

Synchronous Solutions

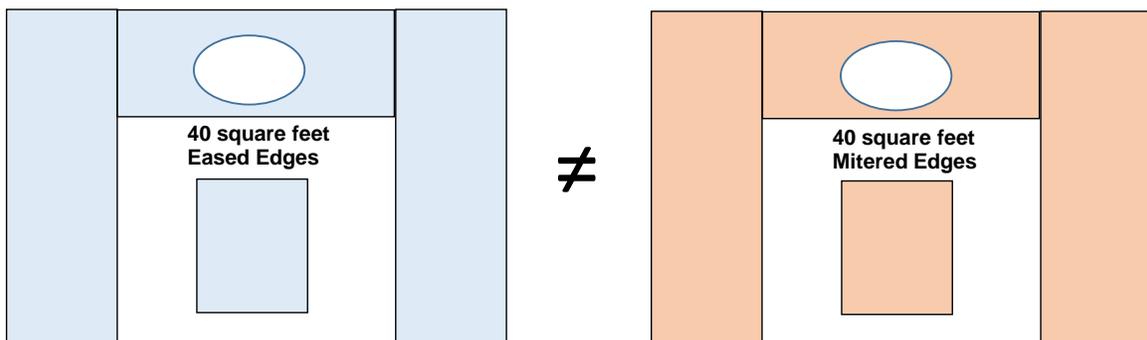
The continuous pursuit of excellence

Square Feet vs. Dollars

The stone processing industry is fixed on using square feet as the basis for operational management. Countertops are commonly sold by the square foot and production operations are scheduled and tracked based on square feet produced.

Square Feet, and any dimensional metric, is a flawed method for use as a scheduling or tracking tool.

The best example is this: Two kitchens exactly the same size and shape at 40 square feet. One has an eased edge. The other has a mitered edge. Although they are the same size, there is a world of difference in the labor content and the price of these two jobs. The square feet metric would not recognize this difference. If that is your metric for scheduling, you will dramatically overload the shop on the days the mitered edge kitchen is in process.



Moreover, a given amount of square feet produced will not necessarily earn a reasonable profit. You don't pay bills with square feet. You cannot correctly predict your financial status throughout the month using a dimensional metric (square feet, linear feet, linear inches, number of slabs, etc.). In fact none of the

dimensional metrics will suffice for an accurate method of planning, scheduling or tracking your performance.

You need a metric to plan, schedule and track your business that does recognize the differences in labor content and one that ties directly to your bottom line financial objectives.

If a dimensional metric does not work, what does? Answer: DOLLARS.

Okay, dollars rather than any dimensional metric. What dollar metric is best? How about sales dollars? That number would include the cost of exotic materials, which would not necessarily affect labor content or demand on capacity in any way. Also, as many have experienced, a high sales price including the cost of expensive raw materials, does not necessarily mean good profits.

You need a financial metric that discounts the effects of expensive materials and focuses on the value added by the operational departments of your business. Essentially, you invest in raw materials to do a job and then you process those materials to make finished products. That process conversion is the value your system adds to those raw materials to make them worth the amount of the sales price that your customers pay.

The term we use for that conversion is Throughput, which is the *measure of value added* for your business. You buy raw materials and convert them to finished products. That's what manufacturers do. Throughput (aka \$T) is the monetary value of that conversion. The formula for \$T is:

$$\text{Sales price} - \text{material investment} = \$T$$

So, that 40 square foot job with eased edges might be a sales price \$3,000, minus material investment of \$1,000, would equal a Throughput value of \$2,000. The \$T per square foot would be \$50.

The job with mitered edges might be a sales price of \$4,500, minus a material investment of \$1,500, equals a Throughput value of \$3,000. The \$T per square foot would be \$75.

This significant difference in labor content is recognized by the Throughput metric. It would not be recognized using square feet.

You can use the \$T metric for planning, scheduling and tracking performance of your company throughout any month.

Planning. By converting your sales projections to \$T, you can relate that demand to the capacity it takes to produce it. Every manufacturing manager

wants to know what to expect in the coming months. It is important to get prepared with additional capacity to meet a growing sales projection. The \$T metric will provide an accurate method to do this.

Moreover, given a growing demand and the needed additional capacity to produce it, you need to know the impact on the company's financial performance. The \$T metric provides an accurate method to do this too. You can, and should, set daily \$T goals at the beginning of the month to use as the scheduling metric. This will assure that you are meeting the customer demand and that you are accurately level loading the operational system of your company.

Scheduling. As noted, the \$T metric is a more accurate method to schedule and "level load" the manufacturing system. Square feet, or any other dimensional metric, will not be an accurate method. Just as your car runs best with the proper mixture of gasoline and air, your business runs best with the proper mixture of *volume* and *velocity*. *Volume* relates to the amount of work loaded into the system day to day. A *level load* means that the labor content is fairly consistent day to day. The \$T metric allows that to be done with confidence. *Velocity* relates to how long the jobs are planned for processing. Just as water *flows* consistently down a mountain river, your jobs should *flow* consistently through your business. The pace of job movement (i.e. the *velocity*) should be the same for all jobs. The requirement that some jobs move faster than others, essentially "leap-frogging" over other jobs, is a guaranteed drain on manufacturing productivity. That condition also creates additional chaos in the management task. Ask any production manager and you will get a confirmation of this.

The solution is to *level load* with a consistent \$T value set to a goal established at the beginning of the month. And, set the number of days that consistent \$T value should be planned for the manufacturing process steps. Regardless of the product, the market segment or the design, all jobs should flow consistently at the same pace.

Tracking. Having done the above in planning and scheduling, you will need to track the actual performance every day throughout the month to assure that you are meeting the goals. You should know, every day, the status to established \$T goals so that you can take action if you fall behind those goals. It is much better to take action as soon as problems are noted rather than waiting until the end of the month when it is too late to make worthwhile corrections.

There are two primary reasons for using \$T as your method of planning, scheduling and tracking your monthly performance.

1. \$T is a more accurate reflection of labor content than any dimensional metric. It recognizes the impact of special features like mitered edges,

- laminated edges, chiseled edges, cove backsplashes, leathered surfaces, multiple sinks, multiple faucet holes, etc.
2. \$T is directly relative to your financial goals. You can know, with certainty, that producing to the \$T goals throughout the month will produce a planned profit at the end of the month. No dimensional metric can do that. You can also relate the \$T goal to a Productivity Score that can be shared with your production Team. It does not reveal sensitive financial information, but it does allow a sharing of important performance status to use as a motivational tool for the company.

The product you produce may be countertops. But, your company really is all about producing a profit. It makes sense to use a metric to manage your business that relates to that actual goal.

If you want more information on how to do all this, please contact me directly.

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