

# STRUCTURAL BUILDING COMPONENTS MAGAZINE (FORMERLY WOODWORDS)

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## "WTCA Members on Machine Innovations" by Melinda Caldwell

It should come as no surprise that the implementation of machine innovations in the truss plant is becoming more and more common among WTCA members. A number of member companies I spoke with in the past month reported relatively recent machinery purchases—from gantry lines to automated saws to laser projection systems—designed to improve efficiencies in a variety of areas. Two main areas of concern that seemed to prompt the majority of purchases, however, were continued labor shortages and the demand for increasingly complex trusses.

### DECIDING FACTORS

Bill Heine, Plant Manager at Kimal Lumber Company in Nokomis, Florida, explained that unmet labor needs played a big part in his company's recent gantry line purchase. "The reason we opted to go this direction with equipment was for the obvious efficiency, but also to lower the required number of production staff," he explained. "This was a necessity as we, like many others, are in a less than two percent unemployment market area and there are many more positions than there are folks to fill them....By going to a gantry line and no longer flipping trusses, we do with two or three men what we had to have five or six men for prior to the gantry addition."

When asked to explain what factors compelled his company to purchase a laser projection system for its roller gantry, Stan Dickhoff, Plant Manager at BMC West in Tacoma, Washington, also cited the shortage of qualified set-up talent and the increasing complexity of the product they are required to build. "We are able to grow our business in the absence of the kind of talent we would have otherwise required," he said. "The minimizing of labor has come in the form of not having to wait for the development of talent while we met the increased demand for an increasingly complex product. The waste has [also] been reduced by virtue of our having a more accurate product and less need for 'rebuilt's"

### ENJOYING THE BENEFITS

In addition to helping solve labor problems, implementing various types of automation has benefited members in other ways as well. Mike Cobb, General Manger of Bluegrass Truss Company in Lexington, Kentucky, stated that "quality has been the biggest benefit of automated equipment. We seem to have less wrongly assembled trusses now than prior to automation."

Bill Heine has seen improvements in other areas as well. "One area that has certainly improved is the exposure to injury and subsequently the risk factors associated with manufacturing," he reported. "We have realized a very impressive reduction in our workers' comp experience mod and feel that it is definitely connected to the automation equipment and the resulting safety awareness."

## IMPLEMENTING CHANGE

“Adapting automation to the labor intensive truss facility is indeed a challenge,” Mike Cobb acknowledged, a realization many companies are dealing with as they implement automation in their facilities. “We seem to encounter resistance to change at every turn. Each time the new computer-driven component cutter has a glitch we hear how much better the old manually operated cutter functioned.”

“[Automation] has changed everything we do from how we buy lumber and plates to the way we select the materials and/or prepare them, the way we combine the cut pieces, and the way we track all pieces for handling to assembly,” stated Heine. “There was a very real concern that the equipment would be worthless if our staff did not take to it and accept the new process. By doing many of the things at the same time and going into it on the basis that the work was so much more ‘friendly,’ our guys struggled but were willing to try anything that meant they would strain less, be more efficient, and have a safer work environment; not to mention that the potential for increased profits was quite real and with that would follow better wages—a language everyone understands.”

Stan Dickhoff reported some resistance at BMC West as well, but leadership was prepared to combat it. “There was a purposeful involvement of known leaders who were determined to embrace the technology,” Dickhoff explained. “Those individuals made any ‘show-off demos’ The positive results were shown to skeptics in a way that made them appear foolish if they did not embrace the technology. Anticipated increases in productivity did not result in ‘lowering the bar’ for productivity incentives. The message was: ‘If you use the new tool we paid for, you can make more money’”

## PERPETUATING SUCCESS

While the members I spoke with seemed to be reaping a variety of benefits from recent automation, each also saw areas of the industry that still have room for improvement in order to continue assisting in the success of the truss industry as a whole.

“Material handling of all aspects of the product could be improved,” suggested Dickhoff. “This would include raw material, pre-cut parts and finished goods. Finished goods offer the biggest challenge in that it deals with the most awkward shape and weight of the process. It also amounts to the greatest opportunity to reduce cost and increase safety.”

Cobb looked beyond the automation itself to improving the health of the manufacturer/supplier relationship. “The future of the truss industry will remain dependent on the continued sharing of knowledge among the members of this fraternity,” he stated. “Suppliers to truss manufacturers can be of great benefit to us if they will be as accessible after the sale as [they are] before. All too often the suppliers are gone once the sale is completed and the equipment is delivered.”

## IMAGINING THE FUTURE & FINDING A BALANCE

When asked to describe a vision of a truss plant in the year 2025, the presence of even more automation showed up in everyone's picture. However, the automated, "assembly-line" idea of manufacturing trusses did not completely exclude the use of human labor. Most still envisioned the need for manual labor in the actual assembly of the truss, laying the components in their proper places, etc.

Stan Dickhoff based his concerns about turning truss manufacturing completely over to automation on an "e-mailism" he recently encountered that stated "the most common source of computer problems are computer solutions."

"The more we 'dumb down' the processes of design and manufacturing, the more we will rely on technology that will create a greater and greater need for conformity," Dickhoff commented. "The more we conform, the less we will be able to differentiate ourselves from one another. The less we differentiate, the more we make our product and service a commodity. The more we become a commodity, the less we will profit. The less we profit, the less we can provide. Innovation must continue, but individual creativity will continue to separate those who are truly successful from those who conform without being wise in their choices."

Ultimately, our members spoke of finding just the right balance between automation and labor. Cobb predicted, "Understanding that human manual labor will never be fully replaced in our industry, a workable mix between man and automation is the real key to a successful and profitable truss business, now and in the future."

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