

One Word

BY ZANE R. KENISTON

Simplification is the Key to Success.

I BEGAN WORKING in the wonderful world of steel when I was a senior in high school. Through a co-op work program, a local steel forge shop in my Pennsylvania hometown hired me. I attended school in the morning and went to work in the forge shop in the afternoon. As I tried hard to figure out my new job, an old-timer at the shop colorfully explained to me the meaning of the acronym K.I.S.S.—Keep It Simple Stupid! To this day, I am continually reminded of the importance of this acronym and the practical nature of its application.

With simplicity in mind, think of one word that defines the key to your success in the steel fabrication industry. What word would you choose? Would it be quality, value, control, responsibility, excellence, or some other word? Give careful thought to this. If you could pick just one word upon which owners, financial officers, project managers, and shop superintendents and foreman could build their strategies and successes, what would that one word be?

First, consider the goal of your company. Put aside all of the nuances embodied in a good quality statement or the “meet and exceed” style objectives and try to state the overall goal in just a few words. Author Eli Goldratt in his book *The Goal* narrows the goal of any for-profit company to simply “be profitable.” Is that the goal of your fabricating business? If so, then what is one word that will get you to your goal and keep you there, especially in these challenging economic times?

Arguably, when compared to the other links in the structural steel supply chain, it is the fabricator who has the greatest to gain from this one-word concept. Consider steel fabrication as it relates to sailing on an unpredictable ocean. One minute the ocean is dead calm and then the next minute it’s the “perfect storm.” Without the right quality goals in place, the winds can shift and profits can evaporate before there is time to react.

A Complete System

In order to arrive at the one word that best suits your organization, focus on your company’s overall operation. This one-word concept applies to the entire system of a steel fabricator, specifically all the processes (written or otherwise) and the products and/or services that a fabricator provides. A complete system consists of processes, products, and services.

The idea of “Garbage In, Garbage Out” can be easily applied to any process in your system. In other words, it is difficult to produce a good result when given poor data.

As an example, consider the detailing process. First, we will assume that your procedure (written or otherwise) for the

detailing process states that all shop drawings are produced according to your detailing standards, and checked by a qualified checker. (It is understood that depending on the schedule, some drawings are checked before approval, some during and some after; but all are checked before they hit the shop).

Now, imagine that too much information is provided on the shop drawings. Impossible, you say? Well, if this one word we are discussing is not applied to the purchasing process, for instance “Control,” here is an example of what can happen:

Three-in.-thick Grade 50 moment plates to be welded to column flanges are detailed on the shop drawings as a single bevel joint with a steel backing bar in order to achieve a complete joint penetration (CJP) weld. The shop drawings are checked and make it through the approval process unscathed. You have everything in place. All the material has arrived on time.

However, on receiving the shop prints, the shop foreman determines that the shop can increase productivity and reduce field fit-up errors by simply changing the single-bevel joint on the moment plates to a double-bevel and the CJP can be achieved by backgouging. He even has a written Welding Procedure Specification (WPS) to back him up. So it happens; the moment plates are cut, drilled and beveled and fabrication begins. In this case, the shop foreman was correct in that productivity levels are strong and the problem with warpage is minimized thus reducing the likelihood of field fit-up problems.

Soon thereafter the owner’s inspector arrives and notices that something is different from his approved shop drawings and the actual work being performed on the moment plates. His drawings show the original, approved, weld details, not what is being performed in the shop. He makes a call and fabrication is halted until, days later, the matter is resolved between the inspector, the EOR and the fabricator. The good news is that

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the fabricator can continue to fabricate with the double-bevel joint design. The bad news is the fabricator is now behind schedule.

What went wrong in this case? The fabricator failed to exercise control over the detailing process. First, the detailing standards contained no direction as to the preferred means and methods for welding in that shop. Second, the fabricator abdicated control of welding joint selection to a sublet detailer who may have never set foot into a fabrication shop. Little wonder, then, that all of the fabricator's efforts to increase productivity in this case were moot.

Without a doubt, the above situation does not bring value to your ultimate goal, which is to be profitable and stay in business.

While detailing is just one of many processes within your company, regardless of the process, the one word that contributes to your success needs to be applied to all of your processes. Since it "takes two to tango" let's look at the progeny of processes—"product or service."

Product (Service)—Fabricated Steel

Let's use the K.I.S.S method and refer to fabricated steel as "a product."

Many steel fabricators apply this one-word concept to the "product" or the actual work

performed more than at the process level. Why is that? Possibly because the steel industry is a conservative group of professionals and for many decades the focus was on product. Or it might be that steel fabricators continually find themselves in the bottom part of the construction industry food chain. Whatever the reason, many times we have heard, "Nothing leaves this place unless it is right!"

Certainly, nonconforming product only results in a negative impact on someone's bottom line. And if you have been in the steel fabrication business long enough, you have been there to one degree or another.

Yet, when it comes to actual steel fabrication, the key to success can become a double-edged sword. If you exercise too much or too little of your chosen word during the "product" phase of your operation, operational costs will only increase. Achieving an optimal balance can minimize costs.

A Balanced Approach

What can a steel fabricator do to minimize "product" nonconformances? The answer goes back to a balanced application of the one word at the two levels—process and product—of your system; with a primary focus on the process side. It is typi-

cally cheaper to fix a process than to fix a product. For example, consider which costs more: checking a shop or erection drawing or incurring back charges from the field because "the steel doesn't fit?" Also consider the loss of precious time and resources trying to get the EOR to approve a substitution of material simply because a purchase order failed to stipulate the correct grade of material.

Think of it as preventative maintenance. What would you rather pay for: a lube, oil and filter job or a new drive motor for your beam line? Or, on a larger scale, how about paying to maintain an overhead crane or paying for the consequences of a failed one?

So, what is the one word you've chosen? Perhaps you thought I was going to tell you. No, you see, I don't have to tell you, because you already know what one word best aligns with your organizational goals. The challenge is to choose the right word and close the gap between knowing the word and then properly applying it to your business. If you are successful at properly implementing your one-word concept within your entire operation, with special emphasis at the process level, then you have simplified your road to success. **MSC**