Reducing purchasing, supply and inventory costs is an integral part of increasing profitability... while maintaining appropriate spare parts inventory is essential for optimal production. To achieve minimum asset ownership with optimal risk, SKF offers consultation and structured programs to help you achieve consistent analysis, appropriate inventory levels and an auditable reference trail:

- Spare Parts Alignment, Rationalization and Optimization program identifies and addresses problems via a comprehensive assessment.
- Spare Parts Optimization Tool is an inventory management tool to determine optimal level of spare parts.
- SKF spares analysis software uses a risk-based approach to document economic justification for stocking levels.

Your SKF consultant can help you select the appropriate program to assist you in achieving these benefits:

- Reduced inventory costs
- Reduced probability of stocks-outs
- Linkage of spare parts levels to criticality of assets
- Justified basis for carrying inventory
- Addressed Total Cost of Ownership (TCO) for supply chain management
- Improved condition of spares

The Goal: Optimizing the Cost Effectiveness of Inventories

The cost effectiveness of inventories can be optimized by managing two aspects. Balancing the overhead burden is managed by minimizing the number of spares held in stock, while having sufficient spares on hand to restore failed critical equipment to service minimizes equipment downtime and resulting lost revenue.

This balance is determined based on the downtime costs, lead times, and safety and environmental considerations on the one hand, and the capital cost requirements, warehouse charges, vendor recommendations and budgets on the other.

The Assessment: Examining risked costs and holding costs

The cost of holding spares may be broadly divided into two categories – risked costs and holding costs. Risked costs are calculated from the probability of spare part demand multiplied by the penalty of not holding the spare part. Holding costs include the capital cost of purchasing the spares together with the cost of storing and maintaining the spares.

Spares strategy analysis seeks to achieve a balance between holding extensive stocks of valuable spares (which may never be required) and the exposure to production disruption and subsequent losses in the event of failure of a critical machine.

The Method/Documentation: Mitigating the risk

Extended lead times expose a business to high levels of risk and production losses due to the unavailability of equipment should spares not be held in stock. The ideal situation is to quantify those risks and have accurate information to determine the number of spare parts required to defend against or mitigate these risks to an acceptable level.

SKF has proven strategies, processes, technologies and experienced personnel who can guide your efforts to a successful Spares Optimization program.

Using SKF proven methodologies for spares optimization can simplify inventory management and help to reduce costs while increasing availability and productivity.
SKF Spares Assessment

Spares Assessment is a qualitative inventory management approach designed to stabilize and redefine customers' current supply chain management program by determining the optimal level of spare parts based on the following criteria:

- Asset criticality (Critical, Semi Critical, Non-critical)
- Supplier spare parts availability (ABC analysis)
- Maintenance program currently in place (Predictive, Preventative, Run-to-failure)

**SKF methodology encompasses three different service options:**

- Basic warehouse improvement includes warehouse assessment, cataloguing, catalogue management, interchangeability, cleaning, storing, repackaging components
- Inventory optimization and rationalization through a qualitative or quantitative approach
- System management using Enterprise Asset Management (EAM) or Computerized Maintenance Management System (CMMS) to set up inventory parameters for most effective spare parts management

SKF uses a sophisticated spares analysis software tool that incorporates economic justification and documentation for stocking levels using an approach based on consequential risk (lost production, obsolescence, carrying cost, environmental and safety impact, etc) and direct cost for holding spares. Customized reports present results for review and approvals.

For additional information on how Spares Optimization and Management can be applied to your business contact:

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