



THE MONTY

Everything to do with heat treating

HEAT TREAT NEWSLETTER

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

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Heat treatment and other thermal processing services from the world's leading provider.

For heat treatment and specialist thermal processing services, the world's leading provider gives companies around the globe their competitive edge.

Bodycote has a proud history of working together with customers to assist them with advancing their products through thermal processing related improvements, allowing materials to operate outside of normal tolerances and achieving higher performance specifications.

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 **Bodycote**

INTRODUCTION

We appreciate that you are taking the time to read “**The Monty**”, an online publication which without a doubt has the most up to date news about the worldwide heat treating industry. In this issue you will find news from the USA, Canada, France, Germany, China, India and a host of other countries as well as a very complete list of used heat treating equipment. Please let us know how we can help you when it comes to heat treating-our mission is to help all involved in the industry.

Best regards,
Gord

HEAT TREAT NEWS

Used Equipment

Please take a look at our most recent used equipment offerings. If you see anything you like don't hesitate to get in touch with us at jordan@themonty.com or 905-271-0033. July 31, 2017

Item #M406 Surface Combustion Parts Washer

Item #T345 Surface Combustion Temper Furnaces (4 Available)

Item #T344 Batch Oven 72"H X 48"W X 48"D

Item # B432 Atmosphere Box Furnace 36" X 48" X 24"

Item # C328 Mesh Belt Brazing Furnace, Like New \$50 000 USD

Item #T343 Batch Temper 36"W X 36"H X 96"L

Item #T342 Recirculating Walk In Oven 72" X 48" X 120"

Item # VF323 150 Ton Vacuum Hot Press (2 Available)

Monday Morning Briefing

Just last week global commercial heat treater **Bodycote** announced their Interim results for the six months ended 30 June 2017, a very brief summary of which can be found here with the complete report available at <http://www.bodycote.com/en> The markets loved the results by the way with the share price either at record highs or pretty close to it; *"Bodycote achieved strong revenue growth in the first half, with good momentum in virtually all parts of the Group. Notably, the General Industrial business, which represents almost 40% of Group revenues, experienced a broad based recovery after over three years of decline. Automotive and Aerospace also moved ahead. Bodycote revenues grew 18.8% to £345.7m in the first half (2016: £291.0m) corresponding to a growth of 8.3% at constant exchange rates. The five sites acquired in 2016 provided 3.5% of the constant currency growth such that organic constant currency growth was 4.8%. The contribution of recent greenfield investments made up 2.0% of the growth at constant exchange rates. The remaining 2.8% of the constant currency growth stems primarily from the macro-economic tailwind the Group has seen since the second half of 2016. Oil & gas remains a drag on growth although now much less pronounced than in previous periods. The onshore business in North America did register strong growth in the second quarter but subsea continued to decline."* **Diamond Heat Treat** in Rockford, Illinois, USA recently announced that they had purchased a new Ipsen "Titan" vacuum furnace, we now have a photo of the unit installed. Diamond if you recall was purchased earlier this year by a venture capital firm by the name of Calvert Street.



Centre for Heat Treating Excellence Award. *"Columbus resident and Cummins Inc. employee Steve Ferdon received the Distinguished Service Award from the Center for Heat Treating Excellence at Worcester Polytechnic Institute. The award is presented to an individual who has made a significant, commendable and long-standing contributions to the promotion of CHTE as well as the heat treating industry. Ferdon is the director of Global Engineering Technology in the Fuel Systems business unit as Cummins. He has been a member of CHTE since 2010 and has served as chair of its board of directors since 2012. CHTE is an academic-industry partnership headquartered on the campus of WPI in Worcester, Massachusetts."* **Precision Heat Treat** out in Surrey, British Columbia, Canada has been sold. Precision is a reasonably small commercial heat treater (which reflects the amount of manufacturing in BC) which has been owned and run for the past 20 years by Helen and John Davidson. They have been looking for a buyer for some time and we are pleased that it finally worked out for them. **John Levensky** has been in the heat treating industry for many years, typically in a sales position for companies such as **Bodycote**, **Solar Atmospheres** and until recently **Accurate Steel Treating** in Southgate, California. John very recently made

a move and is now Business Development Manager for **Delta Heat Treating** in Huntington Beach, CA.

Wallwork Press Release. *“Wallwork Group are at Offshore Europe 2017 on Stand 3C147. Many manufacturers in the oil, gas and energy industries rely on the company’s services to ensure that their engineered components meet the stringent quality standards needed in such harsh environments. The company is Schlumberger approved and operates to ISO9100 and ISO9001. As a major supplier of heat treatment services to the aerospace industry, they also enjoy main tier manufacturer approvals. Wallwork use their own fleet of vehicles from three locations and provide a nationwide 24/7 operation to ensure fast order turn-around. Hardening and tempering imparts optimum hardness, strength and toughness. Sometimes this can help component designers save weight and material by avoiding unnecessary over-engineering. Another advantage is a potential to eliminate additional final finishing processes – saving both time and money. Plasma and gas nitriding has many benefits for the oil and gas industry manufacturers. Particularly, increasing wear and anti-galling properties significantly improves finished part performance. Tufftride and Quench-Polish-Quench services produce parts that are exceptionally hard wearing and resist fatigue whilst ensuring there is minimal or no dimensional change. Also, surfaces begin to exhibit a self-lubricating behaviour.”*



Commercial heat treater **Paulo** has been making some very large investments in their Nashville, TN, USA facility over the past couple of years; “The past two years Paulo has significantly invested in the Nashville Division. The facility was expanded, adding 30,000 sq ft. from an adjacent building which was connected to the existing facility. Updates to the vacuum department include a SECO vacuum furnace capable of low pressure carburizing and the installation of a GM (60”x36”x36”) vacuum furnace with 15 bar quench and an 8000lb capacity. Also added were two deep freeze units and 8 Paulo designed tempers. The atmosphere department has also grown. The integral quench line has been expanded by purchasing and installing two new AFC 36X48X36 furnaces. The furnaces are fully equipped to provide conventional heat treat processes as carburize, carbonitride, neutral hardening but has been expanded to include hot oil quenching and ferritic nitrocarburizing . Three Paulo built tempers were added to support the increase in capacity. A pass-thru washer has been purchased and will be installed in the 3rd Quarter of 2017. As far as the future goes Paulo has this to say; “The final vacuum furnace is being installed and will be released for production in August of 2017. Coming soon are new office spaces including plant management offices, conference rooms, customer experience center, and a remodeled quality laboratory. Our Nashville team has grown with the plant, from 46 employees at the end of 2015 to over 60 today.” July 31, 2017



GVT Grammer Vacuum Technologies, Inc.



Molybdenum
In Stock

Mill Products
Grids & Fixtures



Industrial Heating Elements
APM Elements and Tubes
Krom Schroder parts
Heater repair
& rebuilding

Custom Electric Mfg. www.custom-electric.com

Business Opportunities

Please take a look at our most recent employment offerings. If you see anything you like don't hesitate to get in touch with us at jordan@themonty.com or 905-271-0033. July 31, 2017

- Item # O334 Service Manager
- Item # O333 Electrical Field Service Technician
- Item # O332 Controls Engineer
- Item # O330 Plant Managers
- Item # O329 Sales Engineers
- Item # O328 Process Metallurgist Wanted
- Item # O327 Outside Sales Representative
- Item # O326 Straightener / Quality Inspector / Furnace Operator

Summer Holidays

The offices of WG Montgomery Ltd., (The Monty) will be closed for summer holidays from Monday July 24 until Monday July 31 when regular news items will resume. July 24, 2017

Ipsen 1 Million Dollar Investment

Ipsen believes that one of the most valuable things a company can do is invest in others. They are also committed to advancing the heat-treating industry with the latest innovations and updated equipment. As part of that commitment, they are investing \$1,000,000 in the industry this year. Companies can take advantage of Ipsen's investment by trading in their old furnace to receive a \$50,000 credit toward the purchase of a new TITAN® vacuum furnace (applies to the 2017 list price of any TITAN model). Ipsen will accept a trade in of any brand heat-treating furnace (vacuum or atmosphere) in any condition. To receive this credit, transactions must take place by October 31, and the new TITAN furnace must ship from Ipsen's facility by December 31, 2017.

The TITAN vacuum furnace comes complete with PdMetrics®, an advanced predictive maintenance software platform, and it incorporates years of customer feedback to deliver user-friendly features, all while maintaining a global platform, small footprint and short delivery times. Available in several sizes and horizontal or vertical configurations, the TITAN provides powerful performance for both experienced and first-time heat treaters. It is Ipsen's hope that this investment results in future growth and innovations – for you, your customers and the industry as a whole. Learn more about this opportunity at www.IpsenUSA.com/Invest.

About Ipsen

Ipsen designs and manufactures industrial vacuum and atmosphere heat-treating systems, supervisory controls systems and predictive maintenance software platforms for a wide variety of industries, including Aerospace, Automotive, Commercial Heat Treating, Energy and Medical. With an extensive network of global locations and partnerships in America, Europe and Asia, along with representation in 34 countries, we continue to provide expert-driven solutions that strengthen heat treatment throughout the world. Learn more at www.IpsenUSA.com. July 24, 2017

Thermotec 2017

Thermotec 2017 is the largest heat treat show in Japan and similar to Thermprocess in Germany it is also held every 4 years, this year it is July 19 to 21 which means it is just



starting. Ian Chen who is in attendance very kindly sent us these photos. July 21, 2017



Ian Chen and Dick Lu of Marstate Industrial Corporation



Ian Chen and Xiao Jun Zhu (General Manager of Fengdong Corporation)



Ian Chen and Johnny Xu (general manager of Marathon China)

Bodycote Launches Powdermet

Bodycote, the world's largest provider of heat treatment and specialist thermal processing services, introduces Bodycote Powdermet® technologies, a group of additive manufacturing processes used in the production of complex components using powder metallurgy. Bodycote has decades of experience creating complex, high integrity components from powdered metal. Bodycote Powdermet® technologies now incorporate new, patent-pending techniques that combine 3D printing with well-established net shape and near net shape techniques. This new technology dramatically reduces the manufacturing time and production cost of a part compared to producing the same part using 3D printing alone.

Powdermet® technologies ensure complete powder consolidation, achieve structural homogeneity, and eliminate internal porosity and unconsolidated powder flaws. The process can produce components with varying surface features and thicknesses, with higher structural integrity than alternative production techniques. The need for brazing or welding parts together to form larger structures is eliminated. Instead, the finished article can be



HEAT TREAT CENTRAL

produced as one seamless component and largely avoid the size limitations imposed by the constraints of 3D printing. Different parts of a component can be formed from different alloys presenting the ideal and most cost-efficient solution. Component design can be tailored to the actual requirements for performance and not limited by subsequent machining operations.



Stephen Harris, Group Chief Executive, commented that “the recent breakthroughs are truly game changing technologies for component design and manufacturing. Industry applications are wide ranging with early adoption expected in aerospace, oil and gas, power generation and mining”. Bodycote continues to invest in resources and capital for development in additive manufacturing technology to create significant value for customers and meet the future growth demands. As well as its Powdermet® technologies, Bodycote provides a full range of heat treatment, hot isostatic pressing (HIP) and electrical discharge machining (EDM) services across North America and Europe tailored specifically to support the needs of companies manufacturing metal components utilising 3D printing. July 21, 2017

Diamond Heat Treat Purchases Vacuum Furnace

With a focus on pursuing additional market sectors, including IGT and Aerospace, Diamond Heat Treat purchased a TITAN® H6 vacuum furnace with 6-bar gas quenching to expand their capabilities. They will also rely on Ipsen to provide local, hands-on support for installation, start-up supervision and personnel training. While Diamond Heat Treat – acquired by Calvert Street Capital Partners – already has three vacuum furnaces at their Rockford, Illinois facility, the new TITAN furnace’s range of process capabilities allows them to better address key needs for different markets. According to Mike Sobieski, CEO of the thermal processing strategy, “This addition of technical capabilities is in line with our strategy of partnering with family-owned thermal processing companies and then investing in both people and equipment to enable profitable growth.”

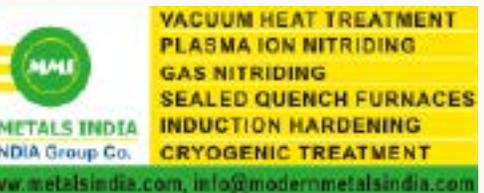
One of Ipsen’s modular heat-treating systems, the TITAN features a 36” x 48” x 36” (915 mm x 1,220 mm x 915 mm) work zone with a 3,000-pound (1,361 kg) load capacity. This furnace is also capable of operating at temperatures of 1,000 °F to 2,400 °F (538 °C to 1,316 °C) with ±10 °F (±6 °C) temperature uniformity. Overall, Ipsen’s TITAN vacuum heat-treating systems provide an advanced solution with their ability to deliver powerful performance, cutting-edge technology and immediate delivery. Ipsen is more than just an equipment manufacturer, though. They also offer expert-driven solutions for customers’ needs through all stages of the system’s life cycle, no matter the location – whether it is facilitating on-site installation, providing expert training and start-up assistance or delivering responsive field support and spare parts. To learn more about the TITAN system, visit www.IpsenUSA.com/TITAN. July 21, 2017



First-Time Heat Treater Streamlines Production, Reducing Lead Times by Nearly 85%

Wanting to streamline their production process, a manufacturer decided to purchase a TITAN® vacuum furnace and bring heat treatment in-house.

Discover their winning outcome.



What to do With Surplus Furnaces?

Earlier this week we ran across a very common situation-what to do with a surplus furnace when the space it occupies is desperately needed? In this case the problem is faced by a manufacturer of radiators in Michigan who has a large continuous brazing furnace which is no longer needed. When we say large it has a footprint of roughly 75' long X 25' wide which does represent a chunk of real estate. The furnace is only 10 years old and appears to be in quite good shape so you don't want to scrap it out but on the other side of the coin sticking it in a warehouse when there is little chance of a future need for it also doesn't make much sense. The solution which generally happens is to find a used equipment dealer who is willing to store it in return for some sort of compensation when the furnace is eventually sold-such as a high selling %. This particular manufacturer is wrestling with the decision as we speak, a decision made more difficult by the fact that few dealers will be interested in sitting on such a large furnace for what will probably be a long period of time. July 20, 2017



UPC Installation

No idea who the end customer is but they obviously have a very large in house heat treating department; *"United Process Controls Inc. (UPC) is nearing the completion of a large, multi-year control systems upgrade project for a manufacturer of automotive axles. Given the number of furnaces, secondary and auxiliary equipment, a key parameter of the upgrade project was the seamless switchover and deployment of new control systems without interruption or shutdown of production. Another requisite was to get more flexibility from the new controls to improve operational efficiency, traceability, preventive maintenance, and to optimize production throughput.*

Planning and executing the phased migration started in 2014 and encompassed 4 Ipsen pusher furnaces, 4 Ipsen batch IQ furnaces, 4 parts washers, 3 temper furnaces, 1 preheat oven, 4 endo generators, and a SCADA system. The solution from UPC included Protherm 700 controllers with new PLCs and Waukee™ Valve-Tronic™ Plus flow controllers on the furnaces, Protherm 470 controllers on the parts washers, and an AccuBlendor™ Plus endothermic generator control system supporting all furnaces. Furnaces were similarly outfitted with a number of sensors capable of generating volumes of data that are processed through the Protherm diagnostic tools giving managers, operators and maintenance the power to troubleshoot equipment as well as predict anomalies in the process. The use of redundant probes along with resident SAT thermocouples has dramatically increased equipment reliability and virtually eliminated scrap and/or rework.

The customer also implemented the Protherm 9800 platform to enable total data management, as well as remote control and diagnostics of the furnaces. In addition to its data management capabilities, the Protherm 9800 provides real-time data logging and storage functions that conform to CQI-9 requirements. In a future implementation, an add-on module will allow the company's personnel to preplan and route batches for processing within the production cell.

ABOUT UPC



UPC provides process control, flow control, and automation solutions to furnace OEMs and customers with thermal processing equipment and operations. The company is comprised of 4 brands – Furnace Control Corp, Marathon Monitors, Process-Electronic, and Waukee Engineering – with products ranging from probes, analyzers, flow meters, programmable controllers, generator mixing control systems, SCADA to complete turnkey systems. | www.group-upc.com” July 20, 2017

BMI Taiwan

French vacuum furnace builder BMI (part of the Tenova Group) sent us this press release about celebrating their 70th anniversary. The fact that the company has been around for 70 years is impressive but what caught our eye was the fact that the company had a special event in Taiwan based on the fact that BMI has sold over 129 vacuum furnaces in the country over the years-a number which we found quite impressive. July 19, 2017

“In 2017, BMI celebrates its 70th anniversary. We wanted to mark the occasion by gathering our customers for a special day. Taiwan being one of the biggest market of BMI (129 furnaces today), we’ve organized a special event in Taichung on the 7th of July 2017. With our agent’s support, PAN FOLKS, we’ve gathered our taiwanese customers during a half day seminar, where we introduced BMI’s latest developments (evolution in our range of products, new processes, etc...).”



Bryan Gerber, Al-Fe Heat Treating

“Al-Fe Heat Treating, Inc. is pleased to announce its recent hire of Bryan Gerber, who has joined the Al-Fe team as a Sales Representative. Bryan brings with him seven years of experience in sales and a Bachelor of Science degree in Business Marketing from Indiana University. Most recently, Bryan worked for eGenuity Software as a Senior Sales Executive, where he managed a customer portfolio of over 1,200 customers. Prior to this position, he worked for Rubber and Gasket of America. He started his career with FedEx Corporation, working his way up through the company from a Contracted Driver to a Terminal Service Manager. This background has helped Gerber to make a smooth transition into his current position with Al-Fe. Al-Fe Heat Treating is headquartered in Fort Wayne, Indiana with facilities in Michigan, Indiana, and Ohio.” July 19, 2017



IONHEAT ION NITRIDING SYSTEMS
Save time and money with our unique patent pending technology for improved productivity
www.ionheat.com

The advertisement features the IONHEAT logo on the left, which includes a stylized blue and yellow flame-like shape. To the right of the logo is the text 'ION NITRIDING SYSTEMS'. Below this, a blue banner contains the text 'Save time and money with our unique patent pending technology for improved productivity'. At the bottom right, the website 'www.ionheat.com' is listed. On the far right, there is a photograph of several black cylindrical industrial components.

Looking For Heat Treat in MEXICO?
CRIO

This block contains two logos. On the left is the ISO 9001:2008 certification logo, which is circular with 'ISO 9001:2008' in the center and 'CERTIFIED' around the perimeter. To the right of the ISO logo is the text 'Looking For Heat Treat in MEXICO?' in a bold, sans-serif font. On the far right is the CRIO logo, which consists of a stylized red and black graphic resembling a flame or a drop, with the word 'CRIO' underneath it.



Chamber furnace HTK 400 GR/22
up to 2200°C with fully automatic
control by PLC



Chamber furnace HTK 8 GR/22
up to 2200°C with semi-automatic
control



Chamber furnace HTK 25 GR/30
up to 3000°C with fully automatic
control by PLC and pyrolysis package

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Graphitisation at up to 3000°C

CARBOLITE GERO offers a range of furnaces up to 3000 °C which are perfectly suitable for the various requirements of graphitisation.

Heat treatment up to 3000 °C under inert atmosphere induces the structural change from highly disordered or defective carbon atom structures, into a perfectly three-dimensional crystal of pure graphite, an important material for a multitude of applications.

A graphite furnace of the LHTG range or the HTK range up to 3000 °C, is suitable for starting material that consists of pure carbon with minor impurities. Both heating elements and insulation of the cold wall vacuum furnaces, consist of high quality graphite materials. The top loader furnace, LHTG, is fitted with a circular mantle heater in a perfectly symmetrical orientation. The HTK GR is a front loading chamber furnace incorporating symmetrical elements on 4 sides.

If organic matter of unknown composition or containing a large amount of impurities is used for graphitisation, it is recommended to purify the sample by pre-carbonization under inert gas atmosphere, before heat treatment in a more sensitive high temperature graphite furnace. This can be done in a low temperature hot wall furnace of the GLO range, up to 1100 °C. The cold wall GLO is ideal for dirty processes with sequestered elements and a smooth non porous interior for easy cleaning.

Samples that contain small amounts of impurities are ideal for specialized HTK graphite furnaces with dedicated debinding equipment, where carbonization and graphitisation are carried out in one heat treatment step. Those furnaces are equipped with a retort and an intelligent gas guidance system which assures that the impurities are safely discharged from the furnace into the afterburner.



Fig. 1: Graphite / Carbon in High-Tech Applications

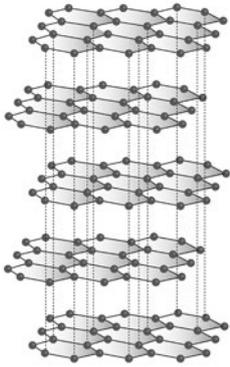


Fig. 2: Cut out of carbon atom layers (aka graphene) in graphite

Carbolite Gero produces a wide range of heat treatment equipment and high temperature systems from 30 °C to 3000 °C. Heat treatment with Carbolite Gero furnaces is carried out under vacuum, partial pressure, and overpressure. Gases available include inert gas such as nitrogen or argon, as well as reactive gases like oxygen and hydrogen. The product range comprises laboratory-scale systems for research and development, but also large-scale production plants.

Please send your press inquiries, requests for image and text files to:

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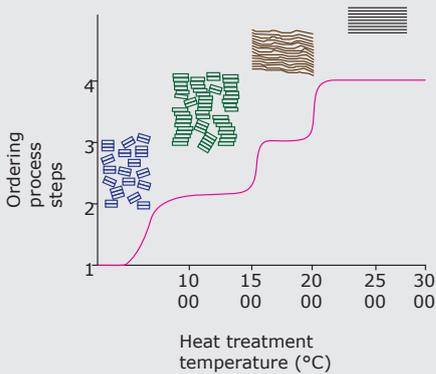


Fig. 3: Representation of the graphitisation process and of ordering the BSU (basic structural units) of the graphite with increasing temperature

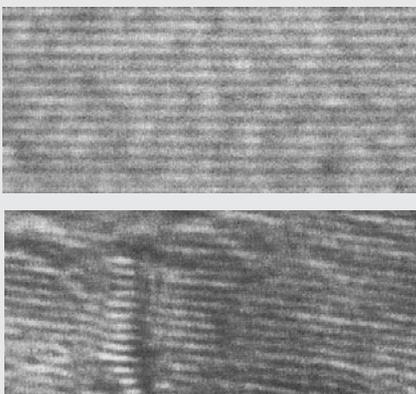


Fig. 4: Electron microscope pictures: left graphite layers before heat treatment with disordered layers and right after heat treatment up to 2200°C with completely straightened layers

Pete Swenson, Swenson & Associates Inc.

Swenson & Associates is a long time heat treat rep firm based in the Detroit, Michigan area, as a matter of fact we think they have been around for over 40 years. The company has mainly sold heat resistant alloy products for Wirco of Avilla, Indiana. We understand there have been some changes and Pete Swenson the President of the company is now Director of Heat Resistant Castings for Castalloy Corp., another alloy company in Waukesha, Wisconsin. July 18, 2017

Equipment Wanted

We are looking for a used deep freeze unit with working dimensions of 60" Wide X 48" High X 60" Deep. Either front load or top load will work and temperature rating needs to be -125F +/- 25F. This is a very serious inquiry and the buyer is looking for something immediately. If you have a fit please let us know at gord@themonty.com July 18, 2017

WG Montgomery Ltd. Resigns From Representing Wirco

Rep firm WG Montgomery Ltd., based in Mississauga, Ontario, Canada recently resigned from representing Wirco in Canada. WG Montgomery Ltd., is a rep firm covering the heat treating industry and was founded by Bill Montgomery in 1969 making the business almost 50 years old. Wirco is based in Avilla, Indiana and offers heat resistance components. July 18, 2017

Monday Morning Briefing

To start off the week we seem to have a lot of people news starting with **McLaughlin Services** of Avilla, Indiana. *"McLaughlin Services, LLC is pleased to announce the hiring of Ben Tackett and Ryan McLaughlin at its subsidiary Vacuum Engineering Services Company in East Windsor, CT. Ben recently graduated from Rose-Hulman Institute of Technology in Terre Haute, IN and will serve as Plant Engineer. Ryan, a Professional Selling major from Ball State University will lead the Sales and Marketing efforts at our Connecticut location. Jeff McLaughlin, President at McLaughlin Services, LLC stated " The addition of both Ben and Ryan will further enhance our offerings at our newly acquired Connecticut location". Both gentlemen are former interns at McLaughlin Services, LLC and Ryan has worked under Jeff's guidance for a number of years during which time they have become familiar with our culture and our commitment to our customers. Since rolling out their growth strategy in Q1 of this year, McLaughlin Services, LLC has expanded its footprint by opening a new office and service center in South Gate, CA and acquiring Vacuum Engineer Services Company in East Windsor, CT."*



Today **Mr. Tony Litwin** a very knowledgeable heat treater starts a new position with captive heat treater **Aerojet Rocketdyne** in California. Over the years Tony has worked with commercial heat treater Bodycote, run the heat treating department at M.S. Aerospace and most recently was in charge of quality control at Accurate Steel Treating in Southgate, CA. Obviously he parted ways with the company on very good terms which is the way it should be. "Accurate Steel Treating is in great hands with Chris and Krishna and the rest of the team they will only continue to move forward and thrive in the aerospace and commercial heat treating world." **Ross Hill** who was General Manager of Bodycote in Newmarket, Canada for a little over 6 years is now Business Development Manager for Specialty Cutting Tools. Ross by background was not a heat treater but did have a lot of excellent experience running companies however when **Bodycote** announced the Newmarket facility was closing his job became redundant.

We mentioned last week about how **Larry Roether** was no longer General Manager of **American Heat Treating** in Monroe, CT. We mentioned Larry had an affiliation with captive heat treater **Precision Resources**, well as it

turns out Larry is now the Heat Treating Specialist at the company. Larry knows his stuff so this is a good fit. **Ismail Vahora** was recently promoted to Chief Metallurgist at **ALD Thermal Treatment** in Port Huron, Michigan. Ismail started with the company last year and he is now going to concentrate more on developing new business in the area of Ferritic Nitro Carburizing (FNC) and Gas Nitriding for automotive sector, technology which the company recently added. ALD is also moving in the registration process to qualify as NADCAP certified facility and going to provide services in the area of aerospace soon.



And speaking of **ALD TT** the company is rightfully pretty pleased with themselves for being awarded the **General Motors Supplier Quality Excellence Award for 2016**. We believe this is the third year in a row the company has been awarded this award which his pretty impressive. *“Congratulations ALD THERMAL TREATMENT INC. You are receiving this letter because your manufacturing locations (DUNS #622103989) is being awarded the General Motors Supplier Quality Excellence Award for the 2016 calendar year. This is the fifth year Global Supplier Quality & Development will be presenting this prestigious recognition award. The award is given to specific manufacturing locations and only our top performing supplier manufacturing sites are eligible to receive it. Suppliers who receive this award have met or exceeded a very stringent set of quality performance criteria and have achieved the cross-functional support of the entire GM organization.”* July 14, 2017

Phil Hilger, Al-Fe Heat Treating

Al-Fe Heat Treating would like to announce the promotion of Phil Hilger to Engineering Manager. Phil originally joined Al-Fe in 2000 as a Mechanical Engineer. He left the company in 2011 to join Superior Essex and returned to Al-Fe in June 2016 as Lead Mechanical Engineer. Phil has a Bachelor’s Degree from Purdue University and a Lean Six Sigma Green Belt from Cuyahoga college in Ohio. Al-Fe Heat Treating, Inc. has been in business since 1979 and is headquartered in Fort Wayne, Indiana with locations in Michigan, Indiana, and Ohio. July 14, 2017



Electro-Spec Inc., Lexington, County, SC

A reader breathlessly sent us this press release about a major new investment in the commercial heat treating industry. However upon further investigation we found that Electro-Spec offers annealing, hydrogen embrittlement and some other rather low end heating treating processes. We hasten to add that these processes have their place but real heat treating is carburizing of heavy gears or vacuum heat treating. July 14, 2017

“Electro-Spec Inc., a specialty plating manufacturer, will invest \$3.1 million in a new production facility in Lexington County that will create 53 jobs, according to a news release from Gov. Henry McMaster’s office. Electro-Spec provides gold, silver, nickel, copper and tri-alloy electroplating. Serving the aerospace, medical, telecommunications and automotive industries, the company also provides heat treating and passivating services, which removes impurities from parts and provides resistance to oxidation and corrosion. Electro-Spec will establish its new operations in a 10,000-square-foot facility at 307 Industrial Drive in Lexington.”

ALD Thermal Technology, Port Huron, Michigan

The city of Port Huron, Michigan seems to be an aggressive bunch when it comes to attracting new businesses. We mention this only because of the ALD Thermal Treatment connection which you can see below. We have long estimated that this is now the single largest commercial heat treating location in the US. July 13, 2017

“Port Huron could be adding land to its industrial park once again — building onto a swath of other vacant, city-owned property and parcels purchased within the past year. The reasoning, City Manager James Freed said, remains setting the stage for job creation. “We do have a couple major corporations that are looking to build a plant in Port Huron,” he said Friday. “And we want to make sure if they want to build in Port Huron, they have a place to build.” Port Huron officials OK’d a similar but somewhat larger purchase last December. A total of five adjacent lots were purchased for \$43,000 from multiple entities in an area within city limits southeast of 32nd and Dove streets. A few weeks later, the city closed on a sale of its last speculative, or spec building, for just under \$520,000 with ALD Thermal Treatment, which had been leasing the facility for more than a decade.”

American Rotary Systems

Clayton Pinkos was is now in charge of the heat treating department at Baldor Electric in TN, USA sent us this photo from many years ago. We see Clayton loading a furnace at American Rotary Systems in Michigan, American Rotary is long since closed but it was quite a story at the time as you can see from this press release going back to 2004. July 13, 2017

“American Rotary Systems/American Rotary Systems. Big changes at this Michigan based commercial heat treat-er. It’s a long story, and I’m not getting into all the details but hear goes. ARS specializes in running rotary retort furnaces, although they also have another division which goes under the name Phoenix Industrial which specializes in batch work. Both operations were started about 1996 by Clayton Pinkos who was formerly with another local shop by the name of American Metal Processing. A legal dispute arose recently between ARS and another commercial shop and bottom line is that Clayton will be moving the entire operation to Toledo, Ohio, a move that he has long contemplated. There are two things everybody thinks of when they think of Clayton, one of the most outgoing and enthusiastic people out there and second the biggest fanatic on rotary retorts in the world. I wish him success in his new location which will incidentally go under the same name.”





Heat Treatment Australia Wins Major Contracts

“A BRISBANE company has secured two lucrative deals with multinational aerospace giants after developing their skills on Australia’s F-35 joint strike fighter project. HTA’s manifolds will become part of the digital controls for the LEAP family of jet engines, which will power some of the biggest fleets of commercial aircraft in the world, including the Boeing 737 MAX and Airbus A320 neo. Ms Stanton said the deal was significant because the company had won a commercially competitive contract in the US by converting the skills developed from their defence work in Australia. She said it was too early to know how many jobs the contract would create, but it would allow HTA to compete for much more work in the next few years after its manufacturing infrastructure set up. “We expect more work to flow on because these engines will be on multiple platforms in the future,” Ms Stanton said. HTA has also gained accreditation from Lockheed Martin to process material in its newly established facility in the United States. Ms Stanton said HTA would be able to displace US suppliers by processing raw materials in Los Angeles that were then sent to the supply chain in Australia. “The processing has traditionally been done in the US, but now that we have accreditation we can do that work with the benefits flowing back to an Australian company,” she said.” July 12, 2017



Linamar Forgings, North Carolina, USA

As part of our Monday morning briefing yesterday we mentioned auto parts supplier Linamar in North Carolina-we have a small correction to make and some additional information for you. The Linamar facility is actually located in Wilson, NC not Arden as originally reported. It was originally built by NUCOR in the mid-90’s then sold to MFC (Meadville Forging Company) in 2000 and operated for many years as CFC – Carolina Forge Company before it was bought by Linamar fairly recently. CAN-ENG supplied a 27,000 lbs/hr Cast Link Belt Line to the Wilson site in 1996. The new Roller Hearth Line which we mentioned yesterday will be used for Normalizing and Iso-Thermal Annealing of closed die automotive forgings. So there you have the entire story. July 11, 2017

Monday Morning Briefing

First up is picture time. On our home page www.themonty.com we have a rotating slideshow of 10 pictures taken over the years-these include photos of captive and commercial heat treats, industry suppliers and individuals in the industry both well known and not well known and they all span the globe. Just today we changed our pictures, have a

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look to see if you or your company are included. **Applied Process** in the US is probably the largest commercial heat treater when it comes to salt quenching, this press release says that their Livonia location has a new Plant Manager;

*"We are pleased to announce **Wayne Simpson** has joined the AP team as Plant Manager of our Livonia Plant. Wayne's primary responsibilities will be to manager day-to-day operations and facilities manager, along with general supervision of all phases of plant operations. Wayne is an experienced engineering and manufacturing leader with over 25 years of experience in industrial manufacturing. He has leadership experience in electrical engineering, production and maintenance management, budget accountability and lean manufacturing. Wayne has multiple areas of expertise including engineering, strategic planning, team building, project management, staff development, and profitability improvement. Harold Karp, CEO says "Wayne is an experienced manager who leads by example and has strong communication skills and relationship building with internal and external customers". Wayne joins Applied Process following an assignment with Gerdau in Jackson, MI – one of the largest suppliers of specialty long steel in the world. Wayne held the position of Rolling Mill Manager, where he was responsible for supervising a 3-shift operation, as well as process improvement, cost reduction and quality management."*

As of June 23 2017 **Larry Roether** has retired from commercial heat treater **American Heat Treating** in Monroe, Connecticut, USA where he was General Manager. Larry is also involved with manufacturer **Precision Resource** who does some heat treating in house at their location in Mexico. In Germany commercial heat treater **Hauck Heat Treatment** has hired a new sales person; We are pleased to welcome **Michael Reiter** to our Hauck Heat Treatment team in Germany. Mr. Reiter joined our Remsheid sales department in May 2017. He has worked as a field sales representative for 30 years, his experience will be a great asset to our team. Michael lives in Wipperfürth, is married and has two children. In his free time, Michael likes spending time with his family and taking care of the garden. Furthermore, he loves to explore various cities with his wife and friends and enjoys Germany's nicest winding roads on the motorcycle. **Brian Eugene Phillips**, 23, of Seymour, Indiana passed away Friday, June 30, 2017, at his home. Born June 14, 1994, in Seymour, he was the son of Terry Dean Roberts and Stephanie Gene Maxwell Campbell. He attended Seymour Community Schools and received his high school diploma several weeks ago. He worked at **NTN** in the heat-treating department. His passion was the outdoors and he loved kayaking, hunting, fishing and taking his son, Clayton, hiking. He also loved his music and all types of trucks.

Braddock Metallurgical in Puerto Rico is in the process of adding a gas nitriding system. Braddock has become one of the largest family owned commercial heat treaters in North America with something like 7 or 8 plants mainly in the US Southeast. The location in Puerto Rico is one of the more unusual spots for a heat treater but since the plant has been there for as long as we can remember it obviously is a success. Auto parts maker **Linamar** has just commissioned a **Can Eng** roller hearth furnace at their location in Arden, North Carolina. Linamar is a Canadian company with plants around the world, many of them doing heat treating in house. July 19th auction company **Maynards** is holding an auction in Germany which includes over 200 vacuum pumps they claim are refurbished and in excellent condition. Brands include Leybold and Edwards amongst others. We are not entirely sure what the background for this event is.

The photo below shows **ALD Vacuum Technologies GmbH of Hanau, Germany** celebrating success with their annual summer festival this past Thursday on the 27th of June. Approximately 400 people including employees and their families along with many retirees enjoyed the live music great food and of course that exclusive German food group better known as beer. The dancing and festivities continued well into the evening and was a certain success.



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And to round things out **Kurt Shubert** of alloy supplier **Alcon** in Cleveland, Ohio sent us this photo. Kurt guesses this was at a heat treat show in Indianapolis back in 2003. Kurt is second from the left. July 10, 2017



Atlas Copco, Grand Prairie, Texas

Going back to 2016 captive heat treater Atlas Copco announced they were closing two plants including one in Grand Prairie, Texas. With 6 batch IQ furnaces with working dimensions of 36" X 48" X 32" (Ipsens and Holcrofts) and all associated equipment this was a pretty good sized in house heat treating department. The plant did close recently and there were rumors that all the furnaces were going to a manufacturing facility in the Carolinas. Well at the end of the day that is all it was-rumors but we can say what has happened to the equipment. Everything was sold to two commercial heat treaters in Texas basically for when business conditions improve as the capacity is currently not required. July 7, 2017



Diamond Heat Treat To Add To Their Vacuum Capacity

"Diamond Heat Treat located in Rockford, IL is pleased to announce the purchase of a new Ipsen H6 6 Bar Horizontal Vacuum. The furnace has working dimensions of 36" wide X 48" deep X 36" high with a weight capacity of 3,000 pounds and a temperature range of 1,000F to 2,500F with +/- 10F uniformity. Diamond Heat Treat was founded in 1996 and has a long and well-deserved reputation for quality and service. Although Diamond currently has three (3) vacuum furnaces in its Rockford, IL facility, the addition of this new Ipsen 6 Bar will open up new capabilities that will allow us to pursue additional market sectors including IGT and Aerospace. As announced



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previously, Diamond Heat Treat was acquired by Calvert Street Capital Partners earlier this year. Mike Sobieski, CEO of the thermal processing strategy, commented "This addition of technical capabilities is in line with our strategy of partnering with family-owned thermal processing companies and then investing in both people and equipment to enable profitable growth." Calvert Street is a Baltimore, Maryland-based private equity firm focused on investing in industrial service businesses in the lower middle-market. Since its inception in 1995, Calvert Street has focused on partnering with skilled management teams of privately held businesses to drive profitable growth and organizational transformation. The thermal processing partnership builds upon Calvert Street's experience in other high value add industrial sectors, including testing and inspection as well as precision machining." July 6, 2017



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A3TS Show Nice, France

We have a few more pictures from the A3TS show in Nice, France. July 6, 2017



Cieffe. From left to right we have; Mr. Francesco Pieropan – Cieffe Thermal Systems srl, Mr. Michel Quintin – agent for the French market, Mrs. Sandra Sartori – Cieffe Service Srl, Mr. Alessandro Lorusso – Cieffe Service srl + Cieffe Trading (China), Mrs. Katia Cais – Cieffe Thermal Systems srl



Luc Roy, Area Sales Manager for furnace builder Codere

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ECM. Lionell Nicollet and Matthias Jimenez



WS Burners. Pierre Forneau and Dr. Volker Burkardt.

Park Thermal and H & S Heat Treating

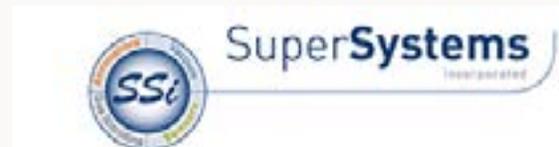
Regular readers of “The Monty” will know that we always enjoy photos from the heat treating industry, consequently we got a real kick out of these photos which date back to 1985. To give you some background H & S Heat Treating in Ontario, Canada is one of the larger commercial heat treats in Canada and Park Thermal, again a Canadian company is known as a long standing furnace builder. From left to right we have; Dave Orosz (H&S), Brian Reid (PT), Bill White (H&S), Phil Dennis (H&S) and Tony Valeriote (H&S). July 6, 2017



About the individuals in the pictures we can say this; Dave Orosz left the industry a few years back but his son Jason is well known in the industry now as part of the Bodycote organization. Brian Reid of Park Thermal shows no signs of slowing down, Phil Dennis unfortunately passed away a few years ago and Tony Valeriote of H & S recently retired.

A3TS Show Nice, France

We had some coverage last week of the A3TS congress in Nice, France. As mentioned at the time the show is more technical than most but well organized with a reasonable attendance. We have a few more photos to show



you. July 5, 2017



Thermi-Lyon, second largest commercial heat treater in France. From the left we see Bernard Salvi, Marketing Manager, Florent Monier, Manager and Jean-Claude Monier, founder of the company. We will shortly have an interview with Florent.



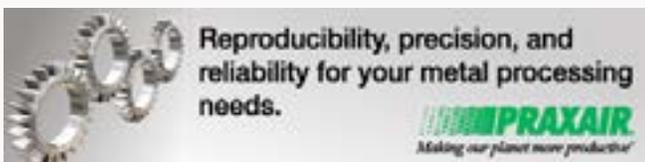
Aichelin. As befits one of the largest furnace builders in the world Aichelin and their various subsidiaries had a large booth. On the right we have Mark Ruestsch, in the centre Harald Berger and on the left Antoine Cantenot, head of SAFED France



Swiss furnace builder Solo/Borel. On the right we have Mr. Vincent Heinis, in the centre Mr. Nicholas Salles and on the left Philippe Sondecker.



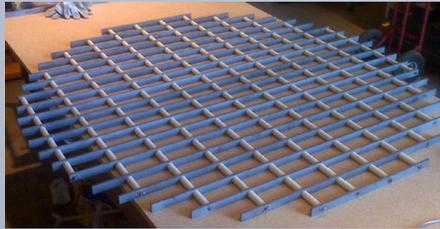
Proving yet again how small the industry is we have this photo. On the right Scott MacKenzie of Houghton, USA, Dr. Stefan Hock of IFHTSE, UK and in the centre Mr. Zhou Defu of the Chinese Heat Treatment Association.



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Nitrex Metal New Order

"A European automotive components supplier has awarded a contract to Nitrex Metal for the supply of a turnkey nitriding system with potential-controlled Nitreg® technology. The project involves the replacement of an old gas nitriding furnace with a modern system that will improve operational efficiency, offer superior gas and energy consumption, meet environmental objectives, as well as ensure an employee-friendly work environment.

The new system will nitride a variety of H11 and H13 aluminum extrusion dies used in manufacturing automotive structural components supplied to most major vehicle manufacturers. Entirely custom and tested recipes based on Nitreg® technology were developed for the application, allowing for consistent uniformity and repeatability of results. Other priorities for the customer when evaluating a replacement system were conservation of resources, as well as environmental compliance and noise pollution reduction. In contrast to the previous nitriders, the Nitrex system is programmed to work with a low consumption of gasses and electricity. Auxiliary hardware like the effluent neutralizer helps comply with environmental regulations, while a silencer fitted on the cooling blower controls noise exposure for better work conditions. The furnace has working dimensions of 47¼" diameter by 59" high (1200 x 1500 mm) and a load capacity of 6600 lbs (3000 kg). Delivery is scheduled for the third quarter of 2017.

ABOUT NITREX METAL INC.; Nitrex Metal, www.nitrex.com, is a worldwide partner offering modern nitriding / nitrocarburizing technologies, solutions, equipment and services. Our Nitreg® potential-controlled gas nitriding and Nitreg®-C potential-controlled gas nitrocarburizing (ferritic nitrocarburizing-FNC) technologies are applied in the precision parts, automotive, aluminium extrusion, defense, gears, tool & die, plastics, machinery, and many other industries." July 5, 2017

Rightway Fasteners, Columbus, Indiana

A reader suggested to us that two employees from the heat treating department of captive heat treater Rightway Fasteners in Columbus, Indiana were the ones mentioned in the news item below. We have no idea whether this is true or not but we would like to think so. Rightway has 5 mesh belt furnace lines processing fasteners. July 5, 2017

"An Iowa man considered armed and dangerous and wanted on a warrant was arrested in a Bartholomew County industrial park with the help of three employees of a local company. Aaron Lee Gillespie, 35, of Glenwood, Iowa, is being held in the Bartholomew County Jail without bond on preliminary charges of possession of methamphetamine and the out-of-county warrant, jail officials said. Bartholomew County sheriff's deputies were sent to Rightway Fasteners, 7945 S. International Drive in Columbus, at about 1:22 a.m. Thursday after employees saw and apprehended Gillespie outside the factory, said Judy Jackson, sheriff's department spokeswoman. Deputy Jon Lanning arrived and saw two Rightway Fastener employees holding down a man, who was identified as Gillespie."

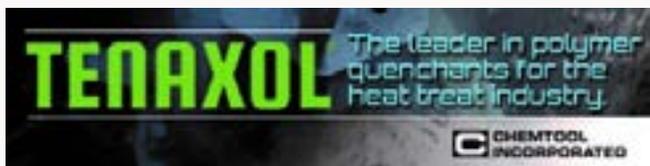


East Carolina Metal Treating and UPC Controls.

“Commercial, aerospace, defense, and energy heat treater East Carolina Metal Treating recently set up an additional batch IQ furnace in its plant in Raleigh, NC, USA to meet increased demand. The new JL Becker carburizing furnace is outfitted with the latest process and flow controls from United Process Controls Inc. (UPC) including a Protherm 700 controller with touch operation to maximize the equipment's potential. The Protherm 700 provides comprehensive control of furnace functions, as well as recipe management and execution for batch-oriented production. The controller improves operational efficiency and product quality through increased process automation, optimized furnace utilization, and repeatability of results. UPC also supplied an AccuMixer™ nitrogen/methanol mixing system and a Waukee™ flow panel for process gases, such as ammonia, natural gas, and air. The AccuMixer™ provides automatic adjustment of gas flows for producing synthetic endothermic gas. This latest installation represents the 30th furnace that East Carolina Metal Treating has equipped with UPC controls and reaffirms their confidence in UPC as a long-term partner. Within the last five years, the company has upgraded the efficiencies of its carburizers, nitriders, tempers, vacuums, and annealing furnaces with the latest UPC control solutions.

ABOUT ECMT; In business for over 40 years, East Carolina Metal Treating of Raleigh, NC and its sister company, Virginia Metal Treating of Lynchburg, VA focus on providing superior quality and turnaround time. Find out more about East Carolina Metal Treating at www.ecmtinc.com or contact James Ramm at ECMT at (919) 834-2100 or via email at james@ecmtinc.com.

ABOUT UPC; UPC provides process control, flow control, and automation solutions to furnace OEMs and customers with thermal processing equipment and operations. The company is comprised of 4 brands – Furnace Control Corp, Marathon Monitors, Process-Electronic, and Waukee Engineering – with products ranging from probes, analyzers, flow meters, programmable controllers, generator mixing control systems, SCADA to complete turnkey systems. | www.group-upc.com July 4, 2017



DuBois Acquires Blue Star Lubrication Technology

"DuBois Chemicals, a leading specialty chemicals manufacturer based in Sharonville, Ohio, is pleased to announce they have acquired Blue Star Lubrication Technology based in Schaumburg, Illinois. Blue Star primarily serves the needs of the general manufacturing, steel, cement, mining and automotive industries. The company provides customers with high performance industrial lubricants i.e. specialty greases and gear oils, along with many other specialty lubricants and metalworking fluids that include forming fluids, rust preventive solutions, and straight oils. Blue Star combines top quality products with experienced technical support to customers throughout the United States and Canada. Their current website is <http://bluestarlt.com>. DuBois CEO Jeff Welsh is excited about the unique solutions that Blue Star and DuBois can provide to their customers. "We believe that this acquisition will allow us to increase our presence in significant customers and important segments. The expanded product line will also allow us to meet and exceed the expectations of current customers in new applications areas."

Blue Star President & CEO Jeff Worth believes the acquisition will enhance DuBois' product and service capabilities. The addition of high performance lubricants and exceptional field support is a perfect fit for DuBois strategic quest to add more value to customers' operations. This acquisition marks another important milestone in a growth strategy designed to make DuBois the preeminent supplier in the industrial specialty chemical market, and it reaffirms the commitment of DuBois' investors at The Jordan Company to make DuBois a platform for growth. Prior add-ons include Blendco, Perkins Products, Mitco, Galaxy Associates, Angler Industries, American Finishing Resources, Heatbath, C.A.R. Products, and Lynx Enterprises.

Founded in 1920, DuBois provides specialty chemical solutions and services for the manufacturing and transportation industries in North America, and is expanding into selected market sectors around the world. The company is committed to building sustainable partnerships with customers that reduce total costs through the delivery of innovative solutions supported with local technical service. DuBois specializes in the areas of metal finishing/paint pretreatment, metalworking/lubricants, heat-treating salts/ quenchants, water/wastewater treatment, maintenance/equipment cleaning, paper chemicals, food processing cleaning/sanitizing, and automotive/transportation cleaning. For more information, please visit www.duboiscochemicals.com." July 4, 2017

Happy 4th of July...To All our American Friends!

July 3, 2017



Happy Canada Day...150 years!
July 1, 2017



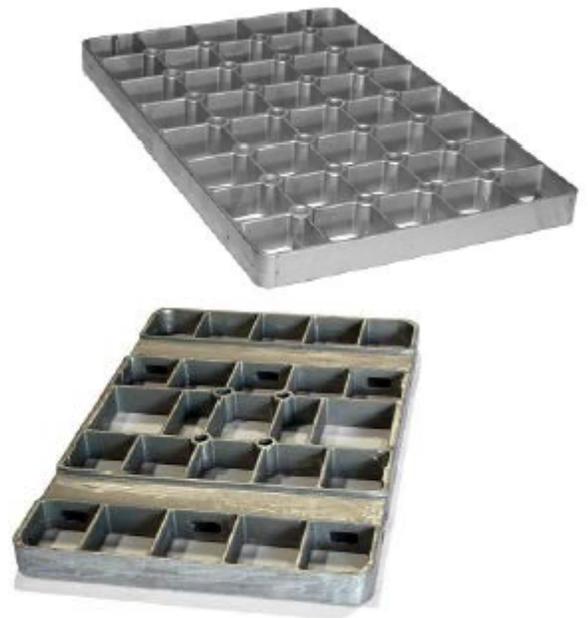
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Notice: We have attempted to describe all equipment accurately from the information we have available. Any mistakes are unintentional. We do not guarantee the accuracy of the information, nor can we guarantee the performance of the equipment or suitability to your application. The equipment is sold as-is, where-is. We strongly encourage your personal inspection of the equipment before purchase.

BATCH

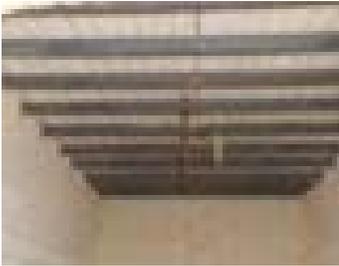
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- Item # B432 Atmosphere Box Furnace 36" X 48" X 24"
- Item # B431 Air Atmosphere Box Furnace 2,000 F
- Item # B430 Ipsen Recirculating Box Furnace
- Item # B429 Lindberg Batch IQ Installation
- Item # B428 Carbottom Furnace 1800 F
- Item # B427 SOLO Swiss Heat Treatment
- Item # B426 Plasma Nitriding Unit
- Item # B425 Box Furnace
- Item # B424 Atmosphere Box Furnace
- Item # B423 Grieve High Temperature Oven-UNUSED
- Item # B422 Ipsen Sealed Quench Line
- Item # B421 Surface Combustion "Super 36" Allcase
- Item # B418 Lindberg High Temperature Oven
- Item # B417 Fluidised Bed Furnace Line
- Item # B416 Car Bottom Furnace
- Item # B415 J.L. Becker Car Bottom
- Item # B414 Ipsen Batch IQ Installation
- Item # B406 Carbottom Furnace
- Item # B405 Surface Combustion "Super 30" Allcase
- Item # B402 Holcroft Batch IQ Furnace
- Item # B401 Carbottom Furnace Hayes High
- Item # B400 Surface Combustion Super 30 Allcase
- Item # B399 Carbottom Furnace
- Item # B398 Sauder Batch IQ Line
- Item # B397 "Lift-Off" Atmosphere Box Furnaces (2 available)
- Item # B391 Ipsen T-11 Batch IQ Furnace
- Item # B388 Hydrogen Atmosphere Furnace
- Item # B386 High Temperature Tube Atmosphere Furnace
- Item # B374 Atmosphere Box Furnace
- Item # B371 Sauder "Auto-Tilt" Car Bottom Furnace
- Item # B367 Atmosphere Box Furnace
- Item # B352 Pacific Scientific Box Furnace

Item # B432

Atmosphere Box Furnace 36" X 48" X 24"

Lindberg Atmosphere Box Furnace. Model G-364824-A, S/N 20063. Working dimensions of 36" wide X 48" long X 24" high. Electrically heated 480/3/60 @ 95KW. Maximum operating temperature of 2500F. Air operated vertical lift door with water cooled faceplate, ceramic multipiece hearth, 20 Globar elements above and below the hearth. Tap style transformer. Digital control and overtemp. Very good condition. Asking \$49,500 USD.



ITEM # B431 AIR ATMOSPHERE BOX FURNACE 2,000 F

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 \$65,000 USD.



ITEM # B430 IPSEN RECIRCULATING BOX FURNACE

Ipsen Recirculating Box Furnace 38" high x 43" wide x 48" deep. Gas fired, 1,000,000 BTU/hr with a max temperature: 1400 deg.F. Model Number: DL-3036. Serial Number: 60459. Updated controls, Honeywell indicating controller and overtemp. High temperature tempering furnace. Vertical lift air operated door with overhead air cylinder. Fiber board insulation. Alloy roller rail hearth. Rear located combustion chamber with high velocity roof mounted circulating fan. Top mounted package burner. Complete combustion controls and safeties. 460/3/60 power. Test fired prior to shipment.

Asking Price: \$39,500.00



ITEM # B429 LINDBERG BATCH IQ INSTALLATION

Lindberg Batch IQ Installation. We have available 4 gas fired Lindberg batch IQ furnaces with working dimensions of 30" X 48" X 30". Endothermic atmosphere, updated Marathon controls operating temperature of 1750F. Currently doing carburizing. All our complete, installed and in production. Condition ranges from just rebuilt and in excellent condition to operating but will need some alloy replaced within the next year. Also available are tempers, generator, charge car spare parts etc. Vendor will sell as a complete package or individually.

Best offer.



ITEM # B428 CARBOTTOM FURNACE

Carbottom Furnace. Working dimensions of 30' X 10' X 9", gas fired, 15 zones of control. Manufactured by the JL Becker Company. Operating temperature of 1800F. This was completely rebuilt in 2015 and has new ICS controls and new fire brick. Complete and in good condition. Currently installed but not in use.

Asking \$150,000 USD or best offer.



Item # B427 SOLO Swiss Heat Treatment Line 202-30/30/60

Built by Solo of Switzerland this is a SOLO 202-30/30/60 model. This heat treatment line was manufactured and modified in 1981-1987-1994. Composition: 1 washing machine, 1 "5 bar gas tank", 1 "5 bar gas tank" with 35 kW turbine, 1 oil tank, 1 tempering furnace, 1 salt tank, 1 furnace with max. temperature of 850 °C, 1 manual manipulator, temperature regulation system and % CP with regulator, loading material. Possibility of mounting and commissioning by the manufacturer (SOLO). Actually, in operation, located in Switzerland. Good condition. All manuals included. **Price on request.**



Item # B426 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 1450 mm high. Load capacity 1000 kg. Installed power 95 kW, 400 V, 50 Hz, 160 A. Asking 98.000 Euro. Located in Turkey.



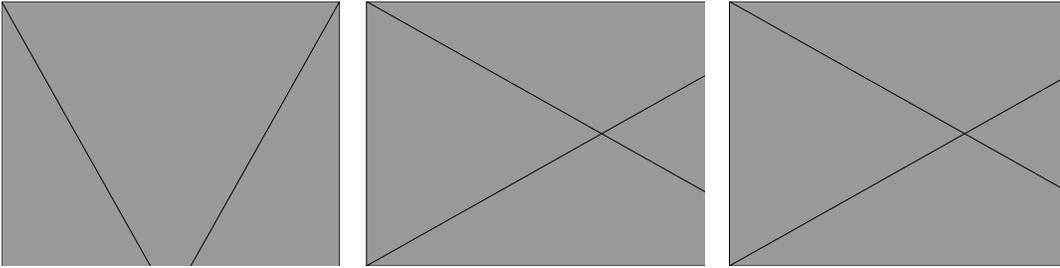
Item # B425 Box Furnace Box Furnace 42" High X 48" Wide X 14' Long. Manufactured by Lindberg. Working dimensions of 42" high x 48" wide x 14'-0" long. Electrically heated 480/3/60, 160 KW. Operating temperature of 2000F. Temperature Controls: Free standing enclosed panel with updated Honeywell controls, including circular chart recorder, SCR controls, back up contactors and step down transformers for the heating elements. Description & Features: Fiber lined. Heated by Ni-chrome 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,



Item # B424 Atmosphere Box Furnace Atmosphere Box Furnace. Manufactured by Williams Industrial Services. Natural gas, 1.8 MBTU's. Working dimensions of 80" wide x 96" high x 60" deep. Radiant Tube Box Furnace. S/N 18932. Maximum temperature of 1750F. Voltage 480/3/60. Controls; Mounted & wired in a free standing enclosure includes a Honeywell digital controller/recorder, Eurotherm high limit. Mounted in the same enclosure includes "Fireeye" flame safety. All necessary pushbuttons, signal lights, relays, motor starters etc. are included. Standard front loading box furnace with vertical lift air operated door. A water cooled roof mounted fan circulates the heated air for good temperature uniformity. There are twelve (12) vertical radiant tubes in this furnace, six (6) on each side. Each burner has spark ignition and there is a flame safety system for flame curtain. There is a Endo flowmeter to control atmosphere. Furnace also has a water cooled breast plate & a stationary powered loader for charging the furnace. Excellent condition. **Asking \$125,000 USD.**



Item # B423 Grieve High Temperature Oven-UNUSED. Grieve High Temperature Oven-UNUSED. Model HD-243624-HT-ATM. Operating temperature of 2200F. 73 Amps, 480 volts, 60 Hertz. Working dimensions of 24" X 36" x 24". Capable of nitrogen addition. 7 years old and never used or installed. Like new condition. New this was \$75,000 USD. **Best offer.**



Item # B422 Ipsen Sealed Quench Line

Ipsen Sealed Quench Line. Located in Europe this line is currently installed but shut down very recently. Used for hardening and carburizing. Condition generally good. Asking Price £95,000.00. Does not include, dismantling, export packing and delivery. Line consists of the following items:

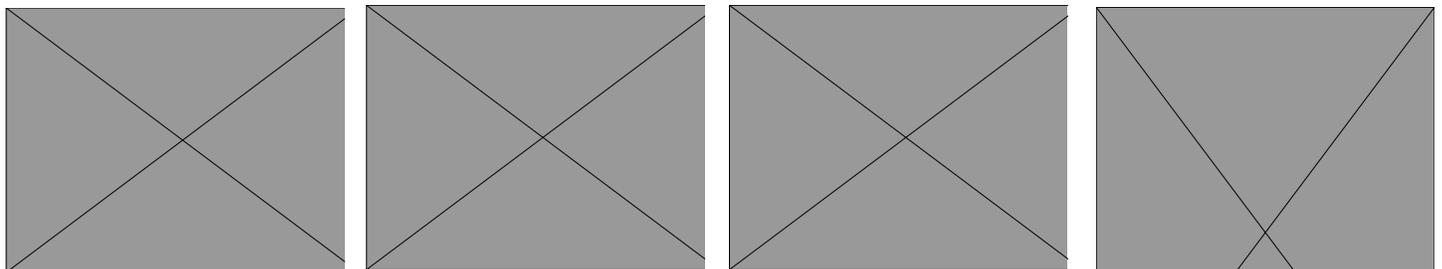
Ipsen TQF-7-EM Sealed Quench furnaces built in 1975. Electric heating. Load size 600kg. Forced cool fan in vestibule. Chamber size: 760 wide x 1220 long x 510 high mm.

Ipsen TQF-8-GRM Sealed quench furnace built in 1983. Gas heating with Recuperative burners. Load size 600kg. Forced cool fan in vestibule. Chamber size: 760 wide x 1220 long x 610 high mm.

Ipsen Tempering Furnace DAC-8-GR built in 1983 Gas heated by indirect radiant tubes. Can be used with an atmosphere with internal forced cooling. Load size 600kg; Chamber size: 760 wide x 1220 long x 610 high mm.

Ipsen Tempering Furnace DLRC-7-E built in 1976. Electrically heated with spiral wound elements. Load size 600 kg. Chamber size : 760 wide x 1220 long x 510 high mm

Ipsen Parts Washer Model WPD-4-G Gas Fired. Ipsen Loader. Ipsen Unloader. Ipsen Endo Gas Generator Model G-1500-G built in 1983. Gas fired. 1500 CFH. Can be easily upgraded to produce 2000 CFH. Dewpointer, industrial scales and portable hardness tester also included.



Item # B421 Surface Combustion "Super 36" Allcase

Surface Combustion "Super 36" Allcase. Working dimensions of 36" X 48" X 36", gas fired. Currently undergoing a rebuild and will be in "like new" combustion in 12 weeks. Gas fired, top cool option and hot oil. Vertical U tubes with safety platforms, ladders, all new motors, wiring, components and comes with new control cabinet with SSI controls and flow scopes. **Asking Price: \$353,825 USD.**

Item # B418 Lindberg High Temperature Oven.

Model 41-MT-363636-2. Serial number 949223. Working dimensions of 36Wx36Lx36H. Manufactured in 1994. Maximum operating temp of 2050F. 240V, 3-phase 60hz. Honeywell Truline round chart recorder, model DR45AT and Watlow F4 digital control. Air operated vertical lift front door. Heating is provided by Lindberg MPH heating elements. Recirculating fan is mounted in the bottom. Furnace can be used for hardening, carburizing, carbo-nitriding, normalizing, and annealing. Includes retort box measuring 34x34x32 with gas connection. Excellent condition. Only used in the jet aviation industry by 1 owner. The retort was purchased with the furnace but was not actually used. Retort is brand-new. Unit has been well taken care of. Also included is a Clark Hardness Tester, Model CPT. Asking \$29,000 USD for both.



Item # B417 Fluidised Bed Furnace Line.

A complete fluidised bed heat treatment line only 6 years old, consisting of three fluidised bed furnace, a cooling fluid bed, plus auxiliary equipment. All furnaces are sized with a 600mm diameter x 1200mm deep work space (24" diameter x 48" deep) and are electrically heated, with SCR control.

- Furnace 1 – 1080 deg C max temp, 19" colour touchscreen, with Windows based control system. Process gases include air, nitrogen, ammonia, propane, carbon dioxide. All gas flows are computer controlled through electronic flowmeters
- Furnace 2 - 1080 deg C max temp, 19" colour touchscreen, with Windows based control system. Process gases include air, nitrogen. All gas flows are computer controlled through electronic flowmeters
- Furnace 3 - 680 deg C max temp, Standard temperature controller, Process gases include air, nitrogen. Gas flows are controlled manually from the flowmeter

Auxiliary equipment included in offer - cooling fluid bed, work platform, stairs and handrails, piping and wiring, fluidising air system, water cooling system with air cooled heat exchanger, various work jigs & mesh baskets, ammonia vaporiser. Current power supply is 415V / 3 phase / 50hz, but equipment can be modified to suit any power supply. Originally manufactured by Applied Heat Technologies 2010, furnace line ceased operation in 2014, and has been in storage since. All equipment is in excellent condition. Prior to sale, the equipment will be fully tested to ensure it is operational, and any faulty parts will be replaced, and a warranty will be offered. The equipment can be packed into containers for delivery anywhere in the world. Assistance with shipping, installation, commissioning and conversion to an alternate power supply available if required. **Asking price is USD \$180,000.00.**



Item # B416 Car Bottom Furnace.

Manufactured by Sauder this is a gas fired 6-burner car bottom style furnace. Serial Number: 751546 (1975). Working dimensions of 15' D x 10' W x 7'. Completely rebuilt and relined with 4" thick fibre in 2012 by Onex Inc. Dual Blowers. 6 North American burners model 4422-5 capable of 4.5 million BTU's. Was operating at 1200F but capable of much high temperatures with additional lining. Very good overall condition although the car needs minor repairs (repair materials included). **Asking \$49,500 USD for quick sale.**



Item # B415 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: \$125,000.00 USD.**



Item # B414 Ipsen Batch IQ Installation.

This 5 year old installation consists of 2 Ipsen carburizing furnaces with working dimensions of 36" X 48" X 36", both gas fired. Four (4) gas fired Ipsen tempers 36" X 48" X 36" capable of 1400F, an Ipsen dunk/spray washer and 2 charge cars. Carburizing furnaces are a "flow through design" using endothermic atmosphere. Atmosphere control is through an oxygen probe/Siemens 3 gas IR system. The entire installation is designed for "lights out operation" meaning it is completely automated. Included is over \$100,000 worth of spare parts along with 15 base trays and baskets. The equipment has just been removed and is in immaculate condition. New the system was \$3.5 million USD, **Asking Price is \$1.25 million USD.** Vendor will consider selling individual items.



Item # B406 Carbottom Furnace.

Working dimensions of 7' wide X 7' high X 12' long. Manufactured by North American Manufacturing. Natural gas heated. Ceramic fibre lined. Very good condition. **Asking price and more details to come.**



Item # B405 Surface Combustion “Super 30” Allcase.

Surface Combustion batch IQ furnace with working dimensions of 30” X 48” X 30”. 1980’s vintage with dual quench cylinders. Currently electrically heated but vendor has a complete gas combustion system and is willing to convert the furnace to gas. To convert to gas heating the vendor is willing to quote the installation of the combustion system and adding U tubes. Good overall condition. **Asking \$39,500 USD** for the furnace and combustion system.



Item # B402 Holcroft Batch IQ Furnace.

A Holcroft Model GPM batch IQ furnace with working dimensions of 36” wide X 48” deep X 30” high. Gross load capacity of 3,000 pounds. Gas fired with four 8” diameter U-Tubes and Hauck burner with recuperators. BTU input 1,350,000 BTU’s. Maximum operating temperature of 1800F. Uniformity from 950F to 1650F +/- 10F. Quench tank 3400 gallons. Quench oil temperature 160F. Nitrogen Top Cool. Allen Bradley PLC 1400. SBS quench oil cooler which has never been used. Also included is a spare pusher head. Currently set up for nitriding but capable of carburizing. Installed and in good condition. **Asking \$55,000 USD.**



Item # B401 Carbottom Furnace.

Gas fired recuperative, jet recirculating, annealing, normalizing, stress relieving car type furnace. Manufactured by Johnson, Serial number 1667. Working dimensions of 30' wide X 40' long X 15' high. Maximum operating temperature of 1800F. Utility requirements; 480volts, 3 phase, 60 hertz. Natural gas; 1000 BTU/cubic foot. 4 PSIG maximum pressure. Honeywell controls with Allen Bradley SLC 503 PLC. Krom-Schroder flame safety management. Foot print 46' wide X 50' long X 36' high. Furnace has doors at both ends, fiber lined. 4 zones of control. Self propelled car.

Please call for pricing.



Item # B400 Surface Combustion Super 30 Allcase.

Surface Combustion Super 30 Allcase with working dimensions of 30" wide 48" deep X 24" high. S/N BC-41088-1. Electrically heated 480v/3ph/60cyle. Operating temperature 1350F to 1750F. Newer style with dual quench cylinders and top cool. Controls are in a free standing panel with Eurotherm digital controllers and over-temp. Multi-pro data logging and carbon control. Includes charge car. Good condition. **Asking \$60,000 USD.**



Item # B399 Carbottom Furnace.

Manufactured by Huber this is a gas fired car type furnace. Maximum operating temperature of 2000F. Working dimensions of 10' 4" wide X 12' 8" long X 8' high. Overall dimensions of 16' wide X 16" long X 14' high. Gas fired. Electricity requirements; 480 Volts, 3 Phase, 60 Hertz. Controls; Watlow digital controller, Honeywell digital overtemp and Honeywell digital recorder. Power driven car with (3) three sets of axles. Door is attached to furnace. Furnace is fibre lined and equipped with (4) four power flame model JD 130 package burners. Approximately 1,300,000 btu's each.

Asking \$85,000 USD.



Item # B398 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



Item # B397 "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 \$325,000 USD each.**



Item # B391 Ipsen T-11 Batch IQ Furnace.

Model T-11 gas fired batch IQ furnace with an operating temperature of 2000F. Working dimensions of 36"W x 24"H x 48". Voltage 460/3/60. External dimensions of 9'W x 14'7"H (Assembled) x 22'L – Approx. Standard T-11 Ipsen batch type atmosphere furnace with integral hot oil quench. Furnace has "Waukee" flow meters for Ammonia, Endo, Air and Natural Gas. There are a total of twelve (12) Eclipse (SER) single ended recuperative burners with Kanthal APM (Advanced Powdered Metallurgical) vertical radiant tubes. Controls mounted and wired in an enclosure attached to the right hand side of the furnace includes the following a Yokogawa digital temperature control, Yokogawa digital over temp control, Yokogawa digital oil temp control, Yokogawa digital over temp (oil) control, three (3) A.C. Amp meters, one for each quench agitator and all necessary pushbuttons, signal lights, etc. Quench tank is gas fired with an Eclipse burner package. This furnace includes a stationary loader, gas fired Dunk & Spray washer, manuals & drawings. Good condition, just moved to indoor heated storage. **Asking \$75,000 USD.**



Item # B388 Hydrogen Atmosphere Furnace.

Manufacturer: CM Furnaces. Type: Hydrogen Atmosphere Box. Work Zone Size: 12" x 12" x 12" furnace work zone with 8" x 8" x 8" inside retort work area. Max. Temperature: 2000°F. Uniformity: Full work zone, prob. +/- 50°F. Lower 6": prob. +/- 20°F. Atmosphere: Wet or Dry Hydrogen or Nitrogen Purge. Controls: PLC - Automatic with Proface touch screen. **Price: \$5,000 USD.**



ITEM # B386 HIGH TEMPERATURE TUBE ATMOSPHERE FURNACE

High Temperature Tube Atmosphere Furnace. Manufacturer: Blue-M. Type: Atmosphere Vertical Tube Furnace. Max. Temperature: 2500°F. Work Zone Size: 2" Diameter x 12"High. Heating: Electric, Gload elements. Tube: Ceramic. Atmosphere: Air or Any Suitable Purge Gas. Last Use: Thermocouple Calibration.
Price: \$2,500 USD.



Item # B374 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. **SALE PRICE: \$18,000.00 USD.**



Item # B371 Sauder "Auto-Tilt" Car Bottom Furnace.

Working dimensions; ID: 8' wide x 30' long x 5' high, electric, 480/3/60, 325kw; 1400F, complete with ceramic fiber lining, 3 zones of control each with top mounted alloy recirculating fan, powered car with cast deck and 60,000# load capacity, hydraulic pump set for lifting cylinders, control panel with digital controls. Super clean and in operation.

Asking \$179,000.00 USD including disconnecting and loading onto trucks.



Item #B367 Atmosphere Box Furnace.

Manufactured by McLaughlin Services. S/N MS-11-604-01. Natural gas heated-2.8 MBTU's/hour. Maximum operating temperature of 2000F. Voltage 480/3/60/100 Amps. Work area 166"W x 20"H top of piers to door arch, 32"H opening x 120"L. External dimensions; 16'W x 13'H x 14'L - Approx. Controls; Mounted and wired in a free standing panel includes an "Super Systems, Inc." (SSi) control system with HMI touchscreen interface. Front loading box furnace with an air operated vertical lift door. Furnace lining consists of ceramic fiber modules on the walls, roof and door. The floor is insulated with "IFB" Industrial Fire Brick. The furnace hearth consists of HT alloy rails and is designed to handle 4000 pounds @ 2000°F. There are two (2) roof mounted fans in this furnace to circulate heat and atmosphere. This furnace is equipped with two (2) Waukee Flo-Tronic Nitrogen Flowmeters. There are a total of ten (10) Kromschroder pulse firing recuperative burners that fire into "P" type radiant tubes. There are four (4) zones of control in this furnace. Excellent condition-like new. **Asking \$165,000 USD.**



Item #B352 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-rewired panel with Honeywell Tru-Trend circular chart and Honeywell digital controllers and overtemp. Atmosphere capable. Comes with spare radiant tubes. Very good condition. **Asking \$70,000 USD.**



CONTINUOUS

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, fill out our [Contact Form](#).

- Item # C327 AGF Rotary Retort Line Model 280
 - Item # C326 SOLO Swiss Mesh Belt Furnace
 - Item # C325 Sinterite Mesh Belt Conveyor Furnace
 - Item # C324 C.I. Hayes Mesh Belt Furnace
 - Item # C323 Aichelin Cast Link Furnace Line
 - Item # C322 Surface Combustion Rotary Hearth Furnace Line
 - Item # C321 Austempering System
 - Item # C320 Lindberg Pusher Line
 - Item # C319 CI Hayes High Temperature Pusher Furnace
 - Item # C317 CI Hayes High Temperature Pusher Furnace
 - Item # C314 Roller Hearth Furnace (Atmosphere)
 - Item # C312 Surface Combustion (Pifco) Roller Hearth Line
 - [Item # C311 Ipsen Pusher Line P-12](#)
 - Item # C308 AFC Mesh Belt Hardening Furnace
 - Item # C302 Mesh Belt Austemper Lines (2 available)
 - Item # C301 Cast Link Belt Quench and Temper Line
 - Item # C299 Sunbeam Rotary Hearth Furnace
 - Item # C296 C.I. Hayes High Temperature Tube Furnace
 - Item # C283 Denton Thermal Systems 2150°F Rotary Hearth Furnace
 - Item # C269 CI Hayes Mesh Belt Brazing/Sintering Furnace
 - Item # C265 Sunbeam Pusher Carburizer
 - Item # C219 ABBOTT
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ITEM # C327 AGF ROTARY RETORT LINE

AGF Rotary Retort Line. AGF model 280 rotary retort line. Includes lift bucket, dump and feed loader, high heat rotary retort furnace, rotary washer and temper. Set up for Neutral hardening and Carbo Nitriding with natural gas and endo atmosphere. The retort is 16" OD X 14 1/2" ID and 17' long. Total weight 2600 pounds, HW material. Spare retort included. Buyer is responsible for disconnecting and loading however there are large overheads cranes in the area making removal quite simple. Asking price for everything including the spare retort is \$95,000 USD.

Asking Price: \$95,000 USD.



Item #C326 SOLO Swiss Mesh Belt Furnace

SOLO Swiss Mesh Belt Furnace. Built in 1995 this furnace has a max temperature of 1150 C with a main voltage of 3 x 400V - 50 Hz. The power input is 40 kw and has a heating zone power of 3 x 13 kw. The heated length is 4000 mm and the cooled length is 6000 mm with a channel section of 220 x 60/100 mm. The belt width is 200 mm and the working height with the belt is 40 mm. The conveyor belt speed is 90 cm per minute. This furnace was used to anneal stainless steel parts and various other materials (Brazing, Tempering, Hardening). Located in France. **Price on request.**



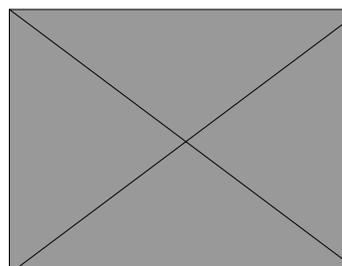
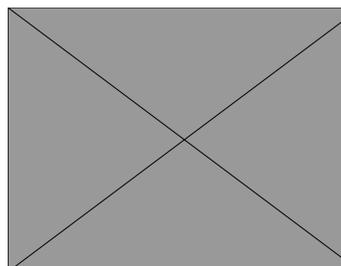
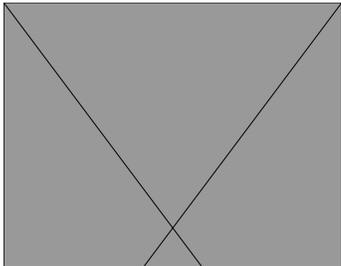
Item #C325 Sinterite Mesh Belt Conveyor Furnace

Sinterite Mesh Belt Conveyor Furnace. 120" long preheat, 2 zones, silicon carbide heating elements with metallic muffle. 180" long high heat with 3 zones of control, silicon carbide heating elements and ceramic muffle. 180 KW, 480/3/60. Belt width 12" with 4" clearance over belt. Overall dimensions 60"W X 75"H X 54'-0"L. Cooling length 282". Preheat is rated for 1100 degrees C and high heat is rated for 1180C. New in 2000 it has seen very limited production and is in excellent condition. Has pre-heat bubbler. New pre-heat muffle, new belt, and several new glo-bars. **Asking \$80,000.00 USD or best offer.**



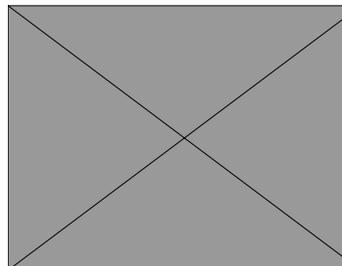
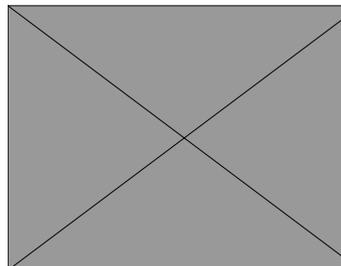
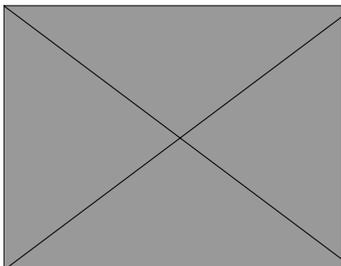
Item # C324 C.I. Hayes Mesh Belt Furnace

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 \$50,000 USD.**



Item # C323 Aichelin Cast Link Furnace Line.

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 currently used for automotive bearings. Complete installed and in operation until March 2017. Excellent condition. Best offer.



Item #C322 Surface Combustion Rotary Hearth Furnace Line.

This system was designed for heat treating and straightening crankshafts and consists of a rotary hearth furnace, 2 Gleason straightening presses and a robot for loading/unloading. The furnace is S/N CC11590-1 with an outside diameter of 17' 3", inside 15', inside height of 2' 11" with an overall height of 8' 6". Built August 1979. Gas fired with 8 trident tubes. Atmosphere is Endo/Natural gas. Nominal tray size is 5" X 21", number of tray positions 60, tray loader/unloader length 10' 6". Hearth has ceramic tray support and guide tiles and embedded in 12" thick insulating firebrick. Sidewalls consist of 9" of insulating firebrick backed with 4 1/2" of insulating block. Alloy and brickwork are both excellent. System is complete, installed but not in operation. **Asking \$50,000 USD.**



Item # C321 Austempering System. Ipsen Model SG500, S/N52822.

Shaker hearth style hardening furnace is capable of 500 pounds/hour, 1850F operating temperature, gas fired 800,000 BTU's/hour with an 18" wide tray. Temper has an operating temperature of 800F and a heat input of 300,000 BTU's. Controls on both are Honeywell UDC units. Entire system consists of a magnetic conveyor loading system, Ipsen shaker-feeder-hopper. Mitsubishi variable speed AC drive on salt conveyors, 900 gallon wash tank with 30" conveyor and 280 gallon rust inhibitor tank with 32" conveyor. Currently installed but not in production. System is in reasonable condition but has not been used for some time. **Asking \$20,000 USD or best offer.**



Item # C320 Lindberg Pusher Line.

Line consists of a 170F prewash, purge, 1500F pre-heat, 1550F high heat, 350F oil quench, air cool, 170F hot water wash, cold air quench, 375F three zone temper and 460F draw temper. Built and installed in 1976, electrically heated. Designed for martensitic heat treating of 52100 bearing steel. 10 trays in system each 46" X 28". Working height of 24". Each tray is capable of 700 pounds. Controls have been updated recently with a new SSI MCA6010 three gas analyzer. Currently installed and in production. Very well maintained and in excellent condition. **Very attractive asking price.**



Item # C319 CI Hayes High Temperature Pusher Furnace.

C.I. Hayes model MY-040848-94PH high temperature pusher furnace. 4" opening above the hearth, 8" tray width. Max. Temp: pre-heat 1100 C, High Heat 1700 C. 94" long preheat, 1 control instrument/1 zone, 15 KW@440/3/60, metallic heating elements. 48" high heat, 1 instrument, 3 control zones, 45 KW@440/3/60, molybdenum heating elements. 48" metallic front tunnel with nitrogen curtains and burn off. 3 cooling sections. each 36" long, 1 section is insulated and all are water jacketed. Rear tunnel with nitrogen curtains and burn off. Multiple atmosphere inlets, for hydrogen/dissociated ammonia with nitrogen purging. Pusher screw drive. Atmosphere bubbler. High heat chamber recently rebuilt. Overall Dimensions; 6'H x 4'-6"W x 39'L (Approx.) **Asking \$100,000 USD.**



Item # C317 CI Hayes High Temperature Pusher Furnace.

Model MY-040848-94PH. 4" opening above furnace hearth. 8" tray width. Maximum temperature of the pre-heat is 1100C, maximum temperature of the high heat is 1700C. 94" preheat, 1 control instrument/1 zone, 30KW@440/3/60, metallic heating elements. 48" high heat, 3 instruments, 3 control zone, 45KW @ 440/3/60, moly heating elements. 48" metallic front tunnel with nitrogen curtains and burn off. 3 cooling sections each 36" long, 1 section is insulated and all are water jacketed. Rear tunnel with nitrogen curtains and burn off. Multiple atmosphere inlets for hydrogen/dissociated ammonia with nitrogen purging. Pusher screw drive. Atmosphere bubbler. Return conveyor system. High heat chamber recently rebuilt. Overall dimensions 6' high X 7.5' wide X 39' long (approximate). Excellent condition. Furnace was used for co-firing, can be converted for sintering with preheat muffle. **Asking \$110,000 USD.**



Item # C314 Roller Hearth Furnace (Atmosphere).

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 \$225,000 USD.**



Item # C312 Surface Combustion (Pifco) Roller Hearth Line.

60" x 60" Trays capable of 4000 lbs per tray. This line is gas fired and includes an SSI datalogging system. Also includes SBS Heat Exchangers and has waukeetronic flow meters. Asking Price: \$450,000 USD. **Must be removed within the next few months All Offers Considered.**



Item # C311 Ipsen Pusher Line P-12.

Rebuilt by JL Becker Company. This is a complete line which includes; a Pre-wash, Hardening Furnace, Oil Quench, Post Wash, and Temper. It's setup for endothermic atmosphere and is currently installed and operating. Hardening furnace is capable of 1750 F and has 5 zones of control. Gross load 1000 pounds. 460 Volts/3 Phase/60Hertz. 3,000,000 BTU/hr heat input, gas fired, tray size 30" x 30" x 29" overall with loading. Good overall condition. **Asking Price \$250, 000 USD. Must be removed within the next few months All Offers Considered.**



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 \$75,000 USD.**



Item # C302 Mesh Belt Austemper Lines (2 available).

Mesh Belt Austemper Lines (2 available). Built by AFC-Holcroft these are mesh belt, gas fired austemper lines. Parts to be processed are metered on to the variable speed, 30" wide mesh belt, travel through an 8" long high heat zone, drop into an electrically heated salt quench tank then are carried on a conveyor out of the quench tank and into a washer. A circulating fan distributes heat and atmosphere evenly through the heating area. Heat is supplied by two U shaped radiant tubes that are recuperated. SSI controls monitor and control the atmosphere gases. Furnaces were in operation until March 2015. One furnace is 1989 vintage the other is a 2000 vintage. Both are complete, in **very good condition and currently in storage.** **Asking price for the 2000 furnace is \$95,000 USD, the 1989 furnace asking price is \$75,000 USD.**



Item # C301 Cast Link Belt Quench and Temper Line.

Manufactured by Rogers Engineering 4,000 pounds/hour cast link belt furnace line consisting of a 1750F high heat furnace and 1700F temper furnace. Serial # CC-3977-0 (1997). High Heat Furnace: 48"W Omega Cast Link Belt, 4" pitch, 3" sides. Furnace has a 30'L heating section. Four (4) zones of control with three (3) roof mounted in the last three (3) zones. Maximum operating temperature of the hardening furnace is 1750°F. Furnace is radiant tube heated with recuperators. Furnace is currently set up for Endothermic w/Enriching Natural Gas & Air. Total BTU's for hardening furnace is 3,180,000 BTU/HR. Controls; All mounted in a free standing panel includes Allen Bradley PLC w/HMI Touchscreen, Honeywell UDC Digital Temperature Controls, SSI Carbon Controls. Voltage 480/3/60/200kW.

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

The sequence of this furnace is as follows:

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

Includes:

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

Very good condition, available immediately. **Asking \$650,000 USD.**



Item # C299 Sunbeam Rotary Hearth Furnace.

Working diameter of 6', 8 station hearth, each station is 12" wide x 18" deep x 12 " high. The door opening is 1'-6" wide X 10" high. Gas fired, 620,000 BTU's, 3 radiant tubes and an operating temperature of 1750F. Built in 1977 and used for neutral hardening. Also included is a robotic arm for loading/unloading. The furnace is installed and in running condition, brand new radiant tubes and a rebuilt fan. All manuals and drawings are included. Good overall condition. **Asking \$40,000 USD.**



Item # C296 C.I. Hayes High Temperature Tube Furnace.

Model MY-0002.528, 2-1/2" ID Tube x 28" Long Heating Chamber. Operating temperature of 1700°C, 10.5 KW, Single Zone Control with overtemp protection. Overall dimensions of 75" H x 32" W x 91"L. Hydrogen Atmosphere. Included is an automatic loader. **Asking Price \$21,000.00 OBO**



Item # C283 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, Global 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: **\$29,000.00 USD.**



Item # C269 CI Hayes Mesh Belt Brazing/Sintering Furnace.

Working dimensions of 5" over belt, 12" wide X 120" of heated length. Electrically heated 230/3/60, operating temperature of 2100F. Model LAC. Temperature controls are new state of the art, control panel with Honeywell solid state digital readout controller and overtemp for each of three zones, includes volt and amp meters. Full alloy muffle in hot zone. 20' long sealed water jacketed cooling. Globar heating elements over and under the belt. (3) zones of control. (4) argon flowmeters. Dayton AC inverter provides adjustable belt speed. Updated SCR controls. Muffle and belt are new. **Very good condition. Asking \$39,000 USD.**



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 \$40,000 USD**



Item #C219 ABBOTT MODEL 6ZSCR-18-432HH6-VC-2150.

18" wide belt, 3"+ opening over the belt, 432" heating chamber (silicon carbide muffles), six zones, 36" long vari-cool with 162" of additional cooling including two curtain boxes. 2150 deg.F. max temp., piped for dissociated ammonia atmosphere and nitrogen purge, 335 kw @ 480/3/60, Honeywell UMO 800 controller/programmer, OAD: 84" w x 90" h x 720" l. Currently used for annealing knife blades but with a little effort a metallic muffle in the front half of the heating chamber could be added for debinding and sintering of PM parts. **Asking price: \$77,000 USD OBO.**



DRAW/TEMPER

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, fill out our [Contact Form](#).

- Item # T345 Surface Combustion Temper Furnaces (4 Available)
 - Item # T344 Batch Oven 72"H X 48"W X 48"D
 - Item # T343 Batch Temper 36"W X 36"H X 96"L
 - Item # T342 Recirculating Walk In Oven 72" X 48" X 120"
 - Item # T341 Temper Furnace
 - Item #T340 Safed/Borel Annealing Furnace
 - Item #T339 Box Tempering Oven
 - Item #T337 Box Draw Furnace
 - Item #T336 Mesh Belt Temper
 - Item #T335 Batch
 - Item # T333 Composite Curing Oven / Heat Treat Oven
 - Item # T329 Guspro Heat Cleaning Oven
 - Item # T327 AOV Aluminum Drop Bottom Oven System
 - Item # T325 3-Station Despatch Temper Furnace
 - Item # T323 Box Temper
 - Item # T321 Grieve Conveyor Oven
 - Item # T320 Pifco Conveyor Oven
 - Item # T319 Temper 48" W X 48" D X 36" H
 - Item # T318 Large Box Tempering Ovens (4 available)
 - Item # T316 Grieve Model# HX-1000 Electric Oven
 - Item # T315 Electric Oven
 - Item # T312 Recirculating Walk-In Oven
 - Item # T303 Pifco Temper Furnace
 - Item # T301 Lucifer Furnace
 - Item # T290 Tempering Ovens 36" X 48" X 36" (2 available)
 - Item # T286 Lindberg Box Temper
-

ITEM # T345 SURFACE COMBUSTION TEMPER FURNACES (4 AVAILABLE)

Surface Combustion Temper Furnaces (4 available). Manufactured by Surface Combustion, Model HFC-36-54. All are gas fired units with an operating temperature of 1250F. Standard Guillotine style door. Working dimensions of 36" wide X 48" deep X 30" high. Alloy and brickwork in good condition.

Asking \$29,500 USD Each.

ITEM # T344 BATCH OVEN 72"H X 48"W X 48"D

Grieve Recirculating Oven. Working dimensions of 72" high X 48" deep X 48" wide. Electrically heated 460/3/60, 40KW, 50 amps. Operating temperature of 650F. Model Number: WTH-446-650, Serial number 411938. Temperature Controls: Indicating controller and overtemp. Optional circular chart recorder. Description & Features: Standard Grieve truck oven. Double swing open doors. Heating elements and fan are located in top chamber. Horizontal air flow. Insulated floor with truck wheel guide tracks. Air flow switch. 2 HP fan motor. Will be rebuilt and fully operational. Test fired prior to shipment. Two ovens available. 2011 vintage. Very good condition.

Asking \$14,500.00 USD.



Item 343 Batch Temper 36"W X 36"H X 96"L. Manufactured by Wisconsin Oven, Model SDB-6616-10G, S/N 033899307. Natural gas fired, 1 MBTU's/hour. Maximum temperature rating 1000F. Voltage 480/3/60/16 amps. External dimensions of 96" wide X 13' 4" high assembled (10'6"H shipping) x 11'L. Controls; Mounted and wired in an enclosure with fused disconnect attached to the side of the furnace. Temperature controls consist of a digital Barber Colman 560 digital for temperature and a Barber Colman digital "Limitrol" 75L high limit. ATC process timer to control heating cycle. Allen Bradley switches for control power, circulation fan, ignition and gas valve reset. Signal lights for control power, air flow, high/low gas pressure, purge, etc. Eclipse package burner with Honeywell flame safety, UV scanner and spark ignition. General Description; Recirculating gas fired batch temper with air operated vertical lift doors on each end. Eclipse package burner with roof mounted recirculating fan distributes heated air in a combination air flow pattern. Roller rail hearth with chain guide. Furnace includes two (2) scissor lift tables. Manual and drawings are included with this furnace. Very good condition. **Asking \$49,900.00 USD.**



Item 342 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 \$16,500 USD.**



ITEM # T341 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 \$91,000 USD.**



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. **Price on request.**



Item #T339 Box Tempering Oven

Box Tempering Oven. Manufactured by Eisenmann in 2002. Model HN-FNC-006. Working dimensions of 108" Wide x 96" Deep x 64" High. Natural Gas (3,200,000 BTU/HR). Operating temperature of 1200F. 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. 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 of 13'2" Wide x 23' Long x 17'8" High (includes Door Structure). Approximate weight of 32,000 pounds. Excellent condition. **Asking price is \$55,000 USD.**



Item #T337 Box Draw Furnace 24"H X 24"W X 36" D

Box Draw Furnace 24"H X 24"W X 36" D. Recirculating box type draw furnace manufactured by Lindberg. Electrically heated 460/3/60, 42 KW. Operating temperature 1250F. Model 243624-E12, S/N 18794. Temperature Controls: Upgraded control panel with new temperature controls. Standard "Cyclone" design. Coiled Nichrome heating elements are housed in a separate chamber. A high velocity paddle wheel fan delivers the heat to the work chamber and provides good uniformity. Air cylinder operated vertical rising door. Brick lined. Roller hearth. Furnace will be cleaned and painted, checked out and test fired prior to shipment. Guaranteed operational. Note: Furnace can be reconnected to operate on 230/3/60. Very good condition. **Asking \$18,500.00 USD.**



Item #T336 Mesh Belt Temper Furnace 48" Wide

Mesh Belt Temper Furnace 48" Wide. Continuous belt temper furnace manufactured by Industrial Heating Equipment, Model # TF-5. Inside dimensions 10" over belt, 48" wide X 12' heating. Gas fired, Eclipse package burner. Maximum operating temperature 1000 F. Temperature Controls: Free standing enclosed panel. Solid state digital readout indicating controller & overtemp. Top mounted brick lined combustion chamber houses high velocity stainless steel circulating fan. Steel lined work chamber has 8-1/2" insulation. Stainless steel mesh belt on top of edge wire belt. Very good condition. **Asking \$29,500 USD.**



Item #T335 Batch Oven 37"H X 37"W X 25"D

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. 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 \$8,000.00 USD.**



Item #T333 Composite Curing Oven / Heat Treat Oven.

Manufactured by Epcon this unit has working dimensions of 30'L x 12'W x 12'H and overall dimensions of 31'3"L x 17'4.5"W x 22'4.5"H. Electrically heated with an Inconel 900 KW heater and an operating temperature of 800F. Two recirculating fans type; Two N.Y.B. Size 40 Plug Fans, capacity: 33,000 CFM Each. Motor HP: 30 HP-Each (480V/60HZ/3PH). Exhaust fan; type N.Y.B. Series 20 GI, Size 224DH, capacity 4,000 CFM, 5 HP motor. Interior is 18 Ga. Aluminized Steel and exterior is 18 Ga. Carbon Steel. Insulation: 8# Density Mineral Wool, 7" thickness. Control Panel: NEMA-12. Power Supply: 480V/60HZ/3PH. Double swing doors. Excellent condition, virtually unused. New this was \$811,000 USD. **Asking \$130,000 USD.**



Item #T329 Guspro Heat Cleaning Oven.

Model G0484039ED51P354N, S/N C366. Working dimensions of 54" wide X 48" deep X 45" high. Process chamber has an operating temperature of 1,000F. Oxidizer chamber has an operating temperature of 1200-1600F. Complete and installed but not in use. Reasonable condition. **\$2,000 or best offer.**



Item #T327 AOV Aluminum Drop Bottom Oven System.

Model: DBF-3X3-E. Electric Heat, 480V/3Ph/60Hz Work Zone: 3ft Dia. x 3ft H. Includes Quench tank. Temperature Rating: 1200°F. Controls are included but need to be replaced. **Asking Price: \$ 45,000 USD. Offers Considered**



Item # T325 3-Station Despatch Temper Furnace.

Manufactured in 1980 by Despatch Industries, Inc. 3 Independently loaded and operated furnace stations with shared panel. Tops elevate off bases for loading and unloading. Work Zone: 22"W x 40"L x 25"H Each. Hearth Height: Estimated at 36-40" (Can measure for you). Max. Temperature: 850°F with a Uniformity of +/- 25°F (Center area of 12"W x 20"L x 10"H meets +/-10°F). Electrically heated with a power of 490V/3Ph/60Hz. 3 West 4400 Temperature Contrl. & West 6700 Hi-Limit. (We can quote upgrade to new Super Systems, Inc. controls, if desired.). Just rebuilt. New heating elements, new hearth ceramics, New stainless steel side panels, new paint. **Asking Price: \$39,500 USD, Offers considered.**



Item # T323 Box Temper.

Manufactured by Despatch Industries this is a Model WB73, S/N 119895. Working dimensions of 42" wide X 72" long X 42" high, Overall dimensions are 97" wide X 103" long X 148" deep. Weight 11,500 pounds. Electrically heated 480V/120KW/3 Phase, maximum operating temperature 1350F. Digital temperature control and high limit control with a circular chart recorder. Air operated vertical lift door. Heated air is circulated by 2 roof mounted belt driven fans. Power to the elements is through SCR control. Air safety switches monitoring both fans will terminate power to the elements in the event of fan failure. There are provisions for two shelves, but no shelves are included. Tested and complete. **Asking Price: \$29,500 USD.**



Item # T321 Grieve Conveyor Oven.

Electrically heated 460/3/60/160kW/235 Amps. Maximum operating temperature of 650F. Working dimensions of 24" wide X 14" high X 42' long. Controls; A Barber Colman 560 digital programmable temperature controller and a Barber Colman high limit safety. All control switches with indicating lights are flush mounted in the enclosure. SCR power controllers, high limit contactors, motor starters, fuses, relays etc. are mounted and wired inside the enclosure. Main power disconnect circuit breaker with panel mounted operator handle. Standard conveyor oven design with a flat wire conveyor belt. Three foot long charge table followed by a 42 foot long heating section divided into 2 zones of control. Each zone has separate heating elements and circulating fan located above the work chamber. Heated air is circulated down over the top of the belt for good uniform heating. Exhaust vents located on the top of each chamber. Access doors on the side for entrance into each zone. 4' long discharge table is included with this oven. Very good condition. **Asking Price: \$42, 000 USD.**



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.**



Item # T319 Temper 48" W X 48" D X 36" H. Manufactured by Williams in 1999.

Gas fired, burner box, operating temperature of 1500F. Fan included but needs to be installed. Some misc., components missing and minor repair required. **Asking Price: \$29,000 USD.**



Item # T318 Large Box Tempering Ovens (4 available).

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

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

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

OVERALL DIMENSIONS: Oven: 13' Wide x 20' Long x 17'8" High (includes Door Structure. (Shipping Dimensions: 12'6" Wide x 20' Long x 10'8" High). Loader: 9'6" Wide x 12' Long x 4' High. Approximate weight 20,000 pounds. Excellent condition, operational. **Asking Price: \$72,500 USD each.**



Item # T316 Grieve Model# HX-1000 Electric Oven. Max.

Temp: 1000°F, +/- 10°F Uniformity. Circulated Air: 1000 CFM, 3/4 H.P. Fan Motor. Insulation Thickness: 8". Single door. Rated Work Zone: 38"W x 20"D x 26"H (Measures 36"W x 19"D x 25"H). Power Rating: 20 kW. New Upgraded Controls: Temperature - SSI Series 7 7EK (Super Systems, Inc.) Hi-Limit - SSI 7SL. Outside Dimensions: 62"W x 40"D x 61-1/2"H (new dim.). Approx. Shipping Wt.: 2740 lb. **Asking price: \$8,900 USD.**



Item # T315 Grieve Model# HX-1250-E, Electric Oven, Max. Temp:

1250°F, +/- 10°F Uniformity. Circulated Air: 1400 CFM, 1 H.P. Fan Motor. Insulation Thickness: 10". Single door. Rated Work Zone: 38"W x 20"D x 26"H (Measures 36"W x 19"D x 25"H). Power Rating: 30 kW. New Upgraded Controls: Temperature - SSI Series 7 7EK (Super Systems, Inc.) Hi-Limit - SSI 7SL. Outside Dimensions: 66"W x 44"D x 65-1/2"H (new dim.). Approx. Shipping Wt.: 3300 lb. **Asking Price: \$ 10,900 USD.**



Item # T312 Recirculating Walk-In Oven.

Manufacturer: Despatch. Inside Dimensions: 66"high x 54"wide x 68"deep. Heated: Gas fired. DG-300 Heater. Temperature: 650 deg.F. Model Number: V-41. Serial Number: 96267. Temperature Controls: Partlow indicating controller and overtemp. Description & Features: Double swing open doors, horizontal air flow, insulated floor with tracks for a cart, powered exhaust blower, top mounted combustion and fan chamber. Atmospheric type burner system. Complete combustion controls and safeties. Oven will be cleaned and painted, checked out and test fired prior to shipment.

Asking Price: \$13,500.00 USD.



Item # T303 Pifco Temper Furnace.

S/N 8177 built in 1988. Working dimensions of 126" long x 60" wide x 40" high. Overall dimensions of 13' x 11' x 11' high. Comes with load and unload discharge tables and combustion fan. Maximum operating temperature 950 deg. F. Rated for 250 pound net weight x 37.4in long tray loaded every 15 minutes. Furnace holds three (3) trays. Approximate nineteen (19) minutes to operating temperature. Forty-five minutes in furnace @ 15 minute load cycle. Heated by one gas burner approximate rating 600,000 BTU/hour. Utilities required: 1000 BTU natural gas @ 5PSI, 480v 3Ph 60Hz. Water 80 deg. F maximum @ 20PSI. Compressed air 60PSIG minimum. Adequate drain for water. Good condition. **Asking Price: \$38,000 USD.**



Item # T301 Lucifer Furnace,

Model Number 46GT-R36, Serial Number 6418, Working Dimensions of 24" w x 36" d x 24" h. Insulation and elements are in good shape. Front lift door with a foot actuator. Controls: Honeywell round chart recorder, Honeywell overtemp, No controller. Power: 460/3/60 28 Kw 35 Amps, Temperature: Max 1650° F. Nitrogen Atmosphere. **Asking Price: \$12,500.00 USD as is, where is.**



Item #T290 Tempering Ovens 36" X 48" X 36" (2 available).

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



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**



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, fill out our [Contact Form](#).

- Item # G198 3,000 CFH Endothermic Generator
- Item # G197 Ammonia Dissociator
- Item # G196 Surface Combustion 5000 CFH Endo Generator
- Item # G193 Pacific Scientific Endothermic Gas Generator
- Item # G189 Surface Combustion 2400 CFH Endo Generator
- Item # G178 Ammonia Dissociators (4 available)
- Item # G176 Surface "Multi-Bottle" Endo Generators
- Item # G173 Lindberg Endo Generator
- Item # G169 Gasbarre/Sinterite Furnace Division Endo Generator

Item # G198 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 \$22,500.00 USD.



Item # G197 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 \$11,500.00 USD.**



Item # G196 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 \$31,500.00 USD.**



Item # G193 Pacific Scientific Endothermic Gas Generator.

Natural gas, Model # PGF 3000-EN, Serial #416417, Max Temp 1950°F, Voltage 460/3/60, Work Area 3000 CFH, Dimensions: 42"W x 86"H x 106"L - Approx. Standard "Pacific Scientific" design Endothermic Gas Generator with water cooled shell & tube heat exchanger, Waukee vane pump, Waukee flow meters, atmospheric type ring burner. Generator just removed from service on 4/2015. Controls: Mounted and wired in an enclosure attached to the generator includes a Honeywell programmable logic controller (PLC) which controls all functions of the generator. The PLC also monitors/controls temperature, dewpoint and flow. There is a Honeywell digital high limit mounted in the same enclosure. This generator has a "Waukee" rotary vane pump and "Waukee" ratio tronic digital flow controls. This generator is also equipped with a "Nova" dewpoint system. Available immediately and in very good condition FOB East Chicago, IN. **Please call for pricing.**



Item # G189 Surface Combustion 2400 CFH Endo Generator.

Two retort "multi-bottle" configuration allowing one retort to operate while the other is shut down for maintenance. New in 1995. S/N AC-43349-1. 2400 CFH capacity. Casemate controls, air cooling. Good condition. Currently installed and in operation but will be available shortly. **Asking \$59,000 USD.**



Item #G178 Ammonia Dissociators (4 available).

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

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

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

Description: Electrically heated Ammonia Dissociator suitable for supplying up to 3000 CFH of atmosphere with a composition of 75% Hydrogen and 25% Nitrogen. This atmosphere is obtained by cracking anhydrous ammonia vapor in a catalyst filled vessel maintained at a temperature of 1700°F to 1850°F. Incoming ammonia pressure is reduced before retort entry. At the outlet of the retort the hot dissociated ammonia passes through a dry cooler where the gas is cooled to near room temperature. It then passes through a flowmeter and on to the consuming device. This dissociator includes a Sargeant & Wilbur Ammonia vaporizer. This dissociator is provided with two (2)catalyst filled heat resisting alloy retorts. The retorts are mounted within the insulated dissociator heating chamber. The heating chamber consists of heavy Mullite T-Slot tiles. Retorts are heated with Sinuous-wound Nichrome Ribbon Heating elements which are mounted in the tile slots. The element tails and studs extend through the rear wall of the dissociator. Elements can be removed through the rear wall without having to unpack furnace insulation etc. A step-down transformer (480V to 240V 112.5 KVA) is included. Manuals and drawings are also included. Very good condition. **Asking \$29,500.00 USD each.**



Item # G176 Surface “Multi-Bottle” Endo Generators.

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 “EndoInjector”. Very good condition, ready to go. **Asking \$75,000 USD.**



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 \$17,500.00 USD.**



Item #G169 Gasbarre/Sinterite Furnace Division 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 “mixer” 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 \$29,500.00 USD.**



INDUCTION

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, fill out our [Contact Form](#).

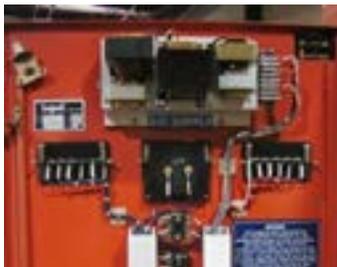
- **Item # I170 Inductoheat Induction Power Supply**
- **Item # I164 Ajax Tocco Induction Power Supply**
- **Item # I160 Ajax Tocco Power Supply (unused)**
- **Item # I158 Induction Power Supply**
- **Item # I153 Raydyne Induction System**

ITEM # I170 INDUCTOHEAT INDUCTION POWER SUPPLY

Inductoheat Induction Power Supply. This is a Lepel/ Inductoheat SP5-40 kW, 10 kHz SCR type induction heating power supply with a separate Heat Station (I believe this could be operated at 3 kHz but the heat station is currently arranged for 10 kHz). This is an "HS-3" Heat Station with 3 capacitors and a Jackson Transformer with ratio's of 5-3 to 17-3. The Inductoheat SP5 has been a proven reliable power supply for heating and heat treating for many years. It can be used for short heat times as it has fast and consistent ramp up to set power.

It appears in excellent condition and is available for \$9,500 or "Best Offer". There is no warranty but it is sold with the assurance it is in good working order. Power testing, 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 Lepel/Inductoheat Power Supplies. A number of other Lepel/Inductoheat SP-11 units are available in the range of 30 to 60 kW, 200 kHz.

Asking \$9,500.00 USD Or Best Offer



Item # I164 Ajax Tocco Induction Power Supply.

Model #OL-426-150-3/10-00M. Manufactured 12/06. Serial Number: 46-1128-11. Wiring Diag.: WD-287513. CKT.BKR. AMPS. : 400.

Input Ratings: Volts Min./Max. : 432/528 P.F. : 82 Amps.Max. : 291 KVA : 220 Freq.Hz. : 60Hz Phase : 3
Output Ratings: Volts : 512 KW : 150 Amps. : 389 Freq.Hz. : 3/10 KHz Phase : 1 This unit was sold new to Caterpillar in 2006 and never installed and never used. Excellent condition. **Asking \$33,000 USD.**



Item #I160 Ajax Tocco Power Supply (unused).

Ajax Tocco Inductron PT power supply, capacity: 450kW. Frequency: 3-10 kHz. Output Voltage: 400 *. Year of manufacture: 2006. This unit was never installed and is unused. *Price quoted from Ajax Tocco to convert output voltage from 400 to 800 including parts and labor is \$15,230. http://www.ajaxtocco.com/applications/documentlibrary/Inductron%20PT_092003.pdf New this unit was \$86,000 USD, **asking \$39,000.00 USD.**



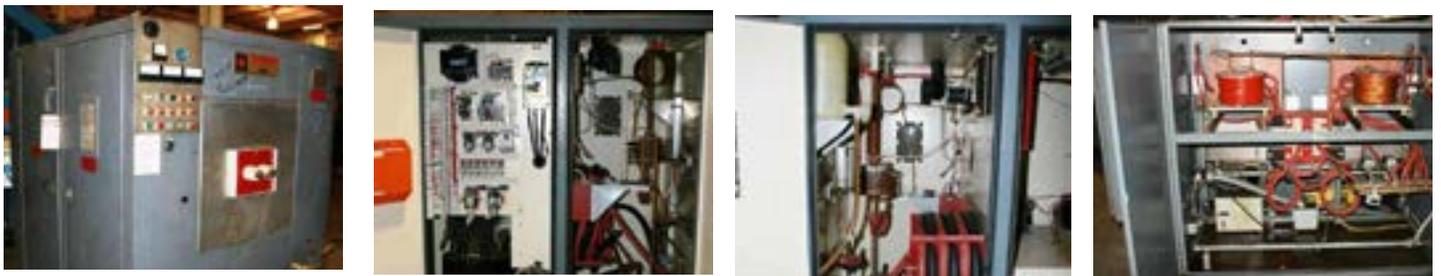
Item #1158 Induction Power Supply.

Manufacturer Inductoheat/Elphiac. Model Number: DC18T+HF08. S/N 2177DC. 335 kW, 200 kHz, 750V Output. Input Voltage: 460/3/60/448 KVA/562 Amps. Output Voltage: 335 kW/750V/200 kHz. Very good condition. **Asking \$39,500.00 USD.**



Item #1153 Raydyne Induction Heating System. I

Input Voltage: 480V/3 Phase/60 Cycles/110 Amps, Output Voltage: 40 kW, 450 kHz, Year Built: 1985, Model of Power Supply: EI-40, Serial Number of Power Supply: 41408901-B. Please note the RF Tube is missing. Includes a dual heat station with quench. Model of Heating/Quench Station: 10228201, Serial Number of Heating/Quench Station: 10228201B. This system is Government Surplus and appears to be fairly clean inside power supply cabinet. The power supply has a "Control Concepts" SCR power controller. **Asking \$7,500.00 USD.**



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, fill out our [Contact Form](#).

- Item # L8 Clark Micro Hardness Tester
- Item # L7 Leco Micro Hardness Tester
- Item # L3 Laser Diffraction Particle Size Analyzer
- Item # L1 Spectra-Tech 0044-003 Infrared Microscope

Item #L8 Clark Micro Hardness Tester.

Model DMH-2, Serial number 3388. Good operating condition. Asking \$6,500.00 USD.



Item #L7 Leco Micro Hardness Tester.

Complete and in good condition. Unit has become surplus to the vendors organization. **Asking \$7,000.00 USD.**



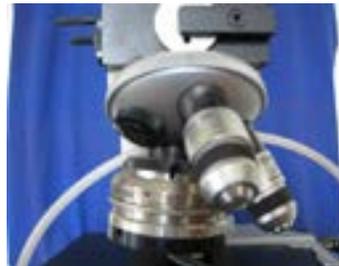
Item #L3 Laser Diffraction Particle Size Analyzer.

Manufactured by Microtrac, Model S3500. Measurement capability from 0.02 to 2800 microns. Wet and dry measurements. Complete and in very good shape. **Asking \$20,000 for complete system.**



Item # L1 Spectra-Tech 0044-003 Infrared Microscope,

Model WHK 10X 201, Reflected & Transmitted light, multiple objectives, Polaroid 4x5 attachment. **\$6,500.00 USD.**



MISCELLANEOUS

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, fill out our [Contact Form](#).

- **Item #M406 Surface Combustion Parts Washer**
- **Item #M405 Used Transformers For Sale**
- **Item # M403 Houghton Aqua Quench 3699 Polymer (4)**
- **Item # M402 Closed Loop Water Cooling System**
- **Item # M400 Nitrogen Generating System**
- **Item # M399 Eclipse Burners, Recuperators and Spark Igniters**
- **Item # M396 Surplus Cast Link Belt**
- **Item # M394 Hi Tech Weighing System**
- **Item # M391 Cryogenic Stainless Twin Tank**
- **Item # M385 Giant Finishing Machine**
- **Item # M381 Water Cooling System**
- **Item # M380 Wheelabrator**
- **Item # M379 Georg Fischer Shot Blast System**
- **Item # M378 1 Surface Combustion Radiant Tube and 4 supports**
- **Item # M370 SBS Quench Airs (2 available)**
- **Item # M366 Wheelabrator Rubber Belt Tum-blast**
- **Item # M365 Dual Lane Conveyor Washer**
- **Item # M363 SBS Unit**
- **Item # M348 Ipsen Automatic Dunk/Spray Washer**
- **Item # M346 SBS "QuenchAir"**
- **Item # M341 AFC Charge Car**
- **Item # M334 Berg Water Chiller**
- **Item # M314 Holcroft Dunk/Spray Washer**

ITEM #M406 SURFACE COMBUSTION PARTS WASHER

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

ITEM #M405 USED TRANSFORMERS FOR SALE

Allis Chalmers Substation Transformer (1). Remanufactured by Jordan Transformer LLC, August 2009, Job No. 4569. 69,000 Volts. Vendor has PCB test analysis, < 1 ppm. 6.49% KVA @ 12,000 KVA

- Limited usage last 4 years
- Serial # 26311018921
- All windings are copper & circular design
- 3 Phase 60 hertz substation transformer
- 12/16/20 MVA OA/FA/FA @ 55 Deg. C
- Original Manufacturer Allis Chalmers 4/1961

Best Offer



Item #M403 Houghton Aqua Quench 3699 Polymer (4).

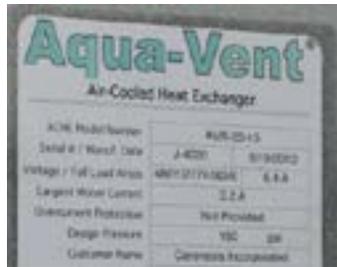
Available for sale are four (4) Totes of Houghton Aqua Quench 3699 Polymer Quenchant. Material has never been used. Total amount available is 1,000 Gallons.

Asking Price is \$2,500.00.

Item #M402 Closed Loop Water Cooling System.

Manufactured by Dry Coolers in 2010. Model #CDX-150-120-ST. 480V/227V/30/60Hz. Closed loop system with air cooled heat exchanger, model AVR-35-15. S/NJ-4720. 15GPM. Controls: Mounted and wired in an enclosure attached to the pumping system includes digital temperature control, disconnect switch etc. Excellent condition.

Asking \$7,950.00 USD.



Item #M400 Nitrogen Generating System.

Manufactured by South Tek Systems in 2013 this system is in "like new" condition. The unit includes; STS N2-GEN 200S with Oxygen Analyzer, 1,060 Nitrogen Storage Tank, Kaeser ASD40T Complete Air Compressor package with Refrigerant Dryer and 240 Gallon Air Receiver Tank, Connection Package, Performance Capabilities: Nitrogen Purity Ranging from 95% - 99.999%, Nitrogen Hourly Flow Rate Ranging from: 473 SCFH – 5,371 SCFH *depending on purity setting, Nitrogen Outlet Pressure Range: 0 – 80 PSI. Excellent condition, available the end of June. **Asking \$82,500.00 USD.**



Item #M399 Eclipse Burners, Recuperators and Spark Igniters.

All of these items are in "like new" condition and still in the original boxes. Vendor will sell as a complete package or as individual items.

Recuperators; Eclipse Bayonet Ultra Recuperator, Assembly 101849-24 (5BU, 24" tube length, low pressure drop model). S/N 07-27834580-8 45 units in inventory. Asking \$1840 USD each.

TFB Burners; Eclipse Therm thief V2.3, Model TFB23.030NP04NA9NXXR. Model: 030 - Burner Model 030, Fuel Type: N - Natural Gas (CH4), Air Supply: P – Preheated Air, Burner Input: 04 - 201k-300k Btu/h (59-88 kW), Gas Piping Connection: N - NPT Gas Inlet Connections. Gas Orifice: A9 - 9.1mm. Air Pipe Connection: N - NPT Air Inlet. Air Orifice: XX - No orifice (for preheated air). Tube Length: R - 20 in. (507 mm). Cone Setting: C - 9.5mm. Flame Supervision: X - No Flame Safety. Gas Piping Orientation: 0 - Gas Inlet at 0 Degrees with Air Inlet at 0 Degrees. S/N 10S0101049-0001-6. Manufactured June/2012. 40 units in inventory. \$695 USD each.

Spark Plug Igniters. Model # 100640-11. 40 units in cardboard tubes with bubble wrap. **\$100 USD each.**



Item #M396 Surplus Cast Link Belt.

Used Omega HT Cast Link belt with HR 120 connecting rods. 4" pitch, 78" wide X 130' long. Weight 26,741 pounds. Also available is a porcupine drive roll, 11' long, 700 pounds. A tail roll 11' long X 11" diameter, 700 pounds, entry and exit hearth rolls 10.5' long X 6" diameter and a return roll 10.5' long X 14.4" diameter. Good condition. Buyer can inspect condition upon request. **Please call for pricing.**



Item #M394 Hi Tech Weighing System.

Excellent condition Hi Tech vibratory loading system suitable for a continuous furnace. Model PC 325-2 TEEDC, 460 VAC 60Hz, S/N 0546, built 03/09/02. **Asking \$10,000 USD.**



Item #M391 Cryogenic Stainless Twin Tank.

Manufactured by NDA Engineering in 2006. Operating temperature to -346F. 240 Volt. from Internal dimensions left hand side 70cm x 65cm x 80 cm deep (364 litres), right hand side 70cm x 100cm x 80cm deep (560 litres) **Asking Price \$6,500 USD.** Located in New Zealand.



Item #M385 Giant Finishing Machine.

Manufactured by "Giant", Model GB-10 Spiral bowl with Internal Separation Vibratory Deburring and Finishing Machine. 10 cubic foot process capacity with 5 hp motor. Maximum load capacity 2,000 pounds. Bowl diameter 65", unload height 39". NEMA 12 control panel including 0-6 hour process timer and lapsed time recorder. Control panel is JIC approved and U.L. listed. Standard voltage; 460/3/60 cycle. This is a brand new, unused tumbler. New this was \$45,000 USD, **asking \$30,000 USD.**



Item #M381 Water Cooling System.

VFC 500 gallon, 10HP 150 GPM pump, 3500 rpm motor. Plate heat exchanger, Graham model VFX-18, s/n 93-10058-1. This unit was used on 5,000 lb. loads. **Asking \$7,500.00 USD.**



Item #M380 Wheelabrator – Bronco.

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. **Asking Price: \$39,900 USD. (Includes loading at the facility)**



Item #M379 Georg Fischer Shot Blast System.

This unit is currently installed and in very good condition. Included are \$10,000 worth of spare parts. **Asking \$20,000 USD.**



Item #M378 1 Surface Combustion Radiant Tube and 4 supports.

Brand New the cost was \$1,844 for the tube and \$448 each for the supports for a total of \$3,636 in 2014. The radiant tube is Surface Combustion inventory # 850628 and the support is part # 70R64/L. They are a set for a Standard Allcase furnace. One leg of the tube is 3/12 inches in diameter and 62 inches long. The other is 4 1/2 inches in diameter and 60 inches long. **Asking \$3,000 USD.**



Item # M370 SBS Quench Airs (2 available).

Manufactured by SBS Corp., these are air/oil quench oil coolers. Each is a 3 fan unit with disconnect and 480 volt. Suitable for a large continuous line. Installed indoors. Very good condition. **Asking \$12,500 USD each. Must be removed within the next few months All Offers Considered.**



Item # M366 Wheelabrator Rubber Belt Tumbler.

Model # TBR-12, Serial # A142403, Voltage 480/3/60, 12 cubic feet, Controls - complete. Available Immediately, very good condition. **Asking: \$55, 000.00 USD.**



Item # M365 Manufacturer: Grapar. Type:

Dual Lane Conveyor Washer. Heated: Natural Gas. Dual Lane Washer Serial Number: 08-010 (2008). Max Temperature: N/A. Voltage: 480/3/60. Work Area: 11"W x 7"H. Each Lane External Dimensions: 8'W x 10'6H x 30'L - approx. Controls: Mounted and wired in an enclosure attached to the washer. Includes an Allen Bradley MicroLogix 1200 PLC and an Allen Bradley "Powerflex 4" VFD to control conveyor belt speed. Description: This washer has three (3) stages, wash/rinse/blow-off. This washer is gas fired using Eclipse burner and gas train with a Honeywell UDC digital temperature control. Spray nozzles are located on top, both sides and bottom. Condition: Very Good. **Asking: \$39,500.00 USD.**



Item # M363 SBS Unit. Specs:

S/N: 4926. Year: 2007. Three (3) Fans with side mounted disconnects. Overall Size: 6'w x 6'h x 21'l. W-RES, MAWP 75 psi @ 450°F, MBMT -20°F, 75 psi. **Price: \$15,500.00.**



Item # M348 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. **Rebuilt, excellent condition asking \$35,000 USD.**



Item # M346 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 \$5,500.00 USD.**



Item # M341 AFC Charge Car.

Drawing # MT-237014. Voltage 480/3/60. Suited for a 36" wide X 48" tray. External dimensions of 100" wide X 84" deep X 84" high. Side mounted control panel with Allen Bradley SLC 500 PLC Logic Control. Double ended chain driven powered charge car with roller rail top. Excellent condition. **Asking \$28,500.00 USD.**



Item # M334 Berg Water Chiller.

This is a BERG Air Cooled portable Chiller, Model PA-1.5-1P capable of supplying 1.5 tons of cooling capacity at 15 degrees F leaving and 95 degrees F ambient temperature. Used for only 3 days (low hours), and is in nearly new condition. Electrics are 460/3/60 and it comes with a 575-460 transformer. **Asking \$5,500.00.**



Item #M314 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 \$18,500.00 USD.**



SALT

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- **Item # S001 Mesh Belt Austemper Lines (2 available)**

Item # S001 Mesh Belt Austemper Lines (2 available).

Mesh Belt Austemper Lines (2 available). Built by AFC-Holcroft these are mesh belt, gas fired austemper lines. Parts to be processed are metered on to the variable speed, 30" wide mesh belt, travel through an 8" long high heat zone, drop into an electrically heated salt quench tank then are carried on a conveyor out of the quench tank and into a washer. A circulating fan distributes heat and atmosphere evenly through the heating area. Heat is supplied by two U shaped radiant tubes that are recuperated. SSI controls monitor and control the atmosphere gases. Furnaces were in operation until March 2015. One furnace is 1989 vintage the other is a 2000 vintage. Both are complete, in very good condition and currently in storage.

**Asking price for the 2000 furnace is \$95,000 USD,
the 1989 furnace asking price is \$75,000 USD.**



VACUUM

See something you need, click on the link or scroll through all the items for sale. Searching for something we don't have listed, fill out our [Contact Form](#).

- **Item # VF323 150 Ton Vacuum Hot Press (2 Available)**
- **Item # VF322 Vacuum Sintering Furnace, 2,000 C**
- **Item # VF321 Ipsen Vacuum Furnace**
- **Item # VF320 High Temperature Vacuum Furnace**
- **Item # VF319 Vacuum Induction Melting System**
- **Item # VF317 Twin High Temperature Vacuum HT & Sintering Furnaces**
- **Item # VF316 AVS Vacuum Furnace**
- **Item # VF315 AVS Vacuum Furnace (Rebuilt)**
- **Item # VF314 Ipsen Bottom Load Vacuum Furnace**
- **Item # VF313 Top Loading Vacuum Furnaces (6 available)**
- **Item # VF312 2400C Vacuum Furnace**
- **Item # VF311 Vacuum Furnace 6 Bar Quenching**
- **Item # VF307 Bottom Loading Vacuum Furnace**
- **Item # VF306 Edwards Stokes 1722-J Skid**
- **Item # VF305 Vacuum Hot Press**
- **Item # VF303 Surface Combustion Vacuum Temper**
- **Item # VF301 Vac Aero 2 Bar Vacuum Furnace**
- **Item # VF300 Stokes Microvac Pump**
- **Item # VF299 Sunbeam Vacuum Furnace**
- **Item # VF297 Remanufactured Stokes 412H-11 Piston vacuum pump**
- **Item # VF296 Remanufactured Stokes 212J Piston vacuum pump**
- **Item # VF295 Varian/Agilent HS-20, Diffusion Vacuum Pump**
- **Item # VF294 Vacuum Annealing Furnace**
- **Item # VF289 Ipsen Vacuum Temper Furnace**
- **Item # VF285 20" Right Angle Poppet Valves (4 available)**
- **Item # VF282 AVS Vacuum Debinding/Sintering Furnace**
- **Item # VF281 Surface Combustion Vacuum Furnace**
- **Item # VF271 SINTERING/DE-WAX FURNACE**
- **Item # VF267 Semi-Continuous Titanium Diffusion Bonding Hot Press**
- **Item # VF266 Kinney 75 CFM Vacuum Pump**
- **Item # VF265 Stokes 149H-11 80 CFM Vacuum Pump**
- **Item # VF255 Roots Gas Blower**
- **Item # VF254 MD Blower, 350 CFM**
- **Item # VF243 35" Diffusion Pump**
- **Item # VF242 35" Diffusion Pump**

ITEM # VF323

150 TON VACUUM HOT PRESS (2 AVAILABLE)

Maximum Temperature: • 2000o C / 3632o F (Optional 2200o C / 3992o F operation available)

Power Requirements: • 480 volts, 60 hertz, 3 phase (Optional 380 volt, 50 hertz operation available)□

Hot Zone Dimensions: • 16" high x 19" wide x 20" deep element-to-element (41cm x 48cm x 51cm)

External Dimensions: • 99" high x 82" wide x 74" deep (251cm x 208cm x 188cm)

Atmosphere: • High vacuum, rough vacuum, partial pressure, and atmosphere operation

Features: • Standard one-year warranty. • This is a compact, packaged, and assembled unit. • Graphite hot zone and four-sided graphite heating elements for optimum uniformity. • Upper ram is moveable with 6" stroke. Bottom ram is fixed. • 16.3" daylight between rams (41.4cm) • Fully automatic operation with PLC programmer/controller with alphanumeric display to indicate hot press processing cycles. • Programmable closed-loop temperature/pressure control. This system will consist of a Yokogawa UP750 two-loop programmable temperature/pressure controller with 300 programs and 3,000 segments. The UP750 will control the temperature and the pressure on the hydraulic ram on the same timeline. • Mechanical vacuum pump.

Asking \$450,000 USD Each



ITEM # VF322 VACUUM SINTERING FURNACE, 2,000 C

Vacuum Sintering Furnace, 2,000 C. Horizontal Vacuum Sintering Furnace System for processing graphite and ceramics. Manufactured by AVS, Model HGF-22-21-62-2000. Work zone is 22" wide x 21" high x 62" deep. 12 cubic feet, maximum load of 350 kgs. Temperature: 2000 °C maximum operating temperature. Temperatures above 1700 °C require partial pressure or positive pressure. Maximum heat rate is 10 °C/min ramp rate for room temperature to 1600 °C, ± 10 °C uniformity @ up to 1600 °C in vacuum. Rotary piston roughing pump. Evacuates chamber to 20 micron in 10-15 minutes, empty (5 X 10⁻³ Torr Ultimate vacuum) 5 u/hr. leak rate. Process Gasses – Argon, Nitrogen, 1% Methane in Nitrogen. Controls Fully automatic operation with ACE™ control/ Data Acquisition System.

Chamber; HORIZONTAL JACKETED CHAMBER – nominal 56" diameter x 82" long flanged, on legs. All stainless-steel chamber, interior jacket and flange water-cooled. Two door containing hinges and manual door clamps. The chamber includes a 4" flanged bottom port designed for future applications and flexibility. Two site ports are included and set up with gas purged pyrometer sight port assemblies. Two load carts with battery operated hydraulic lift and roller top are provided with the furnace for use with the two hearths that are provided for the hot zone.

Hot Zone; HORIZONTAL GRAPHITE FURNACE – Furnace is heated by graphite elements (no CFC) and insulated by rigidized graphite felt faced with graphoil. Includes heart rails with rollers for easy loading.

Gas Cooling; GAS RECIRCULATION COOLING SYSTEM – 10 HP Cooling fan and heat exchanger mounted in rear door of the chamber. Includes automatically operated front and rear door shutter fans for gas circulation. System is 9 years old, installed and in excellent condition. Almost \$600,000 USD.

Asking \$180,000 USD.



ITEM # VF321 IPSEN VACUUM FURNACE

Ipsen Vacuum Furnace:

- Manufacturer: Ipsen
- Model: VFC-524
- Temperature: 2400F
- Moly-faced hot zone
- Graphite heating elements
- 18" Ipsen Diffusion Pump
- Stokes 412H-10 (old style) mechanical pump
- 50 kVA power transformer
- Top-mounted cooling fan with 15 HP Motor
- Had a 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

Price: \$58,000 USD.



Item # VF320 High Temperature 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 chiller and parts washer. **Asking \$100,000 USD for everything.**



Item # VF319 Vacuum Induction Melting System

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 \$285,000 USD.**



Item # VF317 Twin High Temperature Vacuum HT & Sintering Furnaces

Twin High Temperature Vacuum HT & Sintering Furnaces. Two each 2010 Seco/Warwick Model V40-35/48 Vacuum Furnaces, 1500C (2732 F) Max. operating temperature, 1600C (2912F) burn-out temperature, Work Zones: 600mm x 650mm x 1200mm (23.6" x 25.6" x 47.2"), Design uniformity +/- 10C, but with elements on all 6 sides we would expect much better uniformity, One furnace hot zone is in excellent condition and the other is nearing time for replacement, All-Metal Hot Zones (Layers: 1 Tungsten, 7 Moly, 1 Stainless Steel), Low voltage Tungsten Heating Elements, Moly hearth, Load Rating: 2850 lb. (1300 Kg), Power: 480V/3Ph/60Hz, 390 kW SCR Heating Input with 3-zone control, 420 kVA total power, Stainless steel chamber, water jacket and hot zone plenum, Controls are CompactLogix PLC with computer, touch screen and SCADA software, Leybold TTR91 pirani vacuum sensor, Edwards (Stokes) 212J mechanical pump with Edwards 607 booster pump, Gases set up for Argon cooling and hydrogen purge, Hydrogen mass flow controller, Gas quench pressure rating is 1.05 Bar absolute. Mezzanine-mounted power supplies for minimal floor space requirement. Both furnaces (2), factory loader and existing spare parts are included at this price. Disassembly and Loading: Buyer's responsibility. **Asking \$275,000 USD for Both.**



Item # VF316 AVS Vacuum Furnace

AVS Vacuum Furnace. Model HMF-24-24-48-1100. Hot Zone: 24" x 24" x 48" deep, Moly with moly elements. Eurotherm controls 2704 & 2116i, Turbopump controller needs to be replaced. Operating temperature of 2400F. Cryotorr high vacuum pump; Turbopump may need rebuild. Additional Port for 20" Diffusion Pump. Current footprint: 15' Deep x 15' Wide x 11' High (8'H without power supply). Power: 250KVA, 440-480V, 3Ph, 60Hz. 2-Tier Moly Fixture. VFD on blower. Rear Access Door. Needs new hot zone. May need turbopump and turbopump controller. **Asking \$115,000 USD.**



Item # VF315 AVS Vacuum Furnace (Rebuilt)

AVS Vacuum Furnace (Rebuilt). Model HMF-24-24-48-1100, Hot Zone: 24" x 24" x 48" deep, Moly with moly elements. Controls new in 2015. Operating temperature of 2400F. Pumps: Cryotorr high vacuum pump; Turbovac MAG Intregra roughing pump; New turbopumps and valving in 2015. Additional Port for 20" Diffusion Pump. (GVT has 20" D.P. & right angle valve available). CTI-Cryogenics 9600 compressor. Current footprint: 15' Deep x 15' Wide x 11' High (8'H without power supply). Power: 250KVA, 440-480V, 3Ph, 60Hz. Loader Included as well as a 2-Tier Moly Fixture. VFD on blower. Rear Access Door. Very good condition. Rebuilt July 2015. Asking \$200,000 USD.



Item # VF314 Ipsen Bottom Load Vacuum Furnace

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.**



Item # VF313 Top Loading Vacuum Furnaces (6 available)

Top Loading Vacuum Furnaces (6 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 \$175,000 USD each.**



Item # VF312 2400C 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 \$149,000 USD.**



Item # VF311 Vacuum Furnace 6 Bar Quenching (Located in Turkey)

Vacuum Furnace 6 Bar Quenching (Located in Turkey). Working dimensions of 600 X 900 X 600 mm. 800 KG load capacity. Maximum operating temperature of 1350C. 6 bar quenching, nitrogen. 140kW heating capacity. Temperature uniformity of +-5C above 850C with convection. Hard graphite felt insulation hot zone. Ultimate vacuum level of 8 X 10⁻² mbar with rotary vane pump and roots pump. 380-220V-50HZ-3 phase. Excellent condition. **Asking 155.000 Euro.**



Item # VF307 Bottom Loading Vacuum Furnace.

Manufactured by Vac Aero. 4860 High Vacuum (diff pump) bottom loader Main Chamber replaced new in 2000. 50 HP Spencer Turbine gas quench blower with a .85 Bar pressure quench. Closed loop water system w/o air coil. Yokogawa paperless chart recorder. Honeywell DCP550 Set point programmer. Edwards vacuum gauge controller. Furnace is installed and presently in operation. Customer responsible for removal. Complete and in good overall condition.



Item # VF306 Edwards Stokes 1722-J Skid.

Warranty rebuilt Stokes 1722-J Skid. Stokes Model 900-412-014 Mechanical Pump (Newer Style), S/N: 069034482. Date: 2006-11. Motor: 10 H.P. Stokes 615-1 Blower. S/N: 813770X0898 Lot: 78315-38. Motor: 7.5 H.P. Skid Mounted. Interconnecting Pipe and Fittings. Stokes Demister. Immediate Availability. **Asking Price: \$ 23,500** in rebuilt condition with Rebuilder's



Item # VF305 Vacuum Hot Press. Max Temp 1000C/1830F. 6" x 6" x 15" work zone. Metal hot zone model 6615-1000 moly rod elements, moly & stainless steel shields w/ moly retainers. Three (3) sided heating. T/C control, DCP700 Honeywell two (2) channel controller. 15 KVA power supply - 208 volts/1pH/60Hz. 4" diffusion pump / 17.1 cfm mechanical pump. Granville Philips vacuum controller #91-270. Fan cooling 3/4 HP pin splitter mounted on the rear of the chamber. T/C control for overtemperature protection controllers.

Diffusion Bonding Hot Press. Series 3520 Model 6-1315 Diffusion Bonding Hot Press, stainless steel interior cold wall chamber with full opening door, water cooled rams, ram seals, power feedthru ports, thermocouples, shuttered site ports & supported on the press frame. This system is designed to deliver up to 60,000 lbs of force to a compact in the furnace. The hydraulic cylinder is mounted on the upper horizontal section of the press frame. Force from the cylinder is transferred into the vacuum chamber by two (2) water-cooled ram extensions, which pass thru sliding vacuum seals at the top and bottom of the chamber. The bottom ram is stationary. The hydraulic cylinder has a 6" bore, so that full rated force will be applied at a hydraulic pressure of 2125 psi.

Utility Requirements: 15 KVA power supply - 208 volts/1pH/60Hz. Total connected load 120 Amps. Water 8 gpm, 30-40 psi, 60-70F. Compressed air 1 scfh, filtered, lubricated and regulated at 60-80 psig. Inert gas 10 psig regulated. Hot zone almost new. Always operated on closed loop cooling water. Unit was fully operational when removed from service. Includes (2) new feedthroughs and spare parts. **Asking Price: \$49,500 USD.**



Item # VF303 Surface Combustion Vacuum Temper.

Manufactured by Surface Combustion Model HVT 36-48-24, S/N BO 40016-1. 220Volt, 3 phase, 60Hz, 220Kw. Working dimensions of 36" wide X 24" high X 48" deep with a weight capacity of 2,500 pounds. Not in use or installed. Most components are included but this unit should be regarded as a "project". **Asking Price: \$5,000 USD or best offer.**



Item # VF301 Vac Aero 2 Bar Vacuum Furnace.

Model #VAH 4848-HV2. Working dimensions of 48" X 48", rated for 1500 pound loads. Serial #BM 981, built in 1998. Stokes vacuum pump #615-1. Serial number 915240E0498. Updated Allen Bradley controls. No diffusion pump but it does have a port for one. Good condition. Currently installed and in use for approximately 6 more weeks. **Asking Price: \$150,000 USD.**



Item # VF300 Stokes Microvac Pump.

Model #212H-11 150 CFM 5HP motor. Roots Rotary Lobe Booster Pump. ID #839 697 020. Designation #38-RGS. Skid Mounted 1896 lbs. **Asking Price: \$6600 USD or best reasonable offer.**



Item # VF299 Sunbeam Vacuum Furnace.

Model # 40236, Serial Number F-170-82. Working dimensions of 36" wide X 120" long X 36" high. Maximum operating temperature of 2552F (1400C). 460 volts, 400Kw, 3 phase. Honeywell digital program control, Honeywell digital overtemperature control, Honeywell strip chart (inoperative) and Granville-Phillips 375 Convectron vacuum controller in enclosed panel. Double walled water cooled horizontal load vessel. Interior has a molybdenum liner with graphite heating elements on both walls, roof and floor. 20 HP cooling fan mounted in rear. Pumping system consists of a Stokes 412-11 mechanical pump with Roots booster. Power to the heating elements is through VRT's. A battery powered loader is included. Some of the heating elements were damaged during shipment and will need to be replaced by buyer. **Asking Price: \$95,000 USD.**



Item # VF297 Remanufactured Stokes 412H-11 Piston vacuum pump,

300CFM pumping speed, 4" ASA Inlet / 3" NPT Exhaust connection, 10HP, 230/460V, 50/60 Hz, 3-phase operation, water cooled, prepared for hydrocarbon oil. 12 Month Warranty. Part Number: ED-412H11-R. Pump Model: ED-A900412011. Price New: \$24,927.00. **Asking Price: \$14,950.00.**



Item # VF296 Remanufactured Stokes/Edwards 212J Piston vacuum pump,

150 CFM pumping speed, 3" ASA Inlet / 2" FNPT Exhaust connection, 7.5 HP, 230/460V, 60 Hz, 3-phase operation, water cooled, prepared for hydrocarbon oil. 12 month warranty. CSA marked. Part Number: ED-212J-R. Pump Model: ED-900212014. Price New: \$16,150.00. **Asking Price: \$9,750.00.**



Item # VF295 New Surplus Varian/Agilent HS-20,

Diffusion vacuum pump with ASA flanges, with a Standard Cold Cap, 17,500 l/s pumping speed, rated for 480V, 3-phase operation. 12 Month Warranty CE marked. Part Number: V84341309-R. Pump Model: V84341309. Price New: \$20,950.00.

Asking Price: \$16,500.00



Item # VF294 Vacuum Annealing Furnace.

Manufactured by Thermionics this is a custom designed vacuum annealing furnace designed to heat treat wire up to 210 cm long. The vacuum chamber has an 8" Dia. X 90" effective working length. The operating temperature was developed for a maximum operating temp of 1200° F, The vacuum nominal level (continuous) duty was developed as 1 X 10⁻⁶ Torr. Maximum vacuum level to operate in continuous duty is 5 X 10⁻⁸ Torr. The unit was designed to use N₂ gas. The unit was an R & D unit that was built in 1998, but has had little to no use. Excellent condition. New this was \$90,000 USD.

Asking Price: \$29,000.00 USD.



Item # VF289 Ipsen Vacuum Temper Furnace.

Built in 1981. Working dimensions of 280 mm high X 420 mm wide X 590 mm deep (11" X 16.5" X 23.2"). Maximum load 100kg (220 pounds). Minimum operating temperature 150C, maximum operating temperature 700C. Input power 94 KVA, heating 71Kw, 575 volts, 60Hz. Type K T/C's, Honeywell controls. Vacuum contact point 1.0 X 10⁻¹ mbar, operating pressure 1000 mbar. Maximum vacuum level 5.0 X 10⁻² mbar. Circulated nitrogen atmosphere gas. Elements Cr-Ni Steel. Stokes model 149H vacuum pump. SS hot zone. Class 3 furnace with a temperature uniformity of +/- 8C. Used in an aerospace heat treat facility until it was replaced with a new furnace. Complete although missing the temperature recorder. Included are a manual loader and 3 baskets. Excellent condition. **Asking Price: \$59,500 USD.**



Item # VF285 20" Right Angle Poppet Valves (4 available). 20" Right Angle Poppet Valves to mate to Varian HS-20 Diffusion Pumps. Removed from service in good operational condition by a company converting to cryo pumps. Offered in As-Is or Standard Rebuilt As-Is Price: \$ 1,800.00 (working, but no warranty, 30 Day Return). **Std. Rebuilt Price: \$ 3,150.00 (1 year warranty).** Valves are awaiting rebuild now. (2-3 weeks required ARO). Photo shows another representative RAV prior to rebuild.



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: \$209,000 USD.**



Item # VF281 Surface Combustion Vacuum Furnace.

Model: IHVP-364830-2, S/N: VC-42202-1. Work Zone Size: 42”W x 60”L x 30”H. Hot Zone: All graphite, including hearth and elements. Vacuum System: Requires Stokes 1722 Skid (412H mechanical pump and Stokes 615-1 vacuum blower. Both are missing), 16” Port for diffusion pump, but no pump. Power Supply: 250 kW 460V/3Ph/60Hz. Max. Temp.: 2400F. Max. Load: 3000 lb at 1900F. Cooling Gases: Nitrogen, Argon, Helium. Gas Quench Capability: +12 PSI positive pressure. Cooling Fan: Top mounted. Controls: Honeywell DCP-7700 Temp. Controller. Eclipse EMC-560 Hi-Limit. Honeywell Strip Chart Recorder. Philips Model 316 Vacuum Controller. Control Ther-



Item #VF271 SINTERING/DE-WAX FURNACE.

Horizontal sintering furnace with wax condenser 1470°C operating temperature. Water cooled 304 stainless steel chamber with mild steel flanges. Graphite hot zone - 24" wide x 18" high x 36" deep, with hearth rails. Graphite retort - 4 to 5 cubic foot work space, shelves, graphite rollers, de-wax tube and -cooling. 5 HP recirculation cooling fan system - cooling flaps in insulation and retort. Wax condenser assembly with hot water circulation system and removable wax receiver pot. Power supply - transformer-type, low voltage secondary, nominal 250 kW. Vacuum pumps - Stokes 212-H, 150 cfm rough pump, Roots 615, 1600 cfm booster. Dynamic partial pressure gas system. Unit can be seen in operation and is available for immediate delivery.

Asking Price: \$299,000 USD.



Item #VF267 SEMI-CONTINUOUS Titanium Diffusion Bonding Hot Press.

System consists of; Load Chamber. Rated for 2720 kg load Moly Pin walking system rated for 2720 kg load 44" w x 54" d x 6.5" high product size in semi continuous mode Stokes 612/300 pump/blower Mounted on roll out frame for easy maintenance

Preheat Chamber. 35" diffusion pump / 100 CFM holding pump Moly Pin walking system rated for 2720 kg load 44" w x 54" d x 6.5" high product size in semi continuous mode Stokes 300 CFM mechanical pump 5 x 10⁻⁵ Torr in 20 minutes 300 kW heater power (Hunterdon) Moly Hot Zone Mounted on roll out frame

Bonding Chamber. 20" diffusion pump / 100 CFM holding pump Moly Pin walking system rated for 2720 kg load 44" w x 54" d x 20" high product size in batch mode 44" w x 54" d x 6.5" high product size in semi continuous mode Constant 1100°C Heated Platens, Moly pressing surface 1000 tons of force, up pressing ram 300 kW heater power (Hunterdon) Moly Hot Zone Mounted on roll out frame

Cooling Chamber. 20" diffusion pump. Stokes 612/300 pump/blower Moly Pin walking system rated for 2720 kg load 44" w x 54" d x 6.5" high product size in semi continuous mode Fast Cool 60°F /min argon. 1750F to 1200F. 25°F variation over part 5 x 10⁻⁵ Torr in 20 minutes Fast Backfill Port Mounted on roll out frame

This system is ideal for any company wanting to develop process for diffusion bonding of any materials which are capable of being processed within the specifications of the furnace. The system is available as a batch or semi-continuous, as the system can be set up in Batch mode for development purposes and semi continuous mode for production. The system is available for inspection as warehoused in the Northeastern USA. New Price for this system is over USD \$16,000,000. This system is available in almost any configuration. **As is \$890,000.00 cash** and carry with support available from the original manufacturer at a reduced rate, or reconfigured to match your specific requirement at a price TBD. Immediate delivery.



Item #VF266 Kinney 75 CFM Vacuum Pump:

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

Asking Price: \$ 5,700 F.O.B. West Coast U.S.



Item #VF265 Stokes 149H-11 80 CFM Vacuum Pump:

Rebuilt Stokes Model 149H-11, Lot# CD-81004 Mechanical Vacuum Pump, Rebuilt by Evey Vacuum in 2002 and stored in heated, dry area since then. **Asking Price: \$ 5,500.00 USD with 30 Day Right of Return if not satisfied.**



Item # VF255 Roots Gas Blower:

Rebuilt (per owner), Roots Model 2510J Whispair Max gas blower, 372 CFM, Roots I.D. 847-485-20, S/N 76 54846 with 5 H.P. Motor mounted on skid. Location: Pacific North-western U.S.

Asking Price: \$3,500.00 USD. 30 Day Right of Return, if unhappy.



Item # VF254 MD Blower, 350 CFM:

Rebuilt (per owner) M.D. Pneumatics 350 CFM gas blower, Model 11-3210, S/N 1735R A23, on skid but needs motor. Location: Pacific North-western U.S. **Asking Price: \$3,000.00 USD. 30 Day Right of Return, if unhappy.**



Item #VF243 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: \$ 12,250.00 (with existing working elements. Add \$6,000 if you want brand new elements.) Location: Coeur d'Alene, Idaho 83814



Item #VF242 " 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 As-Is Condition: \$ 6,400.00 USD** Price in Warranty Rebuilt Condition, Painted: \$ 12,250.00 (with existing working elements. Add \$4,500 if you want brand new elements.)



NEW EQUIPMENT

As most of you are aware our background is as Manufacturers Representatives selling Heat Treating Equipment. The alphabetical list below shows the companies which we represent with a brief description of what each does.



AFC-Holcroft of Wixom,

Michigan manufactures heat treat furnaces, including batch integral quench, continuous austempering lines, mesh belt furnaces, pusher lines, endothermic generators and continuous solution heat treat for aluminum parts. The Process Master division of AFC/Holcroft offers complete control systems for the HT Industry.



ALD Vacuum Systems of Wixom,

Michigan provides 'The Solution' to your high volume, vacuum based heat-treating equipment requirements. We provide process capabilities such as Low Pressure Carburizing (LPC) and high pressure gas quenching (HPGQ) as well as vacuum oil quenching, neutral hardening and on and on. Automated processing of heat treat is the most economical means to gaining the most from your capital investment.



Custom Electric Manufacturing

(Electric Heating Elements): The Custom Electric engineering team has more than 75 years of heating element design experience. Working with original equipment manufacturers and end users, they design elements for new and unusual applications in addition to replacement elements that ensure production efficiency. Phone Number: 248-305-7700, Sales@customelectric.com.



Dry Coolers Inc. of Oxford,

Michigan makes closed loop process water cooling systems either Air Cooled, Evaporative Cooled, or Mechanically Refrigerated. Dry Coolers also offers quench oil coolers, filtration systems, and a unique outdoor mechanical room "Tower Shed". They are industry leaders in vacuum furnace cooling packages.



Super Systems Inc.

Develops and manufactures products for the thermal processing industry. Our products include probes, analyzers, controllers, software solutions, flow control and engineered systems. We have extensive experience in addressing industry demands with technology to help our customers be more efficient and produce better quality products. Our state-of-the-art manufacturing facility in Cincinnati, Ohio, and offices around the globe give us the resources to address the instrumentation, software and technical needs of the industry.



South-Tek.

Manufactures a variety of Nitrogen Generators, from those designed to output a few liters per minute of Nitrogen flow rate for table top laboratory applications, to designs capable of producing 75,000 cubic feet per hour to meet the demands of some of the largest industrial plants. Our systems are capable of producing Nitrogen purities of up to 99.9995% (5 PPM and lower). Whether you are using nitrogen for vacuum quenching, inerting atmosphere furnaces or for required safety purge South-Tek Systems has your solution.

HEAT TREAT CENTRAL

- High Quality Low Cost Base Trays
- Investment cast only
- Fast Delivery for in-stock trays¹
- Surface Combustion Allcase Tray
- UBQ Furnace Tray
- Site-specific custom trays
- Based on existing castings
- No setup or pattern fees²
- Industrial alloy grades available
- HU, HT, Super NA22H, ...
- Please send your enquiries to:

Jordan Montgomery
jordan@themonty.com
905-271-0033

¹While supplies last

²Applies to standard design trays only. Some restrictions apply.

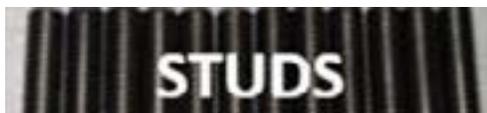
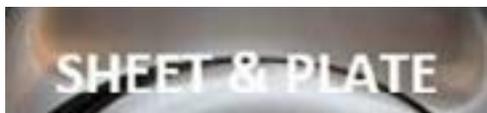
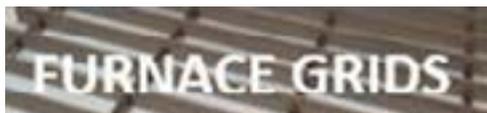
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MOLY

At “**The Moly Store**” we offer extremely competitive pricing on all your molybdenum requirements including wire, round bar, nuts, washers, studs, all thread, sheet, plate even designed and assembled grids! This is combined with unsurpassed quality and a large inventory in the USA available for immediate delivery. The links below will take you to our current inventory all of which can be shipped almost immediately.

Bob and Ben Grammer welcome the opportunity to help with your requirements

Sales@gytinc.com Phone: 208 765-6854.



BUSINESS OPPORTUNITIES

We at "**themonty.com**" are very proud of the fact that since 1969 we have been putting heat treaters around the world together. The links below cover several areas where we can help your company such as finding a buyer for your heat treat plant, finding a commercial heat treat company for sale, posting free ads for individuals looking for a new position within the heating industry and a listing of companies looking to hire. Remember-if it has to do with heat treating we can put you in touch with the best people!

- **EMPLOYMENT OPPORTUNITIES**
- **INDIVIDUALS SEEKING EMPLOYMENT**

EMPLOYMENT OPPORTUNITIES

ITEM # O334 SERVICE MANAGER

ITEM # O333 ELECTRICAL FIELD SERVICE TECHNICIAN

ITEM # O332 CONTROLS ENGINEER

ITEM # O331 PROCESS METALLURGIST

ITEM # O330 PLANT MANAGER

ITEM # O329 SALES ENGINEER

ITEM # O328 PROCESS METALLURGIST

ITEM # O327 OUTSIDE SALES REPRESENTATIVE

ITEM # O326 STRAIGHTENER / QUALITY INSPECTOR / FURNACE OPERATOR

ITEM # O325 MAINTENANCE TECHNICIAN/SUPERVISOR

ITEM # O324 SALES REP

ITEM # O323 HEAT TREATING PLANT MANAGER

ITEM # O322 METALLURGIST / MATERIALS ENGINEER

ITEM # O321 HEAT TREATING MANAGER/METALLURGIST/MATERIALS

SERVICE MANAGER

G-M Enterprises is located in Corona, CA and is a world leader in supplying industrial furnaces for heat processing and aerospace industries throughout the world. We are seeking a Service Manager.

REQUIREMENTS:

- Bachelor's degree in Engineering.
- Ten (10) years of Supervisory, technical experience.
- Experience running Field Service Team.
- Experience in quoting customers inquiries.
- Strong Heat Treat, Vacuum Furnace, Aerospace or Automotive knowledge, with hands on skill.
- Interface with Engineering , Manufacturing Purchasing and Marketing Departments.
- Able to interact with customers at all levels.
- Develop, solicit and open new accounts.
- Good communications skills. (Verbal and written)
- Computer proficiency. (MS-Office)
- Work with Manufacturing and Vendors to determine timing required to fulfill orders/service.
- Ability to read and understand mechanical blueprints.
- Over ten years of manufacturing experience.
- Team player that helps achieve company goals and objectives.
- Strong problem solving skills – troubleshoot and solve.
- High energy level and ability to multi-task in fast paced environment.
- Willing to give that extra effort.
- Customer Service oriented.
- Attentive to detail.

E-mail Resume to: sjhawar@gmenterprises.com

ELECTRICAL FIELD SERVICE TECHNICIAN

DESCRIPTION: G-M ENTERPRISES, headquartered in Corona, CA, supplier of high performance Heat Treating Vacuum Furnaces, Atmospheric Furnaces, Maintenance, Service and Parts is seeking Service Technicians.

REQUIREMENTS: Position is primarily responsible for providing installation, start up and technical support to world-wide service operations and providing field service support.

Travel is about 50%.

Vacuum Products:

Minimum, 10 years of heat treat vacuum equipment and leak detection experience.

Minimum, 10 years of electrical field service experience.

Vacuum and Temperature Instrumentation and Controls experience.

GE & Allen-Bradley PLC temperature surveys.

Over-all troubleshooting, repair and maintenance experience.

Problem solver with a project ownership attitude.

Positive attitude, self starter, good communication skills, good decision making. Flexibility to quickly adapt to changing project and schedule priorities.

LOCATION: Various

E-mail Resume to: sjhawar@gmenterprises.com

CONTROLS ENGINEER

Controls Engineer. ProTech Thermal Services, in Norco, Cal, provides a wide range of solutions for many makes and models of industrial heat treating equipment. ProTech manufactures Vacuum, Atmosphere and Retort Furnaces, as well as Rebuilt and Replacement Hot Zones, to meet our customer's needs. We are looking for an energetic self-driven individual to add to our electrical engineering staff. Requirements for the position of Controls Engineer:

*2 years minimum of programming and troubleshooting experience in: Vacuum furnaces used for Industrial Heat Treating (combustion furnace exp. a plus)

*HMI: Wonderware InTouch

*PLC Programming: HC900 and GE Preferred (experience with Allen Bradley and Siemens also a plus)

*Experience with Microsoft Office, Networking, and computers

*Familiar with National Electrical Code

*Travel: approx 25-30% of the year, rest of time either local travel or shop work

Send all resumes and desired salary to: Lisa Grier, lgrier@protechthermal.com

PROCESS METALLURGIST WANTED

Process Heat Treat Metallurgist Wanted. Oerlikon Fairfield has an opening for a process metallurgist in our Lafayette, IN facility. Oerlikon Drive Systems, with its brands Oerlikon Graziano and Oerlikon Fairfield, is a leading provider of gear, drive and shifting solutions. We are a global manufacturer with 10 manufacturing locations in Italy, China, US and India, and over 5000 employees. Oerlikon Drive Systems' products are used in a wide range of applications to operate machinery and equipment for agriculture, construction, energy and mining, and transportation. Our product portfolio includes solutions from 4,000,000 Nm output drives used with self-elevating marine platforms to the latest technology with dual clutch and continuously variable transmissions. Excellent manufacturing, engineering and innovative expertise have made both the brands the "Global drive systems supplier of high-tech solutions in all mobility markets," for over 90 years.

Position responsibilities include:

Manage, lead and train heat treat pyro group

Initiate and lead projects such as furnace improvements, customer requirements including TPG certification, and capital projects.

Help create and maintain process recipes.

Evaluate final heat treat results.

Qualifications include:

Degree in Metallurgy/Materials or Mechanical Engineering

History of working with atmosphere furnaces (3-5+ years preferred)

Knowledge of carburizing, nitriding, and neutral hardening processes

Willingness to work flexible hours

If interested, please submit resume to:

<https://oerlikon.clearcompany.com/careers/jobs/18be536b-5390-9c7a-2e46-4dfe033f8ae6/apply?source=571636-CS-25789>

PLANT MANAGERS

Ionbond is seeking for (two) direct "hands on" manufacturing Plant Managers to lead the plant effectively in order to maintain Safety, Quality, Compliance, On-time Delivery, employee & customer satisfaction and ensuring the plant meets production goals and standards while managing the center's costs.

Plant Location 1: Rockaway, NJ

Plant Location 2: Greensboro, NC

Your Position:

Manage the daily operations of the plant.

Help exceed operational goals.

Affinity to selling or working directly with customers.

Responsible for profit and loss at plant level.

Assist in the investigation and analysis of new business opportunities.

Maximizes staff utilization.

Hire, train and evaluate core teams at the plant level.

Responsible for 5S and Kaizen.

Enforces standards (policies, practices, safety, etc.)

Set and maintain productivity and quality standards.

Ensure Customer excellence and delivery of Quality products.

Administer inventory on a monthly basis.

Ensure maintenance and upkeep of the plant facility is effective and efficient.

Direct and schedule Daily Production meetings and Plant & Safety meetings.

Your Profile:

Bachelor's degree in Engineering and/or Business Administration.

3+ years of management experience in a high-volume, fast-paced production, industrial service or manufacturing environment.

Strong team building, decision-making and people management skills (hourly & salary).

Knowledge of safety, quality, productivity, demand creation, inventory & stewardship processes.

Experience in 5S, Kaizen and Lean Manufacturing.

Working knowledge of ISO 9000 business systems and ISO 13485.

Adequate knowledge of P&L, budgets and cost controls.

Ability to travel 10%.

We offer a generous benefits package including but not limited to; medical, dental, consumerism card, flexible spending accounts, life insurance, disability, PTO, 401(K) w/company match, etc. For more information about Ionbond, please visit our website.

Submit resume to: theresa.krieger@ionbond.com

SALES ENGINEER

Ionbond are looking for energetic Sales Engineers with a proven sales track record in b2b sales industrial services and in strategic account management and new business development. This individual will manage and expand sales for PVD, CVD and PACVD coating services to existing accounts as well as develop new customers in a variety of industries within the assigned territory:

Position 1: Territory Northeast, NH, ME, CT, MA, VT, NJ, NY, RI

Position 2: Territory Westcoast, OR, CA, WA, NV, ID AZ, UT

Your Position

- Manage and expand sales for existing customers
- Develop new customers for coating services
- Work with product management and engineering on customer tailored products
- Support tradeshows and conferences
- Provide reports and forecasts to Regional Sales Manager

Your Profile

- Bachelor's degree in Engineering or equivalent experience
- 3 – 5 years of direct sales experience for industrial services (surface treatment technologies preferred)
- Strategic Sales & Account Management experience
- Demonstrated ability to build strong customer relationships
- Strong Communication Skills (verbal and writing)
- Excellent negotiation and closing skills
- Strong work ethics, commitment to detail, organization and time management
- Resides in the assigned territory (New England area), preferably in NH
- 50-75% traveling
- Must be eligible to work in the U.S. on a permanent basis

Our Offer

Ionbond will reward your talent with an annual compensation commensurate with experience, eligible for commission based on sales growth, eligible for company annual performance bonus and a company leased vehicle. In addition, we offer a generous benefits package including medical, dental, life insurance, FSA, short term & long term disability, PTO, 401(K) retirement plan with company match and much more. For more information about Ionbond, please visit our website.

Submit resume to: theresa.krieger@ionbond.com

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OUTSIDE SALES REPRESENTATIVE

Nature and Scope

Premier Thermal Solutions, LLC (PTS), the parent company of Atmosphere Annealing and NitroSteel, is a private-equity owned, manufacturing company providing metal heat-treating services and related products primarily to the automotive, heavy truck, industrial, energy and agriculture industries.

The company is seeking Outside Sales Representatives (IL and MI) that will develop new business by building relationships with existing customers and canvassing a territory in search of new customers. The ideal candidate will have a working knowledge of our service offerings and the related markets, have a hunter's mentality, high-energy, highly organized, motivated, self-starter who can thrive in a dynamic, entrepreneurial environment.

Principal Accountabilities

Reports to; Director, Premier Thermal Solutions with dotted line to Plant General Manager

Meet with qualified prospects and customers at least 60 percent of the time.

Maintain high level of industry knowledge and remain up to date on industry trends and issues.

Build relationships with top management, plant, metallurgical, and purchasing personnel at key accounts to perpetuate confidence and trust in the company.

Collaborate with company leadership on new opportunities, pricing strategies and industry trends.

Coordinate the response to RFQ's by providing all information required to complete the quote to Inside Sales, delivering the quote to the customer and then following up on the quote.

Use data available from ERP system to develop and analyze customer sales trends and budget deviations.

Operate with a sense of urgency and be responsive and proactive to customer or prospective customers

Candidate Requirements

Bachelor's degree plus at least 5 years of relevant experience, ideally selling industrial products and/or services. A working knowledge of materials science is a plus.

Existing relationships with OEM's and Tier I suppliers in the automotive, heavy truck, industrial, energy and agriculture industries is preferred.

Comfortable prospecting, qualifying, presenting and closing opportunities in a highly competitive market.

Ability to effectively use multiple channels including internet, cold calls and referrals.

Must be proficient at data analysis and related tools such as Excel or CRM software.

Compensation

Base salary plus opportunity for substantial commission earnings.

Immediately eligible for healthcare plan (medical, dental and vision)

401(k) with company match

Life, STD, LTD

Tuition reimbursement

Auto reimbursement program

Send Resume to: Steve Green, SGreen@ZCap.net or call 646-787-2436

STRAIGHTENER / QUALITY INSPECTOR / FURNACE OPERATOR

Accurate Steel Treating in Southgate, CA has a number of open positions including;

Straightener; Straighten customer parts to ensure compliance to specification. A high school diploma or equivalent is required as well as a minimum of 1 year experience in the heat treating industry. Must have a basic knowledge of heat treating and testing.

Quality Assurance Inspector; Inspect customer heat treated parts to ensure compliance to specification. A high school diploma or equivalent is required as well as a minimum of 1 year experience in the heat treating industry along with the ability to obtain and maintain a forklift operator specification. Must have a basic knowledge of heat treating and testing.

Furnace Operator; Prepare parts for heat treatment, load and unload furnaces. A high school diploma or equivalent is required as well as a minimum of 1 year experience in the heat treating industry along with the ability to obtain and maintain a forklift operator specification. Must have a basic knowledge of heat treating and testing.

Interested applicants should send their resume to jimmyh@accuratesteeltreating.com

MAINTENANCE TECHNICIAN/SUPERVISOR – CHICAGO, IL

Position Summary:

Performs all aspects of preventative and corrective maintenance on heat treat related systems including, but not limited to: furnaces, quenching equipment, material handling equipment, electrical instruments, and control panels.

Provide instruction and assistance to other technicians as needed.

The heat treat maintenance technician/supervisor must have the ability to identify and correct any safety-related issues and perform independent equipment evaluations to identify potential equipment failures.

Responsibilities:

Troubleshoot and repair heat treat equipment.

Perform electrical troubleshooting and repairs.

Perform repairs on fork lift equipment, cranes, and hoists.

Troubleshoot and repair pumps, piping, hoses, seals, valves, bearings, and gearboxes.

Please forward resume to: applyforheattreatchicago@gmail.com

SALES REP

Sales Rep. Vacuum heat treat company Solar Atmospheres, located in Hermitage, PA is currently seeking a Sales Representative in the Texas and Oklahoma area. Solar is interested in working with a well-experienced Representative that has strong ties, but not limited to, the ever growing Aerospace and Energy markets. A successful candidate would be familiar and experienced in the following areas;

- vacuum heat treating and brazing
- vacuum hardening, annealing, age hardening, stress relieving and other related thermal processing services.
- nickel base alloys
- titanium alloys
- austenitic stainless steels
- PH grade stainless steels

Please forward resumes to mikep@solarwpa.com

HEAT TREATING PLANT MANAGER

Heat Treating Plant Manager. The Heat Treat Production Manager is responsible for general supervision of all phases of production heat treating including: production, quality, maintenance, receiving and shipping in our Eastern Pennsylvania Facility. Responsibilities also include recruiting, hiring and training personnel and facility/physical plant up-keep among other things. Principal Duties and Responsibilities:

1. Manages, supervises and coordinates activities of workers engaged in hardening, tempering, annealing, and other Vacuum heat-treating processes to condition metal work pieces and products, applying knowledge of heat-treating processes and properties and structure of materials.
2. Maintain and expand outside customer base for Heat Treating and Brazing services. Build and maintain rapport with key customers.
3. Schedule Furnace cycles according to customer demand.
4. Communicate with Customers regarding contract, technical and delivery requirements.
5. Perform contract review and enter new orders into database to generate shop travelers used in production.
6. Encourage and promote operating in a continuous improvement environment. Remove waste and constraints from the production processes to improve efficiencies, enhance productivity and to attain established goals.
7. Ensure all members of the manufacturing team are aware of safety policies to provide a safe workplace for our employees.
8. Work closely with shop foremen and maintenance personnel.
9. Work closely with quality personnel to review product consistency, customer requirements and determine areas of improvement.

Knowledge, Skills and Abilities Required:

1. Bachelor of Science in Metallurgy, Metallurgy Engineering or Material Science and Engineering discipline or Equivalent Manufacturing experience required. A minimum of 5 plus years of experience in heat treating.
 2. Previous experience/best practices implementing and using continuous improvement tools such as; Six Sigma, 5-S, Lean Manufacturing, etc. to drive improvement.
 3. Experience with Aerospace and Nadcap requirements a plus.
 4. Previous experience/broad understanding of safety systems and enforcement of safety rules and policies.
 5. Excellent planning and organizational skills, with the ability to balance production and maintenance needs.
 6. Demonstrated ability to motivate people, assess and develop employee skills.
 7. Motivated Self starter and proactive problem solver a must
- Equal Opportunity Employer, including disabled and veterans.

Salary Commensurate with Experience. 401k, Paid Vacation & Sick time, Health Benefits. Please send resume's to; heat-treatquality@yahoo.com.

METALLURGIST / MATERIALS ENGINEER

Kowalski Heat Treating Company – located in Cleveland, Ohio has an immediate opening for a Metallurgist / Materials Engineer. This individual is responsible for management of all areas of metallurgical processing / process technology. Duties include ensuring that every process is optimized and customer metallurgical development requirements are met with minimal supervision to meet established corporate objectives.

Essential Functions

Ensures customers' technical needs are met with minimum turnaround time and high degree of quality working closely with KHT senior staff as needed.

Acts as liaison between KHT and key customers executive/department managers with the development of metallurgical processing / material selection.

Identifies, recommends and implements metallurgical changes to improve productivity and reduce cost and rework, monitor scrap and develop long-term performance data for all customers and process recipes, achieves optimum metallurgical process performance with least amount of overhead.

Responsible for the overall evaluation- implementation- validation and approval of various standards as needed for KHT to achieve its goals and objectives.(e.g., NADCAP, AS-9100 ,CQI-9 etc.)

Required Education and Experience

BS in Metallurgy / Materials Science.

5+ years of experience in a heat treating environment.

Experience developing heat treating parameters, processes and principles is preferred.

Experience working with a multi-shift environment is preferred.

Please respond to HR@khtheat.com

HEAT TREATING MANAGER/METALLURGIST/MATERIALS ENGINEER WANTED

Summary: NY based Aerospace components manufacturer is seeking an experienced Aerospace Heat Treating Engineer/Manager. This is a new position for the company that is starting an in-house heat treating operation. Qualifications required are a degree in Metallurgy or Material Science and five-plus years' experience in heat treating aerospace alloys. Must be proficient in Pyrometry procedures, have a working knowledge of ASM –H6875 AMS 2959 1, 2, 3, 4, 5, 8A, 11 and be able to procure and manage a metallurgical lab using the appropriate ASTM procedures. Please respond to hr@precisiongearinc.com

SERVICE TECHNICIAN WANTED

Service Technician Wanted. McLaughlin Services, LLC's West Coast Office is in search of Heat Treating Service Technicians. Requirements are as follows:

- Proven field service experience
- Ability to troubleshoot, test, repair and service heat treat equipment
- English literacy
- Ability to work flexible hours
- Provide excellent customer support during field visits
- Manage all on site installation, repair, maintenance and test tasks
- Diagnose errors or technical problems and determine proper solutions
- Produce timely and detailed service reports
- Document processes
- Follow all company's filed procedures and protocols
- Cooperate with technical team and share information across the organization
- Build positive relationships with customers

Please forward resume including salary requirements to mwalters@mclaughlinsvc.com

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SALES ENGINEERS/REPRESENTATIVES WANTED

Sales Engineers/Representatives Wanted. McLaughlin Services, LLC is in search of experienced Sales Representatives for the following US regions:

Midwest
Northeast
Southeast
Southwest

McLaughlin Services, LLC is a furnace building company that also specializes in a variety of services that supports the heat treat industry worldwide. Please forward existing line card /resume to mwalters@mclaughlinsvc.com

INDIVIDUALS SEEKING EMPLOYMENT

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,
W.G. Montgomery Limited**

Phone: 905 271-0033

Fax: 905 271-9324

Email: gord@themonty.com