooling system for hardening pellet mill dies in their Blenheim, Ontario manufacturing facility. The furnace hot zones are 60" (1500 mm) diameter x 60" (1500 mm) high, with a 4,200 pound (2000 kg) hearth rating at 24000F(13200C). Dorssers, Inc. is a private corporation specializing in the production of pellet mill die and roll parts for the feed, waste and pulp industry.*



A reader in the UK thought we might be interested in this item about auto parts supplier Xtrac adding vacuum heat treating capacity; *“Transmission technology specialist Xtrac has appointed Piet Daenen into a newly created position of chief operating officer (COO). Daenen joins the company’s leadership team as a full member of the board to help manage its ambitious growth not just in top-level professional motorsport around the world but also in the high-performance automotive sector, where it’s supplying premium and luxury carmakers with advanced transmission systems for hybrid and electric vehicles. Mid-way through*

a significant investment programme Xtrac has recently completed a 27,000 sq. ft (2,510 square metres) factory extension, which takes the total size to 115,000 sq. ft (10,685 square metres) and has already added additional gear cell manufacturing facilities, 5-axis machining and vacuum heat treatment plant. The company is installing further production equipment over the next six months as well as new transmission test cells.



We will follow the previous news item up with another one from the UK; “**ATL Turbine Services** said the investment would increase its heat treatment capacity by 50%. Based in Piper Street, ATL is a gas turbine component repair facility, which services the marine, aviation and industrial sectors. It refurbishes parts to a fully restored condition, giving them the same integrity and durability as new components.

However, with the majority of components requiring heat treatment cycles as part of the repair process, restricted furnace capacity was a barrier to growth for the firm. Chief executive Dale Harris said: “The furnace will increase our heat treatment capacity by 50% and removes the restraint we previously experienced.” In addition to the £400,000 invested in the new furnace, the firm has spent a further £80,000 replacing its computer measuring machine, which will allow testing of component tolerance to a far higher level.



In the US commercial heat treater **Advanced Heat Treat Corp.**, based in Waterloo, Iowa gets mentioned regularly partly because they are one of the largest independent commercials in North America. Lets mention them again today

because of their most recent addition an Induction hardening system seen arriving at their Burton Avenue location in Waterloo, Iowa.



Last week we wandered through the wilds of North Carolina, USA and stumbled upon commercial heat treater **Thermal Metal Treating** in Aberdeen. We would consider this to be an average sized commercial shop and its claim to fame would be the cleanliness. Most of the furnaces are not new but we have never seen equipment so meticulously cleaned and maintained-it was absolutely spotless and in one of the pictures you can see why. The company has one individual whose main job would appear to be washing and painting the equipment on an ongoing basis, we were certainly impressed. If you ever have a desire to see this plant we are very sure that Mark Scott and Greg Ritter would be proud to show you their facility.

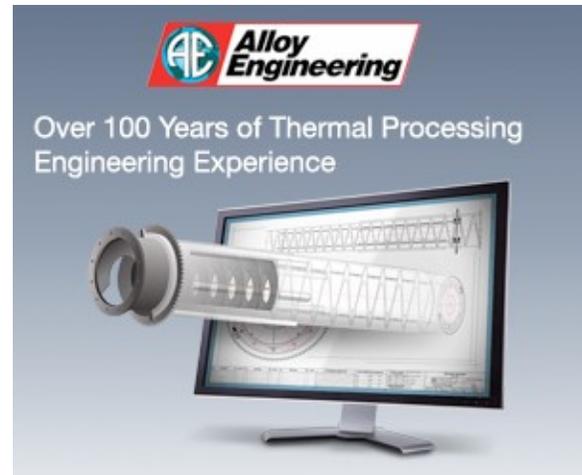


Greg Ritter, VP of Operations, Luther, Mark Scott, President





The eFlo line of Flow Meters



ALD Vacuum Technologies North America, Inc

May 17, 2019

“To our valued customers; ALD Vacuum Technologies North American Furnace Sales and Service organizations have joined together resulting in a single entity responsible for the Marketing, Sales and Services of our product lines including Vacuum Heat Treatment furnaces, Metallurgy furnaces and as well our Coatings and Hot Isothermal Forging equipment. Our new entity, ALD Vacuum Technologies North America, Inc, formed January 1, 2019, and headquartered In East Windsor, CT is responsible for providing those services through our direct sales and service group. We remain committed to our existing customers and continue to advance ALD’s world-class and industry-leading technologies through our North American Company, fully supported by our headquarters: AMG Technologies GmbH.

A transition such as this causes change. One such change in our Heat Treatment furnace sales operation is the departure of Mr. William Gornicki, a longtime associate and colleague of ours who represented our company and products while known as ALD Holcroft and then ALD Vacuum Systems. We will miss Bill’s valuable support, and we wish him the best of luck in his new endeavors.

Our operations in ALD Thermal Treatment companies in Port Huron and Ramos Mexico remain unchanged. These operations continue to provide heat treatment services to the automotive and aerospace industries as they have in the past while developing new opportunities for customers with heat treatment needs. ALD

Vacuum Technologies North America, our corporate headquarters AMG Technologies and our global organization are dedicated to our customer's success with our equipment by continuing to provide representation, technical services, and leading-edge technologies. We look forward to building on our existing relationships with our customers while continuing to advance our future in the markets of Heat Treatment and Metallurgy Technologies. Primary contacts for our products and services may be found on our web site www.ald-vt.com and directly by contacting me:



David Esser: President ALD Vacuum

Technologies North America, Inc. desser@ald-usa.com: 860-254-1004

Mr. Joachim Boss: Director Sales ALD Vacuum Technologies GmbH (AMG Technologies) Joachim.Boss@ald-vt.de

Dr. Klaus.Loeser: Senior Vice President ALD Heat Treatment ALD Vacuum Technologies, GmbH (AMG Technologies) Dr.klaus.loeser@ald-vt.de

Thank you for your continued support and interest in ALD's products and services.

Sincerely,

David Esser

Dr. Klaus Loeser"

East Carolina Metal Treating Expanding

May 16, 2019

In Raleigh, NC, USA we find a good sized commercial heat treat which has been in the news quite a bit recently, mainly because the President, Mr. Jamie Ramm keeps buying new equipment which turns into industry wide press releases. To find out what all the fuss is about we at "The Monty" decided to visit since the last time we were here was roughly 10 years ago. What we found was a 45,000 square foot building with roughly 70 employees and some real nice looking equipment which includes a row of vacuum furnaces, batch IQ furnaces, Nitrex nitriding furnaces and some Induction thrown into the mix.

The company was founded back in 1976 and Jamie has been here for over 30 years. We mention about the company expanding-that is only partly true. The company has a second location, Virginia Metal Treating in Lynchburg, Virginia with 10 employees and this is the location expanding. Land has been purchased and a brand new structure of 20,000 square feet is in the works. Enough of our rambling, we will let these photos tell the story but not before adding that the company had Nadcap, AS 9100 and Appendix B which we learned is a nuclear spec-you learn something every day.



Jamie Ramm, Gord Montgomery



Jamie Ramm, President, Thanh Dang, Production Manager, Abdul Admani, Quality Director, Metallurgist, John Acosta, Shipping Manager



Nitriding Department

Shanghai Advanced Metallurgical Technology Corporation

May 16, 2019

We would like to draw your attention to our most recent advertiser “Shanghai Advanced Metallurgical Technology Corporation” (SAMT) whose banner ad can be found on the right hand side of this page. We have known the Managing Director Mr. Shen Li for many years and have always had a high opinion of him and his company. We expect to hear quite a bit more about the company in the near future.



Industrial Heat Solutions Company Closing

May 15, 2019

Back in 2012 we ran across two super nice guys, Dennis Petrosky and Nick Rosatti who were starting up a small commercial heat treat by the name of Industrial Heat Solutions in Greensburg, PA, USA (you can read the start up history below). Very unfortunately the company just told us they will be closing the doors which is a real shame.

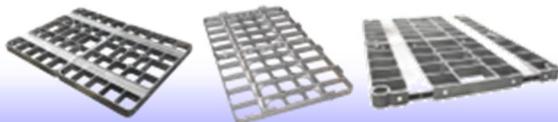
“2012 Press Release; Industrial Heat Solutions (IHS) is a start-up company designed to provide value-added services into the specialty metals industry. This company provides the process of heat treating to the specialty metals used in the aerospace and nuclear industries. IHS provides precise and prompt tempering, annealing and hardening of metallic alloys. With an established quality control system equivalent to ISO 9001 and a fully automated heat treat system, the quality of processing will set a high benchmark from the start. The current facility will allow for expansion plans commensurate with need. The long term outlook of IHS is the controlled growth and profit within an industry that will be sustained for many years to come. Much of the heat treatments that will be performed will be for the U.S. Navy to maintain the fleet nuclear reactors.

Targeted customers are typically metal fabricators within a local or regional area. Many fabricators serve a single primary market such as auto or highway construction and may depend on a few large customers. When the market softens, the fabricator has less demand, in turn reducing demand for coating and finishing companies. IHS will fill the gap in lead times by providing local businesses a means to increase their turnaround rate of production. Operating locally and having the ability to quickly complete the required process, IHS will give these companies a means to be competitive and provide their customers with a higher degree of prompt service. Within Westmoreland County there are over 250 machine shops that require heat treating of some sort throughout the year. Including the surrounding counties almost triples the number of machining facilities to 736 in the Western Pennsylvania region.

IHS will operate as a Pennsylvania Partnership. Dennis Petrosky will serve as the President. Timothy Hebrank will serve as the Quality Control Manager. Nicolas Rosatti will serve as the COO and Director of Sales. Their management team has 25 years of combined experience in this industrial field, with 15 of these years at the industrial management level.”



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IHEA Announces 2019-20 Board of Directors and Officers

May 14, 2019

INDEPENDENCE, KY., May 14, 2019 – The Industrial Heating Equipment Association (IHEA) recently announced its 2019 – 2020 Board of Directors and



*Executive Officers. IHEA's President is **Michael Stowe** of Advanced Energy; **Scott Bishop** of Alabama Power Company assumes the role of Vice-President; and **Jeff Valuck** of Surface Combustion was elected Treasurer. Serving as Past President is **Daniel Llaguno** of Nutec Bickley. IHEA also welcomed three new board members: **Gary Berwick** of Dry Coolers, **Bob Fincken** of Super Systems, Inc., and **Doug Glenn**. IHEA President Michael*

Stowe comments, "At our recent annual meeting in Sarasota, FL, we were very excited to officially appoint three new board members. They will each serve a three-year term, with service through the 2022 annual meeting. These folks represent dozens of years of process heating experience across several different markets. IHEA is very fortunate to have them serving on our board." Gary Berwick is a veteran in the heat-treating industry with over 30 years' experience. He has been involved with IHEA since the early 1990s and stays active through his engineered sales role with Dry Coolers. Berwick is also a member of the Metal Treating Institute and the American Society of Manufacturing. IHEA is fortunate to have Gary's valuable contributions on the Education committee as well.

*IHEA gains a respected industry professional in Bob Fincken of Super Systems Inc. Fincken is their national sales manager for all of North America with 30 years of experience in controls and sensors. He is a great asset on IHEA's Safety Standards and Codes committee and provides input for IHEA's educational tools to support the association's knowledge base. To complete the Board of Directors for 2019 – 2020, IHEA is proud to name those continuing their service: **B.J. Bernard**, Surface Combustion, Inc.; **Brian Kelly**, Honeywell Thermal Solutions; **Francis Liebens**, SOLO Swiss Group, **John Podach**, Fostoria Process Equipment, a div. of TPI Corp., **Jason Safarz**, Selas Heat Technology Co. LLC; and **John Stanley**, Karl Dungs, Inc.*



Kern Liebers, Mexico

May 14, 2019

Kern Liebers is a company which intrigues us as they seem to be that very rare of breeds, a company which successfully combines manufacturing with captive and commercial heat treating. Recently they have been promoting themselves with press releases such as this combined with a photo of the plant in Mexico. *“We present the two plants KERN-LIEBERS MEXICO in the state of Queretaro. One of them is dedicated to the production of stampings, stampings and heat treatments, while the other is focused on springs. More than 540 employees work in these facilities of 22.400 square meters of extension, where we offer amenities such as a gym for the exclusive use of employees and their families, among others.”* To go with this news item we include our original news item from a few months ago along with a photo of part of their heat treating department.

“October 2018 PRESS RELEASE; Do Manufacturers Make Good Commercial Heat Treaters? Kern Liebers; Generally our opinion is that manufacturers who have in house heat treating capacity make poor commercial heat treaters for a wide variety of

reasons. However having said that we very recently visited a manufacturer who for years now has been offering commercial heat treating from their in house heat treating departments and has been very successful at it. KERN-LIEBERS is a medium-sized family owned company based in southwest Germany who

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specializes in the production of highly complex strip and wire parts and assemblies. The KERN-LIEBERS group of companies develops and manufactures precision products at over 50 locations around the world and currently 6 of these locations have in house heat treating capacity which offer commercial heat treating.

Two weeks ago we visited the Schramberg, Germany location which has the ability to offer Gas Nitriding, Nitrocarburizing – also of stainless steels, case hardening, carburizing, austempering and vacuum hardening. One look at the equipment tells us why the company is successful at commercial heat treating, it is new and varied. In addition as Kern Liebers services a number of different industries they have a wide variety of certifications including IATF 16949 and CQI9 to name a few. While a majority of the heat treat capacity is dedicated to their own products by sales volume, the commercial heat treating side of the business is substantial and contributes a significant part on it. It is important to note that while the company probably did not set out to be a commercial heat treater they certainly treat it as an independent profit center with worldwide heat treatment . Mrs. Li Haas li.haas@kern-liebers.de is working for the sales department in Germany, who is connected to all the heat treatment teams of the other locations. Other locations offering commercial heat treating include China – Taicang near Shanghai and Tianjin near Beijing, India – Tumkur near Bangalore, Czech Republic – Budweis, and Mexico – Querétaro .

While many of the processes are duplicated in the various locations some such as Plasma Nitriding is only available in one location (Taicang/Tianjin, China) or Induction Hardening which is only available in India and the Czech Republic. As we speak the company is making major investments in many of their plants, including two new pit furnaces from Rohde Furnaces in Germany-one for the Mexico location and another for the Czech Republic. Rohde is also in the process of installing 2 new vacuum nitriding furnaces in Mexico. Rohde has already equipped all worldwide Kern Liebers plants with either pit or chamber furnaces. Other planned additions include more of an emphasis on nitriding capacity especially in China and especially as it relates to heat treating of stainless steels. So while we feel that most captive heat treaters do not make a good commercial heat treater we can point to Kern Liebers and say; “here is a company that manufactures a very good product and is also a darn good commercial heat treater.”



Unitherm Pit Carburizing Furnace Sells

May 14, 2019

Pit carburizing furnaces on the used market are rather unusual items, when they are available nobody wants them, when everybody wants one they cannot be found anywhere. In this particular case we were aware of an excellent condition Unitherm pit carburizing furnace just 4 years old with working dimensions of 36" diameter X 72" deep on the used market in the USA. As it turns out it turned out to be a perfect fit for another North American heat treater and a deal was promptly concluded even though the line was on the market for a relatively short period of time.



Monday Morning Briefing

May 13, 2019

Commercial heat treater **Thermetco** in Canada has been gradually moving into a new 55,000 square foot facility over the past two years and the move is now almost completed as we saw last week. The operation now has over 110 employees and

has available most heat treating processes. We're going to let these photos tell the story of the company although we will add some thoughts. In the first photo below we see the owner **Mr. Vincent Houle** along with **Cedrick Lamarre** and **Yannis Thierrey** in the carburizing department. When we asked Vincent how the move went his answer was that this will be the last move he ever makes. In the second photo we see a brand new BMI Vacuum Nitriding furnace which we mentioned in passing this past Friday. We would guess this is the largest **BMI** vacuum installation in North America. We also have in our third photo an overview of the whole plant which will complete our story about **Thermetco** at least for today.



Thursday May 16 **Continental Castings** in Palmyra, MO, will auctioning off a bunch of equipment. Included in the offerings is a Wheelabrator and a few ovens. None of these items look real exciting but there is always a demand for Wheelabrators and ovens so they will probably sell for at least a few dollars. In Cleveland, USA commercial heat treater **Kowalski Heat Treating** is expanding as we can see in this note. Kowalski is a family owned business offering a number of different processes including nitriding, vacuum heat treating and salt processing. The company is lead by **Mr. Stephen Kowalski** who is almost annoying because he is so happy, enthusiastic and energetic (but hey we can't help but like the guy); *“Just west of the apartment row that is shaping up on lower Detroit Avenue in Ohio City, Conveyer & Caster and Kowalski Heat Treating occupied adjoining properties where they have worked out among themselves a solution to the same problem: finding room to grow. The outcome for the north end of the block between*

West 33rd and West 38th streets easily might have been different. Owners of Conveyer & Caster sold the company's three small buildings to Kowalski after moving to Westlake. Indeed, Conveyer & Caster's owners, the Stohr family, rebuffed three unsolicited offers from real estate developers produced by word-of-mouth reports that the company, through Storefront LLC, had paid \$2.9 million for a building at 29570 Clemens Road in Westlake. Instead, an affiliate formed by Stephen Kowalski, president of Kowalski Heat Treating, submitted the best offer for Conveyer & Caster's three buildings. They will provide room to expand for the family-owned Kowalski, which already occupies six buildings that it has purchased since setting up shop in 1975 at 3611 Detroit Ave."



AMETEK Superior Tube in PA has been reawarded Nadcap accreditation for heat treating and brazing; *"AMETEK SMP Superior Tube, a leading manufacturer of small diameter precision metal tubing for the aerospace and defense industries as well as other sectors, has announced two successful reaccreditations from Nadcap, formerly known as the National Aerospace and Defense Contractors Accreditation Program. Superior Tube met all Nadcap's requirements based on the exacting standards around heat treating and welding/brazing. Nadcap provides independent accreditation and certification of special manufacturing processes and products to companies working across the aerospace and defense sectors. Superior Tube was re-awarded the heat treating and welding/brazing reaccreditations based on its ongoing commitment to continual improvement in the aerospace industry, as demonstrated in specific manufacturing processes. These include chemical processing, metal coatings, conventional machining, heat treating, non-destructive testing and welding."*



Stack Metallurgical out in the Northwestern US announced last year that they were investing in a new facility for their brand new “HIP” system. They are moving right along as you can see here; *“Stack HIP is coming! Perfect spring weather in Oregon has construction of our new HIP facility ahead-of-schedule. That big hole in the ground is the future home of a Quintus “mega-HIP” which will offer the largest high-pressure HIP capacity in North America. We look forward to the installation and qualification of our new equipment this fall, and the launch of commercial services in 2020.”*



In upcoming news you can look forward to profiles about captive and commercial heat treaters in North Carolina, USA next week. First up is **East Carolina Heat Treating** in Raleigh, North Carolina this Wednesday followed by several industry suppliers along with hopefully a captive heat treater or two.



CRONITE
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Dedicated Fixtures
Automation Ready
www.cronite-nac.com

The advertisement for Cronite features the company logo at the top, which consists of a stylized orange and black 'C' followed by the word 'RONITE' in a bold, black, sans-serif font. Below the logo is the tagline 'Better by design'. The main text 'Dedicated Fixtures' and 'Automation Ready' is positioned above two images of metal fixtures. The first image shows a white metal fixture with several green spherical objects inside. The second image shows a stack of similar metal fixtures. The website address 'www.cronite-nac.com' is at the bottom.

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The advertisement for ECM USA features a photograph of a large industrial furnace with its circular door open, showing the interior. To the right of the image is the company logo, which includes a stylized orange and yellow cube followed by 'ECM USA' and 'VACUUM FURNACES' below it. A list of services is provided in a bold, black font: 'Low Pressure', 'Vacuum Carburizing', 'Gas Quenching', 'Oil Quenching', 'Neutral Hardening', 'Carbonitriding', and 'Annealing...and more!'. At the bottom, it states 'GLOBAL MANUFACTURER OF INDUSTRIAL FURNACES' and provides the website 'www.ecm-usa.com' and phone number '(262) 605-4810'.

Pyradia, St. Hubert, Canada

May 10, 2019

Furnace and oven builder Pyradia in Canada is a company we have been bumping into more and more over the years, so much so that we decided a visit was again in order this time along with **Bob Fincken** of SSI. The company has been around for over 40 years during which time they have always offered basic ovens but it would appear that as time progresses Pyradia is getting more and more involved with higher temperature furnaces largely for the aerospace and aluminum industries although they have also built carburizing systems in conjunction with their Swiss partner Codere (*whose banner ad can be found on this page*). A visit this week showed several systems all capable of over 2,000 F and all going to aerospace customers (*unfortunately we just missed seeing a couple of big “carbottoms” which just shipped*). We went through our notes about the company and came across this press release from 2016 which mentions the promotions of **Carl Martel** and **David Ross** who can be seen in these photos.

“February 2016 Press Release; More than 40 years after creating and building-up Pyradia, co-founders Michel Hémond and Mario Bouthillier, respectively President and Vice-President of the board, are proud to announce the following nominations. Cumulating over 20 years of experience at Pyradia with 10 years as R&D and Engineering Director, Mathieu Laguë becomes Managing director. With 12 years of experience working for Pyradia, Carl Martel, previously Web Converting Product Manager, takes responsibility for sales management. David Ross, previously Industrial Ovens Technical Leader, has also been with Pyradia for over 12 years and is promoted R&D and Engineering manager. Geneviève Bousquet, Administration manager et Claude Beauchemin, Production manager, already in place, complete the management team. Pyradia’s mission remain the same and the new management team will continue operating with the same objectives in mind. Pyradia is a manufacturer of heat treating, web converting and dust collection industrial equipment.





David Ross, Bob Fincken, Carl Martel



David Ross, Engineering Manager, Pyradia, Carl Martel, Sales Manager, Pyradia, Bob Fincken, Sales Manager, SSI

BMI Vacuum Nitrider

May 10, 2019

A relatively unusual sight in North America is that of a BMI vacuum furnace. Located in France BMI is a manufacturer of vacuum furnaces and good ones at that but you see very few of them in North America which makes the sight of several in a row a very unusual sight. In this photo you see a brand new BMI vacuum nitrider which is installed in North America alongside several BMI vacuum tempers. Monday we will give you some more details about the North American company which has this furnace and several others installed and in operation.



Metcor, St. Eustache, Canada

May 9, 2019

Today we visited a commercial heat treater in the Canadian province of Quebec to see what they have been up to lately. As it turns out quite a bit. The company recently made a number of substantial investments which include a really impressive TOCCO single spindle Induction scanner able to handle parts up to 54” long and a very large Solar Vacuum tempering furnace both of which are shown below along with a photo of their Pyradia drop bottom oven for processing aluminum parts. The company is very proud of the fact that the company is NADCAP approved although according to one of the owners, John Spencer the indirect labor costs involved in NADCAP outweigh the direct labor costs. In other words there is a tremendous amount of investment involved in achieving and continuing with NADCAP certification which is not apparent to the untrained eye.



Andrea Schienbein, Ipsen International, France

May 9, 2019

We always run across our good friend Andrea at all of the European Heat Treat Exhibitions and indeed we always look forward to it. As it turns out Andrea recently moved from After Sales Service at SECO WARWICK to After Sales Service at Ipsen International. Based in France Andrea has also worked at other heat treat suppliers including Avion.



Used Large Batch IQ Furnaces North America

May 8, 2019

Over the years the most common heat treating furnace in North America the “Batch Integral Quench Furnace” (also known as a sealed quench or controlled atmosphere furnace) has grown from a slim, svelte size of 30” wide X 48” deep X 30” high to the larger 36” X 48” X 36” configuration. Ask any new furnace builder what is selling these days and they will tell you that except for certain areas such as the US west coast all heat treaters want the larger size, 3,500 pound capacity furnaces.

What this means of course is that the demand for used furnaces this size has also increased which brings us to the point of this story which is that there will be a number of this size of furnace coming on to the used market in the next little while, both gas and electrically heated. They come mainly from captive heat treaters with surplus capacity and will be sold through a few used equipment dealers. The question is will enough come on the market to depress pricing? We think not, adding 10 or 20 used furnaces to a market as large as North America will have little effect and probably none at all on the new market as most heat treaters either buy new or used with few seriously considering both options.



North American Cutting Tool Manufacturer Buys Another SECO/VACUUM Tempering Furnace

May 7, 2019

To go with this press release from SECO/WARWICK we have this photo. What you see in the picture is an older version of the furnace (manufacturing date 2006

to be exact) mentioned below which is currently installed at a Timken Bearing facility in the US;

“A global manufacturer of cutting tools has purchased an additional vacuum temper furnace from Pennsylvania based [SECO/VACUUM](#) (SVT), a [SECO/WARWICK](#) company, for its North American manufacturing operations. The new furnace, which will be used for tempering and stress relieving metal parts, is part of the company’s growing manufacturing expansion and complements another commissioned earlier in 2019 at this facility. The horizontal, front-loading furnace is purpose-built to accommodate the customer’s needs with an all-metal hot zone for clean vacuum processing. As with the earlier furnaces, one of which was installed at a different facility, the new furnace includes a convection fan and a pressurized gas quench for quick cooling. The repeat order is a testament to SVT’s on-time performance and the furnace meeting all promised parameters.”



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Quintus Technologies HIP Order

May 7, 2019

This press release from hot isostatic press manufacturer Quintus refers to an order the company received from an additive manufacturing company. It remains to be seen how heat treating fits into this very interesting new technology but for the time being we mention this because several commercial heat treaters in North America recently placed orders with the company. We can also refer interested readers to an interview we recently did with the CEO of the company <https://themonty.com/mr-jan-soderstrom-quintus-technologies-interview/>

“Quintus Technologies will deliver a hot isostatic press (HIP) with uniform rapid quenching (URQ) to the FIT Additive Manufacturing Group. Coming online in September 2019 at FIT’s main facility in Lupburg, Germany, the HIP will enable the additive-manufacturing (AM) specialist to boost productivity while meeting the heightened industrial requirements for 3D-printed metal parts. Operating at a temperature of 2552°F (1400°C) and pressure of 30,000 psi (2,070 bar), the press has a capacity of 264 pounds (120 kg) per load in a work zone that measures 10.6 inches (270 mm) in diameter and 19.7 inches (500 mm) in height. The proprietary URQ feature allows heat treatment and cooling to be combined in a single process, known as high-pressure heat treatment (HPHT). HPHT and HIP are used for the consolidation and densification of metal, ceramic and plastic parts, producing a maximum theoretical density, ductility and fatigue resistance in high-performance materials.”



Monday Morning Briefing

May 5, 2019

AMG Advanced Metallurgical Group NV Reports First Quarter 2019 Results. If you're interested AMG Group reported their first quarter financial results which can

be found at <https://finance.yahoo.com/news/amg-advanced-metallurgical-group-n-050100718.html> AMG is the parent company of ALD which is a well known name in the furnace manufacturing business, especially when it comes to vacuum carburizing. This photo shows a brand new *Ion Heat* (Plasma) nitridier installed at a gear manufacturer in the USA. This unit which was manufactured by Ion Heat just recently entered production and we will be able to provide a lot more details about the unit and the user in a few short weeks.



Commercial heat treater **Southwest Metal Treating** down in Fort Worth, Texas, USA just got finished installing this new 9,000 CFH Endothermic generator provided by **McLaughlin Furnace Group**. This is a True-Mix 9000 which has a turndown to 800CFH. In this photo we see on the right *Ryan Fussell*, President of Southwest and on his right *Jeff McLaughlin* of *McLaughlin Furnace Group*.



Last summer we told you about the new **Applied Process** (ADI) facility in Arkansas-we have this photo of the new location to go along with our description from last year; *“This will be one of the largest new heat treating facility investments in North America in 2018. “Livonia, Mich.-based Applied Process opened its doors to the public to celebrate the beginning of operations in Fort Smith. The company purchased and renovated an abandoned building at 5400 North 6th Street for \$2.751 million starting in January. The overall expansion has been between \$8 million and \$10 million, counting the addition of industrial equipment. “We started as a half-size facility with three furnaces, and we’ll grow out to six, says Rusty*

Rainbolt, Plant Manager ” he added. The current plant size is about 51,000 square feet.



What’s upcoming? Later this week our home page is going to feature an interview with **Mr. Brian Reid**, President of furnace manufacturing company **Park Thermal**, a company which has been around for over 50 years-we’re sure Brian will tell us exactly how long the company has been around. We’re also going to have a few pictures from another furnace manufacturer, **Pyradia** located just outside of Montreal along with some pictures from a couple of companies in the area doing heat treating. It’s still a few weeks out but also upcoming will be profiles of a few captive and commercial heat treaters in *Germany*, which is always interesting. Going back just a bit we had a news item about commercial heat treater **Thermex** out in Alberta adding a second SECO Vacuum nitridier. Well it is now up and running and we have this photo of the unit.



What’s it worth? Now this is an item always in very high demand in North America, an electrically heated temper with working dimension of 36” X 48” X 36” capable of 1400F and with nitrogen addition. Manufactured by Surface Combustion in 1994 this is a “**Unidraw**” and it is in very good condition. We would suggest that it is worth \$39,000 USD and will sell fairly quickly, we will see how good our prediction is.



Heat Treating in the US Southeast

May 3, 2019

We have always considered that captive and commercial heat treating in the US Southeast was the “Mecca” of heat treating with so many manufacturers and their heat treating needs moving into the region. Well even paradise has issues as you can see;

Eaton Hydraulics in Greenwood, SC closed their In-house Heat Treat department and disposed of the equipment. The majority of the product they were heat treating was transferred to their plant in Mexico. The few parts that they maintained are being heat treated locally at a commercial shop. All the employees were transferred to other departments within the plant.

Richmond/Ohio Gear (Regal Beloit) in Liberty, SC also closed down their heat treat and disposed of the equipment late last year. They outsourced their heat treating to a sister plant and a local commercial heat treat. They had one of the oldest Surface Combustion Pushers that we know was still in operation. 1952 3-Row Pusher that operated everyday until the department closed.





Kevin Walters, OMG Correction

May 2, 2019

Recently we had a news item suggesting that Kevin Walters of captive heat treater



OMG in Agawam, Massachusetts, USA was now working at commercial heat treater Bodycote. As it turns out this information was incorrect and was 100% our mistake. We very sincerely apologize to Kevin for confusing his name with that of Dan Walters at Bodycote.

Aalberts Further Expands Surface Treatment Network in North America

May 2, 2019

In Europe Aalberts Industries based in the Netherlands is probably the second largest commercial heat treater based upon their Hauck Heat Treatment division (details at <https://themonty.com/largest-european-commercial-heat-treaters-february-2019/>) While the Aalberts and Hauck names are not well known in North America the company has quietly expanded their presence over the years and now has several heat treat and surface coating facilities including *Accurate Brazing* in NH and SC. While this acquisition is more surface treatment than heat treating it

shows that the company continues to look for investment opportunities in the heat treatment and surface treatment market in North America.

“Aalberts N.V. has reached an agreement to acquire 100% of the shares of Precision Plating Company, Inc (PPC) based in Chicago, USA, generating an annual revenue of approximately USD 36 million with 150 FTE. Founded in 1904, PPC is active in the field of reel-to-reel plating and barrel & rack plating processes with a strong focus on R&D, customised engineering and innovation. The company develops and builds its own machinery to continuously improve the efficiency of the plating processes. The customers of PPC are active in general industries, aerospace and automotive end markets. PPC’s reel-to-reel surface treatment technology is similar to the technology of PEM in France, acquired in 2018. They will work closely together to exchange technology, processes and machine know-how, to further improve their performance and to service global key accounts in Europe and North America. The existing experienced management team of PPC, Gary Belmonti and Robert Zitella, will drive the expansion plan to grow the business in the coming years, utilising the footprint, investment power and knowledge of Aalberts.”



Car bottom Furnace Installed in the US Southeast

May 1, 2019

We are looking for more details to go with this news item but for the time being this is what we know. *McLaughlin Furnace Group* just built and installed this car bottom furnace at a facility in the US Southeast. The furnace has 2 cars with a transfer car that is in a pit that moves side to side . The furnace has working dimensions of 10' Wide x 10' High x 24' Long and can handle a load of 100,000 pounds. Temperature range is from 250F to 2150F with a uniformity of +/-15F and the furnace was designed and built in 6 months.



Wisconsin Oven Corporation Announces the Shipment of Five Ovens to East Carolina Metal Treating

May 1, 2019

“EAST TROY, Wisc., April 29, 2019 /PRNewswire-PRWeb/ — Wisconsin Oven Corporation announced the shipment of five (5) Electrically Heated Standard Draw Batch Series Ovens to East Carolina Metal Treating in Raleigh, N.C. The [standard draw batch ovens \(SDB ovens\)](#) will be used for stress relieving and have maximum oven operating temperatures of 1,250° F. The basket dimensions of each oven are 2'0" wide x 3'0" long x 2'0" high. Guaranteed temperature uniformity of $\pm 10^{\circ}\text{F}$ at set points 300°F, 750°F, and 1,250°F was documented with a nine (9) point temperature uniformity survey in empty oven chambers under static operating conditions. “East Carolina Metal Treating has been incredible to work with, and we look forward to working with them for many years to come. ECMT even filmed the installation process for these five batch ovens, and the time lapse video is available

to watch on both the WOC and ECMT Facebook pages.” – Mark Schahczinski, Sales Engineer”



Dr. Valery Rudnev, Woodside Lecture, ASM Detroit

May 1, 2019

“Dr. Valery Rudnev, FASM IFHTSE Fellow, awarded to be this year’s speaker at the Woodside Lecture, of the Detroit Chapter of ASM. This prestigious invitation is a great honor, as the Woodside Lecture is named for William P. Woodside, the founder of ASM in Detroit (1913). Dr. Rudnev will be discussing “Recent Theoretical and Practical Novelties in Induction Heat Treatment.” Further info regarding the meaning and history of the Woodside Lectures can be found on page # 2 of announcement below. All of us at Inductoheat are extremely proud of Dr. Rudnev and this recognition, and look forward to this lecture. The 77th Woodside Lecture will be held at the Burton Manor (27777 Schoolcraft, Livonia, MI 48150) Monday, May 13, 2019 from 5:30 – 8:00 p.m.

Dr. Valery Rudnev is the Director of Science & Technology at Inductoheat, Inc., an Inductotherm Group Company. He is considered by many as one of the leading global figures in the induction heating and heat-treating industry. Dr. Rudnev has more than 40 years of experience and is known within the ASM Int’l and among induction heating professionals as “Professor Induction.” Dr. Rudnev has been elected as a Fellow of both: ASM Int’l and International Federation for Heat Treatment and Surface Engineering (IFHTSE). His credits include a great deal of “know-how,” more than 50 patents and inventions (U.S. and International) and more than 250 engineering/scientific publications.”



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BATCH IQ FURNACES

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

Item#IQ466 Beavermatic Batch IQ Furnace 36" X 48" X 36"

Built in 2012 by Beavermatic this is a gas fired batch IQ furnace with working dimensions of 36" X 48" X 36" and a load capacity of 4,000 pounds. Updated SSI controls including touch screens added in 2015. Redundant probe system and Atmosphere Engineering electronic flowmeters. SBS quench oil cooler and oil filter. Footprint 12' wide X 16' deep. Rollers on 22" centres. Installed but not in operation. Currently set up for endothermic atmosphere. Also available is a Beavermatic temper and dunk/spray washer. Excellent condition and ready to go.

Asking Price \$125,000 USD

<https://themonty.com/project/itemiq466-beavermatic-batch-iq-furnace-36-x-48-x-36/>

Item#IQ465 Surface Combustion "Super 36" Batch IQ Furnace

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

Asking Price \$160,000 USD

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

Item#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#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

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#B473 Pit Carburizing Furnaces (2 available)

Manufactured by Surface Combustion these are gas fired units with an operating temperature of 1750 F. SSI controls. Working dimensions of 48" X 72". Endo atmosphere with recirculating fan in the bottom. Currently installed but not in use. Excellent condition.

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

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

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

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

For Pricing Please Contact Jordan@themonty.com

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

Item#B471 Lindberg Pit Nitrider

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

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

Item#B452 AHT Fluidized Bed Furnace

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

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

Item#B448 Kleenair Products Tip Up Style Furnaces

Tip Up Furnaces (3 available). Manufactured by Kleenair Products these “Tip Up” style furnaces have working dimensions of 60” wide X 60” high X 72” long. Natural gas heating-1200CFH. Maximum temperature 1500F & 2000F. 460/6/60 electrical. External dimensions of 8’W x 10’6”H (closed) x 14’L Each, 13’6”H when open. Controls: Temperature controls are missing. There is one (1) control cabinet which houses the flame relay modules, motor starters etc. and is common to all three (3) furnaces. Description: Currently available are two (2) 1500°F furnaces and one (1) 2000°F furnace. There is also one (1) loader and one (1) quench tank. Furnaces are ceramic fiber lined with Eclipse “TJ” direct fired burners. Burners fire from top rear and bottom front under the refractory piers. Dual hydraulic cylinders open/close the furnace cover. One (1) common hydraulic power unit for all three (3) furnaces. We will separate the line to sell individually or as a whole. We can provide hydraulic power units for each furnace. Very good condition.

Asking Price \$55,000 USD Each

or

\$150,000 USD For All Three

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

Item#B436 Lindberg Pit Gas Nitrider

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

Asking Price \$50,000 USD

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

Item#B426 Plateg Plasma Nitriding Unit

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

Asking Price \$98,000 Euro

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

Item#B415 J.L.Becker Car Bottom

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

Asking Price \$95,000 USD

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

Box Furnaces

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Item#BOX466 Grieve Top Loading Furnace

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

Asking Price \$14,500 USD

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

Item#BOX465 Electra Box Furnace

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

area is a Robicon SCR to control the elements and a high limit contactor. A voltage reduction transformer is mounted on the framework under the furnace chamber.

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#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#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

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#C343 48" Diameter Rotary Hearth Furnace

Manufactured by "Erco" this is a model "Erco FRH 48" rotary hearth furnace. Electrically heated 480 volt, 3 phase 60 cycle. 48" diameter with a single 15"X 12" high door. Appears to be in good condition. Ceramic motorized hearth, brick lined heat chamber with heavy gauge NiChrome ribbon elements, fibre lined lift off roof, air operated foot pedal, 6.5" thick brick lined door.

Asking Price \$12,500 USD

<https://themonty.com/project/48-diameter-rotary-hearth-furnace/>

Item#C342 Two CM High Temperature Pusher Furnaces

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

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

Asking Price: \$23,450.00

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

Asking Price: \$22,550.00

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

Item#C341 CI Hayes Mesh Belt Furnace

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

Asking Price 18,000 USD Loaded On A Truck

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

Item#C340 CI Hayes Mesh Belt Brazing Furnace

Manufactured by CI Hayes this is a continuous mesh belt brazing furnace with working dimensions of 6" wide X 54" long X 3" high. Model LACMB 030654, Serial number 16101 Electrically heated-47KW. Operating temperature of 2100F. Mesh belt is a tight Weave mesh. Includes; belt, full alloy muffle, NiChrome ribbon heating elements, built-in 150 CFH ammonia dissociator, 8' water cooled exit zone and Vari-speed belt drive. Temperature controls, furnace mounted.

Panel with Honeywell digital controls and overtemps. Includes spare elements. Very good condition.

Asking Price 25,000 USD

<https://themonty.com/project/itemc340-ci-hayes-mesh-belt-brazing-furnace/>

Item#C339 Can Eng Mesh Belt Furnace

Operating temp. to 2050 F. Work zone: 18" wide x 12" high x 132" heated, 33' stainless steel cooling section. Power: 575 volt, 3 phase. 176 KW. 2 zone temperature control. Brick lined chamber. Silicon carbide heating elements above and under the belt. Silicon carbide hearth tiles. 2 tap transformers. Approximate overall size: 8' wide x 7' high x 60' long.

Asking Price 14,900 USD

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

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

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

Asking Price \$250,000 USD

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

Item#C335 SOLO Compact Belt Furnace

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

For Pricing Please Contact Jordan@themonty.com

<https://themonty.com/project/itemc335-solo-compact-belt-furnace/>

Item#C324 C.I. Hayes Mesh Belt Furnace

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

Asking Price \$49,500 USD

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

Item#C323 Aichelin Cast Link Furnace Line

The line consists of a loading table, cast link belt hardening furnace, oil quench, cross conveyor, post wash and two continuous tempering furnaces. High belt is 24" wide X 300" long with a capacity of 336 Kg/h. Nitrogen/Methanol atmosphere. Electrically heated 300 kW. Operating temperature of 1650F.

Quench oil tank holds 7,000 litres. Air/oil quench oil cooler. Post wash has oil skimmer. Both tempering furnaces are electrically heated, 57 kW each. Belt widths 20" X 250" long. Maximum operating temperature of 575F. Installed in 2005 and used for processing automotive bearings. Recently removed from operation and now in indoor storage. Excellent condition.

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

Item#C321 Ipsen Austempering System

Ipsen Model SG500, S/N52822. Shaker hearth style hardening furnace is capable of 500 pounds/hour, 1850F operating temperature, gas fired 800,000 BTU's/hour with an 18" wide tray. Temper has an operating temperature of 800F and a heat input of 300,000 BTU's. Controls on both are Honeywell UDC units. Entire system consists of a magnetic conveyor loading system, Ipsen shaker-feeder-hopper. Mitsubishi variable speed AC drive on salt conveyors, 900 gallon wash tank with 30" conveyor and 280 gallon rust inhibitor tank with 32" conveyor. Currently installed but not in production. System is in reasonable condition but has not been used for some time.

Asking Price \$20,000 USD
<https://themonty.com/project/itemc321-ipsen-austempering-system/>

Item#C314 Wellman Roller Hearth Furnace

Manufactured by Wellman in 1982. Model #AL-81-180 RH, S/N 180. Working dimensions of 60" Wide x 42' Long x 14" High – 4800#/HR. Electric – 480/3/60 – 469 KW (over (4) Zones of Control). Operating temperature of 1650° F. Brick Lined Atmosphere Capable Roller Hearth Furnace complete with (4) Zones of Control, Heating Elements above and below Rolls, Transformers, 25' Slow Cool Chamber (Air Cooled with Fans), and Variable Speed Drive. Free Standing

Control Panels with Watlow Digital Controllers ((1) Per Zone), Watlow High Limits, and SCR Power Controls. Overall dimensions; Entrance Chamber: 12' Wide x 14' Long x 10' 6" High. High Heat Chamber: 10' 6" Wide x 30' Long x 10' 6" High. Cooling Zone: 12' Wide x 27' Long x 10' 6" High. Approximate weight 80,000 pounds. Very good condition.

Asking Price \$225,000 USD

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

Item#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

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Item#T367 Beavermatic Temper Furnace

Manufactured by Beavermatic in 2011 this is an electrically heated temper with an operating range of 300-1400F. Working dimensions of 36" X 48" X 36" with a load capacity of 4,000 F. Pneumatic actuated front door, motorized infeed conveyor and combustion blower. Controls updated in 2015 by SSI to include touch screen control. Atmosphere Engineering electronic flow meter for nitrogen addition. Installed but not in use. Excellent condition.

Asking Price \$45,000 USD

<https://themonty.com/project/itemt367-beavermatic-temper-furnace/>

Item#T366 Wisconsin Temper Oven

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

Asking Price \$39,950 USD

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

Item#T365 Surface Combustion Unidraw

Surface Combustion "Unidraw" tempers built in 1993 (2 available). Electrically heated and rated for 300F-1400F. Working dimensions of 36" X 48" X 36" and a load capacity of 3500 pounds. Pneumatically actuated door, roller hearth

conveyor, recirculating fan. Updated SSI touch screen controls (2015, last calibrated 2016). Set up for Nitrogen addition with Atmosphere Engineering electronic flow meter. Roller rails on 22 1/2" centres. 50 1/2" from floor to top of rollers. Requires roughly 9' width X 10' deep. Very good condition. Installed but not in use.

Asking Price \$39,000 USD

<https://themonty.com/project/itemt365-surface-combustion-unidraw/>

Item#T364 Surface Combustion "Unidraw"

Surface Combustion "Unidraw" temper built in 1994. Electrically heated and rated for 300F-1400F. Working dimensions of 36" X 48" X 36" and a load capacity of 3500 pounds. Pneumatically actuated door, roller hearth conveyor and recirculating fan. Updated SSI touch screen controls. Set up for Nitrogen addition. Very good condition. Installed but not in use.

Asking Price \$39,000 USD

<https://themonty.com/project/itemt364-surface-combustion-unidraw/>

Item#T363 Despatch Tempering Furnace

TYPE OF EQUIPMENT: Box Tempering Furnace

MANUFACTURER: Despatch

MODEL NO: WB-73

SERIAL NO: 102835

EFFECTIVE WORKING DIMENSIONS: 42" Wide x 72" Deep x 36" High

FUEL: Electric – 460/3/60 – 120 KW

TEMPERATURE RANGE: 1350° F

DESCRIPTION: Stainless Steel Lined Recirculating Box Tempering Furnace complete with (2) Top-Mounted Alloy Recirculating Fans each with 5 H.P. Fan Motors, Alloy Conveyor Roller Hearth, complete New Set of Heating Elements, and Vertical Rising Pneumatic Front Door.

INSTRUMENTATION: Side-Mounted Control Panel complete with Koyo Digital Temperature Controller, Allen Bradley High Limit, and Magnetics SCR Power Controller (210 Amps).

CONDITION: Very Good

OVERALL DIMENSIONS: 103" Wide x 93" Deep x 11'8" High

APPROX. WEIGHT: 9,000 lbs.

Asking Price \$54,500 USD

<https://themonty.com/project/itemt363-despatch-tempering-furnace/>

Item#T362 Electric Temper 30" X 48" X 30"

Manufactured by Selas (Pacific Scientific). Model PKMD 100-E, Serial number 662-0585. Working dimensions of 30"X 48" X 30". Operating temperature of 1450F. 65 KW, 460 Volt, 3 Phase. Very good condition.

Asking Price \$19,500 USD

<https://themonty.com/project/itemt362-electric-temper-30-x-48-x-30/>

Item#T361 Tempers 30" X 48" X 30" (2 available)

Manufactured by Pacific Scientific these have working dimensions of 30" x 48" x 30". Model PKMD 100-E. Serial numbers 662-0208P and 662-0420. Electrically heated and rated for 1450°F. 65 KW, 460 Volt, 3 Phase. Very good condition

Asking Price \$17,500 USD Each

<https://themonty.com/project/itemt361-tempers-30-x-48-x-30-2-available/>

Item#T360 Wisconsin Oven

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

Asking Price \$7,900 USD

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

Item#T359 Seco Warwick Vacuum Temper Furnace

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

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

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

Item#T358 Wisconsin Oven Like New (2 Available)

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

Asking Price \$29,500 USD Each

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

Item#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#T352 Pyradia Tempering Oven

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

Asking Price \$39,000 USD

<https://themonty.com/project/itemt352-pyradia-tempering-oven/>

Item#T349 Eclipse Recirculating Box Furnace

Recirculating Box Type Draw Furnace. Manufacturer: Eclipse. Inside Dimensions: 30"high x 42"wide x 96"deep. Heated: Gas fired. Temperature: 1250 deg.F. Model Number: Box Draw. Serial Number: 3424-00773. Temperature Controls: Updated controls, Honeywell indicating controller and overtemp, circular chart recorder. Description & Features: Vertical lift air operated door. Brick lined. Alloy roller rail hearth. Seven adjustable roof baffles. Rear combustion chamber with atmospheric burner and high velocity recirculating fan. Complete combustion controls and safeties. Includes manual load table. Condition: Very Good, Operational.

Asking Price \$39,500 USD

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

Item#T342 Precision Quincy Recirculating Walk In Oven

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

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

Asking Price \$16,500 USD

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

Item#T341 McLaughlin Services Temper Furnace

Temper Furnace 36" X 48" X 36". Made by McLaughlin Services. Working dimensions of 36" X 48" X 36", 5,000 pound capacity. Gas fired 750 cfh @ 2-5 PSI, 750,000 BTUH. Operating temperature 250F to 1400F, +-10F. Electricity; 40 Amps, 480V/3Ph. Compressed Air; 100 psi, Intermittent. Temperature Controls; Super Systems 9130 Temperature Controller with 12" Touchscreen, Super System 7SL 1/16 DIN Limit Controller. Logic Controls; Allen Bradley Micrologix PLC is included for alarming and sequencing.

Asking Price \$91,000 USD

<https://themonty.com/project/itemt341-mclaughlin-services-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#T335 Despatch Temper

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

Asking Price \$5,500 USD

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

Item#T325 Despatch 3-Station Temper Furnace

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

desired.). Just rebuilt. New heating elements, new hearth ceramics, New stainless steel side panels, new paint.

Asking Price \$20,000 USD

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

Item#T320 Pifco Conveyor Oven

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

Asking Price \$59,000 USD

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

Item#T318 Eisenmann Box Tempers (4 Available)

Large Box Tempering Ovens (4 available). Built by Eisenmann in 2002, Model # HN-FNC-002. Working dimensions of 108" Wide x 96" Deep x 64" High. Natural gas fired, 3.2 million BTU's per hour. Operating temperature of 1200F. Description; Stainless Steel Lined Recirculating Box Tempering Oven complete with Top-Mounted Alloy Recirculating Fan (20 HP – 13,000 CFM), Rear-Mounted

Heater Box with Eclipse Burner System, Alloy Skid Hearth, Forced Cool Down Fan System (7,333 CFM), Vertical Rising Motor Driven Front Door, and Stationary Loading Table.

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

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

Asking Price \$72,500 USD

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

Item#T303 Pifco Temper Furnace

S/N 8177 built in 1988. Working dimensions of 126" long x 60" wide x 40" high. Overall dimensions of 13' x 11' x 11' high. Comes with load and unload discharge tables and combustion fan. Maximum operating temperature 950 deg. F. Rated for 250 pound net weight x 37.4in long tray loaded every 15 minutes. Furnace holds three (3) trays. Approximate nineteen (19) minutes to operating temperature. Forty-five minutes in furnace @ 15 minute load cycle. Heated by one gas burner approximate rating 600,000 BTU/hour. Utilities required: 1000 BTU natural gas @ 5PSI, 480v 3Ph 60Hz. Water 80 deg. F maximum @ 20PSI. Compressed air 60PSIG minimum. Adequate drain for water. Good condition.

Asking Price \$20,000 USD

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

Item#T286 Lindberg Box Temper

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

Asking Price \$65,000 USD

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

GENERATORS

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

Item#G199 2000 CFH Endothermic Generator New 2015

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

Asking Price \$29,500 USD

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

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

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

Rotational Drive Speed (Variable): 0- 200 RPM

Integral Quench Reservoir: 100 Gallon

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

Weight Estimate: 20,000 Lbs.

Asking Price \$49,500 USD

<https://themonty.com/project/itemI181-pillar-induction-heat-treat-system-50-kw-50-khz/>

Item#I180 Lepel/ Inductoheat SP12-100 kW-30 kHz

Inductoheat /Lepel Induction Power Supply. This is a Lepel/ Inductoheat SP12-100 kW-30 kHz IGBT type induction heating power supply with Integral Heat Station. This is an older version of a currently offered Inductoheat Power Supply. The SP12 power supply is designed to match multi-turn coils (400- 2000 V) that are used for hardening, tempering, tube heating, crystal growing, brazing, wire/strip heating and many other induction heating applications. A wide variety

of heating coils can be properly matched with built-in load tuning capacitors and multi-tap output isolation transformer.

This has a REMOTE OPERATOR PANEL which can be used to operate the power supply if it is placed away from or oriented away from the heating operation. This is an optional extra cost item when purchased with this power supply. It can be shown operating. There is no warranty but it is sold with the assurance it is in good working order. It will be connected and tested in our facility. Start up and Training service is available at extra cost by an experienced induction heating service engineer. We can also offer repairs and servicing for Induction Power Supplies.

Asking Price \$24,500 USD

<https://themonty.com/project/item180-lepel-inductoheat-sp12-100-kw-30-khz/>

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

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

Asking Price \$14,900 USD

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

Item#I178 Inductoheat Pick & Place Induction System

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

- Input conveyor with gating and part pickoff locator.
- Three arm Pick and Place mechanism that picks one part from the infeed position, one part from the heating position and one part from the cooldown station. All are transferred at the same time.
- Head Position includes placement into the heating coil, air operated part hold down, rotation, heating and quenching. Quick Change Coil Adapter is also included.
- Cooldown/Exit Idle position includes cooling quench flow.
- Exit position with push off onto exit conveyor with reject station
- Auto Lube System • Quench cooling and recirculating system with bag filter
- Water cooling and recirculating system.
- PLC Control with Panelmate interface
- Most Drawings and DVD Manual Included.
- Optional 6 Ton Chiller available.

Asking Price \$85,000 USD

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

Item#I177 Ajax 2 Station Spindle Scanners

This is an integrated Ajax 2 Station (single spindle per station) 150 kW, 10 kHz Scanner System. It has a single SCR type power supply with a transfer switch to send power to station A or B. It has a single shared Quench Recirculating

System with bag filter, single shared Water Recirculating System. Each station has a PLC Control and servo control. PLC is A/B SLC 5/03, Pacific Scientific Servos, and Nematron MMI. Also has Quick Change Coild Adapters (would cost about 4-5k today). This was built in 1998 but appears to have been well maintained and contains currently serviceable components.

Asking Price \$89,500 USD

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

Item#I174 Ajax Tocco Induction Power Supply & Heat Station

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

Asking Price \$120,000 USD

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

LAB EQUIPMENT

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

Item#L11 Leco Metallagraph

Leco Metallagraph.

Asking Price \$8,500 USD

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

Item#L1 Spectra-Tech Infrared Microscope

Model WHK 10X 201, Reflected & Transmitted light, multiple objectives, Polaroid 4x5 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#M429 Whaley Products Refrigerant Water Cooling Tower

Model # SA20D-3-2PT. Capacity: 20 Tons. Dual Compressors/240,00 BTU/Hr. Flow Rate:48 GPM. Insulated Poly Tank: 100 Gals. Inlet/Outlet Pipe Size: 1-1/2". Fan Output:16,600 CFM. Supply Pump: 3 HP. Circulating Pump: 1 HP. OAD: 29" L x 68" W x 84" H. Purchased 4/2015 In Very Good Condition, Has Seen little Use.

Asking Price \$9,800 USD

<https://themonty.com/project/itemm429-whaley-products-refrigerant-water-cooling-tower/>

Item#M427 Used Houghton MAR-TEMP Oil 355

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

Features & Benefits

- Short vapor phase and fast maximum cooling rate for optimum hardness and physical properties
- Premium hot quenching (martempering) oil providing maximum distortion control of quenched components eliminating the need for rework due to distortion

- Excellent oxidation and thermal stability: Resists formation of sludge and breakdown of oil in use to ensure maximum oil life
22,000 Liters are available immediately and 16,000 Liters in a month or two.

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

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

Item#M426 Midbrook Belt Washer

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

Asking Price \$89,000 USD

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

Item#M425 Kolene Salt Bath Nitriding Line (gas)

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

- 3 overhead transfer cranes
 - Air scrubbing unit
 - Bronco continuous belt blasting unit, large very effective machine with 36" belt and 8 multi directional blasting motors (vendor will sell this separately)
 - 3 vibratory polishers
 - Many fixtures
 - Used salt*
 - New salt*
 - Extra pot (weld repaired)
- System is installed and was in operation until late 2018. Complete and in good condition.

Asking Price \$365,000 USD For Everything

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

Item#M421 Berg Chiller

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

Asking Price \$8,000 USD

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

Item#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#M411 SBS Quench Oil Coolers (2 Available)

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

Asking Price \$13,500 USD Each

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

Item#M380 Bronco Wheelabrator

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

Asking Price \$20,000 USD

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

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/>

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#VF355 Vacuum Furnace Control Panel

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

Asking Price \$26,000 USD

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

Item#VF354 ALD Degussa Bottom Loader Vacuum Furnace

Bottom loading vacuum furnace built by ALD Degussa in 1985 and rebuilt in 2016. Working dimensions of 1500 mm diameter and 1500 mm high. Load capacity of 1,000 Kg. Vacuum System; High vacuum system with diffusion pump. Vacuum Level : 10exp-4 10exp-5 mbar. Used in the aerospace industry and suitable for AMS2750 regulations. Complete and in excellent condition. Located in Germany.

Asking Price \$110,000 Euro

<https://themonty.com/project/itemvf354-ald-degussa-bottom-loader-vacuum-furnace/>

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

Vac Aero Rebuilt Bottom Load Vacuum Furnace, working dimensions of 60" x 60". Model: VAV-6060-BL. Hot Zone: Moly face with graphite insulation. Vacuum

Pumps: 35" Diffusion Pump, Stokes 1722 Package. Quench System: 125 HP external quench. Rebuild in progress: Complete exterior reconditioning. Interior of pipes, fna house and vessel receive sand blasting and new high temp white epoxy paint. New hosing. New hot zone. New quench heat exchanger. Rebuilt 125 HP motor. Rebuilt mechanical pump and blower. (New controls available at extra cost). PHOTO BELOW SHOW FURNACE BEFORE REBUILD.

Asking Price \$495,000 USD

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

Item#VF351 GCA/Vacuum Industries Vacuum Furnaces (3 Available)

MANUFACTURER: AVS/VACUUM INDUSTRIES

TYPE: VACUUM FURNACE I.D.: 12"W X 36"D X 12"H

SERIAL#: 42093 MODEL: WORK HOUSE 3040

MAX. TEMP: 3000 F

ELECTRICS: 460V/77KW/3PHASE

CONTROLS: HONEYWELL DCP 700 DIGITAL PROGRAM CONTROLLER, HONEYWELL OVER TEMP CONTROL, HONEYWELL CHART RECORDER MOUNTED IN AN ENCLOSED PANEL.

GENERAL: HORIZONTAL DOUBLE WALL WATER COOLED VESSEL WITH SIDE SWING DOOR, FAN IN REAR, METALLIC HOT ZONE, AND STAINLESS INNER WALL. OUMPING SYSTEM INCLUDES A WELSCH MECHANICAL PUMP AND A 6" DIFFUSION PUMP.

Asking Price \$22,500 USD

<https://themonty.com/project/itemvf351-gca-vacuum-industries-vacuum-furnaces-3-available/>

Item#VF350 Ipsen Bottom Load Vacuum Furnace

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

Asking Price \$99,000 USD

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

Item#VF348 C.I. Hayes Vacuum Furnace

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

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

For Pricing Please Contact Jordan@themonty.com

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

Item#VF344 C.I. Hayes Vacuum Furnace

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

Asking Price \$90,000 USD

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

Item#VF342 Ipsen Bottom Load Vacuum Furnace

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

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

Hot Face

First Layer

Second Layer

– 0.060" Thick Graphite Foil with CFC Sheet at ends

– 1.00" Thick High Purity Graphite Felt

– 1.00" Thick High Purity Graphite Felt

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

Asking Price \$525,000 USD

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

Item#VF335 ALD Vacuum Carburizing Furnace

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

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

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

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

Asking Price \$75,000 Euro

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

Item#VF331 Elnik Vacuum Furnace

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

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

Asking Price \$19,950 USD

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

Item#VF330 Surface Combustion Vacuum Furnace

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

Asking Price \$119,000 USD

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

Item#VF327 Surface Combustion Vacuum Temper Furnace

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

Asking Price \$50,000 USD

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

Item#VF326 Ipsen Vacuum Furnace

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

Asking Price \$80,000 USD

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

Item#VF321 Ipsen Vacuum Furnace

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

Asking Price \$58,000 USD

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

Item#VF320 Thermal Technologies Vacuum Furnace

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

Asking Price \$75,000 USD

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

Item#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

Item#VF316 AVS Vacuum Furnace

Manufacturer: Advanced Vacuum Systems (AVS). Model: HMF-24-24-48-1100, S/N 4-1284-0683 Approx. 1990. Chamber: Cylindrical, Horizontal, Stainless Steel with front & rear access doors for ease of maintenance. Hot Zone: Used, All-Metal Moly/SS Shielded Hot Zone with Moly Elements and Moly Hearth Ass'y. Vacuum System: Stokes Mechanical Pumps and Varian Diffusion Pump (Typ. 10-4 to 10-6 Torr ultimate) Pumps: Varian HS-20 warranty rebuilt Diffusion Pump. Stokes 310 warranty rebuilt mechanical blower pump (booster). Stokes 212 warranty rebuilt Mechanical Roughing Pump. Holding Pump for diffusion pump. Power: 480V/3Ph/60Hz, 300 Amp, 250 KVA Heating. Floorspace Requirement: Approx. 15' x 15' x 11'H. Work Zone: 24"W x 48"D x 24"H. Max. Temperature Rating: 1100°C (2012°F) Max. Load Rating: > 1500 lb. Upgraded Controls: SSI 9220 Controller with 12.1" Advantech Touch Screen HMI and built in digital data acquisition, SSI Series 804L Hi-Limit, SR12 Remote Input Satellite Recorder, New Allen-Bradley Micrologix 1400 PLC, Televac vacuum instrument & gauges. Gas Cooling: External VFD Drive Blower and Heat Exchanger, 1 Atmosphere Pressure. Other: Included – 24" x 48" used 2-Tier Molybdenum Grid Fixture. Both front and rear doors have ports for adding end heating elements, if desired (not included). Rear door also has a port for a circulation fan, if desired (not included).

Asking Price \$170,000 USD

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

Item#VF315 AVS Vacuum Furnace (Rebuilt)

Manufactured by Advanced Vacuum Systems (AVS) this furnace has a Model Number HMF-24-24-48-1100, S/N 4-1284-0490. Built approximately 1990. Chamber: Cylindrical, Horizontal, Stainless Steel with front & rear access

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

Asking Price \$195,000 USD

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

Item#VF314 Ipsen Bottom Load Vacuum Furnace

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

Asking Price \$325,000 USD

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

Item#VF313 GT Technologies Top Loading Vacuum Furnaces

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

Asking Price \$175,000 USD Each

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

Item#VF312 Vacuum Furnace

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

Asking Price \$149,000 USD

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

Item#VF299 Sunbeam Vacuum Furnace

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

Asking Price \$95,000 USD

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

Item#VF282 AVS Vacuum Debinding/Sintering Furnace

This is a horizontal graphite vacuum debinding sintering furnace for steel MIM parts completely rebuilt from top to bottom by AVS in 2010. Working volume – approximately 18 cubic feet, 28" wide x 26" high x 42" long graphite retort, 1500# capacity. Temperature – rated for continuous operation at 1400°C ±10°C in vacuum, 1450°C burn-out. 50μ ultimate vacuum; leak rate <10μ / hour, CEDORT (Clean, Empty, Dry, Outgassed, Room Temperature). De-bind system – nitrogen or argon sweep gas, 0 – 100 torr differential pressure controlled by PLC and automatic I-to-P modulating vacuum valve, binder trap, condenser assembly; options available for hydrogen gas and burn-off. De-bind lines heated to keep vapor from condensing in vacuum lines. Fast cooling with circulation fan and automatic gas re-circulation ports. Control system – AVS ACE™ control/data

acquisition system. Estimated cold-to-cold cycle time of 16 to 20 hours with AVS “Fast Cool” option. Horizontal jacketed chamber – 60” dia. x 80” long, nominal dimensions, flanged, on legs. SA-516-70 mild steel construction on water jackets and door + body flanges. Stainless Steel inner jacket & dished head plus all power ports Front-loading chamber with 2 doors – both doors on adjustable hinges, with buna o-rings, manual clamps, for operation from 50 millitorr vacuum to 3 psig positive pressure; rear door opens for service. Ports – rough line on side of chamber, delube line from bottom, fan housing flange on rear door Additional PORTS added to the system to accommodate future system modifications for processing ‘sinter-hard’ P/M materials – a total of up to 7 additional ports ranging from 18” in diameter down to 1” in diameter will be added. Further details available upon request. Currently installed and in excellent condition.

Asking Price \$149,000 USD

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

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#W429 AFC-Holcroft Washer

AFC-Holcroft dunk spray washer 36" x 48" x 36". Manufactured in 2013 this is gas fired and 180F. Disc type skimmer.

Asking Price \$29,900 USD

<https://themonty.com/project/itemw429-afc-holcroft-washer/>

Item#W428 Abar Ipsen Parts Washer

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

Asking \$19,900.00 USD.

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

Item#W426 Mart Corporation Table Washer

Mart Corporation Table Washer. Equipped with: Thermal Insulated Skins, Rinse Pump for Hand Wand, Wash-Rinse, Gas Heat, Oil Skimmer, Variable Pressure Switch Low-High, Rinse Pump Off-Auto, Turntable Off-On, Turntable Jog, 24 Vee-Jet Wash Nozzles, Oscillating Manifold 4 Revolutions Per Minute, 30 Minute Cycle Timer, 55 HP Duplex Pumps 399 GP, Reservoir Capacity 967 Gallons 260 Gallon Sludge Capacity, Table Load Capacity 20,000 lbs. Initial Heat Up Time 45-60 Minutes. Note: Unit is in very good condition. Table Bearings are good all maintenance up to date, recent items include, turntable drive replaced, as well as pump rebuild. Heated with natural gas. Model # Hurricane 84 and Serial # H3013. Max temperature 140°F – 180°F with a voltage of 480 3 Phase 60 HZ,

71 FLA. Working dimensions of 84" Diameter x 75"H and external dimensions of 143" W x 139"H x 125"L – 16,000 pounds. Controls Mounted and wired in an enclosure attached to the left hand side of the washer includes.

Asking Price \$49,000 USD

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

Item#W425 Proceco Rotary Table Washer

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

Asking Price \$55,000 USD

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

Item#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#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#O374 Heat Treat Tech

Phoenix Heat Treating is looking to add dynamic individuals to our growing production team. For over 50 years this family owned, and operated heat treater has established itself as a leader in aerospace and defense industries known as the company who takes on the most challenging orders. Customers from across the country send their work to Phoenix Heat Treating for our wide range of processing capabilities and a reputation of excellence.

The Heat Treat Tech will be responsible for safe operation of equipment. Additionally, this position is responsible for load set up, setting correct programs per specification, and maintaining production and quality expectations. The tech is required to follow written shop order instructions and maintain a high level of quality. It is essential that the heat treat tech exhibit ownership of department and quality of work. Additionally, effectively communicate across departments and with management to meet department and company goals. It is critical that heat treat techs be able to function as an independent worker and self-starter. Ability to utilize computers and read line charts is essential. All heat treat techs report to their department supervisor.

The ideal candidate will have minimum 2 years of previous heat treat experience. We have openings in multiple departments which include Endothermic Atmosphere, Aluminum, Salt Bath, Straightening, and Vacuum. Salary: \$16.00 to \$30.00 (based on experience and shift)

While performing the duties of this job, the employee is regularly required to: be able to work in various positions, including but not limited to, stooping, standing, kneeling and squatting, be able to lift, pull and push at least 50 pounds. EOE
Email resumes to ereamer@phxht.com

Item#O373 Endo / Aluminum Supervisor

Phoenix Heat Treating is looking to add dynamic individuals to our growing production team. For over 50 years this family owned, and operated heat treater has established itself as a leader in aerospace and defense industries known as the company who takes on the most challenging orders. Customers from across the country send their work to Phoenix Heat Treating for our wide range of processing capabilities and a reputation of excellence.

The Endo / Aluminum Supervisor is responsible for ensuring the effective operation of the Endo and Aluminum Departments through the communication, training and delivery of established goals and objectives. While maintaining effective work processes, this position will also be responsible for the development of employees while monitoring their performance. This position also has functional responsibility for productivity, KPI's, maintaining the daily operations and driving continuous improvement. Management of production and quality targets to meet daily, weekly, and monthly department goals.

ESSENTIAL JOB FUNCTIONS:

- Supervise daily work assignments and follow up on the delivery of the expected performance results
- Schedule the correct number of staff to ensure production goals are met within the budgeted labor cost
- Set up work to ensure a seamless transition.
- Assign and follow up with operators and department staff on the length of time required for tasks
- Monitor department and plant schedules with the Production Management
- Hold direct employees accountable for ensuring proper procedures are followed
- Flag priority orders and revise schedules to meet outbound orders
- Work with Purchasing to maintain component stock levels to coincide with production schedules.

- Ensure customer specific requirements are met.
- Monitor and manage workload levels and availability of equipment
- Assess and determine overtime requirements on a timely basis to ensure an effective meeting of budgeted costs
- Communicate and cooperate with Operations and Management teams on a regular basis to ensure overall priorities are met. Act as an additional supporting resource to the other departments
- Create and maintain an environment that promotes positive communication while fostering teamwork within the department and the company.
- Monitor, analyze and report daily/weekly departmental performance through effective KPI tracking and data collection
- Maintain accurate daily and weekly timekeeping and attendance records to ensure proper payment of employee and temporary employee payroll submissions.
- Ensure operation procedures, equipment & facilities follow company policies & legislative requirements
- Take a proactive approach to Health and Safety to promote accident avoidance.
- Hold employees accountable for the completion and filing of safety inspection forms to ensure all obligations are met.
- Provide daily feedback to employees through coaching and administer performance appraisals.
- Handle all disciplinary situations appropriately and in a timely manner with appropriate supporting documentation.
- Strive for continuous improvement by soliciting employee suggestions and feedback and making recommendations.
- Assist in the development of facility goals and strategies to support the business plan.
- Implement and actively champion compliance with company policies & procedures.
- Performs any other duties as may be assigned.

SUPERVISORY RESPONSIBILITIES

Will be reasonable for direct reports in the department.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

EDUCATION and/or EXPERIENCE

A minimum of a High School Education / GED. Minimum of Three years of managing and leading people in a production environment. Three years working in a manufacturing environment with Lean manufacturing and 5S. Computer literacy essential Proficiency in MS-Office suites. A team player, ability to work on own initiative, strong understanding of the expectations associated with leading a production team.

LANGUAGE SKILLS

Ability to read and interpret documents such as safety rules, operating instructions and procedure manuals. Ability to write routine reports and correspondence. Must be able to read and write English.

MATHEMATICAL SKILLS

Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals. Ability to compute rate, ratio, and percent and to make and interpret excel and graphs.

REASONING ABILITY

Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram or schedule form.

CERTIFICATES, LICENSES, REGISTRATIONS

Green Belt in Lean / Six Sigma, MTI training certificate for Supervision and Heat Treating

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to stand; use hands to finger, handle, or reach with hands and arms and talks or hears. The employee frequently is required to walk and stoop, kneel, crouch. Visual Acuity: Near acuity and accommodation are required for reading blueprints, and Computers. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

Hearing Ability: Ability to hear safety devices on forklifts, machines and fire alarms.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee may be required to follow other job-related instructions and to perform other job-related duties as requested, subject to all applicable state and federal laws.

While performing the duties of this job, the employee is regularly required to: be able to work in various positions, including but not limited to, stooping, standing, kneeling and squatting, be able to lift, pull and push at least 50 pounds. EOE

Email resumes to ereamer@phxht.com

Item#O372 Account Manager/Sales Person

HI TecMetal Group Headquartered in Cleveland OH is looking to add a talented Account Manager/Sales Person to join our team! Our Sales personnel play a critical role in our business to uphold our commitments to our customers, providing the best possible quality and service we can achieve.

KEY RESPONSIBILITIES

To develop and maintain new and existing accounts for our brazing and heat treating operations located in northeast Ohio. Accounts should be developed across North America to meet the needs and abilities of the corporation.

- Serve as the lead point of contact for customer account management matters
- Develop new business with existing & perspective clients and/or identify

areas of improvement to meet sales quotas

- Assist in negotiation of contracts and close agreements to maximize profits
- Conduct sales calls, receive and respond to phone inquiries from customers and potential customers
- Conduct customer feedback interviews / surveys
- Develop and deliver quotations, provide clarification of customer requirements
- Partnering with employees at the plant level to monitor progress of work to meet customer expectations
- Exercise tact and ability to partner with customer to resolve issues
- Must be able to effectively cultivate and develop customers from diverse backgrounds including small entrepreneurial businesses to large multinational corporations
- This position must satisfy ITAR compliance requirements, therefore candidates must be U.S. Citizens or Permanent Resident Card Holder.

QUALIFICATIONS

- Education –four year degree, or equivalent experience
- Experience necessary – 10 years in sales, customer service or related field
- Experience in Brazing & Heat Treating preferred
- Experience with CRM software
- Experience using MS Office including Word, Excel and PowerPoint
- Ability to read and interpret Blueprints
- Ability to travel

LICENSE(S)/CERTIFICATION(S) REQUIRED:

- Must have a valid driver's license.

Pay will be commensurate with experience. Company benefits after probation period including health insurance, life insurance, 401 and other benefits.

Company-paid Drug Screen required upon hire. Proud to be an Equal Opportunity Employer.

Please send resume to kboyd@htg.cc

Item#O371 Combustion/Control Service Technician

Combustion/Control Service Technician. Full Time Employment. Established Industrial Combustion Service Company located in North Central Illinois, seeks an experienced combustion/control technician for field service work.

Requirements:

- Prior experience with industrial furnaces and ovens typically used in heat treat, coating and food processing industries.
- Strong electrical background.
- Welding, fabrication and piping skills a bonus.
- Individual must be a self-starter and work under minimal supervision.
- Experience in Industrial Environment.
- Valid Driver's License.
- Good Driving Record.

Daily Tasks:

- Troubleshooting, installation, start up, repair, and tuning of industrial burner systems and related controls. Candidate must have experience in an industrial environment, a valid driver's license, vehicle, and good driving record.

Benefits:

- \$25-\$35.00/per hour (compensation based on experience).
- Medical Insurance.
- 401K plan.

Please forward emails to: dawnc@cliffsoper.com

Item#O370 Experienced Heat Treater Looking For Position Near New Hampshire

Experienced Heat Treat Engineer Looking For a Position in the New Hampshire Area; I am an experienced heat treat engineer looking for employment in the southern New Hampshire region. I would like to work in a manufacturing environment with a focus on ferrous or aluminum thermal processing. An ideal position would include continuous improvement of production heat treat processes, project management of capital equipment installations, development and improvement of equipment maintenance plans and ensuring compliance to industry standards (AMS 2750, ASTM E18, CQI-9, etc...). I will be available to start work in mid to late June of this year. williamhuber1966@gmail.com

Item#O369 ALD Sales Professional

ALD Thermal Treatment, Inc. is looking for a Sales professional to increase its national customer base for heat treat services in Port Huron, MI. and nurture expansion opportunities into other regions and markets. This is a great opportunity for a well-motivated sales candidate to be part of an exciting company leading the industry in vacuum technologies with distortion minimizing heat treat processes.

The preferred sales candidate should have experience in the heat treatment services industry with exposure in key markets such as automotive, aerospace, mining, medical and industrial. Relocation is not required (which is a significant benefit considering the winters in Michigan).

For more information please promptly contact Jennifer Collingwood at jcollingwood@aldtt.net.



Item#O368 Second Shift Supervisor

Tri-City is searching for a 2nd Shift Supervisor. The successful candidate will be accountable for aspects of plant performance and will ensure that objectives are attained in a cost-effective and safe manner that is consistent with quality requirements.

Responsibilities:

- Manage daily operations in our facility.
- Ensure safety and efficiency of the facility.
- Remain in compliance with facility ISO standards, rules and policies.
- Train, evaluate, and dismiss staff.
- Monitor staff to ensure they meet performance and safety requirements.

- Carry out quality control programs to make sure the finished product meets customers' level of quality.

Preferred experience in the following:

- Controls heat-treating furnaces, baths and quenching equipment to alter physical and chemical properties of metal objects, using specifications and methods of controlled heating and cooling, such as hardening, tempering, annealing, case-hardening, and normalizing.
- Minimum 3 years working knowledge with various principles, methods and aspects of Heat Treating of metal materials (technology)
- Minimum 3 years of previous leadership/supervisory experience

Please forward resumes to Laceyl@tcht.com



ATLANTIC
HEAT  TREATING

Item#O366 Furnace Welder / Fabricator

The Furnace Source needs a full-time, highly skilled welder/fabricator. We build one-of-a-kind industrial furnace equipment. You must have strong skills in MIG and TIG, as well as fabrication. Must have the ability to set up and run jobs independently. We offer a great, clean, air-conditioned working environment with stability and the opportunity for professional growth. Pay to be determined upon qualifications and experience. Benefits offered include health insurance, retirement benefits/accounts, and paid time off. We are located in Terryville, CT 06786. Please email resume to Kelly Hoffman: info@thefurnacesource.com.



Item#O365 Field Service Engineers

Looking to Hire: Passionate Field Service Engineers AREAS WITH IMMEDIATE OPENINGS: Connecticut, Southern California, South Carolina, Pacific Northwest; Houston, Texas; Indianapolis, Indiana; Toronto, Canada

Ipsen designs and manufactures world-class heat treating equipment and is sprinting into its sixth consecutive year of record furnace sales. We are committed to giving our customers world-class support and have several openings for experienced* service technicians who: } Are passionate about customer satisfaction. } Thrive in a challenging technical environment. } Are highly motivated to learn, teach and solve.

* Ipsen will consider intermediate and entry-level technicians who display the right attitude and basic skill set. Less experienced candidates with the right stuff will be enrolled in the 2019 Ipsen Corporate Academy and spend (up to) 6 months of comprehensive classroom and hands-on, paid training before transitioning to their permanent assignment. Learn more about the [Ipsen](#)

Corporate Academy, an exclusive program that emphasizes the expertise needed to be an effective Field Service Engineer.

Ipsen serves a diverse group of customers, and members of our Field Service Team have the opportunity to work with leading Aerospace, Medical, Energy and Automotive companies. You will:

- Supervise equipment installation
- Troubleshoot problems
- Install upgrades
- Perform preventative maintenance
- Provide personnel training

If you have experience with large capital equipment, enjoy variety, stay calm in stressful situations, have solid electrical and mechanical skills, and are available to travel regularly, Ipsen may have the opportunity you are looking for.

Read enough and think you have what it takes? Send your resume to Resumes@IpsenUSA.com.

Want to know more? You can find a job description [here](#).



Item#O363 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

John D. Hubbard, P.E., Chairman, Thermal Process Holdings, Inc

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
