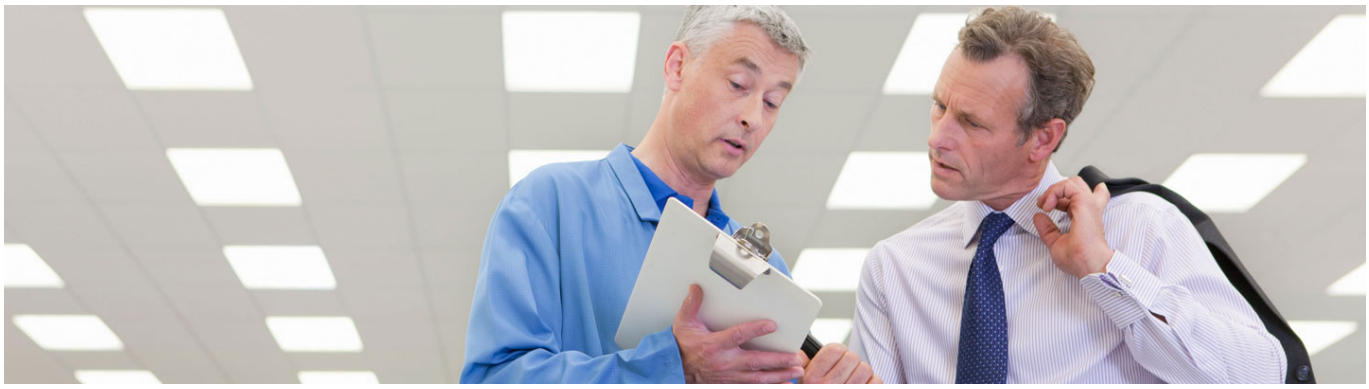

Lean Manufacturing

To Derive Sustainable Cost Savings, Optimize MRO

Tim Wilson | Jan 08, 2018

By moving from piece price purchasing to buying based on total cost of ownership, manufacturers can drive up operational efficiencies and their profit margins.

Intense focus on the company's maintenance, repair and operations may not be top of mind for managers tasked with solving urgent problems that—on corporate spreadsheets—appear to represent a bigger slice of their investment dollars.

What's more, many managers might think that their traditional MRO methods will be tricky to change. That's a shame because MRO improvements can deliver positive results in supply chain efficiencies and to the bottom line, says George Krauter, an MRO expert and author of *Outsourcing MRO: Finding a Better Way*.

"MRO may be identified as only 6 percent to 10 percent of a company's total spend, but it creates 75 percent to 80 percent of all transactions," Krauter says.

"It's an upside-down situation that should be corrected," he advises. "Why does it continue to exist? There are multiple reasons, but the relatively small spend gets little attention while high potential savings are ignored."

Defining the MRO and Purchasing Processes

Part of the challenge is that many companies don't have a well-defined understanding of MRO across the supply chain. Unless a business appropriately documents MRO and consistently collects all appropriate data elements from across the business, the data needed to analyze supply chain processes based on true costs can easily disappear within an enterprise resource planning system, says Timothy Yoo, principal at the Hackett Group.

"ERP systems are financial. They track and manage financial expenditures," Yoo says. "Typically, if a company buys an MRO item—like a screwdriver—all they'll see is an invoice that's been paid to another company. They assume it's MRO, but they won't see any granular data or even the category."

As a result, Yoo says, many companies rely on the purchase path of least resistance. They want to get an item in and get it paid for. The result? Businesses label all kinds of things as "MRO," from lawn care and cleaning supplies to drill bits and safety gear, but gather no underlying costs or other factors in

these items' use by workers to produce deliverables.

In this scenario, Krauter explains, a company might only be tracking simplistic metrics: It bought X number of Y and paid Z. This leads to piece price and low cost becoming paramount to the nontracked factors, such as repeat use of a part, whether integration into a plant's process adds or subtracts time from production, and any expense in maintaining the systems that use the particular part.

That was ***the exact situation*** that a heavy-truck maker found itself in. The Class 8 truck manufacturer, which produces 140 trucks daily, was burning through tools at a prodigious rate—literally. On a regular basis, its 450 drill and impact operators would burn out the motors on their cordless drills and impact wrenches. It simply threw out the dead tools and brought new ones to the shop floor.

The company worked with MSC to conduct a business needs analysis and look at the bottom-line impact of replacing these tools so often. It was an MRO factor that was not being calculated into production costs.

"If Tool A costs twice as much as Tool B but lasts 10 times as long, then the total cost of running Tool A will be much less for the customer," says Loyal Andies, a senior national accounts manager at MSC. "This cost savings strategy will provide TCO savings year over year."

By moving to the tool with the higher price tag, the truck maker reduced overall production costs. A year later, the company had saved more than $430,000 on drill and impact wrench replacements. It also had reduced its purchase of drills by 882 and wrenches by 1,168.

> ## How One Company Tapped an Inventory Management System to Optimize MRO
>
> To move toward lean manufacturing, controlling tooling costs and reducing redundant tool inventories can play a critical role.
>
> For many shops, tool management represents a third tier of distribution: equipment maker, part supplier and, then, the company's own on-site storeroom.
>
> Festo in Hauppauge, New York, wanted a way to "trigger or automate replenishment of our current stock levels. We also were looking for traceability of how many tools were being used," says Steve Bucknor, manager of manufacturing engineering for the pneumatic and electrical automation technology supplier.
>
> See how Festo cut inventory carrying costs by 60 percent and saved $500,000 in tooling consumption by moving to an inventory distribution system—***watch our video now***.

Establish Visibility into All Facets of Purchases

The real trick to achieving optimum TCO hinges on eliminating duplications in the MRO supply chain, Krauter says. To do that requires looking at procedures and then making changes to properly support the plant's or shop's reliability goals, he says.

A business will need to work with its supplier or suppliers so that they can work collaboratively to eliminate duplications and set TCO goals, Krauter suggests. He also advises that a business needs to set these goals based on when items are consumed rather than purchased. That way, it can identify true costs at specific points across the supply chain.

“Getting visibility into purchasing, and defining the scope, can be a real challenge with MRO,” Yoo says. “By its nature, MRO can include a lot of one-time purchases and small things like screws, widgets and industrial parts. If you add on services—maintenance, and managing equipment and facilities—then isolating all the data can be very broad.”

One way that can help is to embrace the right purchasing system. This can provide insight for organizations that want to improve their own processes in-house or are considering outsourcing MRO to a third party. It’s also essential in defining data inputs and building an integrated system that aligns to business processes and deliverables, Yoo points out.

The ability to tap into that data makes it possible to engage in meaningful discussions with suppliers and to define where and how savings can be achieved—and over what time frame, he says.

“If you look at the MRO supply chain, there are multiple duplications and costs that occur from the manufacturer through two sets of distribution (the maker and the supplier), and then into the user’s storeroom, which is another duplication in itself,” Krauter adds. “If the MRO storeroom is unreliable, engineers and other workers often will take more than they need and create uncontrolled substocks in the plant. If there is vertical integration, duplications could be optimized.”

Move Away from Piece-Price Purchasing

A dedicated distributor on-site can eliminate a full step in the MRO distribution chain, with measurable return on investment. Consequently, Krauter believes that integration of the MRO supply chain could produce substantial savings by reducing total cost of ownership.

With this approach, it becomes easier to map out what-if scenarios and to forecast true costs: for instance, how one insert over another affects the expense of producing a part based on all variables. This can move a company closer to a lean internal logistics, a necessary environment for partnering with suppliers to manage costs across MRO versus making point purchases based on piece price.

“This can impact the entire value stream, from cash paid for raw materials to cash from the customer,” says Chris Harris in his book, Lean Supplier Development: Establishing Partnerships and True Costs Throughout the Supply Chain, which supports the idea of a plan for every part, or PFEP.

> **“If Tool A costs twice as much as Tool B but lasts 10 times as long, then the total cost of running Tool A will be much less.”**
> Loyal Andies
> Senior National Accounts Manager, MSC

“The PFEP is the basis for good material movement because it contains information on all of your purchased components, work-in-process parts and finished goods: all of the material in your facility,” Harris says. “Think of it as the DNA of your facility.”

Purely from an MRO perspective, an integrated system can provide better ways to see and measure procurement process costs. These costs can be in a range of areas, from receipt and invoicing to purchase order placement. Outsourcing can also offer enhanced visibility of—and therefore savings in—investments associated with purchasing itself. These include the time to source materials, set up suppliers, and handle the procurement and distribution of items.

That way, the manufacturer can “concentrate on supplying the products you produce to your market; it’s your core competence. You’re not in the hardware store business, which is what your MRO storeroom constitutes,” Krauter says. “If you can find a supplier with on-site MRO management expertise, you could outsource your MRO management processes and get out of the MRO business.”