

AssetOptics
Quick Start Learning Series
MRO Inventory Management

Learning Objectives

1. Gain an understanding of the objects used in MRO inventory management.
2. Learn how On Hand Qty, Committed Qty, Available Qty, Min Qty, On Order Qty and Purchase Pack Qty factor into the determination of inventory replenishment requirements.
3. Learn how to use Stock Issue Requests

MRO Inventory Objects

1. **Item Master** – Catalog Master
2. **Storeroom** – Inventory Storage Area/Warehouse
3. **Stock Item** – Inventory/product in a Storeroom
4. **Vendor Case Pack** – Unique vendor pack configurations
5. **Bin Locations** – Specific location inside a storeroom
6. **Account** – Vendors & Manufacturers
7. **Planned Stock** – Link between Stock Items and Work Orders
8. **Inventory Transactions** – Issues, Gain, Shrink, Receipts, Orders

Inventory Objects

Item Master – Represents a Catalog Master. Required if you want to use Bills of Materials or setup MRO Inventory in *multiple* Storerooms. Otherwise, you can begin inventory setup with only the Stock Item.

The screenshot shows the 'Item Master' interface for item 'FLT10000K'. At the top, there is a header with the item name and a '+ Follow' button. Below this is a table with columns: Description (DE Water Filter), Noun (Filter), Modifier (Water), and UNSPSC #. The main content is divided into 'Details' and 'Related' tabs, with 'Details' selected. Under 'Details', there are two sections: 'Information' and 'Item Specifications'. The 'Information' section contains fields for Item Master ID (FLT10000K), Description (DE Water Filter), Owner, Item Status (Active), and Number (000027). The 'Item Specifications' section contains fields for Noun (Filter), Modifier (Water), Nameplate Data, UNSPSC Segment, UNSPSC Family, UNSPSC Class, UNSPSC Commodity, and UNSPSC #. Each field has an edit icon (pencil) and an information icon (i).

Description	Noun	Modifier	UNSPSC #
DE Water Filter	Filter	Water	

Information	
Item Master ID	FLT10000K
Description	DE Water Filter
Owner	
Item Status	Active
Number	000027

Item Specifications	
Noun	Filter
Modifier	Water
Nameplate Data	
UNSPSC Segment	
UNSPSC Family	
UNSPSC Class	
UNSPSC Commodity	
UNSPSC #	

Inventory Objects

Storeroom – Used to represent a warehouse or storage area where Stock Items are stored and managed. The Storeroom contains Shipping & Billing Addresses, a Default Buyer and a set of General Ledger Accounts.

Storeroom Plant 1

Description Plant 1 - Maintenance Parts Storeroom	Shipping City Milwaukee	Shipping State/Province WI	Shipping Zip/Postal Code 53215	Default Buyer Willy Warehouse
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Details Related

Information

Storeroom ID	Plant 1	Owner	
Description ⓘ	Plant 1 - Maintenance Parts Storeroom	Default Buyer ⓘ	Willy Warehouse
Storeroom Status ⓘ	Active		

Storeroom Address

Billing Company ⓘ	Bridgestone Beverages, Inc.	Shipping Street ⓘ	1405 Welborne St
Billing Street ⓘ	1 Shorewood Ave	Shipping City ⓘ	Milwaukee
Billing City ⓘ	Milwaukee	Shipping State/Province ⓘ	WI
Billing State/Province ⓘ	WI	Shipping Country ⓘ	USA
Billing Country ⓘ	USA	Shipping Zip/Postal Code ⓘ	53215
Billing Zip/Postal Code ⓘ	53211		

Accounting Details

Inventory Balance GL Account ⓘ		GL Variable 1 ⓘ	
Inventory Write Off GL Account ⓘ		GL Variable 2 ⓘ	
Inter-Storeroom Transfers GL Account ⓘ		GL Variable 3 ⓘ	
Payables Liability GL Account ⓘ		GL Variable 4 ⓘ	
Inventory Revaluation Variance GL Account ⓘ			

Inventory Objects

Stock Item – Actual inventory parts in a specific Storeroom. It is at the Stock Item record where On Hand Qty is managed and where Inventory Transactions are performed.

Stock Item
3VX250 Belt

Description	On Hand Qty	Available Qty	Storeroom	Primary Bin Location
3VX250 Belt	55.00	50.00	Main Storeroom	01-A-01-A

Details | Related | All Storerooms | Open POs | Open WOs | Open SIRs | Open TOs

Details

Stock ID	3VX250 Belt	Owner	Mark Manager
Description	3VX250 Belt	Status	Active
Manufacturer		Item Master	3VX250 Belt
Manufacturer Part Number		Nameplate Data	

Serialized Component Setup

Serialized	No	Condition	New
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Stocking Information

On Hand Qty	55.00	Storeroom	Main Storeroom
Committed Qty	5	Storeroom Description	Main Storeroom
Available Qty	50.00	Stock UOM	EA - Each
Primary Bin Location	01-A-01-A	Cycle Count Group	
Primary Bin Loc OH Qty	8.00	Auto Delete Bins	<input checked="" type="checkbox"/>
Secondary Bin Loc OH Qty	47.00	Criticality Code	

Ordering Information

Sourcing Type	Purchase Order	Auto Order	<input checked="" type="checkbox"/>
Preferred Vendor	CP-000003	Reorder Point	5.00
Case Pack		Lead Time	0
		Economic Order Quantity	1.00
		On Order Qty	9.00
		Stock UOM Qty to Reorder	0.00

Inventory Objects

Vendor Case Pack – created on the Stock Item record, VCPs are vendor-specific purchase configurations with unique Vendor Part Number, Purchase Unit of Measure, Purchase Pack Quantity, and Purchase Price. A Stock Item can have many VCPs, one of which may be specified as the Primary. If Purchase Requisitions are created automatically as part of the inventory replenishment process, the Preferred Vendor Case Pack is used to create the Stock PO Lines.

Stock Item 6203 2RSJEM								
4	<input type="checkbox"/>	IT-0013232	1.00	\$8.0000	3/21/2022	\$8.00	Order	Mike Edwards
5	<input type="checkbox"/>	IT-0013208	2.00	\$75.0000	3/16/2022	\$150.00	Order	Mike Edwards
6	<input type="checkbox"/>	IT-0013195	0.00	\$75.0000	3/14/2022	\$0.00	Order	Simrat Kaur
7	<input type="checkbox"/>	IT-0013077	1.00	\$0.0000	2/28/2022	\$0.00	Receipt	Simrat Kaur
8	<input type="checkbox"/>	IT-0013076	1.00	\$0.0000	2/28/2022	\$0.00	Receipt	Simrat Kaur
9	<input type="checkbox"/>	IT-0013075	2.00	\$30.0000	2/28/2022	\$60.00	Receipt	Simrat Kaur
10	<input type="checkbox"/>	IT-0013074	1.00	\$30.0000	2/28/2022	\$30.00	Receipt	Simrat Kaur

Vendor Case Packs (4)									
4 Items • Sorted by Case Pack ID • Updated a few seconds ago									
<input type="checkbox"/>	Case Pack ID ↑	Vendor	Vendor Part Number	Purchase Price	Purchase Pack ...	Quantity to R...	Purchase UOM	Primary Case ...	
1	<input type="checkbox"/>	CP-000006	VSL Suppliers	VSL-6203-01	\$30.00	1	0.00	EA - Each	<input type="checkbox"/>
2	<input type="checkbox"/>	CP-000901	WW Grainger	23Y204	\$25.57	1	0.00	EA - Each	<input type="checkbox"/>
3	<input type="checkbox"/>	CP-000904	WW Grainger	23Y210	\$227.00	10	0.00	CT - Carton	<input checked="" type="checkbox"/>
4	<input type="checkbox"/>	CP-000952	Motion Industries	M6203012	\$288.00	12	0.00	DZ - Dozen	<input type="checkbox"/>

Planned Stock (1)							
1 Item • Sorted by Planned Stock: Planned Stock • Updated a few seconds ago							
<input type="checkbox"/>	Planned Stock: Planned ...	Work Order	Status	Planned Qty	Issued Qty	Open Qty	
1	<input type="checkbox"/>	PS-0007746	WO-0014418	Ready to Schedule	0.00	9.00	0.00

Inventory Objects

Bin Locations – Represents the physical location inside of the Storeroom where a Stock Item is stored. By default, there are 4 segments in a Bin Location: Row, Section, Level, Bin. A single Bin Location record is created and set to the required Primary Bin Location when a new Stock Item record is created.

 Bin Location
01-A-01-A

Stock Item Motor Oil, 5W-20, Quart	Stock Item Description Rotella WSS-M2C945-B1, 5W-20	On Hand Qty 48	Primary Yes
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Details Serialized Assets **All Bin Locations**

 Bin Locations for Parent Stock Item (2)
2 items • Sorted by Bin Loc ID • Updated a few seconds ago

	Bin Loc ID ↑	On Hand Qty	Primary
1	01-A-01-A	48	Yes
2	02-A-01-B	9	No

[View All](#)

Inventory Objects

Planned Stock – Represents what Stock Items are planned and used on which Work Orders. The Planned Stock object contains Planned Qty, Issued Qty, and Open Qty.

Stock Item M521V007222						
Description	On Hand Qty	Available Qty	Storeroom	Primary Bin Location		
SCREW - Hex Head Cap	132	118	Plant 1	01-A-01-A		
Planned Stock (3)						
3 items • Sorted by Planned Stock: Planned Stock • Updated 3 minutes ago						
	Planned Stock: Planned Sto... ↓ ↓	Work Order	Status	Planned Qty	Issued Qty	Open Qty
1	PS-0000013	WO-0000064	Scheduled	8	0	8
2	PS-0000012	WO-0000063	In Progress	4	4	0
3	PS-0000011	WO-0000008	In Progress	6	0	6
View All						

Inventory Objects

Inventory Transactions – Represents inventory adjustments; e.g., Issue a Stock Item to a Work Order; Gain or Shrink adjustment when performing a cycle count. Orders, Receipts to Purchase Orders, and Transfers are recorded programmatically.

Stock Item
M521V007222

Description	On Hand Qty	Available Qty	Storeroom	Primary Bin Location
SCREW - Hex Head Cap	176	174	Plant 1	01-A-01-A

Inventory Transactions (4)
4 items • Sorted by Inv Trans ID • Updated a few seconds ago

Inv Trans ID ↓	Qty	Unit Value	Transaction Date	Transaction Value	Trans Type
1 IT-0000027	48	\$2.0000	1/18/2021	\$96.00	Receipt
2 IT-0000026	48	\$2.0000	1/18/2021	\$96.00	Order
3 IT-0000025	4	\$2.0000	1/18/2021	\$8.00	Issue
4 IT-0000024	128	\$2.0000	1/18/2021	\$256.00	Gain

[View All](#)

Inventory Replenishment Calculation

Stock Item	
5/16 NC Hex Head Cap Screw 1 1/2" Length	
Description	5/16 NC Hex Head Cap Screw 1 1/2" Length
On Hand Qty	28.00
Available Qty	28.00
Storeroom	Main Storeroom
Primary Bin Location	01-A-01-A

Details	
Stock ID	5/16 NC Hex Head Cap Screw 1 1/2" Length
Description	5/16 NC Hex Head Cap Screw 1 1/2" Length
Manufacturer	
Manufacturer Part Number	
Owner	Mike Edwards
Status	Active
Item Master	5/16 NC Hex Head Cap Screw 1 1/2" Length
Nameplate Data	

Serialized Component Setup	
Serialized Component Setup	

Stocking Information	
On Hand Qty	28.00
Committed Qty	0
Available Qty	28.00
Primary Bin Location	01-A-01-A
Primary Bin Loc OH Qty	28.00
Secondary Bin Loc OH Qty	0.00
Storeroom	Main Storeroom
Storeroom Description	Main Storeroom
Stock UOM	EA - Each
Cycle Count Group	
Auto Delete Bins	<input checked="" type="checkbox"/>
Criticality Code	

Ordering Information	
Sourcing Type	Purchase Order
Preferred Vendor Case Pack	CP-000953
Auto Order	<input checked="" type="checkbox"/>
Reorder Point	50.00
Lead Time	0
Economic Order Quantity	100.00
On Order Qty	0.00
Stock UOM Qty to Reorder	100.00

Available Quantity = On Hand Qty – Committed Qty

Quantity to Reorder* = Reorder Point– (Available Qty + On Order Qty)

**If the user-specified Economic Order Quantity (EOQ) is greater than the calculated Stock UOM Qty to Reorder, then the Stock UOM Qty to Reorder will equal the EOQ*

Stock Issue Request

Stock Issue Request
SIR-0000001

Status Request Storeroom Plant 1 Pick Date 1/18/2021 Work Order WO-0000008

Details **Related**

SIR Line Items (5)

5 items • Sorted by SIR Line ID • Updated a minute ago

SIR Line ID ↓	Stock Item ↓	Stock Item Description ↓	Requested Qty ↓	Stock UOM ↓	Issued Qty ↓	On Hand Qty ↓	Serialized ↓
1	M521V007222	SCREW - Hex Head Cap	2	EA - Each	0	176	No
2	J820149	SCREW - Set	2	EA - Each	0	2	No
3	M543SP188	SEAL - Rotor Oil	1	EA - Each	0	1	No
4	M03HP331031	NUT - Bearing Adjustment and Seal Retainer	1	EA - Each	0	3	No
5	M549P353681	GASKET - Gear Case	1	EA - Each	0	1	No

[View All](#)

A Stock Issue Request is like a warehouse pick ticket

1. Generated from a Work Order
2. Storeroom specific
3. Contains many line items, one issue per line