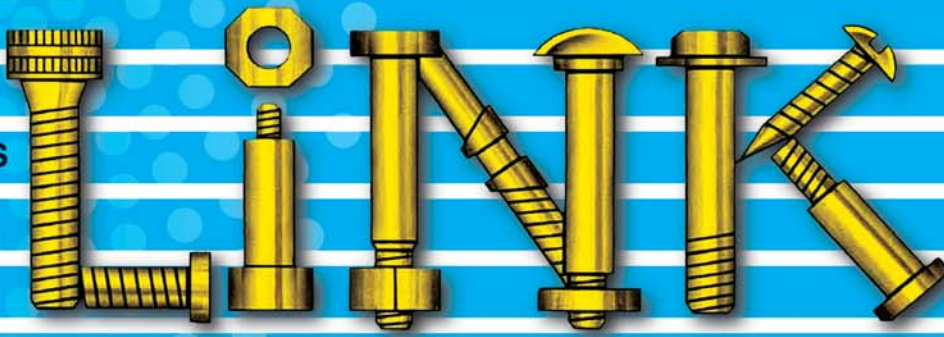


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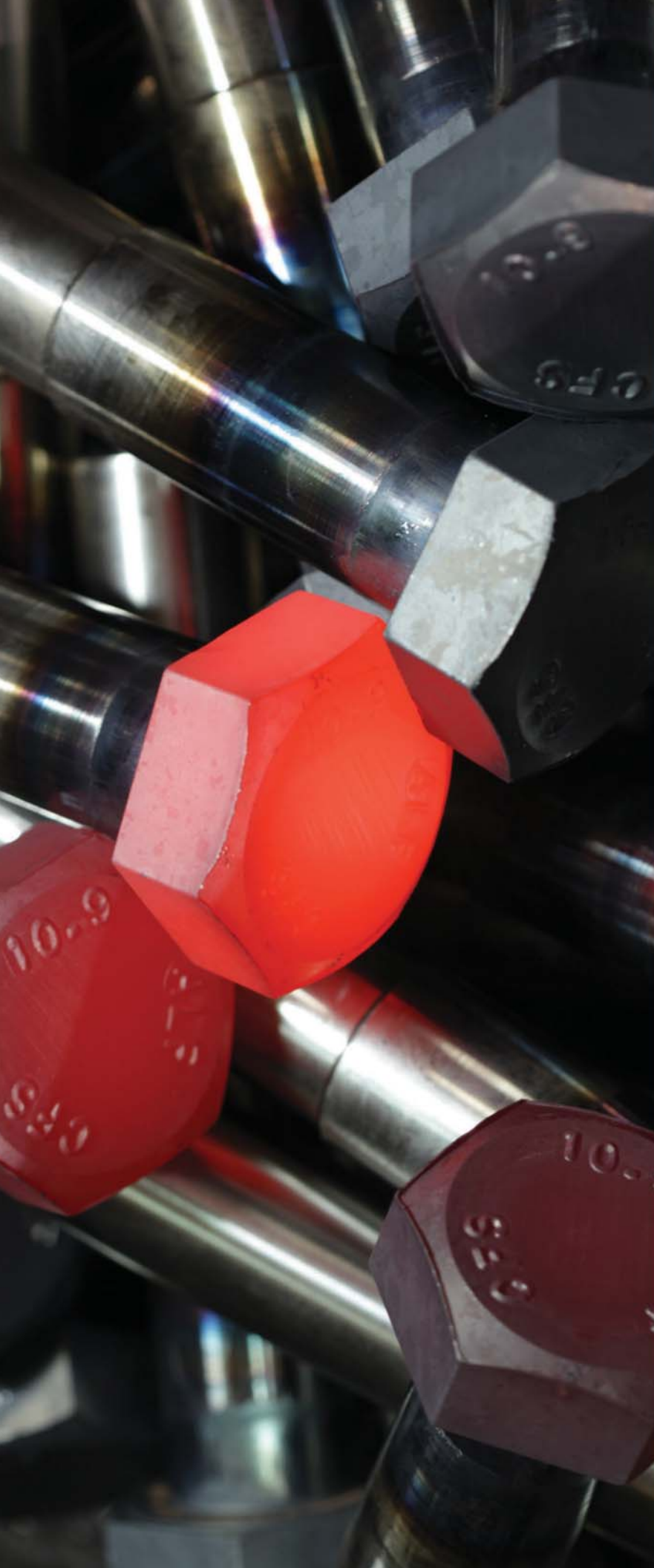
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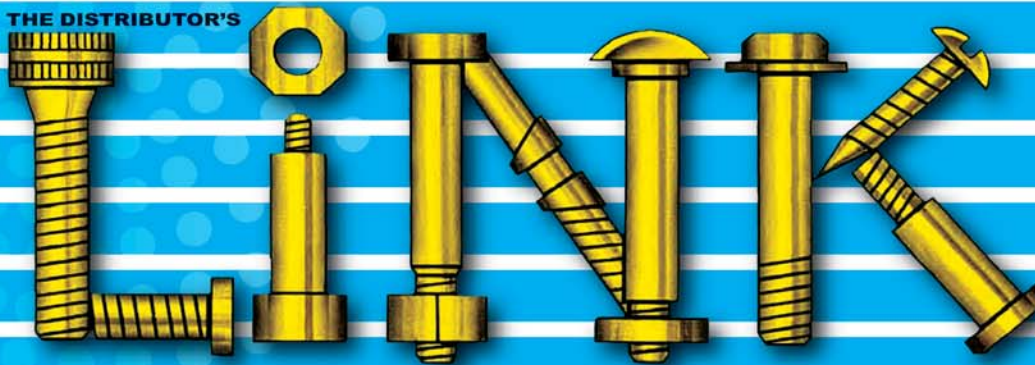
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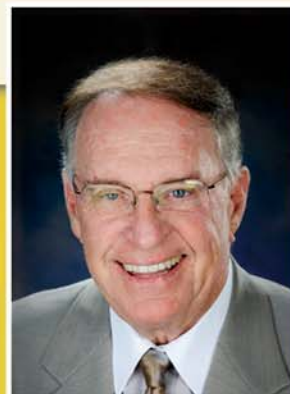


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DISTRIBUTOR NEWS

North East Fasteners Corporation (NEF), has purchased and is now installing another 2 precision cold headers on top of the 4 other recent purchases of these same machines. It is NEF's intention to better lead times as well as open up a more flexible scheduling system for our customers. NEF has well over 70 production machines producing an average of 1.6 million high quality fasteners per day.

In other news, NEF has sold off its Chinese affiliation, Ningbo Wili Precision Fasteners Co., Ltd which was effective on 12.31.2012. NEF has also updated its AS9100 Certification to Revision C with a 100% score; which has maintained a perfect record to date. NEF is an ISO 9001:2008 + AS9100C, QSLM Levels 2/3 certified supplier. **Markets served:** Commercial, Military, Aerospace and Automotive. **Size range:** (Inches) 00 to 10 and (Metric) M1.2 to M5, up to 2 Inches (or 50mm) in length. **Specifications:** IFI, ANSI, MS, NAS, NASM, AN DIN, JIS, JCIS, ISO, QSLM, DFAR, ROHS; and Specials.

For more information contact North East Fasteners at P.O. Box 322, 8 Tremco Drive, Terryville, CT 06786-0322. Tel: 860-589-3242, Fax: 860-589-6969, email: nef@nef1.com or online at www.nef1.com.

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Fascomp's product line includes Spacers, Standoffs, Handles, Jackscrews, Thumb Screws, Captive Screws, Shoulder Screws and other made to print screw machine products.

For more information, Tel: 407-226-2112, Fax: 407-226-3370, email: sales@fascomp.com or visit them at www.fascomp.com.

In the Fall of 2012, **Western Wire Products** placed into service 2 new CNC wireformers. One of the machines is targeted for small diameter wireforms and the other for larger. At the small end is the Herdon CSX20- Hydrid offering 16 axes of motion handling wire diameters 0.016 to 0.093 inch. At the large end is the Numalliance 216 Robomac for wire diameters 0.312 to 0.625 inch.

The new machines complement Western Wire's 16 existing CNC's. Sales Manager Tim Parker noted that the machines were needed to help shorten lead-times in the CNC department that has lengthened by an uncomfortable 2 to 3 weeks this past Summer.

For more information about Western Wire Products, please contact Tim Parker at 1-800-325-3770 ext 18 Fax: 636-305-1119. You can email them at: sales@westernwireprod.com or visit their website at www.westernwireprod.com. For made to order items, visit www.customwireformingnow.com.

* * *

The **Pacific-West Fastener Association** is proud to announce that it now has 150 total members. And that number is expected to grow, because several more membership applications are in process.

When questioned about the recent surge in new members Pac-West president Russ Doran attributed the growth to a recovering economy, relatively strong business in the fastener industry, and people joining to take advantage of the discounted member rates for Fastener Training Institute (FTI) programs. "When you look at the savings on Certified Fastener Specialist training events, a membership pays for itself pretty quickly." FTI chair John Wachman added, "We even have members joining from outside our traditional area who see the value in investing in their employees with what is the best fastener training program around."

The entire offering for 2013 of Fastener Training Institute programs is now available online at www.FastenerTraining.org.

Details on other Pac-West events can be found at www.pac-west.org.

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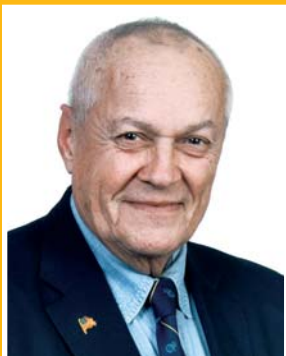
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Bengt Blendulf

Bengt Blendulf is president/principal lecturer of EduPro US, Inc. Educated in Sweden, he moved to the United States in 1974 to start a subsidiary for a Swedish fastener manufacturer. Bengt also served for eight years on the faculty in the College of Engineering and Science at Clemson University. Since 1997 he (EduPro) teaches highly rated courses in Fastener Technology and Bolted/Screwed Joint Design in the U.S., Canada, Mexico, Europe, Asia and India, for engineers and other fastener professionals. Bengt was the chairman of ASTM F16.96 Bolting Technology from 1996 to 2006. In 2006 he received the Fred F. Weingruber award from ASTM for "his efforts to promote and develop standards for the fastener industry." He is the author of an extensive lecture book as well as over 100 technical papers and articles. His business address is: EduPro US, Inc., PO Box 232, Alameda, CA 94501; phone 510-316-3234; email: bengt@edupro.us; web: www.edupro.us.

FASTENER TYPES: PRIMARY AND PREFERRED USES

When we select the best fastener for a mechanical joint, we must first consider several factors like –

- Mechanical properties (joint and fastener)
- Load carrying or Place-keeping
- Assembly method and equipment
- Service requirement (disassembly, re-use)
- Joint materials
- Forces acting on joint

One limiting factor in the fastener using (abusing?) industries is that we don't train designers in the proper way of selecting and using mechanical fasteners. Most mechanical engineering students get a very limited education in the fastening technologies and the bolted and screwed joint design from their university study. When they eventually enter the work force they often copy what is commonly used in the company (maybe an internal parts list) or what they see in various products like autos, appliances, machinery, etc. It may, or may not, be the best choices but is already in use. But, to repeat a bad (if it is) choice often enough is not making it any better.

Let's take a closer look at those factors mentioned:

Mechanical Properties

There must always be a balance between the clamped parts (joint materials) and the clamping devices (fasteners). To use a high strength fastener like a Socket

Screw on a joint of aluminium or polymer (plastic) is like "putting an elephant's foot on a cheese cake". The surface pressure under the head (or nut) can be very high at the desirable preload level (proof load or other portion of elastic limit) which can cause embedment in the clamped substrate. This will mean loss of preload in the joint and add unwanted stress to the fastener from the external forces acting on the joint.

The mechanical properties (Classes or Grades) of

fasteners should be sufficient to carry enough load to satisfy preload (clamping) and any additional load requirement. To use too strong fasteners for the application is not only more costly, but can also cause undesirable side effects like hydrogen embrittlement and stress corrosion cracking. To replace a broken fastener with a stronger one may sound like a good idea. But, if we don't know the background to the design we could actually move a potential failure to a more costly part of the design.

Sometimes a broken, or on the way to break, fastener may be a chosen "preferred failure mode".

In my experience, it is more realistic to talk about a joint failure that caused a fastener to break than a fastener just breaking. There is a substantial higher probability that a failure is due to a poor or inadequate joint design or assembly error than a poor quality of the fastener. But, when things like this happen, the first to be blamed is typically the fastener supplier.



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Robert B. Footlik

Robert B. Footlik is a licensed professional engineer. A graduate of Illinois Institute of Technology, he has worked extensively in the fields of material handling, plant layout, packaging and management systems. The firm of Footlik and Associates serves as staff warehousing and materials consultants to six trade associations. Footlik writes for 12 trade and professional journals. Footlik and Associates is located at 2521 Gross Point Road, Evanston, Illinois 60601; phone 847-328-5644.

PROMAT 2013: TRENDS AND EQUIPMENT

Every other year ProMat, the national Materials Handling and Logistics Show, comes to McCormick Place in Chicago. This is the largest exposition of products, software and systems in the US with almost 1,000 vendors and over 850,000 square feet of exhibit space. For four days in January it's the showcase of innovation, productivity and efficiency improvement for many industries including Fastener Distribution. This year there were two aspects of particular importance to your businesses future.

Trends

While the final numbers are not in yet it is likely that over 40,000 people attended with an especially heavy crowd on Monday, January 21, the Dr. Martin Luther King Memorial holiday. But in one aspect this was the quietest show in memory. In previous years the equipment on display would bang, pop, hiss and clank. This year due to a new awareness of noise pollution previously loud conveyors made barely a hum.

New motors, bearing and drive systems have dropped the noise level to almost zero. In addition, sound attenuation materials on the inside of housings and conveyors drastically reduced the decibel levels in the halls. This is great news for Fastener Distributors who use conveyors for moving loose and packaged products because along with sound reduction there is a significant increase in the reliability of the equipment and elimination of frequent maintenance.

Automatic guided vehicles are not particularly news, but the increased number of vendors showing autonomous and semi-autonomous fork lifts and product movers constitutes a clear trend for the future. Typically a lift truck spends 90% to 95% of its operating time moving materials laterally and only 5% to 10% putting it away. Eliminating the operator can significantly reduce warehouse labor, especially when combined with software to optimize the paths and tasks.

For those operations where a human is still necessary new Warehouse Management Systems with radio links to the personnel and vehicles were everywhere. This trend points to elimination of movements from the docks to

storage with full forks and an empty fork return. If a vehicle is dispatched to perform one task it can return following a path that incorporates more work. For any single out and back cycle this will increase the time spent, but by combining tasks there can be a 40%+ increase in utilization.

Ergonomics has become an increasingly important trend. Many vendors exhibited lift tables, elevating pallet jacks and other equipment to make the personnel and the task more comfortable. Individual work stations that adjust in height are now available from most of the shelving and bench manufacturers. If your operation includes people of varying stature this can be a great way to make them more comfortable and enhance morale.



The Automate Show was collocated with ProMat in a second building. The major trends here were speed and "machine vision." One robotic arm moved so fast that the eye could not follow as it picked up parts and placed them in new locations in emulation of the old shell and pea game. The motion was smooth, controlled and precise far faster than a human could react.

In other displays this was coupled with "machine vision" where television cameras focused on random sized and shaped materials to provide the input that directed the robotic movement. For example one robot placed irregular objects for a second device to pick up. Robot number two then dropped the items on a 45 degree inclined surface to further randomize pick up/sortation movements that returned the pieces to the first robot.



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Joe Dysart

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During the past decade, his work has focused exclusively on ecommerce.

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WINDOWS 8: HOW MICROSOFT'S BIG BET IMPACTS FASTENER DISTRIBUTORS

Sporting a radical redesign that's expected to charm some fastener distributors and disappoint others, Microsoft's new Windows 8 faces a tough slog ahead, including a slow adoption rate, analysts say.

"The challenges of a new user interface, a complex set of processor choices, and a long ramp to a compelling set of app offerings in the Microsoft Store will translate to a slower than usual Windows upgrade cycle," says Frank E. Gillett, an analyst with Forrester (www.forrester.com).

Gillett is lead author of the new Forrester Report, "Windows: The Next Five Years." The study predicts a grim forecast for Windows 8 next year, concluding that Microsoft could re-stabilize market acceptance its Windows product line long term with the right moves.

Microsoft is betting big on the new OS, which for the first time, is driven by touch-screen controls. The change makes Windows much easier to use on smartphones and tablets. But on traditional desktops, the new interface comes across as clunky and inefficient, say many early adopters.

"This common design language is being used across all of Microsoft's products and services, including Xbox and Bing," Gillett says. "To run existing Windows desktop apps, and to access some systems settings and features, users will switch to 'desktop mode.' This dual OS personality will likely confuse many users, at

least a first.

"Although Forrester is encouraging enterprises to look at Windows 8 in all use cases, the new Windows 8 UX Start screen is prompting concerns about the need for extensive employee training," Gillett says. "Having finally migrated to Windows 7 in significant numbers and released their death grip on Windows XP, many enterprise IT shops are content to stand pat."

Steve Ballmer, Microsoft CEO, sees things differently: "We have re-imagined Windows and the result is a stunning lineup of new PCs. Windows 8 brings together the best of the PC and the tablet. It works perfect for work and play and it is alive with your world. Every one of our customers will find a PC that they will absolutely love."

Microsoft is putting significant marketing muscle behind the new roll-out – including the release of its own, Microsoft-manufactured tablet for Windows 8, Surface. The Redmond goliath decided to manufacture its own Windows 8 tablet in an effort to showcase the OS' full capabilities,

according to Ballmer.

Microsoft partners are also releasing their own studies, indicating user interest is more enthusiastic than others have found. PC Helps, a Microsoft gold-certified partner, for example, says 25% of employers with 500 or more employees anticipated migrating to Windows 8, according to its Windows Pulse Survey.



Above: Microsoft CEO Steve Ballmer has characterized Windows 8 as a complete 're-imagining' of the operating system.

Below: Microsoft's first sale of its Surface tablet.





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Jim Truesdell

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FAVORED BIDDERS - RIGHT OR WRONG?

Bill had been called in by his potential customer to size up a problem on the production line. The company experienced delays in production as the rivet application tools had been breaking down for the past several months. In hopes of getting the largest share of the customer's rivet business, Bill used his many years of experience to suggest tool modifications which would alleviate the problem. He spent considerable time observing the workers and breaking down and examining the tools. The production supervisors were grateful for Bill's input, which he had provided at no charge.

Two weeks later the company went out for bids for its annual requirement of rivets. Purchasing came up with a list of needed fasteners (after consulting with the managers on the factory floor) and then put out a quote request to four potential suppliers. The low bid came in from a no frills outfit that did not employ an outside sales representative who would visit customer sites. Their expertise was limited.

Bill's company, with their extra built-in costs for traveling reps like Bill and others, and with in-house design engineers, was a distant third in the quoting. Some of the production guys wanted to give Bill a last look and a chance to beat the winning bid, but purchasing replied that they needed to squeeze every last dime out of the product cost and, besides, they felt it would be unethical to give a favored bidder that last look.

Bill was left wondering what good all of his efforts and work had been. In fact, his sales manager criticized him for wasting time and money without reeling in the big order.

This whole process of bidding out work or supply contracts gives rise to questions about what is right and proper. Should there be payback for the company that has provided extra services? Is it taking advantage of a company

if you seek their special knowledge to solve a problem and then place the order with a low bidder? On the other hand, is it unfair for someone to expend time and effort to bid a job only to find that a favored bidder is getting the chance to meet or beat the low number? Will word get around about what is going on and will bidders disappear or start bidding high to the detriment of the purchasing company?

In the construction industry, we often see the practice of what is called "bid shopping" or "bid peddling."



The general contractor takes competitive bids from subcontractors to whom he is outsourcing part of the work (like plumbing or electrical). He then fashions his own bid to the owner. If he is lucky enough to win the job, he then uses the low bid to pressure the subs to submit even lower bids, rather than giving it to the original low bidder. The general contractor pockets the difference and does not pass it along to the

owner. This is what is called "bid shopping." The other side of it is "bid peddling," which involves a subcontractor who did not get the original bid offering to lower a price after the fact to convince the general to change the award.

Neither of these is illegal but, to varying degrees, most professionals consider the practices somewhat unethical, though more companies engage in this kind of behavior than will admit it. Most are eager to complain about their competitors gumming up the market with such behavior. In the end, it could be argued that these practices do tend to drive overall prices down, which should be a benefit to society with lower prices for end users and consumers. But if material suppliers and subcontractors are pushed beyond reasonable limits to squeeze their prices, will it not inevitably lead to the use of shoddy materials, marginal work, and less-than-skilled workers as wages are pushed down in an effort to recover some miniscule level of profit?



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Richard Wallace, Owner and President of ND Industries

COMPANY HISTORY:

A family-owned business since 1955, ND Industries specializes in the development of innovative materials and processes which increase the safety and reliability of fastener assemblies. Headquartered outside Detroit, Michigan, ND serves a global market with 13 divisions in the continental US, facilities in Taiwan, China, and Turkey, and licensees around the world.

ND Expands to
Istanbul, Turkey

WHAT WE DO:

ND's core business revolves around the application of a wide variety of materials onto fasteners and assemblies to aid in functions such as locking, sealing, masking, lubricating, and noise and vibration dampening. ND also manufactures a line of bottled adhesive and sealant products under the Vibra-Tite brand name for MRO and retail use.



ND Industries Corporate Headquarters, located in Clawson, Michigan.

THE ND ADVANTAGE:

ND's success in the Pre-Applied fastener industry is due in large part to the strength of its resources. Whether a customer's project requires chemical engineering, chemical manufacturing, mechanical engineering, inspecting and sorting, bottling and packaging services, or A2LA lab testing, no other fastener processor can match ND's in-house capabilities.



ND develops Vibra-Tite VC-3, a user applied, adjustable, removable, and reusable threadlocker.



Founded in 1955, ND introduces ND Pell-It.

ND Industries opens divisions dedicated to Chemical Blending, Research & Development, and Design Engineering.



Vibra-Tite becomes brand name for bottled products.

Breakthrough with expandable locking and sealing microcaps.

ND opens fastener processing facilities in Taiwan and China.

ND's chemical blending facility brings microcap production in-house.



PRODUCT INSURANCE:

Even the best-designed fastener assemblies can succumb to a range of negative side effects including rattling, leaking, loosening, seizing, stripping, corroding, or shearing. Each of these issues could potentially lead to a product failure and costly warranty claims or recalls. Because product quality matters, turn to ND Industries to provide solutions for all these problems and more.

VALUE ADDED:

As an added benefit, fastener distributors can use ND processing to increase the value of their fasteners, without adding to their inventory.

INNOVATIVE PRODUCTS:

From two base products in 1965 to currently over 220, ND continues its research and development with the regular introduction of unique materials along with offsets to other brand names. ND currently owns 41 product and process patents in the U.S. and overseas.



ND's innovative product offerings include (top row) Sealtek™1120, ND Epoxy-Lock®, (bottom row) Expand-A-Seal ES0105®, ND Microspheres®, and Vibra-Tite® VC-3®.





TECHNOLOGIES GROUP & RESOURCE CENTER

Investing in ND's future through the development and manufacturing of cutting-edge products and services.



"ND Industries is committed to remaining on the cutting edge of innovation. Our team of highly educated and experienced chemists will continue to catapult ND Industries as a leader in pre-applied and user-applied adhesives, sealants, and specialized coatings."
- Scot Wickham, Director of ND Research and Development



One of the lab rooms in ND Industries' newly expanded 7,600 sq. ft. R&D facility.

RESEARCH & DEVELOPMENT:

To ensure the highest product quality standards possible, we assembled a team of degreed scientists and PHD chemists dedicated to the development and testing of all our chemical formulations.



An ND Chemist sets up a test on the Differential Scanning Calorimetry machine.

With more than 55 years of experience in the Automotive, Electronics, Aerospace and Military markets, ND has built one of the most extensive product portfolios in the pre-applied fastener industry. Each ND material has been specifically designed to solve a unique customer application issue.

Not one to rest on its laurels, ND's in-house R&D and Chemical Manufacturing staff continually works to optimize existing materials and formulate new products through rigorous lab and Quality Control procedures.

The ND Technologies Group holds an A2LA ISO/IEC 17025:2005 accreditation and is able to assist customers by performing independent testing for a wide range of criteria.



CHEMICAL BLENDING:

Once a product formulation is complete, production moves next door to ND's chemical blending facility where scale-up takes place. The close proximity and collaborative workflow greatly reduce manufacturing time and allow for the customization of materials to customer specifications.

a wide variety of adhesives, microcaps, anaerobics, epoxies, urethanes, ultraviolets, acrylics, and more.

ND chemical toll blending services provide customers with the opportunity to have their own chemical formulations blended, packaged, and prepared for sale.



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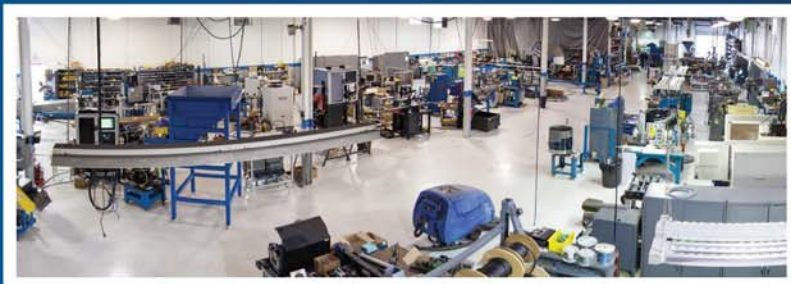


MACHINE DESIGN & ENGINEERING GROUP

Building the equipment that applies ND's custom formulations.



"For years our highly-skilled engineers and technicians have been building process and inspection equipment that has conquered many application and quality challenges."
- Gerald Snow, ND Director of Design Engineering



ND's Machine Design and Engineering Group is located in this 17,500 sq. ft. facility in Troy, Michigan.

DESIGN & ENGINEERING:

When developing a pre-applied product, formulating the right chemical blend is only half the challenge. Just as important is the process of applying that material onto fasteners. That's where ND's Design Engineering Group steps in. They work along side R&D to build the custom application equipment that gives ND the ability to meet virtually any processing requirement.



ND's Design Engineering Center built a processing machine that applies ND Patch onto fasteners as small as these M1 x 0.8 screws for the electronics industry.

ND machines operate at some of the fastest rates in the industry while the parts processed exhibit both excellent visual and performance qualities. ND prides itself on the fact that we are able to achieve these goals and still maintain highly competitive pricing.

Companies that qualify for ND's licensing program can gain access to equipment and materials which will put them ahead of their competition.



Technician Frank Sahutske sets up a part to be processed on the CNC Machine.



Always searching for new ways to assist customers, ND has brought in-house a line of cutting-edge inspection, sorting and packaging equipment built by

Linear GS. Customers utilizing both pre-applied processing and inspection can expect to see lower shipping and handling costs, improved part turn around time, and a reduced possibility of processing touch marks or damage from handling versus outside services.



"ND Industries encourages us to be creative when confronting processing equipment challenges. That kind of thinking leads to positive results."
- Tom Shields, ND Machinist



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PRE-APPLIED FASTENER PROCESSING CENTERS

Providing high-volume material application in a quality conscious environment.



Supervisors Mike Tohlman Jr. (left) and Kevin Michalak are on hand at ND's Clawson, Michigan plant to ensure that fastener processing runs smoothly.



ND Industries' 55,000 sq. ft. plant in Clawson, Michigan, is one of eight processing facilities strategically located across the United States.

FASTENER PROCESSING:

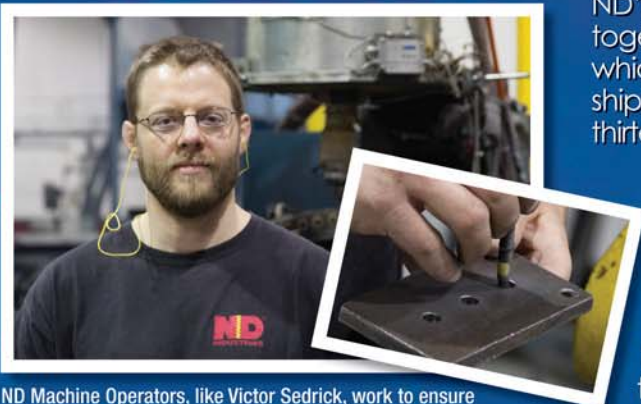
ND's Pre-Applied Processing Centers are where it all comes together. Once a customer has selected the ND product which meets their specifications, un-coated fasteners are shipped from a manufacturer or distributor to one of ND's thirteen worldwide divisions or licensees.

Once on-site, ND Plant Supervisors and Machine Operators carefully direct and monitor each part as it is processed—sometimes for multiple materials. To maintain consistent quality, ND divisions operate under strict ISO or AS certifications and, if appropriate, utilize smart factory technology, including vision inspection systems, for in-process checks.

ND also offers services like part sorting, color coding, and even partial assembly, specially designed to make subsequent assembly simple, fast, and more accurate.

PRE-APPLIED BENEFITS:

- Increases productivity by speeding up the assembly process.
- Decreases the number of errors made during assembly.
- Provides a consistent, uniform quality standard.
- Reduces downtime and unusable parts that result from manual application errors.
- Prevents wasted material and cleanup versus hand applied bottle products.



ND Machine Operators, like Victor Sedrick, work to ensure that their processed parts meet the required specifications. ND's check methods can range from a test block (shown above) to an in-line vision camera.



These bolts have received an application of ND Microspheres® TA850, one of a wide range of available materials from ND Industries.



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FAVORED BIDDERS - RIGHT OR WRONG? *continued from page 14*

This is the argument of a number of trade associations who have taken a stand against the bid shopping practices, such as the Associated General Contractors of America.


A healthy industry requires pricing levels that afford businesses reasonable levels of profit. But since agreement between competitors on pricing is not a good thing for the market and, in fact, runs clearly afoul of our anti-trust laws, then business needs to proceed with competitive good faith bargaining. I do not believe good faith is present when a buyer calls for companies to put forth their best and lowest price, knowing that the buyer intends to use this as a starting point to extract more dollars out of an already extended bidder.

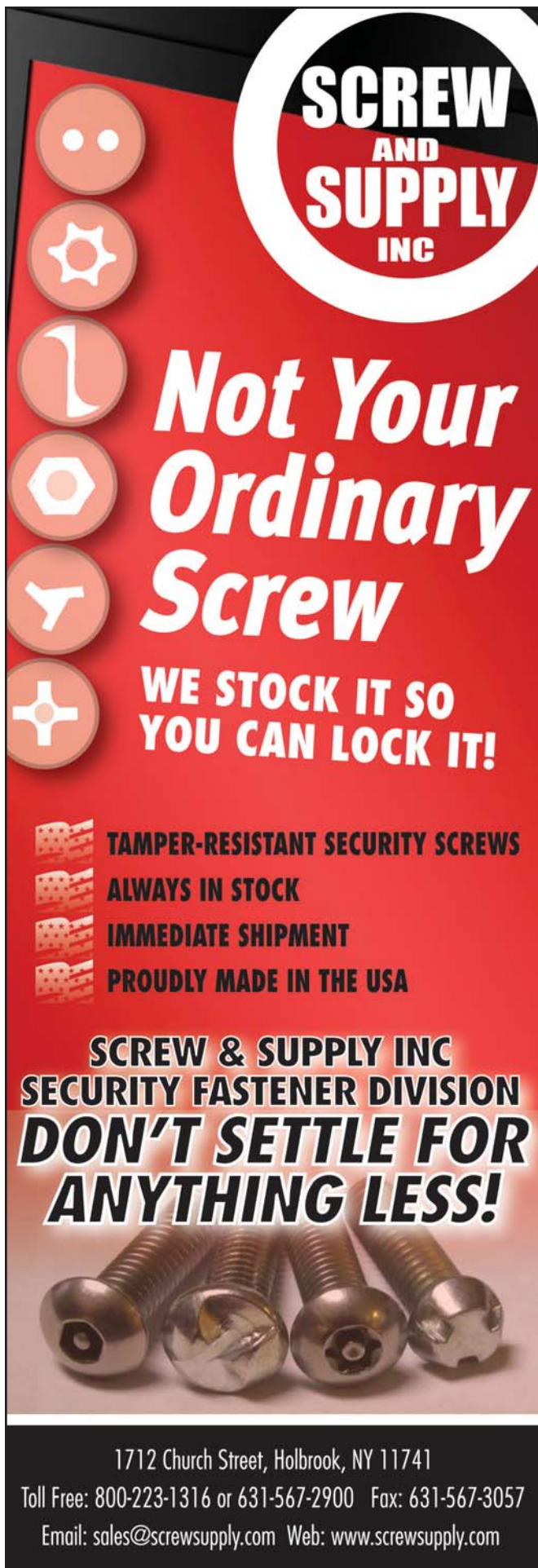
The law has been applied to force bidders to live with their bid prices and honor their promise (under contract principles of promissory estoppel) on the theory that the buyer has relied on a bid to price its own sales to an owner or ultimate customer. It has proven difficult for bidders to enforce a contract the other way and compel a bid recipient to follow through on an award.

With respect to our original situation with Bill and his rivet tool repair efforts, it would seem that Bill is entitled to favored treatment. But the ethical way for the company to set up its request for quotes is to clearly

specify that other factors such as special services and capabilities such as design assistance and repair services will be taken into account in awarding of the final contract. Bidders who do not have the capability to provide such services should know that their price will have to be exceptionally low to overcome the full-service suppliers who are competing for the supply contract. Knowing this going in, the extra-service guys, such as Bill, can price in their higher costs and still have a chance at the business, while the no-frills bidders know their handicap going into the process.

Companies should develop ethical bidding policies to guide their employees in preparing bids. This might reduce instances of ethically questionable processes when times are good and there is plenty of work for everyone. But when there are hard times in the economy, normal human competitive behavior seems to kick in. Someone will always be looking for a way to make a seller go a little farther than intended, or perhaps farther than they really should go if they wish to maintain a healthy business enterprise. It seems this is part of business in a capitalistic society.

The strongest survive. Somehow it has worked to the benefit of our society and no doubt will continue to do so in our changing economic environment! 



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DISTRIBUTOR NEWS

Cable Tie Express, a prime supplier to distributors of cable ties and associated wire management items, recently honored the winners of its 2012 Annual Sales Agent Contest. All American Systems, Inc., owned by Steve Urhausen with associates Mike Felty, Andrew Urhausen, and Laura Nash, captured top honors for the fourth time since the contest was established in 2004.



All American Systems has been representing Cable Tie Express since 2005 and represents Cable Tie Express in Illinois, Wisconsin, Minnesota, Iowa, and Nebraska.

Char Cooper, President of Cable Tie Express, commented when presenting the award at a recent dinner honoring the All American team, "It is truly an honor to be among the companies All American Systems represents in the fastener industry. Their strong sales performance once again this year demonstrates the professionalism and enthusiasm of the team. Growing sales by presenting our broad array of products and services in their territory and developing and strengthening strong loyal relationships with customers supports the basic philosophy of Cable Tie Express – 'tying service to quality'. We are proud to have such a fine team represent our company in the Midwest."

The second place award went to Alan Lindahl of Atlas Industry Marketing. Alan, representing Cable Tie Express since 2011, covers Texas, Oklahoma, Arkansas, and Louisiana. Distributors' Source of Florida with Agents Steve Eckard and Grant Douglas rounded out the winners' podium with a third place award for their sales performance in Florida. They have represented the Company since 2009.

For further information, please contact Cable Tie Express at 888-603-1233, fax 800-695-1233, email sales@cabletieexpress.com or by visiting www.cabletieexpress.com.

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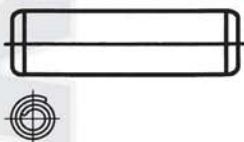


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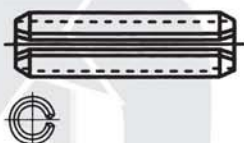
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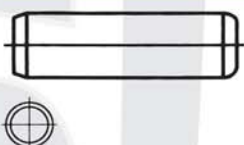
ASME B18.8.2	MS51923
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ISO 8748, 8750, 8751	NAS1407
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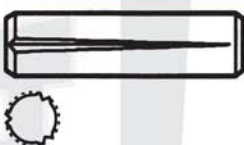
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ASME B18.8.4M	ISO 8752
MS171431-171790	NAS561

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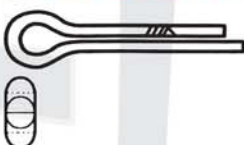
ASME B18.8.2	MS9390
MS16555	M21143/1
MS16556	M21143/2
MS9105	

GROOVED PINS



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MS35674	MS35675
MS35677	MS35678
MS51605	MS51606

COTTER PINS



ASME B18.8.1	MS9245
MS24665	

DISTRIBUTOR NEWS

Cardinal Fastener has implemented a new marketing campaign to strengthen customer relationships in 2013. Utilizing one of the top email marketing providers, MailChimp, they systematically giveaway trending items. In order to qualify for the monthly giveaways, customers must meet two criteria: First, they must be a member of Cardinal's "Steels" & Deals Email Campaign, and second, they must place an order in the corresponding month.

"All the cool people are doing it! Who doesn't want to win a sweet gift?" says the notoriously seldom serious Holly Flauto, Inside Sales Representative.

"I look forward to bringing my vast sales experience to the most respected fastener manufacturer in the industry," says Holly Flauto.

Cardinal Fastener Inc. is the largest manufacturer of domestic, hot forged bolts, sockets, and twelve points in North America. Cardinal's extensive inventory of blanks allows for many orders to be manufactured and shipped the same day they are placed. Cardinal products are manufactured in various head styles, steel grades, including stainless and exotics, and in diameters up to 3" or M72.

For more information contact Cardinal Fastener at Tel: 216-831-3800 or email sales@cardinalfastener.com.

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Guy Avellon

Guy Avellon has been in the MRO and fastener distribution industry for over 30 years. He began his metallurgical engineering career at Republic Steel Research Center in metal coatings and has since held positions as sales engineer; Chief Engineer; Manager of Product Marketing, Product Engineering and Quality and Director of Quality and Engineering. He founded GT Technical Consultants where he performs failure analysis, presents lectures on fastener safety, worked for law firms and designs and audits Quality systems.

He is a member of SAE and is Vice Chairman of the ASTM F16 Fastener Committee and Chairman of the F16.01 Test Methods Committee, since 1988. He also received the ASTM Award of Merit in 2005.

Guy and his wife, Linda currently reside in Lake Zurich, IL and may be reached at 847-477-5057 or visit his website at <http://www.BoltDoc.com>.

FASTENER STEELS

Production of a ferrous cap screw using the cold heading process on an automated bolt-maker begins with the selection of the steel to be used. This is determined by the desired finished mechanical properties of the product. Hot heading is performed on larger sized fasteners and is a more manual process for specialized fasteners, but the majority of production fasteners are cold formed.

The steels as supplied by the mill are produced in manufacturing runs. The production of a manufacturing run is known as a "heat". Each heat is assigned a traceable number that is kept with the steel as it is drawn into wire forms and separated into lots. Samples from each heat are checked for quality, hardenability and composition to assure they are suitable for the particular grade of fastener for which they are intended. Refer to the ASTM F2282 for Quality Assurance Requirements for alloy steel wire.

Superior quality, fine grain steels are used in cap screws manufactured in the United States and by reputable steel manufacturers abroad. These fine grained steels offer greater resistance to fracture caused by vibration, stress, and fatigue than coarse grain steels, which are much easier and less expensive to produce.

Selection of Steels

Carbon steels are called such as they contain a certain amount of carbon. That amount of carbon determines its ability to be heat treatable. The addition of certain alloying elements will provide the performance characteristics of the finished product.

The base steel or alloy is designated by the first series of digits in the steel number, as developed cooperatively by the AISI (American Iron and Steel Institute) and the SAE (Society of Automotive Engineers), followed by the carbon content as a per cent. Typical, but not limited to, steels used for fastener products are as follows:

10xx - Plain Carbon Steel

15xx - Manganese Steel

40xx - Molybdenum Steel (0.25%)

41xx - Chromium-Molybdenum Steel (1% Cr, 0.20% Mo)

43xx - Nickel-Chromium-Molybdenum Steel

50xx - Nickel Steel (50B46)

51xx - Chromium Steel (51B60) (0.80% Cr)

87xx - Chromium-Nickel-Molybdenum Steel
(0.55% Ni, 0.50% Cr, 0.25% Mo)

94xx - Nickel-Chromium-Molybdenum Steel (94B40)

To be considered an alloy steel, one or more alloying elements must be added to the steel. The American Iron and Steel Institute has defined that a steel is considered to be an alloy when the maximum of the range given for the content of alloying elements exceeds one or more of the following limits: manganese, 1.65%; silicon, 0.60%; copper, 0.60%; or in which a definite minimum quantity of any of the following elements is specified or required within the limits of the recognized field of constructional alloy steels: aluminum, chromium up to 3.99%, cobalt, columbium, molybdenum 0.30%, nickel 0.30%, titanium, tungsten, vanadium 0.10%, zirconium, or any other alloying elements added to obtain a desired alloying effect. Where elements are specified in combinations of two, three or more and have alloy contents less than described above, the limit value to be applied for steel class determination is 70% of the sum of the individual values of the concerned elements.

Fastener Grades

Grade 2 (5.8) Cap Screws are produced from low carbon steels, typically ranging from 1018 to 1025 and are not heat treated.

Grade 5 (8.8) Cap Screws are produced from several different steel types; typically ranging, but not limited, from 1032 to 1038, and is classified as a medium carbon steel or low alloy 1541 steel.

Grade 5.2 Bolts and studs for automotive applications, made from low carbon boron steel.

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DISTRIBUTOR NEWS

Elgin Fastener Group (EFG) announces three new additions to their organization.

Brian A. McDonald is named as Corporate Controller. He is a graduate of Milligan College, TN, and holds an MBA from Xavier University.



McDonald has over 17 years of experience in operations finance and is at the Batesville corporate office.

Larry Dray joined EFG as



Director of Supply Chain Management. Larry has a BA in Political Science and

History from the University of Oklahoma. Dray has over 30 years of expertise as a sourcing leader and is at Quality Bolt & Screw in Brecksville, OH.

Alicia Sanford was appointed Technical Sales Representative



for IL, WI and MN. She has over 20 years experience in the fastener industry.

She has served in various industrial sales engineering and account management positions with Camcar-Extron, Extron Fastening Systems, Acument Global Technologies, and Ifastgroupe Distribution. She is located in Winnebago, IL.

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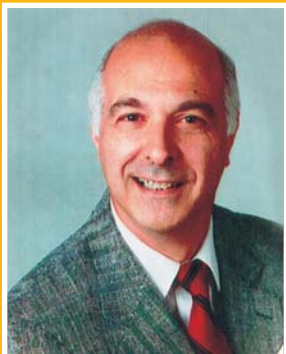


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Bart Basi

Dr. Bart A. Basi is an expert on closely-held enterprises. He is an attorney, a Certified Public Accountant, and President of The Center for Financial, Legal & Tax Planning, Inc. He is a member of the American Bar Association's Tax Committee on Closely-Held Businesses.

THE PARACHUTE CONGRESS MADE

Introduction

Although at the stroke of 12:01am New Year's Day, this country officially fell off the fiscal cliff (the combination of increased taxes and decreased spending which would have slowed the economy), Congress and the President agreed to measures that allowed us to glide to a soft landing. The president signed the bill via autopen and the main parts of the law are outlined below.

Capital Gains and Dividends

First, for those making under \$200,000 individually / \$250,000 per couple (200/250 taxpayers), the capital gains rates stay the same at 15%. Taxpayers making over the 200/250 threshold, pay an additional 3.8% on investment amounts under the Patient Protection and Affordable Care Act (PPACA). For those making \$400,000 individually and couples making \$450,000 (400/450 taxpayers) the capital gains tax rate is now 20% plus 3.8%. This makes the effective capital gains tax rate 23.8% on high income 400/450 taxpayers. Unfortunately, capital gains occur when most small business owners try to sell their businesses. It is our recommendation that tax planning be engaged in, not at the point of a final deal, but when the business owner first decides to sell the business.

Ordinary Tax Rates

The law permanently extends the lower income brackets to middle class families. This means that

income tax rates generally remain where they were in 2012 for the majority of Americans in 2013 and beyond. For couples earning over the 200/250, an additional 0.9% tax will apply under the Patient Protection and Affordable Care Act (PPACA). For taxpayers earning 400/450, income tax rates are now 39.6% for upper income amounts. Adding the 0.9% increase under the PPACA to the 39.6% rate makes the top effective rate 40.5%



Unemployment Insurance

Unemployment Insurance has been extended for the year of 2013. Without the extension, 2 million people would have lost their benefits in January 2013.

Child Tax Credit

The bill also continued the extended child tax credit and the earned income credit. These are substantial credits for many middle class families and have been extended for one year. For many

families these credits amount to between \$1,000 and \$8,000.

Section 179

Section 179 Deduction is \$500,000 retroactive to January 1, 2012 and extends through 2013. Even though it is not permanent, it keeps the door open this year to purchase more equipment and immediately depreciate the expenses. The deduction is subject to a \$2,000,000 phase out, dollar for dollar until \$2,500,000.

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Grades	Grade 2	Grade 5 (Class 8.8)	Grade 8 (Class 10.9)

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Grades	Grade 5 (Class 8.8)	Grade 8 (Class 10.9)



Magna-Grip®

Vibration-resistant, reliable grade 2 fasteners offering high uniform installed values with a wide grip range.

Sizes	3/16" - 3/8", (5mm - 10mm equivalent)
Materials	Steel, Aluminum

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The classic 6-groove locking fastener ideal for a wide range of applications. Available in grades, 2, 5, and 8.

Sizes	3/16" - 3/8" (5mm - 10mm equivalent)		
Materials	Steel, Aluminum, Stainless, Steel Pin with Stainless Head		
Grades	Grade 2	Grade 5 (Class 8.8)	Grade 8 (Class 10.9)



Hucktainer®

Panel fastener that installs with consistent pressure, reducing crushing or crazing.

Sizes	3/8" (10mm equivalent)
Materials	Steel

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HuckLok®

Wide 1/4" (6mm equivalent) grip range, double-locking action clamps assembly from both sides for maximum joint integrity.

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Materials	Steel
Heads	Protruding, Truss, 100° Oval Countersunk

Magna-Lok®

Hole-filling fastener with excellent gap pull-out and moisture resistance. Solid circle lock creates internal lock that virtually eliminates pin push-out.

Sizes	3/16", 1/4", 3/8", 1/2" (5mm, 6mm, 10mm, 12mm equivalent)
Materials	Steel, Aluminum, Stainless Steel
Heads	Protruding, Truss, 100° Flush



Auto-Bulb™

Features a tapered lead-in point for automated, high-speed assemblies. Forms a bulb directly on the sheet line, preventing pull-through. Available in stainless steel.

Sizes	3/16", 1/4" (5mm, 6mm equivalent)
Materials	Steel, Stainless Steel
Heads	Protruding, Countersunk

Magna-Bulb®

Wide grip range fastener that forms a bulb directly on the sheet line. Offers a broader bearing surface.

Sizes	3/16", 1/4", 5/16" (5mm, 6mm, 8mm equivalent)
Materials	Steel
Heads	Protruding, Truss, 100° Oval Countersunk



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Blind, Oversize, Mechanically locked fasteners. Unique push-&-pull installation design for ultimate locking strength from blind-side install.

Sizes	3/16", 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" (5mm, 6mm, 8mm, 10mm, 12mm, 16mm equivalent)
Materials	Steel

FloorTight®

Self-countersinking design for consistent installations in plywood and plymetal vehicle floor applications.

Sizes	1/4", 5/16" (6mm, 8mm equivalent)
Materials	Steel
Heads	Standard, Wide Flange, Plymetal, 90° Countersunk



Magna-Tite®

Has water-resistant sealant, for oversize holes and repairs. Large blind-side footprint for use in thin or low-strength materials.

Sizes	3/16", 1/4" (5mm, 6mm equivalent)
Materials	Aluminum
Heads	Protruding, Shavable, Low Profile, 100° Oval Countersunk

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Leader In The Field

Since 1972, Superior Washer has focused on being consistently innovative in how we make our products, as well as how we sell them. It comes across in our ISO-certified work at our two modern manufacturing plants. Superior has over 100 high-speed power presses in New York and South Carolina. We have ultra-fast production lines that can fabricate long product runs with short lead times. Our focus on precision is also something we take real pride in: our rejection rate is one of the lowest in our industry. And we take pride in our strong record of manufacturing for tight tolerances.

Company Goal

Our goal of consistent innovation extends to our customer service and product ordering systems. We are focused on our customers, providing friendly and competent customer service to our loyal customer base. If you need it, we will get it to you, just ask. With one of the largest and most comprehensive inventory of washers and shims in the industry, we continually update our systems and website to make finding and ordering our products easy and fast.

Since our beginning, consistent innovation has been our goal at Superior Washer, and it remains a key focus of the company and our people as we move into the future. Find out more about who we are, what we make, and how we continually improve our products, processes, and people by visiting our website.

Digital communications has become commonplace in all walks of life, whether it is texting with friends and family, online shopping, or downloading digital music.

Therefore, it only makes sense that manufacturers continually adapt with the times. Being no strangers to adaptation over the years, Superior Washer is proud to introduce our new, user-friendly commercial website.

Research

Over 12 months of research, planning and implementation went into making our new website a convenient, powerful tool that lets our customers speed up the process of obtaining quotes for our washers and stampings. We are proud of this new online customer service tool that strengthens our goal of continually improving upon our strong service commitment to our valued customers.



Navigation

Not only is our website easy to navigate, but we've embedded our signature customer service into the new framework, so not only are we now faster than before, but our site maintains the face-to-face customer service respected by our customers. Likewise, we've made the process of finding standard and


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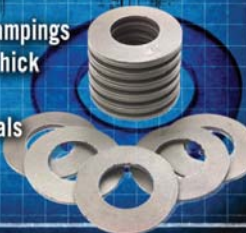
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Trinity Hardware Headquarters, a leading distributor of industrial fasteners in North America, announces the debut of its new Measure Mate Thread Checking System. Available in inch and metric, these thread checkers are the perfect tool for use in retail sites, manufacturing shop floors, and tool cribs. Measure Mate can be customized with your own company logo.



Unique to Measure Mate's design is its exclusive, counter stand-alone patented design, which allows it to be conveniently placed on a parts counter or at a point-of-purchase area. The Measure Mate thread checking system measures 24" long by 7 1/2" tall. Thread sizes for bolts and nuts and bolt diameters can easily be determined for both coarse and fine thread in inch sizes from #4 thru 3/4" and metric sizes from 4mm to 24mm.

Trinity Hardware Headquarters houses over 36,000 types of standard, metric and specialty hardware and fasteners. All fasteners are lot controlled, quality inspected, and adhere to industry standards including but not limited to IFI, ANSI, ASME, DIN, & SAE. Trinity is ISO 9001:2008 registered and provides consensus standard parts for your applications. Trinity offers low minimum order values and 1-2 day ground shipping to most anywhere in the United States.

Headquartered in Davenport, Iowa, Trinity ships from eight strategically placed warehouses across North America. Trinity has a rich history of experience and management in the fastener industry. Dan Zehnder, founder and owner, has been in the fastener industry for more than 30 years and has created a business strategy that stresses customer relationships allowing customers the opportunity to focus their resources on their primary tasks while improving the bottom line.

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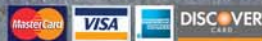


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Barnaby Myhrum

Barnaby Myhrum is an Applications Engineer at Applied Bolting Technology in Bellows Falls, VT. He has over 25 years of experience in engineering and manufacturing companies in roles as an engineer, manager, executive and consultant. He earned a Bachelor of Science in Mechanical Engineering from the University of Vermont, and a Masters of Business Administration from Carnegie Mellon University. He can be reached by email at barnabym@appliedbolting.com.

LESSONS FROM THE FIELD: THE PARETO PRINCIPLE AND THE RCSC SPECIFICATION

The Research Council on Structural Connections (RCSC) rules the roost in structural bolting. The council consists of qualified structural engineers from academic and research institutions, practicing design engineers, suppliers and manufacturers of fastener components, fabricators, erectors and code-writing authorities. Their publication, "Specification for Structural Joints Using High-Strength Bolts" is THE standard followed in North American steel construction.

Applied Bolting has a representative on the council, and we have intimate knowledge of the high-strength bolting sections of the standard. We also travel the world giving high-strength bolting clinics to engineers and iron workers, providing training to first-time users of our Squirter™ DTIs and troubleshooting problems in the field. It is during this troubleshooting that I have been reminded of the Pareto principle. According to Wikipedia,

"The Pareto principle (also known as the 80-20 rule....) states that, for many events, roughly 80% of the effects come from 20% of the causes".

Originally conceived by Vilfredo Pareto, the principle was popularized by quality guru Joseph M. Duran. At Applied Bolting, we observe the principle when troubleshooting problems. Most of the effects come from a handful of causes. The thing is that most of those causes fall into a more general category: lack of familiarity with the RCSC specification. I'm sure that the engineers and designers are well versed in the details of the specification. But this is not always the case

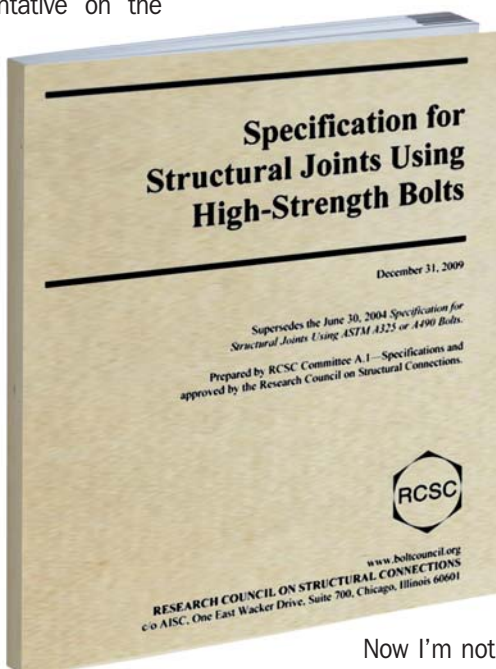
with the erectors and ironworkers. I have a theory as to why this is, but here is the point I want to make: significant amounts of time and money could be saved if the people on the ground were required to be conversant with the RCSC specification.

"What Torque Should I Be Using to Install These Bolts?"

We get this question all the time. The answer is if you are using the calibrated wrench pretensioning method, it depends on the results of the pre-installation verification. One time a caller became irate after hearing this answer. "Why won't you just tell me what torque to use?" It was obvious that he hadn't performed the pre-installation verification. He didn't know it was required for pretensioned bolts and therefore didn't know what it was. He wanted me to tell him what torque to use. The root cause of this serious problem was that he wasn't conversant with the RCSC specification.

Now I'm not saying that everyone must know all 100 pages of the specification by heart. But someone in charge of installing high-strength fasteners should, at a minimum, understand the requirements of:

- **Section 7: Pre-Installation Verification**
(four pages with commentary)
- **Section 8: Installation**
(eight pages with commentary)
- **Section 9: Inspection**
(four pages with commentary)



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Dennis R. Cowhey

Dennis, R. Cowhey, started Computer Insights, Inc. in 1981 and is currently CEO. He served for many years on the Illinois CPA Society Computer Information Systems Committee. He is a frequent author of articles for Industry Trade Magazines. Before starting Computer Insights, he served as Central District Manager for a division of Litton Industries (now part of Northrup Grumman). That company offered Inventory Control Systems to Retailers. Prior to that, he was a Credit and Financial Analyst for National Credit Office division of Dun & Bradstreet, Inc. He received his education at Chicago City College and DePaul University.

THE BUSINESS EDGE 2.0 LINUX OFFERS A REAL CHOICE

Fastener Software All Looks Alike

Fastener Distributors who are looking for software to run their companies face a daunting task. The software packages are very difficult to differentiate from one another. The salespeople seem to speak a different language and the answer to every question seems to be "no problem". Yet there are stories galore of failed installations and million dollar losses because of software that didn't fit the bill.

Windows & SQL Server

One thing that makes most of the software look so similar is the fact that the vendors have mostly chosen Microsoft Windows and SQL Server for their operating platforms. Conventional wisdom says that is a good choice, but is it?

Computer Insights, Inc. has chosen a different path for the latest version of The BUSINESS EDGE 2.0. We have chosen Linux and IBM. We have good reasons for our choice. Because of the Linux environment, all peripheral programs are tightly integrated. With a typical Windows system, using best effort integration, the user will not be notified of a fax that fails to go out. The record of the failure is in a separate "bolt on" program. Similarly, the Wireless Warehouse is usually not tightly integrated, so when a transaction is passed to the Wireless Warehouse module, it is no longer visible in the main system until it has been allocated and passed back. If a Wireless Gun goes down, the transaction is "stuck" in the Wireless Warehouse system. None of these issues affect The BUSINESS EDGE 2.0 since all of the add on modules are tightly integrated parts of the core program. Our intense vertical market focus means that the add on modules that our clients need are already available; we won't have to create them as custom modules. This saves our clients time and money.



Linux vs. Windows

Ken Hess of PC World wrote an article a couple of years ago that summed up the advantages of Linux over windows. He said:

- "Linux stability offers business owners the peace of mind that their applications won't suffer lengthy outages due to operating system instability. Linux enjoys the same high uptimes (often measured in years) that its Unix cousins do. This stability means that Linux can support your "99.999 percent available" service requirements."

- "Linux has the support of a worldwide community of developers who contribute to the source code, security fixes and system enhancements. This active community also provides businesses with free support through forums and community sites. This distributed community gives peace of mind to Linux users, because there's no single point of failure and no single source for Linux support or development."

Companies have reported saving over 85% in support and maintenance costs by switching from Windows to Linux.

Linux is everywhere – Linux represents nearly 100% domination of the cloud services industry, an industry that needs to operate 24x7.

- "Businesses that have standardized on Microsoft technology, specifically their .NET web technology, can rely on Linux for support of those same .NET applications."

- "Fortunately for Linux adopters, there's no hardware upgrade madness that follows every new version of the software that's released. Linux runs on x86 32-bit and 64-bit architectures. If your system runs Windows, it will run Linux".

To read the full article, go to: http://www.pcworld.com/article/201731/10_reasons_to_dump_windows_and_use_linux.html.

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hereby grants to:

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Registration of the management system at its location:

**1493 London Bridge Road
Virginia Beach, Virginia, USA**

The conditions for maintaining this certificate of registration are set forth in the SRI registration agreements R20.3 and R20.4. Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2008 requirements may be obtained by consulting the organization.

Scope of ISO 9001:2008 registration: "Manufacture and supply of industrial fasteners."
Exclusions: Design and Development; Service Provision; Validation of Processes for Service Provision
Initial SRI registration date: January 8, 2013
Current registration period: January 8, 2013 through January 7, 2016

Signed for SRI: 
Christopher H. Lake, President & COO

Certificate Date: January 8, 2013
Certificate Number: 011572
Registration Number: 4974-01



CERTIFICATE OF COMPLIANCE



Steel Related Industries Quality System Registrar
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Alexandra House, Ballsbridge, Dublin 4, Ireland EU

A legal entity within the United States and European Union with competence demonstrated via ANAB and RvA accreditation as an ISO 9001 certification body with a scope of accreditation for the assessment of quality management systems of organizations which include the manufacture of materials and in the technology of the materials concerned, as specified in the scope below

-CERTIFIES-

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at its location:

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has implemented, operates and maintains a
Management System in accordance with the requirements of

Pressure Equipment Directive (PED) 97/23/EC 7/2, Annex I, Paragraph 4.3

Scope of PED compliance: "Manufacture and supply of industrial fasteners."

Signed for SRI: 
Christopher H. Lake, President & COO

Date: January 8, 2013
Registration Number: 4974-01

Steel Related Industries Quality System Registrar, LTD is a registered, duly licensed, operating "legal entity" in the European Union, and as such, is fully responsible for Management System Certificates bearing its U.S. and Ireland address for the purpose of satisfying the material manufacture requirements of the European Union Pressure Equipment Directive. This certificate is valid and will remain in effect when accompanied by a valid ISO 9001:2008 registration certificate that bears SRI's Ireland address, as noted above.

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Ajax Wire can be found in Hicksville, New York which is 25 miles east of New York City. Ajax is family owned founded in 1933 with the third generation now managing the company. The staff of Ajax Wire knows their springs. And they know what it takes to prosper in the good times and survive in the tough times. Today, the company makes extension springs, compression springs, torsion springs, spring assortments, as well as custom springs and prototypes. There are over 1500 stock items. Materials include brass, galvanized hard drawn wire, music wire and stainless steel.

Over the years, the family has always invested money back into the company, thinking the return is better, especially these days. This is our life and we need to maintain the facilities for maximum efficiency and retain a competitive edge. Ajax has state-of-the-art automatic, semi-automatic and manual equipment to accommodate both long and short runs. To meet a customer's special needs the company will produce one spring or thousands of springs.


But "how can you make a living on springs?" is what the current owner David Ellner asked his father-in-law some 19 years ago. Joseph Elowsky said "springs are everywhere," it's like asking where are screws used. Springs are in automobiles and trucks, toys, locks, guns, electronics, appliances, military equipment, medical instruments, office equipment manufacturing plants, food processing plants and on and on. As Ajax describes it, springs are used in "everything from automobiles to zeppelins."

When asked to name the primary focus of Ajax and the main reason customers keep coming back, company President David Ellner, without hesitation, replied "Service. Our goal is to quickly and reliably meet the needs of the customer, whether those needs are for custom parts, short runs or an overnight delivery of a stock item." Many companies, of course, talk about customer service as the key to long-term success. A few of them live it as well as talk it. Ajax Wire is one of them.

Ajax Wire has found their niche and has concentrated on it and mastered it. For three generations now the employees at Ajax have been designing, producing and selling an incredible variety of spring assortments and springs in a wide range of materials. They know how to meet specific compression or extension spring needs.

It is people that make a company, people who appreciate the importance of the customer and produce a product that they are proud of. Ajax Wire has a small, close-knit group of knowledgeable, dedicated, customer oriented people.

David Ellner took over the company reins from his father-in-law, Joe Elowsky who was the nephew of the founder of the company Ben Kantner. David has been in the spring business for 19 years. Joe Elowsky's daughter and David's wife, Patricia is the CFO and majority owner, and has also been in the business for 19 years. In charge of customer service is John Mignone who has been with the company for five years. When they say that Ajax "lives" customer service, they're not kidding. Chances are, when a customer calls, that call will be answered by one of these three knowledgeable and dedicated veterans.

In these slow economic times a little "Spring Time" will help increase those sales figures. David says even if you don't know much about springs, that doesn't matter because we do! We are here to help. Like in the 1989 movie *Field of Dreams*, they said "build it and they shall come". At Ajax Wire we say let them know you can supply them with springs and they will buy them from you. The people at Ajax are standing by and are ready to help you. 



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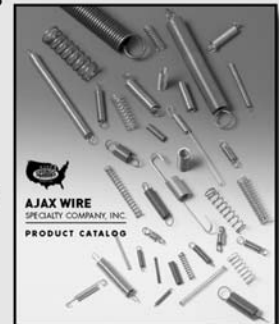
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At Ajax Wire in addition to a growing list of stock springs we carry a line of equivalent springs for Select-A-Spring, Century's Hardware line, Associated Spring, Lee Spring, Gardner Spring, Servalite, Midwest Spring and Curtis.

Ajax also offers several assortments that come with display board and cabinets. They feature a full range of spring sizes that are suitable for manufacturers to place in their maintenance and tool cribs.

Springs have been our only business for 77 years and three generations, and our aim as always is to continue to provide you with quality spring products.



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FASTENER FAILURES

by **John Wachman** *Director of the Fastener Training Institute*

The Fastener Training Institute® will again partner with the Industrial Fasteners Institute to present a new, advanced two-day workshop, Understanding Hydrogen Embrittlement in Fasteners, May 29-30 in Troy, Michigan.

Instructor Salim Brahimi will provide a broad understanding of hydrogen embrittlement with a particular focus on the conditions leading to hydrogen embrittlement failure of high strength mechanical fasteners.

Threaded mechanical fasteners and bolted joints are deceptively simple components, but damage resulting in loss of integrity or failure can occur by a complex interaction of material characteristics, environmental conditions, manufacturing flaws, installation conditions, and joint design criteria.

The most unpredictable failures result from hydrogen embrittlement. The consequences of fastener failures can range from minimal to catastrophic, even resulting in loss of life. The prevention of failure is therefore a fundamental preoccupation for designers, application engineers, fastener manufacturers and distributors alike.

Topics include:

- Fundamentals of hydrogen embrittlement
- Understanding stress in fasteners
- Manufacturing and application considerations
- Susceptibility of materials
- Hydrogen embrittlement testing
- Specifications and failure analysis

Understanding Hydrogen Embrittlement in Fasteners is a must for anyone who works with mechanical fasteners either as a manufacturer, tier supplier, distributor or OEM. There are no prerequisites; the material is suitable for people with technical and

nontechnical backgrounds.


This two-day workshop is designed to provide practical information and encourage an open discussion aimed at understanding how to avoid hydrogen embrittlement failures using real-life examples. To reinforce the topics covered in the classroom, this workshop also includes a tour of a commercial laboratory with a hands-on demonstration of hydrogen embrittlement testing and failure analysis.



Salim Brahimi is uniquely positioned to present this workshop. He not only leads a research team on the topic of hydrogen embrittlement at McGill University (Montreal), he also is the recipient of the Fred F. Weingruber award by ASTM Committee F16 for his outstanding contributions to the development of fastener standards, especially in the area of hydrogen embrittlement.

Mr. Brahimi is president of IBECA Technologies and a licensed member of the Quebec Order of Professional Engineers. He has accumulated more than 24 years of experience in the fastener industry and is heavily involved in the development and maintenance of fastener standards. He currently serves as chair of ASTM Committee F16 (fasteners), is a member of the SAE Fastener Committee, and a member of the Research Council on Structural Connections (RCSC).

The Industrial Fasteners Institute provides some of the funding for Mr. Brahimi's hydrogen embrittlement research.

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DISTRIBUTOR NEWS

On November 30, 2012 **The Bossard Group** completed the acquisition of the KVT Fastening division, first announced on October 25, 2012.

The Fastening division was previously part of the KVT Koenig Group. KVT Fastening – a renowned specialist for high-quality, special fastening and sealing applications with market focus in German-speaking countries – employs around 230 employees in Germany, Switzerland, Austria and Central Eastern Europe and has a turnover of approximately CHF 120 million.

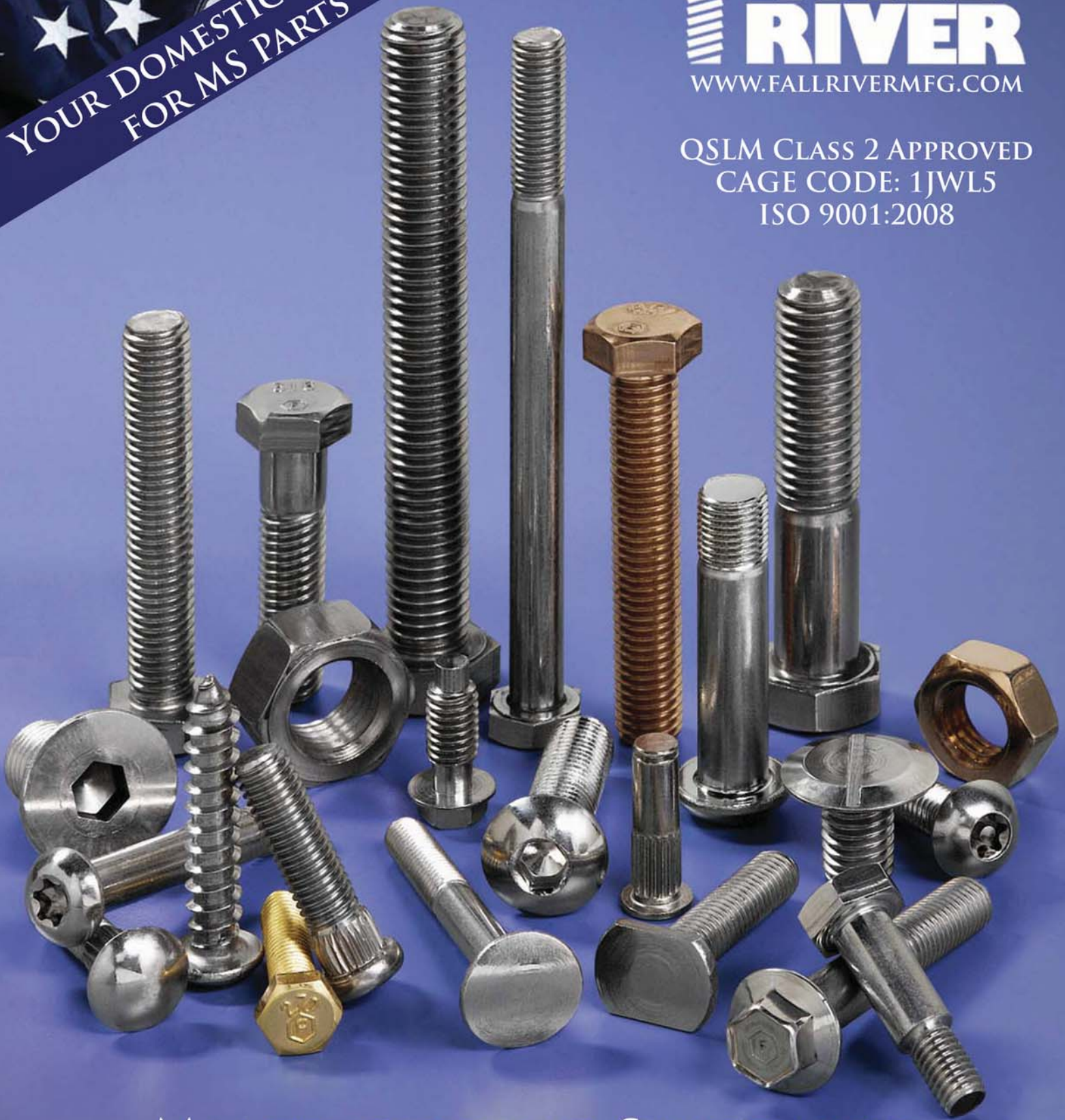
The acquisition enables the Bossard Group to move closer to their strategic goal of continuing to drive profit growth globally and to enhance worldwide customer satisfaction. At the same time the Group will be able to reinforce their competency in the area of industrial fastening and benefit as a result from extending their product and services portfolio to an optimal level for their customers. In addition the strategic cross-linking of solid engineering expertise from both companies will create new possibilities for meeting the growing demand for customer-specific solutions and innovative fastening technology.

For more info about the acquisition, contact Bossard North America at 6521 Production Drive, Cedar Falls, IA 50613. Tel: 319-277-5520, Email: investor@bossard.com or visit their website at www.bossard.com.

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SOUTHWESTERN FASTENER ASSOCIATION

SFA 2013 SPRING CONFERENCE TUCSON, ARIZONA - APRIL 25-28

The Southwestern Fastener Association 2013 Spring Conference will be held at Lowes Ventana Canyon, Tucson, Arizona, April 25 – 28. The conference will be highlighted by two excellent seminars.

Friday, April 26th

The featured seminar is titled, "Using Technology To Help Your Bottom Line". Michael Rodriguez, The Fastener Connection, Houston, Texas will moderate the seminar. Panel participants will include Shannon Brooks, President & Founder, Brooks-Jeffrey Marketing, Inc. Brooks serves as the agency's Creative Director and leads Brooks-Jeffrey's Technology & Website Innovation teams. Jason Kuhn has 40 years of experience in the information technology industry and has served as Vice President - Services and CIO of 3Coast since 2001. In his current role, Mr. Kuhn is responsible for high-profile client engagements where his expertise and experience in business operations, business process management and technology solutions are key to ongoing success. Cory Bray serves as the Managing Director of Ateli Consulting LLC, a Houston-based firm that provides Business Intelligence and Process Improvement services to small and mid-sized industrial companies. Eric Dudas is managing partner of the online fastener sourcing network, Fastener Clearing House, www.FastenersClearingHouse.com. He is also co-host

of the popular industry podcast, Fully Threaded Radio. FCH also produces the monthly Fastener Distributor Index (FDI), in partnership with BB&T Capital Markets.

The index measures industry performance and sentiment through a monthly online survey of North American fastener distributors. For more information, visit www.fdisurvey.com.

This seminar will provide Distributors and Manufacturers up-to-date information on the latest techniques in technology today that will deliver positive results to the bottom line of their company.

Additional activities will include a golf outing on the challenging Mountain Championship Golf Course at Ventana Canyon. The course offers excellent playing conditions and the scenery is some of the best in the desert from the foothills of the Catalina Mountains. Golfers will not want to miss this opportunity to test their ability on this excellent desert course. Friday night is open for conference attendees to network and entertain their clients at the variety of excellent restaurants in the Tucson area.



Top: 2013 Officers
Middle: Porteous Fastener Company
Bottom: Shawna & Jerry Clark of Big Red Fasteners

Saturday, April 27th

The featured seminar is "The Market - Where Are We Headed." Tom Stocking, Stelfast Inc., will moderate a panel of fastener industry professionals in a discussion of what we can expect in the current and future developments of the fastener industry.

please turn to page 52

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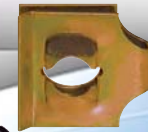
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SOUTHWESTERN FASTENER ASSOCIATION

SFA'S 2013 SPRING CONFERENCE - TUCSON, ARIZONA - APRIL 25-28 *continued from 50*


Panel participants will include: Ron Garrett, SBS Industries, Tulsa, Oklahoma, Tyler Peart, HRS Logistics, Tyler, Texas and Mike Bailey, Nucor Fasteners. The panel has an excellent mix of Importers, Distributors and a leading Domestic Manufacturer. The panel will cover the trends that they have seen in the industry over the past few years and cover their projections of where they see the fastener industry going over the next several years. Saturday afternoon is open for everyone to enjoy the many activities that are abundantly available in the Tucson area. The conference will close with a Southwestern flavored reception and dinner Saturday night.

Other Activities

SFA welcomes Beacon Fasteners & Components, 198 W. Carpenter Ave, Wheeling, Illinois 60090, as a new member. Beacon, established in 1979, is represented by Megan Bartelli who can be reached by email: meganb@beaconfasteners.com or by phone at: 847.3536.2016. An additional new member is ADG Fasteners Inc., 7517 Kathy Lane, Benbrook, Texas

76126. ADG was established in 1993 and is a Distributor of Quality Hardware for Custom Operations. ADG is represented by Brian Heath, whose email address is bheath@adgfasteners.com and phone contact is: 817.560.9777.

Spring time is Scholarship Application time for students of members of the Southwestern Fastener Association. SFA will award eleven (11) scholarships to deserving students in 2013. In addition to the ten (10) Gene Petty scholarships, the Will Rodriguez scholarship will also be awarded to a deserving student. Scholarship Application deadline is April 1, 2013. Applications can be downloaded from the SFA web site at www.sfa-fastener.org or you can contact the SFA office and an application will be emailed to you.

For information on the SFA Spring Conference, Scholarships and/or Membership in the Southwestern Fastener Association, contact John Elsner, Executive Director, 292 Sugarberry Circle, Houston, Texas, 77024. Phone: 713.952.5472, Fax: 713.952.7488 and/or email at swfa@swbell.net. 

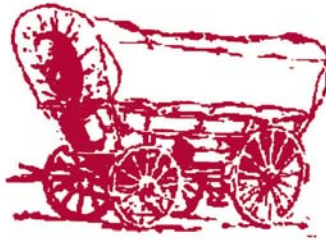
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DISTRIBUTOR NEWS

The Sopwith Dolphin, a restored First World War aircraft on display at the United Kingdom's Royal Air Force (RAF) Museum in Hendon, England features a new set of extension springs manufactured by **Lee Spring** for use on the replica Lewis guns. The assistance and support for this restoration was facilitated by Lee Spring, Europe, headquartered in Wokingham, Berkshire, United Kingdom.

The single seat fighting aircraft served operationally from January 1918 to July 1919. A total of 1,778 Sopwith Dolphins were built in Britain the model being declared obsolete in 1921.

"We believe that our Dolphin is now the only one in existence," says John Stoyles, part of a team who restored the Dolphin. Restoration started in 1968 and was completed in early 2012 after 11 years.

"The Sopwith Dolphin was the first four gun fighter, having two Vickers machine guns (pointing forwards) and two Lewis guns inclined on the top of the aircraft," says John, revealing that Lee Spring

provided two new music wire extension springs for use in the Lewis gun mechanism.

"The original specified spring was 5/16 o/d, 2 1/4" long 20g steel wire, but the Lee Spring replacements were very similar and did the job admirably."



Helical extension springs are loaded in tension and feature hooks or loops to allow a pull force to be applied. Usually,

extension springs are attached at both ends to other components which, when they move apart, the spring tries to bring them together again.

"This is a truly unique application" says Chris Petts, Managing Director at Lee Spring, Europe. It is another example of how varied the applications of Lee Spring are, and we are delighted to be part of such an historic restoration project."

For more information about Lee Spring, contact them by Tel: 1-888-SPRINGS (1-888-777-4647), Fax: 1-888.426.6655, Email: sales@leespring.com or visit their website at www.leespring.com.

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DISTRIBUTOR NEWS

Dokka Fasteners Norway and Dokka Fasteners US (collectively known as Dokka Fasteners)

are proud to announce the unveiling of our new website, found at www.dokkafasteners.com. The new site features more up-to-date references to our markets, our product line, our contact information and history, and ready access to our promotional and reference information. Additionally, the new website promotes our new, quick turnaround manufacturing process in Norway called Fast Track, which can provide customer product as quickly as 48 hours when required.

Marc Strandquist, CEO of Dokka Fasteners, comments

"Our goal in revising the website was to create not only a progressive look to our website, but to create a vehicle for our customers, our suppliers, our potential employees, and visitors to have easy access to information and reference materials that tell the Dokka story. We want to continually remind our current and potential customers that we are a supplier of high quality, high tensile, studs, large diameter bolts, and rod, and our fasteners are forged from integrity and sold with security."

For more information on Dokka Fasteners and to view actual videos of our production processes, please visit the website at www.dokkafasteners.com.

DISTRIBUTOR NEWS

United Fasteners is proud to announce the opening of its new facility in Mechanicsville, VA.

This new branch will be the first in the company's growth strategy with more expansion to come throughout 2013/2014.

We are also pleased to announce Carter Garnett will be United Fastener's new Branch Manager. Carter brings to the table over 10 years of fastener industry experience and over 15 years sales experience.

With Carter at the helm, we are looking forward to great things for the company out of this branch.

Also at the end of February 2013, United Fasteners became ISO Certified. The acquisition of this certification shows our continued effort to improve not only as a company, but as a quality supplier to all our customers.

We are also in the process of further improving our in-house lab with several new pieces of equipment arriving throughout 2013.

The next 24 months should prove very good for United Fasteners and our clients.

For more information, contact United Fasteners by Tel: 407-851-7431 or Fax: 407-851-7432.



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DISTRIBUTOR NEWS

Solon Manufacturing Company is expanding operations with the purchase of two additional buildings. Located in Chardon, Ohio, the two buildings will add 24,545 square feet to the current manufacturing area.

Building renovations are already underway. Once completed, the added space will allow all functions to expand production capacity and incorporate new technologies, in order to support their customers located in over forty countries worldwide. "Demand for our innovative products is growing globally and this expansion will enable us to continue to support our customers with increased manufacturing capabilities, quality control, and delivering reliable engineered solutions," said Perry Blossom, Vice President of Solon Manufacturing Company.

Solon Manufacturing Company is re-engineering their processes with a focus on sustainable manufacturing practices. The extra space of the buildings will allow Solon's engineers to improve ergonomics and material handling. Added equipment will increase throughput, while reducing lead times of finished product. Automation innovations will make it more efficient to process product. New equipment in the finishing department will bring more volume in-house and create an even better quality product.

With the move, the Pressure Switch Division will increase space and efficiency at the current location of 425 Center Street, Chardon, OH 44024. Raw material purchasing capabilities and storage will increase as well.

"Solon has been growing steadily since our last addition in 2000. This new space will provide significant manufacturing space to meet the needs of our growing customer base. We are completely upgrading the power to handle our increasing requirements for our finishing department as well as adding additional warehouse and finishing space. We look forward to expanding into our new space," said Solon's President, Tim Dunn.

For more information, Solon Manufacturing Co., 425 Center St., PO Box 207, Chardon, OH 44024. Tel: 1-800-323-9717, Fax: 440-286-9047 or visit their website at www.solonmfg.com.

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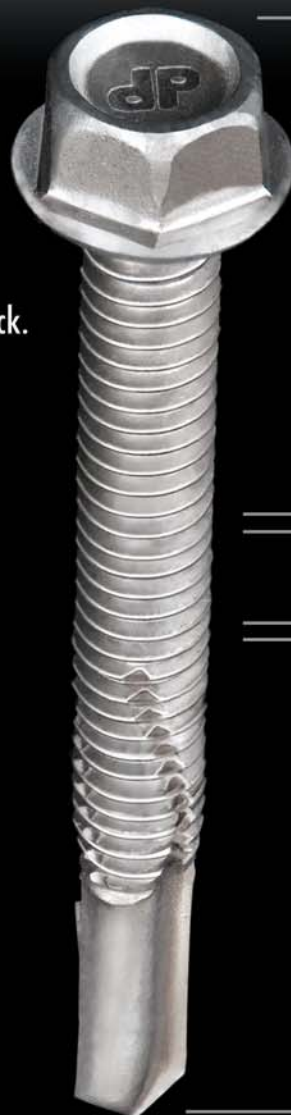
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NATIONAL INDUSTRIAL FASTENER & MILL SUPPLY EXPO

VEGAS FASTENER EXPO OFF TO FAST START FOR 2013: NEW FEATURES ADDED

Recent Report of Fastener Distributor Index (FDI) Bodes Well for Industry

34 North High Street • New Albany, OH 43054 • Phone 614-895-1279 • Fax 614-895-3466 • www.fastenershows.com

The National Industrial Fastener & Mill Supply Expo scheduled for October 23-25, 2013 at the Sands Expo & Convention Center, Las Vegas, Nevada USA is off to a very strong start with exhibit space sales running well ahead of last year, it was announced here today by Expo Management.

"We believe that the improving Fastener Distributor Index (FDI) along with other positive signs such as growing sales, employment and supplier deliveries, together with higher pricing in our industry as recently reported by BB&T Capital Markets, has spurred sharp interest in the Expo", say Jim Bannister and Mike McGuire, the Expo's General Partners.

"We have already sold 584 booths to 421 companies from throughout the U.S. as well as nine foreign countries including Brazil, Canada, China, Germany, India, Italy, Mexico, Taiwan and the United Kingdom. This is well ahead of last year's pace and all signs point to an even larger show than 2012. A dozen of the exhibiting companies are new to the Expo this year. Plus, we continue to receive new contracts and inquiries on a regular basis", informs Susan A. Hurley, General Manager.

"We are experiencing good growth in the fastener production machinery & tooling sector of the Expo, and are also seeing more and more mill supply products introduced. We expect both of these upward trends to continue as our Expo has established itself as the


premier industry event in North America. We are also seeking to add more aerospace fastener companies to "North America's Largest Fastener Expo". Demand for these specialty fasteners and other aerospace/aircraft

components is huge and we believe our near West Coast location will be a great draw for buyers and sellers alike. We are extending a special invitation to members of the Aircraft Hardware Sales Association (AHSa) to visit the Expo and will also be advertising the event in Aerospace Manufacturing and Design magazine", adds Ms. Hurley.

A full day of conference programs will be offered on Wednesday, October 23rd including an all-day Fastener Technology Workshop presented by the Fastener Training Institute and several seminars conducted by the Pacific-West Fastener Association in conjunction with the Manufacturers' Agents National Association (MANA).

The always popular and well attended Welcoming Reception is scheduled for Wednesday evening, October 23rd at Harrah's. This fun-filled event features complimentary food and

beverages and is open to all registered Expo exhibitors and visitors.

For additional information contact the National Industrial Fastener & Mill Supply Expo, (614) 895-1279, email info@fastenershows.com or visit www.fastenershows.com. 



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DISTRIBUTOR NEWS

Chandler Products,

Cleveland, OH, has named John H. Bennett as Operations Manager.



Bennett has an extensive background in General Management posts with several other Cleveland area companies, having served most recently as VP/Mfg. for Elyria Manufacturing Corp. A veteran of the United States Marine Corps, Bennett holds a BA/Business Administration from Baldwin-Wallace College and an Associate Degree in Mechanical Engineering Technology from Lorain County Community College.

Chandler Products is a division of the Elgin Fastener Group, and is recognized throughout the domestic fastener industry for their skill in the production of precision components used in heavy-duty diesel engines, transmissions, and military applications. Their expertise with multiple secondary operations and tight tolerances also extends to the production of engineered fasteners for the electrical and tool markets.

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By John Wolz
editor@globalfastenernews.com

SURVEY OF THE FASTENER INDUSTRY 2012 YEAR END

2012 A Solid Year for Fastener Industry

Most of the fastener industry reported solid results for the End of 2012 FIN Survey, with rising sales and profits and stable costs.

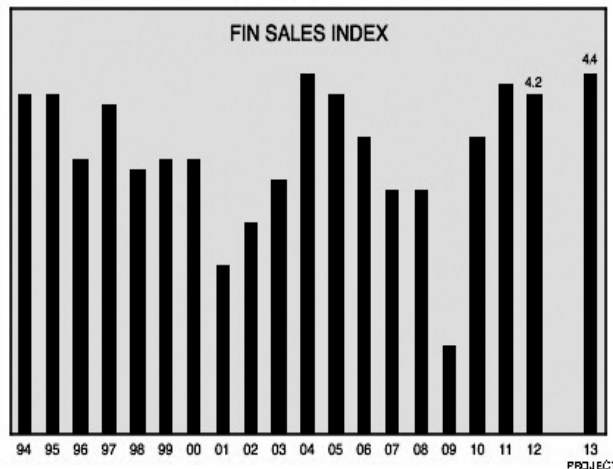
The FIN Company Performance Index declined moderately, falling to 6.7 from 6.9 the previous year.

Just over seven in ten businesses reported "moderate" to "strong" sales growth in 2012, down from the 78% that achieved revenue growth in 2011. About 43% reported "moderate" growth in sales, while 28% saw a "strong increase" in sales.

Just over 15% of survey participants said 2012 sales levels were unchanged from the year before, while 11% reported sales declines - more than twice the percentage of companies reporting dwindling revenues in 2011.

About 64% of fastener manufacturers, importers, distributors and platers reported increased profits. Just over 22% said profits were unchanged, and 11% reported declining profit.

The End of 2012 FIN Survey found costs moderated as well, with more than half of participants reporting flat

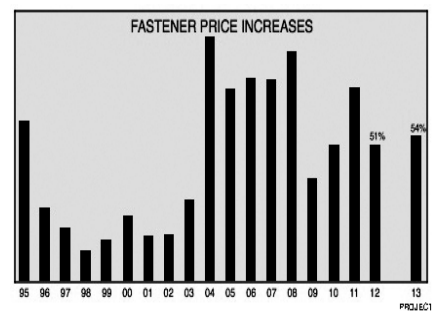


or declining costs, while an additional 41% claimed "moderate" cost increases. And 43% of businesses reported increased capital expenditures, with another 40% of the participants keeping investment levels unchanged.

Majority Raise Fastener Prices

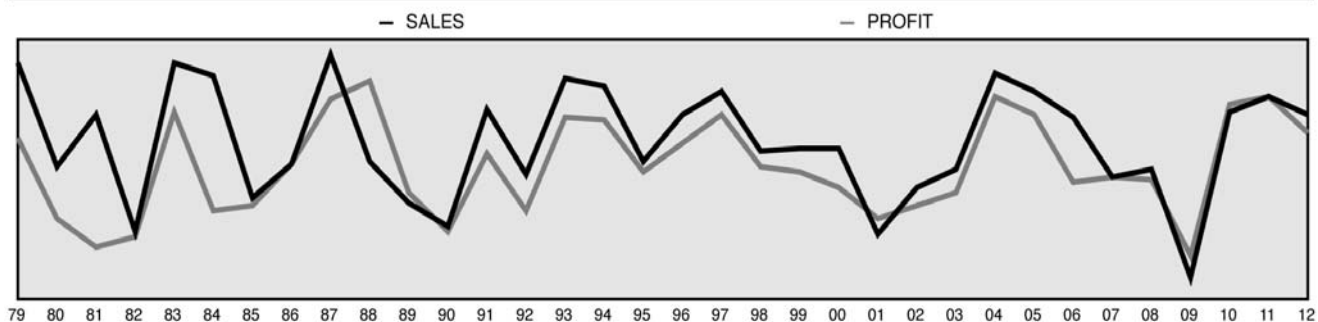
More than half of fastener businesses — 51% — successfully raised prices in 2012, according to the FIN Survey. Price increases ranged from 2% to 20%, with an average increase of 5.5%.

Just under 12% of respondents achieving price hikes above 7%, while 37% reported flat pricing. But 12% of FIN Survey participants reported price reductions, double the rate of the 6% of businesses cutting prices their in 2011. Price cuts in 2012 ranged from 2% to 25% and averaged 7.9%.



please turn to page 202

Percentage of Fastener Firms Reporting Higher Sales & Profit, 1979-2012



DISTRIBUTOR NEWS

UNICORP Electronic

Hardware short form catalog is now available. The catalog summarizes the product line, manufacturing capabilities, product usage and product specifications including plating and metal finishes.

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For more information or to request a catalog call Unicorp at 1-800-526-1389. You can view the complete catalog at www.unicorpinc.com.



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HEAT VERSUS ULTRASONIC INSTALLATION

by Christopher G. Jeznach, Application Engineer

Introduction

The focus of this article is on two of the most commonly used Insert installation methods in thermoplastic parts: heat and ultrasonic installation.

As the usage of plastic parts has increased in a wide array of industries, the methods for fastening have become increasingly important. When screws or bolts are threaded directly into plastic components, failures can occur due to stripped threads or plastic creep¹. In situations where joint strength and the ability to assemble and disassemble without degradation of components is required, Threaded Inserts provide a serviceable thread which satisfies both of these needs.

Before going into detail on heat versus ultrasonic installation, it is important to note that there are other methods for installing Inserts, as shown in Table 1. Installation of Inserts after molding (post mold) versus molding-in reduces costs by shortening molding time. Post mold installation also reduces the chance of scrap and potential mold damage resulting from dislodged Inserts. As shown in Table 1, heat and ultrasonic installation is only used with thermoplastic parts. Thermoplastics are solid at normal temperatures and can be re-melted a number of times, whereas thermosets have a one-time reaction in their conversion from liquid to solid and cannot be re-melted. With both heat and ultrasonic installation methods, the Insert is

embedded into a molded or drilled hole through re-melting of the plastic. Retention within the hole is provided by the melted plastic conforming to the external features of the Insert (Figure 1). A sufficient volume of plastic must be displaced to entirely fill these external features so that the Insert achieves maximum performance when the plastic solidifies. An accurate way of determining sufficient plastic flow into the knurls, barbs and undercuts of the Insert is to take a cross section of the installed Insert and ensure that the features are mirrored in the plastic as shown in Figures 2 and 3. It is extremely important to ensure proper plastic flow into the features of the Insert as this dictates the torque and pull-out performance. In Figure 3, the plastic did not sufficiently flow into the retention features, which will result in low Insert performance.

Though they are both dependent on localized melting of the plastic, heat and ultrasonic installation methods can result in varying performance. Both installation methods have advantages and disadvantages, which should be considered before investing in installation equipment.

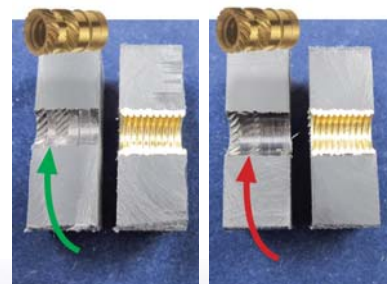


Figure 1: Undercuts, knurls and/or threads on the outside of the Insert improve performance

Installation Method	Thermoplastic	Thermoset
Heat	✓	
Ultrasonic	✓	
Press-In	✓	✓
Self-Tapping	✓	✓
Mold-In	✓	✓

Table 1: Installation methods for Threaded Inserts, showing installation type and material compatibility.

¹Creep refers to material deformation or movement when the material is exposed to static mechanical stresses and/or elevated temperatures. (Materials Science and Engineering An Introduction, William D. Callister, 7th Edition).



**LEFT: Figure 2: Proper Plastic Flow
 RIGHT: Figure 3: Improper Plastic Flow**

please turn to page 138

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MID-WEST FASTENER ASSOCIATION

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Donating Was as Fun as the Party!

The MWFA held their holiday party on December 13th at Medinah Banquets, the same venue which hosted the 2012 MWFA Table Top Show. The venue transformed from a show floor to a party floor creating great party energy! The party was nonstop events



keeping everyone entertained and enjoying the fun networking with their peers from the industry.

Eight foot long tables were piled high with toys, not to mention bikes next to them. The collection bowl was full with checks and cash for the Toys for Tots fund allowing the MWFA to present Sergeant Cavanaugh with over \$2300 for toy purchases. Santa was there to help, the U.S. Marines, collect toys, after all toys are his specialty! The DJ provided fun music for listening and dancing pleasure. And then there was the Photo Booth creating fun for the attendees! Everyone had a great time taking pictures with Santa. Santa knew everyone attending was good so he gladly smiled and enjoyed the fun pictures (posted on our website at www.mwfa.net). The food was tasty, the drinks were good but the joy of the group being together was the best.

Even the split the pot raffle created excitement as the pot was growing and one lucky winner would win over \$500. Jim Sullivan (Chicago Hardware) was that lucky winner. In true holiday spirit he generously gave half of his winnings back to the MWFA Scholarship fund. Thank

you Jim, students and the association appreciate your kind gesture.

Holiday parties are always great but the consensus on this year's party was "one of the best." Keep those holiday sweaters ready for next year's party. More fun planned for 2013!!

MWFA Upcoming Events

- April 25 Joint Meeting with NCFA & NFDA
Nucor Plant Tour
Dinner Meeting/Auburn Cord
Duesenberg Auto Museum
- May 16 Intermediate Fasteners Seminar
Dinner Meeting - Social Media
- June 10-12 Fastener Tech '13
Rosemont, IL
- June 27 61st Annual Golf Outing
Eaglewood Resort & Spa/Itasca, IL

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- Alternates:** Paula Evitts [KDS Imports]
Rich Pease [RK Precision Products]
Bill Vodicka [Allstar Fasteners Inc.]

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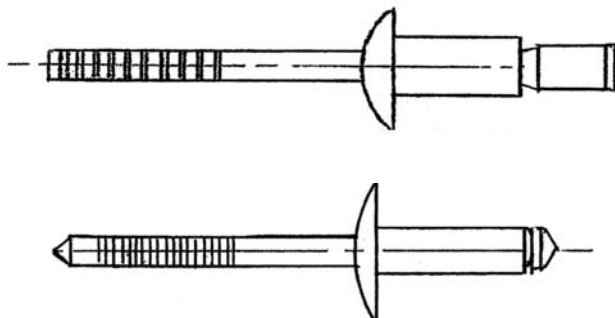
Anthony Di Maio

Anthony E. Di Maio attended Wentworth Institute and Northeastern University. In 1962 he started working with Blind Fasteners as Vice-President of Engineering & Manufacturing for two blind rivet manufacturers. He has been Chairman of the Technical Committee of the Industrial Fasteners Institute (IFI) and is still involved in the writing of IFI specifications. In 1991, he started ADM Engineering and is working with Fastener Manufacturers developing new fasteners and special machinery. He can be reached at ADM Engineering, 6 Hermon Ave., Haverhill, MA 01832; phone and fax 978-521-0277; e-mail: tdimaio@verizon.net.

THE FEATURES OF BLIND RIVETS

Many people have asked me, "why do blind rivet manufacturers add radial rings, grooves or serrations to the mandrel diameter of blind rivets?"

These radial grooves are added to the mandrel circumference to ensure that the gripping jaws of the blind rivet setting tool do not slip when setting the blind rivet. These radial grooves are put on the mandrels of high tensile blind rivets, such as stainless steel and structural blind rivets.



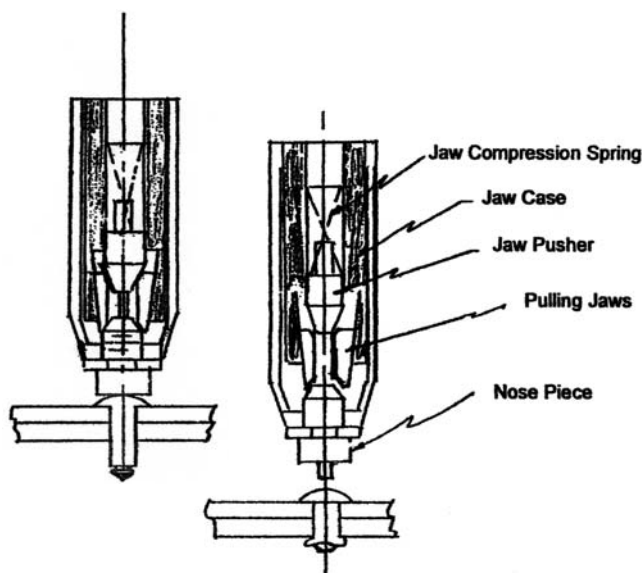
The pulling or gripping jaws of the setting tool first grip the mandrel diameter and then, as the setting tool starts to pull the mandrel, the pulling jaws penetrate the mandrel for a locking grip. The pulling jaws have an approximate 10-degree angle on their outer surface and they are in a 10-degree tapered hole. The more the pulling jaws pull the mandrel the deeper the jaws penetrate the mandrel.

The pulling jaws must first grip the mandrel with the teeth that are on the pulling jaws. The first initial gripping is done by the sharpness of the teeth of the pulling jaws and allows the pulling jaws to penetrate the mandrel when setting the blind rivet. If this initial gripping does not occur, the pulling jaws will slip when setting the blind rivet.

The radial grooves on the mandrel ensure that the pulling jaws will grip the mandrel by the teeth of the

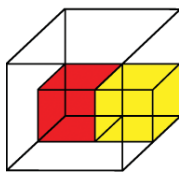
pulling jaws when the teeth of the pulling jaws are in the radial grooves. The pitch between the radial grooves match the pitch between the teeth of the pulling jaws, thus giving the pulling jaws a good grip on the mandrel of the blind rivet.

Even if the pulling jaws are worn, the teeth of the pulling jaws will still grip the radial grooves of the mandrel.



The higher the mandrel tensile strength, the harder the surface of the mandrel. Radial grooves on high tensile strength mandrels lengthens the setting life of the pulling jaws. High tensile mandrels are used with stainless steel, steel and aluminum structural blind rivets.

Annealing (heat treat) blind rivet bodies is important when manufacturing blind rivet bodies. When bodies are produced, either stamped from sheet stock or extruded from wire, a large amount of work hardness is in the formed rivet body.



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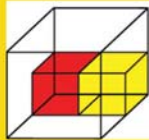
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DISTRIBUTOR NEWS

William H. Brewster, Jr., Inc. (Brewster-Washers), has reached a milestone by celebrating 94 years in business manufacturing American made precision washers, discs and shims with pride exemplified by its unblemished quality and on-time delivery.

William H. Brewster, Jr., Inc. will celebrate its 94th Anniversary on March 15, 2013. Established in 1919 by William Brewster, Brewster washers has the same commitment to quality that Bill instilled in his employees. His motto was "Good, Better, Best...Never let it rest until your Good is Better and your Better is Best". We are the place for precision washers, shims and discs and

you'll only receive the Best. Good Delivery, Better Price and Best Quality! At Brewster, your blueprint is our catalog.

Since its inception, Wm. H. Brewster Jr., Inc. has consistently manufactured the finest available Round Washers, Shims, Discs and Spacers for practically every purpose imaginable. Our round washers, shims and discs are utilized as parts in everything from computers, motors, dental tools, the Space Shuttle and the Mars Lunar Rover to name a few.

For more information on how Brewster-Washers can help you, contact Sal Freda at 973-227-1050, e-mail sales@brewster-washers.com or visit them online at www.brewster-washers.com.

DISTRIBUTOR NEWS

EFC International, is pleased to announce the opening of its branch office and warehouse in Phoenix, Arizona. The office will serve to heighten EFC's support and meet the requirements of our valued customers in the West and Mexico.

EFC's Western Regional Sales Manager, Rick Gourley, oversees the Phoenix branch. Rick started with EFC in 2012. Rick brings technical expertise and product knowledge gained from his education and many years in the fastener industry with companies TRW, ITW Deltar, and Emhart. Rick has been successful increasing sales and penetrating new markets and is excited to have the opportunity to continue his success with the Phoenix branch. The branch is located at 1236 W Southern Avenue, Suite 105, Tempe, AZ 85282; the phone number is 480-219-0110.

Through partnerships with ITW Shakeproof, ITW CIP, TRW, A Raymond Tinnerman, Oetiker, ITW Motion, Heyco, Johnson & Hoffman, Sherex, and other respected manufacturers, EFC is a leading and world-class provider of specialty metal, plastic, electrical and assembled components.

Contact EFC International at 1940 Craigshire Road, Street. Louis MO 63146. Tel: 314-434-2888 or visit their website at www.efc-intl.com.

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IFI PUBLISHES NEW MUST-HAVE BOOK FOR THOSE IN THE FASTENER INDUSTRY

by Joe Greenslade *Director of Engineering Technology, IFI*

The Industrial Fasteners Institute (IFI) has long been recognized as the leading publisher of fastener standards books. In 2013 the IFI has branched out into publishing technical books to provide fastener manufacturers, re-sellers, and end-users helpful information to understand the technological foundation upon which the fastener industry is based.

The first of a series of planned books will be available by the end of the first quarter of 2013 which is titled **Mechanical Fastening and Joining** by Bengt Blendulf.

Bengt Blendulf is the president and principal lecturer of EduPro US, Inc., a company specializing in fastener engineering education and consulting. Bengt's involvement in fastening technology goes back to 1966 when he joined Bulten, one of the leading European fastener manufacturers. Educated in mechanical engineering in Sweden, he moved to the United States in 1974 to start a subsidiary for a Swedish fastener manufacturer.

After serving for 8 years on the faculty in the College of Engineering and Science at Clemson University, he (EduPro) teaches highly rated courses in Fastening Technology and Bolt/Screw joint Design in the United States, Canada, Mexico, Europe and Asia, primarily for engineers, but also for other fastener professionals.

Bengt was the chairman of ASTM F16.96 Bolting Technology from 1996 to 2006. In 2006 he received the Fred F. Weingruber award from ASTM for "his efforts to promote and develop standards for the fastener industry." He is the author of an extensive lecture book as well as over 100 technical papers and articles related to fasteners and international standardization.

In the foreword of **Mechanical Fastening and Joining** Joe Greenslade of the IFI writes, "It has been

my pleasure to know Bengt Blendulf since the late 1970s. From the first time we met it was obvious to me that he was one of the brilliant minds in the field of fastener technology. Bengt is one of those rare individuals who can explain technically complicated subjects in terms that can be comprehended by his audience regardless of their educational background. He is not only highly technically educated and competent in fastener technology, but he is also a very practical thinker and teacher. He clearly understands the difference between fastening theory and the practical application of those theoretical principles.

Bengt has been involved in the application of metric fasteners his entire career.

He and I have been in complete agreement since our first meeting that the ISO fastener standards should be adopted as the sole metric fastener standards throughout the world. We both hope to see that as a reality before our retirement from the fastener industry. This book is a compilation of articles written by Bengt over approximately 30 years. This is a "must read" for all fastener engineers, fastener industry quality assurance people, and those involved the technical sales of fasteners and related products. Those reading and comprehending this book will be well informed on the technical and practical principles of applying threaded fasteners."

The book is an edited compilation of Bengt Blendulf's articles published in the Distributor's LINK Magazine. Permission to use this material was generously granted by Leo Coar of LINK so that this valuable material can be made readily available to those in the fastener industry now and into the future.

The book covers a wide range of subjects related to why fasteners work, how to properly design joints, and how to properly install fasteners.

please turn to page 174



I SEE

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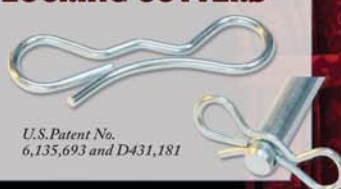
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LELAND'S RECENT ACQUISITION A SUCCESS!

The recent acquisition of "Canadian Threadall Ltd." By Leland Industries Inc. is proving to be a successful venture. Both companies began operations in the early 1980's under private ownership. Both companies, for over twenty-eight years, moved forward in parallel, each offering their own specialty and standard fastener products. Now, each is able to benefit from their combined strengths.

From the beginning, Leland Industries concentrated on domestic manufacture of bolts, nuts, and screws for the agricultural storage and metal building segments of North America's construction industry. Canadian Threadall, from inception, earned a solid reputation for

their expertise in producing quality threaded products in most ferrous and non-ferrous metals, engineered to the customer's specifications.

Growth for both companies came quickly at the same time as their reputations for quality products, delivered on time became known.

Leland's beginnings, with two bolt making machines and six employees evolved into a two hundred strong

manufacturing force, operating and maintaining over 300 pieces of equipment in Leland's own 155,000 sq. ft. plant, warehouse and head office facility.

The recent purchase of additional bolt makers has expanded bolt making capacity to a maximum 3/4" X 6". This combined with "Canadian Threadall" and their technical expertise in customized threading, bending, forming hardware and anchor bolt production, brings


both groups newly expanded capabilities in manufacturing and the ability to serve diverse market opportunities.

All Leland and Canadian Threadall products are produced to rigorous benchmarks of quality that surpass the test of today's highly demanding and

exacting needs of engineering - whether those items are based on the demands coming from international standards or from the customer.

Enthusiasm, dedication to "quality" continuing employee education through in-house training, and commitment to providing "consistent quality"; all are required to succeed in a market continuously challenged by offshore.

All Leland and Canadian Threadall products are traceable to each stage of manufacturing. When our customers receive a finished product it comes with a certificate issued by a competent body.

As far as Leland and Canadian Threadall are concerned, these measures are key to their success - nothing less will do. 



Fastener Synergy

Now, with the acquisition of Canadian Threadall, an independent Canadian manufacturer, custom bending, threading, studs, U-Bolts, J-Bolts, Eye-Bolts, threaded rod and other specialty fasteners are added to the product mix.

The synergy allows both companies to collaborate on special projects, and take advantage of shared inventories.

Leland has also purchased the production equipment from Westland Steel Products of Winnipeg – giving us increased capabilities, including bolt making up to 3/4" x 6".

All product is North American made! And made to last – thanks to our exclusive long-life JS1000 plating!



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THE PARACHUTE CONGRESS MADE *continued from page 32*

Bonus Depreciation

The 50% deduction on business investment on new equipment has been extended for 2013 for most purchases. However, for certain long-term assets and transportation equipment, the law is extended through the 2014 tax year

6.2% for all employees.

Got Milk?

This law also extends the farm bill, avoiding the "Dairy Cliff", which would have likely shown us a 100% rise in dairy prices.

Estate and Gift Tax

Under the new law, the estate tax exemption rises to \$5,250,000. It was indexed to inflation for 2012 at 5,120,000. The tax rate in 2013 goes from 35% in 2012 to 40% in 2013. Portability remains in place.


**Tax planning
has become even more
important for those
planning on selling a
business or passing a
business.**

Our Recommendations

Tax planning has become even more important for those planning on selling a business or passing a business. Taxes on wealthy individuals will be higher this year and in the future. It is our recommendation that any business planning should include tax planning. This is particularly important for those selling businesses and those having estates worth more than \$5,000,000.

Payroll Tax

The payroll tax will increase for most Americans. In 2011 and 2012, the regular 6.2 reserved for social security on the employee's end was reduced to 4.2%. As of January 1, 2013, the rate returned to

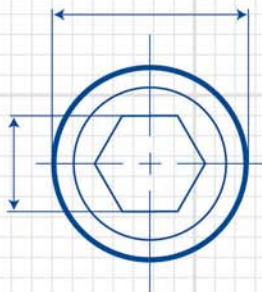
There are tools to utilize if you wish to sell or pass on your business. 

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Technical drawing of a mechanical part showing dimensions and tolerances. The drawing includes a cross-section view on the left and a side view on the right. Dimensions are indicated with arrows and labels:

- Top View (Left):**
 - Overall width: $2 \times A$
 - Inner width: $2 \times a$
 - Radius: R
 - Feature: THEORETICAL SHAPE
 - Feature: ABSOLUTE MINIMUM
 - Feature: BOUND OR FLAT
- Side View (Right):**
 - Overall length: L [NOTED] (7. ANG (B))
 - Length from start to first step: L_{GH} [NOTED] (1)
 - Length from start to second step: L_{BH} [NOTED] (1)
 - Step height: H
 - Length from start to end: L_T [NOTED] (1)
 - Feature: 62 DEW - 2 DEW

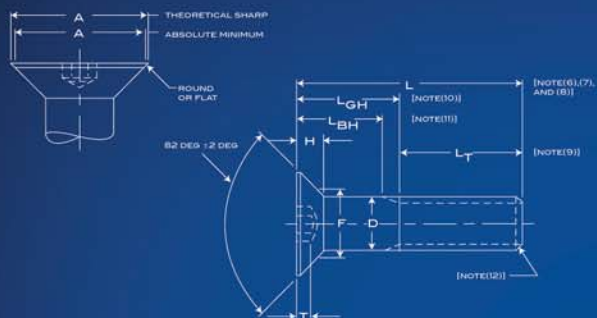
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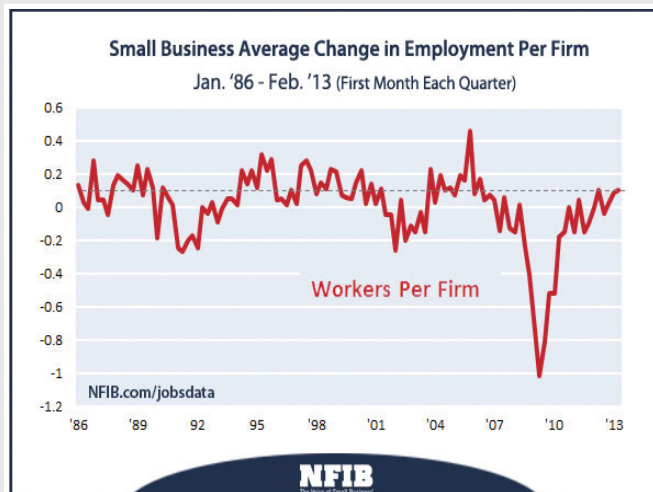
NFIB JOB STATEMENT: HISTORICALLY LOW RATES OF JOB CREATION BUT TREND IS IN THE RIGHT DIRECTION

Chief economist for the National Federation of Independent Business (NFIB) William C. Dunkelberg, issued the following statement on the February job numbers, based on NFIB's monthly economic survey that will be released on Tuesday, March 12, 2013. The survey was conducted in January and reflects the responses of 870 sampled NFIB members:

"If anything positive can be said about job creation among small firms in February, it's that it didn't decline. NFIB's study showed a slight improvement over the January reading, with the average change in employment per firm increasing to 0.1 - up from 0.09 workers per firm during the previous month. The increase is small, but the trend is in the right direction for a change. Ten percent of the owners (down 1 point) reported adding an average of 3.5 workers per firm over the past few months. Offsetting that, 12 percent reduced employment (up 3 points) an average of 2.5 workers (seasonally adjusted), producing the small gain of 0.1 workers per firm, overall. The remaining 78 percent of owners made no net change in employment. Forty-four (44) percent of owners surveyed hired or tried to hire in the last three months and 34 percent (77 percent of those trying to hire or hiring) reported few or no qualified applicants


for open positions. Jobs Line Graph

"Twenty-one (21) percent of all owners reported job openings they could not fill in the current period, up 3 points from January and up 5 points from December. While an unimpressive number, this measure is highly correlated with the unemployment rate, and suggests a minor improvement in the unemployment rate.



"Job creation plans rose 1 point; a net four percent of owners expressed plans to increase total employment. Again, this is historically weak but 3 points better than December, so at least the trend is positive. Not seasonally adjusted, 17 percent plan to increase employment at their firm

(up 5 points, up 10 points from December), and seven percent plan reductions (down 1 point from January and down 4 points from December).

"Overall, labor market indicators improved in February, building upon the modest gains of December and suggesting the possibility of better job creation and reduced unemployment numbers. However, keep the champagne on ice: employment is still below its 2008 level, so there is a long way to go before our economy is healthy and employment is restored to its pre-recession level. A continued rebound in the labor intensive housing industry will certainly help a lot." 

screw·ing a·round [skrōō'ēŋ ə'round] verb

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Mariah de Forest

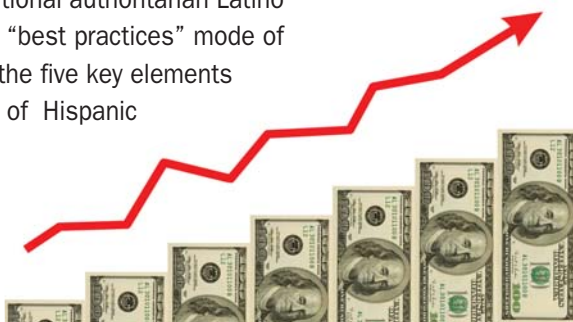
Mariah E. de Forest is executive vice president of Imberman and DeForest, Inc., international management consultants headquartered in Evanston, IL. She specializes in productivity improvement and positive employee relations programs in companies having predominantly Spanish-speaking workforces. She also consults for American companies with Mexican facilities concerning employee relations in that country. She has lectured at scores of universities including Northwestern University and the University of Illinois School, and has authored over 80 articles and reports on her areas of expertise.

MAKE MORE PROFITS WITH YOUR TRAINING DOLLARS

Distributor's Link published my "How New Training Methods Can Make Latino Supervisors More Effective," in June, 2005, because of the fastener industry's need to teach its growing numbers of Hispanic first-level supervisors how to improve performance in the face of stricter customer demands for lower pricing. Today, eight years later, the need is more urgent, what with the rise in Pacific Rim imports coming from low-wage countries.

The 2005 article explained how American fastener producers and distributors could boost productivity and reducing per-unit costs by training their Hispanic supervisors to adapt their traditional authoritarian Latino leadership style to a U.S.-style "best practices" mode of supervision. I also discussed the five key elements needed for effective training of Hispanic supervisors.

Here are those elements and the results of the training from 17 fastener makers using this approach:



1. Working With Rather Than Against The Natural Authoritarian Leadership Style

While authoritarian supervision is typical in Spanish-speaking cultures, it is a major stumbling block for the success in America. We showed Hispanic supervisors how to adapt their traditional management style to one more acceptable to workers in our country.

Typical Hispanic supervision often amounts to ordering people around, no back talk, as well as rewarding and punishing favorites. The training taught supervisors to modify this ingrained concept of authority by acting like a "priest" or "respected teacher." Although regarded as authorities in traditional Latino cultures, these figures represent responsive "father" figures, guiding subordinates. This helped convince the

supervisors this approach did not threaten their authority, and they learned one key to better productivity was helping, rather than just ordering, employees to improve productivity and quality. One of the workers commented:

"All of a sudden, my boss noticed how I was working, and even helped me straighten out a problem I was having with one of the thread rollers. I don't know what happened, but since he started talking to me about the job, I enjoy coming to work a lot more. I even take the OT I used to turn down."

Lesson Number 1

The first lesson in training such authoritarian oriented supervisors is to try to show them how to channel authoritarianism into a much more constructive direction. Hispanic supervisors can accept their respect is enhanced, not diminished, by

acting as constructive "father" figures. They learn that guiding employees is not a threat to their authority, but a way to engage them in improving performance. The benefit of this approach was measured by departmental performance improvement, which climbed an average of nine percent without further capital investment. Absenteeism rates declined and overtime attendance increased as well.

2. Helping Foreign-Born Supervisors Manage Their Departments Rather Than Simply Giving Orders To Their Workers

Most supervisors are reluctant to ask for help. In Latin cultures especially, it's a sign of weakness. The benefits of the training were increased when we showed

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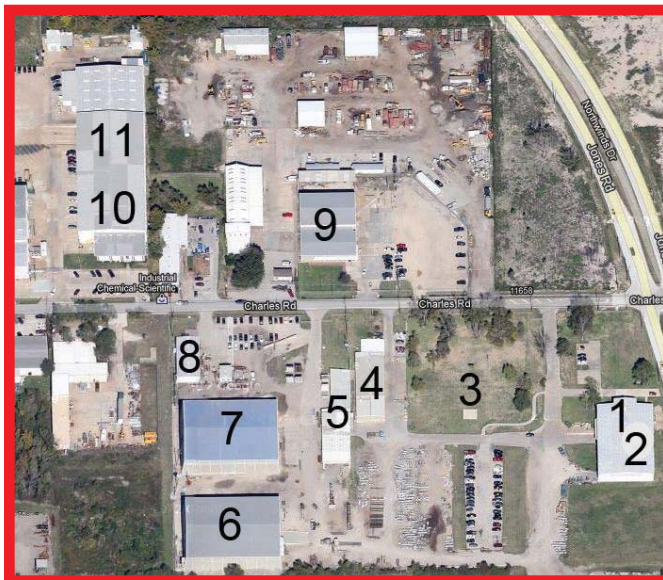
Alloy & Stainless Fasteners' inventory exceeds 10,000 tons of bolts, nuts, socket screws, studs, washers, and bar stock products that are available for immediate needs — for resale distributors with a focus

on chemical, energy, gas, oil, petrochemical, power generation, power transmission and the shipbuilding industries.

ASF utilizes over 250 production machines with manufacturing capabilities that include metal cutting, hot forging, conventional and CNC machining, threading, bending and impression and low stress marking. ASF has the ability to cut bar to 24 inch in diameter. In addition to its 21 band saw machines, ASF offers precision finish machine cuts with a + / - tolerance of .005 inch with five precision metal cutting machines. The company also has machining capacity for turning diameters from 1/4 inch to 22 inch and in lengths up to 50 inches long.

ASF forging capabilities is not only for hex patterns but also for sockets, 12 points, hex flange, flat heads and round head patterns in lengths up to 38 inches long. The company has 24 cut threading machines for bolt and stud

threading, 10 roll forming machines for in-feed and through-feed threading requirements with a 3 inch diameter maximum capacity. ASF offers cut, rolled and machined finished threads.



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5. Production - Threaded Rod | 6. Production - Stainless Steel Bar
7. Production - Alloy Steel Bar | 8. Production - CNC Machining
9. Production - Metal Cutting | 10. Warehouse - Bulk Distribution
11. Quality Assurance Lab

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ASF's extensive Metal Bar processes include drawing, straightening, peeling, vibratory finishing and center-less grinding.

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2. Warehouse - Local Distribution
Production / Forging



Eastern Region

1. Warehouse - Local Distribution



Western Region

1. Western Sales
2. Warehouse - Local Distribution



Western Region

1. Warehouse - Local Distribution

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310
316
316 STRAIN HARD
316 ELC
317 ELC
321
330
347
410
410 HEAT TREATED
416
430
440C
501 HEAT TREATED
17-4 PH
904L
ALLOY 20
A286
254-SMO
CARPENTER 20 Cb3
FERRALUM 255
NITRONIC 50
NITRONIC 60

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ASTM A193 B6
ASTM A193 B8 CLASS 1
ASTM A193 B8 CLASS 2
ASTM A193 B8M CLASS 1
ASTM A193 B8M CLASS 2
ASTM A193 B8C
ASTM A193 B8R
ASTM A193 B8S
ASTM A193 B8T
ASTM A320 B8 CLASS 1
ASTM A320 B8 CLASS 2
ASTM A320 B8M CLASS 1
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ASTM A453 660B
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INCOLOY 800H
INCOLOY 825
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AL-6XN

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2507
ZERON 100

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6061T6

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ASTM A193 B7M
ASTM A193 B16
ASTM A320 L7
ASTM A320 L7M
ASTM A320 L43
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RETAINING RINGS REPLACE “NUT AND BOLT” FASTENERS IN ROCKER ARM ASSEMBLY

by Vincent E. Rodgers

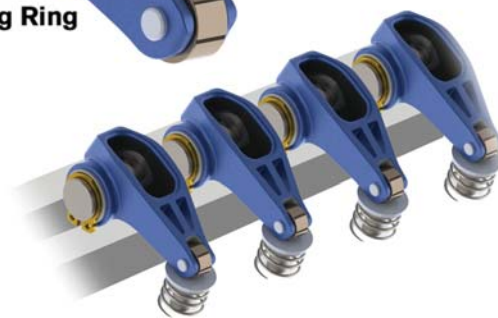
High performance rocker arms add horse power to an engine and retaining rings have played a role in their development.

Shaft mount rocker arms are mounted on a shaft for extra rigidity, reduction of vibrations and elimination of uncontrolled valve train motion

at high RPMs. They are made of stainless steel or another light material. They also feature a trunnion (a pivot point) along with a bearing inside the arm to reduce friction and wear. The bearings and trunnion are held in place by an external retaining ring on each side of the rocker, mounted directly on the shaft. This replaces the conventional “nut and bolt” rocker arm assembly found in standard engines.



SH Retaining Ring



Shaft mounted rocker arms


A pre-cut groove in the shaft firmly secures the retaining ring in place, the shoulder of the ring retaining the rocker arm bearing. If the rocker arm becomes damaged and needs to be replaced, the ring can be easily removed and the rocker arm can slide off the shaft. Racing enthusiasts go to great lengths to reduce weight without sacrificing power and ease of access for

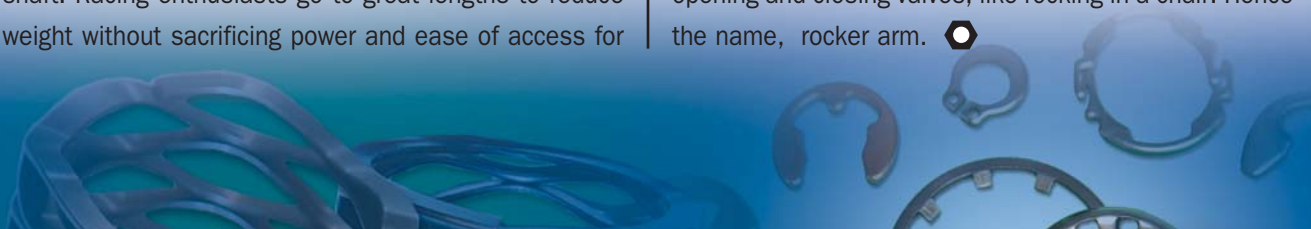
replacement in the field. The rocker arm and retaining ring combination is an excellent example of how this is accomplished.

A rocker arm is used in combustible engines like cars, trucks, boats, motorcycles and airplanes. Rocker arms are important when it comes to engine performance. Standard engine rocker arms or roller tipped rocker arms are the most common. They are made from stamped steel and bolted to the block.

Rocker arms are connected to pushrods inside the block which are connected to valve springs that are under extreme amounts of pressure.

When the cam shaft rotates, it makes contact with the pushrods connected to the rocker arm, opening the valve to let air in. When the connection between the pushrod and cam shaft is broken, the

springs snap back closing the intake valve. When the cam shaft rotates again it hits the pushrod and rocker arm once more letting out exhaust. Again, when the connection is broken, the springs snap back, closing the valve. Essentially, the action is a “rocking” motion, opening and closing valves, like rocking in a chair. Hence the name, rocker arm. 



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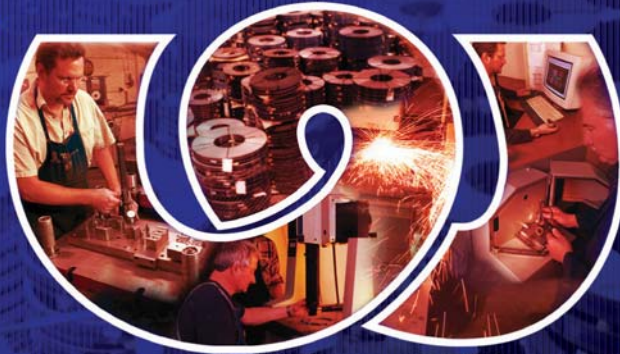
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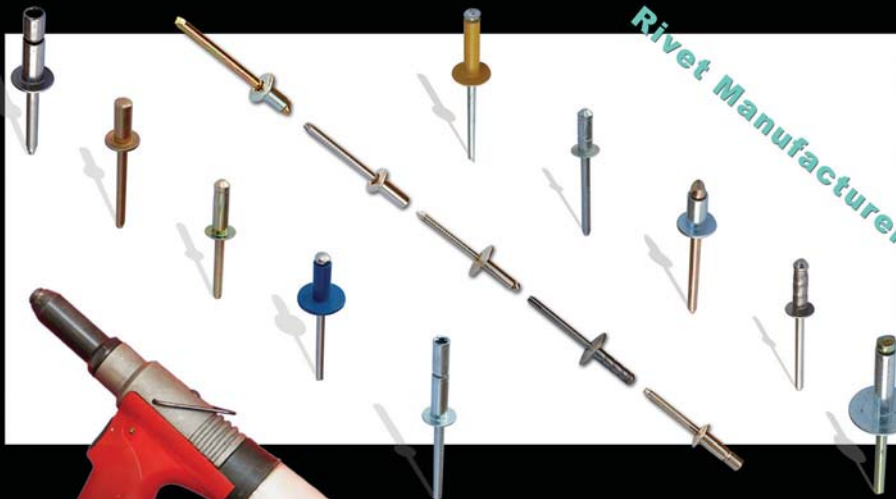
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NATIONAL FASTENERS DISTRIBUTORS ASSOCIATION

NFDA 2013 ANNUAL MEETING PROMISES EDUCATION YOU CAN USE

"Connecting for Tomorrow" is the theme for the NFDA 2013 Annual Meeting, which will take place June 12-13 at the Intercontinental Hotel in Rosemont, Illinois, immediately after the conclusion of Fastener Tech '13.

Our planning team of Sara Mallo, Bob Luzum, and Jim Lindrup has developed a winning combination of relevant educational content and fun events.

To kick off the conference on Wednesday afternoon, June 12, NFDA brings back the insights of the Institute for Trend Research economists, with a timely economic update by Jeffrey Dietrich. One of the best benefits of NFDA membership is the detailed commentary on the state of the U.S. economy by the ITR team, through quarterly reports (emailed to all members and archived in the online library) and annual presentations at NFDA meetings. We couldn't pass up this opportunity to again bring you the insights of the Institute for Trend Research, the on economic trends forecaster with a 94.7% accuracy rate and 60 years of correct calls.

That evening we're taking everyone to dinner at nearby Carlucci's, one of Chicago's most celebrated Italian restaurants. Fresh from Italy's rolling countryside, the seasonal flavors at Carlucci's are as rich as the land itself. And, who knows, there could be an after party at the newly opened Park at Rosemont.

The conference's second day will kick off with a provocative panel discussion, "Manufacturers are from Mars, Distributors are from Venus." Focusing on the relationship between fastener manufacturers and fastener distributors, the panel will feature insights from Gary Huck (Würth Industry Group), David Monti (Fall River Manufacturing), Todd Sider (Century Fasteners), and Tammy Work (A Raymond Tinnerman). Eric Dudas of www.fastenersclearinghouse.com and Fully Threaded Radio will be the panel moderator.

Next up on the conference program for June 13 will be an update on the impact of the Affordable Care Act on business, presented by a representative of the National Federation of Independent Business.

To conclude the educational portion of the conference, NFDA is proud to present Dr. Geoff Smart, the New York

Times best-selling author, who offers a ground-breaking solution to your number one problem: hiring mistakes. He will show you:

- A simple four-step method for hiring the right people, with a 90% success rate.
- How to save \$1.5M by avoiding a single hiring mistake.
- Advice given in an unprecedented number of exclusive interviews with more than 20 billionaires and 60 CEOs, investors and other thought-leaders
- The secrets of success for more than 300 CEOs who participated in a University of Chicago study.

And, if that's not enough, the conference will conclude with two optional outings to downtown Chicago. You can explore Navy Pier on your own, or you can enjoy dinner and a play (we've reserved 50 tickets for *The Book of Mormon*).

So, come to Rosemont this June for Fastener Tech '13 and stay for the NFDA Annual Meeting.

Executive Summit

One of the intangible yet valuable benefits of NFDA membership is learning from one's peers. And, that's the focus of the NFDA 2013 Executive Summit, November 5-7 at the Ritz-Carlton Kapalua, on the island of Maui.

The focus for this inaugural event will be fastener distribution best practices in the areas of

- Sales and marketing initiatives
- Human resources practices
- Warehouse operation
- Lean training

Fellow NFDA members will make presentations and facilitate discussions based on proven approaches that will be applicable to companies of all sizes.

- Benefits the company has experienced
- Factors to consider to determine if this will work in your company
- Description of the implementation process

Details can be found at www.nfda-fastener.org 



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PARTNERING TO SHRINK THE SUPPLY CHAIN

Six years ago when the idea of linking vendors like Porteous Fasteners directly with their customers via their ERP system started to take shape, it seemed like a farfetched idea even with the staggering changes to the fastener distribution industry made possible by the internet.

Since the late 70's when distributors first began to automate their businesses by implementing small business computer systems, they were for the most part islands of technology that relied upon manual input of data and produced paper documents and reports, interconnectivity at this level was not even dreamed of.

Except at the top end of the spectrum, there was no need or desire to communicate system to system and for the small to medium sized distributor, there really was not a large enough base of potential customers to make it worthwhile.

Fast forward 30 years and there's been a paradigm shift. The vast majority of distributors are automated, there are industry standards that allow for reliable data exchange and, there's a transport medium, the internet, which marries need with capability.

INxSQL, a leading provider in distribution ERP systems, began working with PFC in 2007 to create the Direct Connect, an integrated function that allows INxSQL users who buy from PFC to directly access price and availability as well as place orders easily and directly from within their INxSQL distribution software. Whether from sales, purchasing or a simple item inquiry, detailed information on pricing and availability is one button away, press the F12 key and you have complete vendor item information instantaneously.

Now, a proven success for its users, the INxSQL Direct Connect is expanding to offer access to additional and complementary master-distributors like Beacon Fasteners and Components. With Beacon joining the Direct Connect partnership earlier this year, Darin Horton, Vice President of Software Development said "the Direct Connect network, as it is now and certainly as it continues to expand, offers

a significant opportunity for its users to simplify their processes and lower their acquisition costs. For our master-distributor partners, they have the opportunity to reach their current and potential customers immediately and without creating any additional steps, phone calls or extra paperwork."


Joe Peplinski, Vice President of Operations at Beacon said "Beacon Fasteners and Components continues to focus on reducing their customer's total cost of ownership. The latest tool in Beacon's cost saving arsenal is the expansion of the Beacon / INxSQL partnership. We are excited to announce that beginning in Q1 2013 INxSQL customers will benefit by utilizing the Direct Connect functionality to conduct business with Beacon."

Today's distributors, like all businesses, are pressed for time and face performance and delivery deadlines as well as tight margins, otherwise known as business as usual. Interconnectivity tools like the Direct Connect allow distributors to work closely with their master-distributor partners to immediately access information on their current

cost, availability at the nearest location and the ability to shorten the time it takes to process and manage their orders efficiently and at the lowest cost.

The connectivity provided by the INxSQL Direct Connect to partners like PFC and Beacon is an important tool that will become a requirement allowing strategic partners the ability to streamline the acquisition process. INxSQL continues to work to expand both the base list of compatible suppliers as well as expand the reach and capability of the Direct Connect generally.

In a global marketplace, the ability to communicate and process transactions quickly, correctly and efficiently has become a requirement. INxSQL users have these tools available to them at their fingertips; it's as simple as F12!

For more information about the INxSQL Direct Connect or its partners, contact Keith Jones, Vice President of Sales at keith.jones@inxsql.com or call 877.446.9775 for more information. 

Substitute Item #	UOM	Price	UOM Cost
1412SHW7Z	THOU/1000	27.131	0.027 / EA

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"Purchasing INxSQL was the best decision our company could have made in an economic time when every dollar counts. After being disappointed and swimming in unresolved issues from other software solutions, we had our data converted, our staff trained, and our system operational in just a few months. We have been greeted with quick, friendly resolution from INxSQL staff with every issue we have encountered. I would certainly recommend INxSQL for businesses who want to continue to grow, with total confidence in their software provider."

- Deb Lack
Associated Fasteners, Inc

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- Accounting and Bank Reconciliation included
- VMI "Vendor Managed" Inventory via handheld device
- Signature capture on delivery via handheld device
- eCommerce fully integrated into Orders and Inventory

Line	Item #	Item Description	Locn	Order Qty	B/O Qty	Unit Price	Order Price	Req Date
56	PTASSCHX1	8 X 1 PH TRUSS 'A'	FL	1,200	0	0.02400	\$28.80	6/18/2003
57	PTASSCHX1.25	8 X 1 1/4 PH TRUSS	FL	575	0	0.03500	\$20.13	6/18/2003
58	PTASSSCH1/4	1/4-20 X 2 1/2 PH T...	FL	550	0	0.18000	\$104.50	6/18/2003
59	SFTSSCH3/8C6	3/8-16 X 6 F/T STU...	FL	50	50	13.94000	\$697.00	6/18/2003
60	PFC0022-2416	1/4-20 X 1 TAP BOL	FL	500	500	0.00000	\$0.00	6/18/2003

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DISTRIBUTOR NEWS

Aztech Locknut Company

is now ISO 50001 compliant. The Energy Standard requires that an organization pursue continuous improvement in its energy efficiency, security, use, and consumption. Adherence to this new standard allows Aztech Locknut to maximize use of its energy sources by reducing consumption and cost, which is good for Aztech's customers and good for the planet.

It is estimated that ISO 50001 will eventually influence up to 60% of the world's energy use. Our LEED-EB Compliant facility, combined with existing certifications to AS9100C, ISO 17025 and ISO 14001, demonstrate how Aztech Locknut's business practices and quality programs lead the way in the fastener industry.

For more info contact Aztech at 1-800 -321-5625. Email at sales@aztechlocknut.com or visit www.aztechlocknut.com.

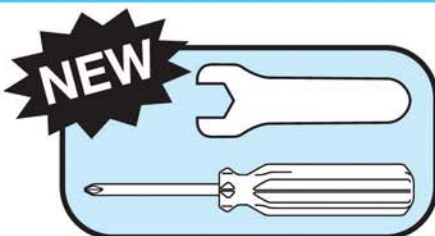
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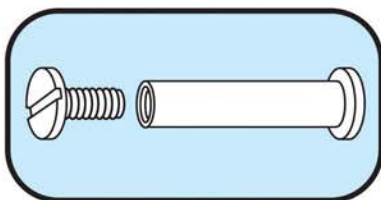
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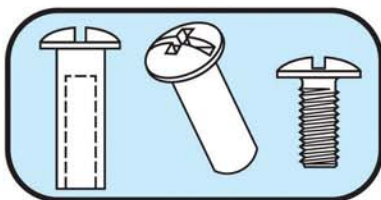
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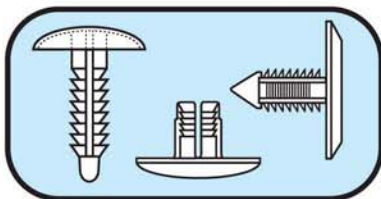
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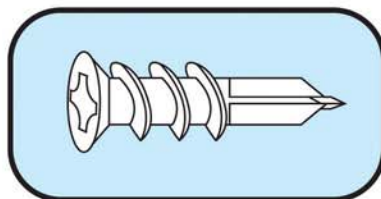
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AZTECH LOCKNUT RETAINS LEADERSHIP IN GREEN BUSINESS PRACTICES WITH ISO 50001

Aztech Locknut Company is now compliant to the ISO 50001 Energy Standard. ISO 50001 requires that an organization pursue continuous improvement in its energy efficiency, security, use, and consumption. Adherence to this new standard allows Aztech Locknut to maximize use of its energy sources by reducing consumption and cost, which is good for Aztech's customers and good for the planet. According to Aztech's President, Mark Kaindl, energy use at Aztech's Aurora, Illinois facility is down 60%.

Thanks to Aztech's 2009 "green" renovation and resulting compliance to LEED-EB, the energy savings were already there, creating the basis for compliance to ISO 50001. Measuring and documenting energy savings are key

components to compliance. According to Kaindl, "The requirement or goal is to save energy, and thus money." He continues to seek out other areas to achieve energy savings and facility comfort, including relatively simple items such as insulating blankets for Aztech's dock doors.

Though a relatively new standard, it is estimated that ISO 50001 will eventually influence up to 60% of the world's energy use.

Aztech's LEED-EB compliant facility and compliance with ISO50001, combined with its existing certifications to AS9100C, ISO 17025 and ISO 14001, suitably demonstrate how Aztech Locknut's business practices and quality programs lead the way in the fastener industry. 



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WOMEN IN THE FASTENER INDUSTRY



connect.

SPEAKER SERIES & NETWORKING EVENT

LINDA McCABE - President of Optimal Level

Women in the Fastener Industry is gearing up for several educational networking events in 2013.

On June 11th at the Fastener Tech 2013 Expo, WIFI will present Linda McCabe, President of Optimal Level, who will talk about "The 7 Things You Need to Succeed Right Now!" from 10 - 12 in room 11 in the Stephens Convention Center. Voted as one of Chicago's most influential women in business, Linda will motivate and inspire with tips on how to gain clarity, balance and power in your life and business.


A raffle will be held and refreshments will be available.



\$25 for WIFI members, \$35 for non-members, this is an event that you won't want to miss.

In October WIFI will hold its 4th annual WIFI Meeting and Networking Event, and host a booth at the NIFSM Expo in Las Vegas.

WIFI is a non-profit organization that provides educating, mentoring and networking opportunities to women working in the fastener industry. WIFI accepts sponsors for its events and scholarship programs.

For more Information visit the events page at www.fastenerwomen.com or contact Julee Mortensen at luckyfasteners@comcast.net or 847-772-4070. 

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Long History

Jay-Cee Sales was started in 1948 as an army surplus store in Detroit. Along with the army surplus, they sold a limited supply of nuts, bolts, screws, and rivets. Now they are the largest supplier of rivets in the USA. The company maintains 35,000 square feet of space containing over eight million pounds of rivets, rivet tools & special fasteners. That inventory includes everything from blind rivets, to drive rivets, solid rivets, and rivet nuts, to brake lining rivets, tinner rivets, semi-tubular rivets, large steel rivets (1/2" and above), split rivets, and SAE clevis pins, plus riveting tools.

Any Type of Rivet

Little wonder Jay-Cee Sales & Rivet, Inc. states that they will provide any type rivet, any size, any metal, to meet customer requirements. All of their items can be viewed on their web site at www.rivetsinstock.com

Jay-Cee Sales & Rivet is on its 4th generation of family and growing. They continue to add and support product lines that assist their customers of end users and distributors.

Use The Latest Technology

Jay-Cee Sales went live with The BUSINESS EDGE 2.0 in May 2012. Many things led up to the decision to update their software and choose The BUSINESS EDGE 2.0.

Custom Software

Jay-Cee was using custom software that was being improved on a monthly basis. The problem was the software company supporting it was a 1 man show and was on a very old computer language. That gentleman

supporting them was looking towards retirement in the next 5 years. It made sense to update and move toward a new system while their older software support person could help them migrate the information to the new system. So began their quest to find the best replacement to jump into. Frankly, they were a little spoiled with a consultant coming in on a regular basis to cater to their needs. They weren't just looking for the best software for their needs, but the best support to assist them.

Conducting The New Software Search

Allan Weitzman was given the job of spearheading the search for the new software. He told us about his approach. He said, "I began calling other fastener companies in our industry and asked them various questions..."

1. *How long have you been using your software?*
2. *How was the implementation process?*
3. *How did it go the day/week your company went live?*
4. *How do you find the support?*
5. *What tools do they offer that helps with the support?*
6. *Can you make changes and customize to your needs?*

Based on the answers to these questions, he established a "short list" of potential software vendors. They had been sold a "bill of goods" by a previous potential vendor and they wasted a lot of time and money on that fiasco, so this time they were very thorough. He was in a unique position since as a Master Distributor, he knows many Distributors personally. He didn't depend on references that were hand-picked by the vendor; he went directly to random users of the software products.

please turn to page 178



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IFI UPDATE ON 2012 STANDARDS REVISIONS

by Joe Greenslade *Director of Engineering Technology, IFI*

Fastener standards are constantly under review and many are in various stages of revision at all times to keep up with changing technology and growing demands for ever-higher quality. Technical representatives of the Industrial Fastener Institute (IFI) participate in all of the US and international standards organizations which cover mechanical fasteners to make sure standards requirements are achievable and practical.

The IFI is employing new technologies to help keep the fastener industry up to date on standards changes in a timely way. The IFI Technology Connection™ is a real-time database that keeps standards data updated immediately after revisions are published. Desktop publishing now makes it possible for the IFI to publish its standards books on a three year cycle instead of 12 – 15 years as in the past and the IFI has been working with ISO for the past two years to get them to update their standards annually on a subscription basis to make it easier and more economical to keep all metric fastener standards up to date. That new service is due to be available no later than the end of 2013.

Here are all of the Fastener standards revised during 2012:

ASME

B18.2.6M-2012 Metric Fasteners for Use in Structural Applications

B18.7.1M-2007 (R2012) Metric General Purpose Semi-Tubular Rivets

B18.9-2012 Plow Bolts

B18.12-2012 Glossary of Terms for Mechanical Fasteners

ASTM

ASTM A193/193M-2012a Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications

ASTM A194/194M-2012a Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both

A307-12 Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60000 PSI Tensile Strength

A489-12 Standard Specification for Carbon Steel Lifting Eyes

ASTM A490-2012 Standard Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Tensile Strength

A490M-12 Standard Specification for High-Strength Steel Bolts,

Classes 10.9 and 10.9.3, for Structural Steel Joints (Metric)

ASTM A574-2012 Standard Specification for Alloy Steel Socket-Head Cap Screws

A574M-12 Standard Specification for Alloy Steel Socket-Head Cap Screws (Metric)

F467M-06a(2012) Standard Specification for Nonferrous Nuts for General Use (Metric)

F468M-06(2012) Standard Specification for Nonferrous Bolts, Hex Cap Screws, and Studs for General Use (Metric)

ASTM F468-12 Standard Specification for Nonferrous Bolts, Hex Cap Screws, Socket Head Cap Screws and Studs for General Use

F541-12 Standard Specification for Alloy Steel Eyebolts

F547-06(2012) Standard Terminology of Nails for Use with Wood and Wood-Base Materials

F592-84(2012) Standard Terminology of Collated and Cohered Fasteners and Their Application Tools

F606M-12 Standard Test Methods for Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, and Rivets (Metric)

F680-80(2012) Standard Test Methods for Nails

F788-12 Standard Specification for Surface Discontinuities of Bolts, Screws, and Studs, Inch and Metric Series

F812-12 Standard Specification for Surface Discontinuities of Nuts, Inch and Metric Series

ASTM F835-2012 Standard Specification for Alloy Steel Socket Button and Flat Countersunk Head Cap Screws

ASTM F879-12 Standard Specification for Stainless Steel Socket Button and Flat Countersunk Head Cap Screws

ASTM F880-12 Standard Specification for Stainless Steel Socket, Square Head, and Slotted Headless-Set Screws

ASTM F901-2012 Standard Specification for Aluminum Transmission Tower Bolts and Nuts

ASTM F1470-12 Standard Practice for Fastener Sampling for Specified Mechanical Properties and Performance Inspection

F1503-02(2012) Standard Practice for Machine/Process Capability Study Procedure

F1789-12 Standard Terminology for F16 Mechanical Fasteners

F2280-12 Standard Specification for "Twist Off" Type Tension Control Structural Bolt/Nut/Washer Assemblies, Steel, Heat Treated, 150 ksi Minimum Tensile Strength

please turn to page 142



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PACIFIC-WEST FASTENER ASSOCIATION

PAC-WEST INTRODUCES NEW MEMBER BENEFITS PLUS, UPDATE ON MEETINGS AND EVENTS

Pac-West Introduces New Membership Benefits

Pac-West members have profited from the advice of sales guru Ann Marie Houghtailing over the past few years, through her popular training sessions at Pac-West meetings, complimentary private consultations, plus webinars and podcasts.

Now Pac-West members get even more sales advice, in the form of bimonthly e-newsletters. Called "Sales Torque," the first edition debuted in February on the topic of "Sales Management and Leadership."

The entire offering for 2013 of Fastener Training Institute programs is now available online at www.FastenerTraining.org.

Third Annual Mel Kirsner Memorial Scholarship Golf Outing

As an integral part of the fastener community during his life Mel Kirsner earned the respect and admiration of all of us involved in the fastener industry. Mel started in the industry in 1958 and founded Pell Mell Supply in 1963. During his career he was also a partner in Fresno Bolt, Nevada Bolt & Nut, Non Ferrous Manufacturing, Bolt & Nut Export, Action Value & Fitting and Centennial Fastener.

As a founding member of the Western Association of Fastener Distributors, Mel valued not only traditional education but also in the shared knowledge and experience of those around him. Mel's love of history and respect for those that came before him lead him to an impressive collection of artifacts and memorabilia. In 2000 the collection had grown so vast Mel decided to share it with us all and opened Mel's Fastener Museum. Heartbreakingly the 2003 wild fires in Julian, California

destroyed the museum and the collection was lost forever.

Upon his death Mel performed one more act of generosity for all of us in the fastener industry and that was he left money in his will to what is now the Pacific-West Fastener Association scholarship program.

On May 6, Pac-West will hold the Third Annual Mel Kirsner Memorial Golf Outing at Vellano Country Club in Chino Hills, California.

Night At The Races

This popular annual event returns on Friday, July 19 at Los Alamitos Race Course in Los Alamitos, California.

It's a fun way to start the weekend with your fastener friends!


Come To Vancouver

September 19-21 are the dates for the Pac-West 2013 Fall Conference, which will take place at the Hyatt Regency Vancouver in British Columbia.

Plans for timely and informative educational programs and fun activities are in the beginning stages as this issue of Distributor's Link goes to press. Our planning team includes Trevor Borland (Pacific Bolt Manufacturing), Hans Fuller (Fuller Metric), Rick Peterson (All-West Components & Fasteners) and Keith Shaback (Pacific Fasteners),

Planning Ahead For 2014

Pac-West and the National Fastener Distributors Association (NFDA) are working on plans for a joint conference to be held early in 2014. More details will be available in the next issue of Distributor's Link.

Details on other Pac-West events can be found at www.pac-west.org 

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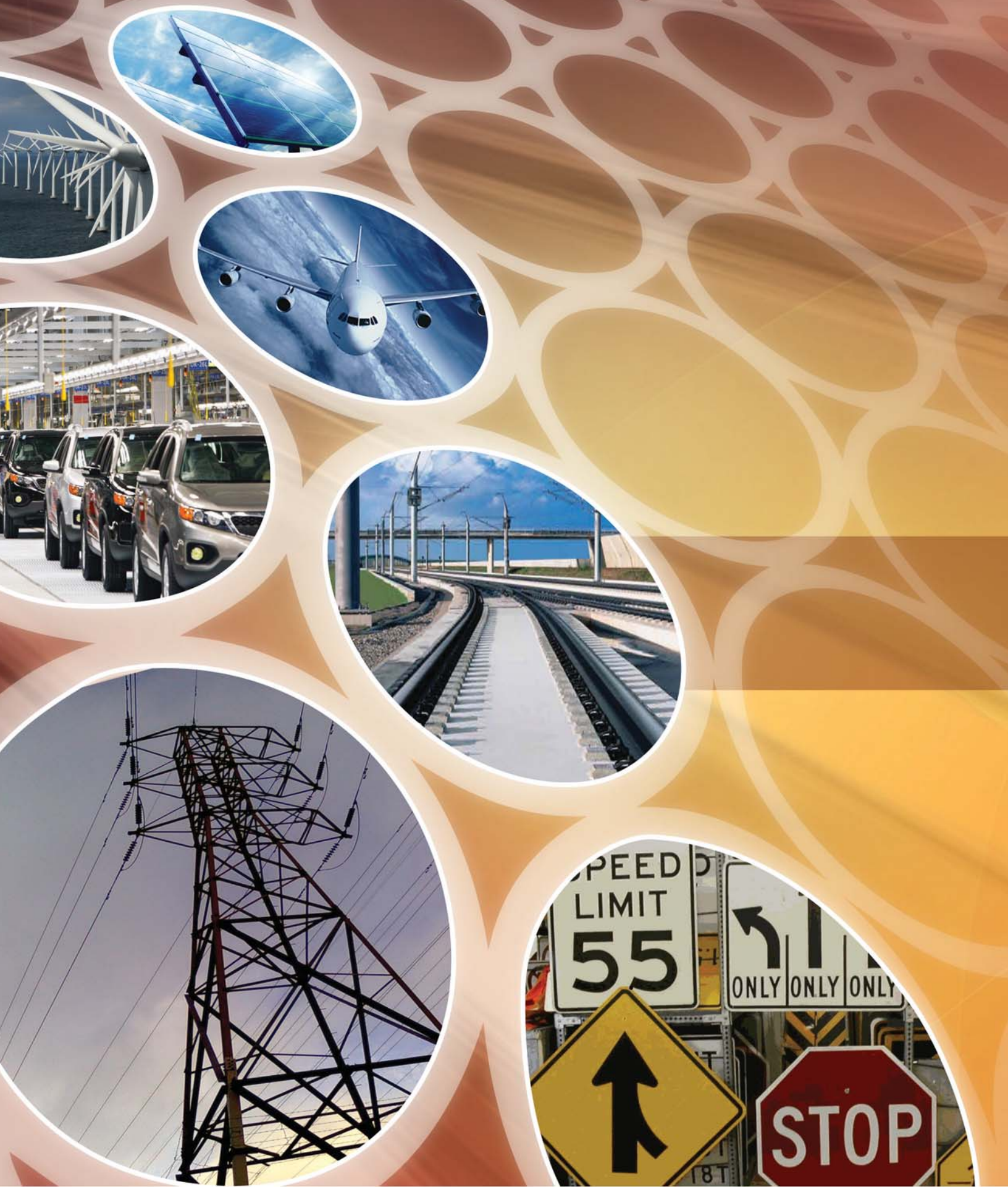
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WAVE THREADS PRINCIPLES

by Dale E. Van Cor

Introduction

The wave thread is a type of mechanical screw with total surface contact. It cannot be over tightened; the next threshold is to break the bolt. The total surface contact is an inherent seal. The lack of clearance space makes it resistant to vibrational loosening; the male and female surfaces can not move separately.

What is very special about the wave thread is that it can distribute stress more evenly than a normal thread.

Finite Element Analysis (FEA) has shown some models to be 25% stronger than standard threads.

This geometry will increase the strength of bolts or pipe across any material. Wave threads can create more resistance to side loading, pressure differentials in pipes, and thermal expansion, than normal threads.

Threads are a root technology that connects the pieces of our infrastructure. Making threads on fasteners stronger, lighter, resistance to corrosion or more useful makes the product they are used with safer, more durable, better.

Wave threads have a variety of characteristics; the concave, conic, and shapes are shown in Figure 1.

Overview

The first cardboard wave thread model was conceived as a stack of circles.

Start with the shape. It can be conic, concave or convex. The curve on the concave and convex can be circular, elliptical or other curves. This shape is sliced into layers. Each layer has a shape circle. A sine wave is wrapped around this shape circle with the change in amplitudes creating the form. For a single lead thread,

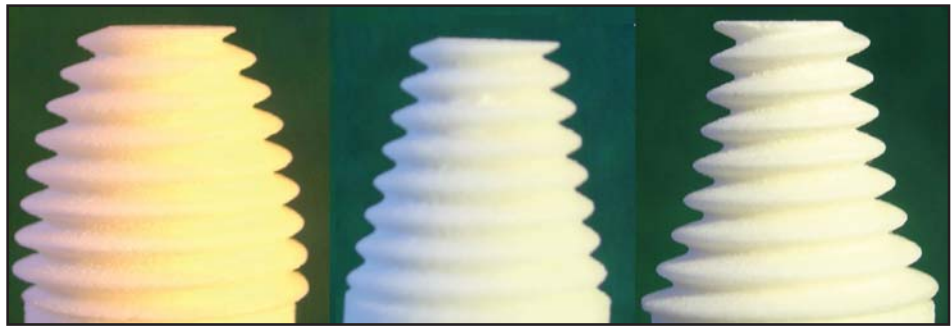
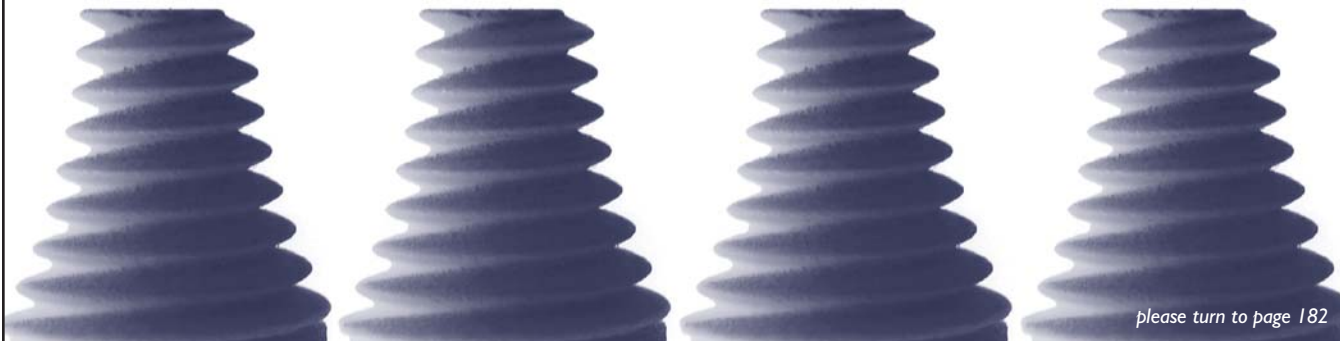


Figure 1: Concave, Conic and Convex wave threads on the end of bolts.

that form is circular. This is how the first model evolved from a stack of circles.

Each layer is rotated. The combined rotated stack renders the wave thread shape on the outer surface.

Aside from the shapes and length of the thread, the other characteristics that can be adjusted are leads, amplitude and period. There are also swells, overflows and nested leads, but these tools have not been tested.



please turn to page 182

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Transition and growth have brought Morton to its current location in Central Pennsylvania. Two production facilities in Elizabethville and Millersburg, PA, provide over 37,000 square feet to produce components and fasteners in a very economical way. Their commitment to quality is reflected in their continuing improvement

system certified to ISO9001:2008 standards.


Morton has invested in making sure that its "fill rate" from stock is the highest in the component industry. In addition to on the shelf standard components, turn-around time on blueprint specials can be as fast as two weeks. Sales engineers are able to work with your custom prints to provide quotes that are both accurate and timely. Morton Machine Works has developed a reputation within the component industry as the leader in hard to find stainless steel components. Many of their standard parts are also available in 303, 304, or 316 stainless steelfrom stock.

Morton offers a full selection of ball plungers and spring plungers manufactured from steel, stainless steel, brass, and nylon. Most spring loaded devices are available in inch and metric sizes with both screw driver slots and hex drive sockets. There are many variables to consider when choosing a spring loaded device. The material used for the threaded body, nose material, internal spring tension, and the end drive mechanism are all options that must be considered when designing spring loaded plungers.

Morton is also well known as a leading supplier of Adjustable Clamping Levers. These adjustable handles have an internal ratchet system that make them perfect for applications in confined clamping areas or when specific handle location is critical. Adjustable Clamping Levers are manufactured in two styles - with internal threads or with a projected screw. The handles are available in steel, stainless steel, and plastic. The internal threads and projecting screw are made from steel and stainless steel and offered in most inch and metric sizes. These clamping levers, also commonly referred to as Adjustable Handles, are used widely on original equipment and on common work holding applications. They are also a great solution for elbow joints where handle positioning is important. The handle design provides increased clamping torque as compared to common hand knobs or fixture nuts. 

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DISTRIBUTOR NEWS

DDI System the company behind inform distribution software, announces the launch of two all-new websites: www.ddisys.com and www.informsmallbusiness.com.

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IFI RECOGNIZES BENGT BLENDULF WITH 2013 SOARING EAGLE AWARD

by Joe Greenslade *Director of Engineering Technology, IFI*

The **IFI Soaring Eagle Technology Award** recognizes individuals who have extensive experience in the mechanical fastener industry who have made significant contributions to the technological advancement of the fastener industry. Contributions may be through extensive work on fastener standards committees, the publication of widely acclaimed principles or documents and/or through the development of fastener related equipment products, or processes which have been widely acknowledged as advancements in fastener technology.

Bengt Blendulf was born into a family of nine children in southern Sweden in 1938. Bengt stated, "We had no TV in those days and my parents had to have stay busy somehow."

Bengt grew up with two insatiable interests, music and all things mechanical. In 1954 he started his formal mechanical education in an industrial apprenticeship as part of his undergraduate in mechanical engineering at the University of Sundsvall. After serving as a Ranger in the Swedish army he returned to academia in 1961 taking courses in German and English at Ostra Real and doing graduate work in mechanical engineering at and University of Stockholm.

He was hired by the Swedish Federation of Industries, a non-governmental trade association, using his technical and language training to read major newspapers and technical publications written in English and German from around the world and provided reports of new breakthroughs in science and technology to help keep Swedish industry stay up to date with the rest of the world.

Starting in 1963 Bengt spent three years at Volvo as a design engineer before taking his first job in the fastener industry with Bulten, a leading European

fastener manufacturer. He was responsible for new product development and related technology. Additionally he started training Bulten employees and customers the appropriate and best use of high strength mechanical fasteners.

In 1972 he started traveling to the US to learn about the market needs for high strength, high quality fasteners and in 1974 he moved to the United States as the Division Manager of a newly formed Bulten Fastener USA Division. Bulten's main emphasis was on stainless steel metric fasteners. He became an early advocate for the adoption of ISO fastener standards as the worldwide system for metric fasteners.

In 1978 Bengt became an independent fastener consultant with an emphasis on joint design and metric fastener education. His early clients were major east coast manufacturers including Pratt Whitney, Perk and Elmer, Bridgeport Machine, and many others.

Bengt enthusiastically states that one of the highest points in his life was in 1980 when he became a US citizen.

Today he splits his time between Sweden and the US. He proudly wears an American flag pin everyday on his lapel.

In 1982 he assisted the Swiss fastener firm Bossard in the purchase of the Bulten USA Division. As part of his consulting activities he provided Bossard with engineering support.

In 1965 Bengt joined Clemson University to be the Director of a newly formed program called Continuing Engineering Education (CEE) in the College of Engineering and Science. As part of this program he developed highly successful two day Fastening Technology Seminars which were held primarily held in Cleveland OH.

please turn to page 190





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Sandy Dumont is an certified image consultant with 30 years experience working with Fortune 500 companies and their staff. She has spoken on three continents and has produced numerous books and DVDs. Her latest publication "Color Me Correctly, Please" will be released Spring 2013. Contact her at www.theimagearchitect.com.

YOU DON'T KNOW WHAT YOU LOOK GOOD IN

Sociobiologists tell us that buried deep inside us, we all have compelling urges related to survival. Nearly everything we do and every decision we make is related to these survival instincts. It's in our DNA.

You think you choose colors that make you look good. You think you choose what you wear based on the results in the mirror. You don't. Your color and fashion choices resonate from the depths of your primitive DNA. Your decisions about what you wear are based on the most basic survival instincts.

In other words, you dress to be safe. Figuratively speaking, when you leave the cave each morning, you dress to keep dangerous predators from noticing you. We do it all over the world:

- Big city inhabitants dress in the dark colors of tall skyscrapers.
- In the South, everyone wears floral prints and pastels.
- People in the Midwest adorn themselves in earthy tones.
- In the Southwest, desert colors like terracotta and mustard yellow prevail.

It isn't confined to colors. Abraham Lincoln wore a stovepipe hat so he would blend in with the skyline that was dotted with stovepipes. Houses were heated with coal in that era, so it was a safe "camouflage."

Modern-day image and color consultants compound the error of our ways. Color analysis burst on the scene in the 1980s and every book on the subject promised to make getting dressed easier. They did. You simply wore colors that matched your personality or your superficial appearance – specifically your hair and eye color.

They also promised to make you look better. In retrospect, a few people did. However, for most, it

caused confusion and didn't work. Redheads weren't certain whether they were Autumns or Springs. A myriad of blondes from New York City and Paris noticed that they could wear black, contrary to what all the "experts" said. A great many people wondered why every season could wear one or two identical colors.

Yet, the color concept caught on, because at a certain level, it made us feel smug. "I knew it," said all the redheads. "Rust, coral and camel are my colors!"

Blondes read it and smiled. "Yes, I've always known pastels were for me; especially blush pink." Sandy-haired men confirmed that their light brown suits were better than navy blue or black.

Raven haired beauties read that they were among the few who truly looked good in black, so they were especially smug. They knew it



all along.

In reality, dressing to match the superficial appearance feels safe, because we don't stand out too much. It seems so natural, and no wonder. We're simply doing what our primitive ancestors have always done.

The truth is, it's a terrible way to choose colors for yourself. Today's "survival" is different from our cave dweller days. Today, survival depends on being noticed. If you're applying for a job or vying for a promotion, you need to stand out from the competition so you'll be remembered.

Because there's so much confusion out there, here are a few tried and proven methods for looking memorable and attractive:

- **Avoid drab colors.** They make you look drab. This includes moss green, mustard yellow, most beiges and browns, and drab shades of teal and burgundy.



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FASTENER STEELS *continued from page 28*

Grade 8 (10.9) Cap Screws are also produced using different steel types depending upon the final use. SAE allows the use of non-alloy steels by some manufacturers for their special applications. The ASTM requires that all A354, Grade BD cap screws be manufactured from alloy steels. All Grade 8 and A354 cap screws are heat treated and quenched and tempered in oil.

Grade 8.2 Typical of flanged head cap screws, made from low carbon boron steel.

Socket Head Cap Screws (8.8-12.9) Metric Socket Head products come in different grades, or Property Classes, and therefore will use a variety of steels, as listed above, for their mechanical properties. Inch series socket head products are all the same strength grade and typically use 4140-4145 alloy steels for their products.

Steel Chemistry

So, what part do all of these chemical and metal elements play in the development of a steel fastener? The most common alloying elements are listed below, along with their effects. It must be noted that when some elements are combined, a synergistic effect may occur that further enhances the quality and performance of the steel.

Aluminum While not always intentionally added, it is

usually present in steels. It serves as a deoxidizer or to produce a fine grain size, increases notch toughness in medium carbon steels but may also lower creep strength.

Boron Steels The strength of some steels can be enhanced with the addition of a small amount (0.0005 to 0.003%) of the element boron. It is normally used with low carbon steels (10B20) that have complex geometries to save die life; such as with flange head cap screws and drive screws. However, some alloy steels also benefit with the addition of boron; such as 41B37 or 51B60.

When used with a low carbon steel, the new boron alloy steel can now be heat treated to produce a hardness and tensile strength equivalent to that of a Grade 8 bolt. This is fine if used in a shear or static load and is used properly by the purchaser. However, this combination appeared as a critical problem in the mid-1980s when low carbon boron steel was used on hex head cap screws with Grade 8 markings. This sparked the counterfeit fastener problem which created the Fastener Quality Act in the early 1990s.

Aside from not being able to withstand dynamic or cyclic loading, it has a maximum operating temperature limit. The low carbon boron steels are quenched and tempered to 650°F (340°C), compared with a Grade 8 whose tempering temperature is 800°F (425°C).

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NEW ENGLAND FASTENER DISTRIBUTORS ASSOCIATION

NEW ENGLAND FASTENER DISTRIBUTOR'S EDUCATIONAL SEMINAR JANUARY 24, 2013

by Peter Wisk

Wes Burnham, National Sales Manager for Holo-Krome welcomed over 50 attendees of the New England Fastener Association to an educational seminar/plant tour at the Holo-Krome factory in Wallingford, Connecticut. He introduced Joe Bussiere, Ralph Larson, Dave Williams, Mark Leone and other members of the Holo-Krome team before giving way to Tim Thompson, Director of Operations at the Holo-Krome plant.

Mr. Thompson gave the group a history of the Holo-Krome company, its facility and production capabilities and its growth potential. Now a division of Fastenal, Holo-Krome has capabilities in the engineered fastener category, along with its world famous socket screw product line.


Holo-Krome is ISO 9001-2008 certified and is committed to the kaizen system....the philosophy of continuous improvement of working practices and efficiency. By emphasizing quality and lean manufacturing, the company is positioning itself as a manufacturer of choice for critical application fasteners.

Dave Williams, Environmental Health & Safety Manager explained that one of the ways that the quality of fasteners is maintained is by proper heat treating and strict control of the processes involved therein.



This involves recognizing the proper qualities for the application, careful control of raw material, and constant monitoring to make sure the finished product is heat treated according to specification. Mr. Williams explained that Holo-Krome's specifications typically fall into a tighter range than consensus specifications used by other manufacturers, therefore assuring consistent quality.

Attendees were then divided into small groups for a walking tour of the manufacturing plant. Each group got to meet the leaders of the various teams on the production floor who explained how their team functions and what product they produce. All were able to visit the hot forging department, and also the departments that produce small, medium and large socket screw product. Important stops along the way were at the heat treating line and at the testing lab. The Holo-Krome plant is laid out for efficient production and movement of raw material and finished product throughout the plant.

After a group lunch back in the conference room, there was a lively question and answer session. There was no doubt that those in attendance enjoyed this well thought out and informative meeting. 



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SHEREX FASTENING SOLUTIONS, LLC LAUNCHING LARGE THREAD RIVET NUTS

Sherex Fastening Solutions, the world leader in the manufacture and distribution of blind rivet nuts and specialty fasteners has launched something BIG, the first line of large thread Rivet Nuts from 1/2-13 to 3/4-10 (M12 to M20).


After three years of product development, the Sherex engineering & sales team was able to perfect the design and bring these specialized rivet nuts to market. They were developed for heavy duty applications in the Heavy Truck/Trailer Industry, Ag/Construction Industry, Rail Industry & Heavy Equipment Industry. "Large thread rivet nuts are the best fastening solution when it comes to attaching thin sheet materials," says Adam Pratt, President of Sherex Fastening Solutions.

Many companies currently use weld fasteners in these applications but with green initiatives and cost reduction requirements these companies would like to remove weld fasteners from their manufacturing process. Rivet nuts are superior to weld fasteners in that installing rivet nuts

requires much less energy and can streamline the manufacturing process (parts installed post paint, powder coat, or galvanizing) producing a much lower "total installed cost, with a better aesthetic value."

The full line of large thread Rivet Nuts will include sizes 1/2-13, 5/8-11, 3/4-10, M12, M16 & M20, and come in either a round body or a hex body for increased spin-out resistance. The line will be compatible with Grade 5 Class 8.8 bolts and platings will include a RoHS Compliant, Zinc Trivalent Clear plating and a Zinc Nickel, high corrosion resistance finish, available upon request.

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John R. Graham

John R. Graham is president of Graham Communications, a marketing services and sales consulting firm. He writes for a variety of business publications and speaks on business, marketing and sales issues.

Contact him at 40 Oval Road, Quincy, MA 02170; 617-328-0069; jgraham@grahamcomm.com. The company's web site is grahamcomm.com.

IT'S YOUR QUESTIONS THAT MAKE THE SALE

The Selling Debacle

Even though buying cycles seem to stretch out longer as buyers require more time to make decisions, salespeople are doing their best to close quicker.

Much of what's popular in selling, such as sales techniques, figuring out a prospect's hot buttons and schmoozing and even relationship building, can be enormously overrated.

Here's the problem. Simply put, too much of what passes for "best practices" in sales focuses on what the salesperson should do to get the order, starting with a perfected "elevator speech."

To make the concept vivid, the salesperson is like the classroom teacher of 30 or more years ago who was the "instructor," the one who was in charge and who passed information to the often passive and less than attentive "learners."

The result? Good salespeople with great products and services that are a good fit for their customers lose sales because they take the role of "instructor," passing information to passive and often inattentive "learner-customers."

Such behavior is understandable. Whether it's the unpredictability of an extended buying cycle or the fear of a competitor entering the picture, they sense the possibility of losing the sale and immediately response by getting into a "control mode," cutting corners, taking shortcuts and jumping to the close before the customer is ready to buy.

Trust Makes the Difference

Faced with such a reality every working day, it becomes clear that the critical component for making more sales is gaining the customer's trust as quickly as possible. It has always been important, but never as much as it is today. Trust is the bond that endures no

matter the length and difficulty of the selling cycle.

To be totally clear about trust, it doesn't develop from schmoozing, making unverified or exaggerated claims, or providing incomplete information. Today's customers are doubters; they've been burned too often. They want value — lots of value — for their money. To put it simply, they don't trust salespeople. Much of the success of Amazon.com and Apple is built on recognizing customer doubt by keeping their promises.

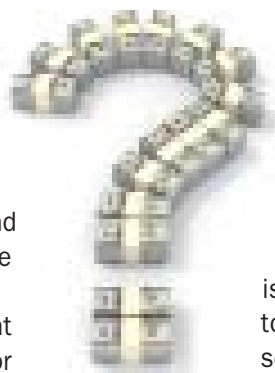
Distrust is so fundamental today that those who ask a friend, family member or coworker for a referral, engage in their own vetting process before making a decision.

Creating Trust

Salespeople understand the trust issue and they have their own views about how to develop it. We've heard most of the solutions: respect, acting with integrity, being responsible, sincere, honest, truthful and on and on it goes. Unfortunately, the words are generalizations, lacking specificity — they don't mean anything to customers.

So, the question remains, what do salespeople do to create trust? Answer: trust develops between customer and salesperson when the salesperson asks the right questions. It's the questions that create value, understanding, and confidence.

Yet, salespeople like to talk about "meeting customer needs." They talk about it, particularly in their presentations. But what does "meeting customer needs" mean? Not too much. If anything, it's abstract and non-specific, more like a "view from 30,000 feet," where you see everything and nothing at the same time. "Meeting customer needs" is meaningless — unless a salesperson fills it with content by taking the time to ask the right questions.



DISTRIBUTOR NEWS

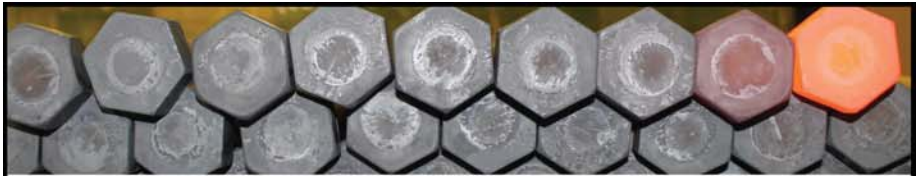
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Edwards & West Inc., t/a **Divspec** has been serving the Industrial, Commercial, Manufacturing, Institutional and Construction trades since 1980. Their success can be directly attributed to their commitment to quality products, outstanding service, and a sincere obligation to insure the complete satisfaction of their valued customers. In recent years they have forged an affiliation with Flexistrut Australia and one of their divisions, Flexistrut (Changshu) Company Limited, who is an ISO 9001-2008 Certified manufacturer located in mainland China. The association with Flexistrut has allowed Divspec to broaden their horizons and seek distributors who are selling or considering selling to the trades who use strut and associated fittings.

Divspec's on-line catalog can be found at www.divspec.com. The fittings displayed in the catalog are a sampling of the products they have available. A variety of finishes including Zinc Plated Steel, Zinc Dichromate, Zinc Trivalent, 304 Stainless Steel, 316 Stainless Steel, Hot Dip Galvanized & Powder Coat are available.

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To learn more about the programs they offer or for additional data and critical information that can improve your bottom line without sacrificing the quality of the products you sell, please contact a Divspec Sales Representative. Their prices are extremely competitive and consistent with the quality you expect.

Divspec New Jersey can be contacted at 605 Springfield Road, Kenilworth, NJ 07033 Tel: 908-688-2550, Fax: 908-688-9385 or email: NJSales@divspec.com.

Divspec North Carolina can be contacted at 4785 Kirk Road, Winston-Salem, NC 27103. Tel: 336-760-0050, Fax: 336-760-0580 or email: NCSales@divspec.com.

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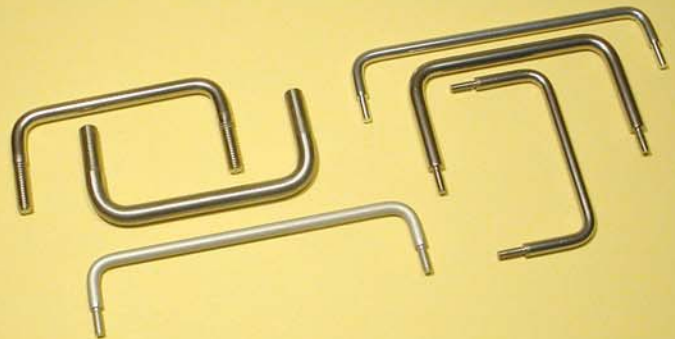
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NORTH COAST FASTENER ASSOCIATION

NCFA HOLIDAY BASH 2012 *by Kurt Triptow, NCFA Trustee*

The NCFA Holiday Bash was held on December 6th, 2012. Once again we celebrated at The Boneyard in Mayfield Hts., Ohio – and a good time was had by all! Since we have updated this event to a less formal affair, the attendance has increased and the feedback has been positive. The casual atmosphere in an entertaining environment makes for a more relaxed and fun time. Attendees enjoyed a wide array of finger foods and good drinks – and each attendee received a gaming card to play all sorts of skill games in The Boneyard's huge game room.

While we have enjoyed the success we have had the past couple of years with this event, the plan is to make it bigger and better in 2013. The preparation has begun to move the venue to a more centralized location to better suit all NCFA Members. Our next Holiday Bash will be held at The Corner Alley in Downtown Cleveland.

If you have never been there, you are in for a treat. The food is outstanding – and YES there is bowling!

Please mark your calendars for Thursday, December 5th, 2013. We look forward to seeing you there!! 

Upcoming NCFA Events:

February 28th OOGEEP Dinner Meeting

March 9th March Madmen Basketball Tournament

April 25th Nucor Plant Tour joint meeting with MWFA

May 2nd Distributor Social

June 21st Night at the Races

September 12th Screw Open Golf Outing

October 3rd Ohio Nut & Bolt Plant Tour

December 5th Holiday Bash



NCFA 2013 Executive Board - From left to right, top row: Michael Delis (Fastener Tool & Supply), Kurt Triptow (Branam Fastening Systems), Larry Kelly

(Buckeye Fasteners), Marty Nolan (R.L. English Co.), Scott Faidiga (K-J Fasteners), Ken Graham (National Threaded Fasteners); Bottom row: Laura Vath (Solution Industries), Sue Wallace (National Threaded Fasteners), Jackie Ventura (Fastener & Industrial Products); Not pictured: Dave Audia (Advance Components), Kelly Quittenton (Brighton Best Intl.)

NCFA HOLIDAY BASH MAYFIELD HEIGHTS, OH - DECEMBER 6, 2012





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GR8 Serrated Flange Nuts

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CL8.8 Serr. Flange Screws
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CL10 Flange Nuts
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SAE "NT2" Thick Hard Flat Washers
SAE "NTX" Xtra Thick Flat Washers

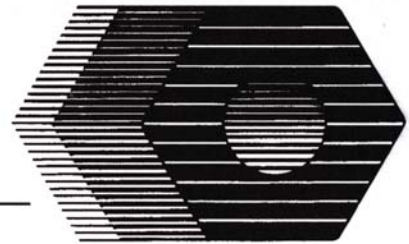
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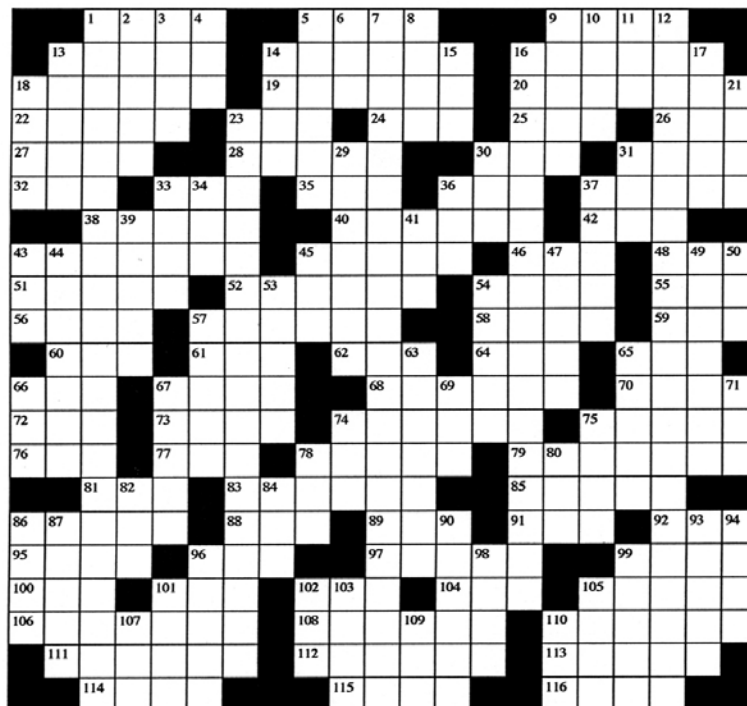
1. Word with hex, oval or fillister
5. Flat-headed nail
9. Screw & washer assemblies
13. Fraternity letter
14. Component that is a standard for the rest of the structure
16. Slackenings
18. Sweet treat
19. Overacts
20. Iron-deficient folks
22. Racing sleds
23. Santa __, CA
24. Slimy swimmer
25. Neon or argon
26. Rogers or Clark
27. Matured
28. Nail care product maker
30. Jet of the '90s, for short
31. __ head screw
32. Pronoun
33. Expert
35. Canadian prov.
36. Whopper
37. Fastener surface defects
38. Natural talent
40. Lease signer
42. Bumpkin
43. Semiconductor material
45. "That's __!"; film director's call
46. Hideaway
48. "___ Man Answers"; 1962 Sandra Dee film
51. Pitfall
52. Kidding around
54. Electromotive unit
55. Currently
56. Author Ferber
57. Castro's home
58. Pointed tools
59. Anger
60. Actor Marshall and others
61. Drs.' org.
62. '94 Open champ
64. Fragrant neckpiece
65. Evangelist McPherson's monogram
66. Small bill
67. __ point; crowned end
68. Calendar pages
70. Close
72. Ultimate degree
73. Coffee holders
74. "___ Lover"; Pat Benetar song

75. Youngster
76. Sugar suffix
77. Knight or Kennedy
78. 2605
79. Powerful devotions
81. Louis __ (1754-93)
83. Frolic
85. "Nothing __!"
86. Launderer's problem
88. Viper
89. Generation
91. Letter from Greece
92. Tempe school: abbr.
95. Sea eagle
96. Request for silence
97. White of "Wheel"
99. Explosives, for short
100. Silent assent
101. Lunch order, familiarly
102. File drawer, perhaps
104. Barney Fife's title: abbr.
105. Diminishes
106. Fungus victim, often
108. City in Colorado
110. Curve in a fastener's side
111. Pale yellow mineral
112. Flat metal ring
113. Bit of gossip

114. Consumes
 115. Not as much
 116. Semiprecious stone
- ### DOWN
1. Bolt types
 2. Fix firmly
 3. Old Testament book
 4. Rather, for one
 5. Salad ingredient
 6. Hubbub
 7. Screw thread types
 8. Swiss painter Paul
 9. French legislature
 10. Vacation periods for 9 Down
 11. Silent
 12. Nail types
 13. Fastener surface indentation
 14. Waiter's offering
 15. New immigrants' class, for short
 16. Screw types
 17. Berate
 18. Uninteresting
 21. Word parts: abbr.
 23. Nut types
 29. Braid
 30. Sermon topic
 31. Deadly crusher

33. Walk to and fro
34. Carnival site
36. Fastener surface defect
37. Helvetica & Times
39. Maltese currency
41. Henpeck
43. ENE plus 90°
44. Starts a paragraph
45. Alias letters
47. __ Island
49. Baby bottle contents
50. Astonishment
53. Skating rinks
54. Lawful
57. Le __, France
63. Kia model
65. Pale
66. Sean Lennon's mom
67. Left __ the cold; neglected
69. Gun, as an engine
71. Six-pointers, for short
74. Sour cream substitute
75. Year St. Ignatius of Antioch was martyred

78. Alex Rodriguez, in 2003, 2005 and 2007: abbr.
80. __ la la
82. Compete
84. Shade tree
86. Mailed
87. Girl Scout group
90. Pianist Previn and others
93. Drive
94. Abbreviation on an old map
96. Narrow openings
98. At hand
99. __ Wynette
101. Worms, for example
102. Bird's cry
103. Twofold
105. Nathaniel Hawthorne's "The Marble __"
107. Org. concerned about the Second Amendment
109. Words of surprise
110. __-Magnon man



Solution
on
Page 208

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FASTENER TECH™ '13, the third staging of the unique concept in fastener industry trade shows, is scheduled to take place in Rosemont (Chicago), IL, USA, June 10-12, 2013 at the Donald E. Stephens Convention Center. The preliminary schedule has been released as follows:

Monday, June 10th

10:00am - 4:00pm Exhibitor Set Up
 8:30am - 4:30pm Fastener Technology Workshop
Presented by Fastener Training Institute

Tuesday, June 11th

8:00am - 9:00am Exhibitor Set Up
 9:00am - 5:00pm Show Open
 9:00am - 10:30am Purchasing Safeguards Seminar
presented by Mid-West Fastener Association
 10:00am - 12:00pm Women in the Fastener Industry Meeting
The Seven Things You Need to Know to Succeed Now
 1:00pm - 3:30pm Making Fasteners from Beginning to End
presented by Fastener Technology International
 4:00pm - 5:00pm Snapshot of Industry Trends
featuring Holden Lewis publisher of Fastener Distributor Index (FDI), presented by FCH Sourcing Network
 5:00pm - 7:00pm All Industry Reception & Contest Drawing
 8:00pm All Industry Gathering at the Park At Rosemont

Wednesday, June 12th

8:30am Fastener Industry Coalition Meeting
 10:00am - 3:00pm Show Open
 Additional Programs TBA
 3:00pm - 6:00pm Exhibitor Move Out

To see the full list of events and/or register for events, visit fastenertech.com or www.mwfa.net

In addition to this schedule, SUR/FIN 2013 and an NFDA meeting are being co-located in Rosemont with **FASTENER TECH™ '13**. SUR/FIN 2013, www.nasfsurfin.com, is presented by the National Association for Surface Finishing (NASF), and it is the surface finishing industry's largest trade show and conference. The Amerimold show (amerimold is an annual trade show and technical conference focused on the tool and mold manufacturing business) will open on Wednesday-June 12th. **FASTENER TECH™ '13** attendees will be allowed to visit the SUR/FIN 2013 and Amerimold exhibits at no additional charge.

The National Fastener Distributors Association (NFDA), www.nfda-fastener.org, has scheduled its meeting partly in conjunction with **FASTENER TECH™ '13**. NFDA plans to include high-level educational sessions focused on the business needs of owners and executives of fastener distribution companies, the annual update from the

economists at the Institute for Trend Research and many opportunities to develop and nurture critical business relationships. "We chose this time and location for many reasons," explained NFDA President Jay Queenin of Specialty Bolt & Screw. "The greater Chicago area is an easy travel destination for NFDA members. And by adding our meeting to the **FASTENER TECH™ '13** show, we hope to increase the value to our meeting attendees."

These hotels are offering special rates for **FASTENER TECH™ '13** attendees: Hilton Rosemont (US\$169), Aloft Chicago O'Hare (US\$159) and Comfort Inn (US\$99). Mention **FASTENER TECH '13** to get the special rates.


FASTENER TECH™ '13 is being produced by Fastener Technology International Magazine, Akron, OH, USA, and the Mid-West Fastener Association (MWFA), Lake Zurich, IL, USA. As was the case for the 2007, 2009 and 2011 shows, numerous trade associations and industry publications from around the world and different segments of the fastener industry are involved in organizing, promoting and executing **FASTENER TECH™ '13**. This year participants include:

- Chicago Metal Finishers Institute
- Distributor's Link Magazine
- Fully Threaded Radio
- Global Fastener News
- North Coast Fastener Association
- Fastener Training Institute
- Fastener Technology International
- Mid-West Fastener Association
- National Fastener Distributors Association
- Pacific-West Fastener Association
- Women in the Fastener Industry (WIFI)

Fastener Technology International is a bimonthly international technical magazine for manufacturers, distributors and users of all types of fasteners—the print edition is delivered to over 12,000 subscribers in more than 90 countries, and the digital edition is available around-the-clock at www.fastenertech.com.

The Mid-West Fastener Association (MWFA) has been representing and serving all segments of the fastener industry for more than half-a century. MWFA members include fastener manufacturers, distributors, importers and industry suppliers. Details are available at www.mwfa.net.

For details on exhibiting contact Nancy Rich (MWFA) by email: mwfa@ameritech.net or call +1-847-438-8338 or Tom Hutchinson (Fastener Technology International) by email: tlh@fastenertech.com or call +1-330-495-7898.

Editorial Contact: Mike McNulty (Fastener Technology International). Contact by email: mcnulty@fastenertech.com or call +1-330-864-2122. 



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5 REGISTRATION AND FEES FOR ALL EVENTS

DATE/TIME

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Fastener Technology Workshop Presented by: the Fastener Training Institute®	S1	8:30 AM to 4:30 PM	US\$299 Per Person (Sponsors' Members) Add US\$100 For Non-Members Add US\$100 for late registration	<input type="checkbox"/> _____
Tuesday — June 11, 2013				
Exhibits (two-day pass)	E1	9:00 AM to 5:00 PM	Both Days Free in advance, US\$50 after June 3, 2011	<input type="checkbox"/> _____
Purchasing Safeguards Seminar Presented by: Mid-West Fastener Association	S2	9:00 AM to 10:30 AM	US\$50 Per Person	<input type="checkbox"/> _____
Women in the Fastener Industry Meeting	S3	10:00 AM to 12:00 PM	US\$25 WIFI Members US\$35 Non-Members	<input type="checkbox"/> _____
Making Fasteners from Beginning to End Presented by: Fastener Technology Intl.	S4	1:00 PM to 3:30 PM	US\$75 Per Person	<input type="checkbox"/> _____
Snapshot of Industry Trends featuring Holden Lewis publisher of Fastener Distributor Index (FDI) Presented by: FCH Sourcing Network	S5	4:00 PM to 5:00 PM	No Charge Compliments of FCH Sourcing Network	<input type="checkbox"/> _____
All Industry Reception & Contest Drawing	R1	5:00 PM to 7:00 PM	No Charge, Compliments of FASTENER TECH™ & SUR/FIN	<input type="checkbox"/> _____
Wednesday — June 12, 2013				
TBA	S7			<input type="checkbox"/> _____
Exhibits (two-day pass)	E1	10:00 AM to 3:00 PM	Both Days Free in advance, US\$50 after May 31, 2013	<input type="checkbox"/> _____

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Brad Remillard

Brad Remillard is a speaker, author and trainer with more than thirty years of experience in hiring and recruiting. Through his corporate workshops and industry association speaking engagements he demonstrates how organizations can effectively attract, interview, hire and retain top talent. Brad is also the co-founder of IMPACT HIRING SOLUTIONS and co-author of, "You're NOT the Person I Hired: A CEO's Guide to Hiring Top Talent." For more information on Brad's hiring training programs or speaking, please visit www.bradremillard.com.

SIX WAYS TO MOTIVATE TOP TALENT IN DE-MOTIVATING TIMES

To retain your top talent it is absolutely critical to ensure they are motivated. In difficult times this is often not high on the priority list of managers or CEOs. Most people are working long hours and doing the job of two people, stress is at an all time high, fear of layoffs is a reality, salaries are frozen, pay cuts have been implemented and forget about any bonus. For many companies this is their current culture.

So how do you motivate your top talent to achieve the company's goals?

How do you keep them from contacting recruiters?

How do you keep them passionate about coming to work?

How do you keep them engaged day after day?

The answer to all of these is "culture." Even in difficult times top talent, by definition, will always rise to the occasion. They will always strive to be the best. If they don't, they aren't top talent. However, even top talent can burn out, get frustrated, not see the light at the end of the tunnel or wonder if they are really contributing.

It is the role of all CEOs and managers to ensure these things don't happen. There seems to be a consistent theme as to what great managers do in difficult times to hold on to and even attract top talent.

The following are six areas managers must focus on to ensure they keep their top talent motivated:

1) Companies must have a performance based culture

Even in difficult times there must be clearly defined goals for the company. These goals must cascade

down to your top talent. They must have quantifiable objectives that motivate them, so when reached, they feel a sense of accomplishment. Providing specific time based goals with achievable results clarifies exactly what is expected of your people. Your best talent will embrace the goals and not stop until they reach the goal. Employee engagement is critical to retaining your best people.

2) Dysfunctional culture

This is probably the biggest reason top talent gets nervous and begins to think outside your company. Do you know your company's culture? Can you define it? Will your executive staff define it the same way? Will the in-the-trench worker bees define it the same way? If not, this is the time to begin working on it. Then once the culture is well defined, do the behaviors match the culture? Do managers from the CEO on down demonstrate this culture day-to-day in how they deal with the employees, customers and vendors? You can't claim to have a culture of teamwork if the manager's idea of teamwork is, "As long as we

do things my way, without any questions, you can be on my team."

3) Respect and appreciation

This is probably the least expensive and least used method to motivate and retain top talent. Small things can make a big difference with top talent. Respecting their contributions, listening to them, including them in the decision making process, asking for their thoughts and ideas all make them feel respected and appreciated. Consider building a culture that respects your top talent so they feel appreciated. Top talent does not want to be taken for granted.





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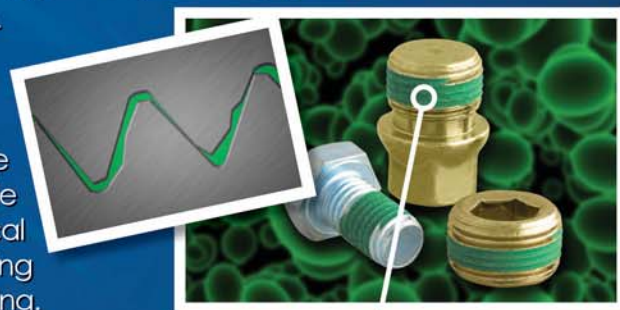
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LESSONS FROM THE FIELD: THE PARETO PRINCIPLE AND THE RCSC SPECIFICATION *continued from page 38*


That's a total of 16 pages including commentary. They explain the four recognized pretensioning methods without bias, how to confirm the suitability of the complete fastener assembly prior to installation, how to confirm the procedure and proper use by the bolting crew of the pretensioning method to be used, and what the inspector will be looking for to ensure that the requirements of the specification are met. I think it should be required reading for all bolting crew supervisors.

I find the commentary in these sections to particularly informative. I know it was extremely useful when I dealt with the irate caller I mentioned before. He was using the calibrated wrench method and, as I mentioned, was looking for a torque value to use. After he calmed down a bit, I got him to download the specification from the RCSC website (for free at www.boltcouncil.org). I explained the organization of the document and directed his attention to section 8.2.2: Calibrated Wrench Pretensioning. The commentary in this section provides justification for the

procedures and also how this part of the specification has evolved since the first edition published in 1951. We also discussed section 7: Preinstallation Verification.

I know this fellow was enlightened by the specification. I have a hunch he was also discouraged when he learned that he was required to do the preinstallation verification every day AND every time there was a change in lot, lubrication or surface condition of the fastener components, AND for every change affecting the performance of the impact wrench. This is clearly not the way he typically operated. I wonder if he changed. Now I'm reminded of a quote by another quality guru W. Edwards Deming: "It is not necessary to change. Survival is not mandatory."

Call Us If You Need Assistance

We understand that change can be difficult. If you need help understanding the specification, or want training and hands-on assistance for your bolting crews, give us a call. We are happy to help. 

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You know, now that we made it through that whole "Mayan 12-21-12 thingy."

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DISTRIBUTOR NEWS

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"These fine companies, all with many years of experience, will work closely with Fascomp's inside sales

staff specifically to shore up support of our Distributor network." - Mark Georgia, President of Fascomp Incorporated. "In addition, we are beginning a big push to work with engineers in the design stages. Our goal is to design in Fascomp part numbers at the OEM's and CEM's throughout the world." - He added.

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FUTURE:

ND is focused on creating new products and increasing efficiency in all areas of the company. After more than doubling the size of the R&D Department in 2011, construction is now underway to expand chemical blending and the Vibra-Tite bottled product divisions.

Currently, ND is actively seeking additional licensees and joint ventures in order to further expand its global presence.

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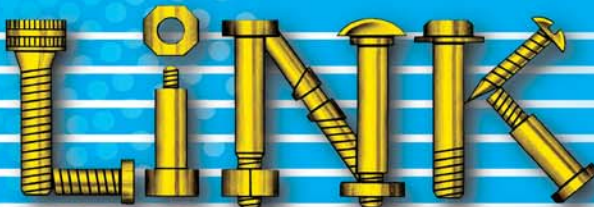


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HEAT VERSUS ULTRASONIC INSTALLATION *continued from page 64*

General Descriptions

Ultrasonic Installation - An ultrasonic insertion machine converts electrical power into a mechanical vibratory output. The downward force is typically provided by a pneumatic cylinder while ultrasonic horn delivers mechanical energy to the metal-plastic interface. Ultrasonic horns (manufactured from various metals including titanium alloys, stainless steel and aluminum alloys) directly contact the metal Insert. As the horn vibrates, the mechanical energy is transferred to the plastic surrounding the Insert creating heat – and ultimately the melting – necessary for insertion.



Heat Installation - Heat insertion of Inserts is accomplished by transfer of heat from the heated tip through the Insert to the plastic, or by preheating the Inserts and then pressing them in. In both cases, a controlled force is applied to the Insert to ensure that the plastic is sufficiently melted before the Insert is installed. Since heat installation requires heating the entire Insert and not just the metal-plastic interface, the Insert material should have excellent thermal conductivity (brass and aluminum are common choices). This enables the Insert to efficiently transfer heat to the plastic. (It also enables the Insert to cool down quickly after installation). Once the plastic reaches its melting temperature, it begins to fill the retention features of the Insert and then solidifies while inducing minimal stress.



Primary Features, Benefits, and Limitations of Ultrasonic and Heat Insertion

Due to faster insertion and shorter cooling time, ultrasonic insertion typically has a shorter cycle time than heat insertion when installing a single Insert that has not

been preheated. However, heat equipment that preheats the Insert will have comparable installation time as compared to ultrasonic equipment. In addition, when installing multiple Inserts simultaneously, heat insertion will offer faster throughput.

ADVANTAGES OF ULTRASONIC INSTALLATION

- **Short cycle time for small Inserts.** Ultrasonic installation is generally fast for smaller Inserts (under 1/4" OD), and slows as the Insert size increases.
- **Can be repurposed.** Ultrasonic machines are often re-utilized, or converted from an initial plastic-to-plastic welding process to Insert installation.
- **Interchangeability.** Horn sizes and shapes can be easily changed to accommodate different Insert sizes.

DISADVANTAGES OF ULTRASONIC INSTALLATION

- **Insufficient melt.**
 - Poor fixturing/clamping of components often times results in cold pressing the Insert. This happens because of damping, which refers to the dissipation of mechanical energy. The damping effect results in poor installation because the mechanical energy is not being localized around the Insert.
 - When Inserts are driven too quickly, the plastic does not have time to fully melt. This is a common problem with ultrasonic insertion that often causes high stress and poor retention within the plastic that can lead to part failure. Failure can happen during installation, but the worst case scenario is when failure happens in the field.
 - The vibratory forces applied via the horn are difficult to control and sometimes parts are forced into the hole before melting has occurred at all. Damage to the Insert or the plastic host can be severe. While sophisticated control systems can help solve this problem, they can nearly double the cost of an already expensive ultrasonic insertion machine.
 - Slight size variations of the Insert and/or hole can be enough to cause insufficient melt
 - even when the speed of the insertion is slowed down.
- **Metal particulates and flakes.** Metal particulates and flakes may appear when the ultrasonic horn vibrates against the Insert and chips off the Insert material.

please turn to page 144

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IFI UPDATE ON 2012 STANDARDS REVISIONS *continued from page 102***ASTM Continued...**

F2882-12 Standard Specification for Screws, Alloy Steel, Heat Treated, 170 ksi Minimum Tensile Strength

F2882M-12 Standard Specification for Screws, Alloy Steel, Heat Treated, 1170 MPa Minimum Tensile Strength [Metric]

F2281-04(2012) Standard Specification for Stainless Steel and Nickel Alloy Bolts, Hex Cap Screws, and Studs, for Heat Resistance and High Temperature Applications

F2430-04(2012) Standard Specification for Bearing, Roller, Needle: Assembly (Thick Outer Race)

F2431-04(2012) Standard Specification for Ring Bearing, Inner: For Needle Roller Bearing with Thick Outer Ring

ASTM F2437-12 Standard Specification for Carbon and Alloy Steel Compressible-Washer-Type Direct Tension Indicators for Use with Cap Screws, Bolts, Anchors, and Studs

F2443-04(2012) Standard Specification for Roller, Bearing, Needle, Ferrous, Solid, Spherical End

F2444-04(2012) Standard Practice for Damage Prevention of Bearings, and Bearing Components Through Proper Handling Techniques

F2660-12 Standard Test Method for Qualifying Coatings for Use on A490 Structural Bolts Relative to Hydrogen Embrittlement

F2953-12 Standard Specification for Phenolic Raw Materials for the Use in Bearing Cages

SAE

J995-2012 Mechanical and Material Requirements for Steel Nuts

IFI

IFI-134 Structural Positive Locking, SelfPlugging Blind Rivets

IFI-158 Standard for Bulbing Structural Blind Rivets

ISO

ISO 888-2012 Fasteners - Bolts, screws and studs - Nominal lengths and thread lengths

ISO+898-2-2012 Mechanical properties of fasteners made of carbon steel and alloy steel - Part 2: Nuts with specified property classes - Coarse thread and fine pitch thread

ISO+898-5-2012 Mechanical properties of fasteners made of carbon steel and alloy steel - Part 5: Set screws and similar threaded fasteners with specified hardness classes - Coarse thread and fine pitch thread

ISO+4032-2012 Hexagon regular nuts (style 1) - Product grades A and B

ISO+4033-2012 Hexagon high nuts (style 2) - Product grades A and B

ISO+4034-2012 Hexagon regular nuts (style 1) - Product grade C

ISO+4035-2012 Hexagon thin nuts chamfered (style 0) - Product grades A and B

ISO+4036-2012 Hexagon thin nuts unchamfered (style 0) - Product grade B

ISO+4161-2012 Hexagon nuts with flange, style 2 - Coarse thread

ISO+4162-2012 Hexagon bolts with flange - Small series - Product grade A with driving feature of product grade B

ISO+7040-2012 Prevailing torque type hexagon regular nuts (with non-metallic insert) - Property classes 5, 8 and 10

ISO+7041-2012 Prevailing torque type hexagon nuts (with non-metallic insert), style 2 - Property classes 9 and 12

ISO+7042-2012 Prevailing torque type all-metal hexagon high nuts - Property classes 5, 8, 10 and 12

ISO+7043-2012 Prevailing torque type hexagon nuts with flange (with non-metallic insert), style 2 - Product grades A and B

ISO+7044-2012 Prevailing torque type all-metal hexagon nuts with flange, style 2 - Product grades A and B

ISO+7719-2012 Prevailing torque type all-metal hexagon regular nuts - Property classes 5, 8 and 10

ISO+7720-2012 Prevailing torque type all-metal hexagon nuts, style 2 - Property class 9

ISO+8673-2012 Hexagon regular nuts (style 1) with metric fine pitch thread - Product grades A and B

ISO+8674-2012 Hexagon high nuts (style 2) with metric fine pitch thread - Product grades A and B

ISO+8675-2012 Hexagon thin nuts chamfered (style 0) with metric fine pitch thread - Product grades A and B

ISO+10509-2012 Hexagon flange head tapping screws

ISO+10511-2012 Prevailing torque type hexagon thin nuts (with non-metallic insert)

ISO+10512-2012 Prevailing torque type hexagon regular nuts (with non-metallic insert) with metric fine pitch thread - Property classes 6, 8 and 10

ISO+10513-2012 Prevailing torque type all-metal hexagon high nuts with metric fine pitch thread - Property classes 8, 10 and 12

ISO+10642-2004 Amd1-2012 Hexagon socket countersunk head screws AMENDMENT 1


ISO+10663-2012 Hexagon nuts with flange, style 2 - Fine pitch thread

ISO+12125-2012 Prevailing torque type hexagon nuts with flange (with non-metallic insert) with metric fine pitch thread, style 2 - Product grades A and B

ISO+12126-2012 Prevailing torque type all-metal hexagon nuts with flange with metric fine pitch thread, style 2 - Product grades A and B

ISO+15072-2012 Hexagon bolts with flange with metric fine pitch thread - Small series - Product grade A

ISO+16047-2005 Amd1-2012 Fasteners - Torque and clamp force testing AMENDMENT 1.

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HEAT VERSUS ULTRASONIC INSTALLATION *continued from page 138*

- **Excessive noise.** Significant noise problem caused by metal to metal (ultrasonic horn to Insert) contact. The bigger the Insert, the louder the noise will be during installation.

- **Difficult to install multiple Inserts simultaneously.** It becomes very costly, if not impossible, to install multiple Inserts at the same time.

- **Insert damage.** Incorrect frequency and/or incorrect down force can cause damage to the Insert. In some cases, the ultrasonic horn can cause damage to the Insert threads, which results in not being able to install the screw or bolt.

- **Non-headed Inserts.** Extra caution needs to be taken when using non-headed Inserts to ensure proper contact surface is made between the Insert and the horn. Otherwise, damage to the internal threads are likely to occur.

- **Ultrasonic horns are expensive.** Ultrasonic horns are subject to wear and are very expensive to replace. It is common for them to exceed \$1,000.

ADVANTAGES OF HEAT INSTALLATION

- **Reliable & consistent.** Lower installation forces enable insertion into thin-walled parts which would be destroyed by ultrasonic equipment. With consistent and adjustable temperature, force and depth settings, an installed Insert with predictable pull-out and torsion failure forces can be designed for the application.

- **Quiet.** Quiet operation eliminates the harsh noise associated with ultrasonic installation.

- **More economical.** Heat installation machines are about 50% less expensive than similar ultrasonic equipment because they are less complex and do not require as many components. Heat installation is comprised of using a heated tip and the insertion force is pneumatically driven under low force; generally under 50 lbs. Ultrasonic installation requires an electronic power supply, cycle controlling timers, an electrical or mechanical energy transducer, and an ultrasonic horn.

- **Easy insertion into deep recesses.** Longer heat tips can be used to enable insertion into deep recesses within a part which would be inaccessible to an ultrasonic horn.

- **Versatile.**

- The heat installation method is extremely adaptable. Applications that need multiple Inserts on multiple planes can be catered to with platen style heat machines. Prototyping or low volume applications can be catered to with a manual heat machine.

- Wide range of Insert sizes can be accommodated on

the same machine by switching out the interchangeable heat tips.

- Any Insert can be installed – headed or nonheaded.

- Heat insertion modules can be equipped with vibratory bowl feeders so that the operator does not need to physically touch the Insert during the entire installation process. The Inserts would simply be loaded into a vibratory feeder and advance through the feed tube to a guarded heating chamber. The operator would then load the plastic molded component into the fixture, and activate the machine to install the Insert. This is extremely important for very small Inserts, which are difficult to singulate and orient.

- **Minimal maintenance.** Heat machines seldom need maintenance (if ever). The maintenance and spare part costs are low – replacement heat tips are approximately \$55.


- **Higher performance.** Generally, higher performance can be expected from heat installation because of the “through-heating” of the Insert. This enables the melted plastic to fully flow into all retention features. Performance of Inserts that are ultrasonically installed is often times lower because the plastic is not able to fully flow into retention features. This happens because of the minimal heating generated only at the point of interference between the Insert and the host.

POTENTIAL DISADVANTAGES OF HEAT INSTALLATION

- **Heat insertion's slightly longer process time.** The process time for installation of a single Insert (when the Insert is not preheated) is balanced by its many advantages over ultrasonic installation.

The flexibility, consistency, high performance, and price of heat insertion make it the best choice for installing Inserts into plastic for many applications.

Conclusion

As much as 75% of the Insert's performance is a direct result of how well it was installed, therefore all of the factors that impact installation must be carefully controlled in order to maximize performance. With so many different combinations of Insert types, plastic types, and performance requirements, it is recommended that manufacturers partner with industry experts in fastening and assembly of Insert products. Proper choice of the Insert and the installation process can be the difference between part failure in the field and part integrity for the intended life of the assembly. 

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FASTENER TYPES: PRIMARY AND PREFERRED USES *continued from page 8*

Load Carrying or Place Keeping

If the purpose of a joint is to absorb high loads/stresses we would likely hold it together with fasteners that can be tightened (avoid using the term torque) to a high preload level. Good candidates would be standard products like Hex Head Screws/Bolts, Flange Screws, Socket Head Screws, 12-point or 6-lobe (Torx) Screws etc. in property class 8.8 or higher for metric (Grade 5 or higher for inch). In addition to high strength, these drive configurations are "vertically walled" with sides/flats parallel to the axis of the screw. Therefore, there is no cam-out effect when they are tightened. Except for the 12-point, usually in aerospace and heavy equipment industries, and the 6-lobe (Torx) in automotive and many other industries, commercial availability should be very good provided that we use good standard references like ISO or ASME.

Unless you have a very good reason to use threads with fine pitch (adjustment screws or in fine mechanics or camera housing) always design with coarse thread (M or UNC) for load bearing fasteners! Since also the thread root radius is function of the thread pitch, fine threads will have a much higher stress concentrations at the root

and be more sensitive to fatigue failures.

For joints without any higher demand on clamping force, we can use what I call "place keepers". These would include most machine screws, tapping screws, self-drilling tapping screws, thread rolling screws and similar fasteners. Some fasteners in this category may also have added functions to lower the In-Place-Cost (IPC) by eliminating the need for separate tapping of threads, drilling of holes, etc. Even if the cost for the fastener is higher, there can be substantial cost savings due to the elimination of these extra operations.

A large portion of commercially available standard fasteners of these types are still manufactured with "medieval" drives like the straight slot or the 1A cross recess. For larger volume manufacturing avoid using these two. The straight slot can be tightened relatively hard as long as your driver is still in the slot and not making undesirable scratch marks on the surrounding surfaces. The type 1A, which is in reality a torque limiter, requires a certain axial force on the driver and can contribute to operator fatigue and hand damage. It would be great if all these fasteners had drives like the 6-lobe, square or hex drives with their vertical walls.

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Assembly

We can tighten fasteners by means of torque, angle, yield control, hydraulic, thermal and mechanical stretching. The first three will cause a certain amount of torsional stresses due to thread friction. The most common method is, of course, to tighten fasteners by applying a moment of force (torque) using a variety of wrenches, air tools, electric drivers, etc. Tightening this way involves a lot of uncertainties. We have, for example, to make an estimate (=guess) of the friction coefficients under head/nut and between threads in order to get a handle on the actual nut-factor. We will then use this factor in a torque formula and include the target (mean) preload to find a nominal torque value for the fastener we have selected to do the job. Some of the best equipment, like calibrated torque wrenches will still give us a tension scatter in the +/- 20 % range. Impact wrenches make a lot of impressive noises, but will give us tension scatters as high as +/- 60 %! Lug nuts and wheel studs are typically tightened by our car makers by using DC-electric tools with a scatter of only +/- 10 %. We don't want to lose our wheels at highway speed.

Assembly speed should be set so that we don't slam the nut or screw head down on the joint material at 3000 RPM, only to have to wait for the next part to arrive. We also need to train our assembly workers to use the tools correctly, even the best calibrated clicker- or dial wrenches can be misused.

Service

One of the great advantages with threaded fasteners is that they can be removed if there is a service need. If a gasket leaks and needs to be replaced, a number of fasteners holding a cover or pan must be unscrewed. In cases like that, the fasteners will typically be reused. On the other hand, if a prevailing torque nut (often called "lock nut") or a screw with a chemical thread "locker" is removed, we must give some serious thoughts about tossing or reusing. The effectiveness from the first installation is not going to be repeated. There are some IFI standards covering this (ex. 100/107, 545, etc.).

Joint Materials

In addition to what I listed under "Mechanical Properties" we should also match fasteners and joint materials to avoid galvanic corrosion and thermal imbalance. With today's protective coatings and platings


we should be able to find the best solution against corrosion of steel fasteners or, if necessary, select suitable corrosion resistant steels (stainless).

When we are mixing up aluminium joints with steel fasteners or stainless fasteners, we could also encounter some problems if temperatures fluctuate. Since aluminium (not a misprint, I am actually using what all countries outside the US call it) typically expand twice as much as steel if heated from room temperature to boiling point of water, the steel fasteners keeping the joint together will experience a doubling of the original preload. In such cases we will also have an increase in the surface pressure on the weaker material. Using a high strength Al fastener (yes, they do exist) will often be the solution.

For the bolted/screwed tension joint, the basic rule should always be to have a flexible, springy fastener and a stiff joint. This can be done by increasing the compressed volume in the joint material and to use longer fasteners. A ratio of 1 to 4 between fastener diameter and clamping length is always a good starting point.

Forces Acting On Joints

The majority of bolted/screwed joints are designed in such a way that fasteners are subjected to external tension loads. The major exceptions are aerospace and steel construction (bridges and steel buildings) where most joints are in shear, friction or a combination of both. Thin materials (in relation to fastener diameter) will not make a good compressed volume and, if it is the skin of an airplane, clamping is not the best idea. Shear/side loads therefore require that fastener sections subjected to these loads have as large cross sectional areas as possible, preferably without thread. Tension load fasteners, on the other hand, should behave like "glorified" rubber bands. In joints with high cyclic loads, i.e. cylinder head screws in car engines, fasteners with a reduced shank diameter have a much higher fatigue resistance due to the more uniform cross section in shaft and thread. These kinds of fasteners are not standardized except for a DIN Hex Screw with shaft diameter being 0.9 of nominal.

Try to be as practical as possible when selecting fasteners. Consider good IPC solutions whenever it is possible in order to increase efficiency and lower the total cost. When converting to and designing in metric, use ISO standard fasteners. 

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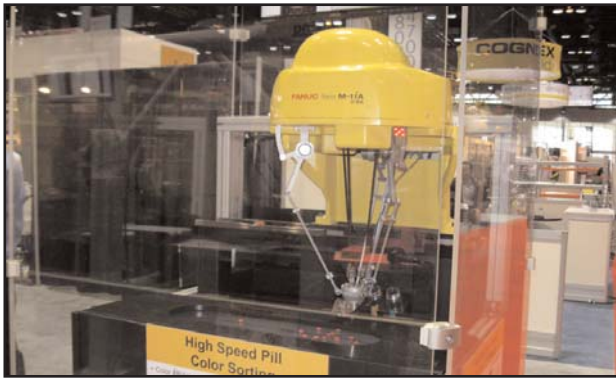
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PROMAT 2013: TRENDS AND EQUIPMENT *continued from page 10*

For Distributors who are importing one practical application is in container unloading. With machine vision direction a single robotic arm can pick up cartons in even a thoroughly mixed up container. The goods can then be automatically palletized, placed on a conveyor or tossed out of the box in an amusing emulation of your worst warehouse worker.

Manufacturers and packagers might be interested in high speed robots (looking a lot like spiders) that can pick randomly mixed pieces off of a conveyor and place them into specific cartons, bags or bins. These are being used for pill sortation in pharmaceutical operations where reliability and accuracy are paramount considerations. Creating assortments of odd shaped parts is now available with minimal programming requirements. This is definitely a trend to watch as a counter to rising labor expenses.



Several vendors in both shows displayed working models of various automated storage and retrieval systems. Throughput, reliability and reduced noise are all being promoted along with the obvious labor savings. For Distributors with great profits who don't want to give the money to the Government as taxes these offer a viable investment. The ROI is not necessarily satisfactory (unless there is an accelerated tax benefit for "the means of production"), but the "bragging rights" are often enough justification for spending a lot of money.



This is a trend that will be increasing as the cost associated with automation comes down. For these systems the initial investment while high is usually affordable, but in the past keeping the unit restocked and

running precluded the investment. It is definitely something to watch.

Very important components of any show are the educational seminars. A full day was devoted to two simultaneous programs introducing high school and community college educators to the world of Distribution and Logistics. Information was provided on how to attract students; and then educate them in both theory and the real world. MHI the show organizer has invested heavily in developing a complete curriculum, educational materials and funding for local community efforts. This means that Distribution as a profession is being actively promoted.

Another effort currently under development is to transition military logistics personnel into the civilian workforce. At the community college level individuals trained by the Army, Navy, Air Force and Marines are being recruited for "Associate Degrees" with a long range goal of helping them transfer to Universities offering masters and PhD education. This is already in place for military Medics and it is very successful because it brings people with real world experience into the classroom...for every participants benefit. MHI will be the catalyst and resource to make this happen.

In line with this MHI also provided booths for the National Center for Supply Chain Technology Education (www.supplychaintech.com) and a consortium of Universities offering Materials Handling and Logistics education. All this bodes well for creating a pool of educated, innovative and dedicated staff for both the warehouse and the office.

Equipment

When visiting a vendor booth my first question is "What's new and exciting?" If the answer is "We now offer two colors...." It's best to just move on. Materials handling is a mature industry and changes are more evolutionary rather than revolutionary. There were, however, notable exceptions that have potential application for Fastener Distributors.

One example of this is the Vestil (vestal.com) plastic tool tree that can be added to a simple pallet jack.



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DISTRIBUTOR NEWS

Spirol International Corporation is pleased to announce the receipt of General Motors 2012 Supplier Quality Excellence Award. GM's Supplier Quality Engineers (SQEs), Design and Manufacturing Engineers and other personnel from using plants were all surveyed and statistics for quality performance in areas of line interruptions, recalls, and corrective actions were used to support the presentation of the award.

According to an article published by General Motors on their news media web site, approximately 7% of their product suppliers – those who have demonstrated the highest levels of quality performance over the previous 12

months will be presented with the award.

"Winners meet or exceed a stringent set of quality performance criteria along with cross-functional support of the entire GM organization."

This is a significant achievement and a testament to SPIROL's operational excellence and quality control considering the millions of parts supplied to GM from SPIROL's global locations.

For more information about Spirol's receipt of this award or for product information, contact Spirol by Tel: 1-860-774-8571, Fax: 1-860-774-2048 or email: info@spirol.com. Visit Spirol's resources and information at their website: www.spirol.com.



From left are SPIROL's Michael Kassian, Automotive Sales Manager, Sarah Dowie, Quality Manager, and Chris Stanton, Operations Manager.



PROMAT 2013: TRENDS AND EQUIPMENT *continued from page 158*

While anyone could make something like this on their own the Materials Handling industry has overlooked this glaring need for years. The one enhancement that I would add is a writing surface with a clip and pen holder, but it would be even better if Vestil combined their product with the offerings of Weightronics to incorporate a scale on the same pallet jack (www.weightronic.com/pdf/PS.pdf).



This is an example of why every vendor needs to walk the show floor looking for synergy and new ideas. Manning the booth is vital, but missing an opportunity to see competitors and meet future partners is a common error.

Some operations need the flexibility of being able to go outdoors while maintaining narrow aisles in the warehouse. Normally the first choice is a three wheel fork lift but this is not the most stable configuration and requires 10' minimum aisles. For those who handle light loads there is the cutest fork lift you have ever seen.

While it looks like something for children or grandchildren the distributor says it's a real work horse in the warehouse. For more information go to www.mariottiusa.com,



For many years Raymond, Crown and Jungheinrich lift trucks have offered order picker vehicles that can elevate a worker for increased cube utilization. Big Joe fork lifts (www.bigjioforklifts.com) introduced their "Joey" for doing the same job at a more affordable cost.



Capacity and throughput are limited, but for smaller Fastener Distributors this is a far safer way to use the available height without resorting to ladders.

Another new product with numerous possible applications in every facility is the "Crossing Guard" that uses solar

power (from existing ceiling lighting) to power an automatic collision awareness system that flashes and spotlights intersecting aisles.

This is an excellent solution for blind aisles because it is far more eye catching than the more common convex mirror. It can be set for pedestrian and or vehicle situations.

More Information can be found at: crossingguardsafety.com.

Several vendors exhibited pallet rack guarding devices. When these fail there are repair equipment manufacturers and services. Given the number



of racks damaged every year this is a growth industry. While the real solution is to train the operators and enhance the aisle lighting these products are still useful for the occasional mishap. A variety of rack repair solutions were shown by Mac-Rak (www.macrak.com).

There are many other alternatives and an online search on "pallet rack repair service" should provide someone in your area. Leaving a damaged rack in place is an accident waiting to happen. While nothing can save an overloaded warehouse such as the YouTube viral "Vodka Warehouse" with a clumsy driver: <http://www.youtube.com/watch?v=67w0ylxj9Zc> there is no reason why this should happen in your warehouse.

For those serving construction related industries or providing managed inventory solutions simple pallet racks can become high security, enclosed storage.



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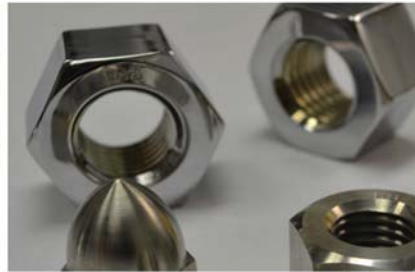
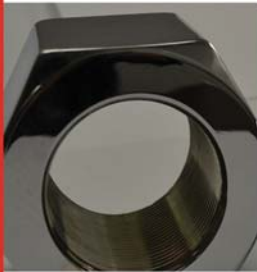
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PROMAT 2013: TRENDS AND EQUIPMENT *continued from page 160*

Trac-Rite (www.tracrite.com) provides roll up doors and rack accessories that secure the products, especially when controlled by key pads or radio frequency identification cards that track usage by individuals. This makes sense for expensive or high security situations where absolute control is necessary in a stock room or on the manufacturing floor.



There is also a free standing version that would be especially valuable on a busy construction site or in a utility contractor "lay down yard." In concept this is similar to a self storage facility, but far easier and less costly to create and move.


Distributors serving many of these types of industries could lease or rent these solutions to their customers and create a new business model by offering this service to other distributors and suppliers. For those in more northern climates any units not used in the winter can become high security ice fishing shelters. Just

remember to get them off the ice before the spring thaw.

Aisle demarcation is an OSHA requirement but contrary to popular belief floor marking is not the only alternative. At ProMat 2013 vendors displayed steel and plastic fences and bumpers to define areas and protect equipment and doorways. There was little new in terms of products or applications.

What was new is the increased usage of tapes and labels that can be glued to the floor to provide both area definition and address/location signage. This is an evolving area that compliments bar code readers, Warehouse Management Systems and inventory control programs. Before making changes in your warehouse systems review this bridge between the WMS and the physical world. Adhesives and materials are continually being developed to address both legibility and longevity.

These are the things that I found new and interesting. Bringing them to your attention should not constitute an endorsement. Our philosophy is to experiment and work with our clients to develop the optimal solutions in context. What works for others might not be useful for you.

And if you found this article informative there will be a smaller show in Atlanta next year Modex 2014 (www.modexshow.com) so there is no reason to wait for ProMat 2015. 

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DISTRIBUTOR NEWS

Cable Tie Express, Inc.

a Master Distributor for cable ties and other related wire management products, is pleased to announce that Joseph K. Gillis has joined the Company as Director of Operations.

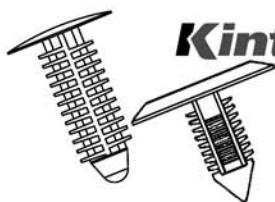


Joe, a member of the Class of 1987 from the United States Military Academy at West Point, received his MBA from Indiana Wesleyan University in 2005. He joins Cable Tie Express as his next step in a stellar career path with several companies, including Airborne Express, Coca-Cola, and MD Logistics. Joe and his wife Carrie live in Westfield, Indiana with their three children.

Char Cooper, President, recently commented on the new hire of Joe Gillis, "We at Cable Tie Express recognize Joe's talents, strength of character, and outstanding levels of performance evidenced throughout his career. We look forward to his overseeing the Company's operations to insure efficiency, quality, service, and cost-effective management of resources. Joe will be a key player in planning, developing, and implementing strategies to advance the Cable Tie Express mission and objectives to promote revenue, profitability, and growth of our organization and to further our "tying service to quality" commitment with our customers."

Established in 1995, Cable Tie Express, Inc. stocks a full line of cable ties, heat shrink tubing, mounting bases, wire connectors, and cable clamps. With a growing distributor customer base that looks for consistent delivery, quality product, and true partnering, Cable Tie Express currently ships out of the Indianapolis area throughout the United States and into Mexico.

For further information and samples of cable ties or other wire management items, contact the sales professionals at Cable Tie Express, Inc., 15470 Endeavor Drive, Noblesville, IN 46060. Tel: 1-888-603-1233, Fax: 1-800-395-1233, email: sales@cabletieexpress.com or by visiting www.cabletieexpress.com.



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WINDOWS 8: HOW MICROSOFT'S BIG BET IMPACTS FASTENER DISTRIBUTORS *continued from page 12*

In addition, 17% of those employers said they expected to start migrating to Windows 8 as soon as the OS was available, according to PC Helps.

Besides facing initial resistance from fastener desktop users, Windows 8 is also in desperate need of cool. Currently, it's all too fashionable for consumers to bash anything new from Microsoft, while they genuflect at the altar of all things Apple.

For example, an Associated Press/GfK poll conducted just prior to the release of Windows 8 found that 52% of 1,200 people surveyed were not even aware that Microsoft was releasing a new operating system. Moreover, 61% of those who were aware of Windows 8 expressed little or no interest in the software. And only 35% of those in the know thought Windows 8 would be an improvement over previous versions.

That's a far cry from new releases of Apple iPhones and iPads, which are regularly accompanied by news stories of hordes of diehard Apple fans camping out for days to snatch the latest version of their digital nirvana.

There are other market factors outside Microsoft's control conspiring to make Windows 8 a tough sell to fastener distributors and other industries. "PCs are going through a severe slump," says Jay Chou, senior research analyst at IDC, a market research firm. "The industry had already weathered a rough second quarter, and now the third quarter was even worse. While ultrabook prices have come down a little, there are still some significant challenges that will greet Windows 8 in the coming quarter."

Plus, stubborn economic times are a continued drag on the market. "Businesses have slowed their refresh cycle as they remain concerned about the broad economic outlook, amid a busy political season," says David Daoud, a research director at IDC.

Even so, while sobering news for Microsoft, the

challenging outlook for Windows 8 is being celebrated by others. They see the anticipated resistance to Windows 8 as a resounding confirmation that Microsoft's often stultifying monopoly over the personal computing market – which lasted for decades – has finally been crushed.

Essentially, personally computing has evolved from a desktop-only affair into an on-the-go market, they say, where Microsoft faces two formidable competitors – Apple and Google – two 'it' companies that also have smarts and deep pockets.


"Until smartphones arrived, Microsoft ruled the PC industry roost," Forrester's Gillett says. "Now smartphone and tablet sales, where Microsoft has little share, vastly outnumber sales."

Indeed, in the new reality – personal computing via smartphones and tablets, in addition to desktops – Microsoft's share of the personal computing market has shrunk from 95% penetration on all devices, to just 30%, Gillett says.

"From 2008 to 2012, global smartphone sales exploded from approximately 140 million to more than 660 million, and tablets emerged to similarly explosive growth," Gillett says. "And we're only part way through the shift. The PC's share of total personal devices will continue

to decline in coming years – even as PC unit sales gradually grow."

Through it all, Microsoft's attempts to become a player in the smartphone market have been rebuffed. "So far, Windows phone has captured only a small share of the largest personal device market, some of it with the now obsolete Windows Mobile OS," Gillett says.

Ergo, Microsoft's big bet on a touch-centric Windows. "Early adopters will jump at Windows tablets," Gillett says. "Beyond that, individuals will be slow to adopt. Windows will ramp in 2014, gain almost a 30% share of tablets by 2016, but will miss out on phones." 



Above: A Seattle shopper arrives early for the retail release of Windows 8.

Below: A close-up of Windows 8's touch controls.



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FASTENER STEELS *continued from page 115*

Carbon Content Carbon is present in all steels. The last two digits in the steel number indicate the carbon content in 1/100ths of a percent. For example 1541 steel has 41/100 (.41) percent carbon in its analysis. The amount of carbon and trace elements in the steel will determine its hardenability; too hard and the steel becomes brittle, too soft and there is no strength. Therefore, to increase strength while maintaining some ductility and less brittleness, alloys are added to the steel. If the carbon content is too low, it cannot be heat treated to increase hardness.

Carburization Machine screws and sheet metal screws are made from low carbon steels, such as 1010 – 1022. There is not sufficient carbon present to make the steel harder by heat treating. Therefore, these products are not strong. They are like a Grade 2 fastener. Thread cutting or self-drilling screws, also made from low carbon steels, are surface hardened by the process of carburization. Here, carbon is artificially added to the surface from a carbon rich mixture of the furnace gas to produce a much harder surface. The depth of hardness is known as 'case depth' or 'case hardness' and is only a few thousandths of an inch in depth, while the core remains soft.

Chromium Chromium is essentially a hardening agent. It will increase corrosion and oxidation resistance. When alloyed with nickel, the combination produces superior mechanical properties of toughness and hardness. It is also used to form austenitic stainless steels.

Manganese Also contributes to strength and enhances hardenability during quenching. These properties increase proportionately with an increase in carbon with manganese. Surface quality is also improved with manganese steels.

Molybdenum Another element that promotes hardenability but with a minimal effect on cold forming characteristics and provides greater control of its hardenability. The tempering temperature is higher to obtain ductility, but alloy steels containing 0.15 to 0.30% molybdenum exhibit a minimized susceptibility to temper embrittlement.

Nickel A ferrite strengthener, nickel does not form any carbide compounds in the steel, thereby creating a toughness in the ferrite phase. Nickel lowers the critical cooling rate and is therefore very heat treatable. Alloyed with chromium, the resultant alloys have greater fatigue resistance, higher impact strength with higher hardenability than is possible with ordinary carbon steels.

Phosphorus Higher phosphorus contents are beneficial in low carbon steels for improved machinability but is detrimental in quenched and tempered steels as it decreases fatigue resistance and ductility. Therefore, in these steels, the phosphorous is kept at a specified maximum amount of 0.025%.

Silicon One of the primary deoxidizers in the refinement of steel in amounts of up to 0.30%. Silicon aides in promoting notch toughness and provides for a more uniform ferrite grain.

Sulfur Will improve machinability in some steels, sulfur will also produce a detrimental effect on surface quality with manganese steels and lowers the toughness and ductility in the transverse direction as the content increases. For these reasons, there are maximum limits for most steels.


Process Metallurgy

It has been mentioned several times in the elements above that they are good deoxidizers. Why is this deoxidation important?

With the earlier methods of steel making, using the Bessemer process and open-hearth furnace, fuel oil or combustion gasses contributed oxygen to the steel. Pig iron was processed and deoxidizers were used to combine with the oxygen to form slag, or impurities, which when removed made the steel more pure where additions of carbon and other elements were made to provide the specific steel chemistry desired.

The electric-arc furnace is in more common use today. There is no contamination from fuel or gasses because the atmosphere is controlled. A highly oxidizing slag followed by a reducing slag produces a superior, high quality steel.

With the electric-arc furnace, the charge is usually solid scrap steel. This scrap may contain many impurities so the first step requires an oxidizing basic slag to remove phosphorous and other oxidizable constituents. Lime and iron ore are charged on the molten steel for this purpose. When the phosphorous content has been reduced to an acceptable level, the slag is skimmed or poured off. The second step is for desulfurization and deoxidation of the steel. This is accomplished from the addition of lime, powdered coke and fluorspar, to obtain a reducing slag. When purified, the proper additions of alloying elements may be made to achieve the desired chemistry.

And you thought there was nothing special to making a common cap screw. 

DISTRIBUTOR NEWS

New from **Craftline Storage Systems** is their 8 drawer service tray rack cabinet. Made with heavy duty ball bearing drawer slides and solid steel drawer bottoms this heavy duty cabinet can store 8 compartment tray boxes.



Each drawer can support 100 pounds for a total storage capacity of 800 pounds. Cabinet is modular in design and can be used with all other Craftline products to create the perfect storage system. Cabinet is shown with Craftline's "New" Super Duty compartment tray boxes manufactured with two heavy duty lockable catches and heavy duty carry handle.

For further information contact Craftline Storage Systems / Platt & LaBonia Company, 70 Stoddard Avenue, North Haven, CT 06473. Tel: 1-800-505-9099, Fax 203-234-7978, or email: sales@craftline.us

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DISTRIBUTOR NEWS

Intercorp., an importer of high quality construction fasteners under the Strong-Point brand, is pleased to announce the relocation of its Atlanta branch.

"Over the last two years we have increased our capacity throughout the U.S. and this move was the last phase of that expansion," said Atlanta Branch Manager, Adam Nitschke. "With this final piece of the puzzle in place we can now offer our customer's a better product selection, better service, and meet the growing demand for our products, not just in the Southeast, but across the U.S."

Intercorp's new Atlanta branch address is located at 2160 Breckinridge Boulevard, Lawrenceville, GA 30043. Contact the branch by Tel: 1-800-822-9690, 770-326-9960 or e-mail: atlanta@intercorpusa.com.

For more information on InterCorp and their Strong-Point® brand of fasteners, contact them by phone at 1-800-762-2004 or visit them on the web at www.strong-point.net.



NATIONAL INDUSTRIAL FASTENER & MILL SUPPLY EXPO**VEGAS FASTENER EXPO OFF TO FAST START FOR 2013: NEW FEATURES ADDED** *continued from 58*34 North High Street • New Albany, OH 43054 • Phone 614-895-1279 • Fax 614-895-3466 • www.fastenershow.com**National Industrial Fastener & Mill Supply Expo Exhibitor List as of 2/15/2013**

3M Electrical Markets Division	Crescent Manufacturing	International Fasteners, Inc.
A. Lyons & Company, Inc.	Crossroad Distributor Source	Inventory Sales Company
Abbott Rubber	CSM Fastener Products Co.	INxSQL Software
Accurate Manufactured Products Group, Inc.	Curtis Metal Finishing Company	Jay-Cee Sales & Rivet
ACS Manufacturing	Daksh Fasteners	JFD Industries, Inc.
ACT Fastening Solutions	Dan-Loc Bolt & Gasket	JM Tor Par, S.A. de C.V.
Advance Components	Darling Bolt Company	JN Machinery Corp.
Advanced Poly-Packaging, Inc.	DDI System	JW Winco
Aerodyne Alloys, LLC	Decker Manufacturing Corp.	Kapurthala Industrial Corporation
AFI Industries	Delta Engineering, LLC	Kelko Products Company
Alcoa Fastening Systems	Detroit Washers & Specials	Ken Forging Inc
Alcoa Fastening Systems - Mairoll	Disc and Belleville, Inc.	Kerr Lakeside, Inc.
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All America Threaded Products, Inc.	Distributor's Link Inc.	King Steel Corp.
All Electronics Hardware, Inc.	Divspec	Krylon Products Group
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Allegheny Bolt & Screw Corp.	Dunkley International Inc.	LEP Special Fasteners
American Fastener Journal	Durham Manufacturing	Lindstrom/Mega Metric
American Fasteners and Components	Dynacast Industrial Products	Linkwell Industry Co., LTD.
American Ring Mfg.	E Z Sockets Inc.	Linus Products, Inc.
Anderson Manufacturing	EBC Industries	Locknut Technology, Inc.
Anderson Metals Corp., Inc.	EC Fastener	Lok-Mor Inc.
Andre Corporation	Edward W Daniel LLC	Lone Star Fasteners
Androck Hardware Corporation	EFC International	Long-Lok Corporation
Asia-Pacific Trade News Magazine	Element Materials Tech.	Magni Group, Inc. (The)
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Atlas Testing Laboratories	Elite Fasteners	Master Magnetics, Inc.
Atotech	Epicor Software Corp.	Master Products Co. (The)
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AVK Industrial Products	Fastar, Inc.	Mercer Abrasives
AZ Lifting Hardware	Fastener Technology International	Metal Coatings Corp
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Boker's, Inc.	GFS/Infasco Distribution	MW Industries, Inc.
Bradley Adhesive Applications	Graham Fasteners, Inc.	Nakashimada USA
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Brighton-Best International, Inc.	Greenslade & Company, Inc.	National Fastener Distributors Association (NFDA)
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Cable Tie Express, Inc.	Hanger Bolt & Stud Co.	NIECO
Capital Steel & Wire, Inc.	Heico-Lock USA	Ningbo Jinding Fastening Piece Co., Ltd.
Cardinal Fastener Inc.	Hillsdale Terminal	Nippon Chemical Screw Co.
Carpenter Technology Corporation	Hindley Mfg. Co., Inc.	NOF Metal Coatings International Inc
Champion Cutting Tool Corp	Holo-Krome	Nord-Lock, Inc.
Chem-Plate Industries, Inc.	Ideal Fasteners Inc	Norseman Drill & Tool
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Pacific-West Fastener Association

Paulin Industries

Peak Machinery Sales, Inc.

Pentrate Metal Processing

Perfect Lock Bolt America, Inc.

Perfect Metal

Perfection Chain Products

Pivot Point Inc

Plano Moulding Company

Porteous Fastener Company

Pres-on Tape & Gasket

Prestige Stamping, Inc.

Prospect Fastener Corp.

Quick Cable Corporation

R&D Fasteners

R&R Engineering Co., Inc.

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DISTRIBUTOR NEWS

Porteous Fastener Company, (PFC), announced that they are consolidating their two Southern California locations into one new 204,000 sqft facility in Santa Fe Springs, CA.

Both the sales office and the warehouse located a few miles away moved back in December, and after 35 years in



Carson, the Corporate Headquarters will be moved by the end of January, 2013. The new location is high cube with high pile racking and narrow wire guided aisles. It is capable of storing over 40,000,000 pounds of fasteners. PFC operates a hub-spoke distribution model and this new facility will help ensure a smooth product flow from suppliers in Asia throughout the PFC branch network. The new address is 12801 Leffingwell Ave, Santa Fe Springs, CA 90670. Telephone numbers remain unchanged: Corporate: 310-549-9180 or 800-935-9103; Sales: 562-483-2740 or 800-935-9102.

Contact Porteous Fastener Company by email: info@porteousfastener.com or visit them on the internet at www.porteousfastener.com.

* * *

John Condon, Vice President of **Hillsdale Terminal**, has announced that Bill Johnson has joined Hillsdale Terminal as Sales Manager.



Johnson has been in the electrical distribution and terminal industry for twenty years. He will have responsibility for sales throughout the US, Canada and Mexico.

Established in 1976, Hillsdale Terminal is a manufacturer of solderless crimp terminals, non-insulated, brazed seam, vinyl, nylon, heat shrink, high temp terminals, and instant tap connectors.

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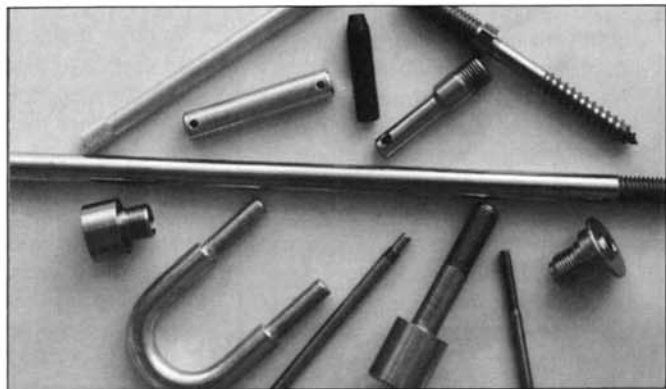
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THE BUSINESS EDGE 2.0 LINUX OFFERS A REAL CHOICE *continued from page 40*

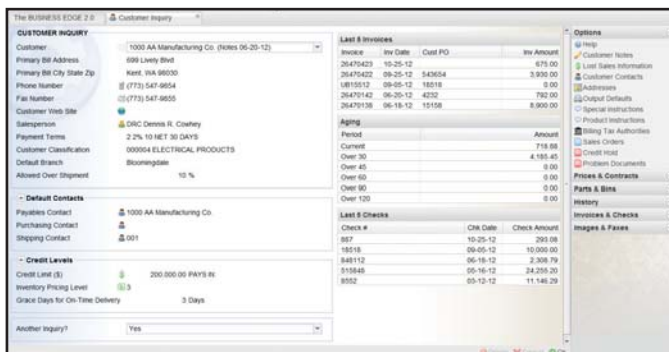
Computer Insights Offers Additional Benefits

The items above are generic benefits of Linux over Windows. Just as important though is the business model that Computer Insights is offering. Together with IBM, our goal is to have our clients focus on their business while Computer Insights takes care of their computer systems.

IBM is a Formidable Partner

For many years now Computer Insights has been committed to Linux and IBM. Other distribution software companies are following conventional wisdom and using proprietary solutions from Microsoft like SQL Server and .net. Meanwhile, Computer Insights has stayed the course with Linux and IBM in order to provide a lean and mean, highly specialized and easy to use system. It's not the conventional approach, but it has proven to be a very effective one.

- Linux brings open innovation to all IBM server and storage system platforms, freeing datacenters from vendor lock-in with choice and flexibility to scale their business on the fastest growing operating system in the world.
- IBM supports Linux on all IBM servers, storage and middleware, offering the broadest flexibility to match a company's business needs.
- IBM is a leader in the Linux community with over 600 developers in the IBM Linux Technology Center working on over 100 open source projects in the community.
- All major server and middleware vendors support the Linux platform. IBM offers the broadest range of server and middleware products for Linux in the industry.



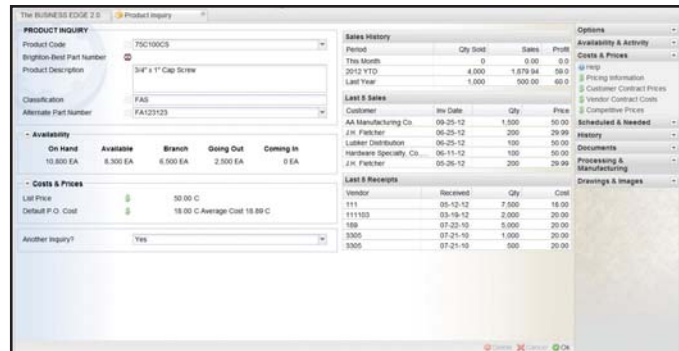
The Customer Inquiry has many options and on the first screen there is a complete picture of the relationship.

Hardware and Installation

Hardware acquisition + Software installation – Computer Insights will acquire the Linux server for their client. We will load the software, box it up, and send it to the client's office. The client will just have to plug it in and connect it to their network. Other software companies will either ask the client to do all this or they will charge up to hundreds of dollars per hour to visit the client's office and do this for them.

Data Backup

Application data backup – Computer Insights will perform daily backups of your mission critical business data. The data will be backed up over the internet and will then be available should anything unforeseen happen. Other software companies will leave this up to the client. If something happens; they will answer questions over the phone. However, restoring the business data is generally the client's responsibility should anything happen.



A wealth of information is at your fingertips. The product Inquiry tells the whole story with one click.

Upgrades

Installation of upgrades – Computer Insights will install all the application upgrades for the client over the internet. Other software companies will tell their clients about new upgrades but leave it to them to find the time in their schedule to install them. Left to their own to do the upgrades, often companies procrastinate and before you know it, the upgrades are sitting on their desk, the task seems overwhelming, and calling for day to day support becomes a challenge because they are not on the latest version.

No Finger Pointing

Computer Insights installs and supports the IBM server at each of their clients (or in the Cloud if this is preferred). This offers several advantages.

Since Computer Insights owns the whole responsibility, there is no finger pointing and the experts are always at work on your mission critical applications. Our clients are free to focus on their business – Maintaining your computer systems does not help you sell and deliver your products to your customers. This means that you have more time to sell, more time to service your customers and more time at the end of your workday.

A Wise Choice

The Computer Insights method is not conventional wisdom, but that sure doesn't mean that it is not wise. The advantages are significant and they mean that there is more money in our clients' pockets at the end of the day.

Contact Computer Insights, Inc. 108 Third Street Unit 4, Bloomingdale, IL 60108. Tel: 1-800-539.1233, E-mail sales@ci-inc.com or visit www.ci-inc.com.

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I.S.C. - THE ONE STOP SHOP!

I.S.C. the One Stop Shop has just made shopping easier!!! You already know about our Pompano Beach and Orlando warehouses, but now we have a 3rd location in Fort Myers, Florida to better serve you. Our vast list of merchandise has also increased with the addition of Hilti, Ramset and Grabber products. The Hilti products we are featuring are their Tools, Anchors and Drilling Systems and Abrasive Blades. In Ramset we are carrying the full line of American made Anchors, a full line of Power Accuated products including the ever popular Trakfast Fastening System and Sammy Super Screws. With Grabber, we carry the full line of Drywall Screws, No Coat Corner Bead Paper, Clear Line Saver, Paint, Fire Caulk, Sound Caulk, Chopsaw Blades and Access Panels by either Karp or Cendrex. But make no mistake we have access to the full line of all three companies.

In addition, I.S.C. would like to announce our five new sales representatives. Susan Davis, Mike & Jack Gourley, Mike Henry and Larry Unger.

Susan Davis is servicing Texas, Oklahoma, Arkansas and Louisiana, she can be reached at susan@southwestdistributorsales.com or her cell phone 214-533-3554. Mike & Jack Gourley (father and son) are servicing New Jersey, Eastern Pennsylvania, Delaware and Maryland. They can be reached at mgourley001@comcast.net or the office number 570-226-7475. Mike Henry servicing Illinois, Wisconsin, Minnesota, and Iowa, can be reached at mhenry@mkhsales.com or his office number 815-270-0784. Larry Unger servicing Michigan, Indiana, Kentucky and Ohio, can be reached at his office 440-243-4584.

All locations can also reach our In House sales staff at info@isc-sales.com or call us at 1-800-741-4278. 

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IFI PUBLISHES NEW MUST-HAVE BOOK FOR THOSE IN THE FASTENER INDUSTRY *continued from page 74*

The book covers a wide range of subjects related to why fasteners work, how to properly design joints, and how to properly install fasteners.

Table of Contents

Introduction

- i. Fasteners in a Historic Perspective
- ii. Standards Organizations for Fasteners
- iii. Fastening Technology Training

Fastener Design

- i. Selecting The Best Fastener For The Joint
- ii. The Bolt: A "Glorified Rubber Band"
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- xii. Thread Mismatches - Metric/Inch
- xiii. Fastener Strength - Real or Not?
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- xv. Lubrication of Fasteners
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- xvii. Quality Control: Whose business is it?

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- i. A Systematic Approach to Bolted/Screwed Joint Design
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- iv. Clamp Load Losses: Joint Failures
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- ii. SI System - The International "Metric" Language
- iii. The SI Metric System Old Metric and Foot-Pounds:
- iv. Update and conversion aids
- v. The Bad Use (Abuse) of Metric
- vi. Metric Tolerance System and Drawings
- vii. Metric Specifications in Fasteners and Engineering
- viii. Mechanical Properties of Metric Fasteners
- ix. Hard Conversion to Metric Threads
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- xi. Conversion Tables SI - Inch/Pound - Old metric
- xii. DIN: A DIN-OSAUR?

This book is available through the Reference Book section of the IFI online store at www.indfast.org for \$100. The next IFI technical publication is a long overdue book entitled TORQUE for FASTNERS by Joe Greenslade. This is a resource that pulls together all of the technical information necessary to calculate and/or experimentally determine tightening values for inch and metric bolts and screws of all strengths and materials plus tapping screws and set screws. This publication will also be available through the IFI online store before mid-2013. 





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MAKE MORE PROFITS WITH YOUR TRAINING DOLLARS *continued from page 84*

plant managers how to guide subordinate Latino supervisors on a regular basis. Supervisor-manager meetings presented a strong “role model” to authoritative-style supervisors. If a plant manager can do it without losing face, they could. (See: “How To Train Across Cultures,” Industrial Management Journal, November, 2010) This guidance reinforced the supervisory training. Here’s what supervisors had to say:

“I never had a personal meeting with my boss before. I thought he was going to bawl me out for all the downtime we have been having with a couple of the cold headers, but he sat me down and he gave me some ideas for solving that problem. I appreciated it.

My boss never talked much to me, would just hand me the traveler sheets. The other day he told me individual meetings are a part of my training. So we sat down and went over the production reports, and he gave me suggestions on how to hand out the jobs more fairly. It worked out just like he said! “

These meetings resulted in far fewer production delays and quality problems as supervisors learned seeking guidance was not a sign of weakness.

Improved manager supervisor communication trickled down, and meetings between supervisors and their workers improved. (See: “How Employees Can Improve Your Profit Level,” Distributor’s Link, Winter, 2005)

Lesson Number 2

Face-to-face communications between the plant management and individual supervisors is a must to reinforce the concepts taught by training.

3. Training Needs Plant Floor Examples, Not Generalizations, For Effectiveness

In the past, about half the 17 fastener producers had used inexpensive training sessions they had downloaded. The poor results showed supervisors could not translate

the generalizations of the canned training to the specific problems in their own plant.

Before beginning our training sessions, we spent several days interviewing and observing plant employees. The goal: uncover what workers needed from their supervisors for better performance, and how they perceived the guidance they were currently getting. (See: “Listening Up Ups Your Profits,” Distributor’s Link, Spring, 2003)

It quickly became clear that the typical workers out in straighteners wanted two things from supervision: First, help in solving on-the-job problems; and second, approachable supervisors who did not denigrate them. These comments became mini-case studies for supervisors, who recognized them as issues from their own departments. Here’s what some supervisors said after the training:

“I was surprised when I heard my workers were short on reamers and end mills. They had told me before, but I thought that was just an excuse. Now I see I should have been asking them and checking if they have the right tooling. It really helped our output.

“I found one CNC Swiss Lathe was going only half as fast as the others, and was a bottleneck in shoulder screw production. I thought the operator was just goofing off. It showed me I’ve got to pay more attention to complaints.”

While authoritarian supervision is typical in Spanish speaking cultures, it is a major stumbling block for the success in America.

Most supervisors are reluctant to ask for help. In Latin cultures especially, it’s a sign of weakness.

Lesson Number 3

Training is more effective when supervisors understand the issues discussed are not theoretical examples from some book, but real-life problems from their own departments. When actual in-plant issues, like off-center tooling in the stamping department, are used in the training, supervisors realize it is no theoretical exercise but a way to help them deal with their problems. Subsequent interviewing provides feedback on how the training improved their results.



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PROVIDING FOUR GENERATIONS OF SERVICE *continued from page 100***The Process Continued....**

Allan said, "I then called the various software companies and along with them demoing their software I interviewed them and asked ..."

1. *How many people in your company?*
2. *What other industries do you tailor to?*
3. *What are your data conversion, training and support policies?*
4. *How do you handle software problems?*
5. *Can you integrate with our existing Web ordering system?*
6. *Price structure for software/annual support/back-ups?*
7. *Names of current clients to call.*

The Choice Was Easy


Allan stated, "We choose Computer Insights. We felt they understood the fastener business better than any other software company in our industry. We were also very spoiled in the past and we wanted to



maintain the ability to add customization aspects to the software. Computer Insights is the solution that offers all that and more."

He continued, "Computer Insights staff was extremely helpful from the very beginning and still today. Implementing new software from old software is very stressful.

Computer Insights felt more like a partner in the process rather than just a software vendor. There is no doubt in my mind that we made the right choice. I often talk to colleagues with other Fastener companies and we compare software, support and updates. When I tell the story of our experience, they agree we went with the best!"


Computer Insights, Inc. can be reached at 108 3rd Street, Unit 4, Bloomingdale, IL 60108. Tel: 1-800-539-1233, Email: sales@ci-inc.com and their website is www.ci-inc.com. 

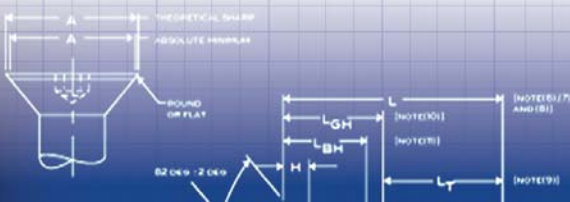
PHOENIX RISING *continued from page 78*

This honest approach to business is now in its second generation. In 1996, Fred and Helen's only son, Frederick, joined Mar-Bro full time after earning a degree in manufacturing engineering. Frederick combined his education with the years of hands-on experience he received while practically growing up in the shop, to become an integral part of the company's ongoing success and development.

As a specialty cold former and manufacturer of socket head fasteners, Mar-Bro produces standards, specials, and military-spec fasteners with diameters from #00 - 5/8" (M1.6 - M16) and lengths from .050" - 8" (1.5mm - 320mm). The company's product line of standards includes button head cap screws, flat head cap screws, hex head bolts, low head cap screws, socket head cap screws, socket head shoulder screws, and 12 point flange screws. With domestic and

international sales, Mar-Bro's fasteners can be found in a wide range of industries including aerospace, automotive, oil and gas drilling, nuclear, semi-conductor, and the military. Stainless steels, common alloys, and special alloys, including nickel alloys and A286, are among the materials used by Mar-Bro to produce its American made fasteners. The company is committed to using only fine grain cold heading wire and any material can be supplied with DFARS compliant and American melt certifications. An in-house tool and die facility ensures quick turn-arounds when rush orders are required, and Mar-Bro maintains its own in-house laboratory which is A2LA accredited in accordance with ISO/IEC 17025.

A ribbon cutting ceremony for Mar-Bro's new building is planned for later this spring. Look for details on the new location in the upcoming Summer Issue of Link. 



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FORM NG # REV 06/11

MAKE MORE PROFITS WITH YOUR TRAINING DOLLARS *continued from page 176*

4. Using Goals To Encourage Teamwork In A Diverse Workforce

The Latino supervisor's natural tendency to favoritism based on ethnicity and language was altered by teaching them to focus on goals encouraging teamwork. There was much less concern about language and cultural differences and much more cooperation when supervisors were taught how to reach specific goals. Here's what a supervisor said:

"It was an eye-opener. I have a mixed group, some Spanish and some English. There was always this attitude that I give the Spanish speakers extra consideration since we talked the same language. When we started concentrating on reaching daily goals, people were more willing to stop bickering and help each other, rather than asking for special consideration."

With daily and weekly goals, we got a lot more teamwork since we were all working to the same thing. Some workers put pressure on others to keep moving and not fall behind."

Setting specific department goals improved the sense of mutual responsibility among the employees.

Interestingly enough, being required to reach goals gave workers more of a sense of security than of fear. They knew where they stood. Here's what one worker said:

"Other workers near me didn't pass along any information from the supervisor. They tried to hide our sets of Go/No Go gages, just to make my life harder. When we had targets to achieve, though, people stopped fooling around, and we all got down to work. It made quite a difference in how much we put out."

Lesson Number 4

Goal setting focuses supervisors, and subsequently their employees, on quantity and quality and reduces favoritism. The resulting cooperation in all six cases helped foreign-born supervisors improve their individual departments' productivity substantially.

5. Creating a sense of pride by setting benchmarks to measure supervisory improvement.

We measured productivity and quality performance in each department before the training started, and then several months later. This simple before-and-after

comparison showed the Spanish-speaking supervisors the results of their efforts, and gave them a sense of pride in their accomplishments, one key result of their training.

In each of the fastener makes, we reviewed the supervisors' production and defect rates with them before the training began, raising their awareness of their performance. Once they knew senior management was taking their performance seriously, they realized they were being held accountable. They took the training to heart and focused on managing their departments to achieve better results. Said some Mexican supervisors:

"I never knew from one day to the next how many pounds of half-inch washers the 300 ton presses were turning out. Now I know the exact amount of each machine's and each day's output, I can see right off by the numbers if we have a problem or if we're on the right track with a new idea. It saves a lot of time and material."


I never knew if my department was doing better over the year or not. Our annual bonus is based on the amount of improvement, but there was nothing on record to go by. Now I know how I'm doing and can prove it. It gives me a tool to motivate my workers with."

"With daily and weekly goals, we got a lot more teamwork since we were all working to the same thing. Workers put pressure on others to not fall behind."

Lesson Number 5

Make sure supervisors know their performance is being benchmarked. This becomes the basis for realistic goal-setting. Benchmarking underlies meaningful targets to shoot for, and training gives supervisors the tools to hit them. Having metrics available for supervisors to rate themselves also helped improve productivity in all six die casting plants.

IBISWorld, the nation's largest publisher of industrial statistics, reports that fastener industry sales will be up, as consumer appliance purchases, the automotive industry continues its recovery, and aircraft sales increase. However, heavier globalization will bring a rise in imports as demand for cheaper foreign goods from domestic consumers rise. (See: "How To Handle Foreign Competition," Distributor's Link, Summer, 2003) IBISWorld further reports that pricing pressures will continue unabated. For fastener producers, this means continued pressure to boost productivity, cut per-unit costs, and meet customer demands.

How are you doing to get this done in your company? 

DISTRIBUTOR NEWS

J.W. Winco, Inc., a leading supplier of standard industrial machine components, announced it now offers an extensive line of bearing lock nuts and lock washers in metric sizes.



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J.W. Winco offers an extensive selection of inch and metric size adjustable levers, cabinet U-handles, plastic and steel hinges and locking mechanisms, revolving and retractable handles, hand wheels, hand cranks, tube connection and conveyor components, inch and metric construction tubing, shock absorption mounts, leveling mounts, hand knobs, spring, ball and indexing plungers, jig, fixture and fastening components, retaining magnet assemblies, toggle clamps, metric casters and wheels, universal joints, oil sight glasses, and metric tools for the industrial and commercial equipment industries. J.W. Winco's Web site catalog, with 3D CAD and online buying, is viewable at www.jwwinco.com.

For more information, contact J.W. Winco at 1-800-877-8351, by fax at 800-472-0670, on the web at www.jwwinco.com, and via e-mail at sales@jwwinco.com.



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WAVE THREADS PRINCIPLES *continued from page 108*

Changes in these characteristics cannot be made independent of one another. For example, a pipe model would not screw together with a single lead, but would with three leads. A smaller diameter bolt with the same thread needed two leads to assemble correctly. These are local clearance issues where surfaces interfere. It took multiple rapid prototype models to find parts that screwed together correctly. Changes in any of the characteristics can create local clearance issues that can be remedied with other tools.

The amplitude and period of the wave can increase and decrease at a constant or accelerating/decelerating rate. One of these models has increased its tensile strength 20% with a decreasing amplitude and increasing period. That model had its length increased which reduced and leveled the stress on each thread thereby increasing its strength even more.

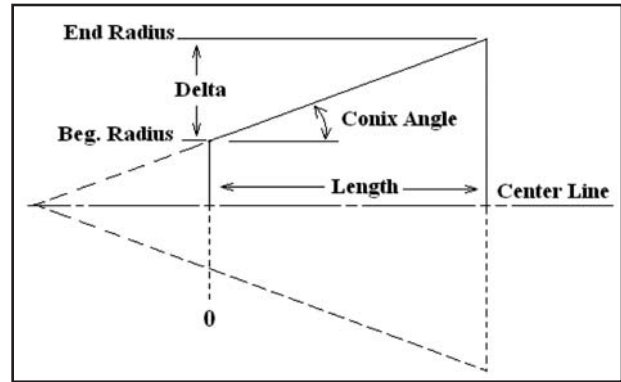


Figure 2: Starting components of the wave thread

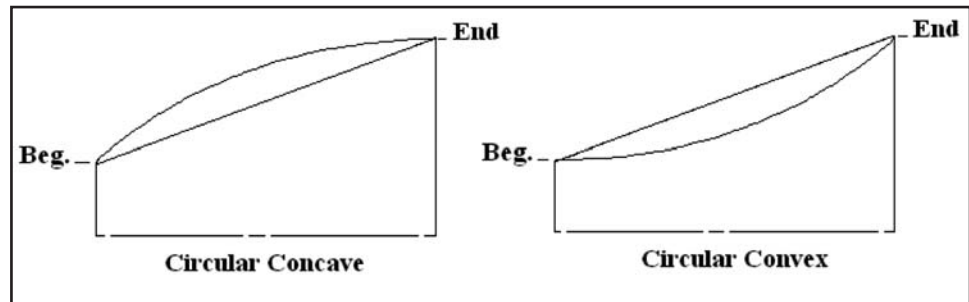


Figure 3a and 3b: Circular Curves on Concave and Convex shapes

Shapes

The shape is based on the following diagram. There is a beginning radius and ending radius from a center line and a length. Delta is the difference between the beginning and ending radius. The conix angle is between the length and delta. Changing the radii or length changes the conix angle. In the nut and bolt study a 7/8 bolt was used with a 0.4375" radius. The conix angles tested were 10, 15 and 20-degrees. The beginning radius is changed while the ending radius stayed the 7/8 bolt diameter.

Note that zero starts at the small end of the shape as shown the Figure 2 diagram. All values to the right of this are positive.

There are three shapes: conic, concave and convex. In Figures 3a-b are the concave and convex shapes overlaid on the cone shape so they have the same beginning and ending radius; conix angle and length.

A circular curve always has symmetry and is easier to determine its coordinates given

desired properties. Technically, the curve can be elliptical, parabolic or hyperbolic if it serves a purpose.

Wave Thread Construction

Once the shape is determined, it is sliced up into layers. For rapid prototype models, layers of 0.003" thickness were used.

On the first layer, the desired amplitude and period of the wave for the shape circle are selected. In Figure 4 the number of waves is the number of periods. Here there are four that are added to the shape circle.

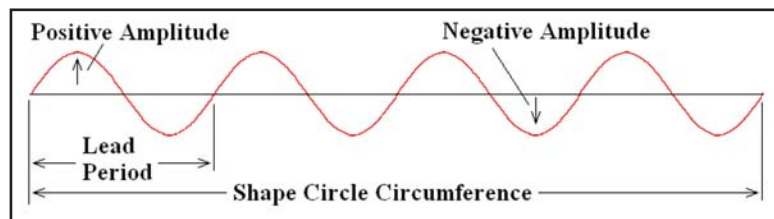
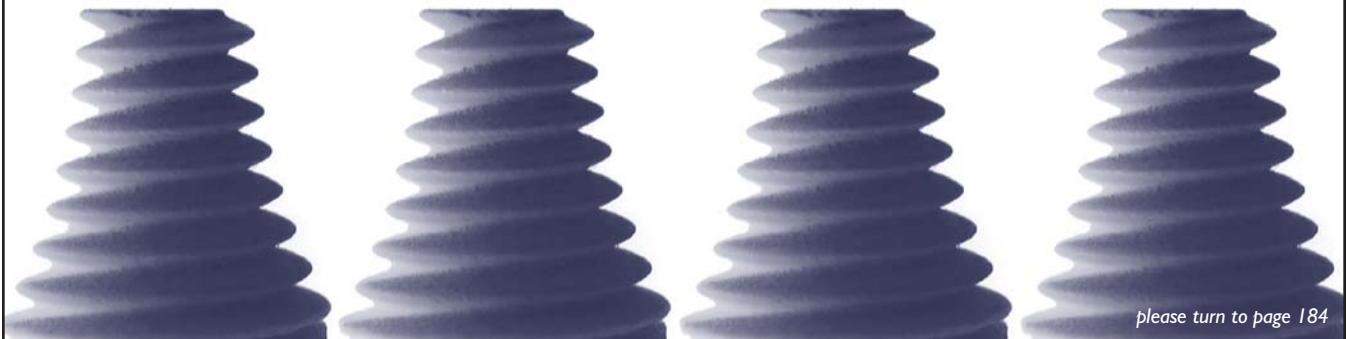


Figure 4: Wave characteristics for the first layer



please turn to page 184

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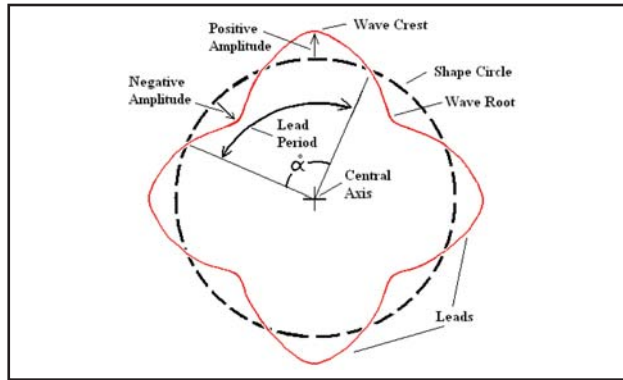
WAVE THREADS PRINCIPLES *continued from page 182*

Figure 5: Four lead wave applied over the shape circle

This is the wave thread basics. In Figure 5 the amplitude rises and falls at the same rate as the wave in Figure 4.

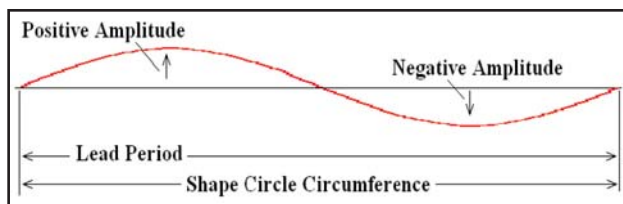


Figure 6: Single lead wave thread

A single lead wave thread has the wave period equal to the shape circle circumference as shown in Figure 6.

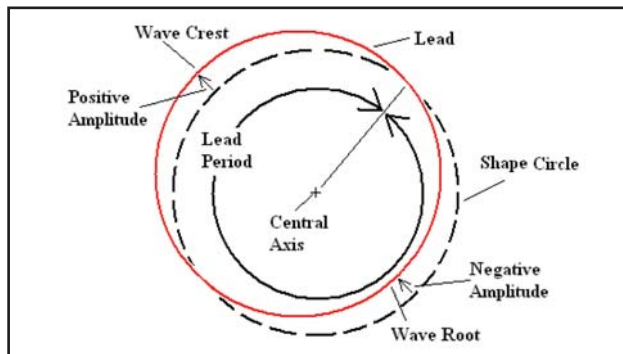


Figure 7: Single Lead wave thread on first layer

In Figure 7 the single lead wave thread is shown as a circle. The first wave thread prototypes were constructed from a stack of card board circles.

The next aspect of the wave thread is that it has a second wave on the surface. Each layer of a single lead thread is shown rotating in Figure 8.

The next aspect of the wave thread is that it is rotates at a constant or constantly changing rate. Figure 8 exemplifies this. This generates the wave on the wave thread. Its period is the completion of one of the lead periods. Figure 8 has one period. The amplitude is the same as the layers amplitude.

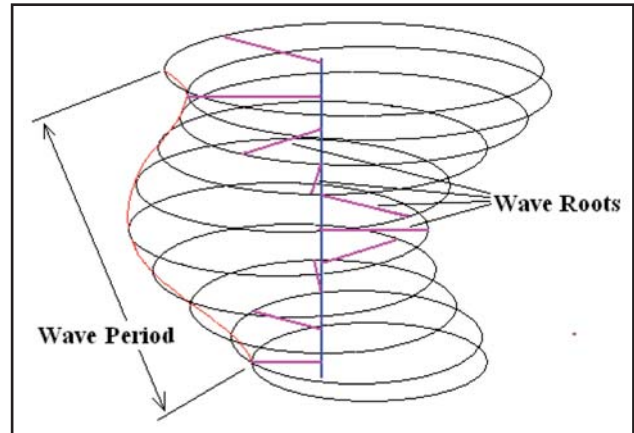


Figure 8: Rotation of layers generates wave

The period and amplitude can also increase/decrease at a constant rate or constantly accelerating/decelerating rate as demonstrated in Figure 9. Changing the amplitude is changing the generated wave height. Changing the period is either changing the spacing between the layers or keeping the layers constant and changing the degree of each layers rotation. The following picture in Figure 9 has the period doubling in size and the amplitude shrinking in half.

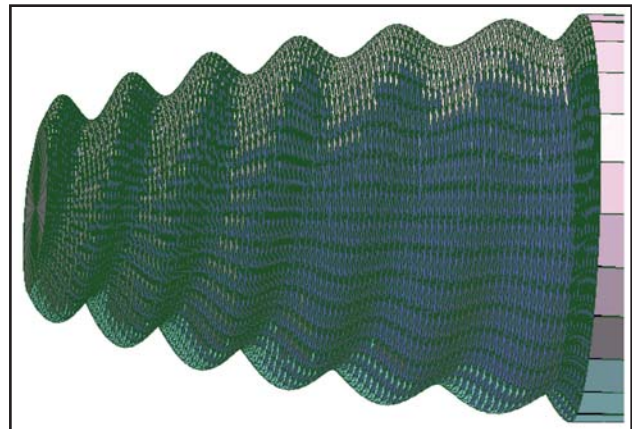
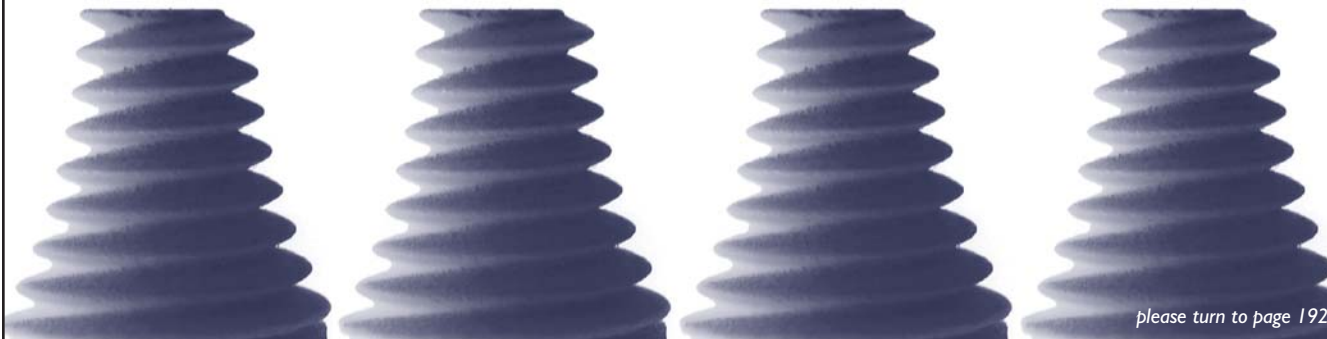


Figure 9: Concave Shape, 15-deg conix, period doubles; amplitude is halved; 2 leads



please turn to page 192

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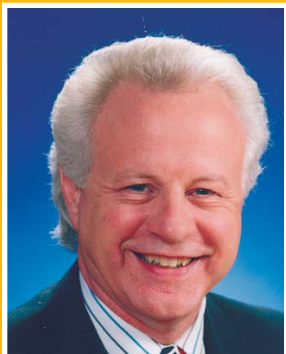
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GAINING MARKET SHARE IN A DIFFICULT ECONOMY: THE PROBLEM WITH RELATIONSHIPS

In the B2B world, the relationship between the customer and the vendor, and more specifically, the vendor's sales person, can be of utmost importance.

It doesn't take long in the business to understand that if the customer dislikes you, he is rarely going to see you. And if he does know you and trust you, he is more likely to do business with you.

Creating positive business relationships with all of your customers and prospects is, then, a fundamental step in the path toward success for any B2B sales person.

Having said that, the existence of positive business relationships is one of the primary hindrances to success for the typical field sales person. I know that seems like a contradiction, but let's dissect how this works.

See if this doesn't sound familiar. The typical field sales person, when presented with a sales territory, naturally attempts to see as many people as possible, and sets about building relationships with some of them. Since he typically has more accounts than he can effectively handle, he naturally tends to spend time with those with whom he has some affinity. He likes those customers who like him, and he spends more and more time with those with whom the relationship is easy and natural.

Over a few years, these relationships become solidified, and the sales person is content to work with that set of people with whom he gets along. Given the choice of making a cold call on a prospect, and visiting an existing relationship, the natural inclination is to go

where it is easiest. Relationships coalesce, and the sales person develops routines based on them.

For years, this mode of operation was acceptable. In a growing economy, most of the customers grew as well, and all the sales person had to do was show up and he'd expect a certain percentage of the business. Life was good, and the job was easy.

Now, however, most of the customers aren't growing, and most sales territories are down. Many of those same customers are struggling to stay profitable. The sales person's market, defined as the people with whom he/she has positive business relationships, has shrunk. In many sales territories, if the sales territory is going to grow, or at least gain market share, the sales person has to look outside of his current relationships.

Sales people, who became comfortable calling on the people who liked them, are now faced with an uncomfortable prospect: In order to gain market share, they must go where the market is. And, the market is bigger outside of their relationships than inside of them. If they are going to grow their sales, and their income, they must reach out beyond their current relationships, and call on people who don't know them.

Unfortunately, many are hampered by their existing relationships. They have invested so much time in some customers, who frankly, aren't worth it, that they can not extricate themselves and devote the time and energy to creating new relationships and new customers.

Their existing relationships are the greatest hindrance to their success.





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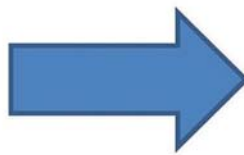
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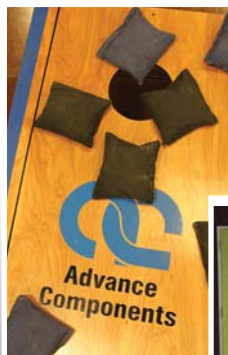
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ADVANCE TEAM BUILDING DAY

Chili and Corn Hole ruled the day recently at Advance Components where team building and good fun go hand in hand. Six daring chili cooks served up some spice at the annual Chili Cook-off while the entire Advance team paired off in a thrilling Corn Hole (bean

bag toss) tournament. "You'll Regret This Tomorrow Drunken Chili" won top honors for Brad Burel who also won the Corn Hole competition with partner Suzy Cravens. It was a special day full of spice, spirit and solidarity. 



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IFI RECOGNIZES BENGT BLENDULF WITH 2013 SOARING EAGLE AWARD *continued from page 112*

He was one of the founding members of the Bolting Technology Council. This was an independent organization intended to do research in bolting technology and to share its results with industry. He serves as Chairman of that organization from 1996 through 2006. As a result of his work in the Bolting Technology Council and his activities in fastener training he was awarded the highest honor available from the ASTM F16 Committee in 2006 of the ASTM F16 Fred F Weingruber Award.

In 1997 Bengt parted with Clemson University and formed his current independent consulting company, EduPro US, Inc. Through this enterprise Bengt has served over 300 US manufacturers including NASA, GM (US, Canada, and Mexico), GE, Bettis, ITW, and LEP, only to name a few.


He has continued to refine his 2-day intensive course for engineers and technical personnel working in the fastener business entitled, Technology and Bolted/Screwed Joint Design. Since inception he has given this program over 200 times. Bengt also provides shorter courses on bolting as one of the instructors for the Fastener Training Institute.

He chastises any student that refers to hardened fasteners as "hardware". He emphatically states, "High strength fasteners are NOT hardware. High strength

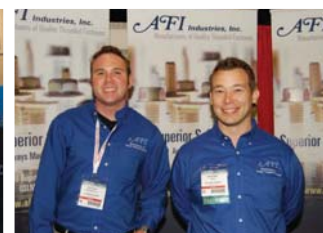
fasteners are highly engineered assembly components and they must be respected as such!"

He has published 111 articles on joint design, bolting technology, and metric fasteners in the Distributor's LINK Magazine since the 1970's. With permission of Leo Coar of LINK Magazine the IFI has created a book for their technical resource book offerings which is a compilation of many of Bengt's articles entitled Mechanical Fastening and Joining by Bengt Blendulf (The books are available through the IFI online store at www.indfast.org).

When Bengt is not doing fastener engineering he loves to write music, sing, and play classical guitar. He particularly enjoys playing when he can play with his two daughters, who are both professional musicians. He states that his most significant musical accomplishment is a love song he wrote for his "Northern Beauty", as he described her, in 1963. He says as a result of writing and singing that song this year he and his "Northern Beauty" will celebrate their 50th wedding anniversary.

Bengt has taught more people fastener technology and joint design than anyone in the history of the US fastener industry. He has greatly influenced how people view and appreciate joint design and fastening. He is very deserving of the IFI Soaring Eagle Technology Award. 

NATIONAL INDUSTRIAL FASTENER & MILL SUPPLY EXPO LAS VEGAS - OCTOBER 10, 2012



more photos on page 207

AMERICAN INDEPENDENCE

AMPG Introduces a New line of Grip Length Screws...

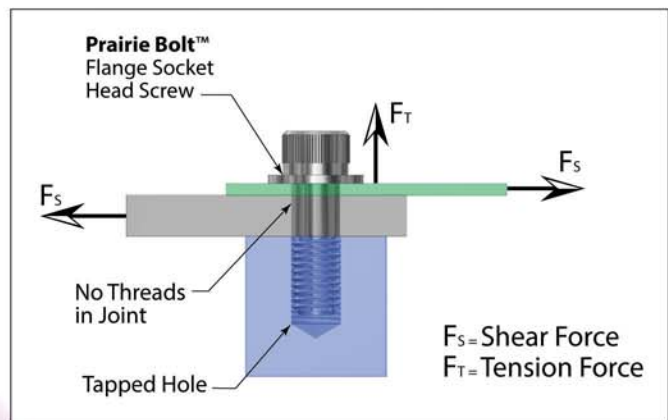
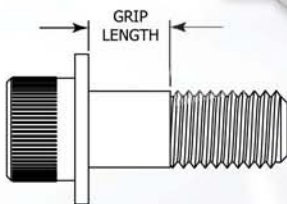
Unlike standard screws and bolts that are ordered by their overall length, **Prairie Bolts™** are called out by "grip length". Grip length refers to the unthreaded shank of the screw and it is measured from underneath the flange head to the beginning of threads. Grip lengths of a **Prairie Bolt™** are available in 1/8" increments.



Flange Socket Head Screw



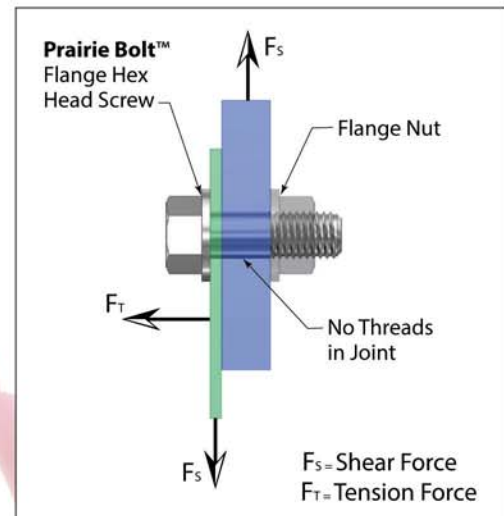
Flange Hex Head Screw



Socket Head with Flange used in a tapped hole resists Tension Forces (F_T) and the unthreaded grip length is stronger against Shear (F_S).

Advantages of a Prairie Bolt™

- Designed with grip lengths to fit the thicknesses of materials being fastened—keeping the weaker threaded portion of the screw out of the shear plane.
- With movement, the grip length of a **Prairie Bolt™** provides a smooth bearing surface that protects against damaging the materials being bolted.
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- Fine Threads allow for finer adjustments and require less torque.
- The flange head has a built-in washer that prevents crushing thinner and softer materials.
- Flange heads increase surface contact and provide extra holding power.
- The oversized washer style heads of a **Prairie Bolt™** are able to distribute loads over a larger surface area—in this way they are ideal for fastening softer and thinner materials such as aluminum, copper and composites.
- The flanged hex heads & flanged socket heads are heavy enough to take on higher torque and tension loads.
- **Prairie Bolts™** are offered in corrosion resistant materials, high-strength stainless steel and lightweight materials – ideal for a wide range of specialized fastening applications.



Hex Head with Flange used with a flange nut resists Tension Forces (F_T) and the unthreaded grip length is stronger against Shear (F_S).

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WAVE THREADS PRINCIPLES *continued from page 184*

This particular combination distributes the load more evenly as compared to traditional threads as shown in Figure 10.

Stress Concentration Factors are a way to compare the tensile strengths of different threads. Figure 10 compares a standard thread with variations of the VP2D2 thread used in Figure 9. The comparison uses the same size nut. Due to how the wave thread changes its spacing, there are fewer threads then the traditional thread on the same size bolt. Other changes in period, amplitude and thread length shown in Figure 10 have a dramatic impact on how stress is distributed.

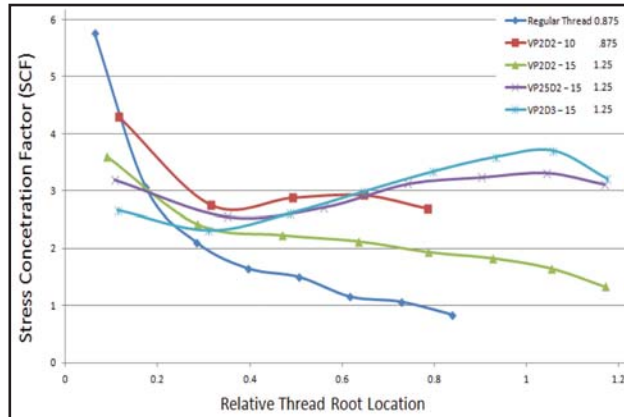


Figure 10

Extending the length of VP2D2 from 0.875" to 1.25" and changing its conix angle from 10-deg to 15-deg. lowers the stress per thread and evens the distribution out. Decreasing the amplitude to 1/3 is size in VP2D3 lowers stress at the beginning and increases it at the end. There is a similar result by increasing the period from 2.0 to 2.5 in VP25D2. These are examples of how tools can be use to sculpt the wave thread resistance to stress.

A stronger pipe thread would have more stress in the middle then at the either end where the wall is thinner.

Longer Threads

Standard threads have been proven for specific breaking points. Because 75% of the load is the first three threads, letting the standard thread be longer does

not add much to its resistance. The wave thread is different because it can be designed to distribute the load more evenly so having a longer thread will add to its tensile strength. Standard threads break because the stress has a cone shaped focus. The longer wave thread distributes this stress to the limit of the unthreaded tensile strength of the bolts. This is exemplified in Figure 10 with VP2D2 extended in length from .875 to 1.25" resulting in the stress concentration factors both being reduced and becoming more even.

Having a longer thread will increase the utility of cheaper and lighter materials.

Conclusion


On the practical side of the wave thread application, they are faster to assemble because they have an initial penetration before thread contact; then they require fewer rotations to fully engage. Increasing the number of leads decreases the number of rotations and speeds up assembly.

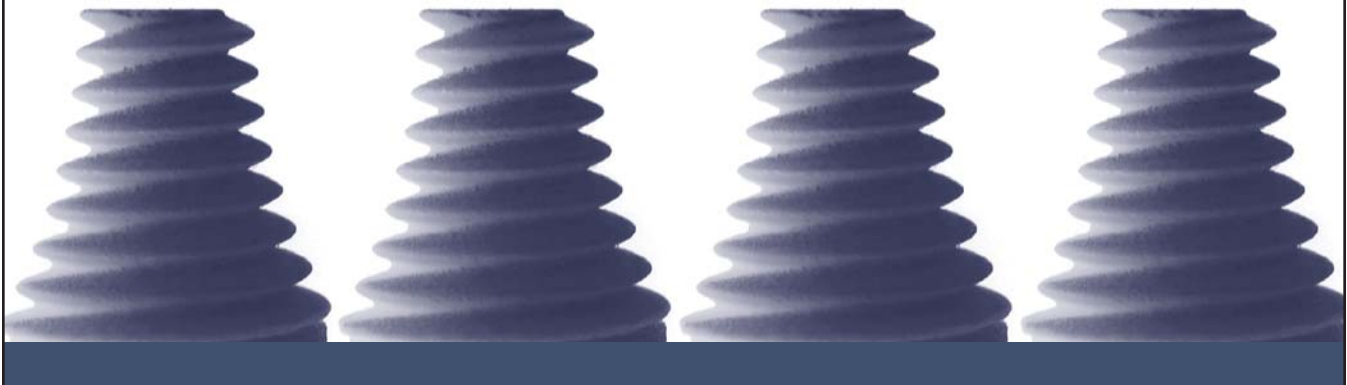
The wave thread cannot be over tightened. Once its surfaces are engaged, the next threshold is to break the part which will require considerably more torque then it takes to damage a standard thread.

The wave thread has six groups of variables: length, shapes, waves, leads, swells and nested leads. There are optimal combinations and some that will not work at all.

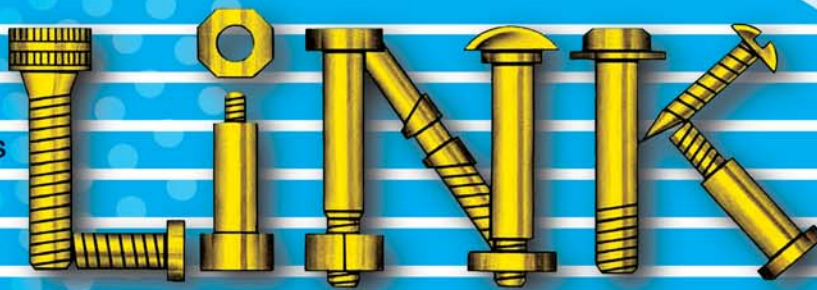
A systematic Finite Element Analysis study of the variety of combinations will create a knowledge base in which to predict properties. These tests include tensile strength, temperature variances; side loading for changes in elasticity and strength of the connected threads, pressure differentials for tubing and different materials. Selective destructive testing will verify the FEA results.

This is a root technology with many applications. Standards have to be developed such as pipe threads for different wall thicknesses and diameters; Nuts and bolts for aerospace applications. This technology can be applied to a new type of valve.

In conclusion, the wave threads introduce various new characteristics to assemblies connected with nuts and bolts or tubes. 



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DISTRIBUTOR NEWS

PennEngineering® announces new appointments with the objective to expand the existing sales and distribution network in the marketplace and reinforce the Company's strategic global presence. The appointments encompass both newly hired and reassigned personnel for the Company.

Among new hires, Matthew Llewellyn - Territory Manager for the U.K. and Ireland; Matthias Kreuter - Key Account Manager (Automotive) for Germany; Adam Smelewski - PEMSERTER® Distribution Sales Manager in North America and John Broska - Automotive Sales Manager-PEAF (PennEngineering Automotive Fasteners).

Reassignments include Lin Teng - Senior Manager-Global Accounts; John McLaughlin - Eastern Region Sales Manager in addition to his current role as PEMSERTER Sales Manager and Terrance Hamilton - microPEM® Market Manager in North America and Europe and Telecom Global Account Manager.

For more information, contact *PennEngineering®*, by Tel: 1-800-237-4736 (toll-free in the U.S.) and 215-766-8853; Fax: 215-766-0143 or visit their website at www.pemnet.com.

DISTRIBUTOR NEWS

J.W. Winco, Inc., a leading supplier of standard industrial machine components, announced it now offers GN 506.2 T-Nuts with Spring Washer, in metric sizes.



GN 506.2 T-nuts are designed for use with aluminum extrusions. They can be slid into position, i.e., inserted at any point along the slot. The spring washer prevents an unwanted movement of the nut in the slot, which is highly desirable on a bed with the T-slots in a vertical position. The unique feature of this design is that different slot heights can be bridged. One possible use of these T-nuts is to fit hinges to commercially available extrusion rails.

These RoHS compliant T-nuts are made of C45K, zinc plated, blue passivated steel. The spring washers are stainless steel, European Standard No. 1.4310 (American Standard Series 301).

J.W. Winco offers an extensive selection of inch and metric size adjustable levers, cabinet U-handles, plastic and steel hinges and locking mechanisms, revolving and retractable handles, hand wheels, hand cranks, tube connection and conveyor components, inch and metric construction tubing, shock absorption mounts, leveling mounts, hand knobs, spring, ball and indexing plungers, jig, fixture and fastening components, retaining magnet assemblies, toggle clamps, metric casters and wheels, universal joints, oil sight glasses, and metric tools for the industrial and commercial equipment industries. J.W. Winco's Web site catalog, with 3D CAD and online buying, is viewable at www.jwwinco.com.

For more information, contact J.W. Winco at 1-800-877-8351, by fax at 800-472-0670, on the web at www.jwwinco.com, and via e-mail at sales@jwwinco.com.

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IFI RECOGNIZES BARRY MACLEAN WITH 2013 SOARING EAGLE AWARD

by Steve Paddock Vice Chairman, IFI

The **IFI Soaring Eagle Service Award** recognizes individuals who have contributed substantial time and effort in the leadership of the Industrial Fasteners Institute and/or in some other way contributed to the health and well-being of the entire mechanical fastener industry.

It's a privilege for me to tell you a little bit about a fastener guy from Chicago I know. I met Barry about 25 years ago, on the sidelines of a Loomis Chaffee High School football game – where I was at school, and my pal Duncan MacLean played as a lineman. (Duncan is now a trustee at Loomis Chaffee). For 4 years, Barry and Mary Ann came from Chicago to Windsor, CT almost every fall Saturday to watch Duncan play football – and thank goodness they did, that made 14 fans instead of 12! Duncan went on to play Division I football at Dartmouth – which prompted another 4 years of fall Saturdays in New England for Barry and MaryAnn.

Over those years, I got to know them pretty well – and for two decades now, I've seen first hand the impact they've had in this world - in so many extraordinary ways.

While Barry certainly has a long list of accomplishments I could tell you about, it might take all night – and what really stands out most in my experience with Barry, were not his accomplishments, but the influence he had on others – on his family, on MacLean-Fogg Company, our industry, and the greater community. Barry is a generous man, who has touched many lives, so I thought I would share a just a few examples of those who have a lot to thank Barry for:

First, Mary Ann and their five children and 12 grandchildren can be thankful (most days!) for a terrific husband and dad. This is a family that has a lot of fun – with pranks, practical jokes, extreme sports, and some other activities that at least Barry deems “fun”, like hauling rocks and repairing docks. This presents a very interesting dichotomy: MacLean-Fogg has a terrific safety

record, but thank God the OSHA inspectors have never visited the MacLean's on a Saturday morning – for example:

- “Hey Duncan, we need to cut down that tree limb that's growing over the house. I'm not certain how we're going to get to it, and it might be hard to reach. But I think if you stand on the top rung of the ladder, hold on the gutter with your right hand, and put the chainsaw in your left we'll be able to get it.....and don't worry – I'll hold the ladder!

- Or, the annual road grading with one of Barry's self engineered contraptions (of which there were many).....imagine yourself standing on an 8 ft. piece of rail road track, which is chained to the bumper of an old Ford Bronco – and your best friend is a frayed water ski rope that your holding onto for dear life – while Barry, from the driver's seat turns around and says something real inspiring, like: “Don't worry, this time I'll go slower.

Regardless, I know the MacLean's are thankful for their Dad, but I think they're even more thankful that they still have all their fingers! If you haven't had a chance to say hello to the MacLean's that are here, take a moment to do so tonight – they're a fun bunch, and it's not often we have Clan MacLean at our annual meeting.

Our industry can be thankful – for a company that has spanned 4 generations of family ownership as MacLean-Fogg approaches its' 90th anniversary. Few companies in our industry claim such a legacy, and none that I know of in fastener business in the United States. I've spent my career working for family businesses, but I may never know all the ingredients for long term success, but I do know a few things it takes, like perseverance, stewardship, a strong family, and a lot of good decisions along the way – the MacLean's have those in spades. While the scale is a bit different, some great American family companies come to mind like S.C. Johnson and Ford Motor Company.

please turn to page 212



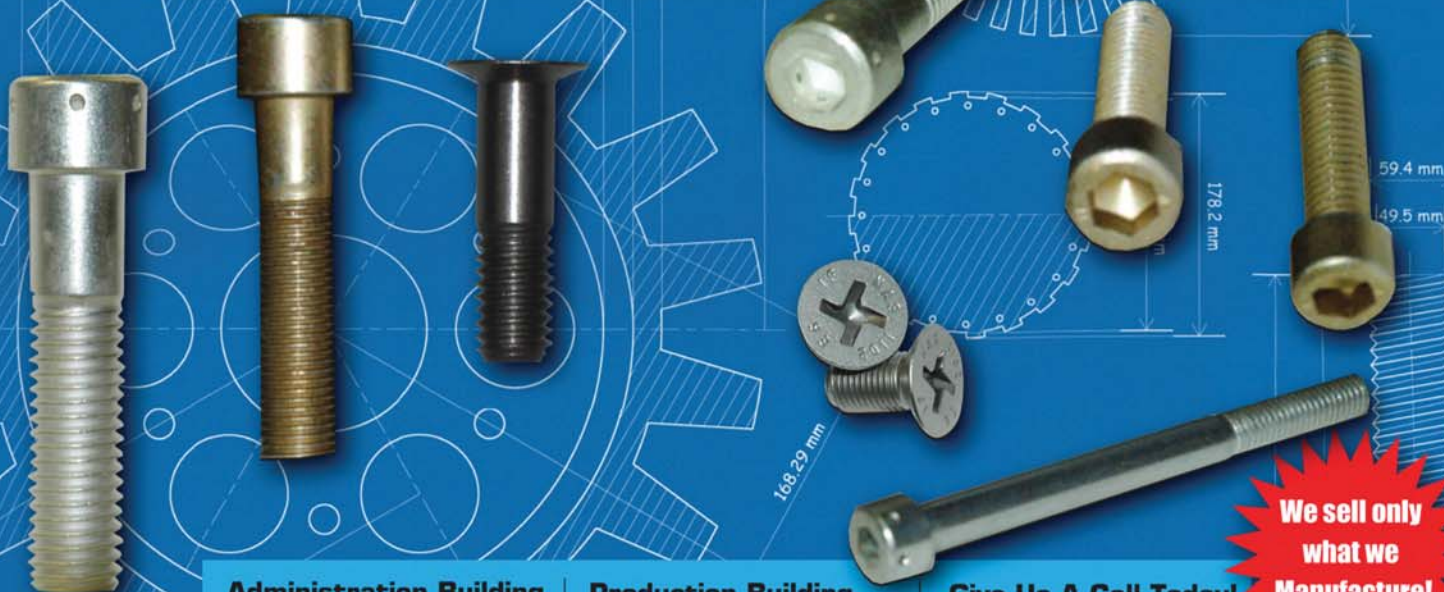
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YOU DON'T KNOW WHAT YOU LOOK GOOD IN *continued from page 114*

• **The majority of people look better in cool colors than warm ones.** Wear cool navy blue suits instead of warm brown or beige ones, for example.

• **Primary colors suit the majority of people.** Wear black, navy & charcoal for men's suits. These colors suit women also, but they can also consider jewel tones. Remember, food colors like lemon, lime, orange and pea green are warm and less classy than cool jewel tones such as ruby, emerald, amethyst, sapphire and magenta. Men: wear ties in bold colors like reds, violets and gold or yellow tones.

• **Tailored garments look more powerful and professional.** Men: make certain your suit and shirt collar do not pull away noticeably at the neck. Women: avoid garments that are shapeless and made of limp fabrics.

• **Women: Experts agree that professional makeup gives you more credibility and clout.** It also gets you 17% higher income. Avoid brown lipstick, black eyeliner that looks too Goth, garish eye shadow colors like turquoise, blue and green. Monochromatic shades of brown look more sophisticated and professional.

• **Good grooming is important.** Avoid wrinkled shirts, unkempt hair and dated hairstyles, scruffy shoes, dirty nails.

These days, there aren't any ferocious predators lurking at our doorsteps, so it's okay to stop dressing to look invisible. We don't need to match our superficial


appearance. We don't need to match our surroundings either. That means it's okay to say "no" to grey-toned or colorless garments in the "colorless" winter.

On the other hand, we needn't wear neon or acid colors in the spring either. Tulip yellow, lime green and bright orange are among the most difficult colors to wear. Emerald green and fuchsia are more flattering tones, even if they aren't seen until summertime.

Summer is, in fact, the season with the most flattering colors. They're also the scariest colors to our DNA's ancient survival mode. Colors like peacock blue, Chinese blue, royal blue, bright emerald green, red, purple and red violet.

The brightest season of the year has the brightest colors. Perhaps kindly Mother Nature, knowing of our fear of bright colors, gave us one moment in time to express our innermost feelings of joy by wearing bold and exciting colors.

Colors reflect moods; that's been known for centuries. If you want to know the power of colors, ask a psychiatrist, not a stylist. Release yourself from outdated urges and think like a brand. Powerful brands don't come packaged in plain brown wrappers, do they?

You do know the colors you look good in. You've just sabotaged yourself for the best of all reasons: survival. In this century, the dress code for survival is different. Survival in a competitive market demands that you walk into a room and own it. You won't do that in boring beige. 

DISTRIBUTOR NEWS

Henkel Corporation has introduced two new resources that provide detailed information on the company's line of Loctite® Instant Adhesives and present the latest innovations in cyanoacrylate technology.

Instant Solutions in Every Drop is a 16-page brochure that reviews the company's comprehensive line of Loctite® Instant Adhesives, including the most recent product innovations. These innovations include grades that resist temperatures to 250°F; low odor/low bloom products that resist elevated temperatures and maintain strength in high humidity environments; and a grade specifically formulated for filling gaps as deep as 5 mm. The literature also highlights dispensing and curing equipment and provides information on Henkel technical and engineering support services.

The newly designed website which can be viewed at www.instantsolutions.loctite.com,

provides up-to-the-minute product information, real world applications, videos/demonstrations, and dispensing and curing solutions.

Instant adhesives are one-part, room-temperature curing adhesives available in a wide range of viscosities. With fixture speeds measured in seconds, they provide excellent adhesion to most substrates and the ability to be used in automated assembly applications. Recent technological advances in surface insensitivity, flexibility, and temperature resistance have made these adhesives a trusted solution for an ever-widening array of products and applications.

To download your own copy of *Instant Solutions in Every Drop* or to review the new Loctite® Instant Adhesives website, go to www.instantsolutions.loctite.com.

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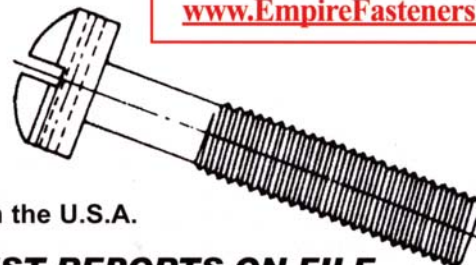
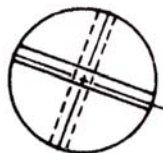
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IT'S YOUR QUESTIONS THAT MAKE THE SALE *continued from page 118***And Now the Questions**

The goal of asking questions is to probe until it's clear the customer is satisfied. Of course, the questions will differ based on your research of the prospect. They don't need to be complex, but they must drill down to the heart of the issue. In emergency rooms throughout the United States, a series of three simple questions has replaced complex, computer-based calculations for assessing patients who are experiencing heart problems.

The simplicity of this approach belies the careful study that went into its development. It requires an investment of up-front time to understand the prospect, but it's an investment well worth making.

The questions are key and here are examples of questions that help create trust —

Getting started questions:

- What problems are you experiencing?
- What's going on now that bothers you?
- What do you want to accomplish and in what time frame?
- What makes you dissatisfied with what you're currently using?
- What do you like?
- What don't you like?
- What do you expect from a sales rep?

Before meeting ends questions:

- What's better or worse than what you have now?
- How did you feel about this meeting?
- Is there anything that seems to be missing?
- Do you feel you have adequate information?
- Do you feel uneasy about anything?
- Where would you like to go from here?
- Are my answers sufficiently understandable and complete?
- Did I probe sufficiently to understand your situation, your needs?
- How can I improve my presentation?
- Was I more helping or selling?

Then, what happens after the sale becomes the most important component in the sales process. Yet, salespeople often ignore it as they move on to the next "opportunity" and never look back, leaving the customer

disappointed and even "jilted." However, this is the critical point at which the customer becomes either Emissary or Enemy. This is when trust becomes real.

After the sale, follow up with questions, whether a week or a month later:

- How do you feel about your purchase?
- What have you been thinking about?
- Do you have any doubts, issues or concerns?
- What questions do you have?
- Is there anything you would like to be different?
- Is there anything you would like me to do?

If a feeling of trust has developed with the customer, be sure to ask for a referral.

...the critical component for making more sales is gaining the customer's trust as quickly as possible.

trust develops between customer and salesperson when the salesperson asks the right questions.

Questions transform the selling process


As valuable as information is for a successful sales process, asking probing questions produces more than just information. It's the most effective way to help customers become deeply involved in a dialogue — a conversation — that becomes an intriguing exercise in further discovery. It's the way for the sales process to become an adventure, rather than a drag.

On top of that, it's the way they come to recognize that their salesperson is serious, concerned and thorough. It's through the questioning experience that customers become loyal partners, who are invested in the sales process rather than disengaged observers and passive participants.

The relentless task of asking questions also helps customers clarify their thinking, discover what they may have missed, revisit their assumptions, and reconsider their opinions. It's the way to build trust and get to the right results.

In effect, the salesperson's role is to create a stage on which the decision making process is acted out. Ultimately, it's the way to help customers avoid making an unsatisfactory decision. They should never need to say, "I wish I had known that before I made my purchase."

The task of today's salesperson goes way beyond product knowledge and even "solutions." It's to help customers discover possibilities they may not have considered or even thought about.

It's your questions that make the sale. 



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more photos on page 212

SIX WAYS TO MOTIVATE TOP TALENT IN DE-MOTIVATING TIMES *continued from page 130***4) Consistent feedback**

This could be considered a subset of number three, but more formal. This includes regular and structured 1-on-1 feedback sessions. Not standing in the hallway conversations, but actually sitting down and focusing on them. Giving them feedback, encouraging them, listening to what their needs are (even if you can't meet them, just listening), taking an interest in their career and building a shared bond. This makes them feel their manager cares about them as a person, not just an employee.

5) Praise


You may have experienced a manager with this philosophy: "That is what they get paid for. Why should I thank them? They should thank me for having a job." How did you like it? Compare that to a manager with this philosophy: "Thanks, I know it is just part of your job, but I appreciate the pride you take in your work. It helps everyone in the department." How did you like that? A little praise goes a long way to motivate people. In difficult times when people are doing more

than expected and yes maybe they should be glad to have a job, demonstrating appreciation will be returned when the economy turns and they don't have to be working there any longer.

6) Education and Growth

Top talent insists on getting better. They know once their learning curve flattens out, future opportunities can become limited. Top talent does not like to have their growth potential limited. Giving your best people the opportunity to take some additional classes, lead a project outside their normal job, challenge them with new opportunities, give them a chance to serve on a cross functional team or take an on-line class will ensure they become better.

This ensures your top talent is growing and makes them a more valuable employee.

Consider these six areas as a way to motivate your top talent. Your best people will appreciate this more than most managers realize. The increase in productivity by having motivated employees is the best ROI any company can receive. 

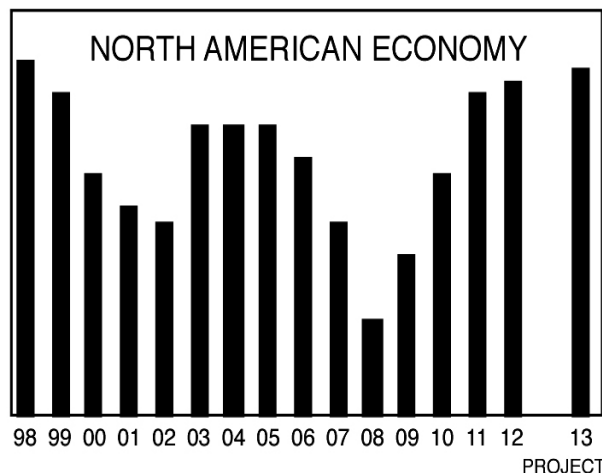
**Do you know
your company's culture?
Can you define it?
Will your executive staff
define it the
same way?**

SURVEY OF THE FASTENER INDUSTRY - 2012 YEAR END *continued from page 62***Market Confidence Moderate**

An increasing percentage of the fastener industry expressed "moderate" confidence in the North American economy at the start of 2013 – but that confidence appeared to be weakening.


A 53% majority pegged their confidence as "moderate" upon the start of 2013 vs. 50% one year ago.

The "high" confidence ratings slipped from 33% a year ago to 29% now. "Very high" is at 2% vs. 3% for 2011. In 2012 "low" North American economic confidence ratings were 12% vs. 6% a year ago.

**Manufacturers: Stable in 2012**

After two straight years of rising capacity, manufacturers reported operating capacity declined to a 69.3% average in 2012. Just over 43% of manufacturers reported a mostly "moderate" rise in finished goods inventory, while 17% reported declines. About 39% reported a "modest" raw material increase, while 19% experienced a "strong" increase. Nearly half of manufacturers paid higher steel prices, with 30% reporting price hikes of up to 10%, while 6% of manufacturers saw their steel costs rise.

Distributors: Margins Down Despite Stable Costs

Distributor inventory edged up in 2012, with the inventory index growing to 4.5, up from 4.4 in 2011. Stable costs became more widespread, though 10% of distributors saw their costs increase and 3% reported "moderate" decrease in costs in 2012. After two consecutive years of gross margin gains, margins slipped for distributors in 2012, declining to an average of 36% from 41% the previous year. The FIN Survey found fasteners widely available in 2012, with a 68% majority claiming no problems obtaining fasteners. About 32% reported mostly moderate difficulty obtaining certain fasteners in 2012. 

The FIN Survey is produced by GlobalFastenerNews.com. The survey is informal and not designed to be a scientific survey. Respondents are anonymous.

DISTRIBUTOR NEWS



ND Industries, an industrial leader in the development and processing of high quality fastener coating products and services, offers a concise Lunch & Learn training program that provides key information about the fastening and sealing industry, as well as common problems and available solutions.

After attending an ND Lunch & Learn, attendees will know the answers to the following questions:

- What are pre-applied fastening and sealing products?
- How do these products reduce production costs?
- Why are they important to safety and quality?
- Which product is best designed for which application?

Whether a company is interested in addressing a specific fastener issue, streamlining its supply chain, or experiencing continuous improvement education for its employees, ND Industries instructors are available to conduct Lunch & Learn training.

For additional information or to schedule an ND Lunch & Learn session within the continental United States, visit the ND Industries web site at www.ndindustries.com.

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GAINING MARKET SHARE IN A DIFFICULT ECONOMY: THE PROBLEM WITH RELATIONSHIPS *continued from page 186***Some Solutions**

Ultimately, there must be a change in the sales person's routines. He has to spend less time with those of his current customers who are struggling or of smaller volume, and more time with customers who offer greater potential.

But changing established routines is an arduous task that requires, in most cases, both management intervention as well as willing sales people.

The starting point is for sales management to create specific expectations, measurements, and rewards and consequences for the sales people. It's no longer effective to announce, "We need more new customers, guys" and think that will get results. Changed behavior requires specific expectations, something like "One new customer per month, for the next 12 months." It requires regular measurement and mid-term corrections. Management should be meeting with every sales person, every month, and measuring progress on the expectations. There should be both rewards as well as consequences. For example, double commissions for the first six months of a new customer's purchases will light a fire under most sales people, especially when coupled with a consequence like removing some current accounts from the sales person's territory.

As a distributor sales person, my territory was cut every year. I started out with responsibility for 77 accounts, and ended up with a territory of just 17. My sales grew from nothing to over \$5 Million a year. Each time my territory was cut, my business grew. I would not have done that on my own. I would never have volunteered to give up 80% of my customers, but, in retrospect, I'm glad my manager had the courage and conviction to do it.

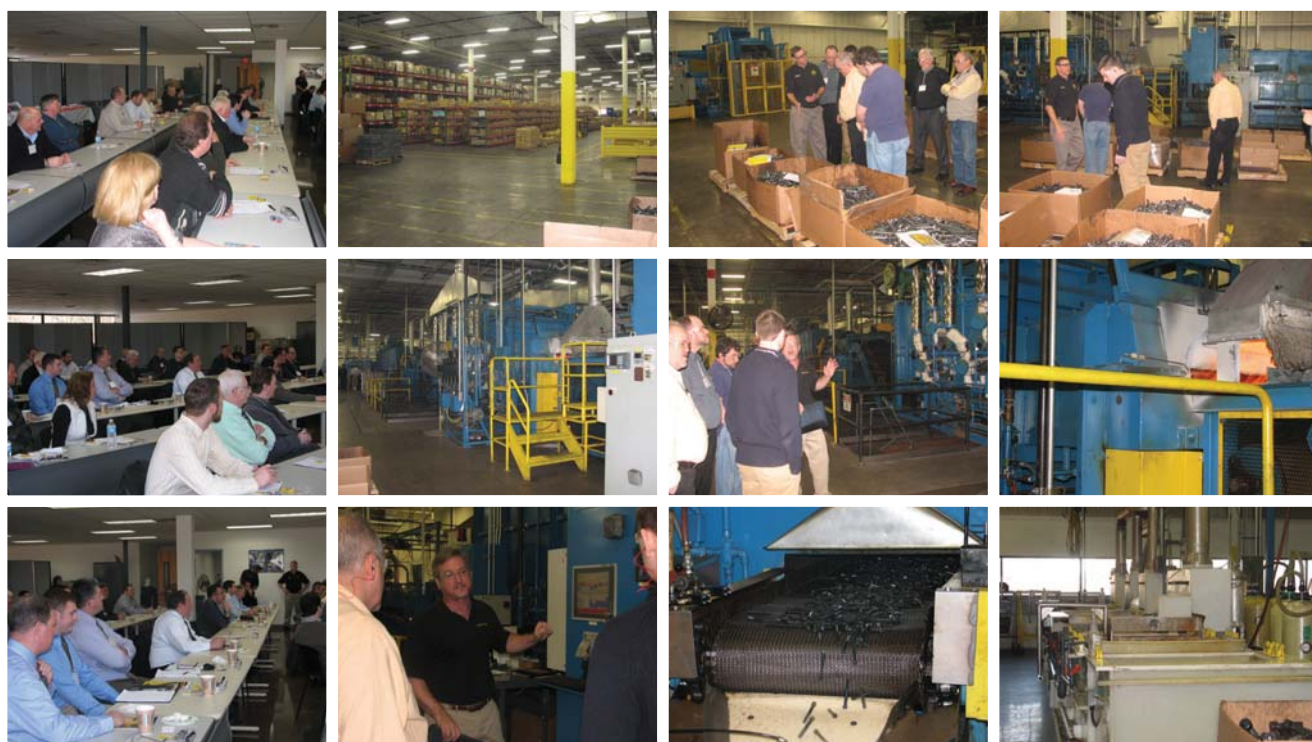
Once the expectations are created, the measurements put into place, the consequences and rewards fixed and articulated, then management needs to educate the sales people in the best practices of creating new relationships. Some are absolutely unsure of how to make a cold call, and most have totally unrealistic expectations. That's where training and education come in.

You can't expect people to do something if they have never been educated in how to do it.

Having said all that, you cannot realistically expect every relationship-oriented sales person to change his routines and excel at the new expectations. For those who don't seem to be able to make the transition, you'll have to decide whether they are profitable with their base of customers and reduced sales volume, or whether it may be wiser to find someone new and more trainable.

Don't let their relationships hinder your business. 

NEW ENGLAND FASTENER DISTRIBUTOR'S ASSOCIATION EDUCATIONAL SEMINAR, JANUARY 24, 2013





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THE FEATURES OF BLIND RIVETS *continued from page 70*

This work hardness must be removed and the process used to remove this work hardness is annealing. The manufacturing process creates work hardness. The molecules in the metal are all tight and rigid and annealing relaxes the molecules and permits the rivet body to expand when setting the blind rivet without cracking the rivet body. An annealed rivet body will set well when the mandrel is pulled and will give you a secure riveted joint.


Pulling jaws will cause metal particles to chip off the surface of the mandrel and become lodged in the teeth of the pulling jaws. These metal particles will prevent the teeth of the pulling jaws from penetrating the surface of the mandrel. When this occurs, the pulling jaws will slip on the mandrel surface, and not grip the mandrel or set the blind rivet. These conditions will also make the pulling jaws partially slip causing the need to stroke the setting tool 2 or 3 times to set the blind rivet.

Structural blind rivets require a very high mandrel tensile strength to set the structural blind rivet. When setting a structural blind rivet the long head of the

mandrel must be pulled inside the rivet body expanding the rivet body. The friction that is generated when the long mandrel head is being pulled into and expanding the rivet body is very high. This friction is so high that a lubricant must be applied to the rivet body and mandrel during the manufacturing process. If this lubricant is not applied the mandrel will break before the structural blind rivet is set. This is called a pre-mature mandrel break.

Pulling jaws periodic maintenance such as cleaning and lubrication is still necessary when setting blind rivets with or without radial grooves.

Pulling jaws grip the surface of the mandrel by the pressure of the spring loaded jaws pusher, the sharpness of the pulling jaw's teeth and the radial grooves on the surface of the mandrel. The most important of these functions is how well the pulling jaws perform the initial grip. If there is no initial grip of the pulling jaws, the jaws will slip and the setting tool will not set the blind rivet.

I hope I have explained clearly the need and reason radial grooves or serrations are used with some blind rivets. 



Joe Sasso

Coach Joe Sasso started his business careers with Motorola, a global telecommunications company. He worked in sales, service, management, and leadership - heading a global business consulting, training, and development team - developing 37 business training programs for industry. In 1997 he started Team 2 Learn, Inc., which facilitates business retreats to improve Leadership and Team Performance. He is a certified John Maxwell Coach, Trainer and Speaker and a certified Emotional Intelligence Mentor. He is and Author and has written two books, his latest is *Sales Team Leadership: Pure and Simple*

THRIVING SELF-MANAGING BUSINESS TEAMS: PERPETUALLY BECOMING BETTER AND BETTER

Today's economic challenges are ripe for business people who add value to their business and are willing to share more in the business risks so they can share more in the rewards of the business. What you are about to read focuses on business team members learning a pure and simple way to grow and achieve more by sharing their leadership abilities with ever improving results.

*It's not about counting heads,
it's about making heads
count - Samuel Butantis*

The most successful business teams of today demand the use of diverse member abilities in an all-inclusive process for better and better business achievement now.

Team members using the spiral model process are in alignment with the business vision and mission; are in more moment to moment open and free communications; with faster anytime, anywhere coordination of activities; with more understanding of the risks being taken for the rewards they will achieve; are externally competitive learning how to more easily win over their competitors; are internally collaborative exchanging values and benefits more easily for the mutual growth; are never satisfied with being best, for to arrive at best is to die; are synchronous and reach the height of continuously becoming better and better, and better, ad infinitum.



If you don't know where you're going, any road will get you there- Yogi Berra

If you've got a dream about the work you like to do, chances are you are working in a company that has a similar vision. It is important to know you contribute with your passion for the work you do otherwise you are not on the same road. The Vision and Mission of the business is the foundational building block for #1

knowing the company you work for and #2

knowing the people you associate with

for mutual growth. By association you become. Know where you are going. You spend more time trying to be productive each 5 day work week in the company of its people than any other place.

*"The more elaborate
our means of communications, the
less we communicate." - Joseph*

Priestly

To adapt to our chaotic business climate, communications among team members are intentionally kept pure and simple. Experience tells us that the more we complicate the communications process with time consuming meetings and meaningless discussions, the more we generate delays that slow down new business possibilities. The more this happens, the more the team loses intensity, focus, valuable time and money. These losses are detrimental to achieving the maximum business impact.

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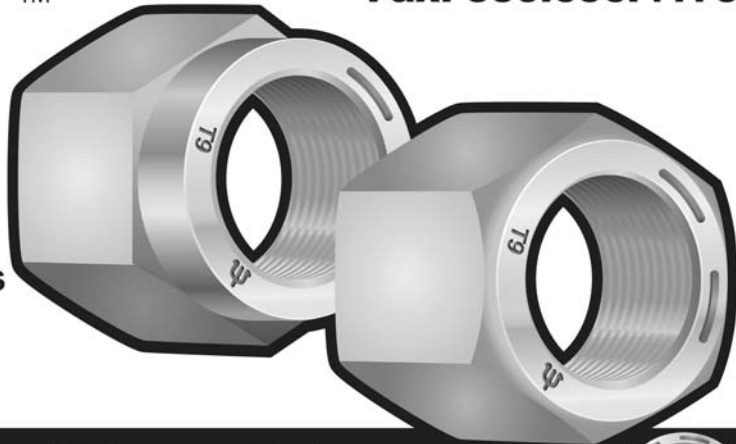
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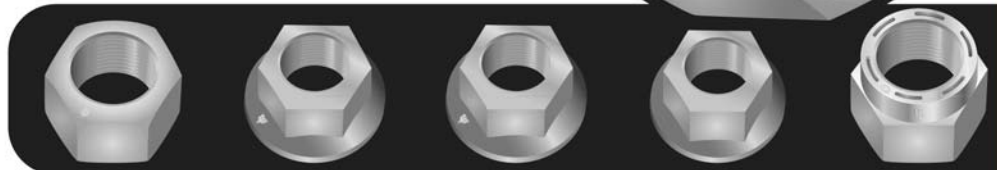
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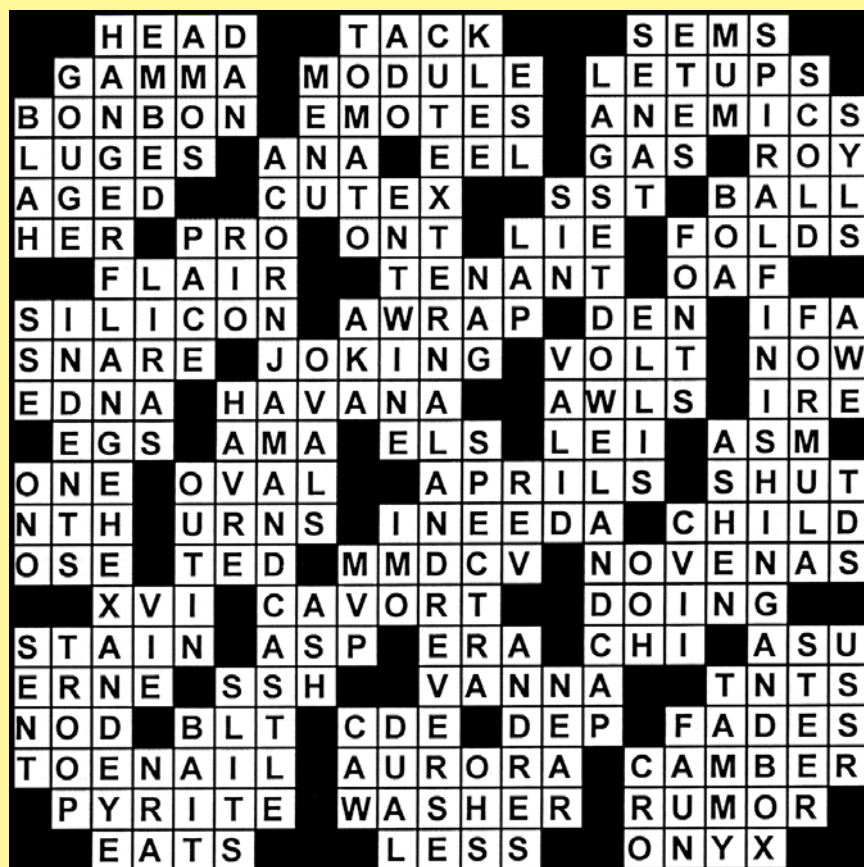
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NEW ENGLAND FASTENER DISTRIBUTOR'S ASSOCIATION EDUCATIONAL SEMINAR, JANUARY 24, 2013





FASTENER CROSSWORD SOLUTION

DISTRIBUTOR NEWS

Frank Peszka of Erdenheim, PA has been promoted to the newly created position of Director of Quality at **Laboratory Testing Inc. (LTI)**.



He most recently held the position of Quality Assurance Manager for the past six years. During this time LTI has expanded its scope of testing and calibration accreditations with A2LA and PRI/Nadcap and company approvals to comply with the rigorous requirements of its customers in the aerospace, nuclear, medical and automotive industries.

In his new position, Peszka will continue to implement and maintain the Quality Management System, oversee the preparation of Certified Test Reports and Certificates of Calibration, and administer LTI's new program designed to manage industry specifications for testing and calibration. Emphasis will be placed on continuing improvement projects and employee training to achieve LTI's goal of Error Free Results On Time.

Peszka joined Laboratory Testing Inc. in October 2004 as Quality Assurance Specialist with over 30 years of experience as a quality assurance professional. He was promoted to LTI's Quality Assurance Manager in February 2006.

Ed Deeny has filled the position of Quality Manager for its Quality Department at LTI and brings over 25 years of experience in the Quality field to his new role.



Deeny is responsible for customer agency, vendor and internal audits and assists with promoting quality performance throughout LTI. The open position was created by the promotion of Frank Peszka, former Quality Manager, to Director of Quality, a position recently added to oversee the operations of the Quality Department.

For more information visit Laboratory Testing at www.labtesting.com or contact them at sales@labtesting.com or call 1-800-219-9095.

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THRIVING SELF-MANAGING BUSINESS TEAMS: PERPETUALLY BECOMING BETTER AND BETTER *continued from page 206*

Individual team member contributions improve as we allow them to focus on their strengths and their ability to communicate now. Effective team members communicate often about the right action as it becomes important with the right team members. In a similar manner, meetings have an agenda. They are void of complicating and drawn out discussions that leave participants wondering why they attended. Keep communications focused with the intensity on target dates for their achievement.

Internally Collaborative - Externally Competitive

To be perpetually improving the best teams are always conscious of each other, going to the extent that they openly and unabashedly display and communicate their external competitiveness. In the same manner, they communicate with confidence their desire to internally collaborate values with all team members. Their willing and open collaboration provides benefits for the business and mutual growth of team members. At its highest level of external competition and internal collaboration, the one team generates exponential power. That makes one plus one is greater than ten. Exponential power is ten times the power of one.

Trust is the unimpaired integrity of being to others what you want them to be to you.

Today thriving teams are surrounded by the highest level of trust in their relationship with team members. Trust starts and ends with their ability to be available, open, sharing, cooperative and coachable with all the team members. This trust enables mutual leadership

within the team. The ability of 'WE Leading' is the mutually trusting and interdependent power of you and me. The inclusive and diverse, whole one team is greater than the sum of its individual parts. Mutually trusting team members know and honor the fact that each team member can make more and new contributions that benefit the business.

Adept at Adapting


The team of today is open and involved with each other as in community...common-unity. This includes knowing and sharing in the risks and the rewards of doing business. It's no longer about just receiving bonuses. In this environment, rewards happen with the full knowledge and understanding of what the risks are being taken for the anticipated rewards of achievement.

Understanding the risks of doing business moves the team member from responsibility to accountability. Their focused intention is on involvement with their head and heart. The ability to change on the move, is to be adept at adapting to business changes at all levels quickly. The present change is, moment to moment, now.

**The successful
business team of today
demands the use of diverse
member abilities in an all-
inclusive process for better
and better business
achievement now.**

**To perpetually
improve teams are always
conscious of each other to
the extent that they openly
and unabashedly communicate
their external
competitiveness.**

Better and Better is Never Ending

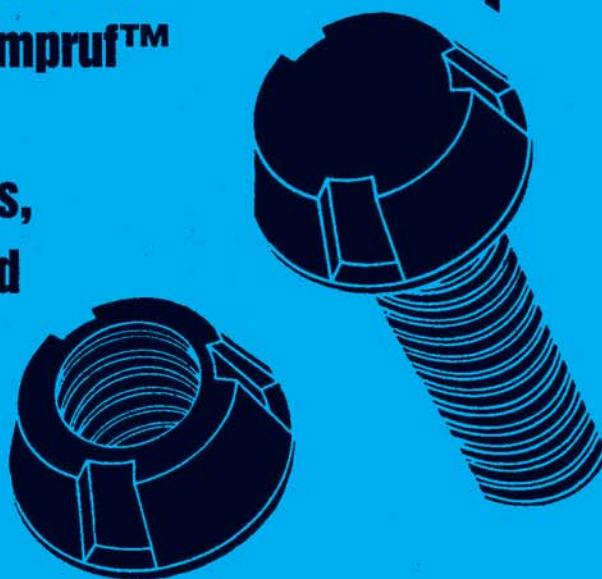
The team building spiral is pure and simple for the business team of today. It is an all-encompassing spiral, surrounded by Trust and Mutual growth consciousness. It develops up through the levels of Vision, Communications, Effectiveness and Accountability, these actions generate the breakthrough...explosion, to the exponential power of the whole one team making impossibilities possible. The team is then able to accomplish More For Less, Faster, Easier, Better... NOW! 



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IFI RECOGNIZES BARRY MACLEAN WITH 2013 SOARING EAGLE AWARD *continued from page 196*

When it comes to the IFI, for 60 years, MacLean-Fogg has been a consistent supporter, with regular participation, technical contributions, and leadership. Barry and his father John are one of very few father-son combinations to lead the IFI as Chairman – John in 1956 and Barry, 32 years later in 1988. The IFI is fortunate and thankful to be the beneficiary of so many years of substantive contributions from MacLean-Fogg.


I speak from experience, when I tell you that the employees of MacLean-Fogg are thankful too – for a great place to go to work each day, to learn new skills, build a career, share in the profits, and pursue their dreams. When Barry joined MacLean Fogg in 1961, the company had annual sales of \$3million and about 60 employees. Today, MacLean-Fogg is nearly a billion dollar enterprise with 3,000 employees around the world – I think it's fair to say Barry has created a few jobs, and I know those that have them are thankful.

Barry and MaryAnn's interest in helping others doesn't end with their family, the company, or this industry. They have been generous supporters of the arts, education, and science - in the pursuit of "life-long learning", a legacy from Barry's late mother DJ. While the financial gifts are healthy, more importantly - they've given their time and talent - serving as trustees of the Art Institute of Chicago, Dartmouth College, University of Chicago Hospitals, Union College, and the Newberry Library (among others). Barry

will try to tell you he's a frugal Scot.....don't believe it. These institutions know otherwise, and have flourished in great part from the commitment of resources from the MacLean family.....and they're thankful.

I'll mention one last group of relatively anonymous people whose lives were touched by Barry MacLean. He has a really soft spot for giving people a chance, that wouldn't have otherwise had one. There are many people, by random (or maybe not so random) encounter that Barry saw a glimpse of potential in, and he found a way to give them job.....and an opportunity to change their life. These people came from all walk of life, and sometimes you'd scratch your head and think – "I wonder what he sees in this one?" Sometimes they would sink, but more often they'd swim. Over the last 40 or 50 years – I can't imagine how long this list of people is - and I know Barry can't remember all of them, but I guarantee, every one of them remember him, and they're thankful.

For those of you that know me well, you know this is a personal story. I'm one of them. Barry gave me a shot that I didn't otherwise have - and the MacLean's influence on my life was defining. You can bet I'm thankful!

Barry, you've shaped the lives of so many, and you've inspired a generation of thinkers, dreamers, and doers. The IFI is proud to call you a Soaring Eagle. Please help me give a warm welcome to real entrepreneur, and my friend Barry MacLean. 

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A FRESH LOOK FOR THE NEWEST WESTLAKE ACE HARDWARE STORE

Westlake Ace Hardware is proud to announce its new location in Bolivar, Missouri. According to company officials, the store opening not only helps expand the hardware store chain's market in southern Missouri, it will be an opportunity to showcase a fresh, new store design and layout.

"With the addition of the Bolivar location, Westlake has introduced an innovative new store layout unlike anything we have ever done before. From the building materials to the floor plan, it is uniquely designed to deliver a noticeably superior shopping experience to our customers," said George Smith, CEO of Westlake Ace Hardware.

He added, "We've spent the past year studying and analyzing everything we know about our customers; the products they need, their mindset when they shop, and help they're looking for. The Bolivar store is the culmination of that effort. I'm convinced we have created

a store specifically designed to meet their needs and preferences."

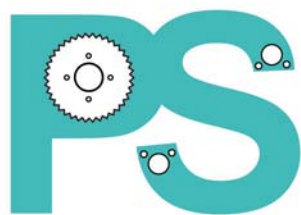


Designed by store design firm JGA, the 17,845 square foot building's attached Garden Center is the first of its kind for Westlake. Additionally, the design philosophy incorporates construction materials and a design approach intended to provide an organic and modern feel: more natural light from garage-style doors and skylights, a wood and metal façade, and polished concrete floors.

Though approximately half of Westlake stores currently have Garden Centers, never before has the outdoor area been directly accessible from the indoor Lawn & Garden Department. Not only does this allow customers to more conveniently access products, especially during inclement weather, it also provides

additional venues for the store to merchandise seasonal items in new and interesting ways.

please turn to page 215



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A FRESH LOOK FOR THE NEWEST WESTLAKE ACE HARDWARE STORE *continued from page 214*

Key Facts about the new Bolivar location Westlake Ace Store

- The interior of the store will have an entirely new signing and décor package, designed specifically for Westlake. Additionally, adjacencies have been improved in the store's core hardware business and other departments.


- In the new store layout traditional hardware product categories such as tools, electrical, plumbing and paint are strategically located around the perimeter of the store. The entranceway has been designed to be open air on temperate days to invite customer exploration. Decorative and lifestyle categories are situated in the center of the store, an environment that encourages inspiration and browsing, increases customer comfort and helps make Westlake a preferred destination for project needs.

- Bolivar is a rural town located 40 minutes north of

Springfield, Mo. As the county seat of Polk County, the town is a regional shopping hub and home to Southwest Baptist University and a regional medical center.

- Steve Jones, Bolivar General Manager is a tenured Westlake professional with more than 15 years with Westlake; the management and sales staff were hand-selected from the local Bolivar community.

About Westlake Ace Hardware

Westlake Ace Hardware was founded in 1905 and today operates 86 neighborhood hardware stores in Missouri, Kansas, Nebraska, Iowa, Oklahoma, Texas and New Mexico. It is wholly owned and independently operated subsidiary of the Ace Hardware Corporation and features such traditional hardware categories such as fasteners, tools, plumbing and electric supplies and paint. Westlake also offers a wide range of lawn and garden products and operates large Garden Centers next to many of its stores. 

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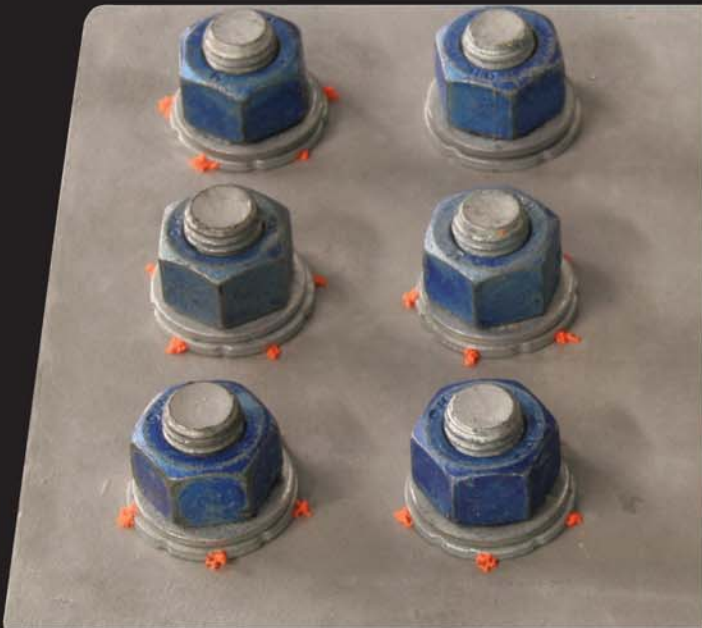
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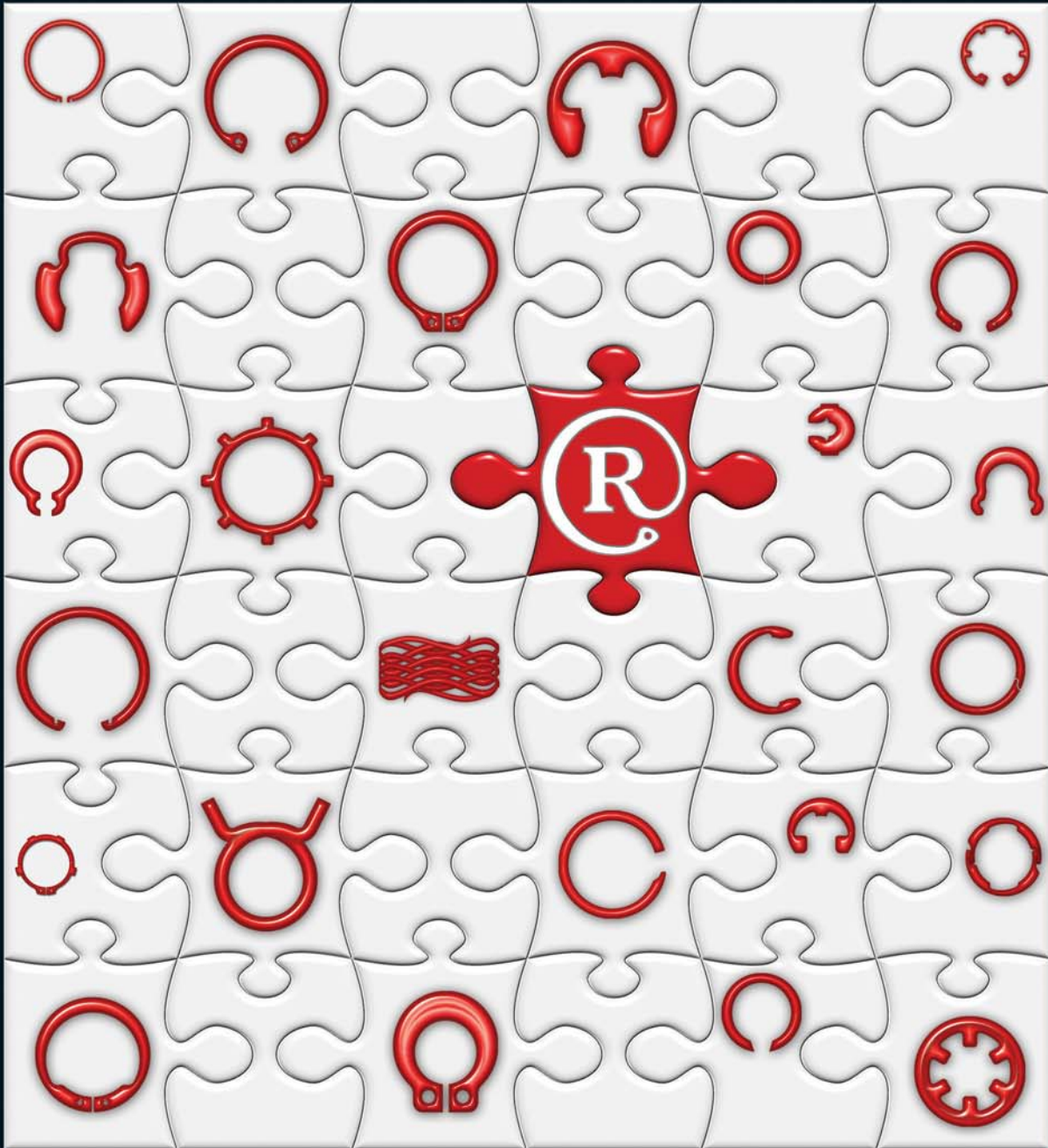
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