



MRO Storage Checklist

INTELLIGENT ASSET MANAGEMENT SYSTEMS

MRO Storage: Maintenance, Repair, and Overhaul (MRO) spares and parts should be stored in a manner that prevents the introduction of failure causing defects. Stored items should be maintained in their Original Equipment Manufacturer (OEM) packaging in environmentally controlled locations, and never kept beyond the recommended shelf-life.

MRO

PART TYPE	PREVENTABLE DEFECT	STORAGE BEST PRACTICE
Bearings	False Brinelling, Contamination, Chemical Corrosion	<ul style="list-style-type: none"> • Insulate from vibration • Store away from humidity • Do NOT remove from packaging • Keep clean – but do NOT touch
Circuit Boards & Electronics	Embrittlement, Deformation, Chemical Corrosion, Electrical Erosion	<ul style="list-style-type: none"> • Insulate from static discharge. • Store away from humidity • Keep clean – but do NOT touch • Do NOT remove from packaging
Cylinders (hydraulic or pneumatic)	Seal Deformation, Seal Damage	<ul style="list-style-type: none"> • Store vertically. • Drain fluids away from piston head and seals • Cover ports to prevent contamination
Drive Belts	Deformation, Elongation, Embrittlement (“dry rot”)	<ul style="list-style-type: none"> • Do NOT hang from peg smaller than sheave radius • Store flat in a serpentine pattern • Store away from heat and humidity • Do NOT store near the ceiling • Keep clean – but do NOT touch
Drive Chains	False Brinelling, Contamination, Chemical Corrosion	<ul style="list-style-type: none"> • Insulate from vibration • Do NOT stack • Lubricate frequently to prevent corrosion • Keep clean – but do NOT touch
Electric Motors	Deformation, Bearing Defects, Rotor Defects	<ul style="list-style-type: none"> • Insulate from vibration • Insulate from static discharge • Rotor shaft ¼-turn per month • Maintain OEM recommended temperature
Fasteners	Chemical Corrosion (“rust”)	<ul style="list-style-type: none"> • Store in minimum quantities • Rotate stock frequently • Keep clean – but do NOT touch
Gearboxes	Deformation, Bearing Defects, Chemical Corrosion	<ul style="list-style-type: none"> • Insulate from vibration • Completely fill with Nitrogen or lubricating fluid • Rotor shaft ¼-turn per quarter • Do NOT open or expose to airborne contaminants
Lubricants	Contamination	<ul style="list-style-type: none"> • Rotate within OEM recommended shelf-life • Do NOT expose to airborne contaminants • Do NOT cross-contaminate with other lubricants • Filter before use
Pumps (centrifugal, rotary-screw, reciprocating)	Deformation, Bearing Defects, Chemical Corrosion	<ul style="list-style-type: none"> • Insulate from vibration • Completely fill with Nitrogen or lubricating fluid • Rotor shaft ¼-turn per quarter • Do NOT open or expose to airborne contaminants

CREATING AN MRO STOREROOM

When setting up your MRO warehouse or storeroom, consider these guidelines:

- Consolidated critical spares and set up satellite storerooms for frequently used items near point of use.
- Group high volume items by commodity to optimize cycle counting and transaction control.
- Document transactional processes from receipt to issue.
- Organize shelving systems based on the flow of items from receipt to issue.
- Label all bins with the Stock Keeping Unit (SKU) short description, and Min/Max inventory levels.
- Procure a system to efficiently record transactions from receipt to issue.
- Control access at point of issue to minimize inventory inaccuracies.
- Document standard procedures for reserving, kitting, issuing, and delivering items for planned work.
- Secure an area inside the storeroom for kitted items.
- Designate a controlled area inside the storeroom for repairable spares.
- Create "Free Issue" areas outside the storeroom for low value, high turnover items, like fasteners.
- Schedule layup preventive maintenance routines for motors, pumps, gearboxes, and all maintainable items.
- Ensure HVAC equipment is in good condition and adequate maintains temperature and removes humidity.