

TRUSS PLANT STUDIES - A SIMPLE APPROACH



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Is your truss plant running as well as it could? Are you confident that your method of costing reflects your actual manufacturing costs? Do you know what needs to be done to increase the production output?

Evaluating the efficiency of a truss plant can be a daunting task, and it can be difficult to know where to start. Undertaking a study of the flow of the truss plant can provide very valuable information that can help in the day-to-day management of the plant and assist in improving the manufacturing process.

Methods that can be used to measure the production efficiency will vary depending on the truss plant. The average size truss plant today includes one or more truss pressing stations and a sufficient amount of saws to ensure a continuous flow of production.

Truss plants using high volume equipment for only a short time during the shifts may need a more complex method of measuring production efficiency.

Let's look at an example of a simple truss plant study, to overview the flow of production to a single pressing station.

The first thing we need to do is define the "the expected outcome" before undertaking the study. In this case our expected outcome will be "to evaluate the efficiency of the flow". When the outcome is defined, the study can begin.

A key to the success of a truss plant study of this type is in the accuracy of the information gathered and reported.

It is important when gathering information to simply report actual findings without anticipating the results along the way. The information required includes actual volumes, capacities, flow and methods used at each stage of the production flow.

The information collection will typically start

at the detailing/estimating area and finish in the completed truss storage area.

The timing and the length of the study will need to ensure that results reflect normal methods of operation. When satisfied that the results gathered accurately reflect the typical operation methods, they can be used in evaluating the production efficiency.

Armed with the facts, we can now look more closely at the flow. Although there are many methods that could be successfully used to evaluate production flow, we will use a unique approach that is particularly applicable to truss plant production.

THE BOTTLENECK APPROACH

Truss plant production systems rely on a flow and somewhere within the flow will be a bottleneck.

Defined as "an obstruction to an even flow of production", bottlenecks are often considered a problem and the first reaction may be to remove them. In a truss plant, the bottleneck can also be used as an effective tool for production management.

For truss plants that use production based costing systems (e.g. EqA), the bottleneck position should be at the truss pressing station. The flow of work to the pressing station should be uninterrupted to ensure the production is consistent.

This approach also helps production planning and job scheduling and allows the truss plant profitability to be easily monitored.

The facts gathered by the truss plant study will determine the actual position and the flow level through the bottleneck. The results may surprise you.

The principals of a successful bottleneck flow are quite simple.

Maintain the flow prior to the bottleneck.

Consistent output relies on having no interruptions or blockages that can affect the flow to the bottleneck.

Maintaining an uninterrupted flow prior to the pressing station should be a high priority.

Keep the flow level constant through the bottleneck.

The bottleneck approach also relies on a constant flow through the pressing area.

Nothing should be allowed to impact the volume of production at this point.

If the findings show that flow is not restricted at the pressing station but nonetheless production output is not at the expected volume, the problem could be further upstream.

There are several areas in a truss plant that can impact the flow to the pressing area. The availability of components, delays at cutting stations and material picking areas can commonly contribute to blockages or bottlenecks.

Hold ups in the supply of production output details from the detailing and estimating areas can also affect the flow. It could also be related to inconsistent orders or production planning.

The facts gathered during the truss plant study should clearly highlight any areas that may be restricting the flow.

If the results of the study show that the bottleneck position is not actually at the pressing station, then appropriate action can be taken. The simple solution may be to address the issue in the area that restricts the flow so the bottleneck is returned to the pressing area.

Alternatively, a complete change in the truss plant production costing method could be considered to reflect the actual bottleneck position.

This simple yet effective approach has been used successfully in many truss plants.

Although the solutions will differ from plant to plant, the information gathered in the study will help in the making of informed decisions to overcome any problems that may not otherwise appear in the normal day-to-day operations.

Whatever the findings, I'm sure you'll find a truss plant study is a worthwhile exercise and a helpful tool for evaluating and improving the efficiency of your truss plant.

