01.201.05 – Item Balance Level Master

PROCESS OVERVIEW

The basic purpose of this process is to define the item based stock levels, such as min, max and with additional inputs to calculate the re-order level. As per the universal logic system sets the re-order level helps to generate auto purchase indent/requisition.

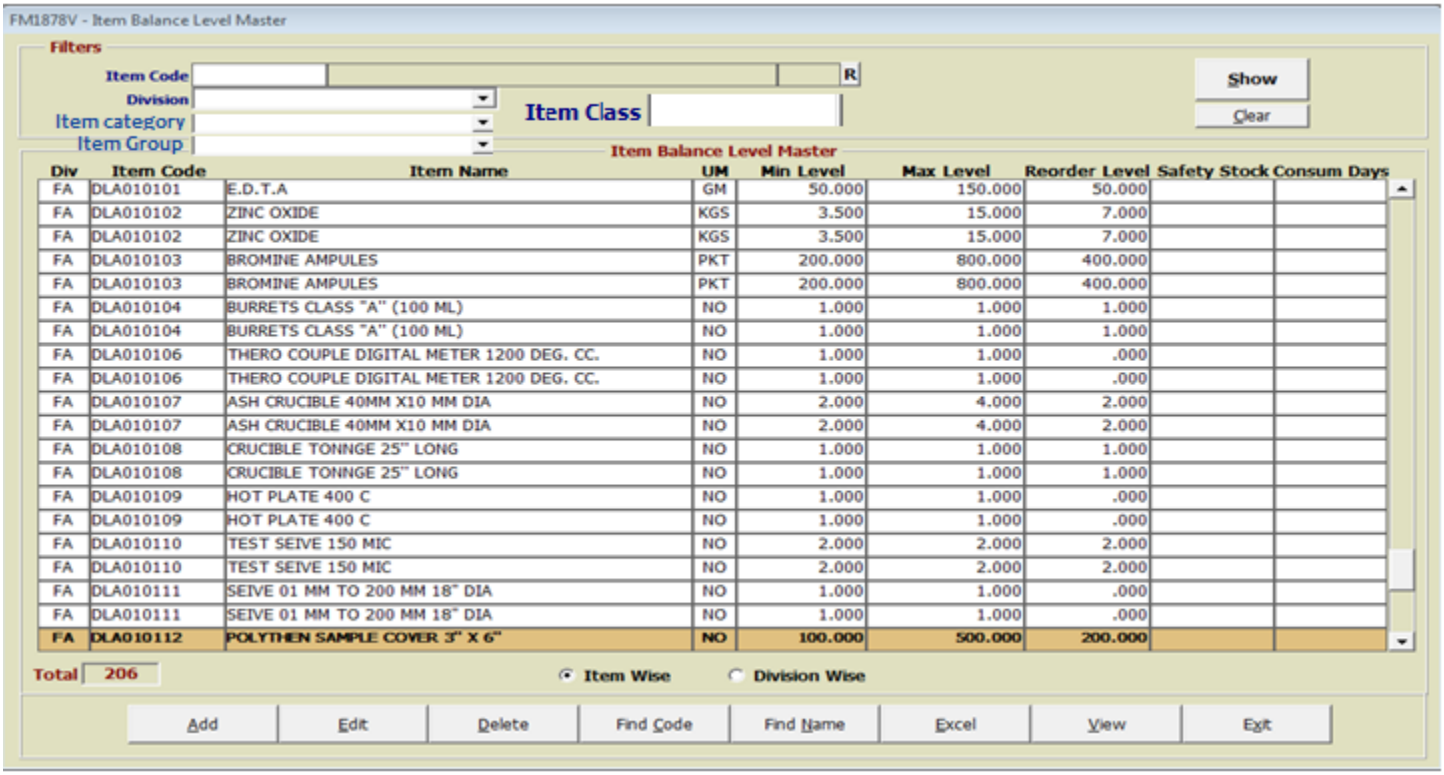
PROCESS PRE-REQUISITES

Input Fields	Input Details	General Remarks
Div Code	Division code is required to be selected	User selection

KEY FEATURES

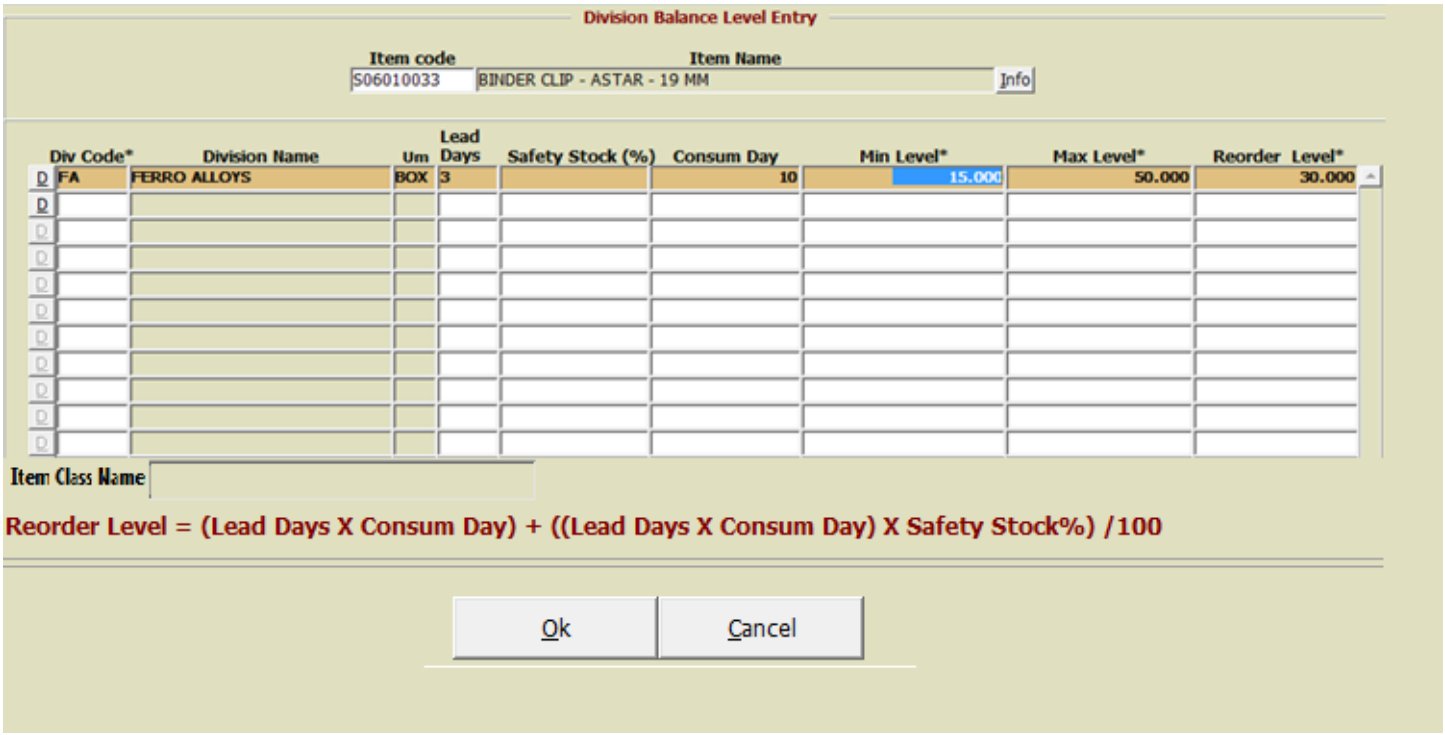
- Stock levels, Min/Max, Re-order levels for maintenance and controlling of stock.
- This form provides 'Item Class' Column, Which is used to Classify or Filter the Item on the basis of their class.

PROCESS DETAILS



BUTTONS	DESCRIPTION
Show	To show the item balance master data in the data browser block with the selected filters.
Clear	Clears the filters for fresh operations.
Add	To add new item balance master.
Edit	To edit the existing item balance master data.
Delete	To delete the existing item balance master.
Find Code	Find the record in data browser by Item Code.
Find Name	Find the record in data browser by Item Name.
Excel	To generate the item output of item balance master in Excel. <Excel is not capturing all the columns.>

View	To view the item balance master data in display mode.
Exit	To exit from the form.



Work Step – to set Item Balance Level

Step 1 Press 'Add' Button.
Step 2 Select Item (Press F9/F8 for LOV)
Step 3 Select Division (Press F9/F8 for LOV)
Step 4 Enter Lead Days (Purchase Lead Time)
Step 5 Enter Safety Stock %
Step 6 Enter Average Consumption Days
Step 7 Enter Minimum Stock Level Qty
Step 8 Enter Maximum Stock Level Qty
Step 9 As per the formula shown in the screen system calculates the Reorder Level.

BUTTONS	DESCRIPTION
Info	Opens the new window of 'Item Summary' wherein user can check the complete details of transactions related to item.

D	To Delete the record.
Ok	To Save the Data
Cancel	To clear all the information on the form for fresh operation.
Back	To return back to Item Balance Level Master initial screen.

Input Field Level Information – General Item Code Details

FIELDS	DESCRIPTION	R/O/C	FIELD VALUE / COMMENTS
Item Code	Item Master	R	Press F8/F9 to select the Item from the LOV.
Div Code	Division Master	R	Select the Division code.
Division Name		C	Displays the Division Name of select Division Code.
UM	Item Master	C	Displays the default unit of measure defined in the Item Master.
Lead Days		O	Enter the value in No. of Days for Purchase Lead Time.
Safety Stock %		O	Enter the value in %
Consume Day		O	Enter the estimated average consumption days.
Min Level		R	Enter the minimum stock level quantity.
Max Level		R	Enter the maximum stock level quantity.
Reorder Level		C	By default system calculates the Re-Order level quantity as per the formula shown in the form.

(R-Required, O-Optional, C-Conditional)

KEY VALIDATIONS

REORDER LEVEL GENERAL DEFINATION

Reorder level (or reorder point) is the inventory level at which a company would place a new order or start a new manufacturing run.

Reorder Level = Lead Time in Days × Daily Average Usage

Lead time is the time it takes the supplier or the manufacturing process to provide the ordered units.

Daily average usage is the number of units used each day.

If a business is holding a safety stock to act as buffer if daily usage accelerates the reorder level would increase by the level of safety stock.

Reorder Level = Lead Time in Days × Daily Average Usage + Safety Stock

Examples

Example 1: ABC Ltd. is a retailer of footwear. It sells 500 units of one of a famous brand daily. Its supplier takes a week to deliver the order.

The inventory manager should place an order before the inventories drop below 3,500 units (500 units of daily usage multiplied with 7 days of lead time) in order to avoid a stock-out.

Example 2: ABC Ltd. has decided to hold a safety stock equivalent to average usage of 5 days. Calculate the reorder level.

Safety stock which ABC Ltd. has decided to hold equals 2,500 units (500 units of daily usage multiplied by 5 days).

In this scenario reorder level would be 6,000 units (2,500 of safety stock plus 3,500 units based on 7 days of lead time).

Concept and Meaning of Stock Level

Stock level refers to the different levels of stock which are required for an efficient and effective control of materials and to avoid over and under-stocking of materials. The purpose of materials control is to maintain the sock of raw materials as low as possible and at the same time they may be available as and when required. To avoid over and under-stocking, the storekeeper must fix the inventory level, which is also known as a demand and supply method of stock control. In a scientific system of inventory control the following levels of materials are fixed.

1. Re-order Level
2. Minimum Level or Safety Level
3. Average stock Level

Minimum Level or Safety Stock and Its Calculation

Concept and Meaning of Minimum Stock Level

Minimum level or safety stock level is the level of inventory, below which the stock of materials should not be fall. If the stock goes below minimum level, there is a possibility that the production may be interrupted due to shortage of materials. In other words, the minimum level represents the minimum quantity of the stock that should be held at all times.

The minimum level is determined by using the following formula:
Minimum Level = Re-order level -(Normal consumption x Normal Re-order Point)

Calculation OF Minimum Level Or Safety Stock

Illustration
Re-order Period = 8 to 12 days
Daily consumption = 400 to 600 units
Minimum Level =?

Solution,
Minimum Level = Re-order Level - (Normal Consumption x Normal Re-order Point)
= 7200 - (500 x 10)
= 2200 units.

Working Notes:
1. Re-order Level = Maximum consumption x Maximum Re-order Point
= 600 x 12 = 7200 units

2. Normal consumption = (Maximum Consumption + Minimum Consumption)/2
= (600+400)/2 = 1000/2= 500 units

3. Normal Re-order Period = (Maximum Re-order Period + Minimum Re-order Period)/2
= (12+8)/2 = 10 days.

Maximum Level and Its Calculation

Concept and Meaning of Maximum Level
Maximum level is that level of stock, which is not normally allowed to be exceeded. Beyond the maximum stock level, a blockage of capital should be exercised to check unnecessary stock. The factory should not keep materials more than the maximum stock level. It increases the carrying cost of holding unnecessary inventory level. It is the opportunity cost of holding inventory.

The maximum stock level can be calculated by using the following formula:
Maximum Level = Re-order Level + Re-order quantity - (Minimum consumption x Minimum Delivery Time)

Illustration

Re-order quantity = 1000 units
Re-order Level = 1500 units
Re-ordering period = 4 to 6 days
Daily consumption = 150 to 250 units
Maximum Level = ?

Solution,

Maximum Level = Re-order level + Re-order quantity - (Minimum consumption x Minimum Re-ordering period)
= 1500+1000(150 x 4)
= 1900 units.

Concept and Meaning of Average Stock Level and Its Calculation

Average Stock level shows the average stock held by a firm. The average stock level cans be calculated with the help of following formula.

Average Stock Level = Minimum Level + (1/2Re-order Quantity)
OR
Average Stock Level = (Minimum Level + Maximum Level)/2

Illustration

Re-order quantity = 2000 units
Minimum Level = 500 units
Average stock level =?

Solution,

Average stock level = Minimum level + 1/2 x Re-order quantity
= 500 + 1/2 x 2000
= 500+ 1000
= 1500 units

Re-order Level and Its Calculation

Re-order level is a level of material at which the storekeeper should initiate the purchase requisition for fresh supplies. When the stock-in-hand comes down to the re-ordering level, it is an indication that an action should be taken for replenishment or purchase.

The re-order level is calculated as follows:
Re-order Level= Minimum Level(Safety stock) + (Average lead time x Average consumption)
OR
Re-order Level= Maximum Consumption x Maximum Re-ordering Period

Illustration

Suppose,
Maximum consumption per day = 400 units
Minimum consumption per day = 200 units
Re-order period = 8 to 10 days
Then,
Re-order Level = Maximum consumption x Maximum re-order period
= 400 units x 10 days = 4000 units