Vendor managed inventory and other supplier-led initiatives help manufacturers increase productivity and cut costly inventory.

It has been called the “forgotten inventory.” For a variety of reasons, procurement spending on maintenance, repair and operations (MRO) supplies typically does not receive the same management attention as spending on raw material and parts. This lack of oversight can lead to a host of costly inefficiencies and, in the worst case scenario, production disruptions from ineffective ordering and lost or improperly identified stock.

Common issues include stockpiles of unneeded MRO inventory that occupy valuable warehouse space, slow-moving inventory that’s moved and lost, and poor oversight by untrained and unsupported maintenance managers. Over a three-year period, according to a 2013 study by research firm IHS, more than half of MRO inventory is not touched, and almost a third is never used. ¹

Like key suppliers of raw materials and parts, MRO vendors and distributors can be important business partners who help manufacturers cost-effectively manage MRO inventory. They offer a variety of strategies for helping companies improve MRO inventory management, including vendor managed inventory (VMI) and favorable contracts to preferred customers.

This white paper highlights how building strong partnerships with MRO vendors can help manufacturers overcome MRO inventory management challenges, improve availability and reduce costs in their supply chains.

¹ MRO Data Key to Unlocking Cost Savings and Operational Efficiency for Asset-Intensive Companies, IHS.
“I am willing to pay a premium for a product if the supplier delivers value. That value can bring huge benefits to a manufacturing operation.”
—DuPont sourcing manager

Lean on Experienced Supply Chain Staff
Building effective relationships with suppliers begins with experienced procurement and supply chain professionals. Many manufacturers rely on their maintenance staff to manage the MRO procurement process. The problem with this approach is that many, if not most, maintenance people lack the skills and motivation necessary to forge meaningful partnerships with MRO suppliers. Having maintenance staff spend their time paging through catalogs and placing phone orders with vendors removes them from their core duties and leads to inefficiencies on the plant floor.

Some of the common challenges that arise from mismanagement of MRO materials include out-of-stock items, missing or hard-to-find supplies, and overspending on freight and labor. These issues become more prevalent when companies don’t practice the same level of discipline with MRO that they apply to managing traditional direct inventory, such as raw materials, work-in-process and finished goods. A lack of insight into critical performance data—such as inventory turns, obsolescence or usage—results in waste and higher MRO costs because companies purchase inventory items as needed. Such last-minute and emergency buys typically lead to less-favorable pricing and expedited freight costs.

Develop Supplier Relationships Based on Mutual Benefits
The most effective partnerships provide mutual benefits for the supplier and customer. “In most circles today, this is called ‘supplier relationship management,’” writes Bob Engel, former senior practice leader for the supply chain management practice area at Resources Global Professionals. “But that implies one-way communication (telling the supplier how to do it). Two-way communication, which requires both buyer and seller to jointly manage the relationship, is more effective.”

Mutual access to top decision-makers and communication between these leaders are keys to building stronger relationships. Such communication demonstrates a high level of trust and helps the supplier and customer resolve issues faster. For example, U.S. chemical producer DuPont seeks out MRO suppliers that offer ideas for ways to reduce costs and improve productivity.

“I am willing to pay a premium for a product if the supplier delivers value,” says an MRO sourcing manager at DuPont. “That value can bring huge benefits to a manufacturing operation.”

The terms of a supplier/customer partnership will vary depending on the type of support the vendor is providing. Most manufacturers prefer long-term contracts for core MRO items, such as refractories, lubricants and packaging. In the contract, procurement managers should specify supplier expectations, such as free product testing and inspection, employee training and inventory-reduction goals. Other contract considerations include the supplier’s ability to meet emergency and standard part requirements and provide technical support. MRO customers have the bargaining power during contract negotiations and should define cost-savings targets in any agreement.
The type of supplier partnerships depends on the inventory variety and needs. Companies typically purchase common MRO materials, such as bearings, belts and fasteners, from a distributor. Purchasing directly from the manufacturer is more common for specialized parts and specialty maintenance items.⁸

Before moving to an alternative MRO management program, experienced vendors will perform a business analysis to clearly document the plant’s processes and needs. Typically, the supplier will walk the production floor and review inventory storage areas to identify possible savings opportunities. MRO vendors with industry expertise can offer customized solutions that meet specific needs.

Let the Experts Take Charge
MRO vendors can provide a combination of inventory management services, including training and ongoing support of their vending solutions. Vending solutions typically include tracking tools that provide web-based views of inventory levels and usage. Plants with security concerns or the need for point-of-use storage and inventory management may opt for tool vending machines or cabinets.

A 2013 IndustryWeek survey found that 39% of manufacturing executives plan to start or increase VMI programs.⁹ An on-site VMI program puts more inventory responsibilities in the hands of a vendor. In many cases, plant leaders maintain control of the ordering process and their spending levels, but the vendor will track the inventory levels and replenish parts as needed.

In a typical VMI relationship, the supplier manages the inventory onsite or near the customer. Customers can pull inventory as needed and only pay for items they consume. The supplier takes responsibility for inventory replenishment, including tracking inventory levels, ordering the material and management of logistics.¹⁰

In addition to production parts and materials, VMI can be a cost-effective strategy for companies with large, diverse MRO inventories.¹¹ Some of the signals that a VMI strategy should be considered include excessive maintenance overtime, poor equipment reliability and any other indicators that maintenance personnel are preoccupied with non-core tasks.

In a VMI partnership, the MRO supplier can track inventory and ordering with their own systems, which can provide a more accurate view of demand history and material requirements across an enterprise. Such intelligence enables the supplier to more accurately predict customer demand and improve on-time delivery. Another potential benefit of VMI is improved quality because suppliers tend to be more responsive to quality issues when the inventory resides within their control.

Track Key Performance Indicators
Both onsite and offsite suppliers can help manufacturers track MRO inventory consumption through a variety of methods. These include IT-enabled supply management tools and tracking technologies, such as RFID and bar coding. Some MRO vendors will provide customers with scanners that their employees can use to reorder items based on preset minimum/maximum levels.

E-procurement is another technology that has helped manufacturers manage their MRO processes more efficiently and effectively.
efficiency. E-procurement enables paperless communication and invoicing, saving 50% to 70% of the time required for traditional paper-based transaction processing.\(^{12}\) E-procurement also provides visibility into item-level spending so the organization can categorize items based on spending trends. Some companies link e-procurement systems to their inventory-management tools to provide suppliers with better demand visibility.

Software solutions that measure key performance indicators (KPIs) help manufacturers track supplier performance. Some of the MRO-specific KPIs that manufacturers should track include the number of stock-outs, rush orders, rate of parts obsolescence and days or months of inventory on hand. Whatever solution is deployed, managers should be able to run reports so suppliers or internal customers responsible for MRO inventory can see how they are performing.\(^{13}\)

Interactive tools are also available that enable deeper supplier collaboration. Cloud-based or software-as-a-service (SaaS) solutions allow multiple people from different organizations to access important data related to supply chain performance. Cloud technologies are becoming more common in MRO inventory management. Two-thirds of executives responding to the Industry Week MRO survey said they plan to invest in cloud technologies by 2016.\(^{14}\)

Using a cloud-based system, a company can authorize suppliers to view specific information so suppliers can monitor their performance. Supply chain partners can use such tools to determine the causes of any issues, such as late deliveries or long lead times, by looking at trends associated with specific components or shipping methods.

The use of a “supplier scorecard” is another way of tracking and improving supplier performance. Supplier scorecards can be basic, Excel-based spreadsheets or reports linked to the company’s enterprise resource planning system. Business intelligence software can simplify the process by culling information from various sources with a higher accuracy rate. Be wary of scorecards with long lists of KPIs, which can be time consuming to assemble and error prone.\(^{15}\)

\(^{12}\) Recent Impacts of e-Procurement on the MRO Industry, Reliabilityweb.com.
\(^{13}\) Supply Chain 24/7.
\(^{14}\) Industry Week.
\(^{15}\) Supplier Relationship Management: How key suppliers drive your company’s competitive advantage, PricewaterhouseCoopers.
A scorecard that reports aspects of both the supplier’s and internal company’s performance, such as on-time payment, can enhance the collaborative relationship more than an evaluation tool that only measures supplier execution. Two-way measurement is more effective than a one-sided approach because it demonstrates both parties are committed to improving performance.\(^\text{16}\)

**Tracking ROI**

An effective partnership with an MRO supplier will help organizations improve productivity by freeing plant personnel to focus on more value-added tasks. Additional benefits include the ability to:

- Minimize slow-moving inventory
- Improve productivity
- Save money on expedited shipping
- Reduce or eliminate obsolete items
- Free warehouse space
- Improve inventory visibility

“Outsourcing management of the MRO storeroom introduces discipline around parts management and enables better data that can be analyzed more accurately,” according to the DuPont material sourcing manager. “More accurate analysis helps us come to better sourcing decisions.”\(^\text{17}\)

Companies can measure the success of any supplier partnership program by including the finance department in the oversight process. Senior-executive support of such initiatives reinforces the importance of supplier relationships and ensures the programs are aligned with overall business objectives.

MRO suppliers play a critical role in providing the tools and support companies need to reduce waste and costly downtime. Participation by multiple stakeholders, internally and externally, in the MRO chain provides companies with the visibility they need to minimize production delays and the cost of excessive inventory. Taking such a collaborative approach to MRO procurement and inventory management frees maintenance technicians and other personnel to focus on their primary responsibilities. The end result is a more cost-effective and efficient MRO supply chain.

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\(^{16}\) PricewaterhouseCoopers.

\(^{17}\) My Purchasing Center.