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Ken Bannister, Contributing Editor ***Whenever the cost of a repair is calculated, it typically is broken down into two specific components—parts and labor. The stocking of maintenance, repair and overhaul (MRO) parts in preparation for a planned or unplanned maintenance event typically necessitates ongoing partnerships with multiple vendors. The set-up and continued management of these types of ongoing partnerships will have a tremendous impact on equipment availability, reliability and cost of maintenance.***

Deadly sins

"Machine down, waiting for parts." If this is a familiar statement found on your returned work orders or daily maintenance schedule, you are likely working in a highly reactive maintenance environment.

The set-up and continued management of these types of ongoing partnerships will have a tremendous impact on equipment availability, reliability and cost of maintenance.

Unfortunately, when equipment downtime is being experienced as a result of the part(s) unavailability, the tendency is to pay premium prices for both parts and delivery. For example, have you ever been in a situation in which a crucial part is not available locally, forcing you to air-freight and taxi a non-discounted part into the plant? In a proactive Maintenance department, this scenario is viewed as a deadly sin, since a part purchased in such a manner significantly compounds the maintenance repair cost.

A second "deadly sin" is associated with Maintenance developing the tendency to overstock low-turnover items. Purchased in multiples, these items often are stored in non-controlled, cached inventories (sometimes called "squirrel stocks"), in places like tradesmen toolboxes, equipment cabinets, etc. With annual carrying costs as high as 35 cents on the dollar and prohibitive access to "squirreled" parts, inventory costs easily skyrocket with poor or no return to the Maintenance department.

Working to eliminate out-of-stock, overstock and guaranteed delivery of non-stock items (without penalty) requires a defined Maintenance/ MRO vendor partnership in which each partner understands his/her role in ensuring that parts are "ready to go" at any time.

Establishing vendor partnerships

One of the hallmarks of a successful business is a trust-driven relationship between the company and its supplier/vendor base that views those purveyors of goods and services as a natural extension of the company itself.

A basic MRO inventory consists of three major spare part categories:

- ***Original Equipment Manufacturer (OEM) items***—These are proprietary items available only from the machine builder, usually with longer lead purchase times.

- ***Insurance Spares***—The items are inventoried for purposes of due diligence, and required by the corporate underwriter for equipment that could pose high-risk consequences when in a prolonged failed state.
- ***Industrial Supply Items***—These are available "off the shelf" from many different vendors.

Vendor relationships can vary significantly. They depend not only on the willingness of vendors to work with Maintenance, but also on the relationship and partnership already established between Maintenance and Purchasing, which acts as the corporate agent with the vendor. (*See the March 2007 installment of this column in Maintenance Technology for a description of the Maintenance/Purchasing partnership.*
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There are basically four types of partnership agreements in which a Maintenance department and parts vendor can engage:

- ***The Lowest Bidder***—This is a common relationship in which the Maintenance department, often driven by a strong Purchasing department mandate, follows a path of least-resistance and acquiesces to the purchase of supplies from the lowest-priced vendor. This method is especially time-consuming in that every item must be individually "shopped," requiring extensive use of the purchasing system. This type of relationship is reactive in nature, not built on trust. Furthermore, it is not conducive to building long-term relationships with vendors.

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- ***The Preferred Vendor***—When a vendor has established a good, trustworthy service record and a history of fair pricing, it can be considered an excellent candidate for "preferred vendor" status. Such an agreement generally means the vendor receives exclusive selling rights for listed inventory items, for an agreed price, delivery and specified time period. In return for this agreement, the vendor agrees to keep a minimum stock ready for immediate delivery (often from the vendor's premises) at no additional cost to the Maintenance department. This partnership agreement promotes consistency of purchasing and supply; allows free exchange through a single blanket purchase order; and reduces or eliminates the carrying costs associated with carrying and managing maintenance inventory.
- ***The Consignment***—This type of partnership allows the inventory vendor to set up its own shelving and stock items on the company's premises, again at no additional cost to the company. The Maintenance department then simply uses the "free-issue" items as its own, while the vendor accounts for items used on a daily, weekly or monthly time basis, and bills the company for the parts used after the fact. The advantage of this type of partnership is having managed inventory immediately available—for zero capital outlay at a previously agreed upon pricing structure. In return, the vendor receives a term-based, exclusive right-to-sell agreement. Already popular on the basis of free issue style items that include gloves, rags, nuts and bolts, etc., these partnerships rapidly are gaining more ground by offering higher-priced, highuse items such as bearings, electrical and power transmission supplies.
- ***The Hub Vendor***—Such a partnership is a radical shift from those listed previously, in that it reflects a performance-based service arrangement in which the vendor operates and controls the entire MRO inventory on behalf of the Maintenance department. A single-source vendor acts as an outsource agency and takes responsibility for purchasing, stocking and staging of all MRO inventory. The vendor is rewarded for parts availability and turnaround

time—and paid on a monthly basis. The inventory may or may not reside on the plant floor, and could possibly have consignment inventory as part of its make-up.

Get smart

Whatever type you choose, remember that you want it to be a "smart" one. That's because smart Maintenance/MRO vendor partnerships help the Maintenance department run smoothly, while reducing carrying costs and working capital expenditure.

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