

MRO / Spare Parts Inventory Policies: Manager's Quick Guide

Continuous Min-Max (s, S)

Pros

- Reacts as soon as stock drops below the reorder point s, good for fast response
- Simple rule supported by most ERP systems

Cons

- Requires clean, timely transactions, bad data leads to bad orders
- Can oscillate or trigger frequent small orders if s and S are not tuned

Use when: You can monitor continuously and want quick replenishment

Base-stock (S-1, S) [one-for-one]

Pros

- Mirrors the repair cycle for repairables, very simple to run
- Works well for high-value, slow moving items

Cons

- Can tie up capital if repair turnaround is slow or unreliable
- Sensitive to repair capacity and return variability

Use when: Repairable items that are high value, have low demand, and are availability-critical

Periodic order-up-to (R, S)

Pros

- Easy to operate on a fixed review cadence
- Consolidates orders, helping freight and admin efficiency

Cons

- Risk of stockouts between reviews if R is too long
- Order-up-to level S depends heavily on how you forecast intermittent demand

Use when: spare parts with intermittent or lumpy demand and a regular review rhythm

Periodic Min-Max (R, s, S)

Pros

- Combines advantages of a scheduled review with those of a safety trigger before restocking

Cons

- Still exposed to between-review spikes causing stockouts
- Two parameters to tune (s and S) plus the review cycle R

Use when: Teams prefer fixed review cycles but want extra protection via a minimum

Reorder point with fixed lot (s, Q)

Pros

- Simple to communicate and automate
- Matches MOQs, price breaks, or truckload constraints, predictable buying

Cons

- Less responsive to sudden demand shifts without frequent Q parameter updates

Use when: Suppliers impose MOQs or freight economies, or procurement favors fixed batches

Fixed review and quantity (R, Q)

Pros

- Very easy to administer, predictable deliveries and workload

Cons

- Poor fit to intermittent demand: overstock after quiet periods, stockouts after spikes
- Ignores current inventory position at order time, so responsiveness is limited

Use when: Non-critical spare parts with fairly stable usage, or when process constraints require fixed cycles and quantities

s (reorder point / Min): the inventory level that triggers a new order.

S (order-up-to / Max): the target level you raise stock to when you reorder.

R (review period): the fixed time interval between two inventory reviews (e.g. every week, every month).

Q (order quantity): the fixed batch size you order each time replenishment is triggered.