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Frequently Asked Questions

ANSI/TPI 1-200_ Proposed Chapter 3 by Ryan J. Dexter

Seven pages of ANSI/TPI 1-1995 outline the quality standard for the manufacture of metal plate connected wood trusses. These few pages contain many detailed tolerances for plating and assembling trusses. The following examples illustrate some of the quality criteria outlined in ANSI/TPI 1-1995:

- Teeth placed in any type of lumber defect (i.e., knots, wane, pitch pockets) are completely ineffective.
- Plate embedment gaps (e.g. gaps that exist between the plate and the wood member) greater than 3/32" yield teeth that have no holding power at all.
- 4" x 4" plates are only allowed a rotation and translation tolerance of 1/2" from their original position.
- Splice members in compression are only allowed an average gap of 1/32" between wood members.

Over the last few months, industry articles have highlighted the feedback that truss manufacturers are providing on all the issues surrounding the implementation of this quality standard.

QUESTION:

It takes my inspectors more than an hour to thoroughly check a single truss under the current quality procedures outlined in Chapter 4 of ANSI/TPI 1-1995. What is the industry doing to create a standard that is not only accurate, but also time-efficient?

ANSWER:

One of the issues that kept surfacing as our industry discussed the quality standard for wood trusses was determining the correlation between meeting the quality standard and the actual structural performance of the truss when tested. In other words, was it possible to have sound structural performance and yet not meet the qual-ity standard or vice versa? This correlation issue provided the impetus for the research between WTCA and the University of Wisconsin–Madison to determine the impact of out-of-tolerance quality manufacturing and the finished product structural performance of trusses.

The data collected from this research has formed the basis for the proposed new quality standard. This proposed standard brings the realities of the fast-paced manufacturing process and marries them with the needs for a sound design standard and solid in-plant quality control.

At the time this article was printed, the proposed ANSI/TPI 1-200_ Chapter 3 is still undergoing the consensus review process. However, the fact that WTCA and TPI co-authored the revisions is a good sign that our industry has concensus on a standard that is not only accurate, but also efficient.

To pose a question for this column, email us at faq@woodtruss.com. To view other questions visit the WTCA website.

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