

# MRO Inventory Best Practices

As competition and technology continue to evolve in today's industrial and manufacturing industries, companies are faced with the ever-increasing challenge of reducing costs and improving efficiency while maintaining production quality.

Creating an effective and organized system to manage and lookup MRO materials helps to reduce costs associated with labor hours spent looking for spare parts, purchasing of unnecessary parts, or excessive downtime.

## 9 best practices for MRO

### 1. Standardize MRO Inventory Data

Inaccurate MRO data leads to duplicate parts, hard to find spares, and excessive costs tied to unnecessary inventory levels.

- Establish standardized naming conventions and taxonomy Segregate and Standardize the Manufacturer Name and Part Number
- Assign Noun-Modifier and Required Attributes
- Populate Attributes
- Assign Classification Codes
- Identify Duplicate Items
- Quality-Control Review

### 2. Regulate Parts Management

Creating standard operating procedures for spare parts access and usage will mitigate inconsistencies within the department.

- Control access to the storeroom
- Conduct routine cycle counts
- Establish issue, receive and return policies
- Track inventory usage through policies such as:
  - A, B, C analysis
  - FIFO
  - Stockouts

### 3. Storeroom Organization

Organizing your storeroom based on accessibility to your commonly used parts will limit search time.

- Design the layout of your storeroom for easy access. Frequently used parts should be easily accessible while infrequently used parts can be stored in less accessible areas
- The storeroom should be centralized within the facility
- Keep storeroom clearly lit for easy part identification and clean of debris to prevent contamination
- Use a temperature controlled (ambient room for bearings) and other sensitive materials

### 4. Segment Inventory

Segmenting your MRO inventory based on part characteristics helps with storeroom organization and tailored management techniques.

- Segmenting inventory allows for different management strategies based on item profiles
- Parts can be segmented based on, but not limited to:
  - Criticality
  - Usage
  - Cost
  - Availability
- Periodically assess inventory for surplus or obsolete parts for disposal

### 5. MRO KPIs

Tracking KPIs helps identify if you are making improvements with your inventory or if additional measures should be taken.

- The following are some KPIs that can be used to measure your MRO success:
  - Inventory Accuracy: Best practice is greater than 95%
  - Stock Outs: Best practice is less than 1%
  - Emergency Purchases: Best practice is less than 2%
  - Required Delivery Dates Met: Best practice is 98%
  - Equipment Bills of Materials: Best practice is 100% critical equipment; 95% and greater for all

## 6. Develop Standard Operating Procedures (SOPs)

Creating SOPs for storeroom personnel maintains consistency in your MRO management and expedite training for new personnel.

- A few items to include in your SOPs:
  - Management Policy
  - Stocking policy
  - Repairable items management
  - Receive, return, issue policy
  - Metrics and reporting policy

## 7. Disposal policy MRO Bill of Materials (BOMs)

A bill of materials is a list of the raw materials, sub-components, parts, and the quantities of each needed to manufacture an end product.

- There are basically two types of BOMs:
  - The first type, referred to as “MRO” BOMs, usually includes all the identifiable wear parts or parts that might be purchased to repair the equipment. This BOM may also be referred to as “Planner” BOMs or Recommended Spare Parts.
  - The second type, referred to as OEM BOMs, consists of every assembly and part that is used when the equipment is manufactured. An example of an OEM BOM would be the equipment exploded view drawings provided in a manufacturer’s technical manual or, the as-built BOM list sometimes included with the OEM manual.

## 8. Centralize MRO Inventory

It is best practice to consolidate inventory into a main storeroom. This helps facilitate security and inventory control levels.

- Centralization increases control and overall efficiency
- Procurement personnel operating independently could inadvertently order the same component whereas centralizing MRO supplies eliminates potential purchase duplicates

## 9. Reassess

No matter how efficient your processes might seem, it is always important to periodically assess your MRO program for any potential improvements.

- Periodically review your MRO SOPs and/or procedures
- Evaluate your KPIs to identify any problem areas

# About MaxGrip

MaxGrip consultants enable organizations in asset-intensive industries to achieve continuous improvements on their asset performance, also using the power of Digital Transformation. MaxGrip embraces APM 4.0 with a maintenance track record of over twenty years in industries like Oil & Gas, Food & Beverages and Utilities & Infrastructure. We operate on all continents and have a global presence with our main offices in the Netherlands (HQ), USA, and Malaysia.

## CONTACT US

### **MaxGrip EMEA**

Utrecht, the Netherlands  
T: +31 30 747 01 38  
E: [info@maxgrip.com](mailto:info@maxgrip.com)

### **MaxGrip Americas**

Houston, Texas  
T: +1 844 629 4747  
E: [info@maxgrip.com](mailto:info@maxgrip.com)

### **MaxGrip Asia**

Kuala Lumpur, Malaysia  
T: +603 2717 1011  
E: [info@maxgrip.my](mailto:info@maxgrip.my)