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Case Histories of Manufacturing Problem Solving

Procurement Partnership Boosts Shop Flexibility

Founded in 1999, Velocity Machine (Green Bay, WI) has been providing standard-setting metalworking and fabrication services for over a decade. The job shop serves a diverse customer base that includes the oil, wind, transportation, printing, and automotive industries, among others. A commitment to understanding customers' needs and meeting them brought rapid growth to the company, averaging 15–20% annually over its first decade of operations.

and never know what new components we might be producing next week. This leads to dramatic shifts in the tooling and fixturing required to keep our operations running at full steam. If we don't have suppliers with the flexibility to support us, we can't provide as quick of a response to our customers. Fast turnaround times have become a necessity for many companies, and you have to have a supply chain that can sustain that."



Kevin Fredrick, owner, and Dave Wagner, engineering manager, have increased Velocity Machine's efficiency through strategic procurement.

Dave Wagner joined Velocity in early 2008 as engineering manager. Among his varied duties, Wagner took on responsibility for the company's procurement of tooling and fixturing.

"Procurement is a real challenge with a true job shop," says Wagner. "We deal with a never-ending variety of parts

and never know what new components we might be producing next week. This leads to dramatic shifts in the tooling and equipment. MSC, along with several other large distributors, were provided with information on Velocity's requirements and invited in to present potential solutions to streamline the company's procurement activities.

When Wagner joined Velocity, the shop worked with three relatively small, local tooling suppliers. The size of these suppliers prevented them from carrying the variety of stock needed to fully support Velocity's operations. When a tool was needed on short notice, Velocity typically experienced extended lead times or paid expedited shipping fees to have the necessary parts shipped directly from the relevant manufacturer.

To increase Velocity's flexibility, Wagner began evaluating other options. At his previous employer, he had the opportunity to work with MSC Industrial Supply Co. (Melville, NY), one of

After reviewing various inventory management solutions, Velocity selected MSC's Competitive Advantage Program (CAP). Three MSC CAP 1000T dispensing systems were installed at Velocity, one in the turning department and two in the milling department. Representatives from both companies worked together to determine which products should be placed in the machines, as well as minimum stock levels for each product.

The CAP 1000T dispensing systems are electronically connected to allow automation of replenishment orders, as well as efficient tracking of stock levels for inventory-managed items. When a tool or other component reaches a predetermined level, an order is automatically placed and details are e-mailed to Wagner so that a stock-out can be avoided. Additionally, the local MSC office maintains two months of stock on a list of products created by Velocity. This provides additional flexibility in the event that the company's workload shifts rapidly and supply of a tool is fully depleted.

The system has transformed Velocity's procurement operations. "The level of convenience is probably the most impressive aspect of the CAP system," says Wagner. "If we have a job come in that requires a new tool, I can make a call or get on MSC's Web site [www.mscdirect.com] and, as long as we place the order by 8 pm [EST], we'll have it the next day. That's a huge benefit to our flexibility. On top of that, the level of communication is incredible. I receive e-mail documentation every time an order is placed or shipped, and we're always provided with tracking numbers, so I know exactly when the tools will arrive."

Wagner says that it's also very important to be able to respond under pressure. "Everything we do is under a time crunch. It seems like every day, we need a new drill size or insert grade. I'd say we've seen a 99% improvement in getting tools in as soon as we need them. MSC usually ships the same day, and we receive them the next day, with no additional charge."

As would be expected, Velocity has also benefited by working with one supplier instead of three. Accounting functions have been simplified, as the company receives fewer POs and only has to track payments to a single vendor. Working with a national supplier reduces the complexity of tracking down a specific tool as well. In the past, Wagner might have to call all three of Velocity's local suppliers for a new tool, then wait for them to check with tooling manufacturers to see who could provide an acceptable solution in the shortest amount of time.

Now, a single phone call is placed to MSC, which quickly tracks down the needed tool and has it shipped overnight at no additional cost to the company.

Implementation of the CAP 1000T vending machines has also allowed Velocity to reduce inventory levels and reduce waste. "When I started at Velocity, I had a constant stream of people coming to me because they were in the middle of a job and had run out of an insert or needed a tool," says Wagner. "Some guys would worry about running out of something on a job, so they'd start keeping their own little stock of tools and inserts at their workstation. Of course, this would compound the problem because we'd have one person thinking we're out of a specific insert, when there might be plenty of them sitting unused at another machine. When you get into that cycle, things become very inefficient. MSC's tool management system has helped us break away from that, reduce inventory cost, and ensure that machines are never down for a lack of tooling or fixturing."

"The level of convenience is probably the most impressive aspect of the CAP system."

To continually improve efficiency and achieve cost savings, MSC has also provided Velocity with valuable technical support. A metalworking specialist and supplier partners frequently visit the shop to review current and new jobs, helping to identify ways to optimize processes and drive cost savings. In addition, tech support is offered online and via phone [800-521-9520] through MSC's Metalworking Tech Team, which Velocity routinely takes advantage of.

"When you're starting with a new process or material, solid technical support is priceless," says Wagner. "On a recent job, we were looking at a new porting operation working with Inconel. I called the MSC metalworking tech team and was able to get some valuable input on how to get the most out of a rather expensive tool."

CAP is expected to become even more valuable to Velocity in the coming year. A bar-coding system is currently being evaluated, which would allow Velocity to refine its analysis of tooling use across jobs and, as a result, reduce expenses. Operational improvements such as these will continue to be a driving force behind Velocity's growth and success. **ME**

For more information on MSC Industrial Supply, go to: www.mscdirect.com, or phone: 800-521-9520.



Erik Gershwind

Executive Vice President and COO
MSC Industrial Supply Co.
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ViewPoints

Re-Evaluate Indirect Procurement

In general terms, indirect procurement describes all of the day-to-day necessities of the workplace—staplers, paper, furniture, laptop computers, pencils, travel services—those things that tend to be of low value per item, but are usually bought in high volumes. Indirect procurement accounts for 60–80% of all purchasing transactions in the typical company.

Overall, companies have a difficult time establishing and implementing initiatives related to indirect procurement. When looking at MRO supplies, it's nearly impossible to accurately forecast demand. The sheer volume of items purchased through the indirect channel makes it difficult to identify, track, and analyze costs. Additionally, a company often works with many suppliers for its indirect procurement. When first considered, integrating an overall strategy for indirect procurement can seem overwhelming. Fortunately, enough companies have successfully accomplished this goal that some basic guidelines have emerged as being vital to success.

The first step in implementing a strategy for indirect procurement is achieving buy-in throughout the shop. Every employee who makes purchasing decisions needs to understand that the new approach will benefit the company's profitability. Additionally, a well-planned strategy will make the procurement process more efficient and reliable.

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Next, a shop must begin collecting and analyzing data on all of its procurement purchases. If costs are not highly visible, any effort to measure and reduce them will be ineffective. As these data are gathered, they can be organized by product category, making the information more useful and easier to track. This categorization will also help to maintain a real-time inventory, reducing or eliminating the costs associated with time-consuming annual or quarterly inventory counts. Companies can also look to this refined data to identify categories with the greatest costs, as these will likely provide the greatest opportunity for savings.

Once the most substantial indirect cost areas have been identified, many companies have found success in establishing a semi-planned spend category. Traditionally, expenditures have been broken down into planned and unplanned. While the demand for MRO supplies is exceedingly

difficult to forecast accurately, it can often be forecast in a general manner. That is, a shop might not know exactly when it will require a certain supply, but it will likely know if the need will arise in the next six months. By creating a semi-planned category, individuals responsible for procurement can anticipate potential needs and plan accordingly.

As these processes begin to take form, it's vital to ensure that they are implemented in such a way that the necessary parties embrace them on their merits. Because of the complexity of indirect procurement, a top-down order with little in the way of demonstrated benefit will be hard to enforce. The best way to accomplish buy-in is by selecting vendors that provide exceptional service and add value to every interaction within the relationship. Much care should be paid to ensuring that the proper suppliers are selected.

Along the same lines, a balance must be struck between centralized and decentralized functions. Overall strategic decisions should reside within the manufacturer's top management. At the same time, successful implementation of the strategy will rely upon the actions of those directly responsible for procurement spending.

Companies need to think "TAPP" (Technology, Assets, People, and Processes) to tap into MRO/Indirect Spend savings by leveraging their suppliers' expertise and capabilities in these top four areas.

Technology: Shops that lack a budget for technical tools and solutions can use their suppliers' technologies. These include crib management, automation and e-commerce, auto-replenishment, and electronic catalogs.

Assets: Shops that are still stocking noncritical inventory should leverage their suppliers' inventories to reduce excess and obsolete inventory, slow-turning inventory, and specials, along with capital-equipment expenditures.

People: Shops that are understaffed and need more help can use their suppliers' people to outsource functions such as procurement and expediting, while taking advantage of in-source services.

Processes: Shops needing advice on going Lean should cash in on help from suppliers for business-needs analysis, supplier reductions/SKU rationalization/standardization, and volume-purchasing agreements.

This has been a difficult period for American manufacturers. Any potential means of reducing costs and improving efficiency must be taken into consideration, if shops wish to maintain their profitability and competitive edge. Taking a fresh look at indirect procurement provides a way of improving a company's financial position. **ME**