KNOW YOUR Customer, KNOW YOUR Competition

by David D. Archer

As the majority of *American Fastener Journal's* readership are fastener distributors, it's a pretty safe bet that most of you reading this article are challenged by selling products seen as commodities in this global economy. Before recently founding Archetype Joint, an independent company focused exclusively on joint design, testing and validation, I spent over 20 years as a fastener consumer. First as a design and manufacturing engineer, and then as an engineering consultant working with clients in a wide variety of industries improve the profitability of the products they manufactured. Now that I am more a part of the fastener industry than a customer of it, I thought I'd relay my thoughts on how I viewed the industry as a customer to point out opportunities for increasing revenue. Because the fastener market is so large and varied, few specific observations are valid across that entire spectrum. So, rather than generalize to the point of uselessness, these comments will be directed mainly at customers that exclude some large markets that have unique needs, or a lack thereof. These are automotive (passenger and light truck), commercial aircraft and MRO.

Every supplier has opinions of their customers and what seems to motivate them to buy. Success in meeting economic goals is always dependent on the accuracy of those views. Following is one view of what makes the product development engineer tick in 2006.

Of course the first question is whether engineering or procurement is your real customer. Ultimately, it's either one or the other, and much more often than not it's the engineer. However, engineers often abdicate their decision out of apathy or fear, making it appear you're stuck with a low-bid situation more often than is actually the case. If you're not sure, just ask engineer. They'll probably tell you. There are some good reasons why procurement doesn't want to you to talk to their engineers without a chaperone. We're usually not the best businesspeople. Of course make sure you know whether it's the engineering manager or procurement that's the barrier. If is the engineering manager, the observations that follow still apply.

Like everyone else, workload is one of the engineer's biggest complaints. Since in nearly all your interactions you will be saving your customer time or you will be asking your customer to invest time in you, constantly ask yourself which you are doing. For example, every supplier constantly complains they never get in on a program early enough. The most common reason for this is the supplier isn't bringing enough benefit at that time for engineer to invest time in explaining their needs. Forwarding a drawing or parts list for quotation a few months later is much easier. A fastener rep needs to have a greater depth of application knowledge than the engineer (or have direct access to it) to get the engineer's attention. When you consider that there are a limited number of those people at the hundreds of

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A member of SME and SAE, Dave holds a B.S. degree in Mechanical Engineering & Applied Mechanics and an M.S. degree in Manufacturing Engineering from the University of Rhode Island. He is interested in hearing from you and appreciates your feedback. Dave can be reached at 248.377.1147 or darcher@archetypejoint.com.

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fastener manufacturers, where the fastener is developed and applications validated in test labs, it shouldn't be surprising that they will be much harder to find at the thousands of companies whose primary function is to sell those fasteners. Of course if you don't believe that the investment in increased technical support can't be paid for by increased revenue, the overriding issue is, "How am I going to know the customer will pay for this when they are hammering me for tenths of a cent." The answer is you won't. But if you are committed to competing on product and service rather than price, providing quality applications support and testing is the greatest untapped source of competitive advantage in a wide swath of industries between MRO on one end and automotive/aircraft on the other.

Partly because of workload and partly due to the relentless short-term focus on next quarter's results, many engineers are becoming more risk-adverse. If you are getting push-back in trying to place a new application because your contact has technical concerns, to be successful these concerns need to be addressed to his satisfaction, however unreasonable that might appear to be. You need data or hardware as your assurances aren't addressing his concerns. The most valuable weapons, in decreasing order of effectiveness:

- Find the same component successfully fielded in the same application. Even if that application is your competitor's product, this approach has more potential benefit than harm unless the competitor has clear differentiation or pricing advantage. The key is that the customer perceives it as the same application (thus mitigating their risk) as opposed to whether it is the same fastener.
- Take it upon yourself to test the application, preferably from an independent source. The customer will say it's OK if you test it yourself. What they won't tell you is that they will question the credibility of any positive result, largely negating the benefit of your investment. This is particularly true in industries where engineers are not familiar with joint testing. In any case, forward the test procedure to the decision-maker for an informal approval before you get started. =Forwarding it by e-mail requesting an OK in reply is a documented but non-threatening way to make it more difficult for the engineer to ignore or downplay the benefit of positive results.
- The last resort is to decrease the perceived risk of your product by increasing the perceived risk of any alternative. This is can be effective if make sure you are focusing on the potential customer's concern; technical risk. Telling him that your competitor's rep is dumb, never delivers, has a 37 handicap and cheats on his wife might be interesting (and might even be true), but it isn't going to get you the sale. Neither is relating third party dissatisfaction. Getting existing test results, warranty or recall data, obtaining testimonials from experts such as an independent service organization or commissioning an independent competitive test will all help level the playing field. Forwarding feedback from industry technical forums is an effective means of making your point. Just make sure you run a search to be sure your product isn't

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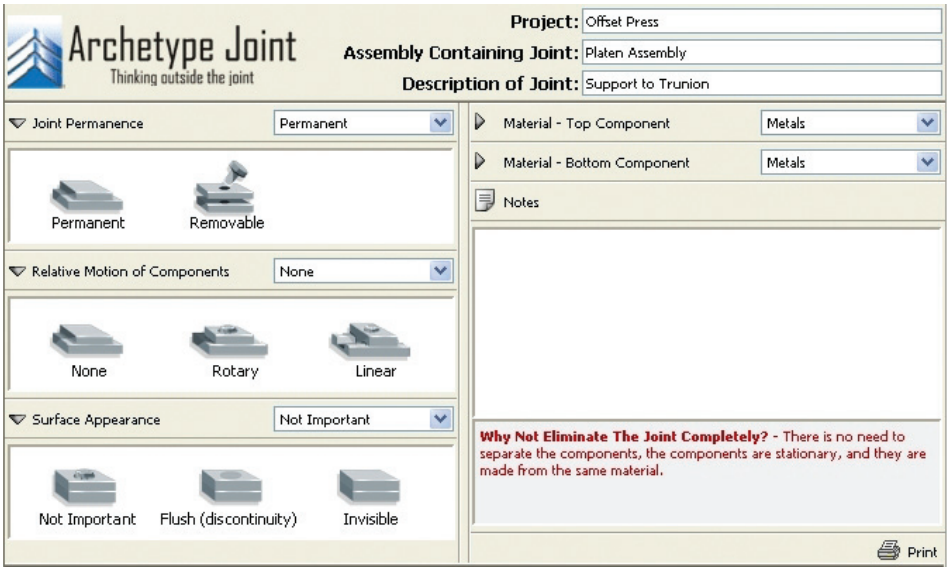
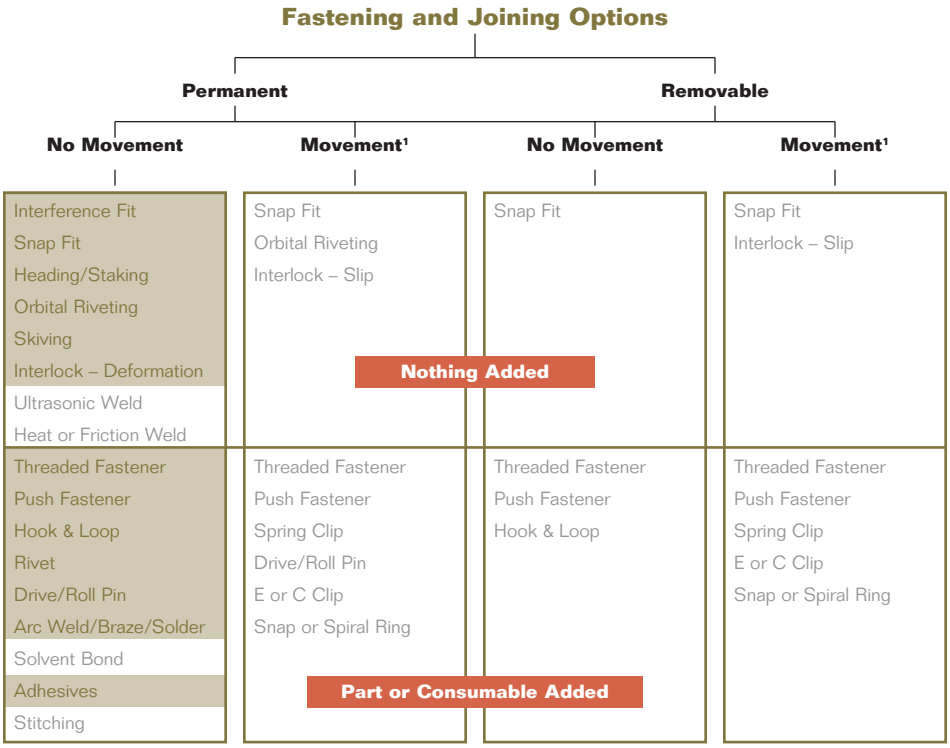


Figure 1.



Methods are selected when their capabilities are equal to or greater than what is asked for. For example, if a Permanent joint that has no Appearance requirements is asked for, methods with Removable, Flush, and Invisible capabilities will also be selected as they also meet the minimum requirements.

Methods meeting all input requirements are shown in color.

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being harpooned in a thread somewhere else on the site.

While these observations might provide food for thought on an individual organizational basis, they don't address the fact that the biggest challenge to the industry comes from outside, not from fastener manufacturers overseas. Figure 1 is a screen shot of a selection guide on our web site showing potential fastening and joining applications by joint requirement. One of the challenges of the fastener industry is that their products are used in applications were other options are a very viable alternatives. For example, many threaded fasteners are used in joints that are not intended to come apart. Why? Often it's not because it's the most cost-effective solution. It is because bolts are familiar, available and don't require a lot of time or investment to implement. Many people don't trust bonded joints because they had them fail in the past. Just like 30 years ago everyone had war stories about how the plastic parts in their car cracked and fell off. Do you want all that metal back in your car now? Adhesives, like thermoplastics, can be much more easily modified for specific applications than formed metal, and chemical companies certainly have the budget for customer education and testing. New adhesives that are more insensitive to surface conditions and others with innovative cure mechanisms are making significant inroads. Consider also that the utility of any attachment method is dependant on the materials and manufacturing process of the components it secures. As more low-density metals and composite are introduced new joint designs will be required because the material properties demand it. At that point it takes just as much effort to look at alternatives as it does to rethink how to make the existing fastener work. I think the solution is for this traditionally fragmented industry is to form coalitions that do more than develop standards. There are some compelling success stories of industry consortiums whose mandate is growing their market through innovation. One of the most impressive has parallels to the fastener industry. What is another product seen as decidedly low-tech, low growth, and so 20th century? How about steel? Yet the UltraLight Steel Auto Body (ULAB) project, funded by a consortium of 33 steel producers, demonstrated through a comprehensive combination of analysis, testing and prototyping that advanced high strength steels could compete quite well with aluminum, magnesium and composites. Because of this 2002 report, and the knowledge that arose from it, applications that would have otherwise been lost to other materials are still steel.

Of course the return on this type of investment can be debated; the industry has survived without it. With that in mind, perhaps it's appropriate to quote a Chinese proverb, which loosely translated warns, "If you continue on your current path, you'll get to where you're going." ■