



3 Steps to Getting Your MRO Back on Track

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MRO spending is often seen as a necessary evil, a cost of maintaining assets. To care for equipment properly, you must have replacement parts—many companies simply could not function without an available supply of spare components. However, if your company is consistently placing emergency part orders, finding the same product with multiple part numbers, or making duplicate orders, then you are probably spending too much on MRO.

Get your MRO back on track by assessing what you buy, when you buy, and where you buy. Making informed decisions about your MRO spending and getting control over MRO processes can result in an immediate return on investment in the form of:

- Reduction in obsolete, excess, and duplicate inventory.
- Maintenance efficiency gains due to maintaining the necessary parts and making them easy to locate.
- Reductions in purchase order processing costs due to consolidated automatic re-orders rather than reactive spot purchases.
- Consolidating suppliers to set negotiated, lower purchasing rates.

Understanding and managing MRO spend impacts the bottom line through cost savings and improved maintenance. Follow these three steps to clean up your data and inventory, reorganize, and implement new processes to gain significant ROI:

STEP 1: Determine **WHAT** You Buy

STEP 2: Determine **WHEN** You Buy

STEP 3: Determine **WHERE** You Buy

STEP 1: DETERMINE WHAT YOU BUY

Do you know what you buy? This may seem like a ridiculous question, but when you need a part in a hurry, you may quickly forget that you bought the same part just a month ago—or maybe you have it in inventory but are unable to locate it. To figure out what you buy, you must first **identify what you have, determine what you need, organize and identify what you keep, and maintain your organization.** You can't go to WHERE you buy until you know WHAT you buy. So what if you get pre-negotiated, deep-discount prices on a specific part if you only buy that part once every 5 years. Organize, source, then lock in rates.

Identify What You Have

Clean up your purchasing supporting information to properly assess your parts purchasing data. A good place to start is by pinpointing duplicate manufacturers and suppliers and then addressing the duplication. It is also necessary to identify parts obsolescence by stock and usage history and to find duplicate parts by manufacturer part number.

Identifying Duplicate Parts

In this example, you can see 11 duplicate entries for the exact same water pump – WP-598. Each entry has the same manufacturer, manufacturer ID, and part number (see red underline) however there are 11 different part IDs and descriptions (see yellow highlight). The same water pump is being purchased, independently, in 11 different ways. If you can merge these 11 parts, you can AVOID a purchase – the only way to reduce your existing inventory.

	A	B	C	D	E	I	K	L	M	N
	Manufacturer	Manu ID	Part ID	Description	Associated Stores	Reorder Stores	Stocked Stores	Last Issue/Return	Last Order Date	
1	AIR TEK	AIRTK	WP-598	42013711	WATER PUMP					1/8/2009
25	INDUSTRIES	AIRTK	WP-598	42000006	WATER PUMP KIT, 6.2 DI					
26	AIR TEK	AIRTK	WP-598	42011108	WATER PUMP ASSY 6.2 R					
27	INDUSTRIES	AIRTK	WP-598	42011108	PP1686					
28	INDUSTRIES	AIRTK	WP-598	42008379	PUMP, WATER - 6.5 V-BE					
29	INDUSTRIES	AIRTK	WP-598	42000451	WATER PUMP ASSY 6.2					
30	AIR TEK	AIRTK	WP-598	42004005	WATER PUMP, 6.5 W/ 54					
31	INDUSTRIES	AIRTK	WP-598	42011293	BELT NEW# W8800907					
32	INDUSTRIES	AIRTK	WP-598	42011293	WATER PUMP ASSY 6.2					
33	INDUSTRIES	AIRTK	WP-598	42011293	WATER PUMP ASSY 6.5					
34	INDUSTRIES	AIRTK	WP-598	42007999	NEW WATER PUMP					
35	INDUSTRIES	AIRTK	WP-598	42012204	WATER PUMP, 6.5					
36	INDUSTRIES	AIRTK	WP-598	42012204	6.2L WATER PUMP					2/13/2009

WATER PUMP

WATER PUMP KIT, 6.2 DIESEL

WATER PUMP, 6.5


WATER PUMP, 6.5 W/ SERPENTINE BELT NEW# W8800907

PUMP, WATER - 6.5 V-BELT

WATER PUMP ASSY 6.2 (NEW #42031008)

6.2L WATER PUMP

WATER PUMP ASSY 6.5 ENGINE



Why is this important? Assessing your parts data can show you where problems exist, so you can address any issues and get on track to having the right part, at the right price, at the right time. For example:

1. If there is a high percentage of part records with low to no usage and no stock on hand (obsolescence), that is a strong indication that the data should be scrubbed.
2. If you have duplication of parts records and multiple part records per manufacturer part number, you might be purchasing parts locally without regard for national contracts, which is costly. It is essential to leverage whom you buy from to get the lowest prices.
3. If there is an issue with part master record duplication, it can make national contract negotiation challenging because usage of individual parts is difficult to track. For instance, if you have 11 different part numbers for the same water pump or one part with several descriptions, you may inadvertently purchase a new part, wrongly assuming you do not have the right product for the job.

Determine What You Need

To determine what you need, it is essential to first identify parts that have not been used within a designated timeframe. For your company, this may be six months or maybe 12 months; in any case, when you remove obsolete parts and duplicates, you gain a greater understanding of what your company truly uses and needs. In addition, by completing this process, you could possibly reduce your spare parts inventory by 15% - 25%, resulting in significant savings.

Identify and Organize What You Keep

After addressing parts obsolescence, categorize parts by universally recognized standard codes whenever possible, such as the United Nations Standard Products and Services Code® (UNSPSC) or the Vehicle Maintenance Reporting Standards (VMRS). The UNSPSC “is the most efficient, accurate and flexible classification system available today for achieving company-wide visibility of spend analysis, enabling procurement to deliver on cost-effectiveness demands and allowing full exploitation of electronic commerce capabilities.” (<http://www.unspsc.org/FAQs.asp>).

While the UNSPSC and VMRS codes are universally accepted and used widely, these standard categories are not the only criteria you should consider for categorizing parts. Other attributes that can be used include application of the part (process or equipment type), manufacturer, criticality, and purchasing strategy.

**Lack of Standardization:
Same Manufacturer and Part
ID, Different Part #s**

Manufacturer	Manu ID	Manu Part ID	Part	Description	Associated Stores
TIMKEN CO., THE	TIMKN	HB88107 A	42002080	DRIVESHAFT CENTER BEARING P30(HB88107A)	24
TIMKEN CO., THE	TIMKN	HB88107 A	42002597	CARRIER BEARING ASSEMBLY USE #HB88107A	5
TIMKEN CO., THE	TIMKN	HB88107 A	42019162	CARRIER BEARING, SHAFT SUPPORT - 80 P30 CHEVY VANS	1
TIMKEN CO., THE	TIMKN	HB88107 A	42005836	BEARING DRIVELINE CENTER SUPPORT	1

You can apply standardized naming conventions to remaining active parts and customize them according to customer requirements with categorization relevant to the organization. Keep in mind that lack of standardization leads to duplication and obsolescence, and duplication makes setting correct order points and levels difficult, if not impossible. Moreover, inconsistent naming conventions make locating parts difficult—if users cannot find a required part, they will order excess stock—and lack of consistency across locations makes repurposing inventory difficult.

Maintain Your Organization

Once you have cleaned and categorized your data, do not let your hard work go to waste—put the processes and tools in place to maintain your newfound organization. There are a number of EAM solutions available to streamline processes, such as parts analysis and duplication removal, and allow for an efficient and accurate assessment of your parts data. If you do not already have an EAM or CMMS solution, it is important to choose a system with the type of functionality to address your pain points and create greater productivity for your company.

STEP 2: DETERMINE WHEN YOU BUY

Before ordering a part, it is imperative to review your purchasing data to make educated determinations of when you should buy. Below are questions to consider prior to your next purchase:

1. What set of items will have the most immediate impact on the efficiency of operations?

If you have \$25 million in inventory but would like to make a 10% reduction—a savings of \$2.5 million—it is critical to look carefully at your stock and determine what items are essential to operations. Note that roughly 20% of SKUs account for 80% of the total stock value, while approximately 20% of SKUs account for 80% of total stock movement. Initial efforts to set re-order levels should focus on these high-value SKUs.

2. What is the criticality of the item?

Part criticality can be the most difficult criteria to quantify in the reorder level setting process as it is largely dependent on the criticality of the equipment it is designed to repair. If equipment criticality is well defined, and all spare parts are tied to specific equipment, then criticality determination is academic. However, if that data is suspect, or does not exist, then an exercise must be performed to identify equipment and part categories and assign criticality to those categories.

WHAT YOU BUY BENEFITS:

The ROI for your data analysis should begin to materialize at this point in the process, before even addressing other issues, such as order quantities and levels or supplier sourcing.

- Standardized naming conventions improve visibility across plants, allowing for better utilization of existing inventory.
- Reduction in obsolete records and standardized naming conventions facilitate more efficient searching.
- Standardized naming also reduces the amount of ordering parts already in stock, saving inventory costs, expediting fees, and reducing unnecessary equipment downtime, inventory ordering, and carrying costs.
- Identification of unused inventory that can be sold, returned, scrapped, or repurposed creates opportunities for savings and monetary gain.

3. What is the historical usage of the item?

To assess the historical usage of items, begin by identifying items with little or no movement and remove those items from reorder unless criticality dictates differently. It is also wise to find any equipment recently removed from service or planned to be removed within the next six months as well as any related parts and adjust order levels accordingly. In addition, you should also analyze ordering history for annual usage and actual stock-outs. And, identify by class any seasonal equipment, such as HVAC, grounds maintenance equipment, etc.

4. What is the availability and lead time for the item?

Identify any items requiring special or custom order, and flag items with low availability such as special or discontinued items. Lead time should be calculated from fulfillment history in your EAM application, if applicable, instead of supplier or manufacturer stated lead time. This ensures lead time data is as accurate as possible.

5. What are the costs of ordering vs. storing?

Order cost is the cost of an order and payment transaction; it is often more than the cost of the actual item. Inventory carrying cost, on the other hand, is the physical cost of storing and maintaining inventory and the cost of tying up financial resources in inventory. Order cost and cost of inventory storage can be difficult to calculate, although an EAM solution can perform such functions and offer accurate cost figures.

STEP 3: DETERMINE WHERE YOU BUY

Now that you know what you want and when you want it, the next logical question is “Where do you get it?” Choosing a supplier for a part or category of parts is one of the most critical decisions in managing MRO spend, but is often the least standardized. In fact, the criteria for determining the preferred supplier of a part is often poorly defined and/or poorly enforced, and the negative results of inconsistent criteria can include:

- Inconsistent pricing
- Inconsistent service levels
- Inability to meet contracted purchase quantities with national suppliers
- Difficulty in cost reporting
- Inconsistent quality assurance
- Inconsistent processes (substitutions, backorder policies, return processes, core charge processes)

To avoid such results, you must develop reasonable criteria regarding part supplier selection both on the local level and on the national/global level.

WHEN YOU BUY BENEFITS:

The ROI for properly addressing “when you buy” is manifested in the following measurements:

- Reduction in stock-outs creates improved maintenance efficiency.
- Reduction in overnight or expedited orders and their resulting premiums provides cost savings.
- Increase in average number of items per PO or receipt line indicating shipping and PO transaction costs are more efficiently spread across purchased parts.
- Pricing compliance with negotiated prices should improve.

Part Supplier Selection: Local Level

Clearly defined criteria for the preferred supplier of a part is essential for making every dollar count. You should consider existing relationships—does the supplier make frequent on-site visits? What about their willingness to deliver and react quickly? And, of course, you must also determine what kind of service level you need and with what price range you are most comfortable.

These criteria offer a good place to start, but remember that decisions must be based on overall organizational considerations without disregarding local considerations.

Part Supplier Selection: National/Global Level

Like criteria for the supplier selection on the local level, the preferred criteria on the national/global level should also cover all the bases. Among others, you may want to consider these important criteria:

- Open to strategic partnerships
- Ability to service the entire organization
- Service levels
- Pricing (uniform pricing for entire organization, price concessions at pre-determined purchasing volume)
- Order processing compliance (electronic communications, timely invoice processing, online visibility into part availability)
- Support/warranty
- Rebates
- Freight/delivery concessions
- Consignment/buy-back policies

Many of the criteria are similar at the local and organizational level. The difference in the two sets of criteria is the point of reference. For example, ten stores could each be getting the very best price possible at each of their respective locations, but with the combined leverage of all of the sites, the cost at an organizational level can be much lower.

The cost of “great service” can also be high if not managed correctly. A low price per part can be offset by the processing costs, multiple “one time” or emergency purchases. A reactive supplier with reasonable prices is seldom as cost-effective as managing inventory on an automatic reorder, reducing stock-outs.

Measuring supplier criteria at an organizational level ensures the organization as a whole is making the best purchasing decisions possible.

WHERE YOU BUY BENEFITS:

The ROI achieved by fully analyzing and answering “Where you buy?” may have the most impact but provides the most challenging measurement. Much of the savings are “opportunity cost” or cost you would have incurred if you had made the less-efficient decision. The savings, therefore, can be measured in terms of:

- Reduction in number of suppliers managed
- Preferred supplier pricing compliance
- Negotiated contract—meeting spend goals
- Spend by category
- Part average cost

Supplier Selection Optimization

Supplier selection is an ongoing management process, but there are a few steps that should be taken in any supplier optimization process. First, you must pinpoint and address any duplication in suppliers, allowing maximization of leveraged buying agreements. (This should have been performed earlier in the process).

Next, it is important to identify supplier evaluation criteria for assessing suppliers objectively, such as lead time, compliance to process requirements, service levels, backorders, price variations, invoice discrepancies, etc. And last, categorize high volume and low volume suppliers.

Note that there are functions available in EAM systems that can assist with the suggested analysis.

Part	Non Preferred	Preferred	Uses Per Year	Variance
Alternator	\$225	\$150	10	10 x \$75 = \$750
Plug	\$110	\$65	25	25 x \$45 = \$1125
Savings				\$1875

Utilizing a Preferred Supplier

Savings at ONE plant from using the preferred supplier 100% of the time for just TWO parts = \$1875.

CONCLUSION

It is possible to get your MRO spend back on track when you look closely at What, When, and Where regarding your parts purchasing. After all, the only way to reduce MRO spend is to avoid buying the part in the first place or to buy parts from a preferred vendor at a less expensive pre-negotiated price. You can make a significant impact on your bottom line by taking these three big steps towards cleaning up your data, addressing issues, and making better informed decisions.

You can further optimize your MRO processes and better manage MRO spend with the help of an EAM system. EAM can streamline data analysis while providing accurate information on inventory, parts ordering, suppliers, and all aspects of your operation.

Contact Advoco for more information on effectively managing MRO processes through an EAM solution.

ABOUT ADVOCO

Advoco is a leading management and consulting services company headquartered in San Francisco, CA with offices in Greenville, SC and Dubai, UAE. Advoco focuses on Infor EAM – previously known as Datastream 7i – offering EAM services and implementation.

By optimizing business performance through an improved application of IT, Advoco forms a trusted partnership and continues to meet the complex needs of leading organizations. Advoco clients include Fortune 1000 accounts and leading private and public organizations around the world. In Latin, *advoco* means “to call in an advisor.” For Advoco customers, it simply means business. It’s a promise we deliver daily. **Expect success.**

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