MAY ISSUE 2019

HEAT TREAT NEWSLETTER

Everything to do with heat treating

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

CONTENTS

INTRODUCTION

Reading the May 2019 issue of ***"The Monty"*** is like reading any mainstream news paper in the world except everything we publish only relates to the worldwide heat treating industry. We have upsetting stories such as the passing of ***"Billy" Fulton*** of Linamar Gear and ***Herb Bond*** formerly of ***SSI*** we have good news items such as ***Specialty Steel Treating, Metex*** and ***Texas Heat Treating*** adding capacity, we have rumors (such as the one about a Chinese company buying up a Western Vacuum furnace builder) and we have lots of ***"where are they now"*** items which included individuals such as ***Thomas Lord*** and ***Ross Hill***. So if you want to know the latest in the industry whether it has to do with people, trends or equipment this is your read. We look forward to your comments.

Best Regards,

Gord, Dale and Jordan Montgomery

FLUKE®
Process Instruments

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

With an in-house TUS system, one-click reports are automated–reducing human error, eliminating the need to outsource, and allowing you to maximize furnace uptime.

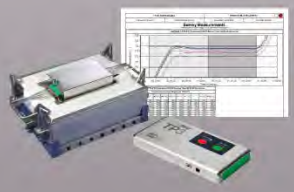
2 Save Time

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

You can re-survey after maintenance at no extra cost or re-qualify the furnace to meet new customer demands, without having to wait on a sub-contractor to restart production.

A completely customizable Datapaq® profiling solution



Insight™ Software

This single software package for TUS setup includes thermocouple and logger calibration correction factors, meaning additional software modules aren't required for complete reports

Data Logger

Featuring 10 or 20 thermocouple channels for maximum data collection, these data loggers also include the flexibility to mix thermocouple types for both TUS and SAT

Thermal Barrier

Built to withstand your harshest processing conditions, thermal barriers help to ensure maximum protection for your data logger

Contact a Fluke Process Instruments TUS system expert

www.flukeprocessinstruments.com

HEAT TREAT NEWS

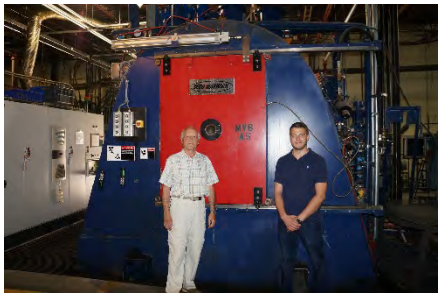
The Website of Choice for Captive and Commercial Heat Treaters Since 1999

SECO/WARWICK CaseMaster Vacuum Furnaces

Apr 30, 2019

Furnace builder SECO/WARWICK issued this press release about recently delivering two CaseMaster vacuum furnaces. To add to this news item we are including this photo of Jordan Montgomery of *"The Monty"* standing in front of a CaseMaster furnace which is installed and in operation in North America.

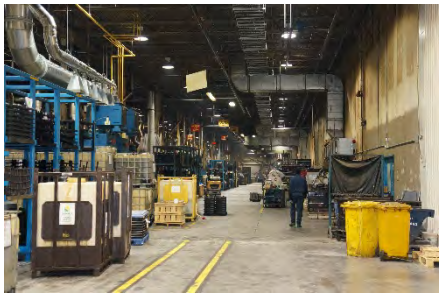
"Aerospace and automotive industry customers benefit from heat treating with SECO/WARWICK's CaseMaster EvolutionR vacuum furnace. Recent deliveries of two CaseMaster EvolutionR (CMe) vacuum furnaces to an aerospace components manufacturer and an additional CMe furnace to a performance automotive manufacturer provide further evidence of the benefits of low pressure precision vacuum carburizing with follow-on vacuum oil quenching from SECO/WARWICK Group company in US. The unique CMe furnace allows customers who are new to vacuum heat treating a way to transition from atmosphere while providing flexibility for both oil quenching and gas cooling capabilities, making the furnace design extremely flexible. The CMe is cost efficient to operate and delivers repeatable, high volume processing with very low consumption of carburizing gases. Case depths are predictable with SECO/WARWICK software, and vacuum oil quenching produces minimal distortion, both features that are critically important to industry OEMs. As a highly efficient vacuum carburizing furnace, the CMe is characterized by an extraordinarily high coefficient of carbon transfer due to the vacuum (or partial pressure) nature of the process. It provides excellent carbon penetration when carburizing densely packed loads and complex shaped workpieces or blind holes and produces better quality parts thanks to no grain boundary oxidation and precise case uniformity."



William “Billy” Fulton

Apr 30, 2019

It is with regret that we mention the recent passing of “Billy” Fulton our favorite heat treat maintenance person. Blunt to a fault, obnoxious and sarcastic as hell but very intelligent and extremely capable with a biting sense of humor-we always really got a kick out of his company. Billy worked for a number of commercial heat treaters in Canada before joining captive heat treater and auto parts maker Linamar Gear a number of years ago. With 27 furnaces in house this was certainly a full time job. *” Passed away at South Bruce Grey Health Centre on March 15, 2019. Beloved husband of Dawn Letten. Dear father of Jessie Fulton, step father of Michael Kirmse. Beloved son of William and Jeanette Fulton. Dear brother of Douglas Fulton and Jackie Fulton (Mike Doyle). Uncle to Caelan Fulton (Nicole and Isla). Billy was predeceased by his brother Roger Fulton (2011). Billy’s family will receive relatives and friends at Westmount Memorial Celebration Centre 1001 Ottawa St. S. Kitchener, (519-743-8900), on Thursday March 21, 2019 from 7:00 pm to 9:00 pm.Interment will take place at a later date. If desired, donations would be appreciated to the Heart and Stroke Foundation or a charity of your choice. Online condolences at www.westmountfuneralchapel.com“*



Monday Morning Briefing
Apr 28, 2019

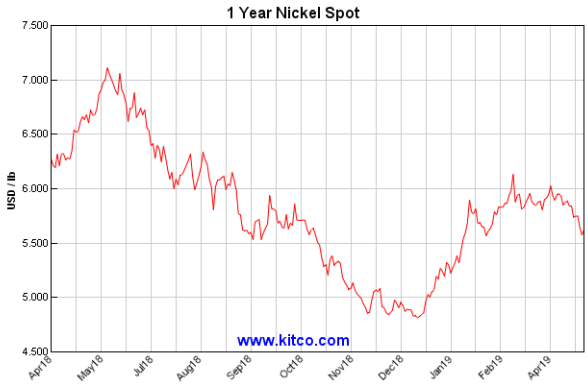
We are going to start off in the booming city of Logansport, Indiana, USA when fastener manufacturer *A. Raymond Tinnerman* recently made some major upgrades. The original press release included a lot of *"blah, blah, blah"* stuff about bending machines and packaging stuff but all we care about is the heat treating equipment. It doesn't mention it in this press release but the ovens referred to in this article are mesh belt austempering lines, very similar to what the company has in their location in Hamilton, Canada; *"Antoine Raymond, CEO of A. Raymond Tinnerman, visited the Logansport plant recently to tour the facility and observe the $3.5 million dollar investment in machinery and equipment recently added to the Logansport plant. A. Raymond Tinnerman has gone through three major upgrades and additions in the facility over the last two years.*
The first major investment was the rebuild and upgrade of the heat treating processes including the addition of an endothermic generator. The heat treat ovens received a major rebuild and upgrade in furnace technology and controls and the addition of the new generator. These upgrades improved the quality and reliability of the heat treating process ensuring a higher quality part for the customers. Raymond participated in three separate ribbon cutting ceremonies for each of the additions. He met with the employees in the facility and expressed his appreciation for their hard work and dedication. He stated that the investments are not just in equipment, but also in the employees of the Logansport facility, as without their dedication and willingness to learn all of the new technology, these improvements would not be possible. In 2019 the Logansport facility will be adding another new technologically advanced machine."

Our good friends at Induction Heating OEM, *Ajax TOCCO Magnethermic* (whose ad can be found on the right side of this page) recently shipped two large induction lines as you can see in this press release; *"Warren, Ohio-based Ajax TOCCO Magnethermic® has announced the delivery of two large induction heat-treating quench and temper lines to facilities in the U.S. Both pipe heat-treating lines process upset tubing inline through multifrequency scheming technology at a rate of 15 to 20 tons/hr. These systems incorporate the company's water sleeve quenching design, using high-volume precision barrels to accomplish uniform*

metallurgical grain structures, as required by API-certified tube and pipe. To maintain uniformity for API requirements, the systems incorporate a slow-feeding, rotating cooling bed at the exit of the tempering zone to ensure straightness after heat processing."

A reader sent us this photo of *Eric Jossart* of international controls company *UPC* giving a talk in India; *"Featured is Eric Jossart, UPC Director of Sales, speaking at a heat-treating seminar in Pune, India organized by our local representative PMA controls India ltd on April 16. Over 50 participants representing 20 companies from the automotive, aerospace, machine tool, and industrial manufacturing sectors were in attendance to learn how instrumentation (probes, sensors, flow meters), generator control systems, and furnace control system modernization can improve operator efficiency through reliable controls and automated sequences, while realizing a reduction in operation and maintenance costs, and similarly meeting the latest regulatory requirements."*

Rumor has it that *Ipsen Group* has started off well in 2019 with first quarter new equipment bookings of 30 furnaces globally into 12 different countries covering diverse industrial segments and even selling a furnace to a University research institute. Metal powders company *Titan International* in PA, USA is adding vacuum sintering capacity. *Nickel Pricing* remains constant (as we can see in the graph below) which brings joy to every heat treaters heart.



And to round things out we have this photo from the largest commercial heat treater in Italy, *Grupo TTN*. We ran a similar photo from this company earlier this year after we visited them but we received so many comments about this the we are now showing you another angle. What you see are several pit gas nitriders with a working depth of 30' but what is most amazing is that this is just the first step. The pit is designed to hold a 75' deep pit nitrider which will happen one of these days.

Commercial Heat Treat Company For Sale
Apr 26, 2019

We have been asked to find a buyer for a commercial heat treat company in the Northern USA. This is a smaller company with annual sales of between $500,000 and $1 million USD. Included in the sale is all of the equipment, the land and the buildings. Company is long established and is profitable. The current owner is exiting the industry to pursue other interests. If this is of interest please let us know jordan@themonty.com and after signing an NDA financial details will be provided.

Can-Eng Furnaces to Provide Die Casting System
Apr 26, 2019

"Can-Eng Furnaces has been chosen to design and commission a high-capacity, heat-treatment system for a Tier 1 Global Automotive Manufacturing Company. The new system provides T-6 and T-7 processing capabilities for lightweight aluminum High Pressure Die Casting (HPDC) automotive components. Features of the system include Can-Eng's proven Lean Manufacturing robotically integrated part handling system, individual part processing features that deliver predictable metallurgical and part dimensional properties, Precision Air Quenching (PAQTM) Technology, Level 2 automation system for the managing of individual component parameter traceability, system diagnostics and CQI-9 reporting.
The system is scheduled for Commissioning Q1, 2020 and will support a next model generation Luxury SUV being released in 2021. CAN-ENG Furnaces International is a global provider of state-of-the-art thermal processing systems for ferrous and non-ferrous metals and is a significant supplier to the automotive community through direct and tier supply. For further information, please contact Tim Donofrio – Vice President, Sales at tdonofrio@can-eng.com. CAN-ENG Furnaces International Limited is an ISO 9001:2015 certified company with its head office and manufacturing facility located in Niagara Falls, ON, Canada."

Help Wanted-Ajax TOCCO Magnethermic
Apr 25, 2019

Induction heating giant Ajax TOCCO Magnethermic (whose banner ad can be found on the right side of this page) faces a similar dilemma to many manufacturers in North America-where to find good people? As you can see in this note the company is looking for people to fill a number of good, well paying positions and yet they still are having a hard time filling these positions;
"Ajax TOCCO Magnethermic has worldwide operations in nine countries. It designs and makes industrial heating and melting equipment. Ajax TOCCO is looking for skilled labor at its manufacturing headquarters in Warren. "What I mean by that is welders, machinists, assembly workers, those people that can read a drawing and understand what's required to assemble or make the pieces and parts necessary for the equipment we supply to our customers," said Tom Illencik, president of Ajax TOCCO. The company's customers are steel mills, foundries and forge shops, among others. It makes things like heat treat scanners, conveyor rolls and power inverters from scratch.
"We've got a wide variety of stuff going here. We never make the same thing twice. The person has to be fairly dynamic and adapt to change," Illencik said. Ajax TOCCO has been around since the early 1900s. Sherman Tanks used to be made in the factory during World War II before Ajax TOCCO moved in. Today, it continues to raise the bar while maintaining a commitment to quality, service and

delivery. It's proud that two people in the plant will celebrate their 40th anniversary with the company next week. "There's no end to a person's capability to advance in this company," Illencik said. "I started out as an engineer and continued to move up in the process, and I've been here 35 years myself."

Heat Treat Shop For Sale
Apr 25, 2019

Ever have a desire to tell your boss to take a hike and run your own commercial heat treat shop? Then we have a solution. Later today we will have some details about a relatively small (but profitable) commercial heat treat shop for sale in the US. While we hesitate to describe this as a "starter" company that is the way we would consider it. Details to come.

Liquid Nitrogen Leak at Modern Industries/Erie, PA, USA
Apr 24, 2019

Now this is a rather eerie picture (pun intended). In Erie PA, Modern Industries is both a manufacturer and a commercial heat treater, as a matter of fact probably the largest commercial heat treater in the area. Recently they had a small nitrogen leak which produced this rather unreal photo;
"At approximately 8:30pm on the night of April 15th 2019 a pipe connecting our exterior Liquid Nitrogen storage tank ruptured and started leaking. This fault happened near the shutoff valve for the unit, which froze open, so we allowed the tank to empty into our parking lot and onto 12th street. The nitrogen gas that was released from the tank was not harmful to the people nearby or the environment. The fog, while cool looking and was harmless, caused the Erie Fire Department/HAZMAT team to close off 12th street for a couple hours until it dissipated. As the temperature of liquid nitrogen rises it is converted to nitrogen, which is the gas most plentiful in our atmosphere. We already have a repair crew out working to fix the problem. There is expected to be minimal interruptions to our customers as we make the needed repairs."

Heat Treatment Congress (HK) 2019
Apr 24, 2019

October 22-24/2019 will see the 75th Heat Treatment Congress (HK) in Cologne, Germany. Organized by AWT this is in our opinion the best European heat treat trade show there is and well worth attending.

"This year the AWT (Working Group for Heat Treatment and Materials Technology) will be organizing their Heat Treatment Congress (HK) for the 75th time. Come and join the celebrations! The anniversary event will kick-off on Tuesday, 22 October with a ceremonial address by Dr Stefan Hock, General Secretary of the "International Federation of Heat Treatment and Surface Engineering" (IFHTSE) and an honorary member of the AWT. He will be speaking about the importance of the HK and the changes it has undergone, and will also talk about future challenges with regard to raw materials.

News from the trade fair; Nitrex Metal, a Canadian based company, celebrates its return to HK event after a long absence. They are one of the leading companies in the field of controlled nitriding and nitrocarburizing turnkey systems. Together with their affiliate United Process Controls, they will present distinctive solutions

for the German and European markets including license-free nitriding/nitrocarburizing systems and new case hardening technologies for stainless steels. At the moment there are still some free spaces available for exhibitors. An up-to-date hall plan with free spaces marked can be found here www.hk-awt.de/hallenplan-hk-2019. There is also an attractive special offer for first-time exhibitors. In the exclusively designed Newcomers' Area, first-time exhibitors can present their companies for an all-in price of EUR 3,350.
Your benefits as a visitor; Exhibitors provide regular information about new products and job opportunities in the online marketplace on the website www.hk-awt.de. The Matchmaking tool allows visitors to prepare perfectly for the trade fair. They can arrange appointments with exhibitors in advance and mark favourites and presentations, and they can also use the calendar tool to create their own timetable for the event. The app for Android and iOS will then navigate perfectly through the event on site.
Further highlights of the congress; This year's plenary speech will be given by leading communications expert Isabel Garcia on the theme of "Think cleverly, communicate cleverly". In addition to this, there will be 30 top-class specialist presentations, on the following focal topics:

- *Materials for lightweight design*
- Functional coatings
- Intelligent process control
- Partial heat treatment of components

As always, simultaneous interpreting services from German into English and vice versa will be provided at the congress event. The complete congress programme will be published at the end of May on the website www.hk-awt.de. Entrance tickets can also be booked in the Ticket Shop from the end of May onwards."

Metex Heat Treat/Brampton, Canada Adding Mesh Belt Capacity
Apr 23, 2019

As part of the *"Monday Morning Briefing"* yesterday we mentioned in passing that Metex in Brampton, Canada had recently added another mesh belt furnace line, today we can give you a few more details. After installing a 3000 lbs/hr continuous mesh belt line in 2018, Metex has installed another 3000 lbs/ hr line in 2019. This

line was built by AFC-Holcroft and this will be the 7th mesh belt furnace line the company now has in operation.

In total they will now be able to process over 25,000 pounds per hour which must make them one of the largest commercial heat treaters in North America when it comes to mesh belt capacity for fasteners. FPM in the Chicago area probably rivals them but whether they are larger or not we couldn't tell you. At the same time Metex also continues to add Induction heat treating capacity with several more systems added in the past couple of years.

Mercedes Benz Flood, Sao Paulo, Brazil
Apr 23, 2019

A few weeks back we had some shocking footage of the very large, in house heat treating department of Mercedes in Sao Paulo, Brazil being flooded. What we see is a rather typical heat treating department of a transmission components manufacturing facility with a mixture of pusher furnaces, nitriders and rotary hearth furnaces. To see the devastation being caused by the flood waters is a very upsetting sight. We had so many comments on these videos that we are running them again as you can see below.
https://themonty.com/wp-content/uploads/2019/03/Flooding-Video2.mp4

https://themonty.com/wp-content/uploads/2019/03/Flooding-Video3.mp4

Monday Morning Briefing
Apr 22, 2019

Now this Monday Morning Briefing should appeal to everybody in the heat treating industry around the world whether you are a furnace manufacturer in Europe or Japan, an Aerospace company in North America or a commercial heat treater in the US Midwest.
In Green Bay, Wisconsin, USA we see that a commercial heat treat by the name of *Metals Engineering* has a new owner-but first the background from the company's website https://www.metalsengineering.net/ *"Metals Engineering was founded in 1967 and purchased in 2001 by Tom Kemen. Significant investment into equipment and personnel set the company on a growth track that continued under Tom's son, Ted Kemen, who bought the company in 2005. The addition of new technology and equipment following the 2014 acquisition of Omega Metal Treating boosted the efficiency and capabilities of Metals Engineering's De Pere facility."* On March 29th of this year Ted Kemen, the current owner formally sold the company to an individual by the name of Dean Re. While we do not know Dean personally we understand that he owns a machine shop by the name of MECA in Green Bay. Metals Engineering is an average sized commercial heat treater who can offer stress relieving, carburizing, Induction hardening and carbonitriding to mention a few.

Back in October of 2016 *GKN Aerospace/ASTECH Engineered Products* in Santa Anna, California, USA went though some major changes in their in-house heat treating department. This involved decommissioning 8 Ipsen vacuum furnace and replacing them with 3 new Ipsen horizontal vacuums and two new Ipsen bottom load vacuum furnaces. The older furnaces remained in place looking for a buyer. Unfortunately at the end of the day most prospective buyers decided these were past their *"best before"* date and the furnaces were scrapped very recently. What made these furnaces really interesting was the size, the largest were 80" in diameter and 120" long. In this photo we see one of the furnaces.

If you are a furnace manufacturer in Europe we would imagine that this news item about Japanese furnace builder *Dowa Thermotec* and Italian furnace manufacturer *Italstart/Meapforni* will be of a great deal of interest; *"Dowa Thermotec Ltd., one of the top Furnace manufacturers and heat treaters globally is pleased to announce that Dowa will be entering the European market to offer their latest state of the art, cutting edge technologies in the field of heat treating for the European market.*
The equipment offered to the European market will take into account user preferences in terms of makes/ assemblies complying with European standards in terms of furnace operation. This initiative by Dowa will be supported on the ground by a new relationship and partner, Italstart supported by Italstart subsidiary Meapforni for furnace parts, after sales support and maintenance. Technology by Dowa with active support from Italstart on sales and service will offer unmatched quality of service and support. Dowa and Italstart are confident that technically advanced heat treat systems supported by an efficient sales and service support will bridge a long felt need of European customers."

Kinyon Gorton who was involved in the heat treat department at *Caterpillar* in East Peoria, Illinois, USA recently retired. Caterpillar certainly needs no introduction but we will add that they are the largest captive heat treater in North America. "*Schumer demands end to aluminum tariffs! OSWEGO, NY, USA. Novelis brass joined rank-and-file employees on Tuesday to welcome Senate Minority Leader Charles Schumer to the company's Scriba plant, where the Brooklyn Democrat called for an end to what he said are unnecessary and harmful aluminum tariffs. Tariffs put in place in the past year were aimed at protecting the U.S. steel and*

aluminum industry, but officials say the move is negatively impacting Novelis, which has operations across the border in Canada.
One of Oswego County's largest employers, Novelis Inc., is seeking relief from the tariffs and Schumer has vowed to support the company in those efforts and push for an end to tariffs imposed on U.S. allies." This article was taken from a local newspaper in NY andwe actually really don't care what Mr. Schumer in the US has to say about aluminum tariffs but what caught our eye was the reference to Novelis, In NY and Ontario. Novelis is an enormous supplier of aluminum both new and recycled and as such requires a great deal of very pure Nitrogen. After a long study the company recently started producing their own nitrogen on site, something which you see on an occasional basis in the heat treat industry. We have always been puzzled as to why so few heat treaters install their own nitrogen generating systems for one reason or another it does seem to be quite unusual.
In Canada commercial heat treater *Metex* just finished installing a new addition for them-a 3,000 pound per hour *AFC-Holcroft* mesh belt furnace line bringing their total to 7. More on Metex tomorrow. *DCL International Inc.*, a manufacturer of catalytic converters based in Concord, Canada recently completed installation of a brand new *SECO/WARWICK* vacuum furnace. This is the second SECO vacuum furnace the company has installed. And speaking of SECO we see that *Jędrzej Malinowski* who has been with SECO, Poland for many years was recently promoted to Sales Team Leader, Thermal Furnaces Team. And that is a wrap for Monday April 22/2019.

Paulo Management Changes
Apr 19, 20192

The second largest commercial heat treater in North America has these management changes to mention; *"Paulo is excited to announce three leadership changes to the Operations team. Tee Rassieur has been promoted to Vice President Operations, Tim Mohr has been promoted to Director of Strategic Programs, and Kyle Moore has been promoted to Plant Manager of the St. Louis Division. Promoting from within and providing leadership development and training is a key part of Paulo's strategy."*

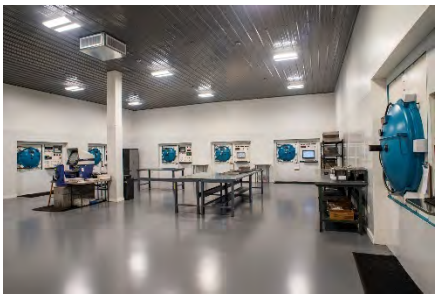


Vacu Braze Expands and Adds Equipment
Apr 18, 2019

Out in Trumbauersville, PA, USA commercial heat treater and brazer Vacu Braze has been busy of late as you can see in these press releases and photos. By the way Vacu Braze is owned and run by a really top notch fellow by the name of Ralph Puerta, his son Doug is CEO of Stack Metallurgical one of the largest commercial heat treaters on the US west coast;
"Vacu Braze, Inc. has opened a new state-of-the-art facility, Increasing the size of their headquarters. The new facility is open and fully-staffed with industry experts. With this expansion Vacu Braze was successful in expanding the solutions they offer to current and prospective clients. These new and expanded capabilities include: Precision Vacuum Brazing, Ultra-High Purity Vacuum Processing, Small Precision Heat Treatment, Atmospheric Heat Treatment, Oil Quenching, Gas Nitriding, and Glass Beading.
The new facility has enabled more precise climate control abilities and environmentally-friendly practices through the manufacturing process. Vacu Braze is proud to continue their commitment to providing the highest quality possible, while understanding the need for fast turnarounds and progressive processes. Vacu Braze provides premium metal heat treating services for Medical, Military, Aerospace, Power Generation, Nuclear, and Tool & Die applications. Their work is constantly evolving to meet the various challenges their clients look to them to solve."

"Vacu Braze is now offering Clean Processing capabilities in their new Bucks County facility. The state-of-the-art processing room is climate controlled and

sterile. This development has expanded their capabilities in Vacuum Brazing, Gas Nitriding, Air / Atmosphere Processing, and has provided additional Vacuum Capacity."



Timm Grotheer New CEO At Nabertherm
Apr 18, 2019

"Nabertherm GmbH, Bremen, Germany, has announced the appointment of Timm Grotheer as its new Managing Director. Grotheer, who previously served as Managing Director of shipbuilding group Lürssen, succeeds Friedrich-Wilhelm Wentrot, who has served as Managing Director of the company for eighteen years. Under Wentrot's direction, Nabertherm reported that it has seen global success, employing more than 500 staff and achieving a turnover of more than €60 million ($68 million).
A key element in Wentrot's strategy has been the consistent internationalisation of the business, which now has an export share of 70%, selling its furnaces and plants around the world. As a shareholder and board member, Wentrot will continue to his involvement with Nabertherm for the foreseeable future. It is now expected that Grotheer will guide the company in continuing its worldwide growth and development. https://www.nabertherm.com/"

Wallwork Heat Treatment Expanding Into Europe?
Apr 17, 2019

In the UK commercial heat treater Wallwork which is one of the largest appears to be hinting that they might be setting something up in Europe;

“Exhibiting for the first time at the International Paris Air Show, Wallwork Group is looking to expand its thermal processing services into Europe. “For some time now, we have been establishing firm relationships with European based aerospace component manufacturers and this has encouraged us to exhibit in Paris,” explained Howard Maher, group sales manager. The company is in Pod 10 of the Midlands Aerospace Alliance stand, which is located in the British Pavilion. “Judging from stand visitor interest at the last Farnborough Air Show, we are expecting strong interest in our much expanded vacuum brazing and plasma nitriding services.” With an enviable reputation in ultra-hard PVD coatings, the company will also be championing its range of Nadcap approved Nitron Flight coatings for aerospace that can offer up to 33 times improved life on specific components.

Nitron Flight significantly contributes to reducing life cost ownership, fuel consumption, CO2 emissions and more. Following on from the 2017 acquisition of the Metaltech business, Wallwork has now established the processes of Xylan Fluoropolymer coatings and Molybdenum Disulphide dry film lubricants at other Group locations. Another area of investment has been additional capacity for the processing of aluminium and magnesium components. A strong service ethic backed by highly skilled metallurgists and skilled surface engineers along with full laboratory and substantial in-house testing facilities, enables the company to provide a quality service to aerospace component manufacturers with speedy order turnaround times.”

Where Are They Now-Carlos Sartori
Apr 17, 2019

Showing us once again how small the heat treat industry is we have this news item. Carlos Sartori was a long time heat treater in Sao Paulo Brazil before taking the position of Operations Manage at Voestalpine in Canada (Voestalpine has one of the nicer heat treats we have seen-this plant features a number of Ipsen vacuum furnaces up to 12 bar and 60″ cubed). Well Carlos loved the job and the country but his wife was rather homesick and he moved back to work as a Heat Treat Specialist at Villares Metals in Sumare, Brazil. As a Canadian I have to say it is our loss and Brazils gain.

NASA Moon to Mars Mission Part 2 By David Pye
Apr 16, 2019

We continue the discussion the Part 2 presentation of this epic journey. Now the United States of America with NSA are now really planning the ultimate Lewis and Clarke experience by opening up the passage/route/journey to our nearest interplanetary neighbour, which is that of Mars.
How will the journey to be undertaken to from Moon to Mars?
The first portion of the journey will be undertaken by making use of current material science technology for the selection of the Moon vehicle. This would most likely be constructed from conventional materials with newly developed materials and thermally strengthened in some manner, either by

- Surface Heat Treatment (carburizing, nitriding, thin film hard coat, Carbon Reinforced Carbon Materials)
- Material specification determinations
- Mechanical property requirements
- How to accomplish the required mechanical properties
- Establishment of repeatable thermal processing conditions and standard operating procedures
- Authoritative Body to establish accurate processing conditions
- Authoritative Body to establish process auditing
- Frequency of audit establishment

The above are just a few suggestions of the establishment of repeatable heat treatment.

Moon Base Construction

Knowing the likelihood of failure improves the likelihood of success. The more data that can be acquired and accurately calculated, analysed and understood, the success of the mission improves significantly. They need;

- Workshop to assemble the Orion command vehicle.
- Material used during the command module erection procedure.
- Earth moving equipment
- Deep hole drilling
- Food
- Workshop with fabrication facilities, and repair facilities for the site erection.
- Maintenance of rover vehicle

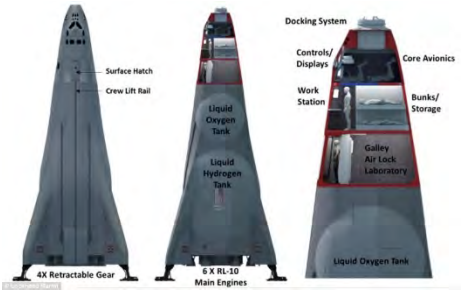
Materials and Moon Base Establishment

- Astronaut suit maintenance and servicing
- Patching material for the construction protection against micro meteor strikes
- (Critical) the vehicle's engine, the type of engine, the fuel for the various inflight conditions that the command vehicle will experience during its outbound and return journey back to the Moon Base

The absolute first consideration must be to set up a moon base with an area that the vehicular transport of the Mission to mars can be assembled. It is quite surprizing to see the almost replicated geometric design of Orion in relation to the early Apollo missions. The command module design has almost become a 'design feature' of 'proven design' with a much-improved communication and navigational systems.

Planning the Journey

In order to start the planning of the mission journey, the knowing and understanding of the potential likelihood of failure will most certainly improve the strong probability of the mission success.



Courtesy Lockheed Martin. Impression of the Mars Mission Vehicle

Apollo Command Module Construction Illustration for earth to moon to establish a Command Centre Lunar base. (Courtesy NASA and Lockheed Martin) of the opinion that it will necessitate a number of missions from earth to the moon, to both build a moon base, as well as carrying the mission vehicle components to the assembly base, to assemble the vehicle that will make the journey to Mars. The architecture for Moon Base 1 will be unlike any architectural structure that has ever been designed or built here on the planet Earth. In itself, it will be an architectural wonder, designed by man!!

Command Module Cross Sectional View (Courtesy NASA and Lockheed Martin)
To assemble the vehicle that will make the journey to Mars. The architecture for Moon Base 1 (named for the purpose of this article), will be unlike any architectural structure that has ever been designed or built here on the planet Earth. An architectural wonder, designed by man!!!

A suggested type of Low-Pressure Residence and command post. Courtesy NASA
The site for the Mars Vehicle Moon Base 1 would have to be chosen with great care, with the primary concern being to ensure a construction site as flat as

possible and of a large enough size as to allow both constructions of Moon Base 1 and the assembly and launch pad for the mars mission vehicle.

An artist's impression of Moon Base 1 under construction (Courtesy NASA)

I envisage that the assembly ship carrier that would carry the construction material for Moon Base 1 would not be unlike the well-known and proven vehicle design of the space shuttle, possibly larger. The construction tools materials and construction crew could be put down onto the moon surface utilizing one of the following methods;

- The Moon component delivery vehicle with a lunar landing module, (Not unlike the proven design of all of the manned moon walks and Rover vehicular carriers)
- A landing of the Space shuttle on wheels
- Or the Space shuttle on landing skids
- Or the Space shuttle fitted with retro rockets to make a controlled descent to the lunar surface

The Earth to Moon transportation vehicle would also need to incorporate a fuel tank system to enable the shuttle vehicle to lift off for the journey back to Earth for its next moon base material construction load.

The shuttle would not only be carrying the moon base construction materials but the construction crews themselves, as well as well as assembly tooling; that is drilling and earthmoving tooling or moon moving tooling, and sustenance for the assembly crew on the Moon Base 1.

The metallurgy involved in the assembly tooling, the construction materials, must be of the highest level of architectural design in relation to the material development and selection, thermal processing, heat treatment, that has ever been developed by man.

Lunar Surface Construction Methods

The first consideration for construction material would need to be the choice of suitable construction materials. Heat treaters and metallurgists know that no matter what type of steel is used, there is always potential for the formation of retained austenite. The low temperatures that the lunar environment can drop down to as low as approximately that of -225°F. Thus, any retained austenite present will decompose to untempered martensite and become massively brittle. There would

also need to be consideration to the material temperature gradient between the lunar atmosphere and the internal vehicular assembly area.

So, could we consider aluminum alloys? Those of us who are familiar with heat treatable aluminum alloys are aware that in order to keep aluminum soft after solution treatment, cold treatment is utilized. Thus, with temperatures that can drop down to approximately -225°F, then the aluminum alloy will remain permanently soft and susceptible to micro meteorite penetration.

The next alternative may well be to go under the Lunar surface. That too has its problems!! Firstly, if blasting is considered, to go subterranean, because of the low gravitation conditions, the detonation would most likely create a long-term dust storm. If subterranean drilling is considered, the drill bits as we presently know them would not function too well. This would be because;

- A massive temperature rise caused by frictional forces at the cutting face of the drill, due to the lack of air (no air).
- Extreme low lunar atmospheric pressure will also make a contribution to the potential of the drill bit to overheat.
- The drilling debris is generally flushed away on earth when deep hole drilling, by flushing with water!! (no water on the Lunar surface)
- The protection required for the construction crew to be protected from the serious potential from cosmic ray penetration.
- Once the lunar surface has been prepared for construction, and the construction of Moon Base 1 is constructed, then there will be the need to consider the internal assembly area and the creation of the living and working environment. The site will require insulation to ensure a comfortable habitable working and living environment.
- A significant advantage of Moon Base 1 would be the generation of electrical power, which could be acquired from Solar Energy due to the log daylight hours and no cloud coverage of the lunar surface

I believe that this is THE project that will make America truly, great again, and to lead the world in interplanetary flight open new routes to the stars, and may it continue with the same vision that Lewis and Clarke in opening a new route to the North West Pacific Coast. Going where no man has gone before, is now becoming a true and visible reality!!! (Courtesy *Star Trek The Last Frontier*)

Helium Shortages
Apr 16, 2019

Helium is used in some vacuum furnace gas quenching applications, we can think of a few installations around the world that rely heavily on helium-every one of which recycles. Having said that recycling is never 100% effective which means there is always some losses which is where this article comes in.
"The third helium shortage in slightly more than a decade has prices soaring faster than a kid's balloon lost in a windstorm. But the problem runs well beyond children's birthday parties. These days, helium — much of which is a byproduct of natural gas or LNG production — is used in everything from MRIs to smartphone manufacturing. "There are five major global suppliers of helium. Two of them have been rationing supply since February 2018," said Phil Kornbluth, a helium industry consultant based in Bridgewater, N.J. Kornbluth said producers have been forced to cut supply because of a number of maintenance outages and delays in new projects, including a ruptured underwater pipeline in Qatar. With just 14 liquid helium plants in the world, those outages are enough to send helium prices skyward. "I've seen price increases as high as a hundred per cent in some case," Kornbluth said.
Helium is an extremely versatile gas used in myriad industries and applications. In many of those uses, there is no suitable alternative. "There are major industries that rely on helium in their manufacturing processes, for instance semiconductor manufacturing, optical fibre manufacturing, the aerospace industry," said Kornbluth. The single biggest user of helium is probably MRIs, which use the liquid form as a coolant, Kornbluth said. But helium is also crucial in particle accelerators and nuclear fusion research. It's used in some metals refining applications as a controlled atmosphere.Helium is used as a leak detector. It's also used as a carrier gas in gas chromatography, a process in chemistry to identify and separate compounds."

Monday Morning Briefing
Apr 14, 2019

SIFCO Forge Fire. SIFCO provides forgings to the Energy and Aerospace Industries from locations in Cleveland, Ohio, USA, Italy and Orange, California. Back on December 26th the Orange facility suffered a bad fire as you can see from this press release from the company; *"We experienced a fire at SIFCO's Orange, California manufacturing facility ("Orange") on December 26. The damage is significant to one of three manufacturing buildings. As noted in more detail below, we have taken steps to address such damage and minimize disruption. We are thankful that no one was injured in this event. The two buildings not directly impacted were back in service on December 28. We have been actively working containment and return to service of the facility."*
Destroyed in the fire were 6 mesh belt annealing lines. Originally the company was looking to replace these furnaces with used items however our understanding is that SIFCO was only able to find 1 used line that fit the bill and as we speak the others are being replaced with new furnaces. *Wisconsin Oven Corporation announced the shipment of one (1) Electrically Heated Horizontal Solution Treat System with a chiller system to a manufacturer in the aerospace industry. The Horizontal Solution Treat System has a maximum oven operating temperature of 1,100°F and work zone dimensions of 12'3" wide x 3'11" long x 4'6"*

high. Guaranteed temperature uniformity of ±10°F at set points of 870°F, 920°F, & 985°F was documented with a twelve (12) point profile test in an empty oven chamber under static operating conditions and was performed in accordance with BAC 5621F specifications.

Furnace and oven builder *Pyradia* sent us this press release about a new order they received from a company by the name of *Unicast* in New Hampshire, USA. The company is based just outside of Montreal, Canada and we have seen it grow by leaps and bounds over the past 20 years. We expect to be visiting the operation in just a few weeks and will give you some more details then; *"Uni-Cast is expanding their factory located in Londonderry, NH and they chose Pyradia for the purchase of 2 electric drop bottom ovens with a temperature uniformity of +/- 10 °F. Uni-Cast is a major manufacturer of sophisticated aluminum investment castings which has built an enviable reputation in the industry for strict quality control and the capability to produce some of the industry's most challenging designs."*

Cambridge Heat Treat, Canada. We ran across a press release in a Thermal Processing magazine late last week which talked about commercial heat treater Cambridge Heat Treat adding some equipment. The item left us rather puzzled as this news item is now almost a year old. Our friends at family owned Cambridge did indeed place an order last year for two brand new, top of the line batch IQ furnaces with working dimensions of 36" X 48" X 36". At the same time the company purchased two used units with exactly the same dimensions and these were installed last year. What we can tell you which is "new" is that Cambridge has just placed an order with controls company SSI to update the controls on the used furnaces. This photo shows you the entire line.

Are the Chinese taking over? We have had several stories recently about how a Chinese auto parts company has purchased a European builder of vacuum furnaces *(scroll through our news for the past couple of weeks to find all the details)*. There is only one small catch to this story-the vacuum furnace manufacturer is saying that this is not the case leaving us very puzzled. There appears to be confirmation on Chinese websites but until we have 100% confirmation by both parties we are going to give this story a rest. In Mexico we recently mentioned how *Paulo* had just bought a really, really nice vacuum furnace for their facility in Monterrey. Well according to the company it was commissioned just last week and is ready to go. This is the furnace.

French furnace builder *BMI* is telling the world about another vacuum furnace installation they have in Taiwan meaning that the company has now sold 145 into the country-quite something. *"In December 2018, BMI shipped a complete heat treatment line to Taiwan. The production line included three vacuum furnaces: one double chamber gas quenching/oil quenching furnace, one tempering and low pressure nitriding furnace and one gas quenching furnace as well as the peripherals and loaders. This production line was recently installed in a brand new heat treatment workshop. Today, the total number of BMI furnaces in use at Taiwanese customers has reached 145 units."*

In people news we see that *Heather Falcone* is now CEO of *Thermal Vac* in Orange, California, USA. Thermal-Vac is a really impressive commercial heat treater started by our friend *Steve Driscol* many years ago. Heather we have never met but we understand she has been with the company for 16 years in a number of different positions. And in the UK, *Mike Oldham* has just become *Vacuum Technical Manager* at one of the leading providers of heat treating equipment in the country, *Vacuum & Atmosphere Services Ltd.* Mike come with a wealth of experience having worked with companies such as *Bodycote* and *Abar Ipsen.*

Caterpillar/Texas Heat Treating
Apr 12, 2019

Back on March 28, 2018 we had a news item about an auction of the remaining equipment at a Caterpillar facility in Waco, Texas. Subsequent to our original news item we mentioned that all of the AFC-Holcroft batch IQ furnaces had been purchased by a used equipment dealer. Well the used equipment dealer certainly didn't own them for long, we found our yesterday that all of the furnaces were bought by one of the largest commercial heat treaters in the State, Texas Heat Treating http://www.texasheattreating.com/ which has two locations, Round Rock and Fort Worth. These furnaces (which have working dimensions of 36″ X 48″ X 72″ by the way) will be installed in the Fort Worth location where they will join a number of other batch IQ furnaces. The President of the company Mr. Buster Crossley stated that he has never seen such nice looking used equipment *"it looks like it was rarely used"*. The one photo below called "Fort Worth" shows the facility in Fort Worth as we saw it a couple of years ago. The second photo shows the equipment at Caterpillar.
"Caterpillar, Inc., Waco, Texas, USA; Back in February of 2018 Caterpillar announced that they would be closing their Work Tools facility in Waco, Texas-a facility which made buckets, couplers, and hammers. The plant did indeed close with production moved to a Caterpillar location in Wamego, Kansas or outsourced to external suppliers. The remaining equipment will be going to auction this week-March 28 to be exact. The plant had a substantial heat treat department which included several fairly new and quite large AFC-Holcroft UBQ furnaces which can be seen in the photos below. While the auction has obviously not been held yet we understand these furnaces have already been bought and removed from the auction. What does remain is a Williams carbottom and several other heat treat related items."

Specialty Steel Treating Invests in New AFC-Holcroft Equipment As Part Of Multi-Year Program
Apr 12, 2019

"Commercial heat treater Specialty Steel Treating in Fraser, Michigan (USA) has invested in new AFC-Holcroft UBQ (Universal Batch Quench) furnace and a UBTN

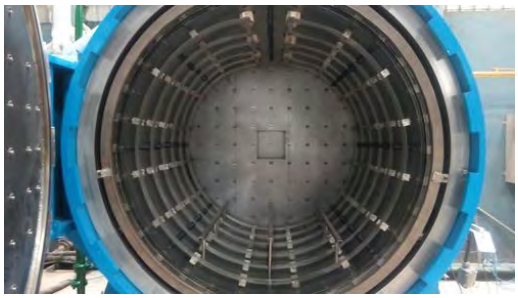
(Universal Batch Temper) annealing furnace as companion equipment, as part of a larger multi-year equipment standardization program intended to replace older equipment provided by another supplier. The UBQ and UBT are near duplicates to equipment recently provided by AFC-Holcroft as part of the same multi-year program. Specialty Steel Treating has had a long relationship with AFC-Holcroft, and uses several different types of AFC-Holcroft furnaces in their production facilities in Michigan and Connecticut, including multi-row pusher furnaces designed for high capacity output, as well as some large capacity UBQ batch equipment and accessories.
Tracy Dougherty, Vice President of Sales at AFC-Holcroft states, "We're excited to be a part of the continued growth and expansion of Specialty Steel Treating. The customization of these furnaces combined with state of the art controls and IoT features (Remote Diagnostics™), enable both AFC-Holcroft and Specialty Steel Treating the ability to offer superior quality, performance and continuous improvement to customers." Delivery of the UBTN is expected in the 2nd quarter of 2019 to the Specialty Steel Treating site on Malyn Road in Fraser, with the UBQ to follow in the 3rd quarter to the Commerce Road plant, also located in Fraser."

ALD Vacuum Technologies North America, Inc.
Apr 11, 2019

"AMG Advanced Technologies announces the realignment of the North American Equipment Sales Companies, ALD Vacuum Technologies and ALD Vacuum Systems Into the new entity: ALD Vacuum Technologies North America, Inc., headquartered in East Windsor, Connecticut effective January 1st 2019. David Esser, President of the new entity states, "Our organization supports AMG Advanced Technologies long term strategic approach to providing furnace equipment and customer services to the Vacuum Heat Treatment and Vacuum Metallurgy Furnace markets in North America". ALD Vacuum Technologies North America, Inc. is a wholly owned subsidiary of AMG Technologies GmbH.

Shanghai Qizhi Information Technology Co., Ltd.
Apr 10, 2019

Betcha you have never heard of Shanghai Qizhi Information Technology Co., Ltd., based in Ningbo, China before-we certainly hadn't. If you are curious about the company you can get all the details at http://www.qijing-m.com/En/INTRODUCTION.html which will tell you it is a large conglomerate which produces auto parts, power tools, washing machines, home appliances and a host of other items. What the website does not tell you is that supposedly in the near future the company will be able to add vacuum furnaces to their list of products. This by the way fits very neatly with what the company does as they already have a large heat treating operation featuring sealed quench furnaces. If our information is correct they have just reached an agreement to buy a European manufacturer of vacuum furnaces and we will be telling you all about it.



Where Are They Now-Thomas Lord
Apr 10, 2019

When you have worked for companies such as furnace manufacturer SECO/WARWICK in Meadville, PA and Modern Heat Treat in Erie, PA you learn your trade so it is no surprise that Thomas just recently became Sales Director for one of the largest commercial heat treaters in North America, ALD Thermal Treatment in Port Huron, Michigan. Back in September of 2018 when we updated our list of the largest North American commercial heat treaters we had ALD TT listed as 9th on the list https://themonty.com/largest-commercial-heat-treats/ We are rather embarrassed that we don't have a recent photo of this facility so we will use this one of the ALD TT operation in Mexico which has very similar equipment .

Solar Atmospheres South Carolina Facility Orders 12' Vacuum Furnace
Apr 10, 2019

"Solar Atmospheres announces the order of a new 12' long car-bottom vacuum furnace with advanced pumping system and rapid cooling capability for our Greenville, SC facility. This state-of-the-art 144" deep x 54" wide x 54" high horizontal vacuum furnace is capable of processing up to 50,000 lb loads. Manufactured by sister company Solar Manufacturing, installation is scheduled for early 2020. This furnace design features a vacuum pumping system capable of achieving an ultimate vacuum of 1×10-6 Torr, crucial to the processing of titanium and other high grade alloys.
Additionally, this furnace will apply newly developed designs for the uniform and rapid cooling of large workloads, allowing our Greenville facility to continue bringing unique processing capabilities to the Southeastern United States. Regional Sales Manager, Michael Paponetti, states, "We see the acquisition of this new furnace as key to meeting the growing needs of Solar's customers. This provides yet another tool to lower their cost of heat treatment through economies of scale only experienced through the use of large vacuum furnaces."

HÄRTEREI REESE Bochum, Gear Hardening Video
Apr 9, 2019

In Bochum, Germany we find commercial heat treater REESE one of the largest commercial heat treaters in the country. This is a family owned business with a long established history and the distinction of hardening some of the largest gears, shafts and pinions in the world. As a matter of fact the company regularly receives large parts from North America to heat treat for the simple reason that no company in North America has furnaces as large as REESE does.
The centrepiece of their Bochum facility is a monster pit carburizing unit made by ROHDE Schutzgasöfen GmbH in Hanau, Germany. Able to handle parts up to 17' in diameter, 17' deep and up to 50 tons we never get tired of seeing this furnace in action which is why their name comes up today. We just received this video from the company showing a typical part (at least for REESE) being heat treated. The other photos show the management team in one picture and in the other the ROHDE furnace shortly after it was installed.


Where Are They Now-Ross Hill
Apr 9, 2019

Ross does not come from a heat treating background rather an automotive background working with companies such as Magna International. However a few years back he took over the GM position at the Bodycote facility in Newmarket, Ontario, Canada (which closed about a year ago) and did a very competent job running the plant until it was closed. Subsequent to that he worked at commercial heat treater Atlantic Heat Treat in Ajax, Ontario up until about a year ago when we lost track of him. We can now say that he has left the heat treat industry and is now Vice President and General Manager at Unilux VFC Whitby, Ontario, Canada. We would consider this a loss to the industry. The photo below shows from the left; Gord Montgomery, Jordan Montgomery, Jon Mathews (owner Atlantic HT) and Ross Hill.

Monday Morning Briefing
Apr 8, 2019

"Gasbarre is pleased to announce the promotion of Mike Harrison to Engineering Manager for Gasbarre Industrial Furnace Systems (formerly J.L. Becker), in Plymouth, MI. Mike started with Gasbarre in 2017 as a Sales and Metallurgical Engineer. Since that time, Mike has demonstrated great leadership and technical ability. In his prior role, Mike has shown a keen ability to develop and implement

product and process standardization as well as technical solutions for the everyday challenges of customers.
He holds a BS in Materials Science and Engineering from the University of Michigan and an MBA from Walsh College. "Our entire organization is excited for Mike and his new role," says Ben Gasbarre, President of Industrial Furnace Systems. Ben adds, "Mike's skill set, education, and experience within the heat treating industry gives him the tools necessary to not only help our organization, but our customers as well." We will add to this news item that Mike is an ex *Bodycote* guy and an ex *American Axle Manufacturing* guy so he must know his stuff.

Recently we mentioned that *Mr. Dan McCurdy* President, *Bodycote*Automotive and General Industrial Heat Treatment, North America and Asia would shortly be retiring and speculated on who might be replacing him. Well we are starting to think that Dan's shoes are so large that nobody will be able to fill them. Specifically we have heard several individuals say that no decisions have been made and it is quite possible that his responsibilities might be shared amongst several people. We will keep you updated.
We see that *Kevin Walters* very recently became Production Manager at the *Bodycote* plant in South Windsor, CT, USA-Kevin has a very interesting work history by the way. He was a Bodycote fellow for many years before he became Heat Treat Manager for fastener company *OMG*in Agawam, Massachusetts when the company invested $15 million USD into building a state of the art heat treat department back in 2017. It would appear that he has now returned to Bodycote. To really close the circle we can also say that Bodycote processed all the heat treating requirements for OMG before they brought the work in house. These photos show Kevin at OMG.

Well I guess we will make this a *Bodycote* day as we seem to have a lot of news about the company. Mind you that is not surprise considering Bodycote is a $1 billion USD per year company and the largest commercial heat treater in the world. If you recall back in July of 2017 the company had a very bad fire at their location in *Syracuse*, (formerly Syracuse Heat Treating). Little has been announced publicly about rebuild efforts but we are here to tell you that they are underway and we will probably be hearing more about a multi million dollar investment plan in the near future. *Robert Ballinger*-Well He Didn't Last Long. Robert was Divisional Engineering Manager for the Bodycote AGI/North America & Asia division starting August 2017 for a period of 1 year and 9 months before retiring. That was a short stint.

It always brings joy to our hearts to see manufacturers adding heat treating capacity which meant we got a kick out of this story; *"Estwing Manufacturing Co. — the maker of hammers, axes and pry bars among other striking tools — is planning a $10 million expansion of its Eighth Street facility that would keep 296 employees in Rockford and add 30 more. Mayor Tom McNamara said the expansion is a big win for the city because the company had considered moving out of state. McNamara said Estwing has been great to work with and it is gratifying to see it "doubling down on the city." Rockford's Planning & Development Committee on Monday will consider a $50,000 Community Development Block Grant that would help defray the cost of $845,000 worth of heat-treating equipment that is part of the expansion, said Karl Franzen, the city's community and economic development director."*

We will also say that Rockford, Illinois USA is known as the fastener capital of North America and has one of the largest concentrations of captive and commercial heat treaters in the world. It sounds like aerospace engine and components company, *Continental Aerospace Technologies* in Mobile, Alabama has added a couple of Plasma nitriding systems. *"Continental Aerospace Technologies™ (formerly Continental Motors), which is recognized for manufacturing piston engines for small aircraft, sought to improve its nitriding systems with high ammonia emissions and turned to RÜBIG Industrial Furnaces, an Austrian metal hardening company. RÜBIG supplied two "EVEREST 100/180 Duo" plasma nitriding and annealing furnaces, as well as a cleaning solution. The*

equipment provides independent multi-heating and cooling zones and the Micropuls® technology."
Oh and speaking of *RÜBIG* we also have this news item; *"RÜBIG continues its international expansion course. Optimal support of its customers in the booming US market is very important to the traditional Austrian company A valuable distribution partner for the Division of Industrial Furnaces could be found after intensive search with Mountain Rep in Cleveland. Rosanne Brunello, General Manager of Mountain Rep, has an international reputation. The winner of the ASM President Award Cleveland has 35 years of experience in the distribution of heat treatment furnaces, pumps and products. Their expertise is enriched with many years of experience in the aerospace industry. She is supported by John Young. The assistant professor of metallurgy at Macomb Community College has 40 years of professional experience. The "RÜBIG TEAM USA" during the first training (from left to right): Rosanne Brunello, John Young, service technician Ernst Schwarzlmüller, sales manager Sabine Kreuzmayr, process engineer Roland Kullmer, salesman Uwe Rahn and service technician Nermin Imsirovic."*

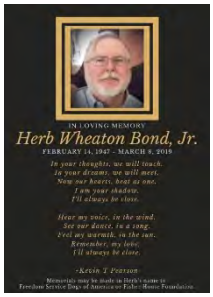
And to round things out commercial heat treater *Listemann* in *Liechtenstein* sent us this press release and photo of a recent student visit the company arranged; *"17 students from all over Germany and the persons responsible for the DVS (German Association for Welding Technology) were participants in a one-day practical workshop at Listemann in Liechtenstein. The participants were given the potential and potential uses of vacuum soldering as lectures Joining and coating process brought closer."* Looks like the company is a big Ipsen fan.

Ipsen USA Enhances Midwest Territory Coverage with Experienced Technical Salesman
Apr 5, 2019

"Ipsen USA is pleased to announce the transition of Andrew Yazot from International Sales Manager to Midwest Regional Sales Owner, effective immediately. In this position Yazot covers nine states in the Midwest, replacing former Midwest Regional Sales Owner Matt Clinite, who was promoted to Ipsen Customer Service Sales Manager last month. "My mission is to continue the level of customer service Matt established with customers and prospects in the territory," said Yazot.
"My technical background and attention to detail will allow me to do that." Yazot joined the company in 2009 and has provided sales support in Eastern Europe, Russia, Germany, China and parts of the United States. Yazot holds a degree in mechanical engineering, and has worked in technical sales for more than two decades. Yazot will be based out of Ipsen's Cherry Valley facility. "Andrew is a great asset to Ipsen with more than a decade of working experience in the industry," said Pete Kerbel, Vice President of Sales, Ipsen USA.

"His breadth of domestic and international experience is what makes him a balanced problem-solver, and I have no doubt our Midwestern client base will succeed with Andrew as their representative." Ipsen's Sales Team is made up of technical experts and engineers who devote themselves to being a partner in success. With more than 70 years of providing heat treatment solutions, Ipsen is committed to keeping our customer's furnaces operational and efficient."

Herb Bond, Marathon Monitors
Apr 5, 2019



It is with regret that we mention the passing of Herb Bond at the age of 72. Herb spent his entire life in the heat treat controls industry with companies such as Super Systems Inc. and Marathon Monitors. When he retired a few years ago he moved to Denver, NC where he spent a great deal of his time fishing and camping. On a personal note we at “The Monty” worked with Herb many times over the years and always had a high opinion of his knowledge and professionalism. A memorial service was held for Herb March 14 and he was laid to rest at the Salisbury National Cemetery in NC.

Dana Lafayette Manufacturing Fire
Apr 5, 2019

All of the employees at Dana Lafayette Manufacturing in Lafayette, Indiana, USA were evacuated yesterday for a few hours after a small fire in the heat treat department. Because the fire department arrived within minutes the fire was quickly contained although no cause is yet known. This gear manufacturer was originally Oerlikon Fairfield before being purchased by Dana last year. Their heat treat department includes press quenching.

Alloy Theft
Apr 4, 2019

Even after over 20 years of publishing “The Monty” we are still surprised at what catches peoples attention and what doesn’t. For instance last week we had a rather brief news item about an alloy theft from an ArcelorMittal facility in Indiana (clarification; by alloy we mean any high nickel content material used in a heat treat such as base trays, baskets, muffles, etc. Theft needs no explanation).
This has always been an issue for heat treaters because depending upon the current price of alloy these items can be worth quite a bit of money and most are completely anonymous-not many serial numbers on a 330SS basket (by the way alloy theft is not quite as common these days because the price of nickel has dropped over the past few years, but it is still prevalent-see this chart).
With this background out of the way we will now say that for some reason this story hit a nerve with heat treaters and solicited a number of comments;
Pusher Furnaces. For years we ran HU cast base trays from Alcon Industries through our pushers. We always thought the life was rather short until we started realizing we could find very few used trays. Turns out somebody was stealing them but as we had a rather large lay off shortly thereafter we never did find out who was taking them, just that we stopped losing them.
Dan Hicks, Owner High Desert Heat Treating LLC; Had some Jabronis come into shop offer me to buy my used temper furnace but needed some baskets to go with it. Loaded up some baskets and a base tray. They said they would send a truck for temper. I checked their business card right after they left, no business existed and address was under an overhead train in Chicago. They gave me some cash for baskets and trays so it really wasn’t theft and the age of the baskets and tray would have been hard to prove theft. Scam for sure.

<u>Richard Wilson Jr., P.E. Owner at Wilson Metallurgical Laboratories;</u> I worked for foundry once who had a man who left work in a long over coat on a dry 70 degree day. He tripped in the parking lot and couldn’t get back up for all of the copper he had stuffed into the coat.
Anonymous in Canada. All our old alloy goes into the back until we have enough for a load. Surrounded by a fence and motion lights, this is what we found last year after the May 24 weekend! Now it stays near the loading dock.

Charles Davenport Joins Bodycote ADE
Apr 4, 2019

For over 35 years Charles has worked in the heat treating industry with aerospace companies such as Honeywell in Greer, SC, USA and Goodrich Aerospace in Hodges, NC. Well Charles has just become the Quality Engineer at Bodycote, ADE in Fountain Inn, South Carolina. The Fountain Inn location was originally part of Carolina Commercial which was bought by Bluewater Thermal who then sold the plant to Bodycote a few years back. Since that time the company has made some substantial investments in the facility. By the way the ADE Group of Bodycote is; Aerospace, Defense & Energy and given Charles background in aerospace you can see the fit.

Dowa Thermotech, North Carolina
Apr 3, 2019

Japanese furnace manufacturer and commercial heat treater Dowa has been in the news recently, mainly because of some issues at their commercial heat treating facility in Bowling Green, Ohio, USA although that is a story which has already been told. Today we look at their newest location which is in North Carolina, USA. Last August the company announced that they would be investing $22.5 million USD into a brand new commercial heat treating operation in Lee County, NC (the official announcement is below).
Our understanding is that work is proceeding as expected and we have an artists rendition of what the facility will look like when finished which is below. We also have a picture from A.W. North Carolina, a local manufacturer of vehicle transmissions for Toyota and the end customer for Dowa for the heat treating side of things. A.W. has 2,200 employees and pushes out 175 transmission per hour for Toyota Camrys and Tundras.
"Dowa Thermotech, a global provider of industrial furnaces and heat protection treatments, will build its first North Carolina plant in Lee County, creating 109 jobs. The Japanese company plans to invest $22.5 million in Sanford with plans to serve clients in the automotive and industrial machinery supply chains.
"Dowa Thermotech is the latest example of an international company choosing North Carolina as the perfect location to do business," said Gov. Roy Cooper. "North Carolina competes with the top locations anywhere in the world, thanks to our strong business environment, world-class workforce, and high quality of life." North Carolina Commerce Secretary Anthony M. Copeland and Ryuji Tsuji, president for Dowa Thermotech, at the announcement of the company's new plant in Sanford, North Carolina.
Dowa Thermotech, with headquarters in Nagoya, Japan, is a subsidiary of Dowa Holdings Co. Ltd., a global company operating in a wide range of industry sectors including nonferrous metals, metal processing and environmental management and recycling. Dowa Thermotech specializes in the manufacture of industrial furnaces and offers high quality commercial heat treatment services. The company provides heat protection for metal engine parts, transmissions and other rotating elements that operate in harsh environments."

Michael Mathews, UTC Aerospace, UK
Apr 3, 2019

Now here is an interesting twist. Michal Mathews worked as a field service engineer for Vacuum Furnace Engineering Ltd., in West Midlands, UK for a couple of years. He enjoyed the vacuum furnace industry so much that he just recently became a Furnace Engineer at UTC Aerospace Systems Telford, Shropshire, United Kingdom. UTC is of course involved in the aerospace industry and is one of the largest vacuum heat treaters in the world.

Heat Treatment Chile
Apr 2, 2019

Recently we at “The Monty” had the chance to visit Chile, largely for pleasure but also partly for business. Based upon that visit we have this brief summary about the captive and commercial heat treatment industry in that country-and it will be brief based upon the amount of heat treating;
There are two commercial heat treaters in the country both based in Santiago. The largest is Tratamientos Térmicos Panamericana Norte which was founded back in 1983. The company is family owned like so many other commercial shops around the world and has roughly 30 employees working 24 hours/day 5 days/week with weekends reserved for overflow work. I am sure it is because of the metal working market in Chile that this is what we would call a “job shop” as opposed to a production shop doing large volume work such as automotive. To take it one step further much of what the company does is related to the main industry in the county

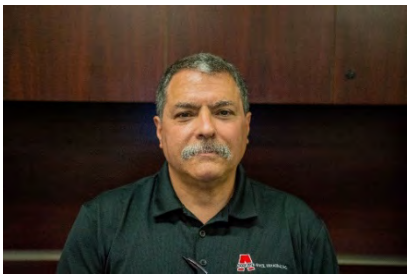
which is mining. There is one other much smaller commercial plant which was founded by an ex employee of Tratamientos Térmicos Panamericana Norte offering pretty much the same processes but on a much smaller scale.
The largest captive heat treat in the country is a company by the name of Cormecánica which is wholly owned by French automotive company Renault. At last count this plant had made 3 million gearboxes, every one of which was heat treated in house in one of several batch IQ furnaces. At least one of the mining companies in the country has a reasonably large captive heat treat department consisting of several pit carburizing furnaces but typically the mining companies outsource all their heat treating to the local commercials. We were told that there is a grand total of one vacuum furnace in the country, a large unit built by Italian furnace builder TAV which is used for brazing.
And that as far as we can tell is the limit to heat treating in Chile-we told you it would be a brief report.


April Fools Day/Thermal Process Holdings
Apr 1, 2019

As part of our Monday Morning Briefing we had a note about commercial heat treater Thermal Process Holdings (John Hubbard's group) being poised to expand to almost $200 million USD in annual sales in the very near future.
While we hope that this does prove to be true at some point in time this is not the case now and is merely an "April's Fools Joke". This photo shows one of the holdings in the group, P & L Heat Treat in Youngstown, Ohio, USA.

Monday Morning Briefing
Apr 1, 2019

From commercial heat treater *Accurate Steel Treating* in Southgate, CA, USA we have this mention; *"I'm very pleased to announce that Geoff Monti has joined Accurate Steel Treating (AST) as Director of Special Projects and Metallurgy. Geoff's initial assignments will include developing and refining best practice heat treating techniques with special emphasis focused on processing Nickel, Stainless and Titanium forgings. Geoff will act as the technical resource and account manager for these clients. In this capacity Geoff will be interacting with Quality, Production, and Engineering functions to insure process integrity. Beyond these assignments Geoff will utilize his vast experience in metallurgy and heat treating to drive continuous improvement in overall plant operations.*
Geoff comes to us with 40 years of heat treating and metallurgical experience. Prior to coming to AST, Geoff spent 10 years at Wyman-Gordon where he started his career as a Product Metallurgist, eventually becoming Chief Metallurgist at the Worchester, MA plant. He then moved to H&H Heat Treating / Lindberg Heat Treating / Bodycote holding various management and technical positions for 25 years. He has extensive experience and expertise in Nickel, Titanium and Aluminum Metallurgy and recent accomplishments include acquiring Nadcap approval at Superior Handforge, in Santa Fe Springs, CA where he served as VP of Quality. Geoff received a BS degree in Materials Engineering from Rensselaer Polytechnic Institute, Troy, NY and has completed 42 course credits towards his master's degree. I'm excited that Geoff has joined AST and confident that he will be a valuable resource for our team members and customers. Chris Hall, President – Accurate Steel Treating, Inc."



Dan McCurdy, President, *Bodycote* Automotive and General Industrial Heat Treatment, North America and Asia. In our humble opinion Dan is one of the most knowledgeable fellows in the entire worldwide heat treating industry-unfortunately Dan will be retiring May of this year. What we are curious about is who his replacement will be? We have heard several names bandied about but nothing definite yet. *Hot Isostatic Pressing* (Hipping) has been in the news quite a bit recently as commercial heat treaters find that this can be a very lucrative technology (read our interview with *Jan Soderstrom*, CEO of Hipping equipment supplier *Quintus Technologies* at https://themonty.com/mr-jan-soderstrom-quintus-technologies-interview/).

As a footnote to this story we were approached by *Ed Tenerini* who in a past life worked for Bodycote in the US, the largest provider of this service in the world. Ed is now a consultant working on his own specializing in Hipping and he has a rather interesting summary of Hipping in North America on his website http://www.globalhipconsultants.com/. A reader from steel supplier *Uddeholm* sent us this photo of their new facility in Vetlanda, Sweden featuring some real nice looking *Ipsen* furnaces.

Recently we mentioned a rumor about a *"Western"* furnace builder being acquired by a Chinese automotive company. Well we still don't have confirmation on this, the latest rumors say the two companies are still apart on pricing due to reduced margins on the part of the furnace manufacturer. Certainly we can attest to the fact that there are not enormous margins in the new furnace business. In Canada we have been told that *Janusz Petlicki* will shortly be retiring. Janusz is a metallurgist who is quite well known in the Canadian captive heat treating

industry having worked at *TRW*, St. Catherines for a number of years and most recently at the *Royal Canadian Mint* in Winnipeg. On the US west coast we see that *Craig Beaumier* recently became VP of Sales at *Stack Metallurgical* the largest commercial heat treater in the US northwest. It's interesting that Craig used to sell for *Quintus Technologies* (who are mentioned above) and that Stack just recently ordered a system from Quintus-must be a heck of a salesman.

Furnace manufacturer *SECO/WARWICK* sent us this interesting press release; *"Leading the way with another industry innovation, SECO/WARWICK has delivered and commissioned the first-ever vacuum purging semi-continuous Active Only® CAB furnace for a North American automotive aftermarket manufacturer. It is their first furnace of any type and simultaneously their largest capital equipment investment to date. The new semi-continuous Active Only® CAB furnace, equipped with vacuum purging in the loading and unloading chamber, is one of its kind in the industry.*

It allows for reduction of nitrogen consumption and cost, and it provides extraordinary control of brazing atmosphere quality. This applies in particular to heat exchangers with joints brazed in a closed space. Vacuum purging allows for the perfect removal of oxygen from these spaces before brazing, which cannot be achieved by traditional purging." And to round things out we see that earlier this year *Lee Watson* became CEO of *Alloy Engineering* in Berea, Ohio, USA after a number of years with the company. Alloy Engineering is one of the larger alloy fabricators in the industry and their ad can be found on this page.

USED EQUIPMENT

Want to get true market value for your used heat treating equipment?

themonty.com is the only way to do this! Unlike used equipment dealers we work on a commission basis meaning no high overheads, no buy and resells, no high expenses which means that you as a seller get what your equipment is worth-not what a used equipment dealer will pay you for it.

Not sure what your equipment is worth or how salable it is?

Let us know and we can give you a **free appraisal** and an honest answer about market conditions – **no BS**. Before listing we will require a signed copy of the "**Terms and Conditions**".

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

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

BATCH IQ FURNACES

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

Item#IQ464 Ipsen T-4 Batch IQ Furnace

Ipsen Model: T-4 Batch IQ Furnace, Serial # 52506
Type: Straight Through Atmosphere Integral Quench Furnace
Processes: Carburizing, Neutral Hardening and Carbonitriding
Heat Input: Natural Gas-Fired (8 ceramic radiant tubes)
Work Zone: 24"W x 36"D x 18"H
Max. Temp: 1850°F (Typically operated at 1750°F)
Max. Load Wt.: 850 lb at 1550F
Quenchant Heating and Cooling: Yes (SBS Oil Cooler)
Loading/Unloading: Ipsen Powered Front-end Loader and Roller Unload Table
Pit Required: None
Carbon Control: SSI Gold Probe
Controls: Super Systems, Inc. 9120 touch screen, with SSI Series 3 & 7 controllers, Digital data logging (currently tied into plant-wide SSI Super Data system), SSI eFlo Electronic Flowmeters for natural gas and air.
Insulation Type: Brick-lined
Included: Any available spare parts, Ammonia Tank.
Footprint: 5'5" Wide x 17'-10"Long x 13'-2" High per literature (We measure 93"W x 21'L x 14'H)
Alloy: Grids and baskets may be available

Asking Price $39,000 USD

https://themonty.com/project/itemb464-ipsen-t-4-batch-iq-furnace/

Item#IQ463 Ipsen T-7 Batch IQ Furnace

Ipsen Model: T7-1000-DGM Batch IQ Furnace. Serial #52044. Type: Straight Through Atmosphere Integral Quench Furnace
Processes: Carburizing, Neutral Hardening and Carbonitriding
Heat Input: Natural Gas-Fired (12 Silicon Carbide Radiant Tubes)
Work Zone: 30”W x 48”D x 20”H
Max. Temp: 1850°F (Typically operated at 1750°F)
Max. Load Wt.: 1350 lb at 1550F
Quenchant Heating and Cooling: Yes (SBS Oil Cooler)
Loading/Unloading: Ipsen “T7 Trans. Loader” powered Front-end Loader and Roller Unload Table
Pit Required: None
Carbon Control: SSI Gold Probe
Controls: Super Systems, Inc. 9120 touch screen, with SSI Series 7 & 7SL controllers, Digital data logging (currently tied into plant-wide SSI Super Data system)
Insulation Type: Brick-lined
Condition: Refurbished by Unitherm, Converted to Eclipse Recuperative Burners (still under warranty)
Included: Any available spare parts, Ammonia Tank.
Footprint: 8’-6” Wide x 27’ Long x ~14-1/2’ High
Alloy: Grids and baskets may be available

Asking Price $59,000 USD

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

Item#IQ462 Beavermatic Batch IQ Furnace

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

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

Asking Price $55,000 USD

https://themonty.com/project/itemb462-beavermatic-batch-iq-furnace/

Item#IQB461 Surface Combustion Batch IQ

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

Asking Price $65,000 USD

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

Item#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 overtempt. 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 Furnace "Like New"

Unitherm Industries Pit Carburizing furnace with working dimensions of 36″ diameter X 72″ deep. Model GP3672. Installed in 2015 and in operation until December 2018 when the plant was closed down. Maximum operating temperature of 1850F, maximum load 2,000 pounds. Gas-Fired with Eclipse Thermjet TJSR55.0060 Self-Recuperative Burners (3 each) designed for a maximum temperature of 2200F. Corrugated Alloy Retort with cast support grid and alloy fan located in the bottom of the furnace. Controls; Super Systems, Inc. 9120, Series 7, Series 7SL, Digital Data Recording. Floor Space Requirement as Installed Now: 30'W x 15'D x 15'6″H. Pit Required: 136″W x 20'L x 7'-10″Deep. Also included is a 2015 Unitherm Endothermic generator Model: EG2000, S/N: 102113-13-2, CFH: 2000 CFH. Gas fired. Other extras included; Gas collection hood, Overhead Crane, Quench Oil tank, Alloy baskets and work carriers. Excellent condition! Available immediately.

For Pricing Please Contact Jordan@themonty.com

https://themonty.com/project/itemb473-pit-carburizing-furnace-like-new/

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

Ionitech's Plasma nitriding Cold-Wall furnace ION-75CWI, with 2 Chambers and one control. The furnace is capable of Plasma Nitriding, Plasma nitrocarburising, and Post-oxidation, processing big and small parts and tools. The furnace has been used for 4 years at Ionitech's facility and has been taken care of perfectly – it is good as new. It still works daily. It has been retrofited to work with our absolutely user-friednly 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 sets in a steel support when not in use. Electrically heated with a voltage of 230/3/60/105 kW. Model # 3896-E12 and serial # 14030. Max operating temperature is 1250°F. Working dimensions of 36″ diameter x 84″ deep with external dimensions of 5’w x 9’4″H x 7’l – Furnace Only. Controls mounted and wired in a free standing panel includes all necessary controls for proper operation.

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

Item#B452 AHT Fluidized Bed Furnace

Applied Heat Technologies (AHT) fluidized bed furnace. Treatment chamber is 300 mm diameter x 900 mm deep (roughly 12 in diameter x 36 in deep.) Maximum temperature is 1050 °C (1922°F). Maximum load is rated at 50 kg at 1000 °C (110 lb at 1832 °F) and 90 kg at 570 °C (198 lb at 1058 °F.) Mark® fluid bed furnace controller software. Silicon carbide heating elements, 25 kW, configured in delta. Piping is set to accept nitrogen, argon, hydrogen chloride (HCl), and hydrogen gasses. Inert material is P120 grit aluminum oxide (Al2O3) powder. The fluidized bed is designed to deposit vanadium carbide (and other

carbides with correct chemistry) onto steel. The fluidized bed system comes with a propane burner, HCl detection system, and scrubber system. The system also has a hood and quench bed that came with it but these have not been used and it cannot be verified that they work. The fluidized bed system with scrubber is currently operational but is not being used. Almost new heating elements with one spare included.**Asking Price $99,000 USD**

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

Item#B448 Kleenair Products Tip Up Style Furnaces

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

Asking Price $55,000 USD Each

or

$150,000 USD For All Three

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

Item#B436 Lindberg Pit Gas Nitrider

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

Asking Price $50,000 USD

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

Item#B426 Plateg Plasma Nitriding Unit

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

Asking Price $98,000 Euro

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

Item#B415 J.L.Becker Car Bottom

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

Asking Price $95,000 USD

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

Box Furnaces

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

Item#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#C341 CI Hayes Mesh Belt Furnace

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

Asking Price 18,000 USD Loaded On A Truck

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

Item#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 l 800 mm x H 1250 mm. Perfect condition, ll manuals included. Located in France.

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

Item#C330 Lobo Hornos Mesh Belt Furnace Line

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

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

Item#C324 C.I. Hayes Mesh Belt Furnace

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

Asking Price $49,500 USD

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

Item#C323 Aichelin Cast Link Furnace Line

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

For Pricing Please Contact Jordan@themonty.com

https://themonty.com/project/itemc323-aichelin-cast-link-furnace-line/

Item#C321 Ipsen Austempering System

Ipsen Model SG500, S/N52822. Shaker hearth style hardening furnace is capable of 500 pounds/hour, 1850F operating temperature, gas fired 800,000 BTU’s/hour with an 18” wide tray. Temper has an operating temperature of 800F and a heat input of 300,000 BTU’s. Controls on both are Honeywell UDC units.

Entire system consists of a magnetic conveyor loading system, Ipsen shaker-feeder-hopper. Mitsibushi 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 sold state digital readout controller and overtemp for each of three zones, includes volt and amp meters. Full alloy muffle in hot zone. 20’ long sealed water jacketed cooling. Globar heating elements over and under the belt. (3) zones of control. (4) argon flowmeters. Dayton AC inverter provides adjustable belt speed. Updated SCR controls. Muffle and belt are new. Very good condition.

Asking Price $29,000 USD

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

Item#C265 Sunbeam Pusher Carburizer

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

Asking Price $40,000 USD

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

DRAW/TEMPER OVENS

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

Item#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. Overal dimensions of 8' Wide x 7' Deep x 11'8" High. Approximate weight of 8,000 lbs.

Asking Price $39,500 USD Each

https://themonty.com/project/itemt357-surface-combustion-electric-tempering-furnaces-3-available/

Item#T356 Wisconsin Oven Temper Furnace

Wisconsin Oven Temper Furnace. Recirculating gas fired batch temper with air operated vertical lift doors on each end. Eclipse package burner with roof mounted recirculating fan distributes heated air in a combination air flow pattern. Roller rail hearth with chain guide. Furnace includes two (2) scissor lift tables. Manuals & drawings are included with this furnace. Natural Gas – 1 MBTU's/Hour. Model # SDB-6616-10G and serial # 033899307. Max operating temperature is 1000°F with a voltage of 480/3/60/16 Amps. Working dimensions of 36″W x 36″H x 96″L with external dimensions of 96″W x 13'4″H assembled (10'6″H shipping) x 11'L. Controls mounted and wired in an enclosure with fused disconnect attached to the side of the furnace. Temperature controllers consist of a digital Barber Colman 560 digital for temperature and a Barber Colman digital "Limitrol" 75L high limit. ATC process timer to control heating cycle and Barber Colman digital round chart recorder. Allen Bradley switches for control power, circulation fan, ignition and gas valve reset. Signal lights for control power, air flow, high/low gas pressure, purge, etc. Eclipse package burner with Honeywell flame safety, UV scanner and spark ignition.

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

Item#T355 Wisconsin Oven Temper Furnace

Wisconsin Oven Model EWN-610-6G, 500F, 6'W x 10'D x 6'H, overall 9'6" W x 11'D x 9'9"H, 5HP/4,500CFM recirculating fan, combination airflow, adjustable louvers, airflow switch, 900 CFM exhaust with motorized dampers, Eclipse 500,000BTU Winnox Low NOx burner, UL listed control panel, Eurotherm Nanodac digital recorder/programmer, digital hi-limit, disconnect switch, 8 position T/C jack panel, 3" port.

Asking Price $19,000 USD

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

Item#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: 850ºF with a Uniformity of +/- 25ºF (Center area of 12”W x 20”L x 10”H meets +/-10ºF). 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 Temperin*g 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 60Hxz. 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#G202 AFC Endo Generator

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

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

Asking Price $45,000 USD

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

Item#G198 Sunbeam Endothermic Generator

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

Asking Price $22,500 USD

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

Item#G197 Lindberg Ammonia Dissociator

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

Asking Price $11,500 USD

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

Item#G196 Surface Combustion Endo Generator

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

Asking Price $31,500 USD

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

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

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

– Yokogawa UT 350 digital control for dissociator undertemp.
– Yokogawa UT 350 digital control for dissociator overtemp.
– Yokogawa UT 350 digital control for dissociator temperature control.
– Two(2)Yokogawa UT 350 digital controls for vaporizer lower/upper zone.

– Yokogawa UT 350 digital control for vaporizer overtemp.
– All necessary signal lights, timers etc.
Mounted in the same control cabinet are three (3) SCR's. Two (2) "Halmar Robicon" and one (1). "Ametek". One is for dissociator heating elements and the other two are for vaporizer lower/upper zone heaters.
Description: Electrically heated Ammonia Dissociator suitable for supplying up to 3000 CFH of atmosphere with a composition of 75% Hydrogen and 25% Nitrogen. This atmosphere is obtained by cracking anhydrous ammonia vapor in a catalyst filled vessel maintained at a temperature of 1700°F to 1850°F. Incoming ammonia pressure is reduced before retort entry. At the outlet of the retort the hot dissociated ammonia passes through a dry cooler where the gas is cooled to near room temperature. It then passes through a flowmeter and on to the consuming device. This dissociator includes a Sargeant & Wilbur Ammonia vaporizer. This dissociator is provided with two (2)catalyst filled heat resisting alloy retorts. The retorts are mounted within the insulated dissociator heating chamber. The heating chamber consists of heavy Mullite T-Slot tiles. Retorts are heated with Sinuous-wound Nichrome Ribbon Heating elements which are mounted in the tile slots. The element tails and studs extend through the rear wall of the dissociator. Elements can be removed throught 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/itemi180-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/itemi179-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/itemi178-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/itemi177-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/itemi174-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 4×5 attachment.

Asking Price $6,500 USD

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

MISCELLANEOUS HEAT TREAT EQUIPMENT

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

Item#M428 SBS Quench Oil Cooler

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

Asking Price $5,500 USD
https://themonty.com/project/itemm346-sbs-quench-oil-cooler/

Item#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”Ð 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 PUMPAND 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 supprt 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-ipsen-bottom-load-vacuum-furnace/

Item#VF340 Vac Aero Vacuum Furnace

Vac Aero Model VAH 4848 HV-2.Working dimensions of 48” X 48” X 48”.Furnace includes controls, vacuum pumps (Stokes 412 roughing, 615booster, 20″ diffusion, holding), furnace quench system (gas blower, heat

exchanger, gas accumulator), water cooling system (cooling tower, similar to EVAPCO LRWB).

Asking Price $220,000 USD

https://themonty.com/project/itemvf340-vac-aero-vacuum-furnace/

Item#VF335 ALD Vacuum Carburizing Furnace

Loading Dimensions : Width 400 x Length 400 x Height 400 mm. Loading Capacity : 80 kg max. Cooling Fan Motor : 75 kW, 3000 rpm for 10 bar N2. Vacuum System : Leybold SV100 Mechanical Pump. Leybold WA501 Roots Pump. Leybold E250 Mechanical Pump. Leybold WA1001 Roots Pump. Vacuum Level : <5x10-2 mbar. Leak Rate : <5x10-3 mbar l/s. Heating Zone : 120 kW, 2 zones. Plasma Chamber : 60 kW, 1 zone. Diffusion Zone : 180 kW, 3 zones. Max. Tempereture : 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

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

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, Cyrogenic 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 in 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 rebuilder's 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#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#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

Item#O367 Evening Shift Furnace Operator

Seeking an individual with previous Heat Treating experience and knowledge for immediate deployment on the evening shift in Ajax Ontario. Other requirements include on time arrival, attention to detail, mechanical aptitude and willingness to work as a Team player. Interested, please submit your resume outlining your interest in this position to chris@atlanticheattreat.ca.

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.

THE FURNACE SOURCE
The Source for Industrial Furnaces

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

Item#O345 Multiple Positions Available

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

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

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

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
