



**DO YOU KNOW YOUR IN-PLACE ASSEMBLY COSTS? by Alan Pritchard**

As I start to write this paper, I can already hear the readers general reaction of, "Oh, no, not again". I make no excuses for continuing to ask this question as I believe that all who are interested in saving their company's money should ask this question whenever they sit down to discuss new projects and/or methods of assembly.

In previous articles, I have indicated no one person should have the sole responsibility for determining assembly costs. For the exercise to be meaningful there is a need for various fractions, within and outside of the organization, to be drawn into the equation for developing true and meaningful, in-place assembly cost data. (Design, Buying & Accounting, Production Engineering and, yes, even the Component Supplier, if of the component manufacturing processes, can all add positive input in the exercise of developing knowledge on what consists of in-place assembly costs).

*Question: Why do I need to know these costs?*

Answer: If you don't there is no way that your company can produce an end product or assembly in an economical and productive manner.

Furthermore, unless you can show the actual cost of an assembly, you cannot make knowledgeable changes in an attempt to reduce your company's overall and often unnecessary assembly costs. There comes a time when the trend toward reducing individual component costs in an effort to reduce the cost of an assembled end product will be neither practical nor possible. It is then that the companies who have shown foresight in developing their knowledge of assembly costs will continue to thrive at the expense of their less knowledgeable competitors.

The business of fasteners and, more importantly, fastener systems has been what REMINC have strived to understand for many years. The inventive nature with which they develop designs has been and continues to be that of reducing in-place-assembly-costs.

Unless assembly costs are known and documented, fastener system developments become the pastime of the rich. This complication can only be overcome in complete and meaningful analyses being undertaken between the technology supplier and the end user.

REMINC engineers do not design fasteners. They develop product on the basis of **reducing overall assembly costs**. Such developments come about because of a need.

- A NEED TO RESOLVE A PROBLEM
- A NEED TO SIMPLIFY AN ASSEMBLY
- A NEED TO REDUCE UNIT ASSEMBLY COSTS.

*(cont. on Page 3)*

**REMINC STAFF**

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**SPOTLIGHT ON ALAN PRITCHARD**



Alan is a Staff Associate, having previously served as Director-Market Development at REMINC's sister company CONTI for 13 years. His experience in the fastener industry, since 1964, has included product and market development, innovative design and authorship of numerous patents, including TAPTITE 2000®, FASTITE® 2000™ and REMFORM® fasteners.

R E G I S T E R

### **Challenging Times**

During the past few months the global economy has without a doubt broken some new ground. We have witnessed a rapid transition from a booming global economic model with no apparent growth apex to a full-blown worldwide recession. The worldwide automobile industry capacity far exceeds demand and the current auto build is well below recent numbers. Most other market sectors have been weakened to unprecedented levels. Although this recession was triggered in North America, it quickly spread to Europe and emerging countries. We find ourselves in an economic abyss with no clear path up or out. The resulting economic situation is unprecedented and the time-frame expectations for even a partial recovery range from 6 months to 3 years. No doubt we will be challenged for some time to come.

### **Back to Basics**

What, therefore should we be doing right now to get back to where we were? I think it is the right time to revert to basics, as they are often overlooked when business has been good for an extended period of time. Here are some suggestions for your consideration.

### **Finding Opportunities**

You have surely heard the expression- "Every dark cloud has a silver lining". It seems to me that this adage is quite relevant in this economic climate. This economic slump opens up opportunities. Many companies have reduced their workforces by layoff, attrition and early retirement, resulting in senior people being replaced by new staff. Given this phenomenon, we have the chance to introduce our technology to the new engineers and buyers, those that may be uninformed. We as licensor and licensee must initiate an education program to keep decision-makers knowledgeable and up-to-date on the latest available technology. Without an understanding of our products' functionality, merits and benefits, no one will specify or use them- it's that simple.

### **Focusing on the Cost-of-Assembly**

Since the entire fastener market is severely depressed, we need to take steps to not only increase market share, but to find new applications by outperforming the competition. We are competing with domestic and foreign companies selling machine/metric screws, fasteners with a variety of locking features, anti-cross thread fasteners and sundry other products, many being offered at bargain prices to gain or retain business. In this environment, it can be difficult to compete by simply offering a thread-forming alternative, one which can often be more expensive than competing products. Therefore, we need to revert to a time-honored approach, focusing on "lowering the total cost of assembly", by offering not only a unique product but combining it with a high level of service and support.

### **Identifying the Decision-Makers**

The first and most imperative step is to make contact with influential people within the targeted organization willing to listen, receptive to new ideas, able to understand the cost-savings concept and have the authority to implement change when and if warranted.

### **The Line-Walk, Application Engineering & Analysis**

The next step is to get access to the assembly operation and take a "line walk", to witness just how all components are fastened together. After potential thread-forming applications are identified, select the right fastener design to best address the specific joint application. Then obtain joint components, as well as sample fasteners, to establish torque-tension, drive-fail and other test data to compare to acceptable parameters. If positive testing data is obtained, it should be documented in a report and presented to the assembler with specific recommendations regarding installation in addition to price and availability information. A visual presentation, which explains thread-forming technology, is very useful in prospective-user discussions as buyers and engineers may not be familiar with the concept. REMINC can provide your company with several DVD presentations, free of charge. In addition, it is important to point out the several advantages of buying and using genuine patented and trademarked products, which include high quality, consistent performance and global sourcing. Being a licensed producer of our well recognized and respected family fasteners provides you a benefit. However, paramount in this exercise is making a convincing case of cost-savings.

### **Understanding Cost-Savings & the "Big 85%"**

The cost-savings concept is worth exploring, no company can conscientiously ignore potential cost-savings in this market environment. This is the time to explain assembly cost-savings. An inexperienced buyer or engineer may conclude a machine/metric screw is less expensive than a patented and proven thread-forming fastener, and elect to use the cheaper alternative. However, when one considers only the unit price of the fastener, they are overlooking the potential cost-savings benefits of using a thread-forming fastener. Benefits which include eliminating tapping stations, tapping and cleaning nut members, eliminating crossed threading and consequential rework, plus more consistent performance and overall joint quality. These often overlooked elements typically comprise 85% of the total cost of assembly, whereas the fastener price usually represents only 15%. Therefore it is well worth the time to explore reducing the "Big 85%", even if it means utilizing a higher-priced fastener. An accurate cost-savings analysis is often difficult to attain, especially in cases where cost information is not readily available, therefore, we encourage you to utilize our proprietary check list entitled "54 Ways to Lower Overall Cost of Assembly" (copy enclosed).

### **Patience & Persistence**

The entire procedure outlined above takes a lot of time, initiative and effort, plus the cooperation of the assembler. Even if the data can support bone fide cost savings, it may still be difficult to persuade buyers or engineers to incorporate a new technology or fastener design. One typically finds resistance to change in any organization for a variety of reasons. This is the time to not only employ patience but also persistence, as it often takes time to obtain a favorable decision, especially when the thread-forming application is on a new model or re-designed product. Remember persistence!

## DO YOU KNOW YOUR IN-PLACE ASSEMBLY COSTS? by Alan Pritchard (cont. from page 1)

I propose to look at some of the development areas where the 'resolution of needs' has led to the design and development of innovative product that is made available, worldwide, from the WORLD'S REPUTABLE FASTENER MANUFACTURING AND SUPPLY COMPANIES.

What everyone wants to do with in-place-assembly costs is ELIMINATE them. Unfortunately, such an action is far from easy and in most instances impossible. What we can do, having established in detail what these costs are, is reduce them. What one cannot do is IGNORE them.

The first law to reducing costs is to recognize that every single action that has to be performed has a cost penalty. Secondly and of even more importance is to have a solution, readily available, that enables you to eliminate actions with a suitable alternative fastener or assembly technique.

The REMINC business is that of providing fastener solutions that enable unnecessary actions (associated operations) to be eliminated without detriment to the finished assembly.

ALWAYS REMEMBER! Costs can be saved from the elimination of unnecessary processes prior to unit assembly and also by eliminating rectification costs that will occur from the incorrect choice of a 'fastener system'. We can look at assembly needs that have led to the development of some innovative fastening systems.

### A NEED IDENTIFIED:

A manufacturer of sheet metal assemblies had used cost effective, self-tapping screws for a unit assembly. There arose a need, from a weight and material cost reduction request, to reduce sheet metal thicknesses from 0.7 mm to 0.5 mm.

The use of the standard spaced thread self-tapping screw became ineffective as an assembly system due to the nature and standard specifications of these products. As a result, the applied torque for forming the threads, in the sheet metal, was almost as high as the torque that would cause the threads to 'strip' and the screws to 'spin' - thus, losing joint integrity.

The solution to the problems associated with this and many other thin sheet metal assemblies has been to introduce the patented and innovative FASTITE<sup>®</sup> 2000<sup>™</sup> fastener. The FASTITE<sup>®</sup> 2000<sup>™</sup> screw's unique double lead thread design creates excellent joint integrity and provides the cost savings desired.

Please contact REMINC Engineering for further details.



### **REMINC Responds! Fielding the Questions**

*Q. What is the difference between POWERLOK<sup>®</sup> fasteners and TAPTITE 2000<sup>®</sup> fasteners?*

A. POWERLOK<sup>®</sup> fasteners are designed as locking fasteners for use in nut members with tapped holes whereas TAPTITE 2000<sup>®</sup> fasteners form their own threads in un-tapped nut members.

*Q. Because of the TRILOBULAR<sup>™</sup> cross section, does a TAPTITE 2000<sup>®</sup> fastener joint rust more than that when using a machine screw?*

A. Based on testing performed by an accredited laboratory, it was generally concluded that the extensive corrosion resulting from 336 hours of salt spray exposure was not detrimental to the performance of TRILOBULAR<sup>™</sup> fasteners, provided that an effective lubricant is used upon installation. TRILOBULAR<sup>™</sup> fasteners do not rust more than machine screws.

*Q. Being TRILOBULAR<sup>™</sup>, does a TAPTITE 2000<sup>®</sup> fastener strip more easily than a machine screw?*

A. TAPTITE 2000<sup>®</sup> fasteners have reduced lobulation on the body and are nearly round. They are slightly larger in diameter than machine screws and in fact have a slightly greater cross section than machine screws. Due to these characteristics, TAPTITE 2000<sup>®</sup> fasteners typically strip at a higher torque value than equivalent machine screws.

## REMINC Training / Brochure Request Form

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Please Check:

- Contact me regarding a training visit
- REMINC General Products Catalog
- TAPTITE 2000® Products Application Guide
- TAPTITE 2000® Product Brochure
- REMFORM® Product Brochure
- TRU-START® Product Brochure
- FASTITE® 2000™ Product Brochure
- "54 Ways TAPTITE 2000® Fasteners Lower the Cost of Assembly" Request Form
- Receive Newsletter by e-mail

Mail this form to REMINC at 55 Hammarlund Way, Tech II, Middletown, RI 02842 USA or fax it to (401) 841-5008

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**1958 - 2009**  
**Celebrating 51 Years Lowering**  
**the Cost of Assembly**

