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In-Plant WTCA QC – Puttin' It on the Line by Stan Sias

Do you remember when you were eighteen and thought you or one of your buddies had the hottest wheels in the county, state or wherever? You or your gang would run around talking “trash” to anyone and everyone who would listen about how hot this car or that car was and how nobody could touch it in the quarter. How did you end up proving your case? Normally you wound up putting your mouth, money and wheels on the line. Highway One, 10:00 PM, no riders. All or nothing.

It's time to go to the line again. This time, we are talking about the accuracy and consistency of your products. How good are the trusses you are manufacturing day in and day out? Very good you say? How good? It's time to put it all back on the line.

A NEW STANDARD

The Truss Plate Institute (TPI) has developed, through its consensus process, the National Design Standard for Metal Plate Connected Wood Truss Construction, known as ANSI/TPI 1-2002. This new standard will be implemented on May 1, 2003. It is a revision of, and replaces, the previous standard, ANSI/TPI 1-1995. TPI developed this standard to provide state-of-the-art technical information and specifications on design and manufacturing of metal plate connected wood trusses. Specifications on design and manufacturing—what exactly does that mean?

Let's assume for a moment that we are planning to build a new home for ourselves. We have hired the architect and engineer, who have designed and specified everything down to the smallest detail. We are very happy with the architect, engineer, plans and specifications. When the bids come in for the project they are all very close. (That is common with well-planned and specified projects.) You sit down with the architect to review the pricing and decide on a company to award the bid. So far, so good, the process is progressing nicely.

Next comes the construction. At this point, things start to go south. It seems that the contractor can't quite follow the plans. His building isn't quite the same as the plan. The rooms are not quite the right size and although not far off, not quite in the right spot either. As the future owner of this home, you are upset, and rightfully so. The contractor thinks you are being unreasonable. What do you think the architect should do?

Let's get back to specifications. What were the specifications on the design and manufacturing of the product? How close to those specifications was the house built? Were the trusses used to build the house made to comply with the specifications on design and manufacturing? Are you aware of the exact specifications for these types of products? Like I said before, it's time to put it on the line.

HEART & SOUL

Chapter three of the new Standard, Quality Criteria for the Manufacture of Metal Plate Connected Wood Trusses, defines those specifications that should have been considered when manufacturing the trusses used to build the house above. There are eight pages of specifications that outline the quality standards for the manufactured trusses. These eight pages are the heart and soul of every truss design. These are the minimum standards to which you must manufacture to certify your trusses to be in compliance with the truss design drawing from which you are building.

Consider the following questions:

- Are your products in compliance with these specifications?
- What inspection method is used in your plant?
- Is your in-plant quality assurance program all that it should be? All that it could be?

Current In-Plant WTCA QC Certified companies attest enthusiastically to the major benefits that accompany implementation of this program. In-Plant WTCA QC creates a certain positive domino effect throughout the company that begins with a supreme level of confidence in the product line, followed by a trend toward fewer callbacks and defects, and ending with the appropriate follow-through by the sales department and a solid marketing plan.

CALLBACK & DEFECT REDUCTION

In order for an in-plant quality assurance program to work and work well it must be quantifiable and repeatable. It must be able to be shown that following certain predetermined steps will consistently provide the end user with a manufactured product that will pass the quality muster every time. In-Plant WTCA QC is about creating a culture around quality. In-Plant WTCA QC is a process, defined by and worked on by the WTCA Quality Committee, that when learned and implemented in the plant, will provide the steps necessary to assure that the trusses you produce will be in compliance with the specifications for manufacturing the product.

Alan Houseworth of Powell Structural Systems in Delaware, OH had this to say about implementing WTCA QC in his plant: "Before WTCA QC, we had our own quality control system in place, but it had no real standard to compare our product to. Now, if I see a trend [through monitoring the quality control graphs] in defects for our products, I can address it with staff. We know exactly what to watch for."

The advantage of this quality control standard is clear: it provides an accurate guideline for which to compare each part of the truss. "[WTCA QC] has really helped us. Now we have a guideline. Now we have actual inspectors," added Houseworth.

Keith Azlin of U.S. Components in Tucson, AZ said: "We've never really had much trouble with callbacks, but the things we did have to adjust after implementing WTCA QC were in-plant processes. The program pointed out that there was a problem with the gaps between the plates and the wood being consistently too large. So, we replaced a roller that was causing the problem."

For those companies who have struggled with plate placement inaccuracies, In-Plant WTCA QC can help to create consistent placement. Duane Miller of Stark Truss in Edgerton, OH noted that “for years, plates were half and half. With WTCA QC, it's helped us use plate placement plots that show us exactly where they have to go.”

INFLUENCES IN PLANT CULTURE

We've said it before and we're not afraid to repeat it. Instilling a culture of pride and integrity in the plant and among the workforce is an invaluable asset to any manufacturing operation. A spirit of teamwork and product loyalty is essential to the creation of this long-standing culture. The culture that In-Plant WTCA QC helps to create is one of the most astounding attributes of the program.

Azlin of U.S. Components adds, “What WTCA QC has done the most for us is change the attitudes of people in the plant. They know what it takes to build a quality truss. Everyone knows what is expected of them; there is a definite set of criteria that we have to meet consistently.”

Miller of Stark Truss explains, “For us, the best thing we've found with using WTCA QC is the knowledge you teach your employees. You know, questions like ‘why don't you hit [the plate] with a hammer? Where is the correct plate placement? How many teeth need to go in to meet the standard?’ Now they understand why and how and there aren't many who like to build junk. They have taken ownership and pride in the product they are making.”

IN-PLANT WTCA QC AS A MARKETING OPPORTUNITY

After assuring that your products are consistently accurate and in compliance with the necessary specifications and employees have a sense of pride about the product they are putting out, the final advantage of In-Plant WTCA QC lies in the hands of your sales and marketing departments. Successful businesses target their strengths and build marketing campaigns around these strengths. When marketed effectively to industry specifiers, QC certification can certainly breed a high level of confidence in your products.

It is pretty easy to ask someone to go out and sell something that you are proud of and that you know will meet the quality standard every single time. As a matter of fact, if I were an architect or engineer, I would feel even more confident specifying engineered wood components knowing that there was this standard in the industry. That is just what is being done by some of the WTCA QC licensees.

Houseworth of Powell says, “We have marketed our status as WTCA QC certified to the specifier community. As far as I know, no contractors have specifically required the certification, but they have inquired. In the long run, that probably helped us get the job.”

Scott Ward of Southern Components in Shreveport, LA agrees. He adds, “The quality behind the Southern Components products is what we push here. Then we back that up with the WTCA QC certification, and that plays a huge role in how we are perceived by contractors. We use [the

WTCA QC] logo on business cards, on our web site...we even stamp our trusses as WTCA QC certified."

Going back to when you were a kid, you never hesitated to put it on the line when you knew you had it. Not only did you come back from the "race" with new bragging rights, you normally came back with a little extra jingle in your pocket. Does your plant "have it" today? In-Plant WTCA QC is the best measuring stick out there. The benefits far outweigh the costs. There are no cops in this race, only happier customers, more confident specifiers and managers and owners with a little more jingle to put on the line: the bottom line!

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