

STRUCTURAL BUILDING COMPONENTS MAGAZINE

September/October 2004

Accounting & Truss Plants by Jay T. Deakins

Is it time to evaluate your accounting and inventory control practices? Find out what you could change to simplify the process.

Accounting is viewed by many truss and component manufacturers as a necessary evil. Typically, orders are processed through the sales and production process, then after the order is delivered, a piece of paper is given to the accounting department where an invoice is created manually from scratch. This article will show you how to incorporate the accounting process into your entire operation, changing it from simply a source of overhead into a strategic advantage for your company. It is important to note that these principles are the same for a \$5 million plant with a single location as for a \$100 million, multiple-location operation.

Streamlining Your Pricing Model

The sales process always begins with the creation of a quote or sales order, which outlines what you will do and how much you will charge for your product and service. This process requires a pricing model to consistently price your product correctly. The first and perhaps most violated rule of pricing models is: Keep it simple. Unless everyone involved with the sales process can explain your pricing system in 30 seconds, you'd probably be well served to simplify the model you are using. There are three components to the price of a truss:

- The materials used to produce the truss.
- The direct labor used to produce the truss.
- The general overhead and profit that each order must contribute to the operation.

Materials should be costed at a "standard cost" that can be updated as the market changes. This "standard cost" equals the replacement price of each item, generally with a handling fee added in. If your system allows it, these costs should be maintained in your accounting system, not your engineering system. Make sure to have a mechanism in place to compare your current standard cost, your last receipt cost and your average cost on hand. The current value of your inventory should not affect your current pricing, although it is interesting for later analysis.

The labor calculation is where most people over-complicate the pricing process. My basic rule of thumb is that if people need a magic decoder ring to figure out your labor assumptions, your system is too complex. While it is true that the labor calculation must take into account variations in complexity caused by number of joints or hard-to-handle lumber, a simple calculation—such as the number of sticks or joints, times a rate, times a user-specified complexity factor based on the number of setups and other factors—will work just fine. Some companies prefer a more complex approach due to specific demands of their operations. In my opinion, no matter how you compile and analyze your information, you inevitably reach a point

where you can't be accurate enough in your assumptions to make the additional calculations worthwhile. This is why I always recommend keeping it simple.

With the labor and materials standard cost now calculated, determining your general overhead and profit is a simple matter of applying a margin or markup factor to this base cost. Typically this margin can be set customer by customer, based on factors such as the amount of repeat business, how difficult the customer is in terms of deductions, canceling or changing orders, and competitive conditions. On occasion you may need to adjust the price on an individual order, but if you have to adjust most orders manually, it is a sign that your pricing model could be more streamlined.

I recommend compensating salespeople based on the margin they generate above the standard cost as of the day the quote or sales order was generated. In order to do this, your system must have the ability to store these standard costs as of the date the quote is generated. This compensation structure places the focus on profits and not just volume.

The sales order process should tie directly to your accounts receivable system so that the customer's credit standing can be automatically verified before the order is produced. Once the job has been sent to the plant, it is too late to find out that the customer is past due on other orders. Once a sales order is in the system and has been priced and the customer's credit has been checked, we are ready to produce the order, which leads us to a discussion of inventory control and labor tracking.

TRACKING INVENTORY & LABOR

Inventory control for most truss plants consists of calculating beginning inventory, plus purchases, minus ending inventory, which equals the cost of materials for the month. This system often leads to wild fluctuations in month-to-month profitability due to errors in counting. It also fails to provide adequate feedback to the design department, which ends up designing and pricing trusses with materials that are no longer stocked, or to the production and purchasing department to identify excessive substitutions.

Receipts of material into inventory should be automatically generated by your purchasing system. Costing can be done at actual cost or standard cost with a purchase price variance. Standard costing can be useful to isolate the performance of your purchasing staff. A layered inventory system should be maintained to allow true FIFO (first in, first out) or LIFO (last in, last out) costing. Most manufacturers use FIFO costing.

There are several options for the amount of detail you can choose to capture for your inventory consumption. At the very least, you should relieve the materials that were specified in the design file at the time the job completes production. You can add an extra step to this process to account for substitutions of material for grade or length. This should relieve the raw materials used and put the trusses into inventory as finished goods. This will also automatically account for trusses that are produced and not shipped as of the end of the month. At the time of shipment, the trusses should be relieved from finished goods inventory; any hangers, loose lumber, beams or other items should be relieved as well. Depending upon how much detail you want, you can

add an intermediate step, moving materials first into work in process and then into finished goods. This will require slightly more administrative work and should be analyzed on a case-by-case basis to determine if the extra information produced is worth the additional work.

Even the best inventory system at a truss plant will still require month-end adjustments due to cull, scraps, unrecorded substitutions and other factors. A properly designed and implemented system will result in a relatively small number of adjustments. These adjustments also point to potential process improvements. By analyzing which items are adjusted each month, you can improve your design and production process to minimize these variations. A good inventory system also makes it significantly easier to detect the systematic theft of materials, which otherwise can go unnoticed for long periods of time.

An integrated shop floor data collection system will allow you to collect individual labor times directly for each job. Be sure to also set up procedures to capture non-production time to the jobs, such as design time, delivery time, and repair time. This shop floor data should post directly to the general ledger so it is auditable and reportable in comparison to your estimated labor costs. This data will allow you to tweak the labor assumptions created when you priced the job—remembering to keep it simple, of course.

The truss industry is a rapidly maturing and consolidating industry. I hope the financial and inventory control processes outlined here help you create processes necessary to effectively thrive in this changing and challenging industry.

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