

5. Cycle stock

What is Cycle Stock ?

“Cycle stock is the average amount of inventory held due to the periodic replenishment of inventory”

- Cycle stock inventory, is the portion of inventory available to meet normal demand during a given period. For FG this period refers to the Replenishment Lead Time and for FG refers to the Procurement Lead Time
- It is one of the more important portions of inventory because it is the amount of inventory needed to meet customer needs. The cycle stock inventory is the first place a customer's order will be fulfilled from.

FINISHED GOODS

Cycle Stock Calculation

P&I Dynasys Method

Production Strategy	Batch/ <u>AvgNZDemand</u> < 4	Batch/ <u>AvgNZDemand</u> > 4
MTS	$(\frac{RQ_{Tot}}{Inb_{Freq}}) / 2$	
MTO	Si <u>DRLT</u> > 0; <u>DRLT</u> * 7 / (SHS RLT); 0	Si <u>DRLT</u> > 0; $(\frac{RQ_{Tot}}{Inb_{Freq}}) / 2$; 0
MTO-FB	0	

RQ_{Tot} (Replenishment quantity): SI(DRLT > Batch Size; (batch size + (ARRONDI.SUP((DRLT - batch size/Rounding Value,0)*Rounding Value)); si(DRLT > 0, batch size, 0))

Batch size: fixed lot size or min lot size depending on lot size field in MRP

Rounding Value : if min lot size use SAP info rounding value else equals fixed lot size

Inb_{Freq} : The number of inbound shipment(s) during RLT

DRLT: Demand during the RLT ((Future demand during SHS RLT)

*At the warehouse we should not have MTO products

AvgNZDemand: average weekly past non zero demand (last 24 months)



RAW MATERIALS

Cycle S Raw Materia

Purchasing Strategy

PTS

PTO

PQ_{Tot} (Procurement quantity Replenishments Needed)

MOQ: Batch size

Inb_{Freq} : The number of inbound shipment(s) during RLT

PLT: Procurement Lead Time

DPLT: Demand during the RLT

Nb of Replenishment: DPLT [weeks] / MOQ; (



