

## ii. Data calculated in Dynasys

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

Cycle Stock

## Cycle Stock Calculation

### P&I Dynasys Method

Production Strategy	Batch/AvgNZDemand < 4	Batch/AvgNZDemand > 4
MTS	$(RQ_{opt} / Inb_{opt}) / 2$	
MTO	SI(DRLT > 0, DRLT * 7 / (SHS RLT), 0)	SI(DRLT > 0, (RQ <sub>opt</sub> / Inb <sub>opt</sub> ) / 2, 0)
MTO-FB	0	

**RQ<sub>opt</sub>** (Replenishment quantity): SI(DRLT > Batch Size; (batch size + (ARROUND(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<sub>opt</sub>**: 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	$(PQ_{opt} / Inb_{opt}) / 2$
PTO	$(PQ_{opt} - (DPLT * 7 / (SHS RLT))) / 2$

**PQ<sub>opt</sub>** (Procurement quantity): Max(FutureDmd X PLT ; MOQ X Nb of Replenishments Needed)  
**MOQ**: Batch size  
**Inb<sub>opt</sub>**: 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 material can not physically cons
- Target stock is or FG just prod stock is low – v complete. So t
- How often should change occurs