



The Gateway



*Helping to Keep Purchasing Decision Makers Informed
25,000+ people read The Gateway in over 7500 companies.*

SUBSCRIPTIONS: FREE FEBRUARY 2016 Issue No. 200

Buyer _____

Mfg Engrg _____

Engrg Mgr _____

Mat Mgr _____

Production _____

Marketing _____

Other _____



Winsted, CT

Address changes?

Please send changes to
info@buyersgateway.com

The Gateway
336 Governors Road
Milton, NH 03851



MuShield®
PRECISION HYDROFORMING

The MuShield Company is a small company that tackles big problems. We specialize in the forming of high precision sheet metal parts for the Defense, Aerospace and Medical fields. Our Hydroformed parts will meet the tightest of tolerances and yield consistent low cost precision formed metal components. For more information, visit us at www.hydroformingmanufacturing.com.



- ◆ WE OFFER QUICK LEAD TIMES
- ◆ LOW TOOLING COSTS
- ◆ PERFECT FOR LOW, MEDIUM AND SOME HIGH VOLUME PRODUCTION RUNS.
- ◆ SIMPLE TO IRREGULAR SHAPES AND CONTOURS
- ◆ SECONDARY OPERATIONS PERFORMED INHOUSE
- ◆ TYPICAL MATERIALS USED: CARBON STEEL, ALUMINUM, STAINLESS STEEL, COPPER, BRASS, INCONEL, NICKEL IRON ALLOYS AND OTHER EXOTIC ALLOYS USED IN THE AEROSPACE, DEFENSE AND MEDICAL INDUSTRIES

THE MUSHIELD COMPANY
9 RICKER AVENUE
LONDONDERRY, NEW HAMPSHIRE 03053

Toll Free: 888.669.3539
info@MuShield.com
www.MuShield.com
www.HydroformingManufacturing.com

ISO 9001:2008 CERTIFIED

Time Is Money.

Start Here and SAVE!



1

Raw Stock

Requires sawing, milling, grinding, deburring, or wasteful machining in cycle.



2

Machine-Ready Blanks

Go directly from receiving to CNC machine.



3

Finished Part

The high value result—Up to 25% faster cycle time, chip-to-chip.

Make parts faster with TCI Machine-Ready Blanks.

- Custom made to order from one to thousands
- As close as +/- .0005" dimensionally and .0002" flatness, squareness and parallelism while minimizing material movement during CNC machining
- Deburred and clean; ready to load directly into your CNC machining center

Save On:

- ⌚ Material Prep Time
- ⌚ Set Up Time
- ⌚ CNC Cycle Time

Call today to discuss your next job.



(800) 234-5613

www.tciprecision.com



HYDE™
Industrial Blade Solutions

Blades and Knives

Do you have an industrial knife or blade challenge? Hyde has solutions!



- ☑ Made To Order Solutions
- ☑ Short Lead-Time Solutions
- ☑ Fast, Responsive Quotes



Machine Knives • Industrial Blades • Specials
cutting Rubber • Paper • Food • Cloth & Textiles
Hydraulic Hose • Packaging • Coated Abrasives
Our in-house capabilities include Laser Cutting, Blanking,
Grinding, Vacuum Heat Treating, Honing and much more.

ISO9001 Registered Quality System

Hyde Industrial Blade Solutions • 54 Eastford Road, Southbridge, MA 01550

Ph: (800) 872-4933 or (508) 764-4344 • Fx: (508) 764-8172 • www.hydeblades.com

Serving Industry's Machine Knife and Industrial Blade Needs Since 1875

Hyde Industrial Blade Solutions . . . Solutions You Can Count On!™

LASER CUTTING

Vortex Ilc introduces laser cutting technology in 2014!



- Rapid prototyping
- 1/2" Clean Cut Stainless
- 1/2" Steel
- 1/4" Aluminum
- ISO 9001-2008 Certified
- ITAR Registered

We now accept all major credit cards!



 **Vortex Ilc**
Defining the Future of Sheet Metal Fabrication

Phone: 978-535-8721

Fax your prints to us today 978-535-5255

www.vortexmetal.com email: jmcnulty@vortexmetal.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 from DuPont. Customers and members of Donwell are only allowed to use the Teflon® mark if licensed by DuPont with the Teflon® mark. DuPont will not authorize coatings to central access to the Teflon® mark.



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: info@tdfmetalfinishing.com

Boyd

COATINGS RESEARCH CO., INC.

The Leader in Coating
Industrial, Medical, and
Aerospace Components.

IF YOU'VE SEEN A
COATED DEVICE
YOU'VE PROBABLY SEEN OUR WORK

51 Parmenter Road, Hudson, MA 01749 | (800) 258-0110 | www.boydcoatings.com/GW



FAIRCHILD AUTO-MATED PARTS, INC.

Winsted, CT

Written and submitted by: Fairchild Auto-Mated Parts, Inc.

For over 71 years Fairchild Auto-Mated Parts, Inc. has been producing precision-machined parts for customers located in the USA, Canada and Mexico. From modest beginnings as a 'screw machine' shop, the company has grown in both size and in the scope of the kind of work it can perform.

A key to their continuing success is the passion that Fairchild's employees have for manufacturing. Many of our 25 employees have worked at Fairchild for over 20 years, sharing their accumulated experience



(above) Modern 6- and 7- axis Sliding headstock machines with capacity up to 42mm (1.654") diameter.



(left) The machine pictured is one of only 20 such machines ever built, combining the speed of Brown & Sharpe screwmachines with the accuracy of modern CNC machines.

alongside younger apprentices as they strive to provide each customer with parts made to print, delivered on time, all at a competitive price.

Company History

Roger Fairchild started his business in 1944 in Southington, CT before moving his operations to Winsted. Mr. Fairchild had worked previously for the Brown & Sharpe company where he had learned to appreciate the accuracy and productivity of the single spindle Brown & Sharpe screw machine. He later sold the business to his son, who died unexpectedly several years later at which time the operation of the company was turned over to Norman F. Thompson, III. Mr. Thompson who earlier had worked for many years as Chief Engineer at the William L. Gilbert Clock Company located right up the street from Fairchild. Mr.

Thompson purchased the company from Mrs. Fairchild in 1981 and hired his son, Jonathan Thompson, to assist in directing the company's sales, marketing, and engineering efforts.

Specialization

Fairchild Auto-Mated Parts, Inc. specializes in the design, manufacture and assembly of custom machined parts, working closely with customers' engineers to produce cost effective, robust components that improve the value and reliability of their final product. This focus on design optimization and production is Fairchild's only business and one to which its employees are absolutely committed to doing well. Fairchild engineers listen to their customers and make every effort to give them 100% in terms of service and attention to their needs.

Continued on page 7



Machining Solutions

We Can Make The Difference When Time & Speed-To-Market Are Critical

We Offer:

- ▶ Fast Response
- ▶ Engineering
- ▶ Design
- ▶ Consulting
- ▶ Prototypes
- ▶ Kitting
- ▶ Solidworks
- ▶ MasterCam 3D
- ▶ Assembly
- ▶ Value-added Service

We Can Do:

- ▶ Laser Cutting
- ▶ EDM
- ▶ CNC Milling
- ▶ Laser Engraving
- ▶ Grinding
- ▶ Turning
- ▶ Welding



75 Oxford Ave.
Dudley, MA 01571
www.kokosmachine.com



Tel: 508-943-2700
Fax: 508-949-0372
info@kokosmachine.com

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: 2008 CERTIFIED

Centrally Located in New England. 2 miles from MA Pike, Exit 10A
24 Hour Service and weekends if Needed.

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.



www.smslabs.com

1-866-340-5288

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
Pick-up & Delivery Available
Member MTI / ASM

134 Ashland Ave. Southbridge, MA 01550
www.hardlineheattreating.com

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



Hybrid Cam Machine converted to CNC controls and "C" axis operation.

Jake Thompson, President, says "We have fun making complex parts and welcome new challenges."

Fairchild has 7-axis CNC turning and machining centers that can produce your parts in virtually any material, up to 6" in diameter and 24" long. Orders can be as few as 50 pieces as well as production runs of 100,000 pieces and more. Parts can be machined from bar stock, saw cut blanks, forgings, castings and special extruded shapes. They are made from many materials such as brass, aluminum, copper, steel, stainless steel, plastics, as well as some aircraft grade metals.

Fairchild produces highly-precise, complex components used in everything from sewing machines and bicycles to musical instruments, valves, firearms, medical devices, HVAC systems, electrical hardware, and many other devices that we see or use on a daily basis.

Fairchild forms partnerships with its customers, exploring new ways to make their parts perform better, last longer and cost less. This collaborative approach helps their customers increase market share which, in turn, results in more business for both companies.

Versatility

Fairchild utilizes both conventional screw machines as well as state-of-the-art multi-axis CNC turning equipment, guaranteeing their customers that they will receive the best part for their money, made using the most efficient process on modern equipment.

With 15,000 square feet of manufacturing and office space, Fairchild has 14 cam screw machines, five six- and seven-axis Swiss-style CNC screw machines with up to 1.625" dia. capacity, four multi-axis lathes with up to 2.50" inch capacity work, and 8 gang style lathes suited to run quick, short run jobs using standard, low-cost tooling.

For more complex work that cannot be completed on primary machines, Fairchild has 5 vertical machining centers, with 3- to 5- axis capabilities, indexers and multi-part fixturing. Fairchild can machine virtually all metals and plastics in sizes ranging from .0625" up to 3 1/2" in diameter. They can efficiently process low volume orders using generic tooling on CNC lathes or they can tool your job to run on custom-designed machinery that is among the fastest in the world!

To round out its service and product offerings, Fairchild offers its customers packaging, assembly, testing and kitting of their parts, as well as shipping to scheduled releases on blanket orders. These services



Large parts like the ones on the left, or small parts like the ones below are great examples of what Fairchild Auto-Mated Parts produces.

The parts below are small parts made and tapped with #00-120 threads in aluminum!



Continued on page 9

Fabricating & Machining Specialist

- ▶ CNC Turning to 48" dia.
- ▶ CNC Milling (40" x 120")
- ▶ 250" Milling Travel
- ▶ 206" Turning Capacity
- ▶ Repair Specialist
- ▶ 100% Quality Control
- ▶ Certified Welding ASME Sec 8
- ▶ AWS Certified Aluminum, SST
- ▶ ISO 9000 Compliant
- ▶ Pickup & Delivery



Innovative MACHINE • INC.

40 Snow Road • Winchester, NH 03470

Tel: **603-239-8082**

Fax: 603-239-6380

Contact: Terry Haskins

www.innovative-machine.com

tmhaskins@innovative-machine.com

NEW ENGLAND'S FAVORITE PLASTIC SUPPLIER

Sheet • Tube • Rod • Custom Shapes

- | | | |
|-----------|----------|----------------|
| • Acrylic | • Teflon | • Lexan |
| • Delrin | • Peek | • Mechanicals |
| • Nylon | • Ultem | • Polyethylene |

- ◆ CNC Routing
- ◆ Precision Saw Cutting
- ◆ Plastic Welding
- ◆ Fabrication
- ◆ Machining

PSI
Plastic Supply, Inc.
PLASTIC SUPPLY INC.

8 Liberty Drive Londonderry, NH
800-752-7759

sales@plasticsupply.com

Visa or MC accepted Quick Turnaround



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

Contract Cutting Waterjet

A customer service driven company since 1967.

.....
Large work areas
Pallet changer
Superior nesting software for optimum yield
Prototypes and production

Laser



Learn more...

1-800-969-3437

Visit us at www.sharplesdie.com

SHARPLES
W. R. Sharples Company, Inc.

211 John Dietsch Sq., N. Attleboro, MA 02763



Originally made from 1" diameter 303 stainless steel, Fairchild redesigned this part into a two piece assembly, saving the customer over \$100,000 dollars in the process!

simplify and streamline the supply chain, reducing storage space needed, inventory held and dollars that would otherwise be spent supporting these activities. And, when required, the company will arrange to provide you with a complete part, including heat treat, grinding and plating!

Dedication

Fairchild takes great pride in doing their personal best for all of their customers. Starting with a careful process and tooling design review of your part, through set up and first article inspection, all the way to final assembly/inspection. Great effort is expended in making every shipment to you on time, packaged and delivered according to your explicit instructions. The people at Fairchild Auto-Mated Parts, Inc. feel that every order, regardless of size, deserves their maximum attention and effort. Some of their many happy and satisfied customers have been doing business with Fairchild for more than 40 years.

Quality

A key component of Fairchild's continued success is "continuous improvement of its Quality Management System" and its focus on complete customer satisfaction, as specifically defined by providing:

- ◆ *Product that is manufactured securely within the customer's specified tolerances.*
- ◆ *Deliveries that meet or exceed the customer's expectations.*
- ◆ *Personal attention to all communications with the customer.*

Fairchild became ISO 9001 certified in 2000 and continues to maintain its quality management system in strict accordance with the current ISO standard.

What's New?

The management at Fairchild Auto-Mated Parts knows well the speed of technological changes that can occur in the manufacturing sector. Their response to this rapidly changing environment is to make continuous investments of capital in new machinery, tooling, and inspection equipment and in the training of its employees. Fairchild recently purchased an automated inspection system, which can measure many features of a part in sequence, store the results, and repeat the process on successive sample parts.



Fairchild also assembles its components, along with parts supplied by customers, into complete, finished products, packaged and shipped Just -In-Time.

Recently, the company installed a 3D printer, allowing it to produce samples made from strong, machinable plastics and help its customers proof and conceptualize designs before moving into full production.

This commitment to quality, delivery reliability, innovation and ingenuity has won the respect and appreciation of hundreds of customers. We invite you to contact our engineers and let them help with your current manufacturing needs. And, we at Fairchild Auto-Mated Parts, Inc. wish you and your company "Good luck, and Good business"!

When you have a part you'd like to discuss or have us quote, please contact us at:



10 White Street
Winsted, CT, 06098
Phone 860-379-2725 800-927-2545
Fax 860-379-5340
Email: sales@fairchildparts.com
Website: www.fairchildparts.com



PRECISION METAL FABRICATION SPECIALISTS

LASER
SHEARING
STAMPING
BENDING
FORMING
ASSEMBLY
MACHINING
DRILLING
TAPPING
GRINDING
DEBURRING
ROBOTIC WELDING
WELDING (MIG,ARC,TIG AND SPOT)



1 West Main Street South Hadley, MA 01075
Tel: 413-532-9022 Fax: 413-536-4647
Email: tech.fab@verizon.net www.techfabinc.com

- ◆ ENGINEERING ASSISTANCE
- ◆ FINISHING SERVICES
- ◆ JIT DELIVERIES
- ◆ CAD/CAM
- ◆ ZERO DEFECT QUALITY
- ◆ DEPENDABLE ON-TIME DELIVERY
- ◆ PROTOTYPE TO PRODUCTION
- ◆ ACCOUNTABILITY

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

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**



PRESS RELEASE

RP Abrasives Introduces Timesavers Machinery and Extended Line Graining Capabilities

RP Abrasives (RPA) is excited to announce the introduction of their new Timesavers machine and line graining services for finishing a wide range of metal surfaces.

A line grain finish, also known as stroking, is a sanded or etched in a linear pattern, used to remove or minimize scratches, defects, mill scale and porosity. The material is then completed with a pass to leave a uniform finish. This line graining finish can be done on aluminum, steel, stainless steel, titanium, copper, brass, as well as other various metals.

RP Abrasives, which has the expertise and state-of-the-art equipment to ensure your metal finish is of the utmost quality, is thrilled to be expanding its capabilities. The Timesavers machine can be used both wet or dry, giving them several, significant advantages. Wet and dry machines process the material in the same way, however, wet machines spray a coolant on the part as it is processed, providing a safer working environment as well as finer and cleaner finishes. The machine uses various grits and sanding belts to achieve a wide range of grain types, from a fine semi-polished finish to very coarse lines.

“We have had requests for service from several customers and potential customers. We are happy to now be able to offer this service. It fits very well with our existing bead blasting, polishing, buffing and passivating services, giving our customers a wider range of surface finishes to select from,” says RP Abrasives CEO Joe Shean.

About RP Abrasives

RPA, based in Rochester, New Hampshire, was incorporated in 1996 and purchased by Joe Shean, a manager for a large machine tool manufacturing company, in 2002. Ever since, RPA has been committed to serving businesses in the manufacturing industry and satisfying their need for deburring and metal finishing services. For more information about the services and capabilities provided by RPA, or to learn how we can assist you with your next finishing project, peruse our website, or give us a call at 603.335.2132 today!



PRESS RELEASE

Danvers, MA - Compumachine Inc. President, David Shaby, is pleased to announce several new additions to its Sales Engineering team.

Chris Sequeira has been appointed as Sales Manager for Compumachine. Chris has served the tooling and CNC machining industry with distinction for many years and will be directly managing the Sales Engineering team.

Chris Burns has been appointed as Sales Engineer, covering Boston's north shore and Maine. Chris has served the area for many years, providing solutions in tooling and fixturing.

Ray Navarro has been appointed as Sales Engineer in Western Massachusetts and Connecticut. Ray is a veteran Machine Tool Sales Engineer, previously with Methods Machine Tools and Dynamic International.



For thirty-five years Compumachine has been serving New England with state-of-the-art CNC turning, milling, grinding, Swissturn, Mastercam, and turnkey retrofit and rebuild services. It is located at 6 Electronics Avenue, Danvers MA. www.compumachine.com



Specialty Indexable Cutting Tools Designed & Manufactured

Get 10% off your next order!
PROMO CODE: GATEWAY

SLOTING CUTTERS • SHOULDER MILLS • COUNTERSINKS
COUNTERBORES • CORNER ROUNDERS • ANGLE MILLS
RADIUS MILLS • DRILL MILLS • INSERTS • SPECIALS



Made in
the USA
Since 1984

- Standard tools in stock and ready to ship
- Over 30 years experience with custom indexables
- Rapid response to quote requests
- Excellent delivery times
- Experienced tech support
- Prompt, personal customer service

Call today to request a quote,
receive a catalog or place an order.

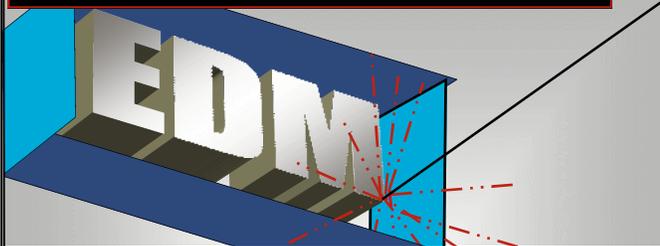


Available through leading distributors and online at www.cuttingtooltech.com

Call: 603-654-2550 • Fax: 603-654-2945 • Email: ctt@tellink.net
327 Forest Road, P.O. Box 720, Wilton, NH 03086



FAST HOLE EDM and WIRE EDM SPECIALIST



Fast Holes are Our Specialty
High Speed Production Drilling of EDM Start Holes
Safety Wire Holes
Most Conductive Materials
Core and Ejector Pin Holes **Vent Holes**

SINKER EDM
PRECISION TOOLS & DIES
JIGS & FIXTURES
SPECIAL APPLICATION MACHINERY
WIRE CUT PROTOTYPE PARTS
Millions of holes to date.

Bengtson  **Tool & Die Co. Inc.**

765 US Route 3 Phone 603-922-3444
Columbia, NH 03590 Fax 603-922-3316
E-mail: dick.btd@gmail.com

High Efficiency Tri-Mist Coolant Mist Collectors Mist & Smoke Removal Assured

Efficient Oil/Coolant
Mist & Smoke Removal

Effective with Both Oil
and Water Soluble
Metal Working Fluids

No Disposable Filters
to Replace

Low Operating Cost
Energy Efficient

Virtually Vibration Free



Made in the U.S.A.

Industrial Air Filtration

Ketcham & Company, Inc.
www.ketchaminc.com
203-322-6667



PRECISION FINISHING



- Batch Deburring**
- Bead Blasting**
- High Energy Tumbling**
- Microscopic Deburring**
- Passivating**
- Polishing**
- Shot Blasting**
- Vibratory Tumbling**

POLISHING

T:603-335-2132
F:603-822-2407

www.rpabrasives.com
ISO 9001:2008 Certified



METAL FABRICATION SOFTWARE METAL FINISHING SOFTWARE

*Affordable Shop Management Software
for Job Shops, Metal Fabricators and Metal Finishers*

- ◆ **Job Process Control**
- ◆ **Barcode Tracking**
- ◆ **Labor Tracking**
- ◆ **Job Costing**
- ◆ **Quotation and Estimating**
- ◆ **Certificate of Compliance**
- ◆ **NADCAP ISO Compliance**
- ◆ **Accounting** with optional Quickbooks/Peachtree/Dynamics link



learn more at: www.complexsoftware.com

30 day free trial packages. New England based with local support.

With over 15 years of Proven Results



39 Stafford Street Worcester, MA 01603

Tel: 508-754-4085

CNC MACHINING

We are your ONE-STOP, ONE ORDER, CUSTOMER SATISFACTION experience.



ISO 9001:2008
Compliant

Integrating our years of manufacturing know-how with the latest technologies, into your designs with QUALITY.

Machined Integrations, LLC

-integrating our expertise into your designs

PO Box 396 3 Brookfield Rd Merrimack, NH 03054

Tel: 603-420-8871 Fax: 603-420-8879

www.machinedintegrations.com

BULOVA®

TECHNOLOGIES MACHINERY LLC



- Table Size 41.3" x 20.9"
- Table Load 2,200 Lbs.
- X axis travel 42.0"
- Y axis travel 20.9"
- Z axis travel 30.7"
- Slide Type Box Ways
- CT 40 Big Plus
- Spindle 15/20 HP
- Spindle 12,000 RPM
- Rapids 1181 IPM
- Max. Feed 393 IPM
- ATC 24 Tools
- 300 psi CTS
- Control Fanuc 0iMD

\$79,100

Exclusive Distributor



QUALITY MACHINE TOOLS & SERVICE

Northeast CNC

207-775-5510
necnc.com

CNC Service • 207-604-0585

- Experienced technicians
- CNC & Manual (most machine makes)
- Mechanical & electrical
- Machine calibration
- Ball bar testing
- Way scraping & machine alignments
- Machine installation & startup
- Gearbox repair & rebuilding
- Reasonable rates



Quality Turned Machined Parts
 New Hampshire Machine Products, Inc.

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



J-1276A

QUALITY TO CLOSE TOLERANCES: Utilizing single spindle automatic screw machines from 1/32" through 3" 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

Dimensional
DESIGN WORKS, LLC
 711 Shore Drive, Laconia, NH
 Call (603) 527-8608
sales@dimensionaldesignworks.com
www.dimensionaldesignworks.com



Serialized UID Tags



Direct Part Marking

- 
- Verification to MIL-STD-130
 - Direct Part Marking — Serialization and Bar Coding available
 - Laser Marking, Etching and Engraving — Wood, Plastic, Glass, Coated and Bare Metal
 - Laser Cutting — Wood, Rubber, Cork, Leather and Plastics
 - Both Co2 and Fiber lasers
 - 28" x 17" beds with 6" min Z height and rotary attachment
 - Can Import your CAD or Solid Model file or use in-house Design Dept
 - Centrally located in NH to serve VT, NH, ME and MA customers

Gear & Spline Specialty for Over 60 Years!

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
WWW.UNITEDGEARCT.COM

NO JOB TOO SMALL!

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

The Process Isn't Complete Until It's Been to



Your parts get expert multi-process service at PTI Industries. We complete the processes you need in **1 stop on 1 purchase order**, reducing your manufacturing lead times and helping you improve performance.

Complete your one-stop processes with:

- Precision Cleaning
- Adhesive Bonding
- Non-Destructive Testing
- Dry Film Lubrication
- Magnesium Coatings
- Shot Peen
- Passivation
- Pressure Test
- Repair Service

Your industry is covered by our hundreds of specialized process approvals from more than 40 contractors, as well as FAA, EASA, and Nadcap certifications. As the experts in multi-process solutions for more than 30 years, we complete your job on time with accuracy, reliability, and conformance.

PTI Industries, Inc.
 2 Peerless Way, Enfield, CT 06082
 Tel: (860) 698-9266 Fax: (860) 698-6762
 Email: jcartelli@ptiindustries.com
<http://ptiindustries.com>

Precision Sheet Metal Fabrication

- ∞ 3D-CAD
- ∞ SHEARING
- ∞ PUNCHING
- ∞ LASER CUTTING
- ∞ BENDING
- ∞ ROLLING
- ∞ INSERTING
- ∞ WELDING
- ∞ ASSEMBLY
- ∞ FINISHING

"We strive to work closely with our customers in a spirit of cooperation, loyalty and flexibility."

3D-Design Help

Prototypes & Production



Capacity to 1/4" Steel, Aluminum, Stainless Steel, Lexan . . . etc.

Howard Products, Inc.

7 Brookfield Street, Worcester, MA 01605

Tel: 508-757-2440 FAX 508-831-9990

www.HowardProducts.biz E-mail: sales@howardproducts.biz

Attract and Retain Talent by Providing a Safer and Cleaner Workspace



Solutions

- ◆ CNC Machining Mist & Smoke
- ◆ Welding Fumes
- ◆ Grinding Dust
- ◆ Plasma and Laser Smoke and Dust
- ◆ Odor Control
- ◆ CNC Fire Suppression
- ◆ Pneumatic Parts Blow Off Box

Air-Filtration Systems provides DESIGN, TURNKEY INSTALLATION and ONSITE SERVICE!

Benefits

- § Reduce employee exposure to harmful contaminants
- § Energy Efficient—Payback in energy savings
- § No loss of valuable floor space
- § Custom mounting brackets and paint color

5 Carpenter Street Pawtucket, RI 02860

877-410-1887

email: matthew@airfiltrationsystems.com

FAST, FRIENDLY, KNOWLEDGABLE HEAT TREATING

- ◆ Heat Treatment
- ◆ Annealing
- ◆ Stress Relief
- ◆ Hardening
- ◆ Small Lots
- ◆ Fast Service
- ◆ Personalized Service
- ◆ Reasonable Prices

WEAR AND STRESS RELIEF WITH CRYOGENIC PROCESSING

- ◆ Increase Metal Wear Resistance
- ◆ Non-Discoloring Stress Relief
- ◆ Stabilization

SNOW'S METAL TREATING

Formerly Innovative Tool Sales

81 Holliday Drive Shaftsbury, VT 05262

Tel: 802-442-3866

hardsnow@comcast.net

Ventilation Solutions

Solutions for:
Negative Building Pressure or Summer Cooling



Blue Fan Summer Cooling Systems

VentilationUSA

800-622-8078 www.ventusa.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

Complete Cutter Regrinding Service

High Precision Custom Cutting Tools & Complex Wire EDM Service

*Experts in developing
simple to complex
mission-critical,
multifunctional tools
that get your
project done right ...
on time ...
no headaches*



**Accu-Grind
Cutter Service, Inc**

10 Allread Drive

Terryville, CT 06786

860-582-5088

www.accugrind.com

Over 55 years experience
+ State-Of-The-Art Machining
= RI Carbide Advantage

RI Carbide end mills and cutting tools achieve higher accuracy and longer performance than any cutting tool you use today.

We've been exceeding customer expectations with quality, prices, and fast delivery since 1959.

Truth is, when people try RI Carbide Tools, they stay with RI Carbide Tools.



Medical • Automotive • Aerospace • General Manufacturing

RI Carbide

RI Carbide Tool Co. • Specialty cutting tools since 1959
www.ricarbide.com • 401-231-1020

Order Wild Mill®+Standard cutting tools online: endmillsbyricarbide.com

Specialists in Swiss Screw Machine Products



Where do you go for the best parts?

When you need to improve your bottom line, the choice is simple... come to Devon for the best overall value in the industry. We offer the highest quality, best price, quick turnaround on all your precision turned parts needs. We welcome your inquiry.

Ready to make the switch?

Swiss / CNC Swiss Screw Machining
Escomatic
Centerless Grinding
CNC Worm Milling & Whirling
Hobbing and Broaching

Automotive
Medical
Firearms
Appliances
Military

DEVON
PRECISION INDUSTRIES
www.devonp.com

Tel 203-879-1437
Fax 203-879-5556

251 Munson Road
Wolcott, CT 06716-0070

Contact: David Fusco d.fusco@devonp.com

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



CTLASER & ENGRAVING

**YOUR ONE STOP SHOP
FOR ALL YOUR PART MARKING NEEDS**

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

PC 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
53 North Cherry Street
Wallingford, CT 06492

www.pauwaycorp.com

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

CLASSIC JIG GRINDING

jiggrind@snet.net
classicjiggrinding.com
Ph (860) 870-4900
Fax (860)870-1900



PRECISION MACHINING
- SINCE 1963 -



Automatic screw machine and CNC
Machined products for your industry

**Merrimack Manufacturing Company
Inc.**

• 217 HARRISON ROAD • BRIDGTON, MAINE 04009
TELEPHONE 207.647.3566 • FAX 207.647.3588
mmc6@myfairpoint.net

* Also available: Inserts for rubber / plastic moldings

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

Contract Broaching
Broach Design
Broach Manufacturing
Broach Sharpening & Reconditioning
EASTERN BROACH INC.



60 Woodlawn Road Berlin, CT 06037
Phone: (860) 828-4800
Fax: (860) 828-7632

Email: info@easternbroach.com Web: www.easternbroach.com
Quality Broaching Service in the New England Area Since 1972

Clean Aire Technology AIR POLLUTION SOLUTIONS

Code Compliance NFPA/OSHA for:

Dust	Smoke	Fumes
Mist	Odors	Vapors
Energy Efficient	Full Service	Green Systems
Turnkey Installations	Vehicle Exhaust	Filter Discounts

PO BOX 380 • 185 Main Street • Belmont, NH 03220
Tel: 603-267-7042 Fax: 603-267-6533
Cleanaire@metrocast.net www.cleanairetech.com

Complete Bearing & Industrial Supply Solutions



◆ BEARINGS
◆ MOTOR REPAIR
◆ BALL SCREW REPAIR
◆ ENGINEERED PROJECTS
◆ POWER TRANSMISSION PRODUCTS AND MUCH MORE



www.qpgllc.com 1-866-868-9574

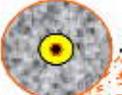
GRINDING SPECIALIST

▣ ID GRINDING
▣ OD GRINDING
▣ SURFACE GRINDING
▣ HONING
▣ CNC CYLINDRICAL

◆ Quality
◆ Any Quantity
◆ Price
◆ Pick up & Delivery
◆ Same Day Quotes

Bay State Machine, LLC

21 Center Parkway Plainfield, CT 06374
Tel: 860-230-0054 Fax: 860-230-0027
baystatemachine@hotmail.com




Spur & Helical Gears
Internal / External Splines
Internal/External Acme Threads
Involute & SAE Splines
Reverse Engineering

LAB THREADS & GEAR WORKS, INC.

515 Main Street
Yalesville, CT 06492
203-949-9097
203-949-9697 Fax
www.labthreads.com
mike@labthreads.com

PRESS RELEASE

TCI Precision Metals Adds Latest Duplex Milling Technology Amada Duplex Mill Improves Efficiency, Supports Increased Demand for Machine-Ready Blanks



Gardena, California, December 15, 2015

TCI Precision Metals today announced the installation of its newest high tech milling machine. The new Amada, THV430 represents the pinnacle of technology and precision in duplex milling. The THV430 provides a 4X increase in throughput over traditional milling machines and will help TCI shorten customer lead time and handle increased demand for its Custom Machine-Ready Blanks™.

TCI Machine-Ready Blanks are milled in width and length using the THV430's specially designed twin spindle in one setup instead of two. This reduces set up time and increases efficiency. One or more Machine-Ready Blanks can be produced together, up to the machines overall dimensional capacity of 16.93"W x 16.93"L x 5.91"H. The value is passed to TCI customers through shorter lead-times and competitive pricing. Quality from TCI Precision metals is a given, of course.

“At TCI we continuously refine our equipment and processes to maximize quality and efficiency. As a result, we are able to provide customers with cost effective, high value, Machine-Ready Blanks that can reduce a shop's overall cost by as much as 25% on a given production job,” said Ben Belzer, President of TCI Precision Metals.”

Custom Machine-Ready Blanks are precision milled to the customer's net specifications and can be furnished as close as +/- .0005" dimensionally and as close as .0002" in flatness, squareness and parallelism. Each Machine-Ready Blank is deburred, cleaned and vacuum packaged – ready to go directly from receiving into CNC machining centers. Machine-Ready Blanks eliminate material prep, reduce set up time, part movement, scrap and wear and tear on machine tool inserts and cutters used to square material in process.

Founded in 1956, TCI is a third-generation family-owned value-add wholesale plate and sheet distributor, producing precision Machine-Ready Blanks from aluminum, stainless steel and other alloys. Direct-to-mill with Alcoa, Kaiser and Hulamin Aluminum, including 6061, 2024 or 7075 aluminum plate and sheet, stainless steel plate and several other alloys, TCI stocks over 500,000 lbs. of material for quick turn-around on customer requirements. TCI serves the needs of the aerospace, defense, energy, industrial equipment, food packaging, semiconductor and many other industries.

For more information, visit: <http://tciprecision.com> or call: 800-234-5613



PRESS RELEASE

YCM and CNC Systems Partners with Hales Machine Tool, Inc.

Yeong Chin Machine Tools (YCM) in partnership with their importer CNC Systems, have signed an exclusive agreement with Hales Machine Tool, Inc. to represent their full line up in the following states: Minnesota, Iowa, North and South Dakota, and Nebraska.

This new partnership with Hales Machine Tool, Inc. will expand YCM's coverage and will allow them the ability to grow and gain market share in each of these states.

"Hales Machine Tool brings a reputation in this region of outstanding sales but most importantly a service oriented network who put their customers' needs first. When we select distributors to represent us, this is exactly what we look for. We could not be more excited to join in this new relationship and know customers in this region will certainly benefit because of it as well," a company spokesman from YCM/CNC Systems explained.

Hales Machine Tool is equally as excited to partner with YCM, as Tim Hales, VP of Hales Machine Tool, Inc. explains, "Hales Machine Tool is enthusiastic about representing YCM products in our territory of Minnesota, North Dakota, South Dakota, Iowa, Nebraska and Western Wisconsin. They import a wide variety of machine tools that fit our customers' needs. With our sales experience, knowledgeable technical staff and field service capabilities it is going to be a great partnership between Hales and YCM."

About Hales Machine Tool, Inc.

Chuck Hales—founder of another MN-based machine tool distributorship—and his son, Dan, opened Hales Machine Tool, Inc. in 1983. Tim joined the firm in 1984, Randy joined in 1989, and Julie in 1993. In 1990 the company moved to a 13,100 sq. ft. facility in Plymouth, MN, and now employs 30 highly-trained sales, service and support personnel. In 2008, Dan (President), Tim (V.P.) and Randy (Sales Mgr.) Hales bought out Chuck, and now own and manage the family business..



Tim Hales, *VP HALES MACHINE TOOL*
763-553-1711

For more information about YCM & CNC Systems please contact:
Mike Keeling: 714-389-3388 michael.keeling@cncsystems.com
Brian Arcari: 714-838-3999 (ext.777) brian@cncsystems.com
YCM USA Website: www.YCMUSA.com

West Coast
14312 Chambers Rd.
Tustin, CA. 92780

East Coast
40 Water Street
Kennebunk, ME. 04043



Connecticut Tooling & Machining Association



Horst Engineering
Precision Machining & Assembly

P 860.289.8209 F 860.289.2961

Aerospace • Medical • Industrial • Motorsports
East Hartford, CT

TURNING • SWISS SCREW MACHINING
MILLING • ASSEMBLY

www.horstengineering.com



Thread Rolling Inc.
Roll Threading & Centerless Grinding

P 860.528.1515 F 860.289.2961

ROLL THREADING • ROLL KNURLING
CENTERLESS GRINDING

www.threadrolling.com



CTMA

P.O. Box 593 Windsor, CT 06095

Tel: 860-604-8963

Fax: 413-599-1323

If you have a question, or need more info, contact:
Cindy Scoville at: director@ct-ntma.org

Membership Doesn't Cost....It Pays!

NTMA - Business Solutions for Metalworking Manufacturers

PRECISION FORM GRINDING AND THREAD ROLLING SPECIALIST



**UNITED CENTERLESS
GRINDING CO., INC.**
Serving New England Since 1960

Unitedcenterlessgrinding.com
(860) 289-2987



**UNITED
THREAD
ROLLING, LLC**

Unitedthreadrolling.com
(860) 290-9349

25 Rosenthal Street
East Hartford, CT 06108

fax: (860) 289-3142



Sirois Tool
siroistool.com

169 White Oak Drive
Berlin, CT 06037
Phone: 860-828-5327
Fax: 860-828-5367

CONNSTEP Manufacturer of the Week - June 2013

Performance in Precision Tooling & Gages

- ▶ Precision Tooling, Jigs & Fixtures
- ▶ Custom Machine Parts & Assemblies
- ▶ Custom Gages: Acceptance, Functional & Location
- ▶ ID Grinding Quills & Wheel Screws
- ▶ Spindle Shafts & Other Parts

All products made to your design!



SIROIS TOOL COMPANIES ALSO INCLUDE:



Dow Gage
dowgage.com
Phone: 860-828-2450



**North American
Spring Tool**
naspringtool.com
Phone: 860-583-1693



**HOBSON
MOTZER**

**METAL STAMPINGS
PRECISION COINING
PROGRESSIVE DIES
LASER WELDING
ASSEMBLY
FINISHING**

PRECISION STAMPING & ASSEMBLY

PO Box 427
Durham, CT 06422

Tel: 860-349-1756

Fax: 860-349-3602

info@hobsonmotzer.com
www.hobsonmotzer.com
ISO 9000:2000

A 'Can Do' Attitude Since 1912

Wire & Sinker EDM Services

- ⚙️ 5 Axis Wire EDM
- ⚙️ Orbiting Sinker EDM

Tel: 207-743-7273

Fax: 207-743-7269

NORTHEAST TOOL & DIE CO., Inc.

PO Box 28

16 Aldrich Ave.

Norway, ME 04268

www.northeasttool.com



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

Quality Tooling Solutions since 1992



Gateway Mini Ads

Manufacturing Solutions

CNC Milling 4 & 5 Axis (3D, Horiz. & Vert. to 15,000 RPM, Lights-Out Op.)
 Flexible Manufacturing Cells
 CNC Turning (Live Tooling)
 CNC Swiss & Screw Machining
 EDM Wire & Sinkers
 Welding (Mig & Tig, USDA sanitary)
 Grinding (Surface, Jig and



ISO 9000:2008
ITAR Compliant

Prototype or Production
www.bobashworthmfgrep.com
781-718-3317

JOB SHOP

SANDBERG MACHINE

**Your own maintenance department,
with no cost until you need it!**
 Large turning, boring, milling, welding, fabricating. We also have a large variety of CNC machines available.
 Large or small, we can do it all!
401-568-1602
Check out our website
www.sandbergmachine.com
"We now offer turning & threading on our 60" CNC VTL!"

DYNAMIC BALANCING



**NEW ENGLAND
SPINTECH** LLC

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



HEAT TREATERS, METAL WORKERS

Stop metal parts from rusting. Use **DU-LITE's RG-55** to stop rust. Our water displacing oil with waxing agents will prevent rust up to 1 year. For information and a free sample, call (860) 347-2505 or email us at sales@dulite.com on the web at www.dulite.com




SW FLORIDA REAL ESTATE

Fort Myers, Cape Coral & Vicinity
 Waterfront homes from \$175,000. **Call 781-718-3317**




WANTED

OLD FORK LIFTS

***** WANTED *****



Old Forklifts for Parts.
 Gas or Electric, Large or Small
 Running or Not,
 Price Must Be Reasonable
 Call Walt (860) 508-9164
 Will Pick Up and Pay Cash.

FOUNDRY FOR SALE

Brass & Bronze Investment Castings Foundry for sale.

Owner wishes to retire. Established customers. **Profitable.**
 Producing custom hardware, classic auto / boat parts and more.
 With buildings or without in beautiful part of N.E. Lots of options.
 Email: info@buyersgateway.com. Owner will contact you.

The Gateway Magazine

Bill Bryson, President
 The Gateway 336 Governors Road, Milton, NH 03851
 All rights reserved. Duplication of this magazine or parts thereof without written permission is prohibited.
 This magazine is distributed at no charge to engineers, purchasing decision makers, business owners, advertisers and qualified personnel in manufacturing companies.
 The cost of a subscription is FREE.
 Spotlight feature articles, New Products and Literature announcements are published free of charge at the discretion of the publisher and with the availability of space. Contact us for details.

The Gateway reaches: 7500+ NE Companies 2500+ Job Shops, 25,000+ Readership
Tel or Fax: 603-755-9232 E-mail: bill@buyersgateway.com

MINI AD RATES:

Single Column is 2.4"/Double Column is 4.8"/Triple Column is 7.3"
\$35.00 PER COLUMN INCH.
 You only pay for what you use, to closest 1/16".
 (Ads running only 1 mo. priced at \$45.00 per in.)
HEADERS ARE SUPPLIED FREE
 (Yellow bg, Red Subway Font)
 Email your info to [The Gateway at bill@buyersgateway.com](mailto:bill@buyersgateway.com)
 Questions? call 603-755-9232
 We lay out, quote price and email a draft copy to you approval before we will publish.
 No extra charge for photos, graphics or ad layout.
 5% discount on all prepaid ads.

D.R. GUILBEAULT

AIR COMPRESSOR LLC

(603)-598-0891
17 Park Ave, Hudson, NH 03051

Serving New England
Since 1986

ACR

AIR COMPRESSOR REBUILDERS, LLC
DIVISION OF D.R. GUILBEAULT
488 MAIN STREET
LEOMINSTER, MA 01453
TEL: (978) 537-6064

Serving New England since 1973

Manufacturer's Distributor for:

SULLAIR Industrial

Rotary Screw

- Single & Two Stage
- Variable Speed - VSD
- Oil Free
- High & Low Pressure
- Vacuum
- Portables

Air Dryers

- Refrigerated
- Twin Tower Desiccant

Filtration

- Oil Removing
- Oil/Water Separator
- Drains

Full Stock of Genuine Sullair Parts
and Lubricants

CHAMPION™

Reciprocating

- Pressure & Splash
- Climate Control Units
- Oil Free

Emglo COMPRESSORS

Contractor Compressors
Sprinkler Compressors

BAUER COMPRESSORS

High Pressure Systems



Hudson, NH – Northfield, NH
Leominster, MA

Toll-Free (800) 856-4046

Tel. (603) 598-0891

Fax: (603) 598-0894

24-HOUR

EMERGENCY

SERVICE

YOUR RELIABLE SOURCE
FOR COMPRESSED AIR
EQUIPMENT AND SERVICE



Safety Air Tool Accessories
Air-Line Controls

HITACHI Inspire the Next

Oil Free Rotary & Scroll

- Single & Two Stage
- Variable Speed - VSD
- Air Cooled/Water Cooled

Pressure Vessels & Air Receivers

REELCRAFT

Hose Reels



CRP
Oil / Water
Separators

ZEKS COMPRESSED AIR SOLUTIONS

Refrigerated Air Dryers
Filters
Desiccant Dryers



Air & Gas Filtration to 6000 psig
Desiccant Dryers
Oil/Water Separators

Services: Any Type of Compressor • Installation, System Piping
Low Pressure and High Pressure Air Systems • Medical Air & Vacuum

Maintenance Programs • Rental Units Available (Delivered & Installed) • Air Dryer Repair

Engineered Services: Complete System Design • In-Plant Air Surveys • Energy Audits • Leak Detection
• Pressure, Flow & KW Monitoring

Web Site: www.drgair.com • Email: don@drqair.com

and of course... SERVICE SERVICE SERVICE!!



Heat Treatment Manual focuses on heat-treating to ASM, SME, and AISI standards. It has been created for use in student education, as well as to guide professionals who have been heat treating their entire lives.

What is different with this manual is that it goes beyond dealing with just the heat side of the treatment process. It continues the process by using cryogenics to produce a 99.9 to 100% transformation of the finest, best grain structure possible. *The hardness reading of a steel is strictly an indication of hardness. It doesn't reveal how well the heat treat process was performed, nor does it reveal how terrible the wear resistance might be because the grain structure condition should always be the real goal.* This manual tells exactly how to get the real cost savings and best possible life.

If you desire to produce the best heat treated metal possible and gain an understanding of what goes on in the heat-treating process, this manual will do that.

Written in everyday easy to grasp language, it will serve as a training manual from day one in a classroom, then serve as a day-to-day reference for a lifetime.

This full-color, illustrated manual zeros in on the popular tool steels, alloy steels, heat-treatable stainless steels, case hardening steels, and more. It deals with these metals with fully illustrated processing recipes.

Written for toolmakers, engineers, heat-treaters, procurement, management personnel, and anyone else who is involved in metals.

Page size 7.75" x 10.625" 338 pages, spiral soft cover to lay flat open for easy reference. Available also in eBook

TO ORDER

Call: 877-751-5052

Fax: 708-534-7803

Web: www.hanserpublications.com

Mini-Broach Machine Co., Inc.

Contract Broaching Services, Broaches, Tooling, Broach Sharpening, & Broaching Machines, with over 45 years experience.

info@minibroach.com

Tel: (978) 386-7959

Fax: (978) 386-7123



Rush Broaching Services Available!



NEW ENGLAND LEAN CONSULTING

"Your Partner in a Practical Lean Approach"

- ◆ Eliminate Waste
- ◆ Increase Profits
- ◆ Reduce Inventory
- ◆ Increase On-Time Delivery
- ◆ Workplace Organization
- ◆ Creating Flow
- ◆ Kaizen Leadership
- ◆ Lean Culture Benefits

8 Cherrywood Drive | Ellington, CT 06029

Cell: 860-335-4787

Email: paul@newenglandlean.com

www.newenglandleanconsulting.com

FORGINGS

MATERIALS	ADVANTAGES
<ul style="list-style-type: none"> ◆ Carbon Steel ◆ Stainless Steel ◆ Alloy Steel ◆ Aluminum ◆ Scandium 	<p style="text-align: center;">Near Net Shape Parts Strength Time Savings Efficiency</p>

CAPABILITIES

Small or Large Lots
Parts of ounces up to 20 lbs
Up to 15" long
Drop Hammers:
1500 to 5000 lbs



Metallurgical Lab Testing Available



Smith & Wesson Specialty Services

2100 Roosevelt Ave. Springfield, MA 01104
www.smith-wesson.com

Also offering: Heat Treat, Plating & Finishing

Tel: 413-747-3297
Fax: 413-747-3423
lflatley@smith-wesson.com

Non-Metallic Die Cutting & Stamping



The Buswell Manufacturing Company is a precision die cutter of non-metallic material, for seals gaskets, diaphragms and washers, used by the automotive, marine, industrial & bearing industries.

Since 1945, we have specialized in die cut bearing seals made from rubber coated fabric, Teflon® and Teflon® coated glass fabric. We also perform in house tool & die making.

The

BUSWELL MANUFACTURING CO.



229 Merriam Street • Bridgeport, CT 06604-2915

Phone: 800-682-5207 • Fax: 203-368-2374

E-mail: Buswell.mfg@snet.net

ISO/TS 16949: 2002 Registered

CNC Turn/Milling





Milling





WaterJet Cutting







HydroCam Corporation

248 Sheep Davis Road - Concord, NH 03301
Ph: (603) 224-4872 - Fax: (603) 224-5927
E-Mail: Info@hydrocam.com www.hydrocam.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.

160 Pleasant St. Rockland, MA 02370

Tel: 781-792-1717 Fax: 781-982-4999

www.rsredco.com email: sales@rsredco.com



JCB

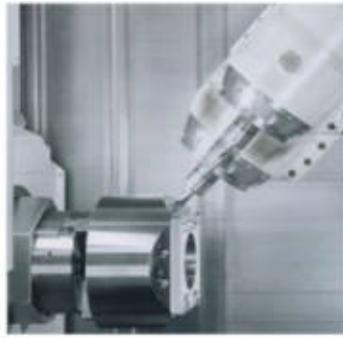
Performance Machine, LLC
Concord, NH

www.jcbperformance.com
(603) 415-0110



CNC Machining of Stainless Steel
303, 304, 316, 321, 347
17-4PH H1150, HH1150, H900
Nitronic 50 & N50 HS, Nitronic 60

CNC TURNING MULTI-AXIS MACHINING



Manufacturing for the Future

Fabrication

- Flat Bed Lasers with Auto Load & Unload
- CNC Turret Punches
- CNC Press Brakes
- Robotic Welding
- Welding (Seam, Tig, Mig and Spot)

Machining

- CNC Turning
- CNC Milling
- Manual Milling and Turning
- CNC Swiss Screw Machining
- Manufacturer's Federal Firearms License

NEP
NORTH EAST
PRECISION, INC.
Precision Machining
Sheetmetal Fabrication



3606 Memorial Drive, P.O. Box 7, St. Johnsbury, Vermont 05819
PH 802 748.1440 FAX 802 748.1442 sales@neprecision.net www.neprecision.net

Burna Shave

And missed the curve

He kissed the miss

A car-a curve

A man and A miss

This road sign posted in 1945