

PURCHASING'S GATEWAY TO NEW SOURCES

No. 287

FREE SUBSCRIPTION

THE Gateway MAGAZINE

KEEPING PURCHASING DECISION MAKERS INFORMED

25,000+ readers read THE GATEWAY in over 7,500 companies

May 2023



SEE PAGE 3

**How Simulation Can
Secure Your Robotics
Investment**

SEE PAGE 13

BE SURE TO SHARE YOUR STORIES: WWW.THEGATEWAYMAG.COM

COVER PHOTO : CAPCO | Rowley, MA

CONTENTS

MAY 2023 | ISSUE 287

INDUSTRY INSIGHTS

- 03** Capco Crane
- 13** How Simulation Can Secure Your Robotics Investment

INDUSTRY NEWS

- 20** Regional Press

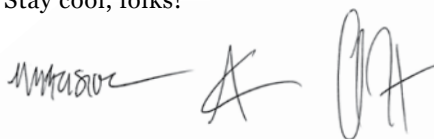
Summer is quickly approaching. As such, things are heating up. Both outside, and in each and every shop in the northeast. Demand is high. Turnaround times are tight. And we're all still looking for hidden (available) talent to help us meet all of our goals. We're sure you're feeling this. And, hey, if you are, let us know. Our PR section is here to not only give Gateway readers an idea of what you've got going on from a services standpoint, but also, if you're hiring and what/who you're on the hunt for.

This month we're placing the bright lights on a new advertiser, Capco Crane & Hoist. They're a material handling service organization located in Rowley, MA – a suburb of Boston. Overhead cranes and hoists are their specialty (which makes sense, given it's "in the name"), with services ranging from manufacturing and sales to installation and inspection for overhead bridge crane and hoists operated by industrial companies in the United States and abroad.

They're the only company in New England that fabricates box girders from inception to installation. Impressive is their 25,000 square foot factory which has a 250 foot by 100 foot fabrication floor served by three bridge cranes with a combined lifting capacity of 45 tons allowing the company to produce and test operate up to 150 ton, 150 foot long crane beams. We're not going to tell you the whole story right here in the opening notes, that's what the article is for! (Shout out to the newest member of the Gateway Team, Richard Taylor for piecing this one together!)

Our second feature comes to us from the Boston branch of DELMIA 3DS. They put together an interesting piece about how their systems and the utilization of robotics simulations help revolutionize and bolster production on shop floors of any size. Check it out. We found it fascinating and are sure you will too. Robots—they're everywhere!

Stay cool, folks!



THE
Gateway
MAGAZINE

PUBLICATION MANAGER

Matthias Roberge

EDITORIAL DIRECTOR

Chris Hislop

ART DIRECTOR

Adam Kaufmann

ADVERTISING INQUIRIES

(877) 463-4020

info@thegatewaymag.com

Hours: 9am-5pm Mon-Fri

MAILING ADDRESS

PO Box 70

Portsmouth, NH

03802

FOR FREE SUBSCRIPTIONS

www.thegatewaymag.com

CHANGE OF ADDRESS:

In ordering a change of address, give both the old and new addresses. Allow two months for change to become effective. The publisher will attempt to handle unsolicited articles with care, but magazine assumes no responsibility for them.

May 2023

1



© 2023: Reproduction in whole or in part without permission is strictly prohibited.



TRACEY

GEAR & PRECISION SHAFT

ISO 9001 CERTIFIED



Custom Gears Thread Grinding & Precision Shafts

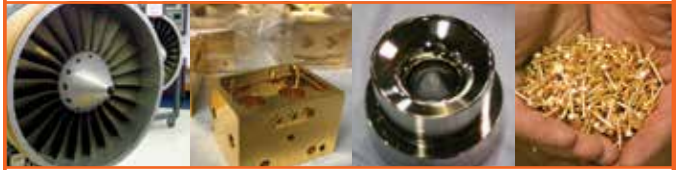
Serving New England
since 1945

740 York Avenue
Tel: 800-774-GEAR

Pawtucket, RI 02861
www.traceygear.com

sales@traceygear.com

F.M. Callahan & Son Inc.



Celebrating over 100 years as the longest running metal finishing company in the nation.

F.M. Callahan & Sons is a NADCAP Certified, ISO 9001, and ROHS compliant precision plating house. Specialist in Plating, electroplating & anodizing, and rack and barrel plating.

Callahan Plating serves all industries while being a key supplier of services to the Aerospace industry.

PLATED FINISHES

SURFACE TREATMENTS

ANODIZING



fmcallahan.com inquiry@fmcallahan.com

(781) 324 - 5101 22 Sharon Street | Malden, MA 02148

TANDEM

EQUIPMENT SALES, INC.

ESD PACKAGING SALES INC.

OVER 40 YEARS PROVIDING STATIC SHIELDING SOLUTIONS.

Tandem ESD Packaging Sales has continued to provide for over 40 YEARS it's customers with full access to quality industrial packaging supplies, static control products and meters, custom foam packaging services and thermoformed ESD plastic trays and containers.

- MEDICAL
- ELECTRONIC
- HIGH-TECH
- INDUSTRIAL
- MILITARY
- AEROSPACE
- COMMERCIAL
- PHARMACEUTICAL



tandem-esd.net

800.696.9169

35 Tozer Road Beverly MA 01915





CAPCO CRANE & HOIST

CAPCO CRANE & HOIST: THE HEAVY ENGINEERED BRIDGE CRANE SPECIALIST

Capco Crane & Hoist, Inc., located in Rowley, MA, is an established and respected service organization located in the suburban Boston area specializing in the sales, installation, manufacturing and inspection of overhead bridge girder cranes and hoists for companies throughout New England and beyond. They are a member of the Crane Manufacturers Association of America Crane and MHIA, the Material Handling Industry of America (www.mhia.org).



The company sets itself apart from the competition in that it actually designs and builds the box girder beams “in house” that are required for large capacity bridge cranes. Many companies cannot build the girders or do not have the facility to build the girders; whereas Capco designs and builds the girders in their plant.

Once the girders are built, the crane goes together like every other double girder crane. Important details like perfect girder construction with automated “sub arc” welders, tube handrails on walkway, hatched lights on walkway and high-quality paint job all add to the overall look and quality of a Capco crane. A Capco “box girder” crane is a custom-built machine made to run longer and harder than any of the other brands. Each box girder crane is hand crafted and made special for a company’s specific application.



Capco Crane is the only company in New England that fabricates box girders from inception to installation. Our 25,000 square foot factory has a 250 foot by 100-foot fabrication floor served by three bridge cranes with a combined lifting capacity of 45 tons allowing us to produce and test operate up to 150 ton, 150-foot-long crane beams.

A key part of Capco Crane and Hoist, Inc. is their comprehensive inventory of parts and replacement parts for all the manufacturers’ brands they represent. This provides immediate access for their customers and helps to prevent costly downtime.

Capco is a Master Parts Dealer for Yale and Shaw-Box hoists and offers an in-depth inventory and the resources to obtain parts for most units in use today. In addition, they carry many common parts from several manufacturers.

Capco’s fleet of service vans and technicians covers all of New England and upstate New York. In addition to crane system repairs and 24-hour-a-day emergency service, they provide many customers with preventive maintenance.



Call Capco Crane and Hoist’s parts department toll free at **800-422-7261** and ask their factory trained staff about the crane, hoist, monorail, and conveyor parts best suited for your requirements. They are an authorized warranty, service, and repair center for both Yale and Shaw-Box. They can provide upgrades, modernizations, and retrofits to your existing equipment. They install or repair radio controls, and they are specialists in variable frequency drive controllers.





Accreditations & Associations

Capco Crane and Hoist Inc. is a proud member of the Crane Manufacturers Association of America (CMAA) and also MHIA, the Material Handling Industry of America (www.mhia.org).

By joining CMAA, after a rigorous approval process; the company became a part of an elite organization of crane builders in the USA. CMAA member companies make up the best and the brightest crane builders in the industry.

The CMAA site itself provides a number of informational background sheets and CMAA video links which can be accessed at: www.capcocrane.com/crane-construction.html

David Caputo is Capco Cranes Vice-President of Sales and Marketing and states that “since Capco Crane was started we have set the standard for building cranes in New England. Our CMAA membership brings along a responsibility to continue to manufacture bridge cranes of the absolute highest quality and constantly push our own standards higher and higher. CMAA membership also provides us “first look” at the latest information in our industry, whether it is new technology or changes in industry rules and regulations.”

Capco Crane & Hoist Works with Concrete Products Manufacturer to Plan and Implement Double Tiered Runway System

Capco Crane & Hoist, Inc; recently completed a project for a concrete products manufacturer South of Boston in which they designed, fabricated, and installed, a double tiered runway system.

The particulars: The lower runway extended the existing runway from the existing building into the new addition and the upper runway supports the new 15 tons and 10 tons top running, double girder with a dual motor, heavy duty bridge cranes along with specially made custom IMS trolleys for the heavy concrete application.



The runways were custom engineered to support all the cranes and transition the older runway into the newer runway while still allowing the clearance for the lower cranes and the newly installed large upper cranes. The project had many interferences to deal with in that there was “much” to fit into very tight spaces.

However, the Capco engineers are the best in the industry at those type of headroom (or lack thereof) challenges! Another great Capco Crane & Hoist project completed perfectly!



Capco Crane & Hoist Designs and Installs New Crane for Longtime Customer

Capco Crane & Hoist, Inc. was recently presented a problem to solve in which one of their long-time customers had an existing facility with several older, large capacity cranes. The problem: Their new project had a different lifting requirement in that they needed to pick up 65 tons and they had only 30-ton cranes on the existing runway.

After a thorough engineering analysis of the existing runway structure, it was determined to add some steel upgrades to the runway and install a specially designed and built new crane.

Capco could provide the 65-ton lifting capacity the customer required.

Our engineers went to work and designed an upgrade plan to handle the

Improvements on the steel structure. They designed a specially built new bridge crane with more wheels to spread out the load and specially built sill beams to further spread out the girders and keep the load spread in a way that could be handled by the existing structure.

In the end, the project was a complete success, the new crane runs like a charm and gives the customer the 65 tons lifting capacity required, while providing a smooth and high hook at 65.



CLEAN FRESH AIR EXPERTS.....

It's time to: *INSTALL A FRESH AIR SYSTEM*

WITH ENERGY SAVING BENEFITS \$\$

FRESH AIR EXCHANGERS

AMBIENT AIR FILTRATION

FRESH AIR MAKE-UP SYSTEMS

SUMMER COOLING VENTILATION

BRING THE OUTSIDE INSIDE



800 622 8078.....MAKE THE CALL NOW



DRASTIC CHANGES IN SHOP INDOOR AIR QUALITY AFTER OUR FRESH AIR SYSTEM WAS INSTALLED.....

A CONSCIOUS INVESTMENT TODAY IN THE FUTURE OF EVERYONE LUNGS!



WWW.VENTUSA.COM

800 622 8078

Capco in the News

Capco Crane & Hoist, Inc; recently completed a project for TG GALLAGHER (Andover, MA) in which they designed, built, and installed, a double legged, 10/5-ton gantry crane for this well-known mechanical contractor.

This particular crane has a runway, freestanding outside loading dock area, that is recessed into the concrete floor heading into the building.

Capco Crane & Hoist was instrumental in the design and the implementation of the necessary concrete work (performed by another great local company, Pinnacle construction).

TG Gallaher was so excited and impressed with the entire project that they took the time to create a wonderful video for all to see. Quite a testimonial!

Visit us on Instagram to watch the video!



@capcocraneandhoist



Instagram Platform Propels Capco Business to New Heights

Recently the company announced that their new INSTAGRAM business account has been “flourishing” and that the continued exposure and usage of this popular and ever-growing social media platform has allowed increased connections with the core computer and mobile ready end users in the crane and hoist market.

Caputo noted that “the new Insta account showcases innovative material handling projects and Capco Crane engineered solutions to some very compelling lifting and handling problems. We have a completed a large variety of crane and hoist projects, throughout the years and this will show-case on a daily or weekly basis just some of them.”

David enthusiastically goes on to say, “Keep your eyes peeled, or you just may miss something that will help your plant, or your staff solve a lifting or moving requirement!”





Expect many more of these great pictures of some amazing (and intricate) Capco Crane projects as they continue to build and install cranes and solve material handling problems for every type of industry throughout the USA and beyond!



Follow Along: [@capcocraneandhoist](https://www.instagram.com/capcocraneandhoist)

Capco Crane & Hoist recently announced the unveiling of their newly redesigned website at: WWW.CAPCOCRANE.COM.

Capco Crane’s website and internet presence is one of the company’s most important marketing points of emphasis; but also, to fully show ALL of its capabilities and services. As David Caputo says, “we have put a lot of time, effort, and thought into our website redesign as we wanted to create a site that fully details all that we do for new potential clients but also for all of our current customers as well”.

Caputo adds “a picture truly does say a thousand words, and with that in mind we have created a wonderful portfolio page that gives a broader view of Capco’s expertise, projects worked on, and overall capabilities. We will expand on those pages in the future and also the web cam area”.

“That; combined with our wonderful corporate Video and Instagram links has made our website something to be most proud of “.

“Our updated web site will not only provide companies with our capabilities but also with all of our current news, career opportunities, the Capco Crane corporate Video, our full in-house services, and the fact that our Parts Department carries parts and replacement parts for all of the brands which we represent.”

HAVE A STORY IDEA? LIKE WHAT YOU'RE READING?

*We would like to hear it. Contact us to give us your input or feedback.
We're always looking for new stories to discuss.*

chris@thegatewaymag.com or Call: (877) 463-4020

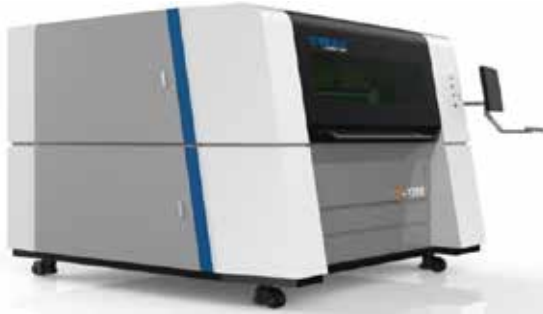
DU-LITE CORPORATION

171 River Road
 Middletown, CT 06457
 Call Walt at 860-508-9164



Sheet & Plate Cutting Service

On our New Fiber Laser Cutting Machine
 Available for fast turn-around time of your project



- * Carbon Steel up to 3/8"
 - * Stainless Steel up to .25"
 - * Aluminum up to .25"
 - * Brass and other alloys
 - * Cutting dimension up to 36" x 51"
- (Optional de-burring available)*



MONUMENTAL MOVEMENTS.

We do the heavy lifting. 800.422.7261

Capco Crane & Hoist, Inc. is a material handling and service organization specializing in sales, installation, manufacturing and inspection of overhead bridge cranes and hoists for industrial companies both nationally and internationally.



CUSTOM BRIDGE CRANES • GANTRY CRANES • GANTRY CRANES
 HEAVY ENGINEERED • BOX CRANES • JIB CRANES • RUNWAY SYSTEMS

CAPCOCRANE.COM
 58 Forest Ridge Drive, Rowley, MA 01969



**EXTREME HEAT TREATING
 FOR EXTRAORDINARY RESULTS**



MuShield®

AS:9100D | ISO 9001:2015 Certified | ITAR Registered Company

MuShield has a longstanding history of in-house heat treating using our hydrogen furnace and state of the art vacuum furnace. We apply specialized heat treating cycles to every project on our production floor.



For Orders and Pricing:
 Contact MuShield today for more information
[888.669.3549]

The Mushield Company, 9 Ricker Avenue, Londonderry, NH 03053 | Toll Free: 888.669.3539 | info@MuShield.com
MuShield.com | MuMetal.com | HydroformingManufacturing.com | CryoPermShielding.com



- Tungsten Carbide
- EDM Wire
- Inconel
- Titanium
- Ferrous
- Nonferrous

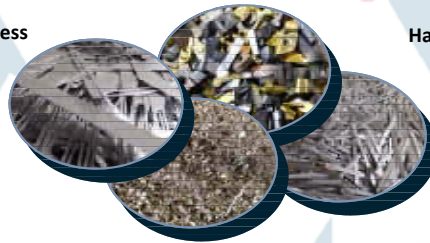
Specializing in Recycling Industrial Scrap

HARDING

METALS, INC

Creating recycling solutions for any type of business

- Utilizing our easy to deal with staff
- With our clean and uniform equipment



Handling all types of metals, in any form

- From mild steel to high-temp aerospace alloys
- Chips, punchings, turnings, borings, skeletons, inserts, bits. **You produce it; we handle it.**

Call or email us about Recycling and Reconditioning your Cutting Fluids

1-800-370-JUNK (5865)

42 Harding Dr. Northwood, NH 03261

info@hardingmetals.com

www.hardingmetals.com

Big enough to get things done, small enough to do them efficiently.



**PROUDLY
MADE IN
THE USA**

We are an established manufacturing company with worldwide distribution. Come join us and be a part of something you can be proud of!
Positions ranging from engineering and production to sales and customer service.

Work where you play! 😊



MiteeBite.com 603-539-4538
340 Route 16B, Ctr. Ossipee, NH



ELECTROPOLISHING SERVICES

- ⊕ New England's Largest Electropolisher
- ⊕ ISO 9001 & 13485 Certified
- ⊕ 12 Electropolishing Lines
- ⊕ Precision Rates of Removal (.0001")
- ⊕ Small & Large Parts
- ⊕ Custom Packaging Services
- ⊕ Expedited Service Available





New England Electropolishing
800-672-6616
www.neelectropolishing.com
sales@neelectropolishing.com

VACUUM AND ATMOSPHERE HEAT TREATING + BLACK OXIDING

PROCESSES

- ◆ Hardening
- ◆ Tempering
- ◆ Annealing
- ◆ Carburizing
- ◆ Carbo-nitriding
- ◆ Normalizing
- ◆ Stress Relieving
- ◆ Precipitation HT
- Commercial Black Oxide
- ISO 9001 and AS 9100



**Nadcap
Certified**

**Federal
Firearms
License**

MATERIALS

- ◆ Tool Steels
- ◆ Stainless Steels
- ◆ High Speed Steels
- ◆ Alloy Steels
- ◆ Carbon Steels
- ◆ Super Alloys
- ◆ Non-Ferrous
- ◆ PH Steels



Tel: 860-523-9090
Fax: 860-236-8052
 565 Cedar Street
 Newington, CT 06111
Andy@sousacorp.com
www.sousacorp.com



**LASER
CUTTING
SERVICES**

36 6th Rd. Woburn, MA 01801

Plate, Sheet, Pipe & Tube



SHEET & PLATE CUTTING

Carbon Steel up to .875"
 Stainless Steel up to .50"
 Aluminum up to .375"
 Brass & other Alloys

TUBE & PIPE CUTTING

3/4" up to 8.625" Diameter
 Up to 6" Rectangular & Square
 Square to Round Transitions
 Elbows
 Coping & Mitering



Welding, machining and full metal fabrication services available.

617-479-7374 www.quality-laser.com
Email: info@quality-laser.com

We Armor Your Assets



MuShield®

AS:9100D | ISO 9001:2015 Certified | ITAR Registered Company

For over sixty years, The MuShield Company has been a worldwide industry leader as a manufacturer of custom magnetic shields and precision sheet metal fabrication.



For Orders and Pricing:
 Contact MuShield today for more information

[888.669.3549]

The Mushield Company, 9 Ricker Avenue, Londonderry, NH 03053 | Toll Free: 888.669.3539 | info@MuShield.com
MuShield.com | MuMetal.com | HydroformingManufacturing.com | CryoPermShielding.com



HOW SIMULATION CAN SECURE YOUR ROBOTICS INVESTMENT

It might sound like something from the realm of science fiction – but robots and robotics are transforming the production landscape. Robotics simulation has steadily evolved to keep up with the growing capabilities of industrial robots.

Robotics simulation can be defined as a digital tool used to engineer robotics-based automated production systems. Essentially, robot simulation employs a digital representation (or a digital twin) to enable dynamic interaction with robot models and machines in a virtual environment. Robot an automation simulation aims to bring automation systems online much faster and initiate production with fewer errors than conventional automation engineering.

In this article, we chat with Stephane Rolland, DELMIA Robotics Roles Portfolio Director, to find out how Dassault Systemes is using its innovative and pioneering 3DEXPERIENCE platform to improve capability, lower cost, and boost production.



3DEXPERIENCE®

Why do we need robotics simulation?

DELMIA customers use robotics to help facilitate the manufacturing of just about everything. The activities involved in manufacturing products includes Robot simulation, and we are fully dedicated to simulation in the virtual world with a virtual model. Robot simulation is used to complete the robot work cell or complete the robot line to produce the end product.

What size companies would benefit most from robotics?

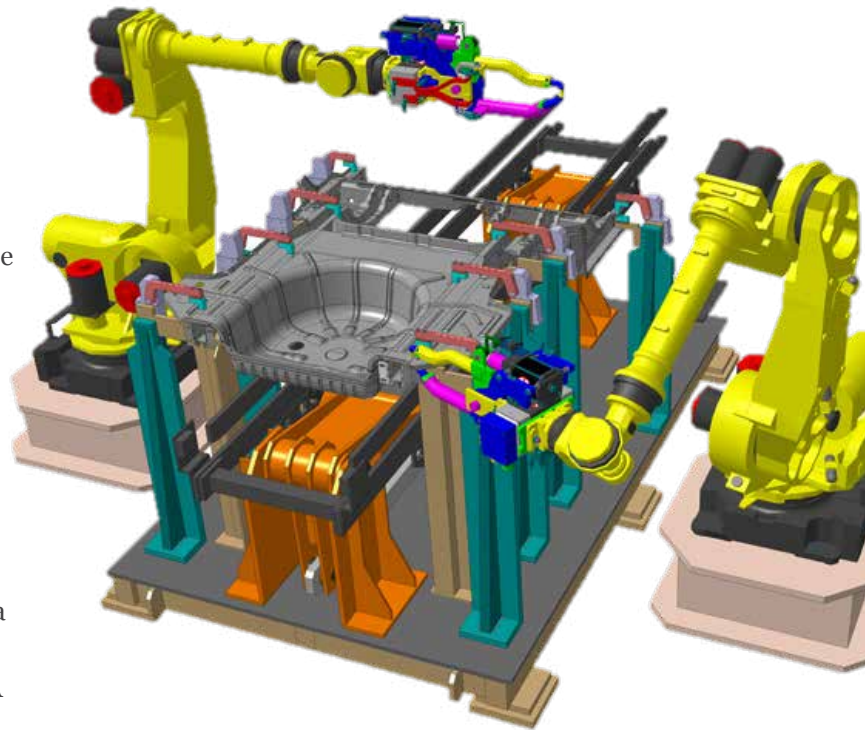
Robotics can benefit a wide range of companies, from small companies using one robot to larger companies, such as OEMs (Original Equipment Manufacturers) using multiple robots throughout a plant. It could be possible to have a company with only one or several on the shop floor. The DELMIA Robot simulation tools simulate the production scenarios before physical implementation. This ensures everything progresses smoothly and the automation process can be introduced successfully.

Robot simulation can be applied to many aspects, whether the plant has one robot to do the work, or the enterprise is an extensive global OEM or manufacturer.

How can robotic simulation save costs?

Ultimately every business wants to know how they can save money. One way to achieve this is to use robotic simulation. However, some significant things need to be considered, namely the shop site and the time it takes to produce one product or a set of products.

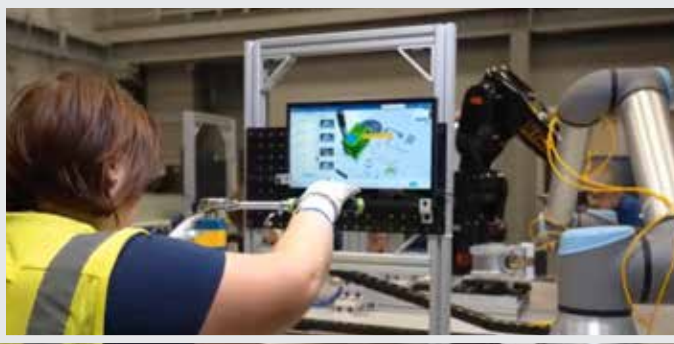
When a company sets out to invest in a robot, they want to know how this can impact its production. It's essential to establish whether investing in robotics will allow you to secure your return on investment. Therefore, it's crucial to have peace of mind that the robotics you install will be able to produce the number of products you expect, to allow you to reach your productivity goals.



How can robotic simulation increase capability?

This is where robotic simulation plays such a significant role. Thanks to the ability to Test the Robot cell before it's built, and before it is used, we can help the client establish whether the robot can produce the specific part in the exact time available.

“We are now able to address most robotics processes in the 3DEXPERIENCE platform, especially as its expanded to a platform mobility solution. There's also the increased capability that robotic simulation offers. We can calculate the power consumption of the robot, any device, or production cycle-- where a compromise can be found between the power consumption and the robot performance. Thanks to robotic simulation, we are able to evaluate and implement changes to ensure a different scenario or outcome. This all helps us to plan the best protocol for the production,” explains Stephane.



How do we ensure safety with robotic simulation?

Tooling and equipment designed around the robot or robots is never the only consideration. You might also have tooling in front of the worker and some grippers to grab the part. This is complex equipment, and we have to be sure that, when in motion, the equipment does not collide.

The scenario has to be designed clearly and correctly to ensure that there will not be any collision between this equipment. This includes incidents between the product being manufactured the worker, and the production line. There is a way to ensure that there are no collisions, which lies in validating the design of the tools and process before producing it.

The simulation provides time to discover any flaws in the design. Because you have to modify it directly on the shop floor, it takes additional time to rectify these problems. Therefore, it's better to confirm the design in many areas before the equipment's manufacturing commences and placement for layout optimization takes place.

Why is layout optimization important?

“When we talk about layout, we are talking about the different devices in the work cell. This is where you can decide: where will the robot be? Will it be tooling in front of a worker? It's considerably easier and more efficient to move the robot 10 or 20 meters back during the simulation testing than to have the worker discover that during a real-time physical scenario, the robot is too far or too close in the shop row for the job at hand,” explains Stephane.

What is Point Cloud, and how can it improve the efficiency of robotic simulation?

DELMIA can also work with a scanned Point Cloud image, so we can scan images into DELMIA and have this Point Cloud data available to guide our robot simulations. Point Cloud scanning uses a 3D laser scanner to capture different points, measuring an area. The robot simulation team can quickly generate a Point Cloud with mobile mapping devices to capture dimensions, size, and layout data.

Because it takes too much time to modelize in 3D an existing environment, this Point Cloud information can be given to the robot inside to determine if there is enough space for it to work in the existing setup and beyond.

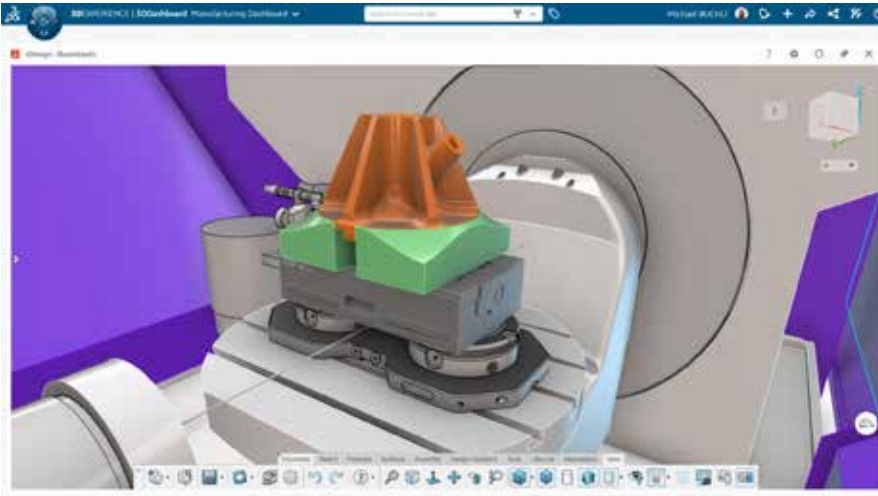
“This capability is very easy to use. It might be possible to keep the design, or you may have to redesign everything or run through different robot models to see which is best suited for the specific task. You can do that in half an hour on your phone. With Point Cloud, you can use the information gathered in the scans to test beyond what has already been designed,” explains Stephane.

What is Virtual Commissioning?

Virtual Commissioning is of capability commissioning the system using robot simulation. For instance, it's used to find the installation point on the connection between the equipment to ensure the equipment and



HOW SIMULATION CAN SECURE YOUR ROBOTICS INVESTMENT



the whole line work seamlessly together. It's done on a computer by managing the complete work cell. It is possible to do commissioning on every piece of equipment in the robotic or cell, including the PLC (programmable logic controller). This provides complete validation and total peace of mind.

Virtual commissioning is carried out on all the programs used to run the system, including the robot and the PLC program and all other equipment. If something new is detected in the work cell, we will be able to confirm that it works well.

Humans can't validate everything in an actual physical setting, so we require a simulation. With that, we can validate everything to ensure every movement on every machine around the robot is executed correctly. This also allows for an early start on production because it is possible to create the entire work cell program as well as the PLC program, while having all this equipment



available in the virtual work cell. It's also critical to validate the robot's trajectories.

Everything you have designed regarding movement is available directly from the virtual twin. This is done to avoid a physical collision. If a mistake were made in the PLC program, this would most likely cause some type of collision. In the real world, this would result in potentially serious damage to the equipment, which can have significant implications in cost, delays, and the downtime required to repair it. We can

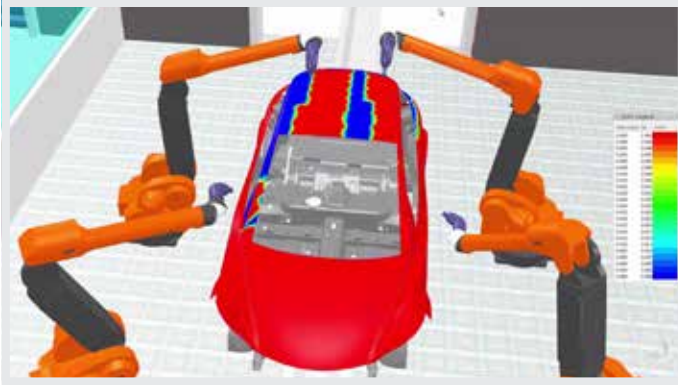
avoid this type of problem within a virtual setting by preventing collision and damage.

How important is training in robotic simulation?

Virtual commissioning allows the DELMIA robotics simulation to be used to train the operator to react – to operate the machine when everything is going smoothly, but also to respond in the event of failure. We can address all these scenarios with different types of training.

This is yet another important capability of robot simulation – providing targeted training for the operator before the equipment is available and up and running. DELMIA remains on the site until production begins, assessing and assisting with training where necessary.

Another consideration, for instance, is new products in the production line or integrating new options without any production interference, to establish whether it's possible to integrate this new value into the product. Now it is all about continuous robot cell improvement, so you don't have to interrupt production. This is a major benefit of a simulated scenario. If production can be improved, you can do that later on in the real robot as long as the improvement has been validated before simulation.



How can you join the DELMIA Community?

At DELMIA, we place particular emphasis on providing our users with all the necessary support, training, and guidance. For a wealth of information and advice and to keep up to date with all our exciting latest developments, be sure to join the exclusive DELMIA Virtual Factory & Robotics Community, where you can interact, ask questions, or even share tips and tricks. Here you'll be the first to discover new products, functionalities, and possibilities.

What can robotic simulation be used for?

There is so much potential regarding what robots can accomplish and how effective simulation can be. Some of the most important robotic processes include pick and place, lifting material on lines, machine tending as well as arc welding, spot welding, and using a robot to paint. Yes, DELMIA also simulates robot painting. It's fascinating to observe the precise process involved in painting to ensure that every surface is painted correctly, and the coverage is just right. Simulation can also be used in shot peening.

All of these processes can be achieved using simulation in a virtual world. These include some highly complex processes. The extraordinary effectiveness of DELMIA's robotics software has already been proven by many customers worldwide. However, this is just the tip of the iceberg; there are many more incredible applications and advancements in the pipeline.

Contact Information:

*3DS Boston Campus
175 Wyman Street
Waltham, United States 02451*

781.810.3000

HAVE A STORY IDEA? LIKE WHAT YOU'RE READING?

*We would like to hear it. Contact us to give us your input or feedback.
We're always looking for new stories to discuss.*

chris@thegatewaymag.com or Call: (877) 463-4020



EXPERIENCE THE UGM DIFFERENCE

SINCE 1954, UNITED GEAR & MACHINE HAS BEEN USING INDUSTRY LEADING MACHINERY AND TOOLING TO MANUFACTURE PRECISION SPLINES AND GEARS FOR THE SPACE, DEFENSE AND AEROSPACE INDUSTRIES.

- ⚙️ OVER 40 GEAR SHAPING AND HOBBIING MACHINES
- ⚙️ WE OFFER CNC GEAR GRINDING
- ⚙️ WE CUT SPUR GEARS, INTERNAL & EXTERNAL SPLINES, WORMS, WORM GEARS, CROWNS, HELICAL GEARS, RACKS, TIMING BELTS AND BLIND KEYWAYS
- ⚙️ ON SITE BROACHING FACILITY FOR INTERNAL SPLINES, SERRATIONS AND KEYWAYS
- ⚙️ INDUSTRY LEADING INSPECTION EQUIPMENT WITH 2 CMM GEAR ANALYZERS
- ⚙️ IN HOUSE TOOL ROOM TO PRODUCE FIXTURES AND SUPPORT FOR GEAR SHOP
- ⚙️ LARGE ENOUGH TO MEET TECHNICAL DEMANDS, SMALL ENOUGH TO ADAPT TO IMMEDIATE NEEDS



1087 EAST STREET SOUTH, SUFFIELD, CT 06078 | WWW.UNITEDGEARCT.COM | 860.623.6618 | SALES@UNITEDGEARCT.COM

Gear & Spline Specialists Since 1954!

AS9100 REV C & ISO9001:2008 CERTIFIED



UNITED GEAR & MACHINE, CO.

1087 EAST STREET SOUTH
SUFFIELD, CT 06078

860.623.6618 FAX: 860.654.1521
SALES@UNITEDGEARCT.COM

NO JOB TOO SMALL!

WWW.UNITEDGEARCT.COM

SPUR GEARS • HELICAL GEARS • WORM GEARS • KEYWAYS
INTERNAL GEARS • BROACHING • GEAR GRINDING • FACE GEARS
• BEVEL GEARS • SPROCKETS/TIMING BELT PULLEYS

WE CUT STRAIGHT BEVEL GEARS



RIGGING AND HEAVY HAULING

- ◆ 70 Years Experience
- ◆ Forklift Capacity to 60,000 lbs
- ◆ Machinery Moving
- ◆ Mill-Wright Services
- ◆ Domestic & Export Crating
- ◆ Inside Storage / Warehousing



Tel. (603) - 623.1533

RIGGERS

lpcote.com

WHERE QUALITY COUNTS

CNC Machining

Prototype & Production Quantities
Let us put our engineering and machining talents to work for you!

Precision Milling
AutoCAD Design
Master CAM Machine

Precision Turning
Design Capability
Quick turnaround

Personalized Service

Now offering LASER PART MARKING
Using our new
TRUMF VMCI LASER MARKING MACHINE

We offer one-stop shopping where we will handle your complete job. So whether heat treated, plated or painted we can supply to your requirements the way you want it.

ISO 9001:2000
SAE AS9100

R & S REDCO, INC

106 Finnell Drive. Ste 24 Weymouth, MA 02188
Tel: 781-331-4300 Fax: 781-331-4800
www.rsredco.com Email: sales@rsrsredco.com

Teflon™ coatings

Improve part performance
with unique properties of Teflon™ coatings!

Coatings can be applied to:

- metals
- elastomers
- ceramics
- composites
- rubber
- glass



As a licensed industrial applicator, Donwell...

- provides custom coating services to your specifications.
- coats both small and large parts to close tolerances in quantities from 1 to 1,000,000.
- has over 50 years of high-performance coating application expertise.



1-800-864-2702

www.donwell.com

For FREE Coating Sample



Use of the Teflon™ mark requires a direct trademark license. Customers and distributors of Donwell can only resell LICENSEE's product as licensed with the Teflon™ mark.



ABLE Air

Air Compressor Sales and Service

- We service ALL Brands of compressed air equipment
- Compressors, vacuum pumps, air dryers, blowers...etc.
- 24-hour emergency service
- Air piping design and installation
- Flow and KW metering

- Reliable
- Energy Efficient
- Fixed speed from 3 hp to 605 hp
- Direct coupled one-to-one drive compressors
- Variable speed drive compressors from 10 hp to 350 hp
- German engineering at its finest!
- Rotary screw compressors for every budget!



Serving Vermont, New Hampshire and Maine

www.ableairne.com



New England's Original Dealer and Still the Best Place to Buy Your New Kaeser

For prompt, professional service, call: 1-800-462-0228

Serving New England For Over 50 Years

Q Fuse Introduction to the Manufacturing Marketplace.

The manufacturing industry has always been at the forefront of technological advancements, and the use of QR codes is just one of the latest examples. Quick Response (QR) codes are two-dimensional barcodes that can be scanned with a smartphone camera to access information, making them a versatile, convenient, and effective tool across a range of manufacturing environments and industrial use scenarios.

Increased Efficiency

One of the main benefits of QR codes in manufacturing is increased efficiency. By using QR codes, workers can quickly access information about a product or process, reducing the time and effort spent searching for information. This can lead to increased productivity, faster production times, and lower costs.

Inventory Control & Asset Management

QR codes are also beneficial in ensuring product traceability and quality control. By including a QR code on each product, manufacturers can easily track the product's journey through the supply chain, from the raw materials to the finished product. This allows for improved transparency and accountability, as well as the ability to quickly identify and resolve any quality issues.

Training

Another use of QR codes in manufacturing is for training purposes. Workers can scan a QR code to access training videos, manuals, and other resources, allowing for more efficient and effective learning. This can lead to improved skills, reduced errors, and increased safety on the factory floor.

Customer Support

Finally, QR codes can be used to enhance customer experience. By including QR codes on products, manufacturers can provide customers with instant access to product information, such as specifications, usage instructions, and customer support. This can lead to increased customer satisfaction and loyalty.

In conclusion, QR codes can be a valuable tool in manufacturing, offering benefits such as increased efficiency, product traceability, effective training, and enhanced customer experience. As technology continues to advance, it's likely that we'll see even more innovative uses for QR codes in the manufacturing industry.

Interested in learning about how QR codes can be applied to benefit your organization? Please contact Jason Summerfield at Quick Fuse Media, LLC headquartered in Framingham, MA at: jason@qfuse.com Phone: 888-95-QFUSE x101 and please do visit the company website at: www.qfuse.com

WANTED OLD GAS FORK LIFTS



We Buy Old Forklifts for Parts. Gas or Electric, Large or Small, Running or Not.

We pay reasonable prices. Call Walt 860-508-9164 Will Pick Up and Pay Cash

Also Electric Forklift Batteries Wanted

WANTED OLD ELECTRIC FORK LIFTS

Wanted Used Electric Forklifts, running or not.

Also looking for LARGE Used Batteries good or bad. Must be reasonable, we pick up and pay cash.



Call Walt: 860-508-9164

DYNAMIC BALANCING



Industrial, Medical & Commercial applications from one piece to large production runs.

**Pump Impellers - Fan Wheels - Prototype Development
Gears - Motor Armatures - Sheaves and Pulleys -
Flywheels - Couplings - Much More**

8 Donnelly Road, PO Box 303 Spencer, MA 01562

www.ne-spintech.com

Tel: 508-885-5300 Fax: 508-635-6831

VLIER CELEBRATES 80 YEARS IN BUSINESS WITH NEW LINE OF CERAMIC BALL PLUNGERS

Vlier Products, a unit of Hutchinson Aerospace & Industry, is celebrating 80 years of innovation in manufacturing by unveiling an all-new line of ceramic ball plungers that can be used for indexing, locating or positioning in a variety of applications. The Posi-Hex™ ceramic ball plunger, the first product to be released in this new line, is now available. Its innovative design automates and simplifies the assembly process for manufacturers, while the unique ceramic makeup allows the part to be incorporated into a new array of environments.

“Ceramic is a game changer for us; it’s an extremely hard, cleanroom-compatible material that is also corrosion, wear and electricity resistant with unique thermal properties,” explained Russ Mitchell, Vlier national sales manager. “It lets engineers meet specific criteria for previously unattainable environments. Ceramic’s inherent benefits make this new line of products ideal for medical, aerospace, oil and gas, marine and electric vehicle applications.”

This announcement is just the latest chapter in Vlier’s eight-decade history of innovation. Founded in 1943 in Burbank, California, Vlier initially supported American efforts in World War II, engineering parts for use in military build-ups of bombers, fighter planes and battleships. After the war ended, the company created what would become its flagship product, the Vlier Pin, in 1949. Designed to fixture small parts in tight, compact spaces, the pins have perfected many manufacturing lines and products.

“Eighty years of innovation is not something many businesses can claim, and it’s certainly not something we take for granted,” said Thomas Foley, general manager.

“I believe our continued success is tied to the precision engineering of each of the thousands of standard parts in our catalog and the fact that we are still making significant additions. After eight decades, we’re not just growing our market share—we’re growing the market.”

As the company moves into its 80th year, Mitchell noted they are excited to continue expanding its product catalog and branching out into additional markets with its ceramic parts. Vlier’s products are available exclusively through a global distribution network.

About Vlier Products

Vlier Products, a unit of Hutchinson Aerospace & Industry, has been an industry leader for 80 years, manufacturing spring loaded devices, quick-release devices, Vlier Lock Pins, leveling devices and mechanical components. Vlier offers more than 3,300 standard parts in a variety of sizes and materials for aerospace, medical, telecommunications, transportation and more. Every item in their extensive catalog has been engineered to provide the best quality and maximum value in productivity and dependable performance. Working smarter and harder for you, Vlier has the right part for the job. Based out of Massachusetts, Vlier calls upon a global distribution network, making their products readily available worldwide. For more information, visit vlier.com.

GOT PRESS? GET THE WORD OUT.

Make sure we’re on your press outlet hit list. Advertisers in the Gateway have access to promote news and events right here to YOUR target market.

chris@thegatewaymag.com or [Submit at thegatewaymag.com](http://thegatewaymag.com)

From start to finish,
prototype to progressive...



**WE ARE YOUR
ONE STOP SHOP!**



**WIRE EDM
PRECISION TOOL & DIE
CNC MILLING
METAL STAMPING**

**11 Center Street
Raymond, NH 03077
(603) 895-1200
info@shookustools.com**



Quality Turned Machined Parts
New Hampshire Machine Products, Inc.

- QUICK TURNAROUND ON QUOTES
- JOBS PRICED COMPETITIVELY
- BROAD RANGE OF MATERIALS



QUALITY TO CLOSE TOLERANCES: Utilizing single spindle automatic screw machines from 1/32" through 2" capacity, as well as CNC equipment.
SUPPORTED BY: A broad range of secondary capabilities to include drilling, threading, tapping, milling and slotting.
AUDIT INTENSIVE: Complete internal tracking of all orders start to finish.
PROCESS CONTROLLED: Includes raw material traceability.
QUALITY: Quality assurance programs performed to MIL-STD-105D.
PRODUCTION RUNS: From 50 to 100,000 pieces.
CALL OR FAX US REGARDING YOUR SCREW MACHINE REQUIREMENTS AND WE GUARANTEE YOU A QUICK, COURTEOUS AND INTELLIGENT RESPONSE.

NEW HAMPSHIRE MACHINE PRODUCTS, INC.



CUST. TEL. 1-800-639-9404
Reg. Tel: 603-772-4404 Fax: (603) 772-6043
10 KINGSTON RD.— P.O. BOX 975
Exeter, NH 03833
www.newhampshiremachineproducts.com

E-Mail: barbara@newhampshiremachineproducts.com

**FABRICATION & MACHINING
FOR ALL INDUSTRIES**

CNC Milling/Turning VMC: 40" x 120"	Manual Milling/Turning Vertical Milling: 40" x 250"
HMC: 78" x 118"	Horizontal Milling: 72" x 72"
Turning: 16" x 24" cc	Turning: 48" x 240" cc

AWS Certified Welders • ISO 9000 Compliant



**Innovative
MACHINE • INC.**

**40 Snow Road • Winchester, NH 03470
Tel: 603-239-8082**

**Contact: Terry Haskins
www.innovative-machine.com
tmhaskins@innovative-machine.com**



**CONNECTICUT
TOOLING & MACHINING ASSOCIATION**

The Executive Suites
440 North Main Street
Bristol, CT 06010

Cathy Savino, Executive Director
Email: director@ct-ntma.org
Phone: (860) 314-2101

CT-NTMA.ORG

UNITED
**CENTERLESS GRINDING
& THREAD ROLLING**

25 Rosenthal Street ■ East Hartford, CT 06108
phone: (860) 289-2987 ■ fax: (860) 289-3142
web: www.unitedcgtr.com
e-mail: njgoulet@unitedcgtr.com

**HOBSON
MOTZER**
PRECISION METAL COMPONENTS
& ASSEMBLIES

Precision Metal Stamping CNC Machining
Precision Assembly Secondary Operations

*The best place to start your
precision metal part*

Phone: 860-349-1756 | www.hobsonmotzer.com

**BAY STATE
MACHINE**
GRINDING & HONING

GRINDING & HONING SPECIALIST

- ID-20" Swing
- OD-84" Long
- Surface Grinding 24"x60"
- CNC Cylindrical

**ID & OD GRINDING
HONING
SURFACE GRINDING
CNC CYLINDRICAL**

Top Quality • Any Quantity • Pickup & Delivery • Same Day Quotes

Plainfield, CT tel: 860-230-0054 baystatemachine@hotmail.com

PLASTIC DESIGN INC
Specializing in plastic fabrication & plastic components

- Corrosion Resistant Products
- Biomedical Research Products
- Laboratory/Clean Room Products
- Wet Process Equipment
- Custom Design and Fabrication
- Engineering & Installation Assistance
- Mass Production
- Direct & Wholesale Sales
- Raw Materials Sales
- Stainless Steel Products

**CUSTOM
DESIGN AND
FABRICATION
OF PLASTIC
PRODUCTS**

ISO 9001: 2015 Certified
North Chelmsford, MA
978.251.4830

www.plasticdesigninc.com

HEAT TREATING

Vacuum High Pressure Quench

Non - Ferrous Heat Treat

Austempering

Marquenching

Carburizing

Nitrogen Tempering

Solution Heat Treating

Water Quenching

MATERIALS

High Speed Steels

Alloy Steels

Tool Steels

Stainless Steel

Aluminum

Plastics

OTHER SERVICES

- Bright Hardening
- Cryogenics to -300°F
- Glass Bead Blast
- Grit Blast Clean
- Plastics Thermal Treatment
- Precipitation Hardening
- Anneal & Normalization
- Metallography
- Stress Relieving



HARDLINE
HEAT TREATING, INC.

Consistent On Time Delivery
Pickup & Delivery Available
Member MTI / ASM

134 Ashland Ave. Southbridge, MA 01550

www.hardlineheattreating.com

Tel: (508) 764-6669 Fax: (508) 764-6654

HEAT TREATING



- VACUUM
- INTEGRAL QUENCH
- CONTINUOUS BELT
- NITRIDING
- STRESS RELIEVING
- ANNEALING

Pick up and Delivery Available

Certified By General Dynamics for AMS 2759

Aluminum Heat Treating

Long Vertical Capability

Sandblasting

Parts Cleaning

Brazing

Straightening

COUNTY HEAT TREAT

32 Howe Avenue | Millbury, MA 01527

Tel: (508) 865-5885 Fax: (508) 865-4033

Website: www.countyheattreat.com

ISO 9001: 2015 CERTIFIED

Centrally Located in New England. 2 miles from MA Pike, Exit 94
24 Hour Service and weekends if Needed.

• Tungsten Carbide

• EDM Wire

• Inconel

• Titanium

• Ferrous

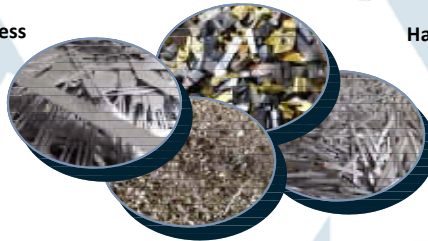
• Nonferrous

HARDING METALS, INC

Specializing in Recycling Industrial Scrap

Creating recycling solutions for any type of business

- Utilizing our easy to deal with staff
- With our clean and uniform equipment



Handling all types of metals, in any form

—From mild steel to high-temp aerospace alloys

—Chips, punchings, turnings, borings, skeletons, inserts, bits. **You produce it; we handle it.**

Call or email us about Recycling and Reconditioning your Cutting Fluids

1-800-370-JUNK (5865)

42 Harding Dr. Northwood, NH 03261

info@hardingmetals.com

www.hardingmetals.com

Big enough to get things done, small enough to do them efficiently.

HIGH PERFORMANCE ALLOY SPECIALIST



**NICKEL
COBALT
STAINLESS STEEL
ALUMINUM ALLOY
ALUMINUM EXTRUSIONS**

**WATERJET CUTTING
EDM CUTTING
MILLING & TURNING
SAWING
SHEARING**



- Near Net Shape Cutting
- Laser Quality Inspection
- Finish Machining

11 Britton Drive Bloomfield, CT 06002
Tel: 860-882-0019 or 800-214-0475
Fax: 860-882-0967
sales@aalloys.com www.aalloys.com



**ISO 9001:2000
AS 9100B Certified
P&W LCS APPROVED**

THE
Gateway
MAGAZINE

ENJOYED THIS
MONTH'S FEATURES?

Read these and many more
on our website!

WWW.THEGATEWAYMAG.COM

GO NOW!

Bodycote

- Specialists in the thermal processing of components used in aerospace & defense industries
- Maintains major accreditations (ISO 9001:2000, AS 9100, Nadcap) and approvals from prime aerospace manufacturers and their supply chains



Call 860.225.7691 or visit www.bodycote.com for more information

BERLIN
Connecticut

SOUTH WINDSOR
Connecticut

IPSWICH
Massachusetts

WORCESTER
Massachusetts

LACONIA
New Hampshire

CINCINNATI
Ohio

Processes

- Carburizing
- Electron beam welding
- Ferritic nitro carburizing
- Honeycomb brazing
- Induction treating
- Lindure®
- Nitriding
- Pit nitriding
- Vacuum heat treating & brazing

Materials

- Aluminum
- High temp alloys
- Tool steels

Wire & Sinker EDM Services

- ⚙️ 5 Axis Wire EDM
- ⚙️ Orbiting Sinker EDM

Tel: 207-743-7273

Fax: 207-743-7269

NORTHEAST TOOL & DIE CO., Inc.



- ⚙️ Metal Stampings
- ⚙️ Precision Machining
- ⚙️ Prototypes
- ⚙️ Fixture Tooling
- ⚙️ Compound Dies
- ⚙️ Progressive Dies
- ⚙️ Secondary Dies
- ⚙️ Injection Molds

Quality Tooling Solutions since 1992

PO Box 28

16 Aldrich Ave.

Norway, ME 04268

www.northeasttool.com



7 & 9 Electronics Ave Danvers, MA 01923

PROCESS

- ▶ Anodizing, Black, Clear, Red, Blue, Gold, Green
- ▶ Anodize, Hard
- ▶ Black Ebonal
- ▶ Black Oxide
- ▶ Black Passivate
- ▶ Brass
- ▶ Bright & Matte Tin
- ▶ Bright Dip
- ▶ Bright Nickel
- ▶ Cadmium
- ▶ Caustic Etching
- ▶ Chemical Film
- ▶ Copper
- ▶ Electroless Nickel
- ▶ Electropolish
- ▶ Gold
- ▶ Passivate
- ▶ Phosphate
- ▶ Pickling
- ▶ Rhodium
- ▶ Silver
- ▶ Zinc

SERVICES

- Clean Room Finishing
- Sandblasting
- Baking—High Temperature
- Salt Spray Corrosion Testing
- X-ray Florescence Thickness
- Vapor Blasting
- Buffing
- ROHS COMPLIANT CHEMICAL FILM
- ROHS COMPLIANT ZINC
- Environmentally Responsible
- High Tech Waste Management
- Quick Turnaround
- Sample Pieces

ISO 9001:2008, 8251QM8001, 11 May 2013

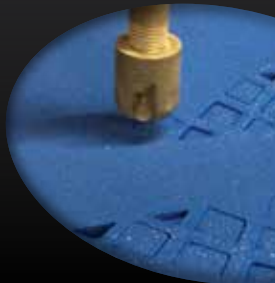

Tel: 978-223-4292 Fax: 978-223-4297

Web: www.tdfmetalfinishing.com Email: tdinfo@tdmetalfinishing.com

SHARPLES

CREATIVE. INTRICATE. EXCEPTIONAL.

WATERJET CUTTING

Abrasive and non-abrasive waterjet cutting provides:

- Large Bed Capacity
- No Added Heat
- Cutting of Virtually Any Material
- Superior Nesting
- Available in Tumble and Bead Blast Finishing
- High Position Accuracy
- Small or Large Runs

CALL 508-695-5656 OR VISIT SHARPLESCUT.COM

End Mills - Cutting Tools - Thread Mills - Countersinks - Engraving Tools



Massachusetts Made! ★

Buy Local We are here!

1,000s of Tools in Stock

Same Day Shipping
Same Day Pick Up

Call Us: (978)567-8867
M-F: 8am-6pm

Custom Tools
End Mill Resharpener



www.2Linc.com | 4 Kane Industrial Drive | Hudson, Massachusetts | (978)567-8867 | contact@2Linc.com



National Chromium

(860) 928-7965

(860) 928-7965

Fax (860) 928-1408

10 Senexet Road • Putnam, Connecticut • 06260

Plating of Hard Chrome, Electroless Nickel,
Mass Finishing Media, Equipment and Supplies
Mass Finishing, Tumbling & Deburring
Web Page: www.nationalchromium.com



- ✓ Precision Machining
- ✓ Toolmaking
- ✓ Jig Grinding Service



CLASSIC JIG GRINDING

jiggrind@classicjiggrinding.com

860-870-4900



Spur & Worm Gears
Internal / External Splines
Broaching, Hobbing, Shaping

 **JoVal Machine Company, Inc.**
515 Main Street • Yalesville, CT 06492
Tel (203) 284-0082 • jovalmachine.com

Fast Hole, Wire and Sinker EDM
Precision Tools, Dies, Jigs and Fixtures

Border Tool and Die,

DBA Bengtson Tool and Die



240 Gale Street Canaan, VT 05903
T: 802-266-9666 F: 802-266-9667

richard.btd@gmail.com

Federal Firearms Lic
6-06-009-07-7G-03042

CT LASER
& ENGRAVING

YOUR ONE STOP SHOP
FOR ALL YOUR PART MARKING NEEDS

203-265-9366 | sales@ctlaserengraving.com
www.ctlaserengraving.com

 **PAUWAY CORP.** 

THINK OF THE FINISH BEFORE YOU START!

Aerospace & Defense Painting • C.A.R.C. Coating Specialists
Dry Film Lube & Teflon Coatings • Industrial Painting
EMI/RFI Shielding • Powder Coating • Silk Screening
Pad Printing • Laser Marking & Engraving • Contract Manufacturing
Assembly • Custom Packaging • Stripping & Sandblasting

866-247-4082 **AS9100 & ISO 9001 Certified**
63 North Cherry Street www.pauwaycorp.com
Wallingford, CT 06492



Contract and prototype manufacturing of precision screw
machined parts for volume production

217 Harrison Rd.
Bridgton, ME 04009

www.merrimackmfg.com

207-647-3566
info@merrimackmfg.com

Metal Stampings

Double Action Deep Drawing

Washers • Discs • Rings
UP TO 80" Diameter
500 TON CAPACITY

Stampings to 3/4" thick
 Short or long runs
 Wire EDM



Tool & Die Makers
 Quick Turn Around
 CAD/CAM Design

Peter Forg Mfg. Co.

130 YEARS OLD AND GROWING

888-625-4577 Fax 617-625-0331
 50 PARK ST. PO Box 433 SOMERVILLE, MA 02143
www.peterforg.com

JCB



Performance Machine, LLC
 (603) 415-0110 Concord, NH

PRECISION MULTI-AXIS MACHINING

Specializing in Mill/Turn Machining of
 Stainless Steel and Non-Ferrous metals:

316L • 304L • Nitronic 50/60
17-4 H1150 • HH1150 • H900



www.jcbperformance.com

CONSUMABLE SUPPLIES

Highest Quality. Competitive Prices.

SMS carries a large selection of metallurgical supplies for your in-house lab needs. We cover all of your sample preparation requirements and are *happy to provide samples to evaluate.*

- Grinding Papers
- Polishing Cloths
- Diamond Suspension
- Diamond Paste
- Hot Mount Powders
- Mounting Clips
- Mold Cups
- Saw Blades
- Cold Mount Epoxies
- And so much more...



Sturbridge
 Metallurgical
 Services, Inc.

SHOP
 ONLINE

www.smslabs.com

1-866-340-5288

**WHEN YOU NEED TO MOVE
 ONE MACHINE OR
 AN ENTIRE FACILITY,
 CALL US**



INDUSTRIAL TRANSFER &
 STORAGE INC.
 Offices In MA & RI

800-521-5534

Look to ITS when you're in need of a superior rigging contractor. For nearly 40 years, ITS has excelled at installing, handling, and relocating manufacturing equipment. Whether it's one machine or an entire facility, you'll receive exemplary service done safely, on time, and on budget.

Your once in a lifetime move is what we do everyday.

industrialtransfer.com

MANUFACTURING **BOLD** MARKETING SUCCESS

10+ Years of Results Driven Sales Leads and Acquisitions

We're defined by who we are. Hardworking. Experts in both traditional and digital worlds. Lovers of great creative. Our workboots are never clean. Let's push the bounds of manufacturing and keep the shop floor bustling with innovation.

603.436.2065



BOLDWERKS.COM



871 Islington Street | Suite L5 | Portsmouth, NH 03801

HAVE YOU SEEN OUR ONLINE DIRECTORY?

Signup for the Gateway Magazine newsletter and don't forget to share your showcase piece!





PROMOTE YOUR COMPANY IN THE GATEWAY MAGAZINE

25,000+ readers read THE GATEWAY in over 7,500 companies

info@thegatewaymag.com *or* **call: (877) 463-4020**

LOOKING TO HAVE A FEATURE DONE ON YOUR COMPANY?
*We would like to hear it. Contact us to give us your input or feedback.
We're always looking for new stories to discuss.*

chris@thegatewaymag.com or Call: (877) 463-4020

THE
Gateway
MAGAZINE



PO Box 70 | Portsmouth, NH 03802 | Toll Free: 877.463.4020 | info@thegatewaymag.com

www.TheGatewayMag.com