

Time Standards Case Study: Mar-Span Truss, Inc.



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DRAYTON, ON—A lean manufacturing consultation was performed by Todd Drummond at Mar-Span Truss Inc. in April 2007. This is what Gerry Frey, general manager of Mar-Span Truss, had to say of the time standards provided:

“Time standards are the foundation of our whole truss manufacturing process. It begins at the design stage which allows the truss designer to accurately predict the amount of time it will take to build a job. Man-hours and labor costs are accurately estimated using the truss design software which allows the designer to properly optimize every truss. This affects the proper selling price because we base our pricing on the time allotted for production. This is done by comparing the gross margin dollars per man-hour to an established baseline. We know how profitable every order will be before it ties up our resources. Since we have a proper time estimation of man-hours based on time standards, this both predicts the time needed to build a job (proper scheduling using man-hours) and also gages production efficiency, providing reliable benchmarks for employees.”

Frey adds, “From a macro point of view time standards help us understand and predict potential problems in the whole system. With time standards we know how we are doing on a daily basis. I cannot think of operating our company any other way,” Frey concludes.

Right now many companies are facing some of their biggest challenges in a tight building market. It seems like there is not a week that goes by without another truss manufacturer closing its doors. Can time standards create sales to help companies weather these



Gerry Frey, general manager and Marv Gingrich, design manager
Mar-Span Truss, Inc.

hard times? No, but time standards can help companies maintain a competitive edge against their competition for the available sales.

If a company wants to succeed and remain profitable, the implementation of proper time standards is key. Effective time standards can be developed in-house using time and motion studies or hire my services to provide them to you. Using proper time standards is probably the single biggest reason successful companies survive and thrive in good and bad times.

The single biggest mistake that most companies make is that they believe time standards can be created from their truss production history. Proper time standards are not derived by what has been done but by what should be done using time and motion studies. It takes many hours of tedious number crunching and watching people work with a stop watch. Note that this should not be thrust upon an

individual, such as a designer or salesperson with no prior motion studies experience. This type of work cannot be done in a few hours or a few days and it requires a great deal of effort.

What are clear time standards?

I. They are measurable time elements such as man-minutes. Reasonable expectancy (RE) or scheduled units (SUs), which both represent 1/100th of an hour.

II. They can be measured consistently no matter what type of truss. Board foot and piece count are used widely but they cannot provide accurate setup time.

III. Individual steps of the manufacturing process can be measured. For example, the amount of time needed to cut the truss parts or to setup the jiggling on the tables can be measured accurately.

Once time standards are established, for what purpose can they be used? As Frey at Mar-Span stated, they can be used for just about every aspect of the company.

Pricing. All pricing should be compared and judged to a baseline of total margin dollars per man-hour. In a market where pricing is falling there has never been a greater need to accurately account for direct costs. This is not the time to guess or use estimations based on averages. Gross margins should be properly adjusted based on expected, or the minimum required, gross margin dollars per hour. All companies have a minimum gross margin dollar per hour to cover their indirect cost. Knowing when to allow that gross margin to fall below the minimum is not a game that should be taken lightly.

Production. Companies can try to spend their way out of inefficiencies by investing in automation in their manufacturing facilities. But even when it has acquired automation a company still needs proper motion and time standards. Case studies by industrial engineers reveal an average gain of 42% in productivity when time standards are properly applied to manufacturing operations. I have yet to perform a consultation where major inefficiencies were not found and productivity was not greatly improved by implementing time standards. When used together, lean manufacturing practices and time standards improve a company's bottom line. Why is Toyota thriving while other auto manufacturers are slowly becoming historical statistics? It is unrealistic to believe that Toyota uses costing averages without time and motion studies to expose inefficiencies. Toyota's success is partially due to lean manufacturing practices that implement bench-marking time standards at every step of the process.

I provide time and motion time standards for truss manufacturing. My time standards are based on equipment types and are adjustable to any truss type. These time standards are input into existing truss design software and are only limited by that software's capacities. I provide the time standards as part of my consulting services or as a separate service. As you might expect I have copyrighted these services. I hope that your company has remained profitable during these challenging times. If I can be of service to you, please contact me. My sole purpose is to help you reduce costs and improve profitability.

For more information on Todd Drummond Consulting services call 603.763.8857 or circle Reader Service No. __.