

ii. Data calculated in Dynasys

Datafield	Formula	Explanations
SHS Replenishment Lead Time (RLT)	RAW MAT PTS LT = 15 BULK MTS LT = 5 FP LT = 5 PACKAGING PTO LT = 15 SHS RLT : 20 = 5 + 15 RAW MAT PTO LT = 15 BULK MTO LT = 5 FP LT = 5 PACKAGING PTO LT = 15 SHS RLT : 25 = 5 + 5 + 15	According to the solution in Dynasys path taking into account available so no need Warning: The SHS is same Material but o
DIOH	DIOH Calculation Target = $\frac{(\text{Target Inventory Volume}) \times 365}{(\text{Total Future Demand Volume of Next 3 months end}) \times 4}$ DIOH Min Target = $\frac{(\text{Safety Stock Volume}) \times 365}{(\text{Total Future Demand Volume of Next 3 months end}) \times 4}$ DIOH Max Target = $\frac{(2 \times \text{Cycle Stock} + \text{Safety Stock Volume}) \times 365}{(\text{Total Future Demand Volume of Next 3 months end}) \times 4}$	Days Inventory In H
Safety Stock	Safety Stock $\text{past demand RLT} = k \times \sigma_{\text{past demand weekly}} \times \sqrt{\text{RLT}_{\text{weeks}}}$ Rate calculation (Step 1 and 2) Safety Stock_M = $\left(\frac{\text{SS}_{\text{Past demand RLT}}}{\text{Average Past Demand}_{\text{during RLT}}} \right) \times$ Future demand during SHS RLT (Step 3)	What is Safety Stock “A quantity of stock demand or supply” The Safety Stock is in Variability/Usage. 1) Calculation of Sa 2) Adjust (divide) pr Coeff of Variation < Coeff of Variation >

Cycle Stock

Cycle Stock Calculation

P&I Dynasys Method

Production Strategy	Batch/AvgNZDemand < 4	Batch/AvgNZDemand > 4
MTS	$(RQ_{\text{max}} / \text{Inb}_{\text{max}}) / 2$	
MTO	SI DRLT > 0, DRLT * 7 / (SHS RLT), 0	SI DRLT > 0, $(RQ_{\text{max}} / \text{Inb}_{\text{max}}) / 2$, 0
MTO-FB	0	

RQ_{max} (Replenishment quantity): SI(DRLT > Batch Size; (batch size + (ARROUND1.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_{max}: 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)



Cycle Stock Formula

Raw Materials/ Intermediates

(Purchased Product)

Purchasing Strategy	
PTS	$(PQ_{\text{max}} / \text{Inb}_{\text{max}}) / 2$
PTO	$(PQ_{\text{max}} - (DPLT * 7 / (\text{SHS RLT}))) / 2$

PQ_{max} (Procurement quantity): Max(FutureDmd X PLT ; MOQ X Nb of Replenishments Needed)
MOQ: Batch size
Inb_{max}: The number of inbound shipment(s) during PLT
PLT: Procurement Lead Time
DPLT: Demand during the PLT
Nb of Replenishments Needed: ROUNDUP (SI(PLT > 4 (Weeks); DPLT [weeks]) / MOQ; ((Future demand Month M/4) * RLT) / MOQ

What is Cycle Stock

"Cycle stock is the replenishment of i

- Cycle stock inv during a given for FG refers to
- It is one of the inventory need place a custom

Target Stock

- Target stock or "optimal stock" is simply:

$$\text{Target Stock} = \text{Safety Stock} + \text{Average Cycle Stock}$$

- Some sites ma stock. For exa material can nc physically cons
- Target stock is or FG just prod stock is low – v complete. So t
- How often shou change occurs

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