

## President's Message



ROGER J. GIBBS

### "Machine Innovations & Advancements" by Roger J. Gibbs

In the past 20 years, the truss industry has come a long way in the technological development of the machinery we use to build our product. When I first got into this industry, the most common machines for building trusses were the C-clamp, wooden tables (mostly homemade) and flip jigs. There were gantry tables with either large presses or rollers, but from my perspective it was only the larger manufacturers that had those machines. At the time, such machinery seemed relatively cost-prohibitive for the little guy.

Today is a different story. We look at the process, procedures and costing analysis it takes for us to manufacture our product and then determine what type of machinery it requires to meet our expectations. Machine innovations have become a primary tool in achieving success and efficiency in the truss industry.

Where will the future of manufacturing equipment take our industry? Those developing machinery for the truss industry have certainly made some great advancements in the last ten years: computerized sawing equipment, automated jigging set-up equipment, laser projection systems and other equipment controlled by computers. This has made a big difference in the amount of product produced and the quality of the trusses we manufacture.

Nevertheless, we need to continue asking ourselves if we have the best possible equipment for manufacturing our product. Look at the manufacturing processes in other industries. Computerized systems flow materials to the machines and the machines put the product together. The wood I-joist industry manufactures more than 300 feet per minute. Can we manufacture plated wood trusses at that speed?

I visited a couple of engineering companies a few years ago in search of that very answer. The answer is yes, we can definitely increase our production efficiencies and we can probably get by with fewer people running the machinery. However, are we willing to invest upwards of an additional \$25 million in manufacturing machinery to get this accomplished? The future of machine innovations in the truss plant will definitely require some careful cost analysis.

Two areas where more advancement to our industry should be considered are in material handling and assembly. Yes, we have some great machinery to help us in assembly, but let's look into the future. Is there the possibility of having machines or robotic devices to place the lumber

in the jigs and plates on the trusses? All operated by one person?!? We have forklifts and carts to move our product around and people to stage the material to the workstations, but I believe it can be automated. I visited Gulf Lumber last year when the WTCA had a board meeting in Mobile, Alabama. I was totally amazed by the systems that the lumber industry has to handle materials. Once the materials went into the building to be cut, an individual never touched them. A person operating a joystick controlled the materials and a computer was analyzing how to cut each log to provide for the most efficient amount of lumber usage. It was fascinating.

Can we look forward to something that sophisticated for moving materials in the truss plant? I think the concept of what I like to call "inline manufacturing" can be a future reality. Imagine it: a bunk of lumber goes into a machine designed to fingerjoint and cut it (in the most efficient way possible, of course) into individual pieces of the trusses to be built that day; then, as the pieces are cut they go directly to the table for assembly rather than being stacked and then moved again before being used. Just imagine a person sitting in a control tower moving materials to the saws and a person moving materials to the assembly areas. The result will be fewer forklifts and people as well as a more efficient workflow.

Continuing innovation in truss plant machinery makes our industry's future exciting. One of the many reasons I am looking forward to this year's Building Component Manufacturers Conference (BCMC) is to see what new innovations are available to our industry and how they can be used to make our operations more efficient. BCMC 2000 will be here before we know it. This year's show theme—"People Building the Future"—will be all about how ideas can assist our industry. I look forward to seeing you there.

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