

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 <u>RLT</u>); 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)

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RAW MATERIALS

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Purchasing Strategy

PTS

PTO

PQ_{Tot} (Procurement quantity)
Replenishments Needed

MOQ: Batch size

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

PLT: Procurement Lead Time

DPLT: Demand during PLT

Nb of Replenishments: (DPLT [weeks]) / MOQ; (

