

TODAY'S
TMW
MACHINING WORLD

VOL. 1 No. 6 JUNE/JULY 2005



FRESH START, FRESH ART

A Trailer, An Artist And A Bucket Of Paint. What Do They Have To Do With Machining?

Today's Machining World Magazine
P.O. Box 847
Lowell, MA 01853

CHANGE SERVICE REQUESTED

PRST STD
U.S. Postage
PAID
Permit #649
Liberty, MO

\$6.95 US \$8.95 INT'L

Trying to find the formula for success?

$$\tau = RC$$

$$P = I^2 R = V^2 / R$$

Ratio:

$$A_{\text{raw}}(w) / A_{\text{el}}(Q^2) = A_p$$

MACHINES + ??
=
SUCCESS

$$R = V/I = \rho l/A$$

$$\mu_0 = 4\pi \times 10^{-7} \text{ N/A}^2$$

(or T m/A)

$$qvB = mv^2/r$$

Call us today and let's work together toward your success.

KSI SWISS • 303.665.3435

The machine is only part of the equation.

KSI Swiss knows it takes more than great machines to be successful. It takes:

Partnership... What KSI Swiss is all about. We understand that there is much more to running a successful swiss machining operation than the machines themselves.

Understanding... We don't just sell the machines, we've used them too. All of us at KSI Swiss have significant backgrounds in swiss turning, and have been in this business our entire careers. We understand the complexities of the machining industry and what it takes to run a successful business. KSI is dedicated to helping your business grow rather than simply selling you machines.

Support... What sets KSI Swiss apart from the competition is our attention to customer support - to be there when you need us. Our goal is total commitment to customer service and satisfaction.

Value... By using the highest quality components available, our machines have excellent capability and durability, which translates to a better bottom line. Add competitive pricing, financing, and fanatical customer support and you've got the best value on the market.

KSI Swiss, Inc.

1815 Boxelder Street • Louisville, Colorado 80027
303.665.3435 • Fax: 303.665.8882
sales@ksiswiss.com

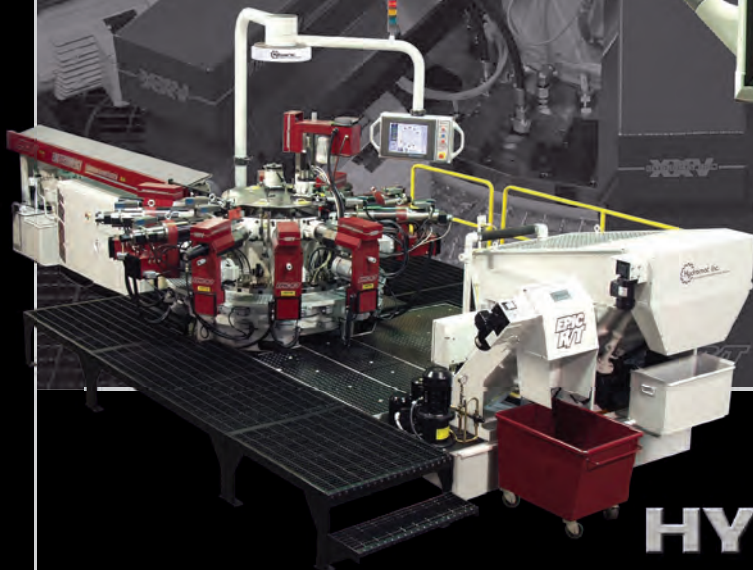


Hydromat now provides you a new way to view rotary transfer technology.



EPIC R/T

*Featuring
Embedded Motion Control*



HYDROMAT®

Always an innovator, Hydromat has added an exciting new edge to their CNC production with the EPIC R/T line of rotary transfer machines. All of the EPIC machines feature EMC Technology, Embedded Motion Control, an advancement that brings new power to Hydromat's already impressive capabilities.

Now each station has its own control system integrated into each toolspindle unit resulting in a plug & play control architecture. The by-products of this technology are substantially lower re-tooling costs and superior flexibility, with changeover times that are generally only 1-3 hours.

Set-up is simple, with standard G-Code programming the work can be done elsewhere and downloaded at the machine, or from a remote location via a network connection. The optional Esprit software bolsters your programming efforts by significantly cutting contouring program time.

All EPIC R/T units employ a linear scale for

position feedback creating a true closed loop CNC system. The Fixture Compensation feature adds an additional level of accuracy by applying individual offsets for each fixture. This impressive system has a feedback resolution of 1 micron.

Quality Control and inspection is always crucial. The EPIC R/T can identify and track specific parts, or groups of parts, and segregate them as required for offline Statistical Process Control. A full array of in-process gauging and measurement capabilities are available to keep production in tight control.

Hydromat's EPIC R/T provides the ultimate in productivity combined with unparalleled flexibility for cost competitive lean manufacturing.

With all the advanced CNC capabilities of Embedded Motion Control coupled with the legendary Hydromat design, don't you think it's time you should take a look?

www.hydromat.com

Hydromat Inc. • 11600 Adie Road • St. Louis, MO 63043
p 314.432.4644 • f 314.432.7552

Shaft

430F Stainless Steel
Cycle Time
4.1 sec



**JUNE/JULY
2005**

TMT table of contents

features

It Happened Here 44 by Jessica DuLong

The human toll when a plant dies.

A Dealer's Journal 56 by Lloyd Graff

June 10, 2005: A buy, a sell, a container and a conversation.

Beginner's eBay 66 by Jill Sevelow

A beginner's guide to selling your goods on the #1 e-commerce site.

Shop Doc 72 with Noah Graff

Our new technical advice column debuts, delivering solutions to your machinery problems.



columns/departments

From the Editor 7

Forum 9

Swarf 13 by Lloyd Graff

Book Review 21 *Conspiracy of Fools* by Jerry Levine

Fresh Stuff 29

Product Feature 38 *Wire EDM machines*

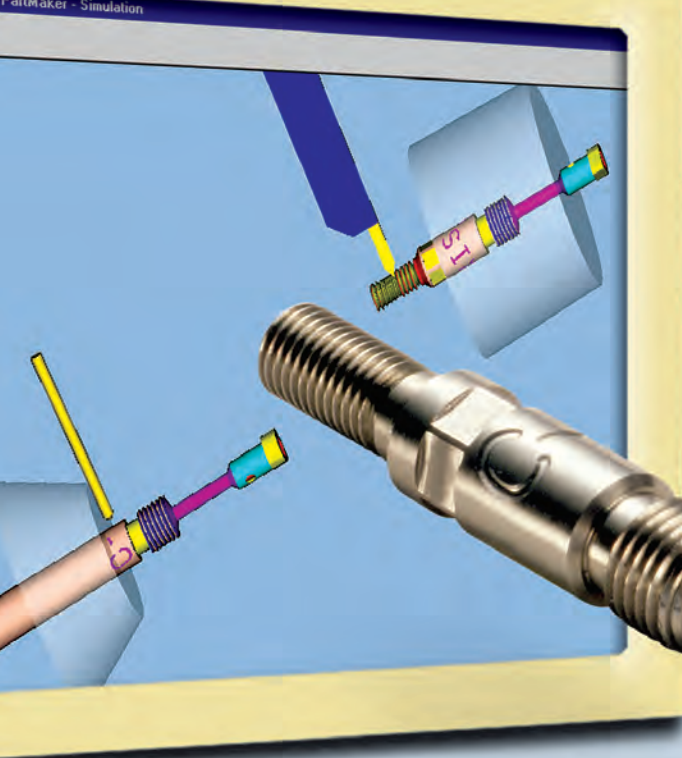
Show Us Your Ride 74 *Body Electric* by Maurice Rousseau

Puzzles 76

Classified Section 78

Ad Index 84

Afterthought 86 *The Jewish Conga* by Lloyd Graff

**PartMaker®****Swiss
CAM™**

Big or Small, PartMaker Turns 'em All

Whether making tiny parts on a CNC **Swiss-type lathe** or larger parts on a multi-axis **Turn-Mill Center**, PartMaker CAD/CAM software will help you speed CNC programming and reduce machine setup time.

- Easier programming of turning with live tooling, including C-axis, Y-axis and B-axis milling
- Point and click process synchronization and optimization
- Realistic machining simulation with automatic collision detection
- Post Processors for virtually every CNC Swiss-type lathe and Turn-Mill Center on the market

PartMaker's CAD/CAM productivity solutions:

Mill**Turn****SwissCAM™****Turn-Mill****Wire EDM**• **phone:****1-888-270-6878**• **email:****imcs@partmaker.com**• **web:****www.partmaker.com**

Journalist

Lloyd Graff

Lloyd@screwmachineworld.com

Publisher

Dan Pels

(708) 922-3493

Managing Editor

Jill Sevelow

jill@screwmachineworld.com

Advertising Sales

Stephanie Johnston

motiv8@sbcglobal.net

Web Forum Editor

Jill Sevelow

jill@screwmachineworld.com

Design and Illustration

Melani Davis & Charles Celander

DC Design

dcdesign@ameritech.net

Circulation Director

Judy Palmer

judy@screwmachineworld.com

Contributing Writers

Lloyd Graff, Noah Graff, Jessica DuLong,

Jerry Levine, Maurice Rousseau,

Jill Sevelow

TMW from the editor

The Tire Changer

I read a wonderful article in the June 16th *Wall Street Journal* about Bob Dowens, world-class tire changer. Dowens played college football at Fairleigh Dickenson University, degreed in sociology, and thought his athletic career was over when he graduated in 2001. But he had caught the eye of Ray Evernham, who had just started his own NASCAR team. Evernham was looking for jocks. "Bob was the kind of guy we look for – strong, fast, mentally tough," to become part of one of his pit crews.

Today Dowens trains five days a week under the tutelage of his pit crew coach Greg Miller, pumping iron, hitting the exercise bike, and honing his skill as a tire carrier. Dowens' job on race day is to take a 60 lb. tire, "index it" (in race lingo) from its resting position on the ground to being mounted on the racecar, in seven-tenths of a second. He is responsible for two tires per pit stop. The efficiency of his seven-person pit crew can determine the outcome of the race, which means big money to the team. Bob Dowens is well paid, over \$60,000 with bonuses, for his skill and talent as a tire changer. He considers himself a professional athlete.

The Evernham race team understands that it is vital to find talent and pay well for it to be world-class.

One of the keys to running any successful business is identifying, attracting and retaining fresh talent. Businesses easily get stale if they cannot or refuse to bring in young people who want to learn, and have the courage to ask "why."

In this issue of the magazine, Jessica DuLong, 32-years old, brings her experience as a writer, Lawrence, Massachusetts native, crewmember of a semi-retired New York fireboat, dot-com veteran and Stanford psychology grad to her piece about the human effects of the closing of the 150-year old Horne Company.

Michael Eisenwasser, container artist, did pencil drawing covers for us of Tony Maglica and Bush & Kerry for the election issue. He is a senior at the University of Illinois, and has spent enough time around machine tools to get a feel for the precision parts world.

Noah Graff does video for *Today's Machining World* and Graff-Pinkert. He started the new "Shop-Doc" feature, and frequently asks the annoying "why are we doing this?" question. He is a 25-year old University of Wisconsin grad.

Young talent. Find a place for it. Allow it to shine.

*"The Evernham
race team
understands
that it is vital
to find talent
and pay well
for it to be
world-class."*

©2005 Today's Machining World, Inc. All rights reserved. Reproduction in whole or in part without the written permission of Today's Machining World™ is prohibited. Today's Machining World is published bi-monthly by Today's Machining World, Inc., 4235 W. 166th St., Oak Forest, IL 60452.

SUBSCRIPTION/CHANGE OF ADDRESS:
BASIC SUBSCRIPTION RATE: US\$40 for domestic/
US\$55 for international.

Send address changes and/or subscription inquiries to: Today's Machining World,
P.O. Box 847, Lowell, MA 01853 or email
cmccormack@computerfulfillment.com
EDITORIAL: Send articles for editorial consideration to: Lloyd Graff, Editor.
ADVERTISING: Stephanie Johnston, Adv. Sales.
TMW, Inc., 4235 W. 166th St., Oak Forest, IL 60452.
(708) 535-2200, Fax (708) 535-0103.

CPC Publication Agreement Number 40048288

Canadian Return Address:
World Distribution Services
Station A, P.O. Box 54
Windsor, ON N9A 6J5
email: cpcreturns@wdsmail.com

Lloyd Graff
Editor/Owner

The Parts You Need When You Need Them



**The
Service
You
Expect**

AUTHORIZED DISTRIBUTORS

- Accu Trak Tool Corp.
- B&S Screw Machine Services
- Boyar Schultz (LDE)
- DT Tool Holders (Carb insert)
- Davenport
- M & M Mfg. Co.
- Quality Chaser Co.
- Schlitter Tool
- R.L. Spellman Co.
- Harding

IN STOCK AND READY TO SHIP

B&S spindle assemblies • B&S #2 & #00 windows, doors & rails • bearings • belting
• cam blanks • cams for multi spindles • carbide inserted box tools • chains •
chasers • chip carts for B&S and Acme • chip conveyors • collets, new or used • collet
tubes • cut off blades • cutting oil screens • deflector cables • die heads • die head
yokes • drill bushings • gaskets • gears • knurls • lipe pusher assemblies • pads
• pulleys • pumps • pushers, new and used • pusher tubes • rebuilt dynabrake
motors with digital timer • schematic prints • Servo Cam units • shafts • silent stock
tubes • spindles • tap bushings • timing cams • tool holders for single and multi
spindles • tubing • vibra check machine mounting pads

AMSCO

AUTOMATIC SCREW MACHINE TOOL & SUPPLY CO.

Ask for Pat Pagac or Wendell Rogers

6775 Brandt Rd., Romulus, MI 48174

800/832-6726 • 734/728-8500 • FAX 734/728-8020

Visit our Website: www.autoscrewamsco.com E-Mail: office@autoscrewamsco.com



**Over 50 Years
of Satisfying
Customers**

Well Suited

I have just read your "Afterthought" article in the May issue of *Today's Machining World* about your Dad and the suits he bought for you and Jim. My Dad had the same passion for watches, and he too bought me, and my sons, many of these over the years. Most are broken now, but I still have them. I suppose an accurate and attractive timepiece was a symbol of success during the Depression, and he held fine watches in very high regard his entire life.

Let me tell you a little story about these logo knives and my Father. My wife and I were in Florida last month, and after checking into our island rental unit late that first night, I stepped on a sliver of glass. There were no tweezers in the unit, and the last ferry had departed for the night, so there was no way to get to a drugstore. When I went to brush my teeth, I remembered that the Swiss Army knife my Dad gave me 20+ years ago (yes, he liked knives, too) that I always kept in my Dopp kit had a miniature tweezers stored inside. A minute or two later my wife had extracted the glass sliver using those tweezers, and I went happily off to bed.

It took me awhile to get to sleep, as every time I use the knife I can't help but think about my Dad, as you do when you look at your closet full of tailor-made suits. When it came time to select a logo giveaway, we decided on a knife; it's a practical item that tends to stay around for many years, but it was chosen mostly because of the memory of my Dad.

Naturally, every time I give one away, I think about him and his passion for watches, and his equal passion for people and selling. He was the

consummate salesman, and I learned everything I know about selling from him. Keep up the fine work on your excellent magazine. It is a pleasure to read.

Stephen A. Lochmoeller
Roton Products, Inc.
Kirkwood, MO

Classically Flip

As always, I enjoy reading your magazine, especially your "out-of-box" articles that take us away from the everyday business routine and worries. After all, there are some parts of our being that do separate us from, say a workhorse.

Your article about your father steered the long-forgotten memories of fancy suits and "must-wear" ties, and why "you have to look good." Reading your article, I suddenly realized that my dislike of wearing neckties started way back at "you have to look good" times. But, contrary to other long-forgotten memories, this one subconsciously has yielded the real result. Every time I have to wear a tie it takes more than a half-dozen times to twist my fingers so that everything will look right. I tried every possible substitute, such as a clip-on, zip-on and even one with elastic, but they all looked dreadful. Right after the last New Year's party, I set out to improve that. It took some time to get things right, but in the end I have succeeded in creating a tie that looks like a traditional tie, more comfortable to wear, and needs no finger-twisting.

I have taken the liberty to include one for your pleasure; it is made from woven silk by pros in USA shops, so you may wear it with pride. I hope you will enjoy wearing it as much as my customers do. If you like our



“
...every time
I use the knife
I can't help but
think about my
Dad, as you do
when you look
at your closet
full of tailor-
made suits.”

new product, please spread the news so others can enjoy it as well. The product can be purchased directly from us at www.parkerdesigntech.com, or through our eBay store "The Classy Flip Tie."

Val Parker
Parker Technology Corporation
Pittsford, NY

Dress Code

Always enjoy your articles, especially the article pertaining to your dad and the dress code he imposed upon you. Tom Sr. came from poverty in a family of nine children; his dad passed away when the oldest child was only 16. His mother somehow always made the children wear ties (jackets were too expensive) for respect, which was fleeting at best.

Tom Sr. married, and along came me, Tom Jr. Talk about self-imposed; I wore a tie everyday, from kindergarten through my senior year of high school in a tough Italian neighborhood. I can assure you I stood out, and nobody called me a "Prince." It was many years before "tailor-made" was introduced to my vocabulary.

Your article invoked many of the same memories and emotions.

Tom Gagliardi
Thomas Industries, Inc.
Guilford, CT

A PMTS Review

I have literally been traveling non-stop since seeing you (TMW staff) at PMTS. As I've told you so many times, you and your team really do such a great job injecting our industry with a

lot of much needed energy.

Also, I just read Swarf, and I have to say, your comments about PMTS were right on. I kind of left the show a little bummed with our results also. I think it was a great show for the Ohio area, but perhaps too close to IMTS to get a real national draw. The 2003 PMTS was really a blockbuster for PartMaker...it was probably better than IMTS 2002 (IMTS 2004 was a great show for our company).

In fairness, I think you may have been a little tough on the show management people. They do a very good job on PMTS. I go to a lot of shows, and compared to the AMTDA or SME, who sponsor a lot of the other machine tool shows, there is no comparison. The Gardner people are attentive and responsive to both exhibitor and attendee needs, (I don't feel the organizations mentioned above are) and the Gardner people do it with significantly less staff and budget. More than anything, I like how the Gardner people run PMTS because they restore dignity to today's Machine Tool Show...making both attendees and exhibitors feel like human beings and feel good about attending the show.

You are right about the PMTS show... the lack of growth in attendance is a big problem because it could eventually cause the show to stagnate. Here are my suggestions:

1. PMTS is sandwiched between Eastec and Westec. Realistically, Westec and Eastec need to be every other year...but I wouldn't hold your breath waiting for the SME to volunteer to make that change. And besides, even if they were every other year, they'd still be the same year as PMTS. Maybe the show should be moved to

September or October when there is less competition with these other, less focused shows, also putting it a full 12 months from IMTS. I know the complaint is that this is the same time as EMO, and that's a problem too, but not for most U.S. attendees.

I know the PMPA is big on tradition in terms of scheduling its tech conference, but if the PMPA wants PMTS to be a success, it's got to make some sacrifices. Otherwise, PMTS will always be what it has basically become: The PMPA tech conference + the Ohio state machine tool show. There's nothing wrong with this by the way; Ohio is a great state for precision turning, but we can do better.

2. You are correct; there are too many trade shows. As one of my colleagues likes to remind me, people come to a show to see what is new. I know some builders did a great job of showing new technologies and machines, but for the most part everything at the show was at IMTS, so there wasn't much "new" at the show to justify people making the trek to Columbus. Maybe putting it right after EMO can encourage builders to ship the stuff they show at EMO to PMTS?

3. Scope: Yes, Tornos, Citizen, Star, Tsugami, Maier, Hanwha, KSI, DMG and Traub were there, but that's still too niche. The lines between Swiss and turn-mill applications are blurring more and more every day. Hardinge and Miyano did a great job being there, but the other big fixed headstock builders like Mori Seiki, Nakamura, Mazak, Daewoo, Okuma and others need to be there showing new technologies.

As I review this email, I think all of the above are practical, non-"pie in the sky" suggestions, which could make

PMTS 2007 the best machine tool there is. As it stands, it's still a very good one, and a solid #2 to IMTS on every level. Hopefully we can all work together to continue to improve the show.

Hanan Fishman
PartMaker Software/IMCS Inc.
Fort Washington, PA

Director's Comments

We were delighted to see your positive comments regarding the PMTS show in the Swarf column of the May, 2005 issue of *TMW*. This was the third time that that we have co-produced this event with Gardner Management and, by virtually all accounts, it was the most successful. Booth sales for PMTS 2007 are nearly over-subscribed, an indication of optimism for our future.

Here is a typical comment from an exhibitor: "PMTS was excellent for us. It was a fraction of the length of some shows, and even smaller fraction of the price of those shows, yet PMTS yielded as many, if not more, great contacts than some of those other shows. I wish this was an annual show."

Your comment about attendance was surprising, because the quality of the attendees was there. This was not a show filled with people just kicking tires. Quality trumps quantity and, as you pointed out, the attendance of people with "buying authority" was significant.

As for "same old, same old," on this you are wrong. Champion Screw Machine Engineering, Inc., had an electrical bar feed controller for multi-spindles using proximity switches instead of air. In today's zero-defect world, nobody wants to get a short

part due to short feed out. ATAM Systems, Inc., with their process monitoring technology, also had a new development that puts process quality intelligence on today's machines. Anything that gets our industry's existing machines closer to zero ppm by eliminating a potential root case is far from "same old, same old." Thread whirling, CNC controls for multiple and single spindles and fire suppression for machines for lights-out operation were some of the "fresh material on display" at PMTS.

The OEM's did indeed show up. Several of the companies you named in your Swarf piece actually were in attendance. However, your comment misses the mission of the PMTS, which is to provide the precision machining industry with a focused exhibition of our technologies. We did not establish the show to be a job shop expo and provide a marketplace for OEM's to shop their work and get our industry to further compete amongst ourselves. The PMTS helps PMPA meet our mission of providing our members, and the industry, with what they need to remain competitive and sustainable in today's challenging global market.

Thank you for your observations and suggestions. We will be back in Columbus and look forward to an exciting PMTS 2007.

Mike Duffin
Executive Director, PMPA
Brecksville, OH

“
*This (PMTS) was
not a show filled
with people just
kicking tires. Quality
trumps quantity and,
as you pointed out,
the attendance of
people with 'buying
authority' was
significant.*”

Something on your mind? We'd love to hear it.

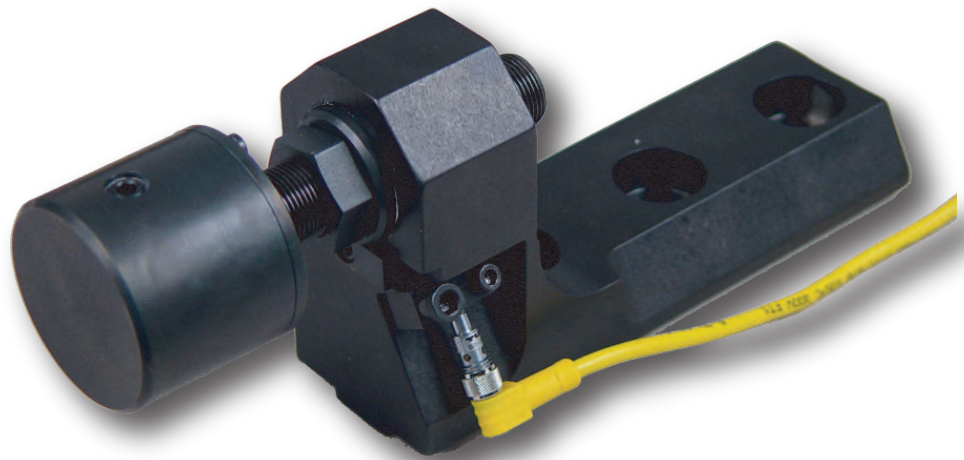
Send your comments to:
TODAY'S MACHINING WORLD
4235 W. 166th Street
Oak Forest, IL 60452

Or email us at:
jill@screwmachineworld.com
lloyd@screwmachineworld.com

New



Electronic Stock Stop Depletion



No Adjustments Ever

Champion
Screw Machine Engineering, Inc.

National Acme available now
Other applications by request

30419 Beck Road Wixom, Michigan 48393
Phone (248) 624-4545 Fax (248) 624-8722
Toll Free (800) 727-2763
www.championscrew.com

BY LLOYD GRAFF

That dirty, rusting, metal box (see cover) next to our warehouse is going to make us a fortune. You laugh.

This summer, Mike Eisenwasser will transform the ugly container into a huge piece of public art. The art will tell a story. It will tell an authentic, believable tale that every person who comes to visit Graff-Pinkert and *Today's Machining World* physically, or on the web, will experience.

My idea of converting our place of business into an art gallery, a sculpture garden, a beautiful park, has been germinating for years. Recently, the huge crowds coming to see Frank Gehry's massive public artwork in Chicago's new Millennium Park and Christo's fantastically popular work "Gates" in New York's Central Park illustrated the magnetism of fresh art done on a mega scale that begins a conversation for thousands of people who are not art esthetes.

Stef Wertheimer, the founder of Iscar, has an impressive sculpture garden on the factory grounds in Tefen, Israel. He believes that being around beautiful, creative works of art enhances the creativity of the Iscar people and sets a tone for visitors.

My belief is that every person who visits us will have a visceral reaction to the mural, to the structure, to the concept, to the sheer audacity of turning a raw container into a piece of art at a machinery warehouse.

It will provoke an initial impression in our visitors and our own people that they are coming to a special place, where people are different than at other such places they have encountered.

The big painted box will invite people to invent a story in their own minds about the environment they will be entering. Each person's story will be a little different, but I am hoping that a lot of folks will unconsciously say to themselves something like,



“My belief is that every person who visits us will have a visceral reaction to the mural, to the structure, to the concept, to the sheer audacity of turning a raw container into a piece of art at a machinery warehouse.”

Your Source For Quality Pre-Owned CNC and Swiss-Type Turning Centers

We specialize in:

Swiss-Type (sliding headstock)

Citizen, Star, Tsugami, Nomura, Tornos

CNC Turning Centers

Miyano, Mazak, Okuma, Haas, Index,
Daewoo, Eurotech, Traub, Hardinge,
Hitachi Sieki, Mori Sieki, Gildemeister

Barfeeds – Magazine & Single Tube

LNS, IEMCA, FMB, Fedek, Hardinge,
Lipe, Cucchi, SMW, Spago

Other Services

Financing, Buy, Sell, Trade, Appraise, Auctions

**We also offer most
Single and Multi-Spindle
Automatics and Rotary Transfers**

UNIVERSAL AUTOMATICS

INCORPORATED

*"Big enough to serve all your machinery needs—
small enough to appreciate your business."*

Phone: (954) 202-0063

Fax: (954) 202-0170

www.universalautomatics.com
[email:sales@universalautomatics.com](mailto:sales@universalautomatics.com)

"what a surprise that is," or "isn't that cool?" or "I wonder if anybody lives there?" or "I could do that, too," or, "these are interesting, creative people," or "this is the first machinery dealer who ever did this."

My hope and belief is that it will dramatically change the conversation for every visitor. Buying decisions, even on capital items or advertising, are shaped by impressions and then confirmed by behaviors. If we confirm and validate the initial belief through consistent, authentic actions, we will enhance our business.

So why should you care about our painted box?

Let me tell you a little story. I had a client recently interested in buying a Wickman multi. He is a bright, well-read guy, who owns a big job shop. He was talking about a key employee who had made an astute observation about gasoline prices; that they are lowest on Tuesday, Wednesday and Thursday, when demand is weakest. His comment was that his employee, who made a sizable income, would manage his gas buying to save a few pennies a week. And then he said, "He'll probably spend 50 bucks a week on margaritas."

"Are you in the business of selling gasoline or margaritas?" I asked the businessman.

I offer this vignette because I do not want to live in the "pennies per gallon" world, and I doubt if you do. I want to live in the world of authentic, creative stories, which is where the money is today. The fabulous, totally unexpected container mural-to-be keeps moving us into the fun world, where the price isn't counted in tenths posted on a big signboard.

This year we saw the last of Star Wars (very disappointing, confusing script) but next year we get to see Bar Wars. Hydromat loses the lemca franchise at the end of this year. It appears lemca will be selling direct, out of its Charlotte, North Carolina plant. LNS will be making a push to consolidate and grow its market position. I am expecting Hydromat to bring a competitive product to market to challenge lemca and LNS. Bruno Schmitter of Hydromat has kept his barloader team together. I don't know what Hydromat is going to do, but I assume they will have an outstanding challenger for LNS and lemca, and we will be seeing a three-team race.

The barloader market is a sweet spot in the CNC lathe market. A conservative guess is that the market has potentially 7500 units just in North America. This leaves room for the smaller players like Lexair, Spago and MTA, and newcomers like Bartech from Australia. But look out for Hydromat. We hear that Bruno Schmitter is not at all happy about the lemca divorce. Bar Wars—I can't wait.

Jill Sevelow, our new managing editor, attended MC Machinery Systems, Inc./Mitsubishi's open house in Wood Dale, IL in mid-June. Highlights of the open house included their tour of an EDM "museum" with older models still used to troubleshoot for existing customers, a peek at their on-site financing department for ease in sales and trade-ins, and a comprehensive overview of their newest machine on the market, the MD+PRO. Mitsubishi has fine-tuned this machine specifically for the medical market, eliminating unnecessary features to keep costs low. The MD-PRO features anti-electrolysis technology and a high-speed PM4 control, allowing for multiple parts to be machined without setting specific electrical conditions. The SL (Step Less) Control provides accuracy for finishing step shape workpieces. It comes with a full servo B-axis indexing option. The other highlight Jill mentioned? Had to be the open sushi bar.

On June 7th, H & K Machine was auctioned off in O'Fallon, Missouri, a suburb of St. Louis. The shop had been owned by Warren Kellerman for many years, and he had a huge collection of National Acmes and tooling.

Amidst the hammered 6-spindle multis was a Citizen L20 with lemca barloader, new in 2001. On the Acme front, the bottom-pickers feasted on 1" RAN-6 machines in the late 60s with threading and pickoff for \$10,000. A 1-1/4" RA-6, 1973 with threading and pickoff, fetched \$23,500, while older machines pulled \$10,000 to \$12,000. Little 7/16" RA-6 machines sold for \$2000 to \$7000, depending on age and attachments.

The Citizen was a different story. Jack Steuby of John J. Steuby Co. bid \$160,000 plus a 10% buyer's premium. This is 75% of the new price, which is surprising, because Citizen is coming out with a faster, more sophisticated machine very soon. The price is a testament to Citizen's stature in the resale market.



**TURNING
BORING
THREADING
GROOVING
BACK TURNING
FRONT TURNING
HIGH SHEAR**

**AND EVEN
CUT-OFF!**

**Go Ahead
We Can Take It.**

If you're tired of poor metal cutting performance from your present engineered products, get the ETCO advantage. Our full line of **Mini Shank Tooling and Indexable Inserts** (*with zero radius a standard*) have the edge to outperform all others. We stock a complete inventory of qualified Tool Holders and Inserts for **Swiss Style Screw Machines** such as **Tornos, Citizen, Star, Nomura, Tsugami, Hardinge** and more.

If that doesn't cut it, our top quality **Medical Grade and Custom Grinding** capabilities will meet your exact specifications. That will improve any bottom line.

ENGINEERED TOOLING CORP.
57 Grant St., Waltham, MA 02451
781/788-8888
Fax: 781/736-1987
www.etcotooling.com



On June 22, Premier Auction sold the assets of Pan American Metal Products of Miami. Rex Magagnotti attended the auction. He reports that some people who attended the event were upset when the auctioneer put up the 1-1/4" RA-6 National Acmes, could not get a \$10,000 bid, and then chose to "pass" them, meaning not take a lower bid. People in the crowd cried fowl. They were angry that they had stayed the whole day in the sweltering heat and were ultimately deprived of a chance to buy machines at a "fair" price.

Truth is, auctions are usually not "fair." Auctions are big-time sports events without referees and commissioners. There is no appeals process. If you have the audacity to go to an auction, you play by the auctioneer's rules – written or unwritten. It is an unregulated free-for-all. The auctioneer is often selling for his own account (he owns the deal) or is sharing the proceeds with the seller. Even if he does not have an interest in the sale, his commission is tied to the selling price because the buyer's premium is calculated as a percentage of the hammer price.

Auctions are not about being "fair." They are about winning and making money. Not so different from Vegas or cockfighting. The obvious and sometimes obnoxious practices of

auctioneers have pushed a lot of buyers to the more benign eBay sales.

The eBay auctions tend to be transparent, though chicanery is certainly possible on the site. eBay continually struggles with fraudulent hucksters who deceive the buyers, or use devious schemes like "second chance opportunities" to dupe unsuspecting bidders.

I believe the traditional machinery auctions have lost favor in recent years because some auctioneers (not all) have brazenly abused their customers. Auctions are arduous and tedious events. Many buyers figure they do not need to endure the misery for the privilege of buying dirty machines with no guarantees, which must then be loaded by balky riggers. The auctions are made for the "professionals," either seasoned, wily, cautious users or dealers who think they know what they are doing.

I must admit that I still love machinery auctions. To me they are social events and superb educational experiences. For buying shelving and granite surface plates they are bargain fests. For buying machines to put into service – roulette.

* * *



The interest rate on the 10-year bond is behaving like a stubborn middle child. It rarely does what its supposed to do.

The 10-year is really important, because most long-term mortgages are directly tied to it. It has been hanging around 4% for several months, defying the predictions of many "masters of the universe" on Wall Street, and irritating the brilliant hedge fundsters and prescient economists, who are so important in our lives.

With short-term rates tripling in 18 months, why has the 10-year interest rate gone down to 4%? If the Fed is so worried about inflation, with \$55 oil, enormous trade deficits with China, huge Federal budget deficits, weak dollar vs. euro and the Red Sox winning the World Series, why do the markets push down 10-year interest rates?

Of course, I don't really know why, but I am a shrewd guesser. Try these ideas out:

- 1) China really likes our bonds. The Chinese have lots and lots of dollars. The U.S. is China's best customer by far. Business is good for the Chinese. You might as well keep doing what's working. A good American company, anchored by a strong real estate market means Home Depot and Wal-Mart sell a lot of Chinese fans and router

bits. From the Chinese and Korean and Japanese points of view, the cheap 10-year and the hot cash register are wonderful things.

- 2) Corporations are sitting on a ton of cash. Look at Merck and Phillip Morris (excuse me, Altria). They are hoarding cash to fight lawsuits not to make more Vioxx and Marlboros. Corporate America is riddled with accountants who would rather squeeze than build. So they give their money to risk-averse treasurers who employ risk-averse money managers who buy 10-year bonds.
- 3) Baby boomers are saving big for retirement. They got killed in the stock market, post-bubble, and are damn sure they aren't going to make the same mistake again. Ah, there is always the good old 10-year to park the money.
- 4) America still looks good to the oil sheiks and even the Europeans. They may hate "W," but they have a lot of money to recycle. Do they really want to invest in France or Germany with 10% unemployment being led by Mr. Dumb and Mr. Dumberer, Chirac and Schröder? – you name the order.

BUILT 4 PRODUCTIVITY



THE 2005 SL-20 LATHE W/SERVO BAR 300

So real estate prices in New York, Boston, L.A. and Miami are nuts, but in Maquoketa, Iowa, Elmira, New York and Hibbing, Minnesota, you can still afford a nice three-bedroom, thanks to 5% mortgage money and those fortuitous Chinese ceiling fan builders.

* * *

The popular press seems to be obsessed by "the housing bubble." Robert J. Shiller has just published a new book predicting a housing price collapse. Shiller predicted the stock market collapse in 1999, so he has "bubble" credentials.

When cocktail party and barbershop talk is about housing prices and condo speculation, which is starting to be the case, it is certainly time to consider the possibility that the sky will soon fall. A housing market debacle would not be good for business, although perversely, it could bring some money back to the stock market. Construction and refurbishing is a major user of precision-machined parts, (think Caterpillar, Kohler and Whirlpool) so we need to anticipate housing health or disease.

Housing, like politics, is local. Palo Alto, California, Greenwich, Connecticut and Boca Raton, Florida are

significantly different markets than Dyersville, Iowa, Minot, South Dakota and Kalkaska, Michigan. Palo Alto will always command a premium over Dyersville because of climate and Stanford University. A three-bedroom 1200 square foot house in Palo Alto sells for \$1,200,000. The same house on a nice street in Dyersville is lucky to bring \$120,000. Does that mean that Palo Alto is a bubble waiting to burst? Not necessarily. Housing is worth what people are willing to pay for it. And that is what concerns me about the Palo Altos.

My daughter lives in Palo Alto, one of the most expensive housing markets in the world. She rents a three-bedroom house for half of what the mortgage payment would be. Several homes on her block are also rented out. If the owners are getting fair market rentals, this indicates that the current economic value of the homes is half of what people are paying to purchase. This smacks of a spectacular bubble to me, because it assumes a greater fool will come along to take the owner out at a profit to compensate for overpayment on monthly mortgage payments.

But I don't think this is happening in Dyersville, Minot or Olympia Fields, Illinois where I live. Some shrewd people are probably now selling their homes in Los Angeles and New York and moving to Dyersville and Minot and banking

unusual parts.

(And 122,556 standard item numbers too)



DETROIT AUTOMATIC TOOLING

The world's largest stock of threading equipment.

tel: (800)328-6424 fax: (888)942-2740 www.detroitautomatic.com

DAT. We got that.

the profit. They are also playing the bubble game.

To the question of the housing bubble, my opinion is that the bubble remains intact as long as mortgage interest rates are under 6.5% and business confidence remains somewhat optimistic. If I knew how long this would last, I'd be speculating too, but I think I'll know when it is bursting. (I think I said that about the NASDAQ in '99). It will burst when the Chinese stop buying our ten-year bonds and floating our debt. Will that be 2006, 2008, 2014? Don't know, but it certainly could happen in the next three to seven years.

In the interim, I'd check out that fixer-upper in the best neighborhood in Minot.

The lead article in the June 22nd Wall Street Journal was about eBay's struggle to grow the business as they get more competition from smaller, specialized competitors. One of those niche sellers is woot.com.

Woot.com sells only one item per day, in limited quantity, beginning at midnight. Their specialty is computer and electronic stuff. They set an attractive price on their fun website, and then let the excitement happen. They usually sell out, sometimes in

three minutes, and have developed a real buzz.

I like Woot's approach. They bring flair that makes eBay look vanilla.

I'm walking with a spring in my step these days. I bought some crazy-looking new shoes recently called Z-Coils, which have powerful coiled springs in the heels. They were developed by a marathoner in Albuquerque who suffered from heel spurs. He believed that a spring action, which cushions and elevates the heel, would reduce shock and improve leg, knee and lower back health. My preliminary opinion is that the shoe works. It feels strange at first, but seems to have had a positive effect on my knees and feet.

The same store sold a device called "Jigglin George." You lie down flat and place your feet in a cradle which "jiggles your feet" in a fish tale-like movement. The company claims that the machine improves the symptoms of neuropathy in the legs, which plagues many diabetics. My wife Risa and son Noah tried it for eight minutes and found it profoundly relaxing. The concept makes sense if you have ever experienced a well-done reflexology foot massage. They have a website if you are interested —www.jigglinggeorge.com.

TMW



CJWinter® Thread Rolls!

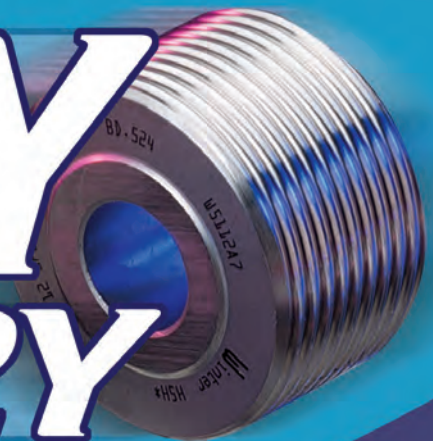
FAST!



***2-DAY
DELIVERY***

1-800-288-ROLL (7655)

www.cjwinter.com



The Big Crooked W

By Jerry Levine

In early 2000, *Fortune Magazine* selected Enron as the best managed, most innovative company in America. That summer, Enron's stock market value soared to \$73 billion. Year 2000 revenues at \$100 billion doubled 1999, and in October 2001 full year earnings were projected to be up 26% over 2000.

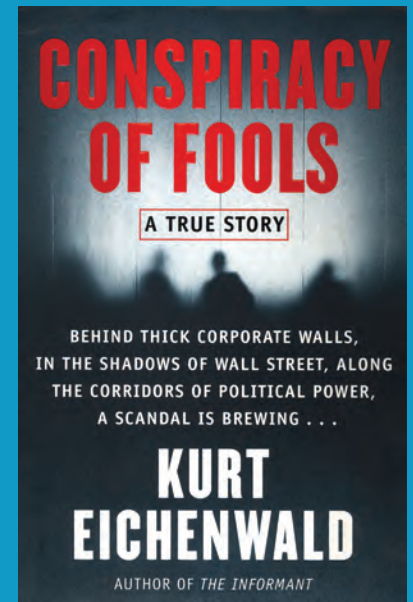
Six weeks later Enron filed for bankruptcy! Investors lost billions. Employees lost their 401(k) and pension benefits. Enron's bankers were stiffed, and their accountant, Arthur Andersen, soon ceased to exist.

Along the way, Enron had rigged the California electricity market, cheated consumers, and nearly bankrupted the local utilities. CFO Andy Fastow and his crooked accomplices established phony off-book entities to deceive investors about Enron's finances, while simultaneously lining their own pockets. Fastow and his assistant, Michael Koppers, embezzled about \$100 million. Several others with the company also received millions of dollars in illegal payments.

How could this have gone on for so long? Who were the villains? How were they able to operate undetected? Were there any good guys? Answers to these and other questions are given in Kurt Eichenwald's riveting book "*Conspiracy of Fools*." Eichenwald is a business reporter for the New York Times, who also gives considerable credit to reporters from the *Wall Street*

Journal and *Fortune* for exposing the corruption at Enron. The book is long, but flows easily through a series of short, chronologically arranged vignettes, covering several different story lines and reading like a spy novel. There's also another new Enron book on the market, "*The Smartest Guys in the Room*" by *Fortune* reporters Bethany McLean and Peter Elkind. Their book has recently been made into a movie, and is very consistent with Eichenwald's description.

Enron CEO Ken Lay, friend of the past three U.S. presidents, comes off as a doting grandfather who let a bunch of spoiled kids run wild, spending billions with almost no controls, while he's off glad-handing Houston's moneyed society. Even though he's a Ph.D. economist, he never quite got the fact that the books were cooked – never seeming to notice all the hectic maneuvering to make numbers just ahead of reporting periods. He barely blinked when Fastow's off-book partnerships, which traded with Enron (an obvious conflict of interest), were presented for board approval. And the Board of Directors rubberstamped them! Lay's naiveté is so apparent that one wonders how he could have gone so far in life. His love for Enron was such that, near the end, in an attempt to save the company by merging with Dynegy, he passed up a \$60 million bonus. He also hung on to the bulk of his Enron stock, riding it all the way down to nothing. These facts alone



“The book is long, but flows easily through a series of short, chronologically arranged vignettes, covering several different story lines and reading like a spy novel.”

“
*The news media
 found him guilty and
 public opinion is
 clearly against him,
 but Eichenwald, in all
 his 700 pages never
 presents any smoking
 gun—as he does over
 and over with all the
 other villains.*”

(and others pointed out by Eichenwald) give some credibility to Lay's claims of not having been in the loop when trouble was afoot. The news media found him guilty and public opinion is clearly against him, but Eichenwald, in all his 700 pages, never presents any smoking gun – as he does over and over with all the other villains.

Far more culpable was Jeff Skilling, whom Lay hired away from McKinsey after Skilling presented Enron with a great idea to become a Natural Gas Bank, matching long-term suppliers and users and being paid for assuming the price risk. He then devised strategies to hedge the risk and trade

the cash flows, and moved Enron from being a company of hard assets – pipelines and oilrigs – to one which creatively managed risk.

Skilling worked hard to get the SEC to approve a shift in their accounting method, from the old oil and gas rules to mark-to-market, a method commonly used by trading houses to show unrealized gains when their stock portfolio increases in value. While this change may be understandable only in the arcane green eyeshade world of accountants, it allowed Enron to book as revenues in the current year all future cash flows from a long term (20-year) gas supply contract. This greatly increased Enron's reported revenues and profits – boosting its stock. Of course, another unmentioned side effect was to greatly enhance Skilling's company bonus.

One step further down the food chain was Skilling's lieutenant, Andy Fastow, hired away from Continental Bank in Chicago. Fastow had a record as an innovative financier. Shortly after arriving at Enron, he learned that investments could be treated as off-book if outside investors put up as little as 3% of the money and the outsiders make all the business decisions.

Over time, Fastow set up several off-book entities (generally with Star Wars related names), which did business with Enron. Enron put up 97% of the money, but had no decision making power. Fastow and the other investors put up 3%, or in the case of the “Kochina Doll” deal, 3% of 3%, but controlled all of the money. Fastow negotiated with himself and paid himself handsome management fees, as well as an outrageous return on his initial investment. Enron's investment was usually its own stock, and things went fine, as long as the stock price went up. The off-book entities were generally designed to hedge Enron's

risk on the mark-to-market accounting deals, but by using Enron's money to hedge Enron's risk, there was no hedge. It was like selling yourself insurance. In the process, Fastow and his associates skimmed around of \$100 million for themselves.

A basic problem with mark-to-market accounting is that, while Enron's accounting showed big profits, the company was generating much less real cash flow. To generate cash, Enron borrowed money, but illegally secretly kept the loans off book. They also issued new stock, which was easy in the 1990s, especially with Enron's falsely reported high earnings growth. At the time of their demise, Enron reported \$12 billion of debt on their official balance sheet, but had another \$24 billion hidden from the public in the off-book entities.

Skilling knew the basics of what Fastow was doing (including the skimming) and encouraged him. However, Eichenwald doubts he realized the extent of the fraud. It should also be recognized that most of the government's case against Skilling had nothing to do with Fastow. The allegations were spread across a wide range of Enron's businesses. Skilling was charged with manipulating earnings in 2000 and 2001 relative to the California trading, disguising losses in retail electricity and lying to investors about Enron's broadband prospects and technology.

To stifle what should have been outside ethical opposition, Fastow bullied its auditors, Arthur Andersen, to remove uncooperative accountants from the account and install compliant ones. He also bullied reluctant bankers and brokerage houses that did not give Enron stock stellar evaluations.

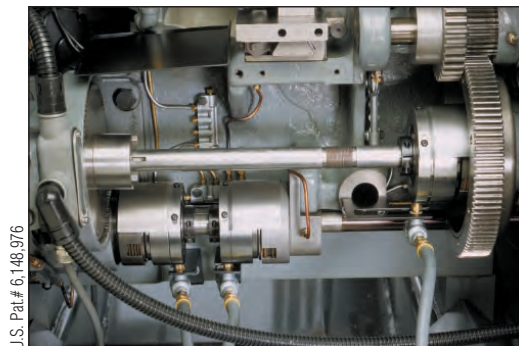
Which brings us to the outside professionals' collective level of

New!

Logan Hi-Lo Retrokits - NOW BETTER THAN EVER!

Hi-Lo Retrokit Features:

- Replaces mechanical clutches, roll clutch, band brake and linkages with fast acting air-actuated Logan Clutches
- Positive crisp Logan Clutch engagement - Guarantees cycle time repeatability
- Simplifies clutch maintenance - No disc pack adjustment or slippage
- Quick Stop Power applied brake - Prevents machine coasting
- Ideal for bar loader applications



U.S. Pat.# 6,148,976

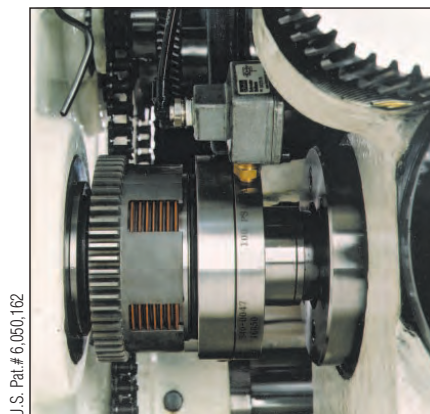
For Model B Davenport



New! Roll Clutch Removal Option

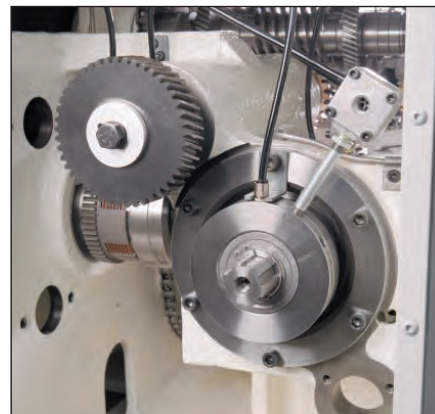
Savings:

- Increase productivity from 10-20%
- Tools can be positioned closer to the work piece due to repeatable high and low speed clutch engagement
- Better machine utilization - More productivity from existing machines, operators and floor space



U.S. Pat.# 6,050,162

For New Britains; High speed Conversion Kit - no slippage!



New! Roll Clutch Removal Feature

So you think you need more production capacity?

Logan Hi-Lo Retrokits increase your existing screw machines daily and weekly output from 10-20%, leaving you room for additional capacity and productivity.

Positive, fast acting Logan Clutch engagement allows your screw machine to change speeds much faster than conventional mechanical clutch methods

Reduce cycle time dramatically. Position tools closer to the work piece due to repeatable high and low speed clutch engagement.



For Acme-Gridleys - Increase productivity 10%-20%

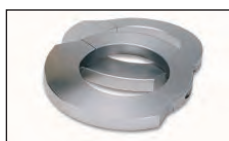
FIELD SERVICE AVAILABLE!

Call today for your Free Logan Hi-Lo Retrokit and Indexer justification worksheet or check us out on the Web at:

www.loganclutch.com



Hi-Lo Retrokits Controlled By:



1. Cams and Limit Switches



2. CS 2001XT8 or XT16 microprocessor control



3. CS 2001 microprocessor control

Logan Clutch Corporation®
Productivity enhancements
for the screw machine industry.

28855 Ranney Parkway, Cleveland, OH 44145
PHONE 440.808.4258 • FAX 440.808.0003
800.5.CLUTCH or 800.525.8824 • sales@loganclutch.com

culpability: Andersen wanted Enron's lucrative consulting business, the bankers wanted to be cut in on the next loan to one of the off-book entities, and the brokerages wanted in on the next stock offering. In the go-go

90s, everyone went along, as long as the money kept rolling in.

Enron typified an attitude that became a problem for many U.S. corporations. What Alan Greenspan labeled "irrational

exuberance" took over, and no moral compass seemed to exist. A business by hook or crook needed to meet or slightly exceed its quarterly numbers to push the stock price up. If the stock went up, the executives' stock options paid out handsomely – often far more than their salaries. All the watchdogs – the accountants, the bankers, even the lawyers – were silent, because they depended on the gravy train.

Finally, the bubble burst. To date, thirty people associated with Enron have been indicted. Many have either plea bargained or been convicted, and several have already gone to jail. Others are awaiting sentencing. There was one suicide. The SEC has fined companies like J.P. Morgan Chase, Merrill Lynch and Citigroup hundreds of millions of dollars for Enron-related frauds.

Ken Lay was indicted last July and lumped in with Skilling and Causey, but his case was markedly different. Lay was not charged with knowledge of Fastow's activities or the earnings manipulations. His case focused on what he said in the final weeks before Enron's bankruptcy. His expressions of confidence in the company were untrue and illegal under SEC rules. Lay has also been charged with lying to the banks that lent him personal money. Lay, like Skilling, has entered a not guilty plea. He accepted responsibility for what happened at Enron, but added that did not mean he committed a crime.

Fastow and his wife, Lea, both pled guilty to fraud and tax evasion, and were sentenced to 10 and 1-year sentences respectively. At the time of this writing, the courts are reviewing Lea Fastow's verdict, with a view to make it tougher. Jeff Skilling, along with Rick Causey, head of Enron's accounting, have been charged with manipulating earnings. Altogether the charges against Skilling could bring over 300 years in prison. Skilling and Causey are both awaiting trial.



Multi-Task Machining to the Max.

“Multiple turrets. Multiple spindles. Using them efficiently can be a programmer's worst nightmare. But it doesn't have to be, not if you use GibbsCAM.

GibbsCAM MTM™ allows you to maximize your multi-task machine tool's performance, optimizing tool synchronization and spindle transfers through an intuitive, easy-to-use graphical user interface.

Is your multi-task machine tool performing at its best? Contact us and we'll show you how it can with GibbsCAM, the industry's ease-of-use leader.”

GibbsCAM®
Powerfully Simple. Simply Powerful.®

Gibbs and Associates
323 Science Drive, Moorpark, CA 93021
1-800-654-9399
<http://tmw.GibbsCAM.com>

CNC programming solutions for:

- 2- & 2 1/2-Axis Milling
- 2-Axis Turning
- Mill/Turn
- Rotary Milling
- 4th- & 5th-Axis Advanced Milling
- 3-Axis Multi-Surface and Solid Machining
- Solid Modeling and Machining
- Multi-Task Machining
- Wire-EDM

David Duncan, Andersen's executive on the Enron account, agreed to plead guilty to one count of obstruction of justice (for the massive shredding of documents), and to serve as the chief witness against his former employer. The indictment led to Andersen's demise, as clients fled, unwilling to allow a firm charged with a crime to serve as their watchdog. Interestingly, Andersen was already under SEC scrutiny after faulty oversight of Waste Management, another client. The final shoe dropped a short time later when another Andersen client, WorldCom, announced discovery of its own multi-

billion dollar accounting fraud.

Others indicted include six executives from Merrill and Enron, five of whom have been convicted in a corrupt scheme to sell Nigerian barges. Three electricity traders in California have pled guilty to manipulating electricity prices. Some politicians jumped on these traders as proof that the California energy crisis was caused solely by manipulation – an argument Eichenwald says is dismissed by reputable economists, who consider trading abuses a contributing factor, but say the major problem was a

shortage of supply. California, for too long, had blocked new electric power construction as demand grew and grew.

If there's any moral to be gained from this story, it might be learned in the case of Richard Kinder, Enron's one-time president, who was seen as too bland, and was forced out to make room for Skilling. Kinder, now a billionaire, transformed Kinder Morgan, the small energy company he co-founded, into a steadier, more reliable company than Enron ever was. Eichenwald implies that he "made his money the old fashioned way." **TMW**

***From our shelves
To your machine...***

We are a stocking distributor for:



***CJ Winter, Davenport, Empire Tools, Excel Screw, Hardinge,
Logan, Mistequay (TSD), Quality Chaser, RoyEL, Schlitter,
Setter Tools, Somma, Trusty Cook
(and a supplier for many more vendors you know and trust!)***

***National Acme,
Conomatic, Davenport, Brown &
Sharpe, New Britain and more***

Shorty's Tooling & Equipment, Inc.
7531 Holland Rd., Taylor, MI 48180 USA
800-443-6666 (313) 291-4524 (fax)
www.shortystooling.com
info@shortystooling.com



***Quality
Service for
over
35 years!***

125 YEARS



A step ahead

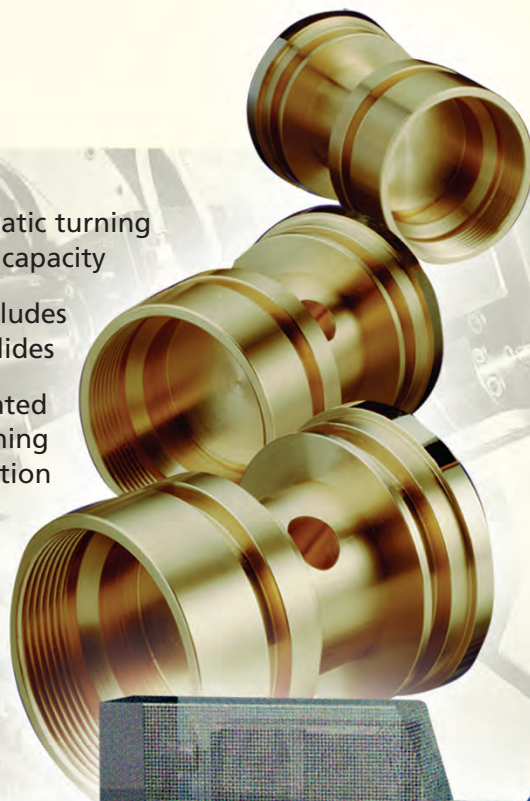
New 8-spindle CNC automatic turning machine with 36mm capacity

Precision with flexibility includes up to 20 CNC tool slides

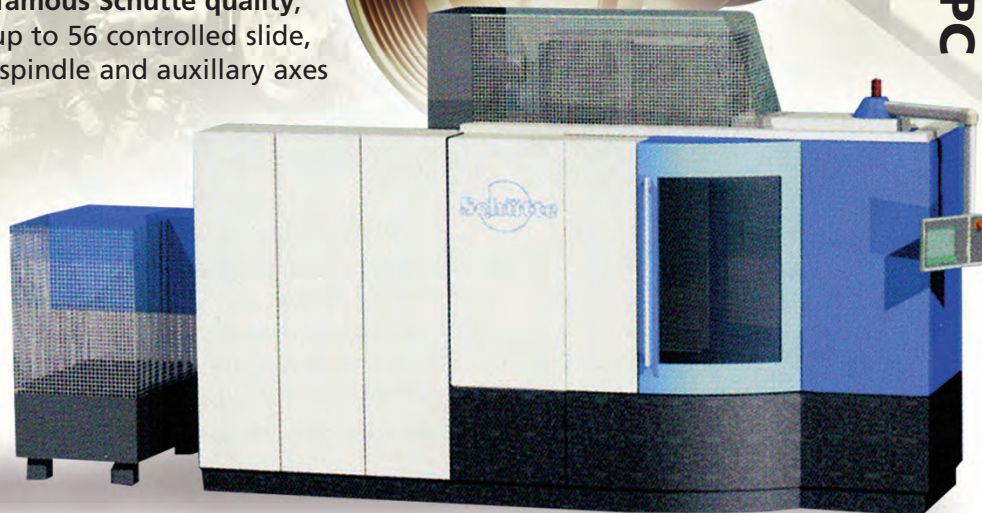
Unique twin pick-offs, located side-by-side, allow backfinishing simultaneously in each position

Reduces cycle times, works on difficult materials, even does off-center drilling, threading and milling

With famous Schütte quality, managing up to 56 controlled slide, spindle and auxiliary axes



A 36 PC



AN 8-SPINDLE COST-EFFECTIVE CNC AUTOMATIC FOR COMPLEX, HIGH-QUALITY TURNED PARTS

SCHÜTTE MSA, L.L.C. • 4055 Morrill Road • Jackson, MI 49201
517.782.3600 • Fax: 517.782.3363 • E-mail: info@schuttemsa.com • www.schuttemsa.com

AND *STILL* THE BENCHMARK FOR PRECISION TURNING



A step ahead

New 6-spindle CNC automatic
turning machine with 36mm capacity

Precision with flexibility includes
up to 40 CNC axes

Camless electronic control system
with Windows® 2000-based
software

Direct position feedback
system has a resolution of
0.1 μm

Modem-equipped for
telephone diagnosis

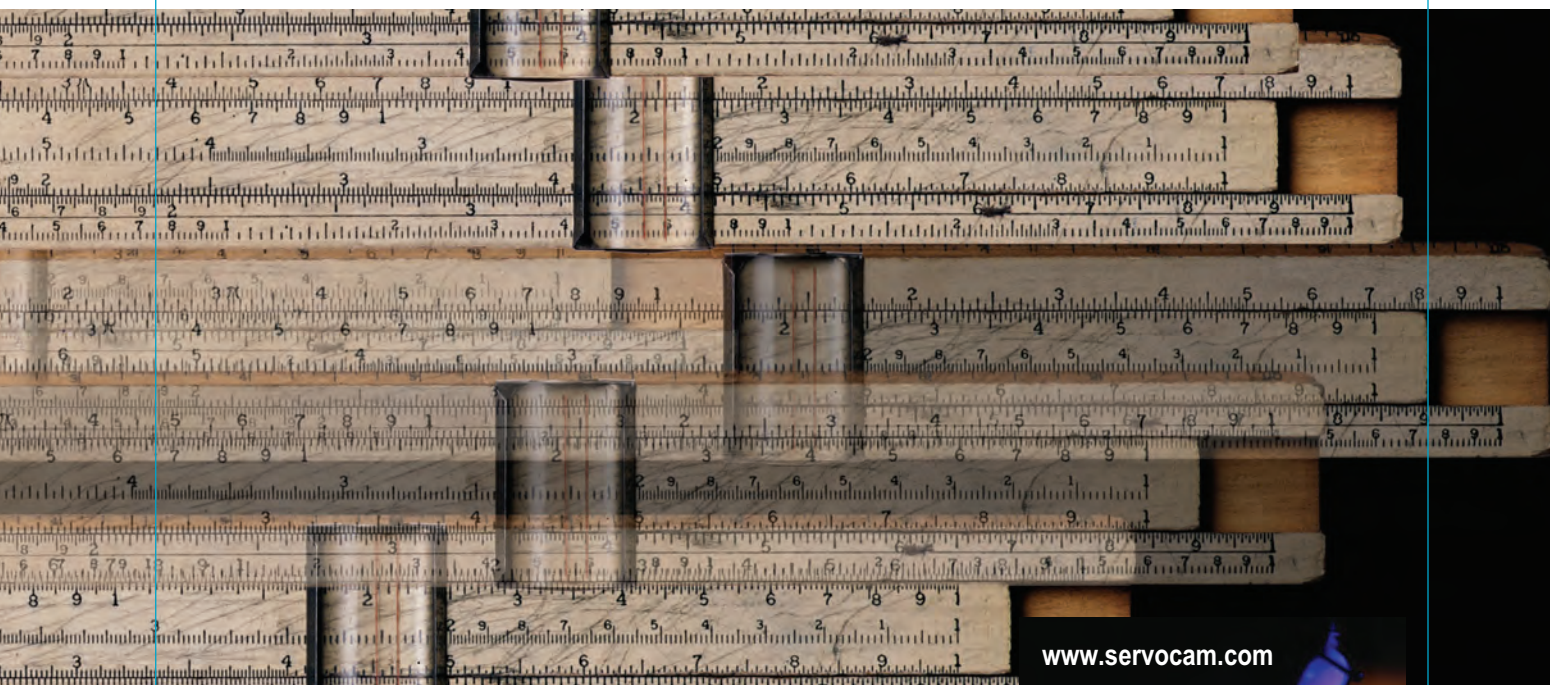


S 36 PC

A MULTI-SPINDLE AUTOMATIC THAT OFFERS THE LATEST FEATURES SUCH AS 36 MM CAPACITY, WINDOWS® SOFTWARE AND DIGITAL DRIVES

SCHÜTTE MSA, L.L.C. • 4055 Morrill Road • Jackson, MI 49201
517.782.3600 • Fax: 517.782.3363 • E-mail: info@schuttemsa.com • www.schuttemsa.com

Announcing Our New ServoCam® UltraTurn™ ...



www.servocam.com

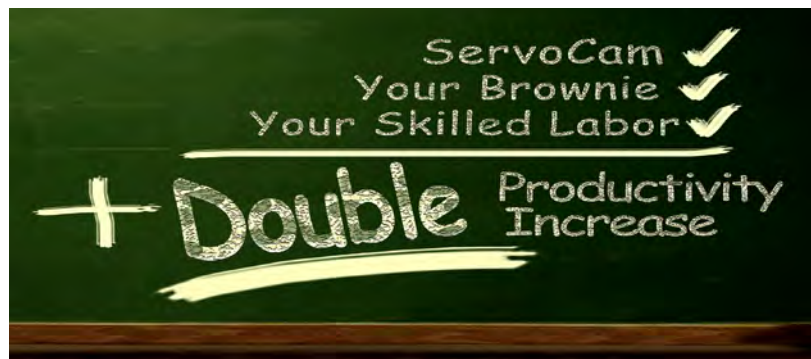
now no reason to think twice.

The New ServoCam® UltraTurn™...

It cuts parts faster than a cam automatic. It sets up in minutes. It's a CNC screw machine, at about half the cost of new iron. It is built on the highly-evolved iron of any Brown & Sharpe® Ultramatic, and mated with a state-of-the-art ServoNet™ modular CNC control system.

Our focus is on providing affordable automation with intuitive user interfaces. At AMT we believe that computer software should think like you do – not the other way around. And our modular product designs let you choose the level of automation that makes sense for your business right now – without limiting your options in the future.

Many shops have doubled their production with our ServoCam® upgrades – using half the setup labor. With results like that, what more is there to think about? *Give us a call today.*



...thinking it through.

Unbeaten Support

- Software and control-system service and support from AMT Machine Systems Ltd.
- All ServoCam® systems include a 2-year, limited warranty for hardware and software
- Mechanical parts & service from the extensive Brown & Sharpe service network.

 **amt** machine systems, ltd.

1760 Zollinger Road, Columbus, Ohio 43221
614-451-3366 614-538-0959 fax

PMPA
Precision Machined Products Association

TMW fresh stuff

MITSUI SEIKI has unveiled its latest 5-axis vertical CNC machining center. Named the "Vertex 550-5X," this machine has a new casting design, which provides an ultra rigid machine structure. A unique gear drive system for the A and C rotary axes provides high speed radial performance (A – 30 rpm; C- 50 rpm), and overall drive system stiffness. The trunnion tilt axis, A, now has an ample dual side support construction bolstering rigidity even more. The linear axes move the spindle only. The motion of the workpiece is by the rotary axes only, offering improved control of machine dynamics.

Specifications of the Vertex 550-5X include a compact footprint of about 7 feet wide by 11 feet long (2,000 mm x 3,300 mm). The X, Y, Z-axes work envelope is 21.6 inches x 23.6 inches x 17.7 inches (550 mm x 600 mm x 450 mm). All three move quickly at 1,890 ipm. With the A and C rotary and tilt axes, the Vertex 550-5X provides a total of 5 integrated axes of motion. The machine also features a new control, the Fanuc 31i, with enhanced features for precision high-speed 5-axis applications.

The Vertex 550-5X's geometric accuracy is carefully monitored in a tight temperature-controlled factory environment. The machine features a bed design that allows large part capacities with a small floor space requirement. The linear guides way mounting surfaces, both linear and rotary, are hand-scraped.

For more information, contact Mitsui Seiki USA, Inc., (201) 337-1300, or visit the company online at www.mitsuiiseiki.com.



Each month
TMW brings
you a look
at the latest
products
hitting the
market.

PIETRO CUCCHI AMERICA has unveiled the “ONE,” a revolutionary new single spindle bar feeder for CNC fixed headstock and Swiss type lathes. The new design synchronizes the bar pusher with the moving headstock, which eliminates any mechanical connection between them, utilizing a linear encoder and a brushless motor. This solution also eliminates the need of a lathe stock stop, thus reducing machining cycle time.



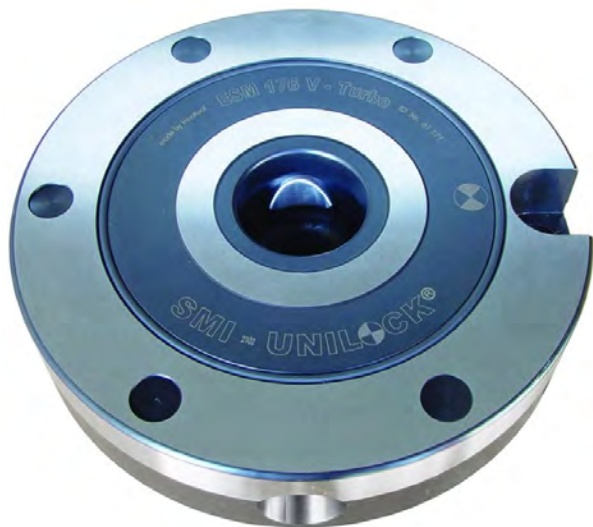
The latest bar centering devices include an automatic spring bushing inside the spindle and a fork centering device along the bar guide, which provides a greater control of the vibrations generated by the bar stock spinning at a high rpm.

This design allows an operator to run a wide range of bar stock diameter without replacing the bar guides, resulting in a quick change over time from job to job and a more economical operating cost. Pietro Cucchi's “ONE” is available for 12 feet bar length and up to 1 5/8 inch in diameter.

For more information, contact Pietro Cucchi America, Inc. at (847) 718-1818, or visit the company online at www.pietrocucchi.com.

A new, large Unilock Model 176 quick change clamping chuck features an expanded diameter to provide additional clamping surface, making it very adaptable to user applications in custom fixture designs and excellent for high torque, rotary table and heavy-duty applications, **BIG KAISER PRECISION TOOLING** has announced.

Model 176's large Z reference plane (176 mm or 6.93") accepts standard SB 40 mm clamping knobs and easily integrates into base plates and custom fixtures. BIG Kaiser offers an optional turbo boost for heavy-duty applications and optional reference pin features for mono applications. The unique notch in the chuck allows the customer a choice of a 25-mm pin or key to orient the fixture.



The system standard Unilock 40 mm clamping knob can be attached directly to work pieces or fixtures with up to a 16-mm thread. The spring-based mechanical clamping system of the Model 176 supports an air boost system to increase clamping force by up to 30% over spring retention alone, allowing for an increase in the retention thread size.

For further information, contact BIG Kaiser at (847) 228-7660, email BIG at kaiser@bigkaiser.com, or contact the BIG Kaiser tool distributor in your area.

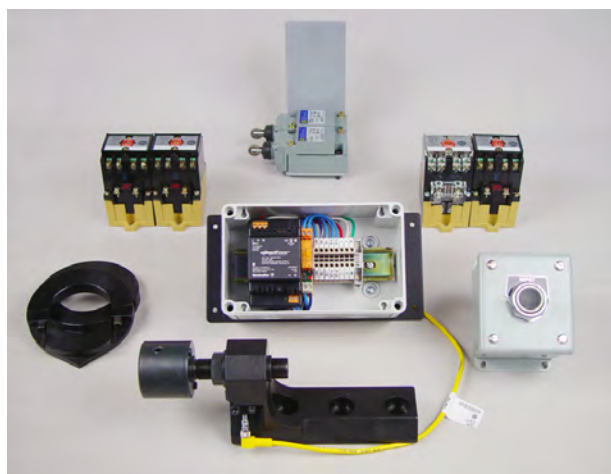
CHAMPION SCREW MACHINE ENGINEERING, INC., of Wixom, Michigan, is offering a new electric stock depletion detection unit for Acme Gridley screw machines. This new design incorporates a stock stop, a proximity switch, and a simplified design to provide reliable and repeatable detection of short bar feeds.

Unlike the old pneumatic units, the Lectronic is designed to operate without adjustments. The simplified design also eliminates the numerous small internal components used in the old air unit. These changes will be appreciated by any set-up man, operator, or repairman who has ever had to decide between low production, or disabling the air unit in order to run the machine.

Machines currently equipped with pneumatic stock stops are easily converted to the new design, requiring only the electric stop, a control box, and one additional relay. Machines can be fitted from scratch, but will require the addition of an air feed knock out cylinder and an operating rod.

Units are currently available for the 1"RA-6, ¾ RA-8, 1-1/4RA-6, 1-1/4 RB-8, and 1-5/8 RB-8 Acmes, and additional models are being developed.

For further information contact Champion at (800) 727-2763 or visit their website at www.championscrew.com.



The WM (Wheel Machine) series of CNC vertical machining centers from **CHIRON** feature a new quick-change fixture. "It's a quick 4-step process," says Zip Lancaster, Wheel Machine Specialist. "Radial clamp arms and spring-loaded pins have replaced time-consuming screws. Now positioning is always accurate when changing the different wheel sizes." Furthermore, the new cylinder bracket design provides additional robot clearance. A built-in fixture blow-off device keeps the area chip free, which is particularly important in highly automatic working environments. "These new features are automation and productivity enhancements to an already very fast machine series," says Mr. Lancaster. Contributing to speed is the CHIRON patented tool changer offering the advantage of a chip-to-chip time of 2.1 seconds.

There are two machines in the WM series – WM 05 and WM 08. The primary difference is wheel size accommodation. The WM 05 accepts alloy wheels with 14 – 20 inch diameters. The WM 08 is for wheels from 14 – 24 inches. Lug and valve holes are drilled from the front and rear in one chucking, saving time and improving quality. A rotating trunnion fixture swivels 360 degrees.

The WM series are designed for manufacturing as cells with other machine tools, such as turning centers, served by a robot for loading and unloading. The standard machines are available with 10,500 rpm, rapid speeds of 1,600 ipm and acceleration of 0.5 G. A high-speed version is available with 12,000 rpm and rapid rates of 2,400 ipm with an acceleration rate of 1 G.

For more information, contact CHIRON America at (704) 587-9526, email info@chironamerica.com, or visit the company online at www.chironamerica.com.





KELLER PRODUCTS, INC. has announced that their PFA-1002 portable pump/filter unit, originally used for removing solids from waterbase coolant, has been getting enthusiastic feedback from customers who are using the unit for filtering fines and chips from the cutting oil in the sumps of ten or more Swiss CNC machines, without the need to pump out the sumps or shovel solids. Shops have found that maintaining a low level of solids in the cutting oil with the PFA-1002 avoids shutdowns due to tool plugging or breakage and eliminates downtime and labor for manually cleaning sumps.

The PFA-1002 pump/filter unit contains a high flow rate diaphragm pump and a high capacity bag filter that removes solids as fine as 5 microns. The self-priming pump pulls the cutting oil from the sump through a large diameter vacuum hose, into the bag filter and continuously pumps the filtered liquid back to the sump at high flow velocity.

For more information, contact Keller Products, Inc. at (800) 352-8422, or visit them online at www.kellerproducts.com.

EXAIR's new Super Blast Air Guns deliver up to 9.8 pounds of blowing force – power for machinery and parts cleaning, chip removal, part drying, part ejection, liquid blowoff and cooling hot parts. The Super Blast Air Gun uses from four, seven to twelve Super Air Nozzles, meaning at full pressure of 80 PSIG, they have an air consumption of 56, 98 and 168 SCFM, while providing blowoff force of 3.2, 5.7 and 9.8 pounds. They have a zinc aluminum alloy construction, and are attached to an aluminum body. The airflow that exits the guns cannot be blocked, and meets OSHA standards. Applications include machinery cleaning, parts cleaning, chip removal, part drying, part ejection, liquid blowoff and cooling hot parts. Price starts at \$260.

For more information, contact EXAIR Corporation at (800) 903-9247, or visit the company online at www.exair.com/sbag.htm.



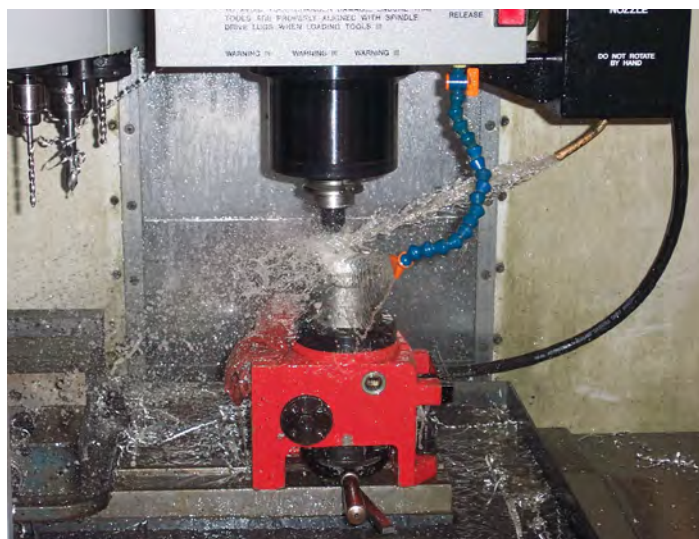


VALENITE has introduced VNT-755, a synthetic formula used for a wide range of cutting and grinding applications, and can be used with an array of ferrous and non-ferrous materials. The VNT-755 is rated for moderate to heavy-duty applications, and can be used for turning, milling, reaming, drilling and tapping applications, plus centerless grinding work. The VNT-755 consists of natural and synthetic emulsifiers, plus a chlorinated extreme pressure lubricant that improves cooling properties while helping to resist chip weldment to the cutting edge. It also contains a ValCOOL patented biostable microbial control package that controls rancidity, minimizing the need for supplemental sump additives while maintaining long tank life. VNT-755 also incorporates rust inhibitors plus corrosion and stain preventatives that help protect ferrous parts and machine components.

For more information contact Valenite LLC at (800) 544-3336, or visit the company online at www.valenite.com.

PICO CHEMICAL CORPORATION has announced a new synthetic coolant for small to medium sized quality machine shops that process a variety of materials. The unique chemistry of PICOCOOL 5254 was developed primarily to meet the demands of job shops that wanted one coolant to perform operations ranging from cast iron grinding to CNC machining of high alloy steels. Customers have reported tool and insert life increases up to 25% over fortified soluble oils and as much as 50% reduced coolant consumption. The coolant does not need to be dumped.

PICOCOOL 5254 is a multifunctional water dilutable synthetic coolant that is both oil and chlorine free while offering exceptional corrosion protection, high lubricity, excellent hard water stability, prolonged sump life, mild pH and excellent bio-stability. PICOCOOL 5254 rejects tramp oils, drops fines quickly, can be fine filtered and is biodegradable in water treatment systems. Customers report a significant decrease in coolant consumption and reduced machine downtime for cleaning. PICOCOOL 5254 is suitable for all metals and for most machining and grinding applications especially for small to medium sized machine shops. For heavy-duty aluminum cutting and roll tapping, PICO recommends its enhanced version called PICOCOOL 5254 Plus.



For more information, contact Joe Manfreda, PICO Chemical Corporation at (708) 757-4910, or visit the company online at www.picochemical.com.

UNITED GRINDING TECHNOLOGIES, INC. has announced the S151cnc, a new addition to its Studer line of universal internal cylindrical grinders. Modular design and quick setup and changeover, state-of-the-art digital control and drive systems and step-by-step programming make the S151cnc able to handle a wide variety of internal and external cylindrical grinding applications in a single clamping. Swing diameter is 350 mm. Between-centers grinding length is 200 mm. Chuck capacity (including tooling) is 150 kg.

The turret head arrangement presents two grinding spindles for rough and finish grinding in the same set-up. The two spindles have independent, programmable drive systems to fully optimize the grinding process. Spindle configuration is ID/ID or a combination ID/OD for universal applications, which allows for OD and ID grinding in one setup. Maximum spindle diameter is 170 mm. ID spindle speed range is 24 rpm to 51,000 rpm. OD spindle speed is 6,000 rpm. The universal turret wheelhead has a serrated 1-degree resolution Hirth ring coupling.

For more information, contact United Grinding Technologies at (937) 847-1222, or visit the company online at www.grinding.com.



CIMCOOL® has introduced QUANTALUBE® products, water-based metalworking fluids for all types of grinding applications. QUANTALUBE® 270 XL is a new generation high-lubricity grinding fluid. In terms of EP lubricity, this product is said to perform similar to straight oils without the messiness and hazards often associated with oils. QUANTALUBE® is said to increase wheel life up to four-fold when compared to soluble oils or synthetics, and permits higher stock removal than with conventional water-based fluids.

CIMCOOL® has provided success examples, including an automotive components manufacturer, who reported "centerless grinding fuel injector needle and bodies of 440C stainless, 95Rc on two machines with a 700 gallon system, QUANTALUBE® 270XL at

a 5% fluid concentration reduced dressing from once per hour to once per shift, increased wheel life more than two fold, increased production by 20% more parts per hour, improved finish and part geometry and resulted in less wear to work blades and diamond dressers."

For more information, contact Milacron Marketing Company at (888) 246-2665, or visit the company online at www.cimcool.com

WEB GEMS

Check out these websites for some of the hottest new information, including contests, events and more, in the manufacturing industry. From hot wheels to hot rods, hot services to hot metals, we've got it covered.

CNC SOFTWARE, INC., manufacturer of Mastercam CAD/CAM software, has announced a national competition through its Education Division, entitled the "Innovator of the Future" contest, aimed at exciting students about the manufacturing industry. The theme for the first innovator contest is a car wheel, with Discovery Channel's Body Coddington of "American Hot Rod" as the honorary judge to jump-start the contest. The "Innovator of the Future" contest is open to any individual student using Mastercam; deadline for submission is December 31st, 2005. For complete rules for the contest, please visit the website at **www.mastercam.com**.

Log on to the **SOCIETY OF MANUFACTURING ENGINEER'S** website, **www.sme.org** to read about the "Manufacturing for Performance" event, designed to bring high performance technologies and applications to designers and builders of motorsports vehicles and components. This event is designed to connect manufacturers with the latest technologies and applications in a rapidly expanding sport where "speed is king." This exhibit and full technical conference runs January 23-26, 2006 at the Indiana Convention Center in Indianapolis.

FORTRESS INTERLOCKS has launched a new website designed to deliver extensive information on their products and applications, enabling customers to make informed decisions on the best safety solutions for their company. The website, **www.fortressinterlocks.com**, includes dedicated pages to each individual product with a general description, plus construction and application information and more, including detailed descriptions of the Fortress safety interlocking product range. Their latest product, eGard is a new approach to controlling access to hazardous machinery and equipment. It is a modular access and control system for machinery guarding applications, enabling a selection of modules, including both mechanical trapped key interlocks and electrical safety gate switch interlocks, to be integrated in one unit.

MANAGEMENT SCIENCE ASSOCIATES specializes in developing customized process control and automation systems, decision support and business intelligence systems and supply-chain management systems for manufacturers. Their website, **www.msa.com/metal/index.htm**, applies MSA's use of data management, analytics and technology to the metals and general manufacturing industries. This division has maintained innovative software development for the charging, melting, refining, and casting operations in the steel industry. Current solutions include an Internet-based non-ferrous marketplace, Scrapsite, which bring buyers and sellers together, and a Raw Material Data Aggregation Service (RMDAS) that integrates scrap purchase information of many steel companies to provide its participants with a powerful, accurate benchmarking, reporting, and internal control tool on this important raw material cost.

**For more Web Gems visit
www.todaysmachiningworld.com.**



THE LOWEST PRICED HIRTH COUPLING MULTI-SPINDLE

- ✓ Hirth coupling for rigid drum locking and accuracy
- ✓ Reduced noise levels, 79.5 dba
- ✓ Siemens control PLC
- ✓ 1.0 second idle timing during indexing
- ✓ Servo adjustable feed rates
- ✓ Adjustable feed camming
- ✓ Interchanges with all existing 1" 6 spindle Wickman attachments, toolholders, collets, and reaming spindles
- ✓ Larger coolant tank capacity to extend tool life
- ✓ Immediate machine delivery from our warehouse



GRAFF-PINKERT & CO., INC.

Your Exclusive North American Wickman Distributor



4235 West 166th Street. Oak Forest, IL 60452 (south suburb of Chicago)
Phone: 708-535-2200 Fax: 708-535-0103 Email: info@graffpinkert.com
Visit our Websites: <http://www.graffpinkert.com> <http://www.wickman.org>



L. to r.: Cathy Heller, Manuel Buenrostro, Martin Whitfield, Greg Buenrostro

MEET YOUR WICKMAN TEAM

CATHY HELLER has been the Wickman and Index Parts manager for over 12 years. She has extensive knowledge of parts, maintains an inventory of almost \$1 million worth of parts on our floor, and works diligently to get you the best price and best service around.

MANNY BUENROSTRO has been our Wickman tooling and attachment specialist for over 16 years. Manny is now also responsible for pulling, packing and shipping your orders. Need a part off one of our machines? We'll get it to you, and Manny is the guy to get it done.

MARTIN WHITFIELD, our newest addition, was a Service Engineer at Wickman in Coventry, England. Martin's extensive knowledge as a long-term Wickman Engineer makes him the consummate technical expert on Wickman repair and attachments. He is another Wickman Repair Specialist, available for on-site repair in your shop.

GREG BUENROSTRO has been our Wickman Service Technician for over 17 years. He has been responsible for the repair and rebuilding of all sizes of machines. His "hands-on" ability to understand the mechanics of the machine has made him the "go-to" guy for troubleshooting. Greg is also our Wickman Repair Specialist, available for on-site repair in your shop.

***Over 45 years of combined Wickman expertise.
THE exclusive Wickman distributor of genuine Wickman parts.***

WICKMANS? WE'VE GOT YOU COVERED.

Graff-Pinkert & Co.

708-535-2200

TMW June-July

Product Feature:

WIRE EDM

In every issue, *Today's Machining World* focuses on new, innovative and outstanding technologies available. Wire EDM, or electrical discharge machining, is not new. But with Just-in-Time delivery, short-run and prototype services, reverse engineering and assembly services critical to staying competitive, Wire EDM has been successfully integrated into a large number of job shops.

It sounds like it works by magic, but there's a physical process involved: Wire EDM is a type of EDM machine that uses an electrically-charged wire to cut parts without any contact between the wire and the part being machined. The very thin wire basically erodes material in the path of the electrical discharge. When the voltage reaches the necessary level (average working current is 45A*), rapid, repetitive sparks jump the gap and melt a small segment of the metal. The wire is surrounded by deionized water so that, after the part begins to cut, water flushes away debris. (Brass wire is the most common, but various coated wires have gained in popularity because they obtain faster cutting speeds and can be used with exotic materials like carbides and PCD*). The hardness of material has no detrimental effect on the cutting speed. (EDM will cut any conductive material, even a non-metal such as graphite*). The cutting pattern is usually CNC-controlled, meaning the wire follows a programmed path. There's no tooling involved, so delivery times are fast. A Wire EDM machine can cut any simple or complex 2D shape, make cutouts, and cut nearly square internal corners and tapers.

In short, a bit of magic. Read on to find out more on each of the Wire EDM companies who submitted information on their Wire EDM products; websites are listed for your convenience.

TMW is now accepting product releases for October's "vertical machining center" feature. Please email your featured product, company information and a 300 dpi jpeg or tiff image to jill@screwmachineworld.com. Please write "product feature—vertical machining center" in your subject line.

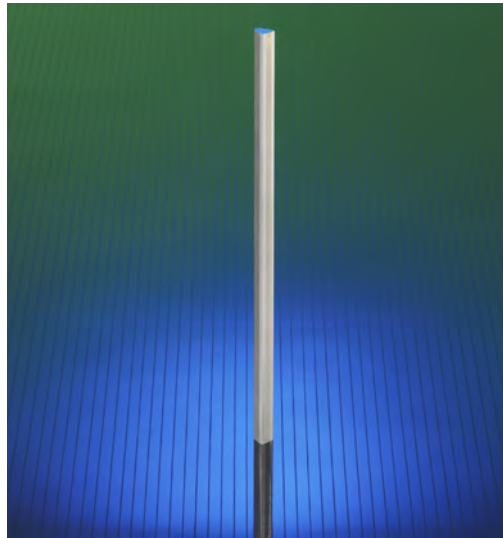
**Thanks to Lloyd Dunlap of The Dunlap Group for providing information.*

Makino's SP-Series wire EDM machines use "wizardry" to provide advanced features for numerous market segments in the general wire EDM arena. This includes general part manufacturing, aerospace and medical applications looking to reduce costs and improve operations. This is accomplished through the advanced "WIZARD" control technology of Makino for improving part straightness, corner accuracy and adaptive power control. The platform is the WireWIZARD™ control system powered by Windows® CE, which provides optimum reliability in an easy-to-use, operator friendly control system.

The software has three main graphical components designed for maximum throughput— programming, set-up and run—which provide the basic needs for any application. It uses this logical approach by actually prompting the operator through the process. This simple operation makes the learning curve of the software negligible, providing an easy transition for any operator.

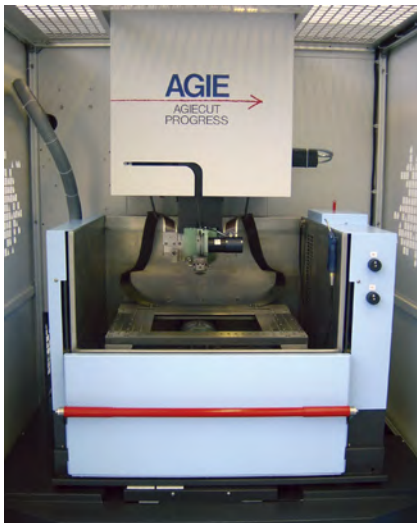
Technologies include Makino's PowerWIZARD, which increases machining speed while improving overall surface finish by controlling the discharge current and maintaining the optimum spark gap. CornerWIZARD provides outstanding shape accuracy, providing tighter control of small internal corner radii. BellyWIZARD™ improves straightness in the initial cut, reducing the skim cuts required to produce a straighter part while reducing overall cycle time.

For more information call (800) 552-3288, or visit the company online at www.makino.com.



The **Agiecut Progress 2** has established wire EDM cutting speed at 47 in²/hr. using standard 0.013" coated wire. In addition, the Progress can cut at speeds up to 37 in²/hr. using Bercocut 0.012" brass wire. To further enhance productivity, the Progress is automation ready.

The Progress system's eCut generator technology makes it possible to get surface finishes as good as 0.8 µm Ra with one precision cut. In addition, the faster precision cut requires 40% less filter and resin and results in 60% less wire consumption. The precision cut also reduces the number of trim cuts needed for surface finishes of 0.2 to 0.7 µm Ra.



The Progress can achieve speeds up to 37 in²/hr. even in the tightest radii (and even during a precision cut) due to Agie's unique Dynamic Corner Control. 15 second wire threading can be achieved through a special "V" wire guide. The "V" guide permits threading of all wire sizes and types (never requiring annealing after a break) and allows taper cutting of ±30°.

The Progress is built on the same platform as all Agie wire-cut systems and includes a rigid C-frame construction and a dual measuring system that ensures positioning accuracy during rapid traversing at speeds to 3 meters/minute.

For more information on the new Agiecut Progress 2 and the complete line of Agie EDM systems for wire and die sinking applications, contact Agie Ltd. at (800) 438-5021, or visit the company online at www.agieus.com.



Charmilles recently unveiled the Robofil 2050TW, which brings high speed, improved surface finishes and unsurpassed accuracy to the Top End Wire class of EDM. High precision glass scales measure increments down to .05 μm and thermo-stabilization of the entire machine eliminates inaccuracy caused by thermal instability.

The Robofil 2050TW features a new, fully digital generator, which provides a surface finish as fine as Ra .05 μm in carbide and total respect of surface integrity, whatever the material machined.

The newly designed mobile console provides easy accessibility and allows the end user to monitor the Robofil 2050TW very close to the work area. Windows XP® and 'Twin Wire' software technology were implemented into the machine's controls, creating an intuitive interface that encourages productivity and the integration of automation.

The Robofil 2050TW works with two spools of wire, ranging from 0.02 mm (0.00078") to 0.33 mm (0.013") in diameter. Full automation of the wires' complete operational sequence further ensures high levels of productivity. In the 4th quarter of 2004, the Robofil 2050TW was awarded the prestigious Golden Micron award at Micronora 2004 in Besancon, France.

Charmilles now offers a retrofittable B-axis option for the Brother HS-70A. This new feature can be installed in a mere 4 hours, and is integrated directly into the machine's controls, simplifying the programming of jobs requiring B-axis movement. The optional axis offers a full 360° range of motion and is indexable to .001 degree. Once installed, the B-axis can be added or removed in less than ten minutes.

The HS-70A offers an AE (anti-electrolysis) Generator, linear glass scales and 770 lb workpiece capacity. The HS-70A comes equipped with an inverter pump and does not require an air supply. The fast automatic wire threading system includes a threading time of 15 seconds, the ability to anneal the wire and reliable threading, even if the workpiece is submerged. A new spark generator helps increase machine productivity with max cutting speeds of 28in²/hr in steel.

The HS-70A contains a new user/machine interface with 10MB memory, 3D graphics and 12.1" large color display. Expanded applications include an optional index table for multi-face machining.

For more information contact Gisbert Ledvon at Charmilles, (800) CTC-1EDM, or visit the company online at www.charmillesus.com.



SmaTec International, LLC, a Microtechnology Solutions Provider within the Small Technology Industry sector, now offers Made in the USA Micro-EDM Equipment and full service Prototyping Solutions for its high-tech customers.

SmaTec International, LLC has focused on being the exclusive Panasonic Micro-EDM Equipment Provider in North America since 2002. Today, SmaTec has expanded its offerings by providing SmaTec engineered and locally manufactured Micro-EDM equipment and full service micro-EDM prototyping solutions. Jerry Mraz, General Manager/Vice President of SmaTec, states, "Next generation super-efficient fuel injectors, ultrahigh dpi inkjet printers, miniature satellites, micro-medical and dental devices, alternative fuel cells, etc., are being prototyped and engineered today. Demand to accelerate these high-tech concepts into localized mass production is exponential."

The company provides the technology to accurately produce features, or entire parts, with micrometer (micron or μm) dimensions to within ± 100 nanometers (nm) tolerances. Perfect round holes as small as $5 \mu\text{m}$ diameter (0.0002") to complex micro patterns to true 3-D shapes are achieved. High precision machining can be done on curved surfaces, inclined surfaces and thin materials. A mirror finish surface roughness of $10 \text{ nm R}_{\text{max}}$, or 2.8 nm RMS , can be achieved.

For more information, contact SmaTec at (630) 333-5419 or visit the company online at www.smaltec.com.



Mitsubishi's newest wire EDM, the FA line's new S Series, takes previous upgrade features and makes them standard on the FA10S and FA20S machines. The new high-speed PM4 control enables full automation from rough to finish machining. PM4's stepped shape capabilities allow multiple parts with different shapes and thickness to be machined without setting specific electrical conditions. SL (Step Less) Control has improved accuracy for finishing step shape workpieces. Straightness and corner accuracy on complicated parts can now be easily machined with high precision. The series also offers EM (Entrance Master) Control, which reduces the small dimple at the program approach point.

XY linear scales, .004 inches wire capable automatic threading, and all-axis absolute control have been incorporated, which enable highly accurate positioning without returning to zero after power failure. The machines can achieve fine surface finish machining with the workpiece placed directly onto the table. Because an insulation jig is no longer needed, setup is simpler, and better able to accommodate automation. The FA20S has an Angle Master option, which will allow for a taper angle up to 45 degrees per side by using the new standard long stroke taper. Self-cleaning features have reduced maintenance time by up to 90%.

For more information, contact MC Machinery Systems, Inc. at 630-616-5920 or visit the company online at www.mitsubishi-world.com.





A new **Fanuc** robotic EDM cell from Methods EDM features automated loading and unloading. The cell features a high-speed Fanuc 6-axis robot and can be configured to serve either a single or multiple Fanuc iC Series wire EDM machines. It has a Joint 1 rotation of 360°, the smallest Joint 2 interference zone in the industry and the ability of Joint 3 to flip over and work behind itself. This ability to reach anywhere within a 360° envelope permits optimal floorspace utilization. Directly coupled drives on all axes ensure repeatability of ± 0.15 mm.

Robot motion is controlled by exclusive CellMaster™ cell control software. After it picks up a workpiece from a designated loading zone, the robot places it on a storage rack, logging its location. The cell control software, which includes presetting functions, matches the CNC program, cutting technology, robot gripper, and any tooling or fixturing with the part. The software then allows the user to schedule jobs and monitor individual job progress and/or machine status. It also allows a user to monitor the status of cell machines and jobs for multiple cells. An auto wire feed system and large 35-pound spool capacity allows extended unattended operation. Fanuc iC Series machines offer cutting speeds using economical brass wire of 31.0 inches²/hour with uncoated wire and 33.6 inches²/hour with coated wire.

For more information, contact Stephen L. Bond at Methods EDM, (978) 443-5388 or visit the company online at www.methodsmachine.com.

Somma Tool Company offers a complete line of high-speed, steel EDM-wire ready bars available from stock. These bars are made of High Speed Steel such as M2, M42, T15PM, and 76PM and are heat-treated and finish ground - ready to use to make any form or shave tool blank needed.

These bars are economical to use, since there is minimal waste involved. You use only the amount of the bar stock you need for each job, instead of purchasing individual dovetail or shave tool blanks. The bars are available in four standard dimensions and they can also be supplied in special sizes upon request.

For more information, call 203-753-2114, or visit the company online at www.sommatool.com.

EDM WIRE READY H.S.S. BARS

CAT. NO.	HEIGHT	WIDTH	LENGTH	M42 CAT.NO	T15PM CAT. NO	76PM CAT NO.
EDM4848	1"	2"	12"	EDM4848-H	EDM4848-P	EDM4848-A
EDM4848	1 1/2"	2"	12"	EDM6848-H	EDM6848-P	EDM6848-A
EDM4848	2"	2"	12"	EDM8848-H	EDM8848-P	EDM8848-A
EDM4848	2"	2 1/2"	12"	EDM81248-H	EDM81248-P	EDM81248-A

EDM Network and **CHMER** have released a new wire EDM for higher speed cutting and finer surface finishes. The new CW-420HS features their exclusive automatic wire threader that will rethread the wire - on location - through the kerf - underwater, in less than 7 seconds! It also features linear glass scales for greater accuracy and the (OV) fine finish power supply for superior finishes in T-15, carbide, PCD and PCBN form tools.

For information, contact Ron Vogel at EDM Network, Inc. (480) 466-5588.



Sodick's new AQ300L affordable & submersible wire EDM, is based on the industry proven Sodick Linear Motor EDM platform. This affordable cost wire EDM comes with many features that are seen on more expensive models. Standard features include X,Y,U,V linear motor drives with glass scale feedback, automatic dielectric level float switch, electrolysis free circuit and a large 15" LCD monitor. The AQ300L's compact design of 4' x 8' allows it to be installed in most shops. Additional machine specifications include 12" x 8" x 8" X,Y,Z axis travels, maximum workpiece dimensions of 20" x 12" x 8" and U,V travel of 3.2" x 3.2".

Sodick's new AQ537L is the latest in Sodick's completely new designed wire EDM. The submersible AQ327L is highlighted by its 3-sided rise fall worktank, which allows more room for the operator during set up. Standard features include X,Y,U,V linear motor drives with glass scale feedback, automatic dielectric level float switch, electrolysis free circuit, and an automatic wire threader. Its 3D LQ1W control contains both CAD and CAM software. This allows the operator to input 3D CAD files directly into the control and convert it into NC code thus eliminating any potential programming errors. Additional machine specifications include 23" x 15" x 14" X,Y,Z axis travels, maximum workpiece dimensions of 31" x 21" x 14" and very large U,V travel of 4.8" x 4.8".

For more information, contact P.J. Naughton at Sodick, Inc. 847-310-9000.





Joshua DuLong at the gates of J. H. Horne & Sons, Lawrence, MA. Photo by Rick Friedman.

It Happened Here



J. H. Horne & Sons, Lawrence, MA. Photo by Rick Friedman.

The Human Toll When A Plant Dies

by Jessica DuLong

While I wasn't watching, my little brother transformed from a kid into a machinist. Unfortunately I'm realizing it too late. In eight years he went from being an apprentice to running his own jobs start to finish, working raw materials into usable parts according to blueprint specifications. Now he's 28 and out of work. His company's been sold to a British competitor, and I never got the chance to see him run his machines.

He learned his trade at J. H. Horne and Sons Company, maker of paper mill equipment, from pulp beaters to formers to the end-stage dryer stack units where wet paper serpentines through a series of heated rollers. Founded in 1863, Horne is thought to be the oldest continuously operating business in Lawrence, Massachusetts. The closure of yet another brick factory is commonplace here. But there's a particular poignancy when a union shop closes because of high labor costs in an old mill-town, famous for its role in promoting worker rights nationwide.

It was raining the day Jim Beauchesne went dumpster-diving for shop ledgers. The pages of the leather-bound books had already begun to curl, smooth vellum sheets rippling with the damp. His chances for preserving the 19th-century records

were fading by the hour. The death of a factory is nothing new for the supervisor of the Lawrence Heritage State Park. After all, his park consists of the roofless remnants of the first textile mill built in Lawrence, in 1846. The park tells a story of the industrial revolution, of owners' wealth, of workers' pride, and of change. The historian in Jim knew the details penned in meticulous slanted script could be pay-dirt for somebody in the future trying to figure out what happened in Lawrence at the beginning of the 21st century. He boxed as many volumes as he could. He recognized the closure of J. H. Horne and Sons Company as a landmark event.

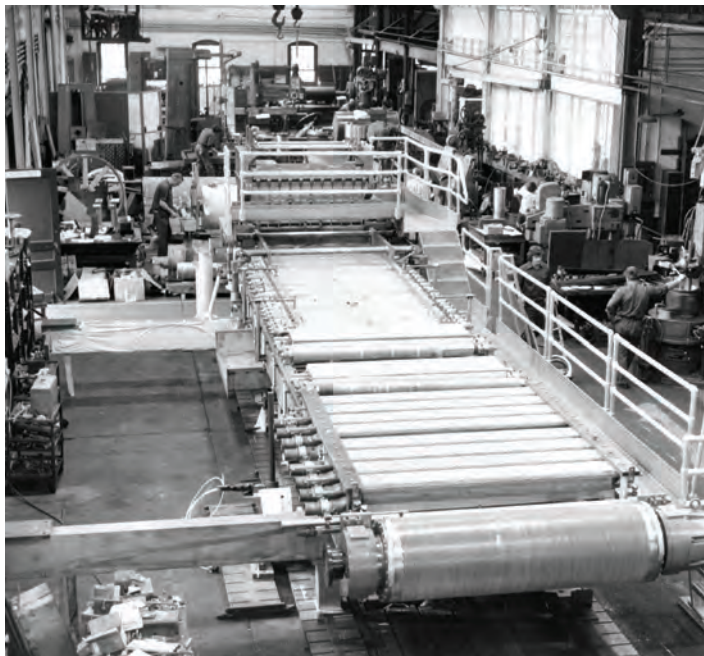
The pitching of the leather ledgers was merely another housekeeping detail to attend to for Byron Cleveland III, son of company president Byron Cleveland Jr. Byron III was Horne's last sales manager. The buildings needed to be cleared out for the new buyer. Both attic and basement were filled with the company's history, nearly 150 years' worth. But Byron III was not without empathy for the books he was throwing out. He thumbed through them, commenting with familial pride on the elegance of the mechanical design drawings. "They were all printed on paper made on Horne machines," he said.

IT HAPPENED HERE/TMW

The pictures revealed detailed specs used to construct all manner of paper mill machinery. In 1863, Byron III's great-great-great-grandfather, John Henry Horne, started the company with three employees. Now shrinking profits had finally led Byron III to urge his father, now in his 70s, to accept a competitor's purchase offer. The devastating decision had been made. The transition was underway to ownership by U.K.-based Black Clawson. A new business model would emerge, with the equipment being manufactured through subcontractors working in smaller shops — no longer with the close integration of engineering, fabrication, foundry, and machining.

The office staff and engineers, including Byron III, would join the new company, Black Clawson Horne, but the machinists would lose their jobs. As one machinist, my brother Joshua DuLong, put it: "They're keeping all the chiefs and getting rid of all the Indians." It remains to be seen whether the work can be done as well or, in the long run, at all — if skilled workers are considered expendable.

When Josh started at Horne at age 20, he was by far the youngest in the shop. "I still am," he says, now 28. Youth is what got him the job in the first place. "Byron III wanted to train a young kid with mechanical ability," he recalls. "He saw that all of his skilled workers were older. They were all at least 40 years old, and some were over 70."





J. H. Horne & Sons in 1935 (above) and present (below).

Photo above courtesy of J.H. Horne & Sons. Photo below by Rick Friedman.



Josh walked into the shop cold: "I didn't even know what an end mill was." His first month was intense — not only was he learning about machining, he was also trying to find his place among his coworkers. "The shop is very cliquey," he explains, "and it was more so then because there were more guys in there. People gave you a hard time, like teasing you, and some of the guys wouldn't even talk to you. They just gave you dirty looks."

For years Horne participated in apprenticeship programs with local vocational schools, so Josh wasn't the first kid the old guard dealt with. "A lot of them were punks, whether they were sneaking up onto the roof and smoking dope or taking a nap in the corner or whatever it was," he says. That's why the guys had pre-judged him.

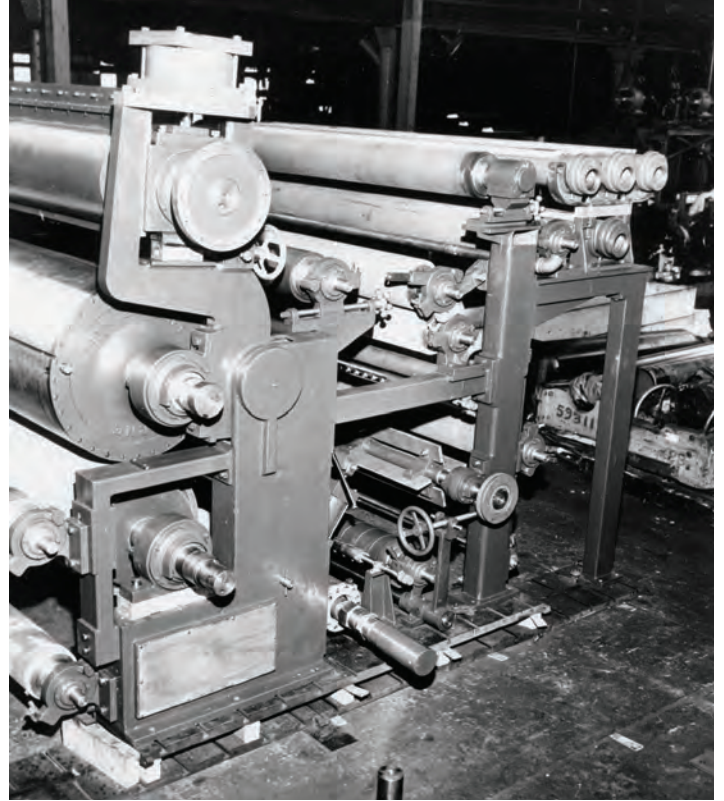
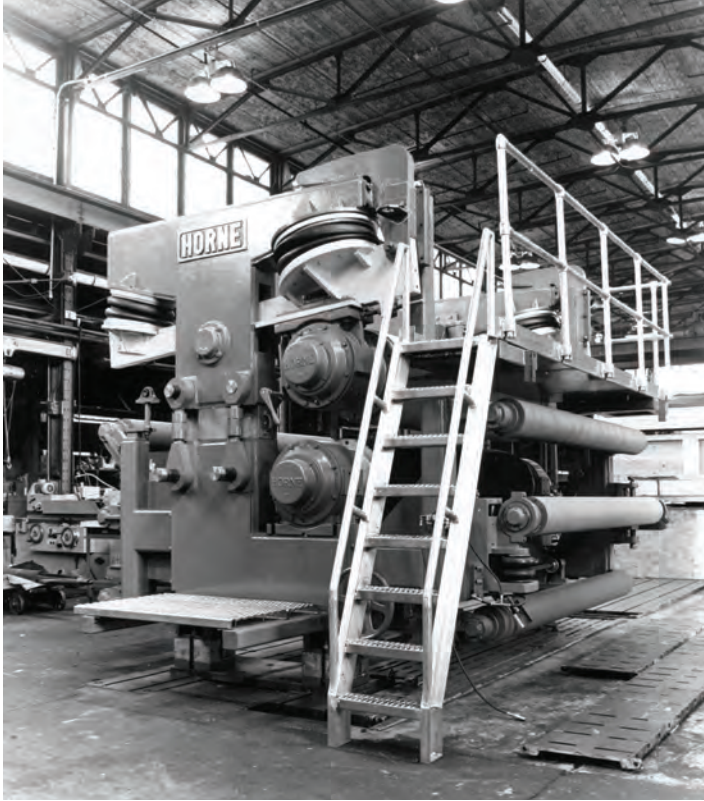
"It was up to me to prove different," he says. "Those old bastards still can give me a hard time," he laughs. "It doesn't matter how old I am, I'm still just a kid to them." Some of the "old bastards" he now considers best friends. Horne's closing is breaking up a tight-knit group, leaving the older workers without an employment future, and the younger workers, like my brother, at loose ends.

Instrumental to Josh's learning was Gordon Barlow, who was paid a bit more to teach. Gordon worked in the Special Parts Department, a room with milling machines, grinders, and a small lathe. "He was my mentor," Josh says. "He's the best machinist I've ever seen. He was faster than he ever needed to be and had a grasp of every aspect of the trade, from design and engineering to tool-making and setups — from materials and casting and forging processes to heat treating."



l. to r.: Roy Simpson, Jack Toto, Dave Gullmette and Doug Keith.

Photo by Jessica DuLong.



Paper milling equipment manufactured by J.H. Horne & Sons. Photos courtesy of J.H. Horne & Sons.

Gordon, a proper gentleman from England, was about 70 when Josh started. He'd made jet engines for Rolls Royce and was "from the old school." "As long as you were respectful and showed a lot of effort, he was a patient and an excellent teacher."

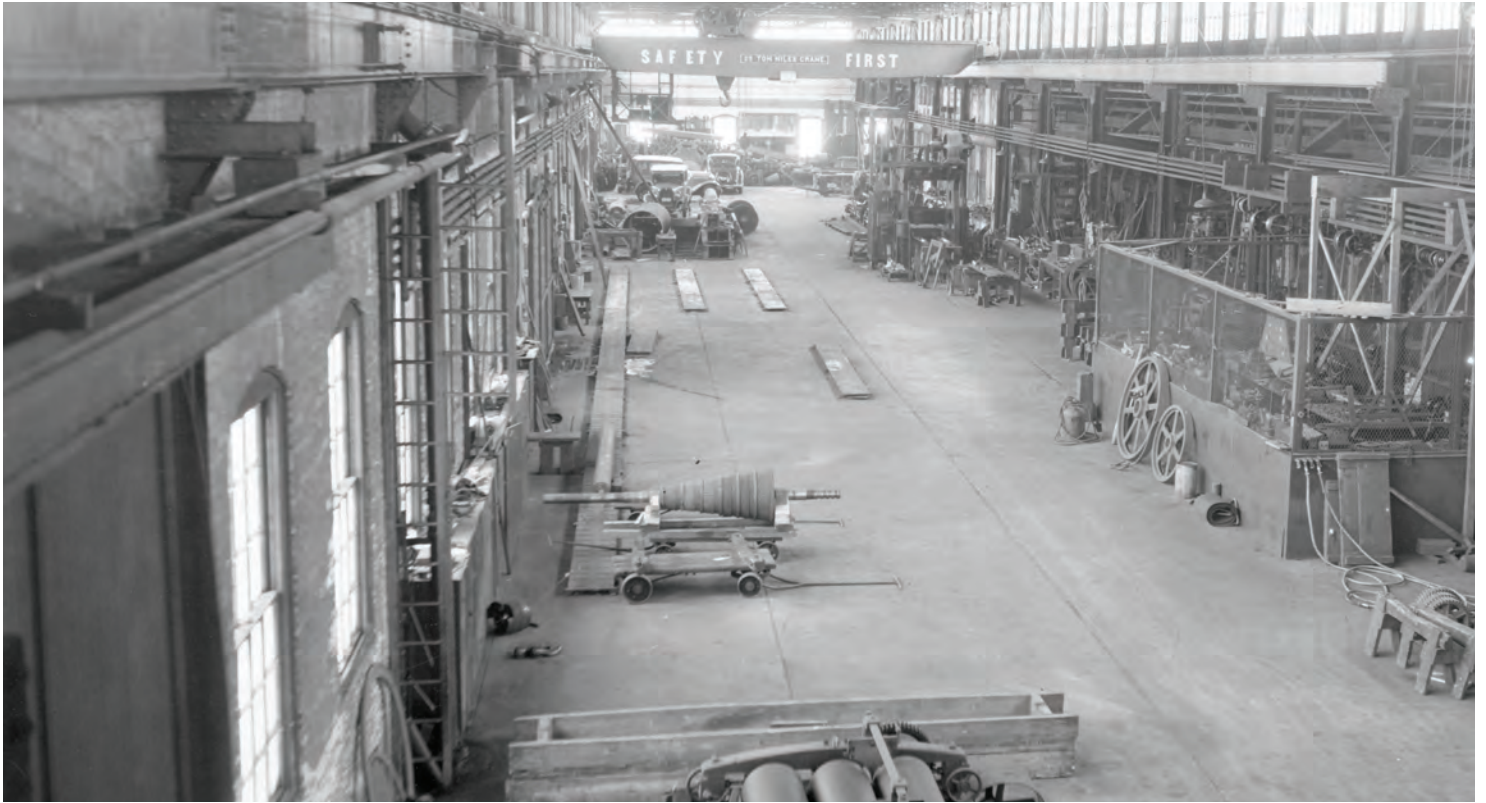
As Josh sees it, Gordon's mastery inspired him to learn. "I've seen him mill a piece of 3/4-inch stainless plate on all sides and make the thing flat within five thousandths of an inch," he says reverently. "He did this with an overhead attachment on one of the horizontal millers. He just moved the piece around, adjusting clamps and taking small chips. He knew exactly what the metal was going to do before he did it. And he compensated and made the thing flat and parallel and well within the tolerance."

My brother worked with Gordon for just over two years before the man retired, leaving Josh in charge of Special Parts. Gordon's were large shoes to fill, but Josh enjoyed the challenge. "You'd get a print and the material and they'd say, 'Here you go.' I'd take raw material and some blueprints and give them the finished product," he explains. "It got to the point where they didn't even check my work. I'd just put it in the box and they'd say 'Alright, you all done?' and I'd say, 'Yup, there it is.'"

Josh's position seemed rich with opportunity. "I had an idea of how old the company was. I didn't think it was going to be cutting edge or the highest-paying job, but it seemed to me like it was going to be a good, secure company."

So did the older guys. The company's phoenix-like history, and its deep roots in the social fabric of Lawrence, obscured the writing on the wall for workers who might otherwise have traced its slow demise and been better prepared for its sudden dissolution. They trusted that a family business that had been in existence since 1863 was sure to stick around.

At age sixteen, country boy John H. Horne left his home in Stratham, New Hampshire, to learn a trade. It was 1845. Horne found his place in Lawrence, among the workers building the Great Stone Dam in what was called the "New City on the Merrimack." The dam would harness free waterpower from the Merrimack River to run sewing machines and massive looms, setting up Lawrence as one of the great New England mill towns. As a blacksmith's apprentice, Horne crafted and sharpened the tools and drills used by the workmen. During the 1890s, some 18,000 immigrants came from more than 30 different nations to work grueling hours for minimal wages. The average mill worker earned a dime an hour and worked up to 13 hours a day under wretched conditions. The lint, dust, and fumes



J. H. Horne & Sons factory, Lawrence, MA, circa 1935.

from chemicals and dyes in poorly ventilated spaces led to early deaths for many. Injuries were commonplace. By the turn of the century, the “New City” had established itself as the world’s largest producer of worsted wool cloth.

Tensions rose among the workers, who lived crammed seven to twelve people in a single company-housing apartment. Seeds were planted for labor organizing that would transform workers’ rights nationwide. That tug-of-war between management and workers set the stage both for the opening of Horne’s company in 1863 and for its closure in early 2005. Horne left Lawrence within a few years after the dam was completed, but returned some years later with a new specialty: the manufacture of papermaking machinery. Early papermaking used the leftovers from cloth manufacturing and water, both abundant in Lawrence, and Horne recognized the city as the perfect place to grow his new business. For decades, Horne’s company provided equipment to hundreds of New England paper mills, eventually branching out internationally with agencies in London, Germany, France, England, and Norway.

When John Horne died in 1904, his sons soldiered on through decades of economic change. The company was hard-hit during the Depression, even closing for a year before the economy picked up and the machinists could go



IT HAPPENED HERE/TMW

back to their machines. In the 80s, following the demise of hundreds of New England paper mills, the company added wastewater treatment plants, boiler manufacturers, and other diverse industries to its customer list. Despite many hurdles, the company had always bounced back.

Josh says he didn't see the end coming. "Ever since I worked there the old guys were saying, 'This place isn't gonna last. This place can't last much longer,'" he explains. "But then they'd joke about it and say, 'When I started here in '62 they told me, 'Get out of here. This place isn't gonna last.' They'd tell me that story and laugh."

That talk would go on when things were so slow the crew was sweeping the floor to keep busy, or cleaning the machines — again. And then a big order would come in and before they knew it they'd be working nine hours a day, Saturday mornings, a couple Sundays. "When the big checks start rolling in life's good. And everybody thinks, 'How can this end? It's not gonna end. This is great.' You're making money and you're staying positive, staying busy."

Even when strangers walked through the shop, eyeballing equipment, the men didn't see the sale coming. "The story I heard was that this other company was thinking about buying into Horne," recalls Josh. "They have a whole other line of products. It will be good for the Cleveland and

good for us; there'll be an even bigger client base and more product to make. More parts, more money."

Last winter, Josh spent more time snowmobiling than machining. Work had been slow since September, so the guys in the shop took turns getting laid off for a week or two at a time. "It's good for everybody," Josh explains. "It doesn't hurt you to get laid off for a little while. The guys are collecting. You're not getting rich but it's a little vacation." Byron III assured everyone he had promises for new product orders after the first of the year.

But here it was, a Thursday morning in mid-February, and instead of machining deckles, gibs, or clevises for a paper mill former, Josh was packing up his "sled" for a long weekend in Maine. That morning he called the secretary to see if he could pick up his check. She said, 'You'd better come in at 11:15. Byron III has called a meeting.'

When Josh arrived, the men, all in work blues, had gathered in the main shop. Before today, the only all-shop meeting they'd ever had was the annual union meeting. A dozen machinists and welders waited, standing atop metal plates cemented in the floor, where final machine assembly takes place. On a different day this space might have been occupied with a big dryer frame section, a former, or a save-all tub being erected before shipment. Today there were no



Josh DuLong at his workspace; dismantling the factory. Photos by Jessica DuLong.



43-year employee Doug Keith; the shop's clean up area. Photos by Jessica DuLong.

parts, just men waiting. Above them, a massive crane hung on overhead rails. The 25-ton Niles read "SAFETY FIRST" in eight-inch block letters. Its rivets reminded Josh of the Titanic. As Byron III spoke, a meek light limped into the vast, dank space through a row of windows that ringed the top of the 30-foot ceiling.

"I don't remember exactly what he said," Josh tells me later. "I remember the message: J.H. Horne as we know it now will not exist. You're not going to find us here anymore."

His head began to churn. "When you walk through the building you can see the progressions and the different additions and the different plates and platforms where old machines have stood—all the way back to when there was a giant belt that turned a shaft and all these machines were in a line running off one power source. All that old mechanism is gone, but some of the supports and the holes are still there. To think about how long it's all been there...It's not only that you're not going to work here anymore, but it's not going to be here. It's like where we used to ride dirt bikes as a kid and now there's \$500,000 homes and green grass. It's not just that you can't go there anymore; it isn't there anymore. Except it's a lot worse."

He can't imagine what it must be like for the guys that have been there for 40 years or more.

Doug Keith was 23 when he traded his machinist job in Arbroath, Scotland, for a position at Horne. That choice cemented his future for four decades. Now it's left him suddenly unemployed. At 66, his children long since grown,

Doug is a new father once again. He and his wife adopted a four-year-old boy who'd been in their foster care since infancy. Doug's not sure what he'll do now to make ends meet, since retirement wasn't part of the plan.

On the last day of March he watched as the lathe he'd worked on for 30-some odd years was cut from its cement bedding to be shipped to its new owner. "He babied that thing," Josh tells me. "That was his machine." He'd worked on it since it was new.

Doug tries not to be bitter, but says, "It's hard not to feel jettisoned." The worst part of the meeting, he says, shaking his head, was when Byron III said he was worried that his father would end up on the street with a tin cup.

Jack Toto started the same year as Doug, in 1962. When he arrived, he says, "the place was booming. Every machine was taken." His 43 years involved working on more than just paper-mill equipment. The shop handled nose cones for the Hawk missile; made parts for nuclear, hydroelectric, and sewage treatment plants; and even bored out tugboat propellers. "It was like a country club in here," he says, "It was a close knit bunch of fellas." For days after the February 17th meeting Jack says he felt like a family member had passed away. "You can't eat or sleep. It's like your world crumbled." He attributes the plant's closure to poor management. "They should have brought in an outside general manager."

As Byron III explains it, selling Horne was the only sensible decision. For decades he and his father had been fielding



Jim Beauchesne with the rescued shop ledgers. Photos by Rick Friedman.

offers from competitors interested in Horne's segment of the paper machinery business. "We never cared to give it up, because it allowed us to do things our own way and we were making good livings running it our way." Once the "good livings" faltered, that thinking changed. "Volume is vanity and profit is sanity and there wasn't much sanity here for the past few years," Byron III says, explaining that the company hasn't been profitable for six out of the last 10 years. "My family began pouring their money into the company."

In today's market, he says, consolidation was inevitable: "When I began 21 years ago there were 20 American machinery builders. Of the original builders, there are none left. They've all been consumed. We're the last one." He cites general administrative costs as the major culprit: Today's market just won't support a company with such a large overhead. "The niche market we're in, they're not willing to pay what we would really need to sell the equipment to stay profitable," he says. And recently the company has been competing not with other full-service companies, but with independents who subcontract the work. "It's tough to compete with freelancers who've got the 'in' at a little shop that's capable of making an intricate widget, especially

if you're in a company that has to support its engineering department, its sales force, its machine shop division, and its fabrication or foundry division," he explains. Over the past two decades Horne's hourly shop rate has increased from \$35 to \$80 an hour. But that increase hasn't been enough. "Half of what we sold an hour for — 50 percent of our hourly wage — was the cost of wages plus the benefit package."

Byron III sees Horne's fate reflected in other U.S. manufacturers. "For us builders that had the full array of the office — with the engineering department with the fabrication division or the foundry division, alongside the machining division — they all went union. It all got expensive. These guys deserved a good quality of life, but to maintain what they deserved breaks the company."

For more than 140 years the Horne company put its name on machinery built in its own shop, by its own crew. Now the newly formed Black Clawson Horne, Inc. will subcontract production out to small, local, family-owned businesses. These are shops that "don't necessarily pay their employees with beautiful wages with incredible benefits packages,



because that's what kills companies," Byron III says.

When I first asked Josh if he was planning to go back into machining, he shrugged off the idea. "It doesn't seem like there's much of a future in it," he said. He planned to use his machining know-how on his own projects, automotive and otherwise, but he didn't want to do it for a living.

A few weeks later I checked in again. After submitting an application at the town water department and taking a test to get work as a Verizon technician, Josh went back to work for a landscaping company he'd worked for before. After two days of cutting grass, he quit without pay. "It sucks," he said. "I left there for a reason. It's a rat-race. I'm done."

What got to him was both the monotony and the futility. He resented working so hard for "rich people spending 200 bucks for a Friday cut to make their grass look good for their Saturday soiree. They spend more on landscaping than people I know spend on...I don't even know what to compare it to. You have that much money and you're going to look and make sure I got every blade? It's grass. You people need to relax."

This short landscaping stint has him reconsidering machining. "These last two days, I'm ready to cry thinking about my old job," he says. "I was making important things. People used those things. Sure, they threw them away when they got broken, but still...I wasn't getting rich, but I was making a good wage. It was good and I forgot how good it was. I need something real." **TMW**

In the past four years, Jessica DuLong has gone undercover to a white-power hate-rock festival for Newsweek International, covered college finances for Rolling Stone, written about lesbian newlyweds for CosmoGIRL! and penned a history of engine room technology for Maritime Reporter and Engineering News, among other varied assignments. When she's not writing, she runs five opposed-piston diesel engines on the 1931 retired New York City fireboat, John J. Harvey.

GRAFF-PINKERT & CO., INC.

inventory



NEW! ACW Wickman



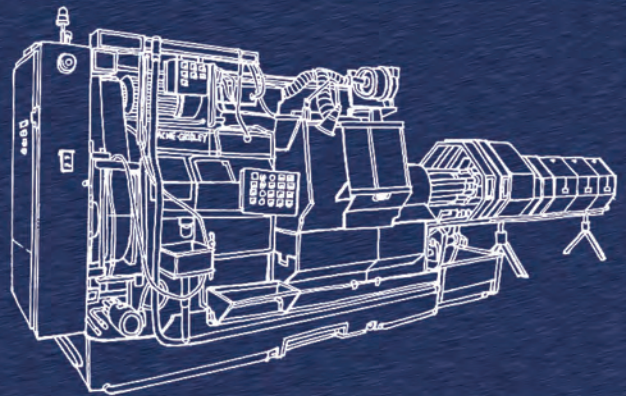
WICKMAN

NEW! 6-26 Wickman 1" 6 spindle, curvic coupling, variable speed motors. Compare the price with Euroturn, Schutte and Index.

5/8", 1", 1-3/8", 1-3/4", 2-1/4"
6 spindle, factory rebuilt, ACW model
5/8" 6 spindle, thdg, pickoff, 1971, 78 (8)
1" 6 spindle, ACW model, new
1" 6 spindle, 1992-81-72-60 (5)
1-3/8" 6 spindle, 1980 (2)
1-3/4" 6 spindle, 1965-1979, (3)
1-3/4" 8 spindle thdg., 1969
2-1/4" 6 spindle, 1973-79
3-1/4" 6 spindle, 1979

ACMES

9/16" RA6, 1952, Gov't Surplus
1" RAN6, 1970 (3)
1-1/4" RA6, 1973-1958-1978
1-1/4" RB8, 1956-1979 (5)
2" RB6, 1981 chucker (2)
2" RB6, 1979-1985
2-5/8" RB8, threading, 1966-56 thdg.
2-5/8" RB6, threading, 1980



Wickman and Index Tooling Specialists

Tooling: Complete assortment of new and used spare parts and attachments.

In Stock: Threading, pickoff, cross slides, etc.

To order parts: call Cathy at 708-535-2200.

Email: parts@graftpinkert.com



For amazing auctions, go to:

<http://stores.ebay.com/Graff-Pinkert-Screw-Machines>

4235 West 166th Street ▶ Oak Forest, IL 60452 ▶ (south suburb of Chicago) ▶
Telephone:(708) 535-2200 ▶ Fax:(708) 535-0103 ▶ Email:Info@GraffPinkert.com
Visit our web site: <http://www.GraffPinkert.com>

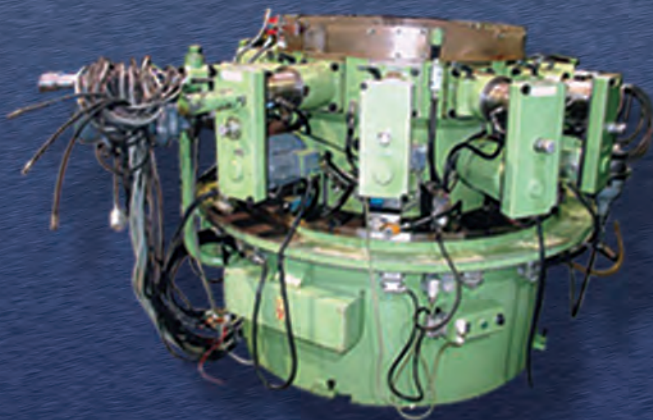
Serviceman available with machine purchase. All machines can be equipped with threading, pickoff, thread chasing. As you want it.



Ask for in-house Parts expert
Cathy Heller.

Phone: 708-535-2200
Fax: 708-535-0670
Email: parts@graftpinkert.com

HYDROMAT & ROTARY TRANSFER



Hydromat V-12 Trunnion 1986
Riello, 8 station 1985
Goss & DeLeeuw, 1-2-3, 1973 (2)
Goss & DeLeeuw, 6x 1 3/4, 1980
Buffoli Rotary Transfer
Incredibly low prices on Hydromats!
Used 30-60 Hydromat units

CENTRIFUGE
Barrett 1100E 1980

Swiss-type Machines

Citizen L16 Type VIT
1997

Brown & Sharpe

1-1/4" #2, 1970
1/2" OO, 1980
3/4" #2, 1965-68 (3)
1 5/8" #2, 1970

Davenport

3/4" Model B, 1989-1993
3/4" 5-sp. Model B,
pickoff, thdg, 1980-1965-
1993 (8)
3/4" Chucker, 1965

BARGAIN CORNER

Hydromat 30-60 units	
Hydromat Collets, 25 - 45mm	\$20 each
Hydromat 34-60 + 34-100 Units	
Hydromat Woodpecker Valves	\$7,500 each
Hydromat ST-8-100 Control Valves	\$2,000 each



JUNE 10, 2005

A Dealer's Journal

A BUY, A SELL, A CONTAINER AND CONVERSATION

By Lloyd Graff

Photos by Noah Graff

8:40 AM: MORNING STARBUCKS STOP

– it's now a morning ritual, along with the 45-minute walk, davening (Jewish prayer), taking 81-mg. aspirin, Lipitor, Glucosamine, Chondroitin and Metamucil, eating one or two hard-boiled eggs, and grabbing some greens and tuna for lunch. I order a Grande regular coffee, add half-and-half and Splenda® (Tuesdays, it is Equal® and Thursdays, Sweet and Lo®). Costs \$1.83. Pay with \$2 and leave the 17 cents in the tip box. I prefer this Starbucks in Homewood because the people behind the counter (the barristas) are always smiling and efficient, and Tony calls me by my first name. There is a Starbucks in Matteson nearer to my home, but the barristas are constantly changing, and they talk too much to each other. I never order the pastries at Starbucks – totally mediocre. Panera Bread is in the same strip mall as Starbucks in Homewood. I consider going over there for a superb cinnamon scone. My weight is down 21 pounds since starting the South Beach diet in January. I'm allowing myself one scone per week now, and I'm no longer dropping much weight. I know I'm starting to slide. No scone today.



9:07 AM: ARRIVE AT GRAFF-PINKERT.

My brother Jim, associates Rex Magagnotti and Jill Sevelow are not in the office today, so I know I'll be taking a lot of calls. I'm a little annoyed with myself for arriving after 9:00, a self-imposed deadline I set for myself. I bet the people in the company think I am a slacker for missing the 9:00 a.m. cutoff. (Sounds like a "Seinfeld" or "Curb Your Enthusiasm" bit). I say hello to Judy Palmer and Carol Sobecke in the office. I'm a little relieved that nobody in the plant (I think) saw me come in at 9:07.

9:15 AM: TURN ON COMPUTER TO CHECK EMAIL.

An inquiry from India from Shree Fasteners. They make self-clinching fasteners, and are looking for equipment and expertise. A year or two ago, I would have dismissed the inquiry as a hundred-to-one shot, but we are in the midst of selling four 1" Wickmans to an Indian company. We have managed to make hardly any direct sales to China. The big opportunity to sell to India is in its infancy, and we have to make the most of this chance. The senior manufacturing engineer from our Indian customer just took an intensive seminar in Wickman set-up from Jim Barnette, our plant manager, on Monday, Tuesday and Wednesday. The engineer watched my son Noah shoot an instructional video of the setting process. The video and the training were essential to making the \$350,000 sale. Noah is editing the video now so the end user will have it before the machines arrive in Bangalore, India. Developing and marketing the intellectual

property of Graff-Pinkert and *Today's Machining World* is, and will be, key to our success this year and in the future.

10:30 AM: DAN PELS, PUBLISHER OF TMW, COMES INTO THE OFFICE.

We discuss a guy we are interested in hiring who lives in St. Louis. We have been talking to him for six months, trying to figure out if he is the right guy to bring in, and whether we can afford him now. There is a Winternitz auction on Tuesday, June 14th in St. Louis, and I propose that we have dinner with the fellow Monday night. Dan says he'll try to set it up.

10:40 AM: FRED TIVIN CALLS.

I interrupt the meeting with Dan to take Freddie's call. He has been brokering machinery for more than forty years in Chicago. He's trying to buy a Citizen L-16, new in 1997, that I really want to own. I love to deal with Fred because he has passion and earthiness. He loves to work a deal. And I adore Fred's language. Fred talks machinery with a Jewish accent. Freddie moans to me over the phone about how much the seller wants for the Citizen. "Lloyd, it's the f-----ing Internet. The guy goes and he does research. The f-----ing Internet has ruined the machinery business."

I let him give me his shtick (routine) because I love to hear Fred do shtick. I think he does shtick better than any machinery dealer practicing today. Finally, I interrupt him. "Fred, so what's the price?"

"Lloyd, I hate to tell you. I hate to tell you. These guys, these guys,

they make you jump through hoops, they go on the f---ing Internet."

The drama is killing me. The price?

"Lloyd, it's \$45,000," he says, in pain.

"Buy it," I tell him. "We need it. I don't know if we'll make any money, but we need it." My own shtick.

11:00 AM: IN THE PLANT.

Everybody's sweating. Jim Barnette is upset because the 1" Wickman for India that he's setting up is cranky. I listen hard and encourage. I get paged. It's noisy in the plant, and I'm unsure who is calling. He identifies himself as somebody Breslin from Split-Lock, and I'm still guessing to whom I'm talking to. The conversation goes on, and I finally figure out that I'm talking to Patrick Breslin from Phoenix, who developed the revolutionary fastener that we wrote about in a cover story last year. He says business is extremely promising, and he is investigating starting up his own manufacturing operation. He has been jobbing out his production to a big shop in Phoenix, which was recently sold. He feels they really don't value his business, and he is worried that incoming orders will overwhelm him, and he won't be able to supply his customers.

I think to myself that this is a problem other clients of mine would kill for, but nevertheless, it is a major obstacle in building the business that he knows is possible. Breslin keeps talking about his huge opportunities, and I keep trying to formulate a strategy for him while he's on the phone.

This is a guy who understands manufacturing and machining. I'm talking to a sophisticated person. He asks about Hydromat or Mikron rotary transfer, and I'm thinking, NO WAY. I tell him to go low-tech. Buy 1-1/4" RA-6 National Acmes, bar and chuckers. Figure \$25,000 per machine and \$25,000 for tooling and training per machine. Buy one machine per job so you won't have to set them up. I'll help you find the equipment and the expertise. It sounds like another video job for Noah.

We talk for 40 minutes and he says he'll get back to me. I'm thinking that if this guy plays it right and does not try to do more than he can do, he might make it big.

11:40 AM: LOU CALLS FROM LOS ANGELES.

I've sold Lou several machines, Wickmans and Acmes, through the years, and I enjoy him very much. Lou is from Mexico. With hard work, skill, honesty and personality he has built a successful job shop in Southern California. Lou does Mexican shtick. It is so similar to Jewish shtick that sometimes I can barely tell the difference on the phone. I listen very hard to understand Lou's needs. Sometimes Lou calls and he is sort of, maybe, possibly in the market, if he gets an order. I think this time he really is serious, but I'm not quite sure.

"Lou, are you shopping today, or are you really going to buy?" I ask him.

Your One Source For OEM Parts, Sales & Service



GALLMEYER/GRAND RAPIDS
Surface Grinders

Reid
PRECISION
SURFACE GRINDERS



HYBCO
Tool and Cutter
Grinders

KO Kent-Owens

Horizontal Hydraulic Milling Machines

BARKER

Horizontal Milling Machines



Leland-Gifford

Drilling Machines

LELAND-GIFFORD

Center Lapping Machines

LelandGifford Inc.

1497 Exeter Road

Akron, OH 44306

(330) 794-1960

Fax (330) 794-9912

www.barkermill.com

"Well, you know, it depends. The price."

Now I've got to come up with a price. I have machines that will work for him. I need to figure out a price I can live with, that he thinks is cheap enough for him to actually pull the trigger. I also need a price that I can shave for Lou, because if Lou can't knock me down, he'll feel cheated, and I won't make the sale.

"Lou, I have to get \$29,500 for the Wickman and \$15,000 for the Acme," I say.

Of course, he doesn't like the price.

But we keep talking. He had bought some 1-3/8" Wickmans from me at the bottom of the recession. He knew he got a tremendous deal then, and thinks he should get the same today. I tell him how much better business is today.

"Lou, I want to check my stock and my costs to make sure I can meet your needs. I'll call you back within an hour. Are you really serious today, if I give you a terrific deal?" I ask sincerely.

"Well. I have to talk to my sons. But if the deal is good, yes."

I believe him.

I go out into the plant to check out our stock, then, discuss with Jim Barnette our ability to get the machines in shape to ship.

11:55 AM: OUR WEEKLY EBAY SALE IS CLOSING IN 5 MINUTES.

We have a 3/4" 00 Brown & Sharpe, a 2-1/4" Model 62 New

Britain and a 9/16" RA-6 Acme up for sale. Prices look dismal from our point of view, but usually all the important bidding happens in the last few minutes. At 11:59 it starts to happen. The New Britain sells for \$2425 to an old customer, Head Co., and the Acme brings \$1225 to L & M, another client near Chicago. The Brown & Sharpe goes for \$3300 to a first-time buyer on eBay.

I respect the eBay verdict. It is the people's medium. The people, the real inhabitants of today's machining world, tell us every week what stuff is really worth to them. This is valuable information that enables us to navigate our world. Today somebody bids \$600 for an Aercology mist collector, while a 1-5/8" DRF Cleveland die head with a 2-3/8" shank sells for \$2.25. Go figure. Last week a similar die head with a smaller shank brings \$350. The buyers know what they want. Maybe it will average out. Someday.

I can't help but smile thinking about Freddie Tivin's earlier remarks about the f----ing Internet. Live with it.

12:30 PM: WES SKINNER CALLS.

I had called him last week to find out how he was doing after prostate surgery a month ago. He was back at work, gaining strength, and sounding like himself. Wes has a big job shop in Upstate New York. He got murdered by the telecom bust. Business has recovered finally, and now he is trying to figure out where to go next.

I am always honored when Wes wants to talk business because he knows 100 times more about the machining business than I will ever know. Like most very smart people, he is a good listener.



He wants my opinion on what rising short-term interest rates mean to the economy. I tell him that I had just written a piece for the magazine (see Swarf) and that the real issue is what the 4% 10-year bond is telling us. That 10-year rate is the key to the real estate market, and increasingly, it is being determined by the Chinese, Japanese, and Saudi bankers. Short-term we are probably ok. Long-term, it is scary. Alan Greenspan has been a magician to get us out of a bad nosedive, but the page has turned, Alan's almost 80, and he's a lame duck. What does it mean for the machining world? Wes, keep some of your 401k in gold and yuan.

Wes is worried about Tier One automotive customers. They aren't paying on time, and this means indigestion. He'd like to diversify his machining portfolio. He would like a product line. He would like a clear path and a level of comfort into the future. Me too. I mention a few possibilities. He says he'll follow-up. I tell him to stay well, and I hang up the phone.

1:30 PM: I'VE GOT TO CALL LOU BACK IN CALIFORNIA BEFORE HE LEAVES FOR LUNCH.

It's real iffy to reach anybody after noon on Friday in the summer.

I've decided to sell the two machines to Lou for \$30,000. I have several 1-3/4" Wickmans and 1" RAN-6 Acmes in stock. There will be a big screw machine auction in L.A. in two weeks, and Lou might well attend. A small profit is better than none.

"Hi, Lou. I've checked my stock, and I think we can do business," I say, upbeat.

"Well. What price can you sell the two machines with threading and reaming?" he asks.

"Lou, for you, I can do \$35,000 for the two. These are good machines," I say.

"Well.....I need them. You can't do \$30,000?" he asks.

"I think \$35,000 is a very good price," I say. I like this statement because it is non-committal. It is not a demand. It does not erect a wall. It is an artful restatement, awaiting a reply.

"Well, I'll talk to my sons and get back to you on Monday," Lou says.

"OK, Lou, I'll take the \$30,000 for the two, but you have to commit now. On Monday, all bets are off," I tell him, figuring that his sons are listening to the call.

A pause. A little Spanish in the background. "OK, we have a deal," he says.

I'm feeling a little surprised that he actually committed, a tad annoyed that I sold so cheap, and then very pleased with myself that I made a deal where there hadn't been one before, with an honorable guy who I like, even though I've never met him face to face. I love this business.

2:30 PM: JUDY TELLS ME THAT THE CONTAINER DELIVERY COMPANY JUST CALLED AND OUR USED CONTAINER WILL BE HERE IN 10 MINUTES.

I walk into the office where our artist Mike Eisenwasser is working, and tell him his canvas will be here momentarily. This is the container that Mike is going to paint a scene on



The afternoon of unloading the container.



– all 48-feet long, 9-1/2-feet wide plus two 8-1/2-foot high doors. And there it is, on 166th Street, and it looks 80 feet long and 20 feet high. This is nuts. I know the only people who believe in this idea are Noah, Mike and me, and at this moment I'm hardly sure.

I meet the truck driver outside and tell him I want this humongous box on the lawn next to our office. His name is Joe, he's quite heavy, definitely hyper, but a man who wants to please. I can work with him.

The plan is that Mike will shove wooden 4x4s under the container while the driver is lowering it in to place. Noah will be videotaping the event. I will supervise.

I decide to tell our neighboring company that they will have new landscaping to look at. They don't get it, but they are nice.

I tell Joe to come in at an angle over our grass. The plan is to back in at the angle we want. Unfortunately, this will take a whole soccer field to do. After two false starts and a pass over the neighbor's lawn, we abandon that plan.

We decide to drive into the Graff-Pinkert parking lot, maneuver the truck into position, and back it into place. We have to move every car in our lot. I want to do this without disturbing the people in our shop, but it is clear to me that Mike, Noah and I need help. I recruit Hector, Martin, Manny and Greg, as well as a forklift, to make this happen.



Meanwhile, the container delivery company is getting ornery, and making Joe the driver uncomfortable. The 15-minute pull in and drop is taking over an hour. I decide to tip Joe 40 bucks because I expect more trouble. We get it. The container starts to tip to the side as it is released on the site. With proper manipulation of chains we save the day, nobody gets killed, and the container, in all its ugly enormity, is sitting on planks thirty feet from our office. Michael, do us proud.

4:00 PM: I AM SOAKED WITH SWEAT.

Judy brings me ice water. I notice I have a phone message from an old customer in Canada. I call him back, knowing it's after 5:00 pm in Toronto, but this guy is a workaholic. He'll be there. This man is from India. I've known him for 25 years. He's built a big business from nothing.

"Lloyd, I want to talk to you about what I should do about my business," he says.

I'm thinking to myself. All of these people today are calling to ask me about what to do about their businesses. What do I know? These are brilliant guys, risk takers, innovators, machining people. They think I can help them? I can barely get a container on the ground.

"What's going on with you?" I ask.



"I've got 45 multi-spindles and only 12 are running," he says. "What kind of work?" I ask. "Automotive, Tier One," he replies. "It stinks," I say. "What's good these days?" he asks. "Medical, aerospace, oil, military," I say, feeling like Claude Raines in Casablanca, saying, "Round up all the usual suspects."

We talk for quite a while. He wants to know what some of his machines are worth. I tell him the sad truth. Then I say to him, "You should send 6 Acmes to India and start up a small shop."

"I have thought of that," he says.

"It could work if you have the right people," I say.

"What else is good, Lloyd?" he asks.

"You have Calgary and Edmonton, Alberta. Canada is the Saudi Arabia of oil tar sands. There has to be opportunity there."

"You're right, Lloyd. But what about automotive?"

"If what you are doing isn't working, try something else," I say profoundly.

We talk some more. He sounds weary to me. He asks about the magazine. I tell him it's going well.

He says, "Lloyd, it's clear that you love what you are doing with your writing."

"Yes, I really do love it," I say.

5:30: LEAVING NOW.

Yes, I really do love it all. **TMW**





**WISCONSIN
ENGRAVING
UNITEX**

Craftsmen Dedicated to Detail

Whatever application
you may need ...

FLAT STAMPS
ROLL STAMPS
HAND STAMPS
EMBOSSING DIES
STEEL TYPE

262-786-4521
wi-engraving.com

Since 1925

No Wires? No Problem!

Wireless DNC Directly To The CNC
Control Using The RS-232 Port



Machine Monitoring, Data Collection
and Bar Coding also available.

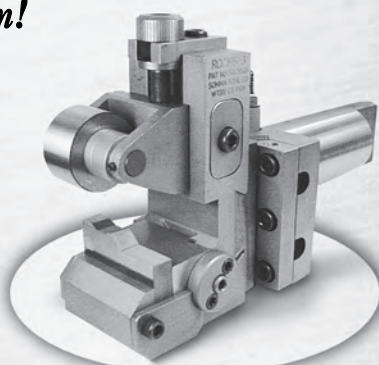
Contact sales@enetdnc.com or Visit www.enetdnc.com
4702 South 47th Street Greenfield, WI 1-414-817-7070

Resharpen and...**SHAVE!**

Exclusive Design!

Resharpenable quick
change insert shave
tool holders for
Davenport and
Multispindle machines.

- Saves time & money
- Inserts can be
resharpened without
affecting original
center, part
diameter, or
lateral settings.
- Inserts can be replaced
in less than a minute
- Easy to get at from side
clamping of insert
- Ideal for "Datum Point"
tooling applications
- Also available with
"throw away" type inserts



www.sommatool.com

CALL TODAY FOR OUR FREE TOOLING CATALOG

**Somma
TOOL CO., INC.**

109 Scott Road, Waterbury, CT 06725
phone: (203) 753-2114 fax: (203) 756-5489
email: somma@sommatool.com



**THE KEY TO YOUR
THREADING SUCCESS**

Precision Ground
Geometric Style Chasers

Circular Chaser
Thread Cutting Systems

Replacement Fette-Reed-
Winter Thread Rolls

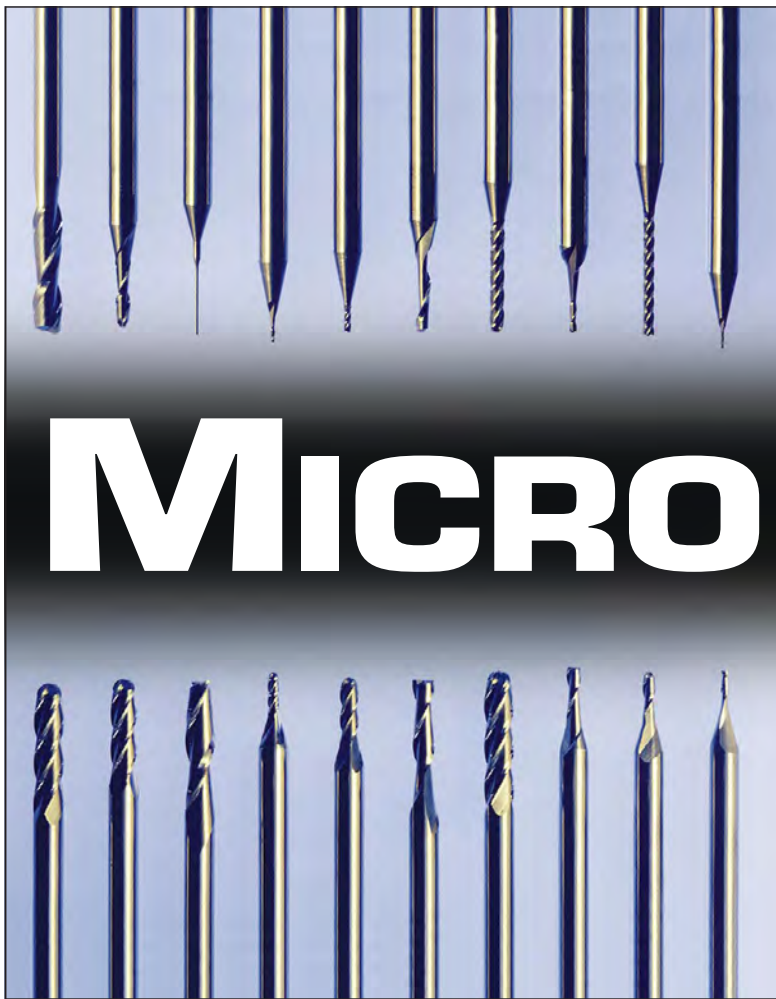
Recessing & Hollow
Milling Systems

EXTERNAL THREADING TOOLS

RSVP
Tooling, Inc.

E-Mail - sales@rsvptooling.com
Web - rsvptooling.com
IMTS Booth - 2016

133 West 61st Street
Westmont, IL 60559
Toll Free - 888-289-7787
Direct - 630-719-9519
Fax - 630-719-0012



MICRO TOOLS

for precision applications



phone: **1.877.335.7519**

fax: **1.877.335.7520**

www.archmicrotool.com

Made in the USA.

ZINC-NICKEL PLATING FROM BFG

Exceptional Corrosion Resistance



BFG Electroplating now has a zinc-nickel automated rack line. This process is approved for GM, Ford, Honda and Delphi, provides excellent corrosion resistance and also performs extremely well in high temperature applications, such as automobile engine hot zones. Available with trivalent chromates, resistance has been measured at over 300 hours to white rust and more than 1,000 hours to red rust.

**ALSO AVAILABLE:
CLEAR TRIVALENT
CHROMATE &
BLACK CHROMATE**

- High Volume
- Quick Turnaround
- Customized Packaging & Delivery
- Competitive Pricing

New! Zinc-Nickel automated rack line in Hamburg, NY.



BFG Electroplating

Punxsutawney, PA 15767
Phone 814-938-9164
Hamburg, NY 14075
Phone 716-649-3221

www.zincplating.com

**We
Have The
Solution.**

Floating
Reamer Holders



Since 1942

Non-Marring Feed
Fingers Pushers &
Pads

What Shape are You In?

The **Green** patented design and proprietary mold process allows the feeding of nearly any shape – **rounds, squares, hex, ovals, and splines** – even **tubing and asymmetrical** shapes. Plus, the simple screw adjustment allows for insert wear and minor deviations in bar stock diameters thus extending pusher life and cutting costs.



For over 60 years, screw machine operators have trusted **Green** when machining Aluminum, Brass, precious metals, or polished and ground stock.

Anytime marring or witness marks are forbidden,
Green is the only reliable solution.



Green Technologies, Inc.
112 Hawick Street
Rockton, IL 61072
815-624-8011
Info@greentechnologies.biz

Call us, visit us on the web, or
ask your Distributor for a
catalog

***A beginner's
guide to
selling on
the #1
e-commerce
site in the
world.***



*Brown & Sharpe
being loaded for
delivery following a
successful eBay sale.*

beginners' ebay

Auctions > sell your things > make money!

Hello, reader! (Not you? [Sign in.](#))

by [Jill Sevelow](#)

Photos by [Charles Celander](#)

[Read it Now](#)

Matching Categories

[Metals & Machinery](#) (100)

[Manufacturing & Metalworking](#)
(74)

[Construction](#) (8)

[Industrial Supply, MRO](#) (7)

[Collectibles](#) (38)

[Tools & Hardware](#) (15)

[Advertising](#) (5)

[Books](#) (36)

[Textbooks, Education](#) (13)

[Nonfiction books](#) (11)

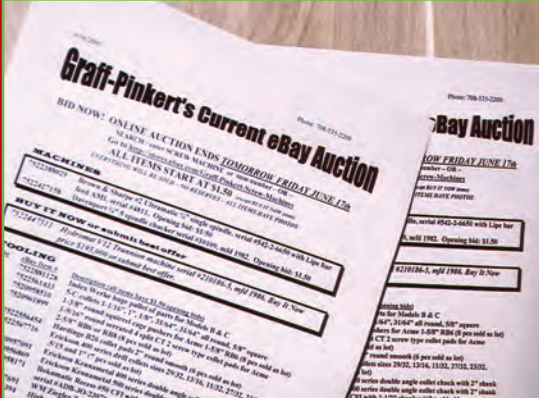
[See all categories...](#)

Buying Guides

[See all buying guides...](#)

If you haven't noticed the eBay phenomena, check it out: Since its inception in September 1995, eBay has become the No. 1 e-commerce site in the world, with net revenues totaling \$1.032 billion in the first quarter of 2005 alone. With a presence in 33 international markets, eBay users trade more than \$1,344 worth of goods on the site every single second.

[Next](#) ➤



Description: Fax listing from Graff-Pinkert on equipment up for auction.

Current bid: \$1.50

Time: Weekly
7-day listing, Ends
July-29-05 20:51:54 CST

Results: Over 5,000 items sold

History: [Began selling on eBay five years ago.](#)

Highest bid paid: \$107,000 — Marubeni Citizen

Item location: Oak Forest, Illinois, US

Ship to: Worldwide

[Buy](#)

[Sell](#)

[My eBay](#)

[Community](#)

Inventory



Shelving units are ripe for finding “buried treasure” in your shop.

Select



Plant manager Jim Barnette finds and inspects parts and attachments weekly.



While its facts and figures are staggering, eBay's Manufacturing & Metalworking category numbers are proof that the system works in our industry. eBay's Top selling brands include Bridgeport, Haas, Hardinge, Kennemetal and Mitutoyo. Consider this: The following items are sold on the eBay.com (U.S.) Manufacturing & Metalworking category every day on average:

- 552 cutting tools and consumables items
- 389 inspection, measuring items including micrometers, inspection gages, indicators, calipers and others
- 329 welders and accessories
- 186 raw materials items including aluminum, brass, steel, plastic, lumber and other manufacturing stock
- 35 semiconductor and PCB manufacturing items

If you've never done eBay, begin your first step by registering. Give yourself a screen name, identifying your company or your merchandise. Next, peruse the site – if it seems overwhelming, force yourself to navigate it – you can't get lost. There's always home – and the site map, which differentiates between buying and selling procedures and strategies.

I recommend registering for PayPal, an online payment

service. A majority of buyers prefer it and, though it's an accounting nightmare (a percentage of your sale is charged with each transaction, usually 1.9-2.9%) it makes for easy payments for the buyer. It takes approximately one week for PayPal to go through; following your application, where you will give them your bank account and bank routing numbers, PayPal will deposit a small amount of cash, say 17 cents, into your bank account. They will then ask you to report back the exact amount they deposited, verifying that it is a valid account, and you are the person who can access it.

You must decide on your strategy. If you are a seller, there is a choice of a 3 or 7-day auction. You can also list your items with the “Buy it Now” option for immediate sale. You can start everything at \$1.00, have a high reserve, or start at the absolute minimum you will accept. Most of the items at Graff-Pinkert start at a \$1.50. We use LaunchFax, a bulk-fax service, to send our listing of all items, with their eBay ID number and description, to our entire database weekly.

Now survey your area for buried treasure. Have you thought about some pile of old Acme parts forming a sculpture in the back of your shop? How about odd Index parts, a lathe no longer being used, a surplus of collets and feedfingers? We've

Clean



Hector Serna is responsible for the cleaning of eBay parts before photographing.

Describe



Jim Graff writes clear, concise details for every listing.

found that, with 147 million registered users on eBay, there is someone looking for something you've got, somewhere. After finding your eBay items, clean them up. The difference between clean and dirty or "as is" items being shown via photos will mean a difference in dollars during the sale. We use a high-powered washer for machines, and a cleaning sink for smaller parts. Machines are usually washed and sometimes painted.

We physically inspect every item and write down an accurate description. This includes year, model, serial number, features, measurements, markings, modifications, condition, defects, etc. If we've repainted or rebuilt any part of the machine, it's part of the description. It pays to have thorough information on the listing, and saves time and effort in answering questions during the sale.

After writing a description we photograph the item. Our electrician built a space in our shop designated for eBay items. This area is equipped with florescent bulbs, ensuring even, bright lighting. Even if you have little or no knowledge of digital photography, a digital camera is a must for taking photos for eBay.

We recommend taking at least three photos per item to

upload onto eBay. Try to vary close up shots and angles for the consumer. Front and back shots, close-ups of specific features, tooling and attachments, modifications, etc. all should be highlighted.

Match the description with the photographs. Write down your photograph number (digital cameras automatically label your photographs numerically) when you take the photo as part of your written description.

Upload your photos onto your computer using a program like "Paint Shop Pro." Rotate each photo if needed; click "adjust," then "one step photo fix." Click "save," then "save as." This is a very important step; you can now rename the item to match its description, then save it onto your desktop, or make your own eBay folder in your "My photos." Either way, you'll have your photos organized on your computer.

Now, you're ready to list your item. On the upper left hand corner of eBay, click on the "sell" button. You'll need to sign in using your eBay name and password. eBay asks you how you would like to sell you item. Click on your auction choice. From there, specify your item's category. From the "Business and Industrial" section, eBay continues to refine





your category with a specific classification. You may want to consider a second category to cross-reference your item; it doubles your listing cost, but can give you double exposure.

From there, you will be asked to give a title in 55 characters or less. Be concise, descriptive and use as many of those 55 spaces possible – this is your advertising! Figure out what keywords will best identify and draw people to your item. People will be typing in “screw machine,” “Acme,” “lathe,” “Haas,” to search for a specific item; write your title for them.

Under the title, write a detailed listing about your item using your written description. Anything you know and/or have written down goes there. There's plenty of room; tell the machine's history, how it's been used, how long it has run, and with what material. The more information given, the more secure people feel in knowing what they are bidding on.

Put your required starting price in next, with a “Buy it Now” price if you're using it. You can choose “auction only” and “auction/buy it now” combinations. Both work; it's a matter of preference, and whether you are willing to gamble on auction alone. A “Buy it Now” price signals to bidders what you are expecting to sell it for.

Now it's time to upload your photos. Put your cleanest, most comprehensive photo first. First photo is free; additional

photos are 35 cents each. You can “supersize” a photo for an additional 75 cents, and purchase a picture pak of up to twelve photos for \$1.50. You can select a “theme” next, which is a border around your listing – unnecessary in this industry, but a lovely touch! The gallery photo option at 35 cents is a must; it's the photo people view in their preliminary search, and that one that will determine and entice a buyer to look at your listing. You can embed photos for free if you are html savvy.

You'll then need to list your payment options; check all that apply. Graff-Pinkert accepts PayPal, Visa/MC, checks and money orders. Click where you are willing to ship. Graff-Pinkert ships worldwide, which means the company does not list a blanket shipping cost, but determines cost once the item is sold. You should also list a return policy here, if applicable.

Review your listing! If you find a mistake or change your mind here, click the “edit” button located to the right of each section of your listing. Make your changes, then click save at the bottom of the screen. You have the option of making changes until someone bids on your item; after that the rules change, so read through carefully before clicking your final “submit listing.”

Once listed, you'll be able to watch how many people visit your item, and how many are watching your item by

Photograph



Jill Sevelow photographs each item from at least three angles.

Package & Ship



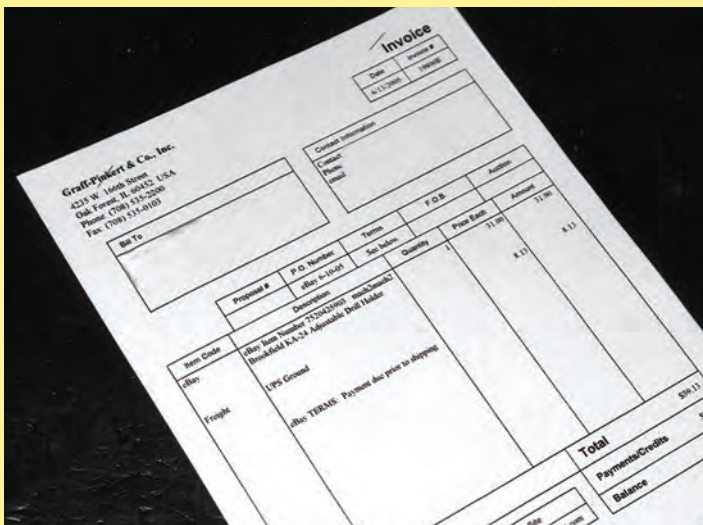
Once sold, each eBay item is wrapped and boxed with the item number and weight recorded. The attached invoice becomes your packing slip.

clicking and signing in on "My eBay." Don't panic if no one seems to be bidding on your item. If you have watchers, chances are you'll have bidders, and most items are bid on in the last minute. Fridays at noon are generally spent around the computers at Graff-Pinkert. Click "refresh" button continuously to watch last-minute wild bidding.

When an item is won, you are given a report with the buyer's zip code. Box up and weigh the item, then determine the cost with the winner's zip code with UPS or the US Postal Service online. eBay supplies you with an immediate and easy invoicing system. Simply go to the item won, then click "Send Invoice." The "ship to" information will automatically appear; you only need to put in shipping costs. When you click "send," your invoice is emailed to the buyer. Buyers generally respond within a couple of days; some will pay on PayPal immediately. Others will follow up with an email or phone call. Graff-Pinkert usually hear from everyone within a week.

Under the "My eBay" section, you can find a listing of sold items. You can track everything here – from payments to generating mailing labels. Once the item is paid for, make sure you give your customer positive feedback under this column; they will, hopefully, do the same for you. It's vital to your eBay reputation – it's a visual report card on customer service. Happy selling! **TMW**

Invoice



In addition to eBay's invoice, Graff-Pinkert generates its own internal invoice for accounting purposes.

You Say You Want A Resolution?

Digital photography has opened the door for quick, convenient image making that is ideal for internet use. Illustrating your ebay auction items couldn't be easier. The rub comes when you want to use those same images for other uses.

The low-resolution image that up and downloads swiftly isn't of sufficient quality for most print uses. A 72 dots per inch (dpi) image looks great on screen, but exhibits a case of the "jaggies" when printed.

300 dpi, or the largest file size setting on your digital camera, is more appropriate for print work.



300 dpi



72 dpi



Today's Machining World is introducing a technical advice column entitled "Shop Doc." We will be tapping into our vast contact base of machining experts to help you find solutions to your problems. We invite our readers to contribute suggestions and comments on the Shop Doc's advice. If you consider yourself a Shop Doc., or know a potential Shop Doc., please let us know. You should also check out the TMW online forum at www.todaysmachiningworld.com.

TMWshop doc

with Noah Graff

This month's question about Wickman threading attachments comes from Bob Schneeberger of LD McCauley in Orchard Park, NY.

Shop Doc. this month is AL Seniw of New Lenox Machine Co., Inc. in Dwight IL. AL has been working on Wickmans for forty years and he has taught machining courses at community colleges.

BOB'S QUESTION:

Our client needs a thin walled brass part. My screw machine is a 1" 6-spindle Wickman. We were concerned about flaking in the threads with brass parts so I knew I had to come up with a cut thread. Our two options were thread milling and thread chasing. We couldn't get the brass to gauge on our Johnson Gauges because of the flaking. I tried running a drill inside the part while I was thread rolling to avoid crushing of the part but it still didn't gauge. I tried putting a thread chasing die on the machine and saw that the lead on the threads (or the pitch) was off. We had tracking problems. The thread die is 400 thousandths wide. It wasn't tracking properly as it ran across the part.

We went through the machine and the chasing attachment looking for the cause of the problem. The attachment had just been rebuilt by a very reputable source. We did see a little play as the cams rode inside the thread chasing attachment. We eliminated the problems in the attachment but our pitch was still off. We are now going to try a thread milling attachment and a thread milling die. How can we eliminate the play in the thread? What caused it? Do you think this will solve the problem on the thin walled part?

AL'S ANSWER:

On a 1" Wickman, on the center drive shaft where the spindle speed gears are mounted, there is a coupling between the back half of the drive shaft and the front of the drive shaft. As the machines get old, and typically because people run hex material on these machines, they start to pound out the spline on the shaft and the coupling gets loose. This creates looseness or play in the machine, which I call "slopposis." Toward the spindle end



Worn parts subject to "slopposis."

of the machine there is a drive key that engages the main spindle drive gear. That key can get pounded out and you get slopposis at that point. On each spindle there is a drive gear that engages the center drive gear. If the keyway on the spindle is pounded out that is another source of slopposis.

When you chase a thread with a single point thread chasing attachment you use a multiple tooth chaser. If for some reason there is play in the machine and the lead does not repeat itself, in other words it doesn't track in the same place every time, you will get a very sharp crest on the major diameter of the thread. If you look at the thread on a comparator it will show a very sharp crest on the major diameter of the thread and you will notice a wide area at the minor diameter of the thread. What is happening is that the chaser is not following the lead of the thread, and the chaser is shaving the sides of the thread.

You should check the lead on the thread chasing attachment. Usually what I do is mount a dial indicator on the thread chasing head manually (without the machine running). I turn the spindle one complete revolution to advance the thread chasing attachment to the lead of thread. Now let's say it's supposed to travel .062 per revolution – if you do this three or four times, the lead should be within a tenth or two at the end of it.

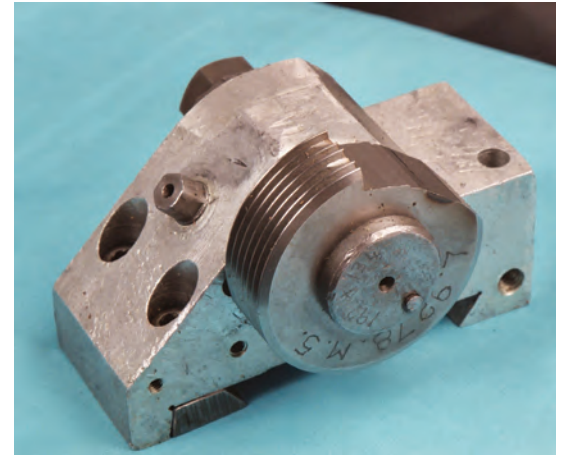
The attachments do wear out, but that is probably not the case with yours because your attachment was rebuilt by a reputable source. However often people will put the thread chasing cam on the attachment and forget to put the spacer washers on. This would result in the cam flopping back and forth, which will throw the lead off.

BOB'S QUESTION:

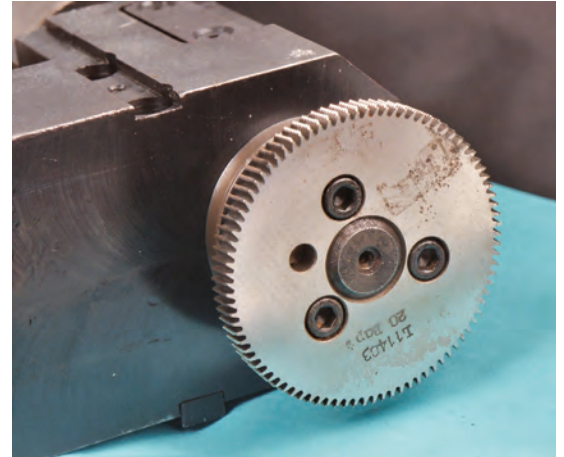
Do you think using a thread milling attachment and a thread milling die will solve the problem?

AL'S ANSWER:

Thread milling is a completely different system than thread chasing because the lead is built into the tool itself. There is probably less chance for slopposis to affect a thread mill than to affect a thread chaser because the lead is constant all the way through the cut. On a single point thread chasing attachment every time that attachment makes a pass the machine is loaded and then unloaded. So thread milling could be the way to go, especially because it's a thin walled part. The chip load per tooth is much lower with thread milling than with thread chasing.



Thread chasing.



Thread milling for a 1" Wickman.

Have a technical issue you'd like addressed? Please email jill@screwmachineworld.com; we'll help solve your problem, then publish both problem and solution in the next issue of the magazine.

TMM show us your ride

Body Electric

by Maurice “Moe” Rousseau, President
MHR Resources & Partner, A&K Machinery, Sommerset, MA

When I was fourteen months old, I contracted Polio. It didn't cause much of a problem until recent years, when I was faced with Post Polio Syndrome, a condition where Polio symptoms return later in life. I'm still quite mobile, but walking a great distance or standing a long time on my feet became difficult, so along came my chair. I've been using my wheelchair, the Pronto 32 made by Invicare, for three years. I bought it for \$6500, and the lift to transport it was \$3500. The wheelchair runs on two twelve-volt gel cell batteries. The advantage of having gel cell batteries as opposed to traditional ones is that the gel enables it to be turned upside down without any acid leaking. Depending on terrain, the wheelchair's batteries can last up to eighteen miles before needing to be recharged. Soft surfaces such as plush carpeting, gravel, or grass decrease the battery life. It's easy to control and it runs up to fifteen miles per hour. It's also very reliable. I haven't had it serviced in the three years I've owned it, and I've only had to replace the batteries once.

MOE, the name of the CNC machine sold by A&K Machinery and MHR Resources (my company), was actually inspired by my reliance on the wheelchair. One day,

my business partners and I were joking around. While watching me in my chair they said I was “moving my body electronically.” Our new machine, the MOE, has been converted from a mechanically run Brown & Sharp to a CNC. This gave us the idea to call the new CNC machine MOE, an acronym for “moving on electrically.”

I don't feel too self-conscious about needing to use the chair. Anyone who has known me for a while probably said it was about time I did something to combat my difficulties getting around. It was a mental adjustment when I began using the Pronto 32, but I realized that my only choice was to surrender to my ailment and accept my health situation.



“MOE, the name of the CNC machine sold by A&K Machinery and MHR Resources (my company) was actually inspired by my reliance on the wheelchair.”

Have you got a favorite ride? Looking for antique cars, skateboards, motorcycles or anything else that gets you around. E-mail your story and photo to jill@screwmachineworld.com.



145 Front St., Bridgeport, CT 06606 • 203/334-2196 • Fax: 203/334-1184
email: ipcc@conversent.net

PRECISION MACHINERY ▶ EQUIPMENT ▶ SWISS AUTOMATICS

Engineering, Training, Repairs, Spare Parts, Tooling

Parts and operators' manuals for Swiss Automatics, Escomatics and related machinery from \$40 to \$99.50

DISTRIBUTORS FOR
AB-175 DIAMOND WHEEL GRINDERS
We rebuild any make diamond wheel grinder

ARYMA CENTRIFUGAL OIL EXTRACTORS
1/8 gallon to 7 gallons capacity

Multimatic AUTOMATIC PARTS CLEANING SYSTEMS
Uses chlorinated or hydrocarbon solvents

NSK ELECTRIC, AIR OR BELT DRIVEN SPINDLES
We design and build special attachments



profiltec corp.

doebeli

PeTeWe

CNC & Manual Profile and Form Tool Grinders Centerless Grinders with CNC Dressing Cycle.



FSM 150 CNC Profile Grinder,
Fanuc 18M



DPA 200 Wheel Dresser & Profiler



SLR 250 Centerless Grinder,
.080" to 4-3/4" Capacity

Parts, Parts, Parts, Parts, Parts, Parts Attachments, Attachments Machinery

BECHLER • ESCO • STROHM • TORNOS

Over the recent years we have acquired the Swiss Automatics spare parts stock from Currier Machine Sales, Hirschmann Corp., Noble Machinery Corp., and Rombach Machinery. Items not in our stock will be located or reproduced for you.

Over 100 Automatics in Stock • Request Our Stock List



D6-R (SR) S/N 2121



R125



Bechler

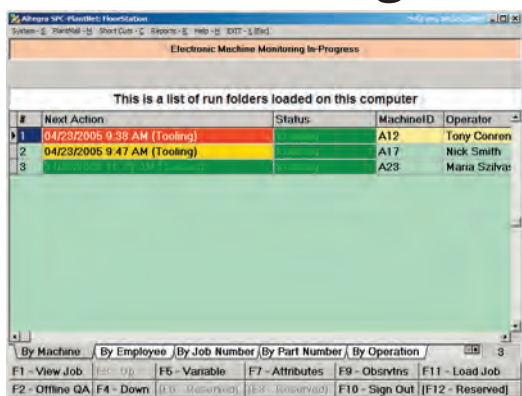
CNC Automatics Bought and Sold

North America's only machinery dealer with Tornos • Bechler and Esco factory trained engineers. We know and service what we sell.



145 Front St., Bridgeport, CT 06606 • 203/334-2197 • Fax: 203/334-1184

Don't Miss Another Tool Change!



- Tool Change Scheduling
- Machine Utilization Tracking
- Tool Life History
- Electronic Machine Monitoring



To find out more, call 888.306.8405 • www.altegra.com

VARLAND

SINCE 1946

Website: www.varland.com
E-mail: sales@varland.com

Electroplating

ISO 9001:2000
REGISTERED



"Varland can Solve your Plating and Thread Fit Problems!"

- Computer controlled. loading and cleaning.
- Monitored plating cycles.
- Plating thickness is X-Ray tested.
- Excellent adhesion and full coverage.
- Careful handling and segregation of parts.
- Quality checks by operator - Q.C. Dept audit.
- Bar code labeling and direct shipments.
- Certifications of plating.

Barrel finishes: Nickel, Copper, Bright Acid Tin, Matte Alkaline Stannate Tin, Zinc, Tin-Zinc Alloy, Zinc-Iron Alloy, Clear and Yellow Dyed Trivalent Chromate, Cadmium, Brass and Electroless Nickel.

PHONE: (513) 861-0555 • FAX: (513) 961-7017

VARLAND

METAL SERVICE, INC.

3231 Fredonia Ave • Cincinnati, OH 45229

PUZZLES

	3						8	
		9				5		
		7	5		9	2		
7			1		5			8
	2			9			3	
9			4		2			1
		4	2		7	1		
		2				8		
	7						9	

Do You Sudoku?

The new craze in Britain is Sudoku, a crossword puzzle with numbers, rather than words. The name stands for “the number that is alone,” and that’s the premise: Sudoku is a grid of nice boxes, which must be filled in so the numbers 1 through 9 appear just once in each column, row and three-by-three square. Ready?

Send in your answers—quick!

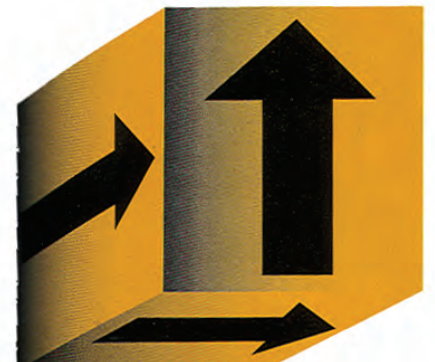
Fax Jill at 708-535-0103 or email jill@screwmachineworld.com

Answer to Dice Arrows

How many different ways can you put six arrows on the face of a cube?

SOLUTION:

Before taking into account the symmetries of the cube, you can place the arrows in 4,096 (4⁶) different ways. But eliminating configurations that are symmetrical duplicates leaves you with just 192 different ways to label the cube with arrows.



Who shot the arrows in an honorable mention kind of way?

Mark Kritz of Parker Hannifin in Reading, PA; **Brian Thomson** of L.H. Thomson Company in Macon, GA; **Doug Pav** of A.M.S. in Clinton Township, MI; and **Cody Scace** of ReedHycalog in Houston, TX.



40 THINBIT
MADE IN THE U.S.A.

GROOVE 'N' TURN®
U.S. Patent Nos. 6,688,816
6,824,333 & Patent Pending

**External & Internal Grooving
and Turning Up To A Shoulder**

Groove Widths .004" through .150" in .001" Increments
Threading from 8 T.P.I.

Face Grooving Major Diameter from .300"
Two Grades of Sub-Micron Grain Carbide and HSS

THINBIT | KAISER TOOL COMPANY, INC.
888-THINBIT • 888-THINFAX

For more information go to www.thinbit.com/gntw



D T S
DAVENPORT
TECHNICAL SERVICES

Expert Engineering Assistance

Davenport's application and tooling engineers are always available to support your engineering needs. No one knows a Davenport machine better than us!

Time Estimates • Cam Design and Production
Engineering Layouts • Turnkey Projects and Part Runoffs
Tooling Design • Guaranteed Production Times
Training Programs for Operators and Maintenance

Call Your Local Stocking Distributor.
DAVENPORT
MACHINE
800-344-5748 • www.davenportmachine.com



BOYER-SCHULTZ SMT/LDE

Two Great Names Are Now Together!
Boyar-Schultz SMT
Division of Lester Detterbeck Enterprises, Ltd.

Contact us direct or through your local distributor.

LDE

3390 US 2 East • Iron River, MI 49935
1-800-533-3328 • Fax 1-906-265-6195
www.boyar-schultzsmt.com
www.lesterdetterbeck.com

KNURLING PROBLEMS?

With the most knowledgeable engineers and sales staff, Accu Trak has the answers to any technical question regarding the knurling process.



We have available for immediate delivery a huge variety of knurling wheels and holders in both "INCH" and "METRIC" sizes as well as custom knurls made to your exact requirements with the fastest delivery in the industry.

For more info on how to ensure your next knurling job runs smoothly

ACCUTRAK

visit us online at
www.accu-trak.com
or call
(800) 433-4933.

MACHINES

**"Briquette To Enhance
Your Bottom
Line!"**

PRAB Chip Processing
SOLUTIONS AT WORK

8 Briquetters to choose from, plus
preconditioning & handling equipment

800-968-7722
www.prab.com

NOMURA
Swiss Style Screw Machines

KGK
KGK International Corp.

www.kgki.com

REED A22 UPRIGHT 3 DIE THREAD ROLLING MACHINE

Excellent condition – fully tooled with
gears, arms and many dies.

Call Amkor Industrial Products
508-799-4970
or email amkor98@aol.com.

FOR SALE

- O/S Davenport s/n 3555 w/
threading, pickup, c'sink, 4th slide
Rebuilt 1 year ago. \$25,000.00
F.O.B. Carson City, NV
- New Davenport repair parts
liquidation sale. All Davenport
collets, new & used, \$10 each.

Call Jack at
JBS Screw Machine
(800) 527-6224

(3) 1" RAN-6 Acmes, 1970

Call Lloyd, Jim or Rex
708/535-2200

stair
CNC Machine Tool Corp.

Call us at: 516-484-0500
www.starcnc.com

HYDROMAT

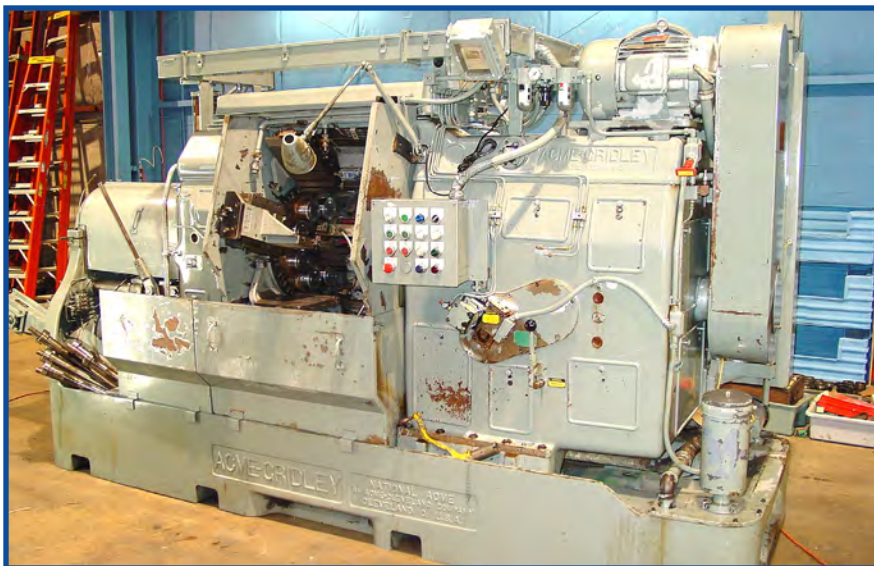
V.12 Trunnion, 1986
Bar Feeder
Primarily 34-60 units

GRAFF- PINKERT & CO., INC.

708-535-2200
email: sales@graffpinkert.com



AVAILABLE IMMEDIATELY



1-5/8" RBN-8 National Acme, mfd. 1995
6 slides (2 shelf)
Universal threading
\$110,000 • Immediately available from our floor

GRAFF-PINKERT
708-535-2200

email: sales@graffpinkert.com

FOR SALE — ACCESSORIES

**OIL MIST & SMOKE
IN YOUR SHOP?**



**ARE YOUR
FLOORS SLIPPERY
AND DANGEROUS?**

www.mistcollectors.com
Tel: 1-800-645-4174

Great For Screw Machines

SERVICES

Wickman Specialist

With more than 30 yrs. experience
I can cater to all your needs.

Rebuilds, maintenance,
problem solving, tooling, set-ups,
training and more.
Based in IL, will travel anywhere.
Reasonable rates.

**Call Brian Madden at
(815) 282-5418 or
(815) 520-0375 (cell)**
e-mail
brian.madden@insightbb.com

IT'S NOT EASY BEING GREEN...BUT WE DID IT!

1-800-433-LUBE
www.hangsterfers.com

HANGSTERFER'S LABORATORIES, INC.

Increased Tool Life

Great Surface Finishes

Long Sump Life

Environmentally Friendly



www.zincplating.com



STEEL MARKING STAMPS

When quality and dependability matter the
most, call Wisconsin Engraving for all your
replacement stamp needs.

262-786-4521
www.wisconsinengraving.com

Metalworking equipment on eBay?

Of course!



www.ebaybusiness.com

GAGES & LAPPING SERVICES

Validate Precision Measurements with Absolute Accuracy

Ultra-precise gages manufactured in-house to
ensure the highest quality standards.

- Thread measuring wires
- Gear measuring wires
- Cylindrical plug gages – including Class
XXX and specials

Also available:

- Optical Flats
- Cylindrical lapping services
- Calibration and inspection services



11 Presidential Way, Woburn, MA 01801
Tel: 781.994.5000 • Fax 781.994.5001
800.343.4111 • info@bostoncenterless.com
ISO 9001:2000 Certified
www.bostoncenterless.com

HELP WANTED

Brown & Sharpe/ Davenport Machinist Wanted

Need a set-up person
with at least 5 years
experience.

Located just south
of Houston, Texas.

**CONTACT
JOHN OSBORN
281-485-6258**



Finally, the Best Source for Connecting
Talent and Companies within the
SWISS CNC INDUSTRY!

*Companies - Post Your Swiss CNC Jobs!
Employees - Find Your Dream Job!*

SwissCNCjobs.com

NOW HIRING!

We Have Immediate Openings for
Swiss CNC Programmers,
Mfg Engineers, Sales, Plant &
Operations Mgrs, Quality Engineers
& Set-up!

LANCE SOLAK
Lance@LSIJOBS.COM
330-273-1002

LSI Manufacturing Solutions

*The USA's Leading Firm
Staffing the
SWISS CNC & SCREW
MACHINE INDUSTRY!*

See NATIONWIDE
Job Openings on
www.LSIJOBS.COM

HELP WANTED

SALES ENGINEER WANTED

***Sell for the Best!!!
Precision Machined
Components***

MEDVEC Resources Group
MMK EAST

- Account Mgr. (high volume multies) Eastern USA
- Sales Engineer (automotive/CNC components) Michigan
- Sales Engineer (Acme/CNC Components) Michigan
- Sales Manager (high volume screw machine) Based in Ohio
- Program Manager (automotive/ machined components) USA
- Account Mgr. (swiss CNC/ Medical Components) IN, OH, PA

MRGCareers.com

**More Jobs ~ More Often
Need to Increase Companies Sales?**

Call Tom Medvec (330)722-5171
24/7 Fax (330)722-7360
SalesJobs@MRGCareers.com

CNCswissJobs@ MRGCareers.com

MEDVEC Resources Group
MMK EAST

More Jobs ~ More Often

***Star • Citizen • Tsugami
Tornos Deco***

- **MACHINSTS/PROGRAMMER** (Star) – MA, PA, CA
- **MACHINISTS** (Tornos Deco) – MA
- **SUPERVISOR** (CNC and CAM Swiss) – NH, CA
- **SR. MFG. ENGINEER** (Citizen/Star) BIG \$\$\$ - PA, FL
- **CNC SWISS LEADMAN** – NJ, VT, CT, IL
- **CITIZEN PROGRAMMER** – N. Ohio
- **STAR PROGRAMMER** – MA, CA
- **APPLICATIONS ENGINEER** (Swiss CNC) – NY, OH, IL, CA

**Not seeing a job in your area!
Give us a call.**

Tom Medvec (330)722-5171
24/7 Fax (330)722-7360
CNCswissJobs@MRGCareers.com

Engineering Opportunities MRGCareers.com

- Manufacturing Engineer (Acme or Davenport) 70K – OH
- Service Engineer/Programmer (CNC Swiss) up to \$80's – East Coast
- Sr. Process Engineer (5th axis milling/medical) \$75-85K – PA
- Screw Machine Engineer (multies) 65-75K – RI, OH, IL
- Swiss CNC Engineer (Star or Citizen) up to \$80's – PA, FL, OH, IL, CA
- Applications Engineer (Swiss CNC) up to \$80K – NY, CT, MA
- CNC Process Engineer (lathes/mills/small parts) up to \$75K – PA, NJ, MA
- Manufacturing Engineer (2-3 axis lathes) up to 75K – IL
- Process Engineer (European multies) BIG \$\$\$\$ - up to \$80's
- Engineer/Programmer (medical, CNC, swiss) up to \$80's - PA

MEDVEC Resources Group
MMK EAST

More JOBS ~ More Often

Call Tom Medvec 330/722-5171
EngineeringJobs@MRGCareers.Com
24/7 Fax (330)722-7360

Leadership Wanted

20 YEARS OF DEVELOPING CONTACTS

MEDVEC Resources Group
MMK EAST

MRGCareers.com

- Davenport Manager – N.W. Ohio
- Manufacturing Manager (multies) – AL, PA, NE
- Acme Foreman – NE
- Davenport Foreman – FL
- Plant Manager (swiss CNC / medical) – CA
- Swiss CAM/CNC Mgr. – NH, S. CA
- Operations Manager (multies/automotive) W. MI

More Jobs, More Often

Contact Tom Medvec • 330/722-5171
ManagementJobs@MRGCareers.com
24/7 Fax: 330/722-7360

MACHINISTS WANTED

- Acme – IL, NJ, MA, TX, NC, NE, MI
- Hydromat – NC, RI, OH, IL, IN
- Davenport – MA, CA, NE
- Index – CT, MA, RI
- Schutte – NY, OH, NC
- Tornos (multies) – MA, MI, OH

MEDVEC Resources Group
MMK EAST

**Top \$\$\$ and Benefits
Relocation Assistance**

**More JOBS ~ More Often
MRGCareers.com**

Tom Medvec 330/722-5171
MachinistsJobs@MRGCareers.com
24/7 Fax 330/722-7360



**Stop Waiting
for a Raise!
Contact MRG Today.**

MEDVEC Resources Group
MMK EAST

MRGCareers.COM

- * Largest List of Classified Postings
- * Resume Evaluations
- * Interview Training
- * Job Search Marketing Plan
- * Career Counseling

**Good Job Opportunities
Start With Your Ability
To Sell Your Skills.**

It's all who you know.

**More JOBS ~ More Often
Call Tom Medvec
(330)722-5171**

Recruiter@MRGCareers.com
24/7 Fax: (330)722-7360

FOR SALE — TOOLING

CNC Lathe Spindle Liners

Maximize Machining Control

10530 E. 59th Street
Indianapolis, IN 46236
Ph: 317.823.6821 • Fax: 317.823.6822

Visit us on the internet at
www.trusty-cook.com
email: trustycook@aol.com



FREE 30-DAY TRIAL

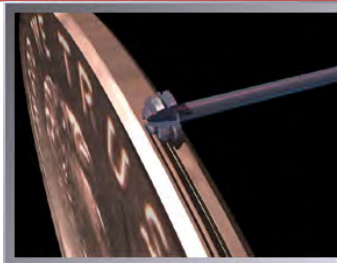
All insertable box tool bits +
our new stick tools (1/4" - 5/8")
while stock lasts.

DT Tool Holders • 813-236-2496.
www.dttoolholder.com

Forming & Shaving Toolholders,
Roll Supports & Steady Rests,
Recess Attachments & Center Lives
The finest Screw Machine Tools!

www.slatertools.com
(586)465-5000

Highest Quality Precision Cutting Tools



Reamers/Drills • Thread Mills
Thread Whirl Inserts
Dovetail Forms, Shaves, Platforms
All Special Form Tools • Quick Quotes
Carbide, HSS, Cermet
Tool Design Service and Engineering
Tight Tolerances
Micro-Medical Tooling

www.completeool.com
www.completeool.net
email: info@completeool.com
763.571.4242 • Fax: 763.571.4406
7760 Elm Street N.E.
Minneapolis, MN 55432

Quality • Service • Value

Complete

Tool Grinding

Marking Tools

In a jam? Need a quick
turn around on rolls or
special stamps?
Call SOSsner —
We'll answer your
distress signal!
SOS — it's in our
name.

800-828-9515

RAY H. MORRIS
800-243-0662

**The only
number you
need to know.**

**Davenport, B & S,
multi's; parts,
tooling, or
accessories;
we have
what you want.**



New Market Products Co., Inc.
800-238-2240 or 607-292-6226

A PRE-SET TOOLING SYSTEM TO SAVE
SCRAP, TIME & MONEY

- ◆ Dovetail Form Tool Holder
- ◆ Compact Rigid Cutoff Holder
- ◆ Ultra Quick Change Shave Tool Holder



**QUALITY you can count on! ...
a proven REPUTATION!**

EXTERNAL THREADING TOOLS



RSVP Tooling, Inc.

For more information, technical support
Direct # 630-719-9519 • Fax # 630-719-0012

and quotations call our toll free # 888-289-7787
E-mail: sales@rsvptooling.com • Web: www.rsvptooling.com

FOR SALE — TOOLING

Non-marring Feed Fingers & Pushers For automatic screw machines



815-624-8011
www.greentechnologies.biz

Cutting Tool Innovations (CTI) is the leading manufacturer of the complete range of screw machine tooling, including counterbores, recess tools, dovetail & circular form tools, trepan tools and hollow mills. Founded in 1956, CTI has almost fifty years experience in manufacturing special screw machine tooling in HSS, brazed carbide and solid micro-grain carbide.



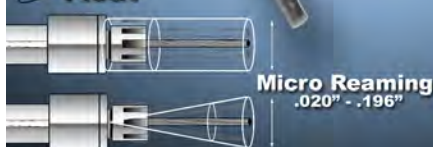
www.ctitool.com
877-597-0700

Another Broken Reamer?

Try Our Floating Holder



Compact Design



Proudly Imported by...

Genevieve Swiss Industries, Inc.
www.genswiss.com

Ph: 413-529-2009 Fx: 413-527-2604

SOMMA TOOL CO., INC.

Call us for Broaches, Dovetails, Holders, Quick Change Insert Tooling, Cutoff Blades, and more. Quick quotes on specials too!

PHONE: 203.753.2114 | FAX: 203.756.5489
www.sommatool.com

THREADING TOOLS

LANDIS THREADING SYSTEMS

Threading tools for high volume, small diameter applications.



Landis Threading Systems

An Allegheny Technologies Company

www.landisthreading.com

Toll-Free: 800.358.3500 • sales@landisthreading.com

AUCTIONS



eBay Auctions conclude every Friday. Machines, Accessories, Tooling. Low opening bids. No reserve.

Go to eBay.com, search under "screw machine."

Sign up for Graff-Pinkert's fax alert.

708-535-2200

email:

sales@graffpinkert.com

FOR SALE

Mini-Skimmer™ Oil Skimmers

Remove Tramp Oils From Coolant!

- 30 Stock Units Types and Sizes!
- 5 Standard Belt Lengths
- Sold Since 1990!
- \$178 up!



FREE CATALOG!

Wayne Products Inc.

Call 800 255-5665 Fax 610-251-0218

Email: wayneproductsinc2@att.net

Web: wayneproducts.thomasregister.com

Wire EDMs

For Form Tools
New \$82,500

(AWT, submerged, etc.)

Refurbished \$27,500

W/on-site training and warranty

EDM NETWORK

www.edmnetwork.com

1-888-289-3367

National Institute for Metalworking Skills

THE NIMS ADVANTAGE

Metalworker skills are certified through the earnings of NIMS credentials, which are respected nationwide, and required by some firms (see the General Dynamics website).

All NIMS standards are industry written and industry validated. The standards are modular, thus credentials are obtained based on specific metalworking competency.

NIMS is an accredited developer of American Nations Standards by the American National Standards Institute (ANSI).

The web-based certification process allows metalworkers to register, submit completed Credentialing Achievement Record (CAR) applications and download other information including study guidelines for Level I, II, and III standards. Over 10,000 certifications have been issued to date. Growth has recently accelerated due to greater involvement of industry, the armed services, Federal and State government.

Human resources personnel recruit, hire and evaluate employees based on NIMS credentials, such as:

- a) Defense industry contractor (General Dynamics) requires NIMS certification for a job as senior manufacturing associate.
- b) Precision machine job shop wanted ad: NIMS-certified applicants preferred.
- c) Army machinists earn NIMS certifications based on the skill level achieved at specialized mechanics training. They also receive career points for each NIMS certification obtained.

NIMS skill certification card validates present and prospective employee's skills. Competitive manufacturing requires competency-based skill measurements. Obtaining the card motivates employees to improve their skill level.

College credits are now issued by educational institutions across the country to students who have obtained NIMS certifications.

Pennsylvania is not only grading its metalworking students to NIMS skills standards, but NIMS credentials are also issued to students who meet NIMS certification requirements.

**For more information, please call 703-352-4971
or visit their website at www.nims-skills.org**

- 77 ACCUTRAK**
Link with the pros in knurling and roll forming. Contact us at 800-433-4933 or visit www.accu-trak.com.
- 75 ALTEGRA**
The SPC solution for machine shops. Call 888-306-8405 or visit www.altegra.com.
- 8 AMSCO**
AMSCO stocks a large variety of parts & tooling for B&S, Davenport, Acme, New Britain, and Lipe Bar Feeds. Call 800-832-6726.
- 28 AMT MACHINE SYSTEMS**
Creator of the ServoCam System, increasing the productivity capacity of your B&S Automatics. Visit www.servocam.com for details.
- 65 ARCH MICRO TOOL**
High precision micro end mills. Call 877-335-7519 or visit www.archmicrotool.com.
- 65 BFG ELECTROPLATING**
Offering a zinc-nickel automated rack line. Visit www.zincplating.com. Call 716-649-3221.
- 12 CHAMPION SCREW MACHINE**
Your headquarters for tooling and replacement parts.
- 75 COMEX-CONT. MACH. EXCH. CORP.**
Swiss CNC and cam automatics experts. Large stock of automatics, attachments and replacement parts. "Turnkey" including training is available. AMEA-CEA certified appraisals from coast to coast.
- 20 CJ WINTER**
Your source for quality attachments and thread rolls. Call 800-288-roll or visit www.cjwinter.com.
- 77 DAVENPORT**
Come back to the new Davenport. A Brinkman International Group, INC. Call 800-344-5478 or visit www.davenportmachine.com.
- 18-19 DETROIT AUTOMATIC TOOLING**
World's largest stock of threading equipment; new, surplus tooling and repair parts for multi-spindle automatics. www.detroitautomatic.com.
- 15 ETCO ENGINEERED TOOLING CORP.**
The largest manufacturer of QUALIFIED SWISS INDEXABLE INSERTS & TOOLHOLDERS, specializing in grooving, turning, backturning, threading, boring & custom specials.
- 24 GIBBSCAM**
Multi-task machining to the max. Call for your free interactive tour CD-ROM. 800-654-9399 or visit smw.gibbscam.com.
- 36-37 GRAFF-PINKERT**
54-55 Specialists in multi-spindle automatic screw machines and rotary transfers. Family owned business for over 60 years. Check out www.graffpinkert.com.
- 65 GREEN TECHNOLOGIES**
Since 1942 the premier manufacturer of non-marring masters, feed fingers, inserts and floating reamer holders for automatic screw machines. Call 815-624-8011.
- 16-17 HAAS AUTOMATION**
Largest machine tool builder in the U.S., providing a full line of CNC vertical and horizontal machining centers, CNC lathes & rotary products. Visit www.HaasCNC.com or call 800-331-6746.
- 87 HANWHA**
Travel the Hanwha road with professional Swiss-style CNC turning centers. Call 262-373-1600 or visit www.hanwhamachinery.com.

- 4 HYDROMAT**
Offering unique and innovative manufacturing solutions with the world's finest precision transfer machines. Hydromat, Accelerating the Pace of Productivity. 314-432-4644 or www.hydromat.com.
- 75 IPCC - IND. PREC. COMP. CORP.**
Machinery and equipment for the precision machining industry. Support equipment for screw machine users. Swiss and Esco layouts, cams, tooling, set-up and repair service.
- 2-3 KSI SWISS**
Specializing in new, fully equipped CNC Swiss Automatics and multi-spindle machinery. Call 303-665-3435 or email: tom@kmtswiss.com.
- 77 LASER IMAGES®**
Fast, accurate and dependable laser engraving service. Contact Mike Culp at 260-484-3620.
- 59 LELAND-GIFFORD, INC.**
Precision machines and replacement parts for the metalworking industry. Visit www.barkermill.com. or call 330-794-1960.
- 77 LESTER DETTERBECK**
Manufacturer of Special Cutting Tools, Tool Blanks, Cams and Tool Holders for the Turned Parts Industry for over 90 years. 1-800-533-3328.
- 23 LOGAN CLUTCH**
Better machine utilization: More productivity from existing machines, operators and floor space.
- 88 MARUBENI CITIZEN-CINCOM, INC.**
A joint venture company—Marubeni Tokyo & Citizen Watch Co., Ltd., builder of precision Swiss-type lathes.
- 6 PARTMAKER SOFTWARE/IMCS INC.**
PartMaker CAD/CAM greatly reduces part programming time for CNC Mills, Lathes, Wire EDM, Turn-Mill Centers and CNC Swiss-type lathes. Call 888-270-6878 or visit www.partmaker.com.
- 64 PORT CNC**
Wireless DNC, machine monitoring, data collection & bar coding. Call 414-817-7070 or visit www.enetdnc.com.
- 64 RSVP**
Increase your tap life over 200x. Call 630-719-9519 for more details.
- 26-27 SCHUTTE**
125 years and still the benchmark for precision turning. Call 517-782-3600 or visit www.schuttemsa.com.
- 25 SHORTY'S**
Your "one stop" supplier for automatic screw machine repair parts and tooling. Call 800-443-6666 or visit www.shortystooling.com
- 64 SOMMA TOOL**
Family-owned, customer focused since 1939. Broaches, Dovetails, Hollow Mills, Quick Change Insert Tooling and much more. Experience honest-to-goodness service. www.sommatool.com.
- 14 UNIVERSAL AUTOMATICS INC.**
Specializing in the sale of good quality used automatics, CNC's and rotary transfer machines. Call 954-202-0063 or look for special offers at www.universalautomatics.com.
- 75 VARLAND METAL SERVICE**
Specialists in high quality, precision barrel electroplating since 1946.
- 64 WISCONSIN ENGRAVING**
Your source for flat, roll and hand stamps and embossing dies. Call 262-786-4521 or visit www.wi-engraving.com.



THE JEWISH CONGA

BY LLOYD GRAFF

In mid-May, I attended the annual used machinery dealer's convention in New York City. As always, the unscripted part of the trip was the most worthwhile for me, and the conventional convention the most disappointing.

The MDNA (Machinery Dealers National Association) planned a typical convention. The programming was pedestrian "How to Work a Room," joint venture issues, international trade – viable topics, unimaginatively done. Could I have done it much better? Maybe not, but I was bored, as was my son Noah, attending his first such event. I was there for networking. The Thursday night kickoff party committed the cardinal sin of bringing in loud music (insane drumming) during the cocktail hour, and providing 190-decibel performers during dinner. Will they ever learn that networking requires listening? Eight-piece bands just can't contain themselves, because they mistakenly believe that "they" are the party.

For me, the highlight of the long weekend came on Friday night. The MDNA had, obtained blocks of tickets to Broadway shows like Hairspray and The Producers for that night. I actually bought tickets for Hairspray, but just before I left for New York I talked to my daughter, Sarah, who had spent five years living on the Upper West Side of Manhattan while attending the Jewish Theological Seminary on her journey to becoming a Rabbi. She asked what we were doing in New York Friday night,

and I sheepishly said we were going to the Theatre. She said, "Dad, you must go to BJ."

I already had plunked down good money for the Hairspray tickets, but Sarah hit a nerve when she mentioned "BJ," which is short for B'nai Jeshurun Synagogue, a one-of-a-kind institution at 86th and West End, housed in a large church.

For the father of a Rabbi, I am an uninspired attendee of religious services. I rarely go, unless my daughter is conducting (her pulpit is in the Bay area). Why don't I go? Most services are about as inspiring and spiritual as an MDNA meeting.

But then there is BJ.

About a thousand folks normally attend a Friday night Sabbath service. Services are led by a Rabbi from Argentina, and the musical director plays electric keyboard. The service is about developing a feeling, finding a sense of spiritual centering after a hectic week, connecting with others who have come to enjoy each other, and immerse themselves in the warmth of the Sabbath and BJ.

After a few minutes of lilting introductory songs, the pace picks up. People are invited to dance in the aisles, almost like a Jewish conga line. BJ is a meeting place for single people. I am sure a lot of marriages have started on chance meetings dancing down the aisles.

In a little over an hour, I was

"In a little over an hour, I was transformed from my competitive business mode into a more peaceful spiritual being befitting the Sabbath.."

transformed from my competitive business mode into a more peaceful spiritual being befitting the Sabbath.

My wife Risa and I walked (bounced) back to the Sheraton, stopping at H & H Bagel and Barnes & Noble on the way. The night was sweet.

As I look back on that Friday in New York with my calculating businessman's eyes, MDNA seems flat and BJ lives large.

The MDNA keeps doing the same old stuff for the same old people. The venues change, but the convention is still tired, and the machinery business, as framed by MDNA, reeks of stagnation.

At BJ I saw the weary, low-energy, rote Judaism, common to most services I've attended, mutating into vibrant, exhilarating weekly joy. If there was a BJ in Chicago, I would go. BJ is about celebration and rejuvenation.

As for the machinery dealers? Next year in Las Vegas.

Cincom

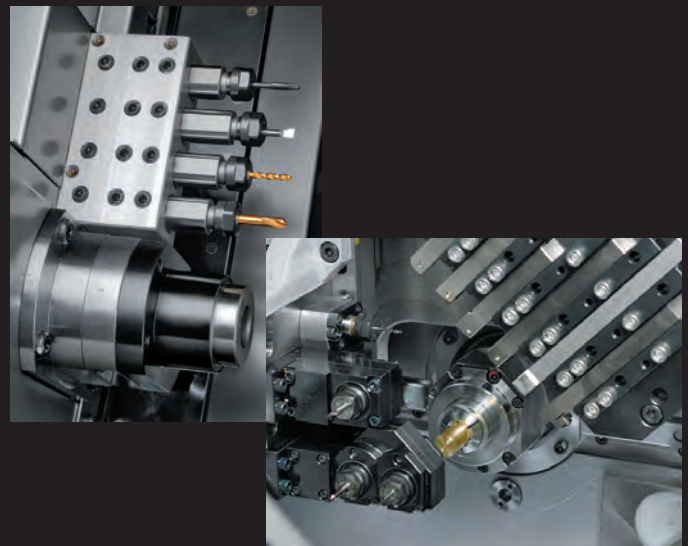
**2-YEAR Machine and
Control Limited Warranty**

Sliding Headstock Type CNC Automatic Lathe

K16



www.marucit.com



**Improved productivity
for complex machining**

Machine specifications	
Item	K16 VII
Max. machining diameter	φ16mm
Max. machining length	200mm
Main spindle speed	15,000min ⁻¹
Back spindle speed	10,000min ⁻¹

CITIZEN The World Leader in CNC Swiss Turning

Marubeni Citizen-Cincom Inc.

MANUFACTURED BY CITIZEN WATCH CO., LTD

40 Boroline Road
Allendale, NJ 07401
(201) 818-0100

1801 F Howard Street
Elk Grove Village, IL 60007
(847) 364-9060

17815 Newhope Street, Suite P
Fountain Valley, CA 92708
(714) 434-6224



ISO9001:2000

