Penn-Truss Finds Time to Make Needed Changes

By Todd Drummond, Owner
Todd Drummond Consulting, LLC

SALTCOATS, SK—In 2001 Charles Penner and Colin Penner started their family-owned truss plant here. Since then they have invested both time and money to make their small operation grow into the sizeable truss manufacturing company it is today. Growing pains are typical of most mid-size manufacturing operations. Better development of communications and standards is needed to take them to the next level of efficiency. But, how do you find the time to make the needed growth changes when the day-to-day activities consume every minute?

The Penners hired my lean manufacturing consulting services in the spring of this year. During the four-day consultation they quickly learned they could indeed change and refine many of their current practices. Time standards were provided and lean practices were discussed at length.

Charles and Colin Penner
Penn-Truss Manufacturing, Inc.

Lean manufacturing practices have as their cornerstone time standards based on time and motion studies. Few companies have personnel trained in time and motion studies and Penn-Truss was no exception. After studying the proper methods of time and motion practices, serious hours were spent studying the activities of truss manufacturing. It was quickly determined that only man-minutes would provide the proper benchmarks to judge manufacturing efficiencies. Proper man-minutes are based on equipment types so adjustments were made to the estimates based on each manufacturer's equipment. By using man-minutes, Penn-Truss could arrive at both consistently-accurate truss labor estimation (pricing of trusses) and manufacturing efficiencies.

Having completed the consult, Penn-Truss quickly realized the information provided would indeed lead to a substantial positive change in the bottom line. However, time constraints of normal day-to-day operations still prevented the company from implementing the lean manufacturing practices and suggestions. To add to the struggle, one of the company's main truss designers left the company. Desire and will could not overcome the simple principles of the time needed to train new truss designers and implement new practices. Again I offered my services. It had been a few years since I trained truss designers, but having many years of experience training and running design departments I knew I was up to the task. Also, Penn-Truss had recently switched to MiTek® software with which I was very familiar. I could train new and existing designers using the MiTek software and also help them implement the new lean manufacturing practices.

Typically, changes in larger organizations mean that every new procedure or new standard takes time and patience to implement. In addition to implementing the new ideas and standards was the discovery that the company had never written out its operation standards. For example typical design procedures, such as standard setback of hip girders, were not written out for new designers. That is where my services really made a difference. My background of design and manufacturing helped Penn-Truss create operating standards that could be written down in one form or another to convey information to the right people. A new designer could refer to design standards without having to ask someone else. All companies could save themselves thousands of lost productivity hours every year just by writing out answers to 80% of the common and repeated questions asked every day.

A lean manufacturing rule of thumb when trying to create standards is that information is easiest to absorb and retain when it is displayed as pictures first, symbols second and finally, written words. For example when plating a joint on a truss being built, what does the truss builder do when there is wane on the wood members at the joint? What does he/she look for and what does he/she do if anything is needed? Where does this person find the information? Or is it ignored, as most truss manufacturers do? Far too many people rely on shop supervisors to oversee and verbally explain the proper method for this and many more conditions. Supervisors normally are more concerned about total shop output, so quality often takes a back seat.

After spending six weeks with Penn-Truss we were able to develop and implement the needed changes and standards that the Penners wanted and needed. My time was split between development of written standards and training new designers. We found it much easier to train the new designers when they had something to refer to, instead of having to ask someone. Showing someone how to use the MiTek software and truss designing is a never-ending process. However, I was able to sit down and teach the existing and new designers how much the MiTek programs really had to offer them. Their overall design productivity really started to pick up when they were able to use the software to its full potential.

Shop standards are also improved with the assistance of the labor-tracking software I lease to companies. Written and displayed manufacturing practices were developed but Penn-Truss knew its real potential gains would only be recognized when the company tracked every order's efficiencies. (See www.todd-drummond.com/support-files/Software.pdf for more information about labor-tracking software.) Therefore, I also helped the company to implement and use the labor-tracking software.

The same principles of a gym membership apply to lean manufacturing. You only get the results you are seeking when you give it the actual effort and time on a daily basis. Do not let the excuse that you do not have the time stop you; find the time and/or hire my services to assist you. Like a personal trainer pushing you, you will soon see the positive results you are trying to achieve.