SIMPLE METRICS TO DRIVE EFFICIENCY AND PROFITABILITY

By Dianna Brodine, vice president, editorial, The American Mold Builder

Every mold building company operates with a set of metrics guiding its decision-making process. Is it time to hire? Purchase new equipment? Find a new market or customer set? … Close the doors?

Whether simple to calculate or incredibly complex, metrics often are the determining factor … but what if the metrics aren't pointing in the right direction? Two mold manufacturing companies – Tolerance Tool and Westminster Tool – are approaching revenue, utilization and pricing metrics in a different way.

ASSESSING THE GAPS AT TOLERANCE TOOL

Troy Roberts is the CEO and co-owner of Beanstalk Collaborative Community Wealth, a holding company with an emphasis on preserving and growing manufacturing businesses in their communities. The Beanstalk team brings experience to its acquisitions that includes operating systems, strategic planning, and production and financial metrics. Roberts himself has more than 35 years of experience in manufacturing, including the plastics and metal industries. A page on the company website contains the following question, "Wouldn't it be great if no privately held US manufacturing business was ever sold outside of its community again?"

In 2021, Beanstalk made its first acquisition with Tolerance Tool, located in North St. Paul, Minnesota. Tolerance Tool designs and manufactures complex, bridge and multi-cavity, high-volume production, thermoplastic and liquid silicone rubber injection mold tooling up to 500 tons. The company also designs and manufactures micro molds, multi-shot rotational molds, insert molds and over-molds.

Tolerance Tool had a strong, successful history, a wealth of knowledge and a veteran leadership team, but opportunities existed to strengthen the company. Data collection and increasing financial literacy was a priority, so an accounting/office manager was hired who had previous experience with MRP/ERP implementations. A gap analysis was done, and the quoting and accounting policies and procedures were restructured to address a disconnect in how the company was pricing its services. A strategic business relationship was developed with a sales representative agency, and the website was redesigned.

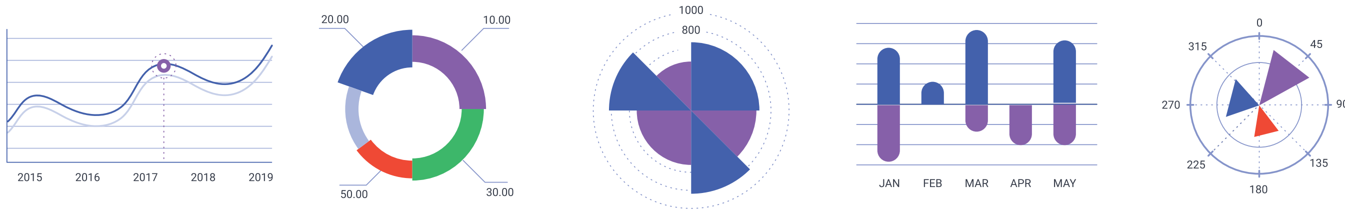
Senior management, while skilled and dedicated, never had exposure to the company's financials, so Roberts introduced the senior leaders to value-add and gross margin concepts. The MRP/ERP system was brought online, giving the company the infrastructure to truly start analyzing what was happening within the company, and key benchmarks and financial metrics were identified using actual data from 2022. The stage was set for real change.

A NEW REVENUE APPROACH FOR TOLERANCE TOOL

Roberts approaches revenue differently. Traditionally, manufacturing companies see high points where high volumes and throughputs drive revenue up, followed by low points where the shop floor isn't used to its normal capacity. "When we were doing our due diligence on Tolerance Tool, we saw an accordion effect in the revenue record charts," he said. "Sales efforts drove up revenue numbers and backlog, then revenue shrinks as backlog is worked off to the point that sales effort and sales orders are ramped up again. This up-and-down sales order cycle is not good for efficiency or utilization of resources."

Roberts and the Tolerance management team established an order booking plan, with the goal of logging $300,000 in bookings every month – and they performed a weekly review to see if month-to-date orders were meeting the plan. If order volumes weren't at the monthly goal, that told the general manager and the sales team that they needed to spend extra time focusing on key prospects to make sure that open capacity was communicated to prospects, which led to more stable order bookings.

"Favorable work efficiency, utilization and quality are directly related to a healthy backlog of orders," Roberts said. "Looking at it this way makes companies proactive in



driving their sales teams to maintain a steady flow of sales orders and order backlog. Once achieved, it's time to look at utilization, efficiency and quality metrics. A company may have the work coming in, a skilled work force and the equipment to do the job, but are those things working together efficiently and making quality product?"

The Tolerance Team uses a simple metric: The percent of direct labor absorbed into production jobs (i.e., utilization). "All companies should be able to evaluate this simple metric, regardless of the type of accounting systems they have available," noted Roberts.

"If I am paying people on the floor – direct labor – how much of their time is spent actively working on a job?" he asked. "How much of their time is charged to a job? That leads us to ask if we're spending too much time on activities that aren't creating revenue. Are we effectively utilizing our direct labor and fixed costs to generate revenue? These are numbers we measure and that our employees see every month."

UTILIZATION EQUALS RETENTION AT WESTMINSTER TOOL

Thirteen-hundred miles to the east, Westminster Tool also focuses on its utilization metrics. With a 25-year history in the industry, Westminster Tool is a family-owned and -operated business started in 1997 by President Ray Coombs. Today, his three children have grown into significant roles within the company their father started: Colby Coombs is chief financial officer, Hannah Coombs is the talent development and marketing manager, and Hillary Thomas is the vice president leading sales and account management.

The company specializes in manufacturing complex injection mold systems, composite tooling and high-performance component production for the aerospace, medical and consumer packaging industries. Colby Coombs knows the standards for those industries demand excellence. "As mold builders, we have the best and brightest people and machines," he said. "When we are at a slow point, we avoid laying people off like Google or Amazon. We need to retain that experience and knowledge for the future."

Coombs believes revenue is the result of when a company's people are being utilized, but he pointed out that not all new tooling jobs utilize his team in the same way. "At Westminster Tool, we do machine modeling to see when our machines are working and when they're not," he said. "We have fixed resources, and we have great engineers, so the inclination is to fill their time with work, but it's important that Hilary is bringing in the right type of work to keep our machines working consistently."

As an example, Coombs said there may be certain components of a tool build that Westminster Tool sends to a partner company that specializes in those areas. Rather than a predictable and controllable progression from one department to another, engineering resources are used initially in the design of the mold and then other resources – machinery and team members – at Westminster Tool sit idle while waiting for the partner to complete its step.

"Understanding the progression of work and analyzing machine usage keyed a new way to look at revenue in our business, without an ERP system," he said.

VELOCITY PRICING

Ultimately, profitability at any mold shop is driven by pricing. "You want to have a plan to make sure you're getting work into your shop, so you can have an opportunity to use your resources well," said Roberts. "But not all work is profitable, so where should you be deploying those resources?" This is where employing velocity pricing serves as an additional check on a company's preferred method for determining a price.

Velocity pricing is a system developed by Dr. Lisa Lang, CEO of Job Shop and Machine Shop Scheduling. "The traditional pricing method is to add materials, overhead and direct labor to come up with a base price, and then add margin," said Roberts. "Instead, velocity pricing says to look at material and outside processing costs, and then decide what margin needs to be added. That margin is there to cover all of the company's other costs and, hopefully, profit."

To determine that margin – the value-add margin – Roberts uses this formula: sales – (cost of materials + outside processing).

This value-add margin is the residual margin to cover factory labor, selling activities, administrative functions and profit, Roberts and Coombs explained. In this pricing model, all operating expenses are treated as fixed costs. Once the cumulative value-add margin from all work is equal to the company's fixed costs (the breakeven point), all additional value-add margin from future work adds to the bottom line.

"If the fixed costs are defined and the business prospects have been analyzed, you can understand clearly what company sales need to be to cover those fixed costs, along with the additional sales to generate the return (profit) you want," Roberts said. "This analysis helps you regulate sales activity to avoid the accordion effect that makes it difficult for everyone to perform. Companies become more proactive rather than reactive when they focus on level loading of sales, which in turn improves utilization, efficiency and quality."

Coombs added, "It's important to look at what type of work you're bringing in, whether your customers value what you're doing, and whether that work complements your capabilities. At Westminster Tool, these metrics focused our efforts on customers that feed the equipment and investments we already have, rather than having to outsource components that don't utilize the resources (people and equipment) that are fixed costs." ■