

# LONG LEAD DAY PURCHASING

## Plan a supply pipeline for long lead time items

### 1 Understand the Risk of Long Lead Times



When a purchased item has an extremely long lead time, such as several weeks or months, it is highly risky to generate and receive one PO at a time. If a shortage occurs, it could take weeks or months for the next PO to arrive. Such a lengthy shortage would bring all dependent jobs to a standstill.

### 2 MRP Automatically Creates a Supply Pipeline



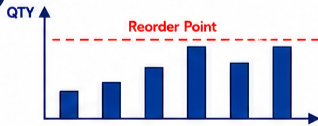
The ideal planning method for long lead time items is to generate a pipeline of multiple overlapping POs, each due to arrive at staggered intervals. MRP automatically creates and maintains this supply pipeline based on your Demand Driven MRP settings. If a shortage happens to occur, it will be relatively short in duration because the next PO is likely to arrive soon and delays to dependent jobs will be of minor impact.

### 3 Use Demand Driven MRP Settings



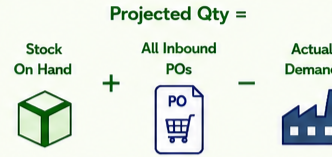
A PO pipeline is achieved by assigning the item a Demand Driven order policy. Enter a Potential Monthly Demand value, which combine with the item's Replenishment Time to calculate a dynamic Reorder Point that triggers PO generation. Enter a planned Supply Days for the desired interval between POs, which combines with the monthly demand rate to calculate a dynamic Min Order quantity.

### 4 The Reorder Point Will Have a Relatively High Value



An extremely long standard Lead Days will cause the Reorder Point to have a relatively high value compared to items with short standard Lead Days. Do not be concerned by the high value because the Reorder Point is a trigger point and not a stocking level.

### 5 The Projected Qty Will Also Have a Relatively High Value



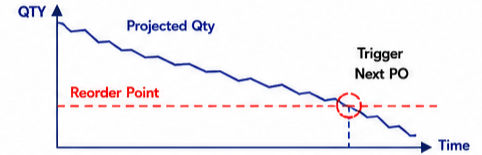
Projected Qty is calculated as follows:

$$\text{Projected Qty} = \text{Stock On Hand} + \text{All Inbound POs} - \text{Actual Demand}$$

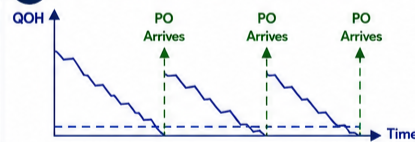
Take note all inbound POs are included in the calculation, which gives Projected Qty a relatively high value.

### 6 Actual Demand Triggers the Next PO

The next PO is triggered in MRP when Projected Qty falls below the Reorder Point.



### 7 Quantity on Hand Remains Lean



A high Reorder Point does not equal increased inventory on hand. QOH is trending toward zero toward the back end of the planning period and is replenished when the next staggered PO arrives.

### 8 PO Intervals Are Self-Adjusting



The intervals between POs are self-adjusting with actual demand. For example, if actual demand happens to be less than planned, the next PO is automatically delayed and the supply days interval becomes longer than planned. Conversely, if actual demand happens to be greater than planned, the next PO is automatically generated earlier and the supply days interval becomes shorter than planned.



Using Demand Driven MRP for long lead time items creates a supply pipeline that **reduces risk**, **minimizes shortages**, and keeps dependent jobs running smoothly.