For Smart Factory



Operating User MANUAL





User Manual

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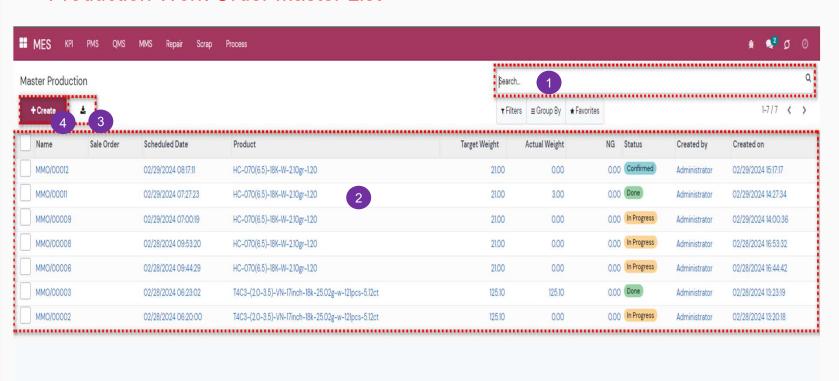
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Master Manufacturing Orders

I. Master Production

Production Work Order Master List



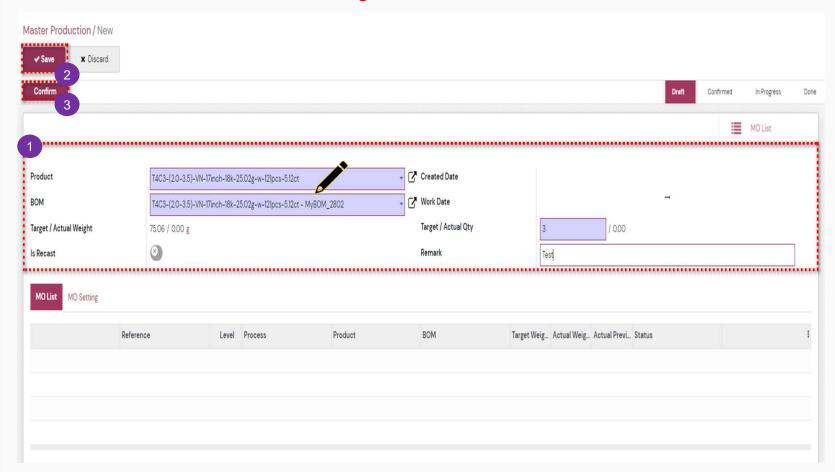


- 1. Search function.
- Master list of production work orders.
- Download function as Excel file.
- 4. Click the "Create" button to register a new production work order master.

Master Manufacturing Orders

I. Master Production

Production work order master registration





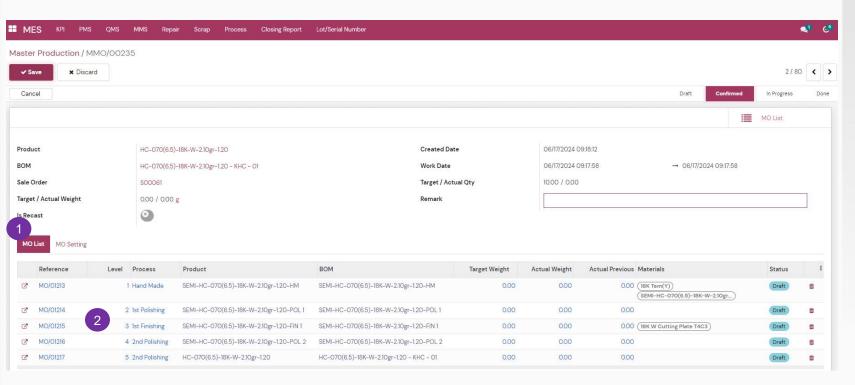
- 1. Enter relevant information:
- Product
- _ BOM
- _ Target / Actual Quantity
- _ Remark Remarks
- 2. Save by pressing the "Save" button.
- 3. Confirm by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

I. Master Production

Production Work Order Master Sub-Process Work Order List



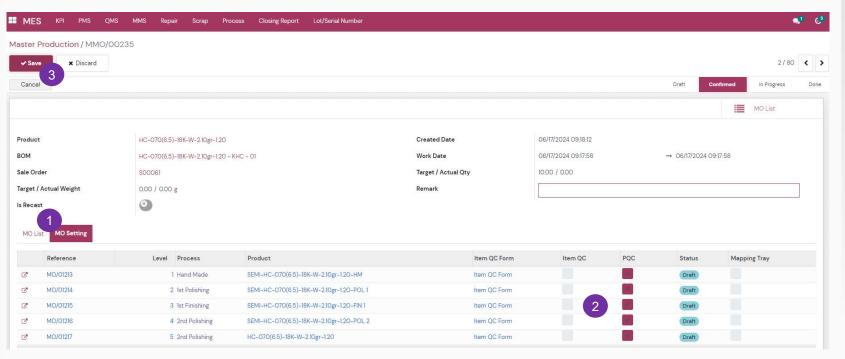
- Check the list of process work instructions for the product in the "MO List" tab. Each MO corresponds to one process. The displayed MO is automatically registered in the "MO" menu.
- 2. Master production Displays a list of sub-process work orders (MO).

Master Manufacturing Orders

Explain

I. Master Production

Set up process work orders

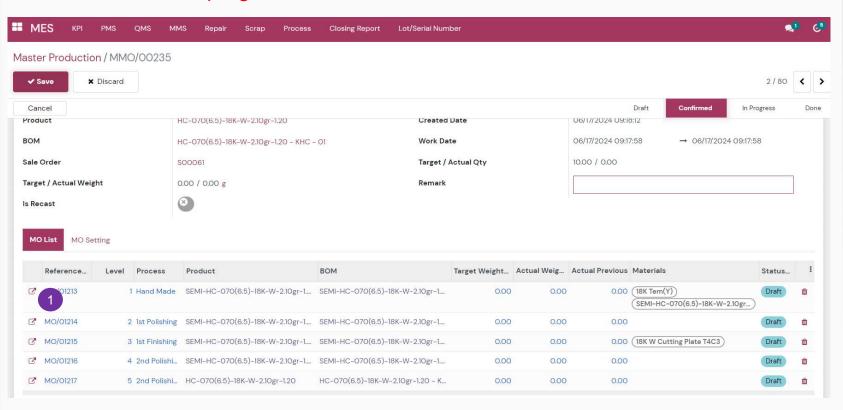


- You can change the setting value of each MO in the "MO Setting" tab.
- 2. Select relevant settings:
- _ Item QC Form Select Item QC inspection form
- _ Item QC Select when implementing Item QC in the relevant process
- _ PQC Select if PQC is implemented in the relevant process
- _ Mapping tray Select if tray is used in the process
- 3. Save by pressing the "Save" button.

Master Manufacturing Orders

II. MO (Manufacturing Order)

Process work in progress





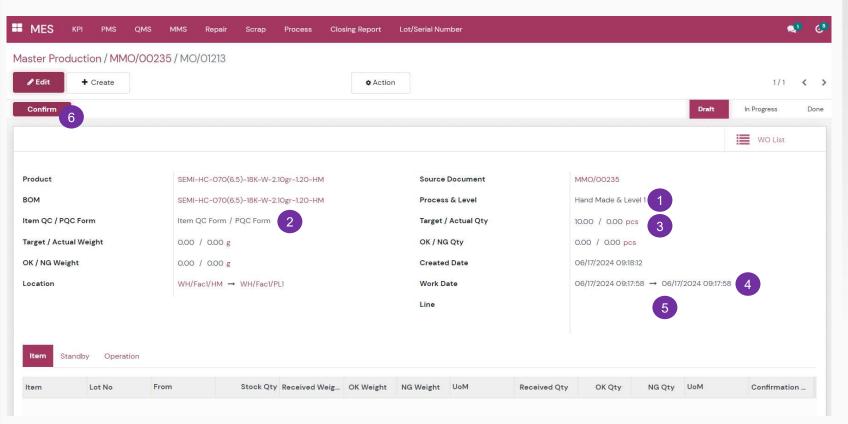
Step by step:

 In the "MO List" tab, select the MO you wish to work on from the list with the left arrow.

Master Manufacturing Orders

II. MO (Manufacturing Order)

Process work in progress





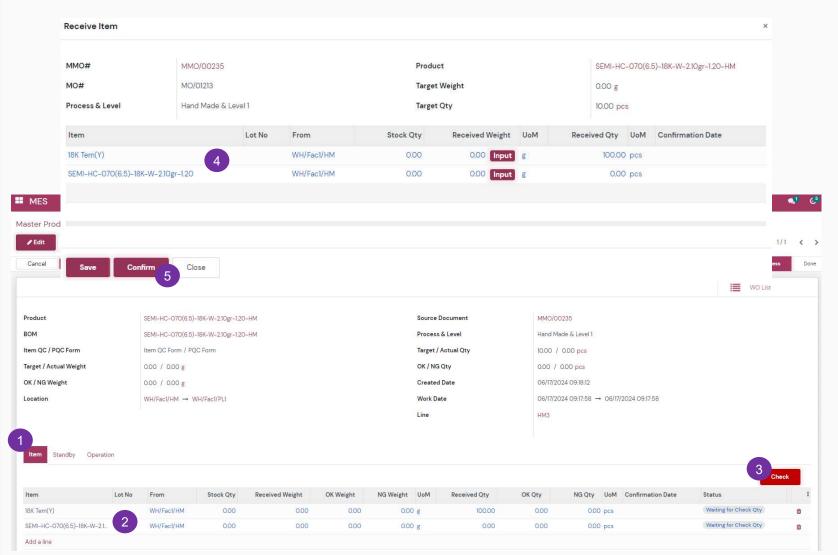
- Go to the selected MO page. Check the current process in Process & Level.
- Item QC and PQC inspection formats can be changed.
- 3. Target quantity can be changed.
- 1. Work plan time can be changed.
- Designate work line (if there are multiple lines in the process)
- Confirm by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

II. MO (Manufacturing Order)

Registration of materials and semi-finished products used in the process



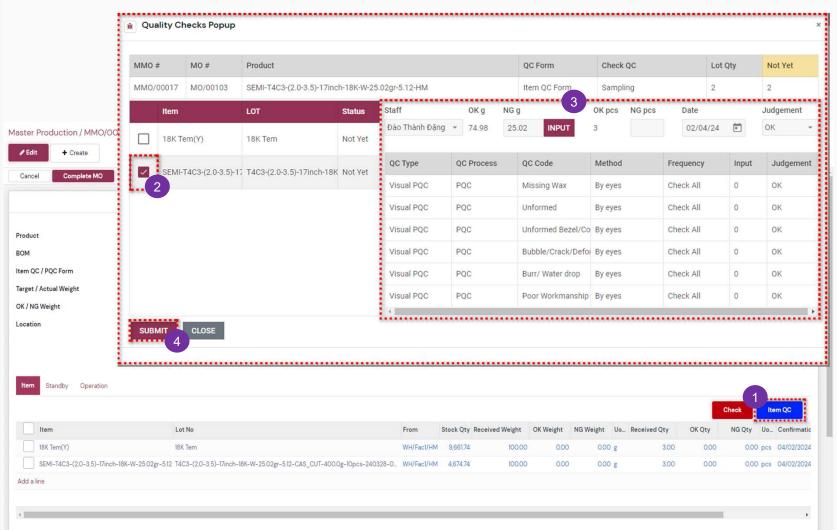
- "Register information on materials and semi-finished products used in the process in the "Item" tab.
- Displays material and semi-finished product information registered in the BOM.
- 3. Click the "Check" button to open the lot, weight, and quantity input window for the item.
- 4. Enter relevant information:
- _ Lot No.
- _ Received Weight
- _ Received Qty Quantity received
- 5. Confirm by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

II. MO (Manufacturing Order)

Quality inspection of materials and semi-finished products used in the process



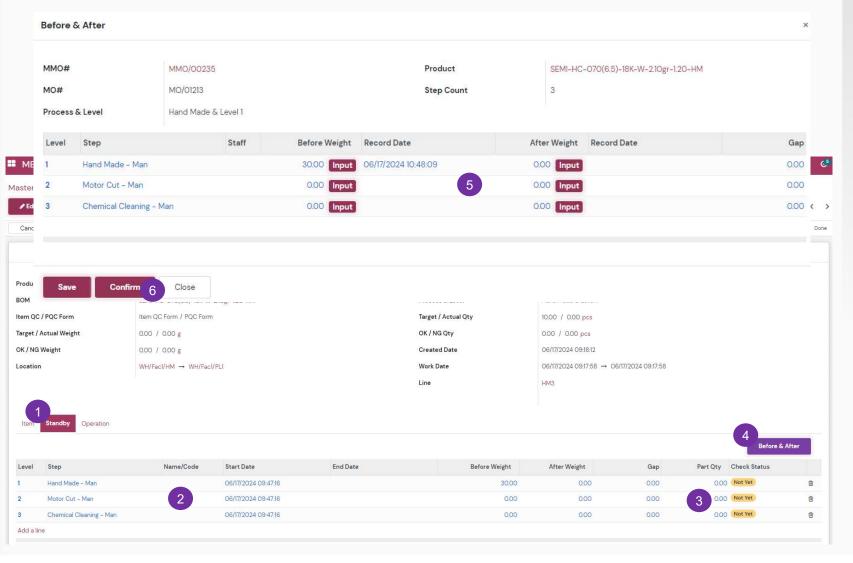
- Click the "Item QC" button to proceed with the inspection.
- 2. Select the item to inspect from the list.
- Enter the test results on the test sheet.
- Confirm by clicking the "Submit" button.

Master Manufacturing Orders

Explain

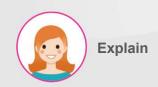
II. MO (Manufacturing Order)

Register information on employees, machines, and molds used in the process



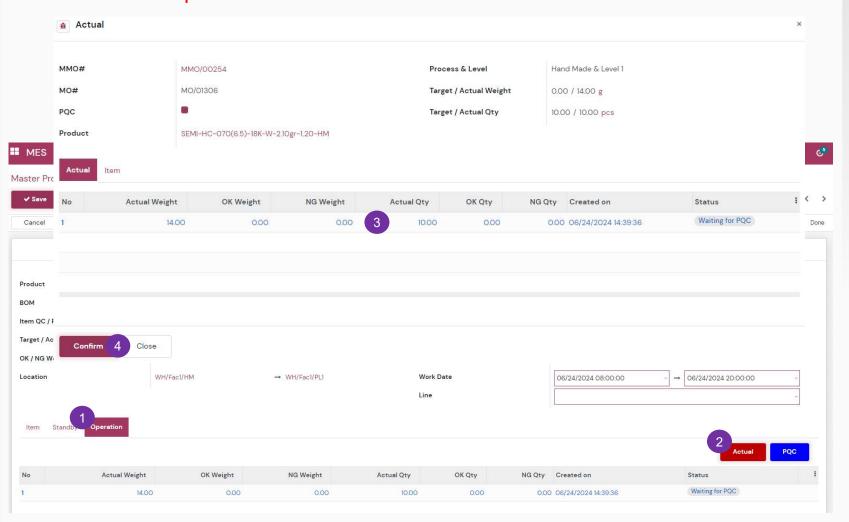
- 1. Proceed in the "Standby" tab.
- Enter relevant information:
- _ Step detailed process
- Name/Code Name/Code
- Start Date Start time
- End Date End time
- 3. In the "Part Qty" column, enter the number of parts to be moved with the semi-finished product (optional).
- Press the "Before & After" button to enter the weight before/after work.
- The measured weight is entered in conjunction with an electronic scale.
- Confirm by pressing the "Confirm" button.

Master Manufacturing Orders



II. MO (Manufacturing Order)

Register the actual weight and quantity of the product for which the process has been completed



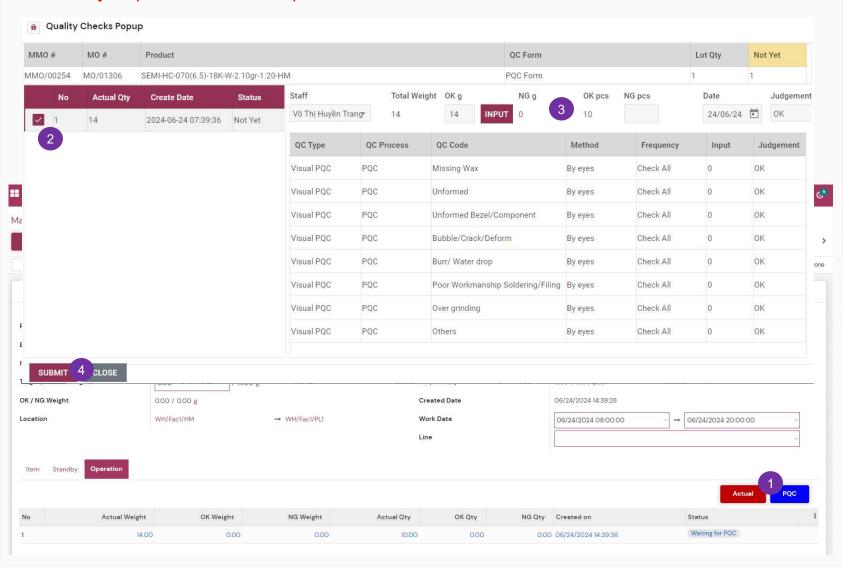
- Proceed in the "Operation" tab. The actual weight and quantity are automatically entered as the measured value and semi-finished product quantity in the "Standby" tab.
- 2. You can edit the automatically entered values by pressing the "Actual" button.
- Actual weight, quantity, good quantity, and defective quantity are displayed.
- 4. Confirm by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

II. MO (Manufacturing Order)

Quality inspection of finished products



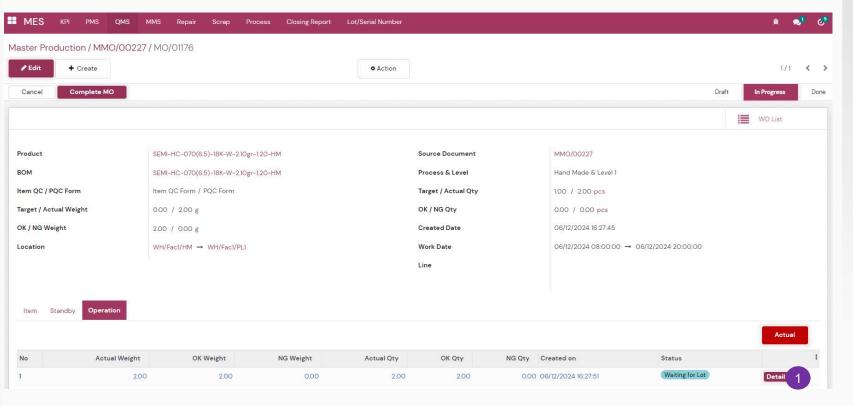
- Press the "PQC" button to run the inspection.
- 2. Select the relevant item.
- Enter test results.
- 4. Complete by clicking the "Submit" button.

MMS Master Manufacturing Orders

Explain

II. MO (Manufacturing Order)

Issuance of lot code for products whose process has been completed



Step by step:

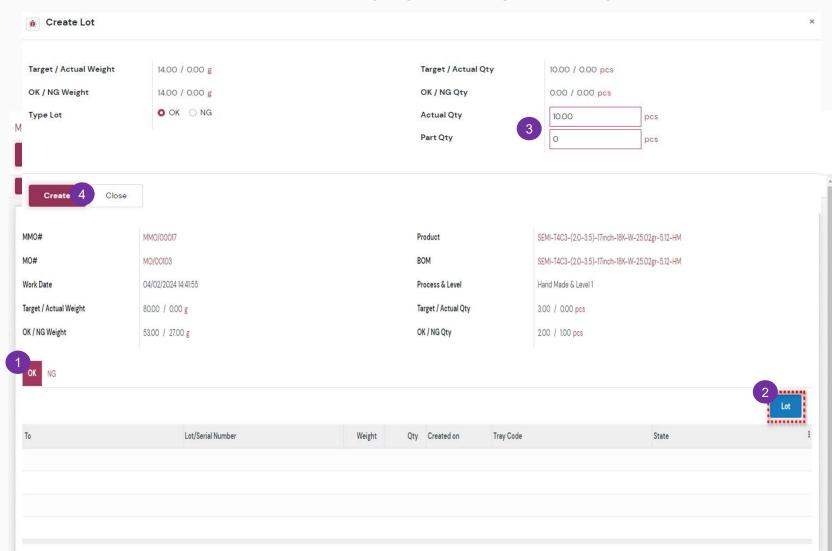
 Click the "Detail" button to proceed with lot code issuance.

Master Manufacturing Orders



II. MO (Manufacturing Order)

Issuance of lot codes for products judged to be good quality

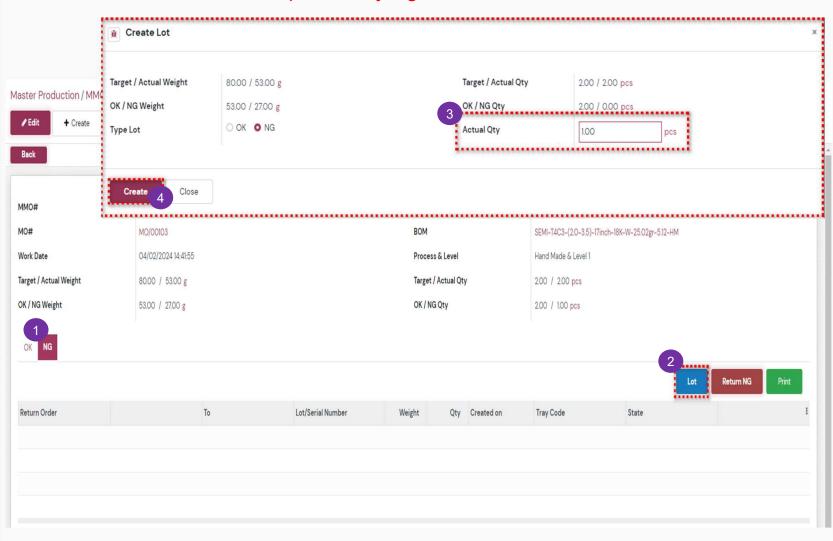


- I. Proceed from the "OK" tab.
- Click the "Lot" button to open a popup.
- The quantity determined to be good in PQC is automatically entered.
 Enter the number of each part included in the product (optional).
- 4. Issue Lot by pressing the "Create" button.

Master Manufacturing Orders

II. MO (Manufacturing Order)

Issuance of lot codes for products judged to be defective



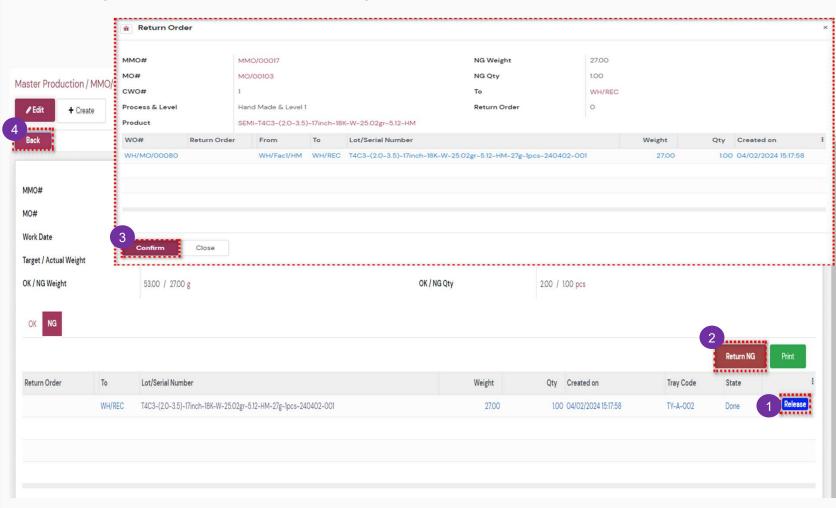


- 1. Proceed in the "NG" tab.
- Click the "Lot" button to open a popup.
- The quantity judged defective in PQC is automatically entered.
- Issue Lot by pressing the "Create" button

Master Manufacturing Orders

II. MO (Manufacturing Order)

Change a defective product to a good product or move it to a repair warehouse





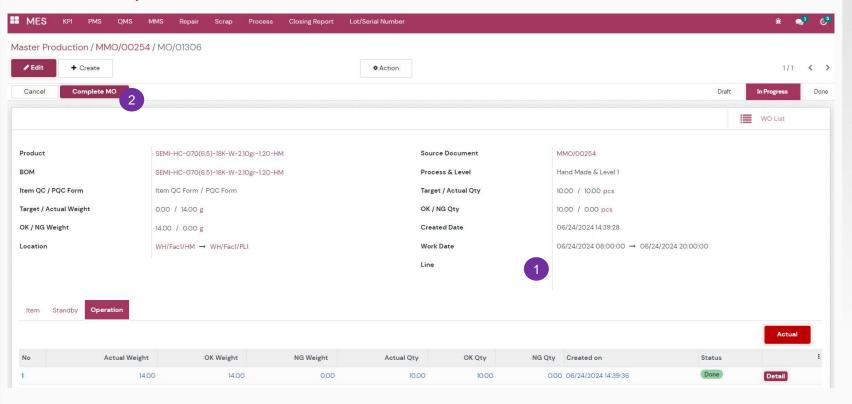
- Press the "Release" button to change defective product to good product.
- Press the "Return NG" button to open a pop-up to send the defective product to the repair warehouse.
- Move the defect by pressing the "Confirm" button.
- 4. Click the "Back" button to go to the main page.

Master Manufacturing Orders

Explain

II. MO (Manufacturing Order)

MO Completed



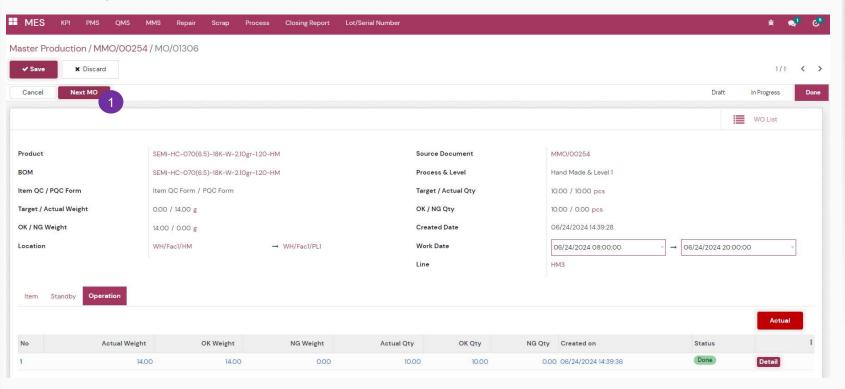
- If there are multiple lines in the process, the lines must be specified.
- 2. Click the "Complete MO" button to complete the MO.

MMS Master Manufacturing Orders

Explain

II. MO (Manufacturing Order)

Deployed in MMO and then moved to MO

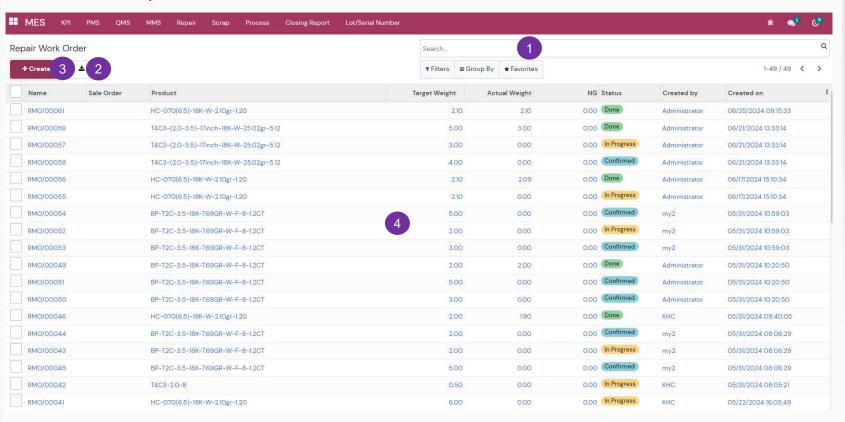


- Click the "Next MO" button to move to the next MO.
- ** Each MO has the same structure, and when the last MO is completed, the MMO is completed simultaneously, and the product moves to OQC.

Master Manufacturing Orders

III. Repair Work Order

Master Repair Order List





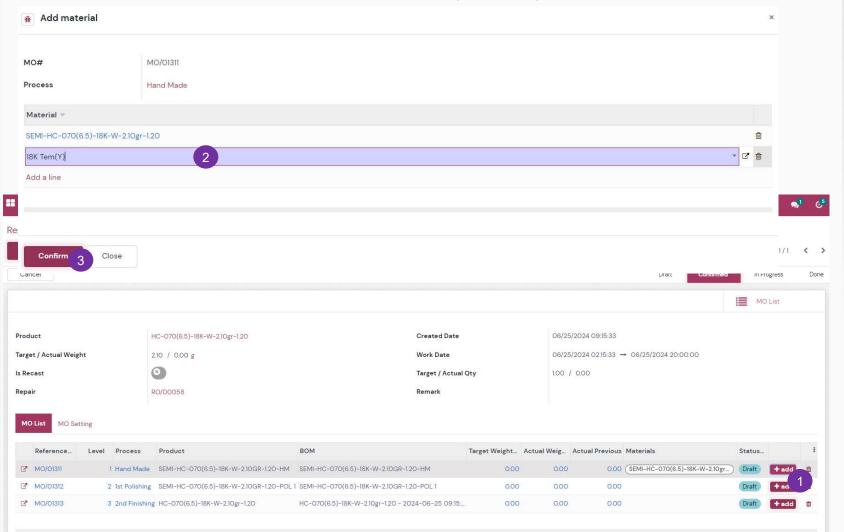
- 1. Search function.
- 2. Download function as Excel file.
- Click the "Create" button to create a new master repair order.
- Displays a list of generated master repair orders. RMOs created in MES > Repair > Repair Order appear in this list.

Master Manufacturing Orders

Explain

III. Repair Work Order

Add materials to master repair work order (optional)



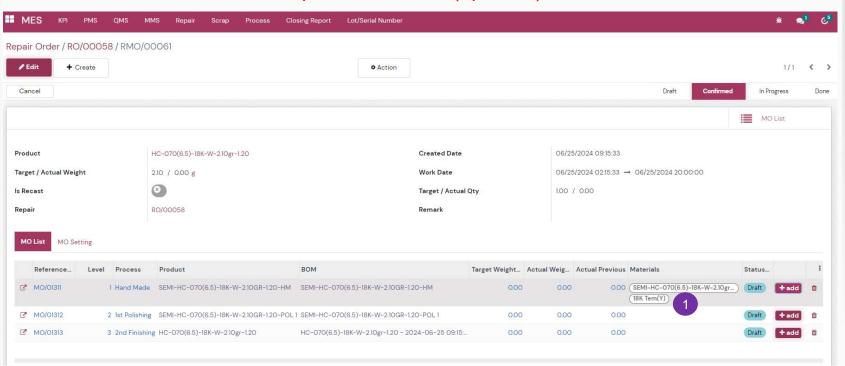
- Click the "add" button on the right side of the process that requires materials for repairs to open the Add Materials window.
- 2. Add required materials in the popup window.
- 3. Confirm by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

III. Repair Work Order

Add materials to master repair work order (optional)



Step by step:

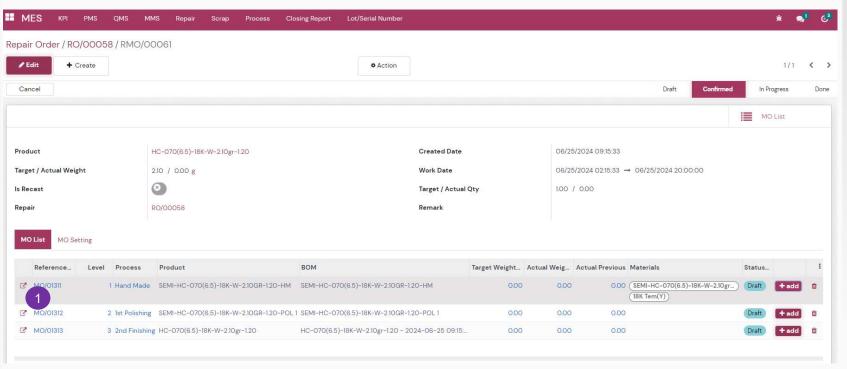
1. The added material is displayed.

Master Manufacturing Orders

Explain

III. Repair Work Order

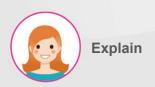
Proceed with repair work instructions for each process



Step by step:

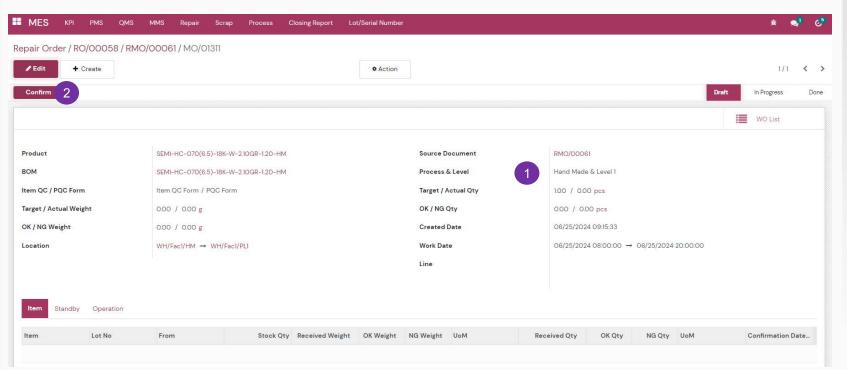
 Proceed by pressing the arrow button to the left of the process to be repaired.

Master Manufacturing Orders



III. Repair Work Order

Proceed with repair work instructions for each process



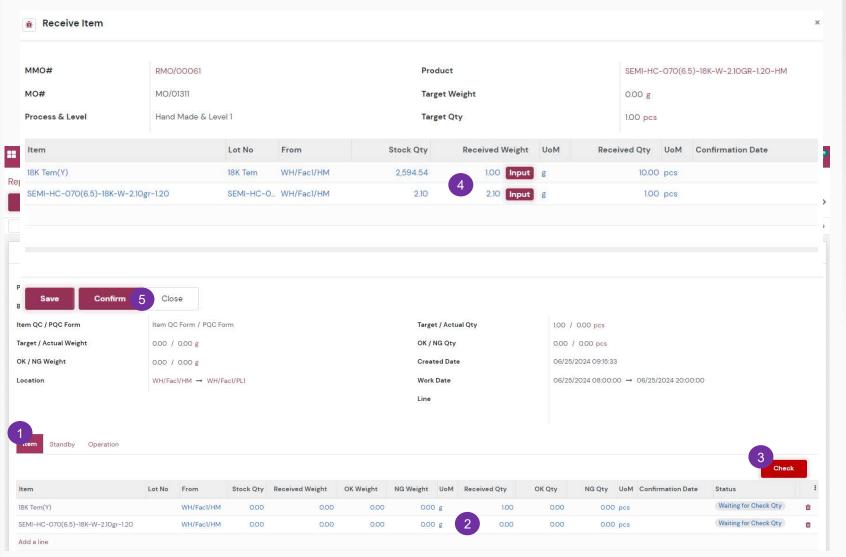
- Confirm movement to the relevant process.
- 2. Confirm by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

III. Repair Work Order

Enter product information to be repaired



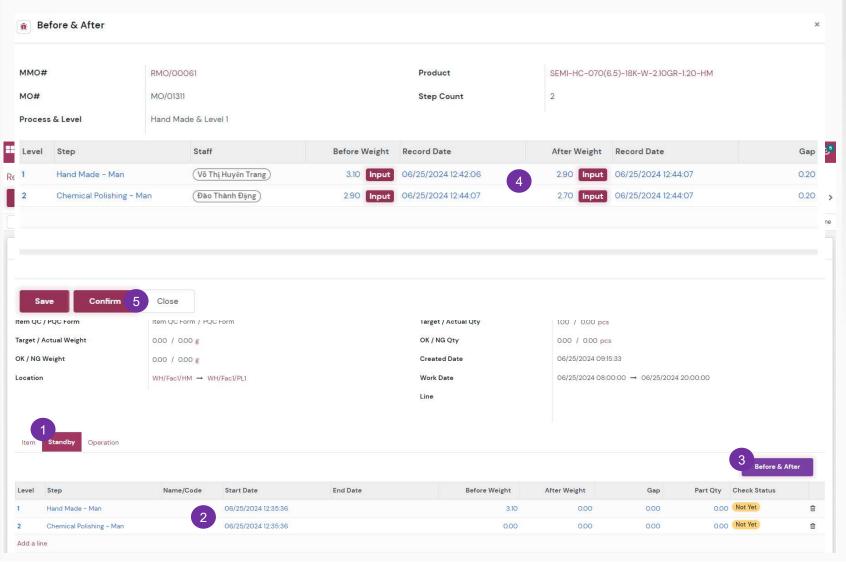
- 1. Proceed in the "Item" tab.
- Display product information to be repaired.
- 3. Click the "Check" button to open the input window.
- 4. Enter relevant information:
- Lot No.
- _ Received Weight
- _ Received Qty Quantity received
- 5. Confirm by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

III. Repair Work Order

Enter product information to be repaired



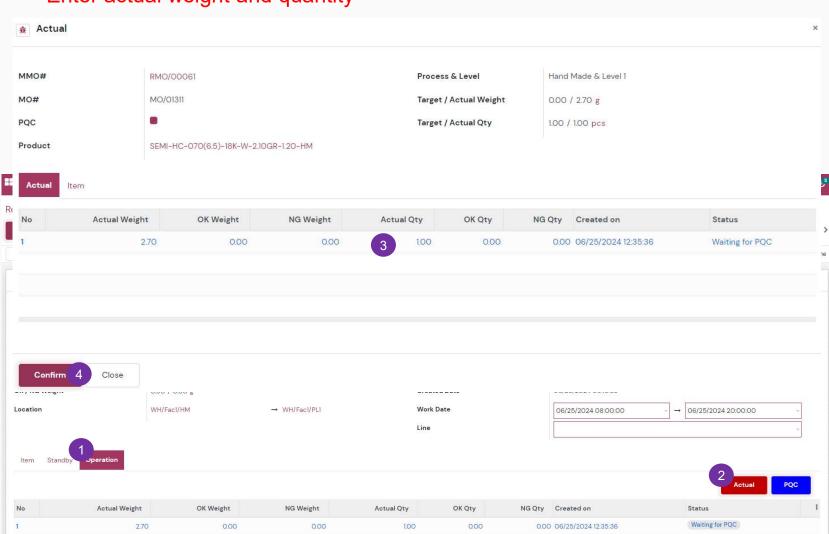
- 1. Proceed in the "Standby" tab.
- Enter relevant information:
- _ Step detailed process
- Name/Code Name/Code
- _ Start Date Task start date
- End Date Task end date
- Click the "Before & After" button to open the input window.
- Enter the weight before and after work using a linked electronic scale.
- 5. Save by pressing the "Confirm" button.

Master Manufacturing Orders

Explain

III. Repair Work Order

Enter actual weight and quantity



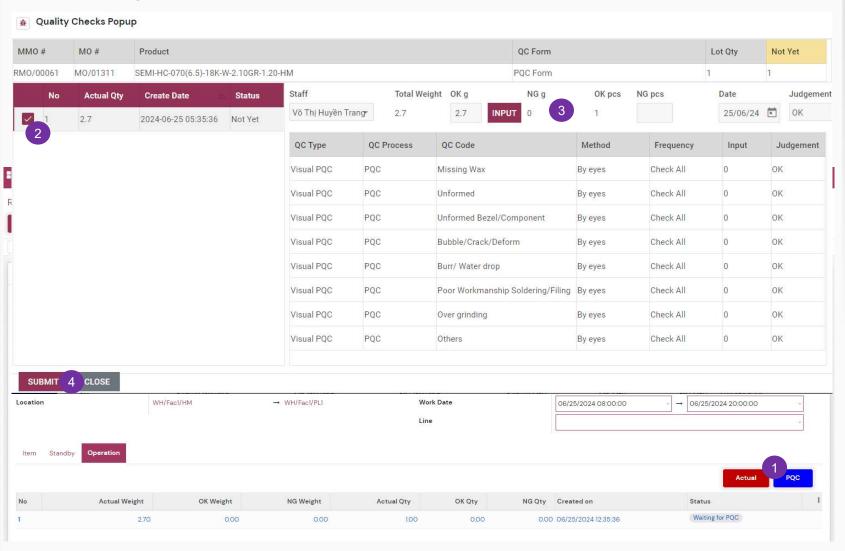
- 1. Proceed in the "Operation" tab.
- 2. Press the "Actual" button to open the input window if modifications are needed.
- 3. Actual weight, actual quantity correction.
- 4. Confirm by pressing the "Confirm" button.

MMS Master Manufacturing Orders

Explain

III. Repair Work Order

PQC progress



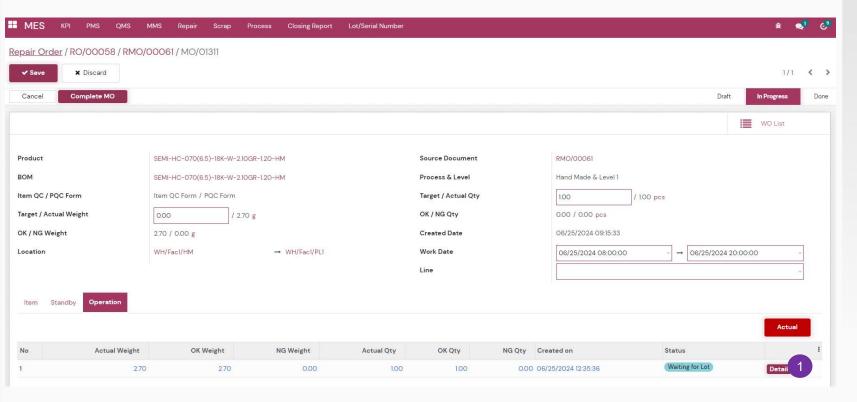
- Press the "PQC" button to proceed with process inspection.
- 2. Select an item from a list.
- 3. Enter check results.
- 4. Approve by pressing the "Submit" button.

Master Manufacturing Orders

Explain

III. Repair Work Order

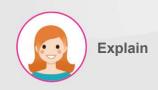
Lot issuance



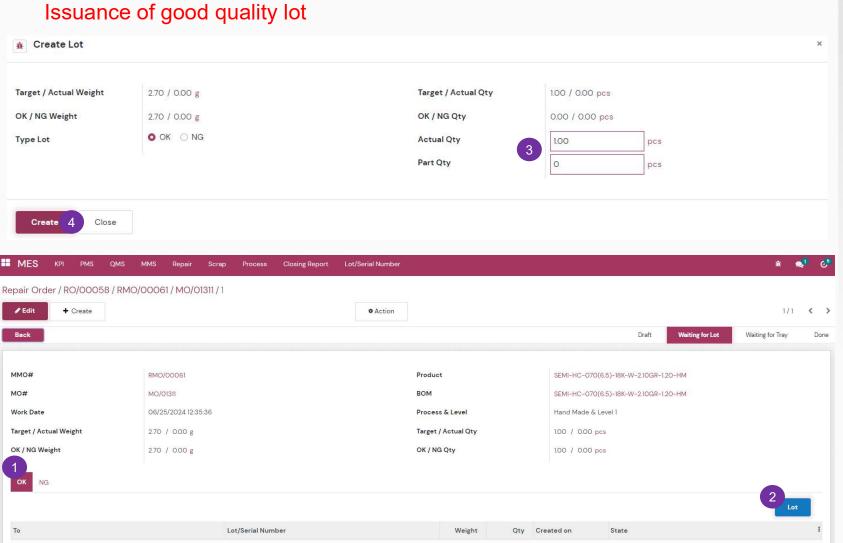
Step by step:

1. Press the "Detail" button to issue the lot.

Master Manufacturing Orders



III. Repair Work Order

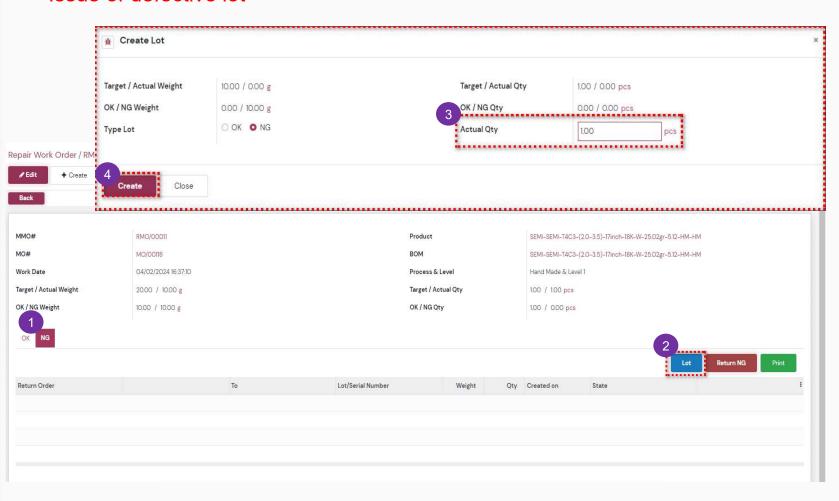


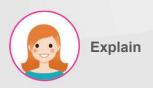
- 1. Proceed from the "OK" tab.
- 2. Click the "Lot" button to open the input window.
- Enter actual quantity and accessory quantity (optional).
- 4. Issue Lot by pressing the "Create" button.

Master Manufacturing Orders

III. Repair Work Order

Issue of defective lot



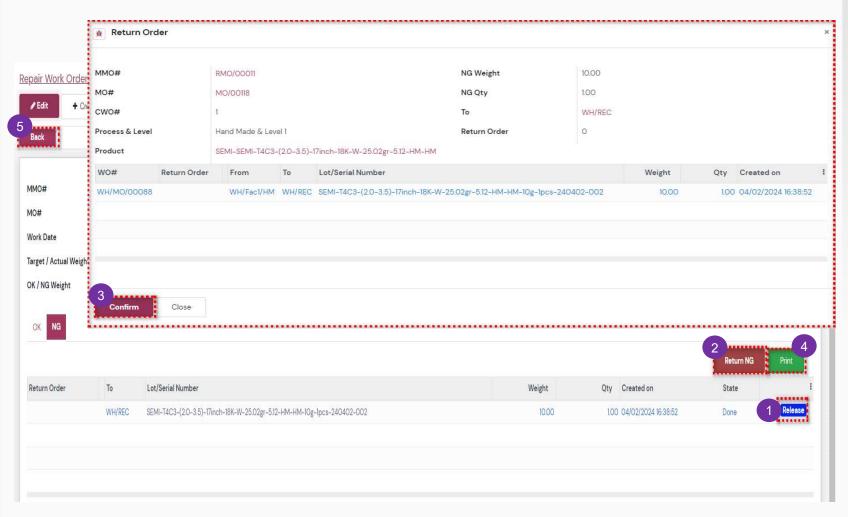


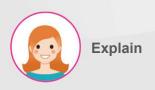
- 1. Proceed in the "NG" tab.
- 2. Click the "Lot" button to open the input window.
- 3. Enter actual quantity.
- 4. Issue Lot by pressing the "Create" button.

Master Manufacturing Orders

III. Repair Work Order

Change defective product to good product or move to Recasting List





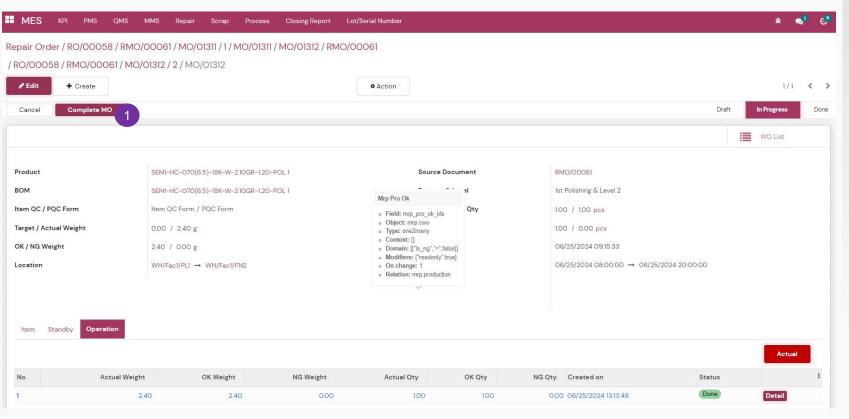
- Press the "Release" button to change defective product to good product.
- Or press the "Return NG" button to go to MES > MMS > Recasting List.
- Confirm the move by pressing the "Confirm" button.
- 4. Print QR by pressing the "Print" button.
- 5. Click the "Back" button to go to the main page.

MMS Master Manufacturing Orders

Explain

III. Repair Work Order

Complete repair work instructions for each process

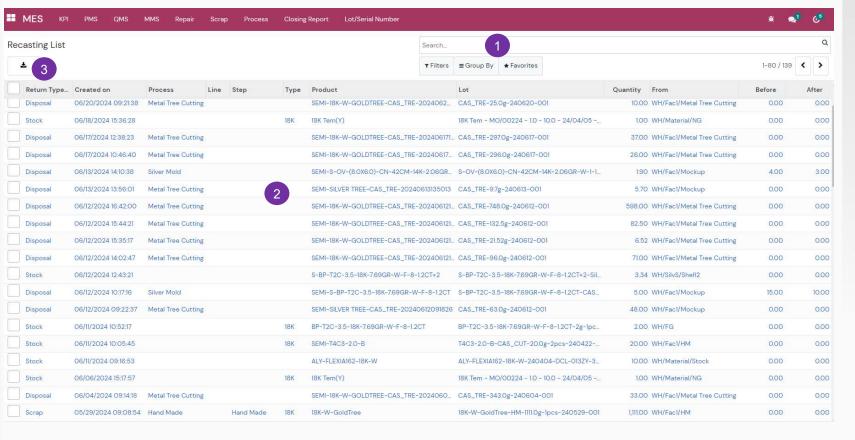


- Click the "Complete MO" button to approve the completion of the process.
- ** Each MO has the same structure, and when the last MO is completed, RMO is completed simultaneously, and the product moves to OQC.

Master Manufacturing Orders

IV. Recasting List

Recast List Information





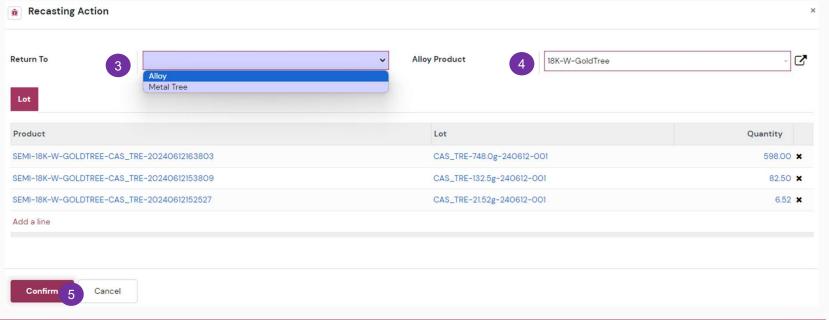
- Search function.
- 2. Displays the remaining amount of gold to be returned to the mint and a list of defective products. This applies to PMO Disposal, defective semi-finished products and finished products that cannot be repaired in each process, Return to Casting in the Daily Closing Report, and gold materials determined to be returned from each WMS warehouse to the casting room.
- 3. Excel conversion function.

Master Manufacturing Orders

Explain

IV. Recasting List

Recast List Information



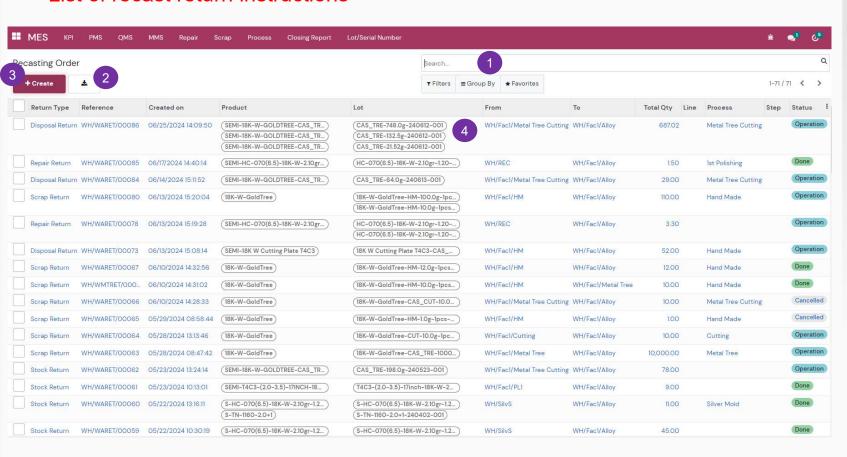
MES KPI	PMS QMS	MMS Repair	Scrap	Process	Closing	Report Lo	ot/Serial Number							¥	•	୍ତ
casting List								Search	60							Q
Create Recastin	g Orde 2 3 selected	ed					Action	▼ Filte	s ≡ Group B	Ву	★ Favorites			1-80 /	139 <	>
Return Type		Process	Line	Step	Туре	Product			Lot			Quantity	From	Before		After
Disposal	06/13/2024 13:56:01	Metal Tree Cutting	g			SEMI-SILVER	TREE-CAS_TRE-20	2406131350	3 CAS_TRE-	-9.7g-	240613-001	5.70	WH/Fac1/Mockup	0.00)	0.00
Disposal	06/12/2024 16:42:00	Metal Tree Cutting	g			SEMI-18K-W-	-GOLDTREE-CAS_T	RE-202406	21 CAS_TRE-	-748.0	g-240612-001	598.00	WH/Fac1/Metal Tree Cutting	0.00)	0.00
Disposal	06/12/2024 15:44:21	Metal Tree Cutting	g			SEMI-18K-W-	-GOLDTREE-CAS_T	RE-202406	21 CAS_TRE-	-132.5	g-240612-001	82.50	WH/Fac1/Metal Tree Cutting	0.00)	0.00
Disposal	06/12/2024 15:35:17	Metal Tree Cutting	g			SEMI-18K-W-	-GOLDTREE-CAS_T	RE-202406	21 CAS_TRE-	-21.52	g-240612-001	6.52	WH/Fac1/Metal Tree Cutting	0.00		0.00
1 posal	06/12/2024 14:02:47	Metal Tree Cutting	g			SEMI-18K-W-	-GOLDTREE-CAS_T	RE-202406	21 CAS_TRE-	-96.0g	g-240612-001	71.00	WH/Fac1/Metal Tree Cutting	0.00		0.00
Stock	06/12/2024 12:43:21					S-BP-T2C-3.	5-18K-7.69GR-W-F	-8-1.2CT+2	S-BP-T2C	-3.5-1	18K-7.69GR-W-F-8-1.2CT+2-Sil	3.34	WH/SilvS/Shefl2	0.00)	0.00

- Select the item you wish to return from the list. The location of the From column must be the same, the process of the Process column must be the same, and the gold purity (18K/14K) must be the same.
- 2. Click the "Create Recasting Order" button to create a return order.
- 3. Specify the location for return.
- 4. Specifies the type of alloy to be returned and cast.
- 5. Click the "Confirm" button to confirm.

Master Manufacturing Orders

V. Recasting Order

List of recast return instructions





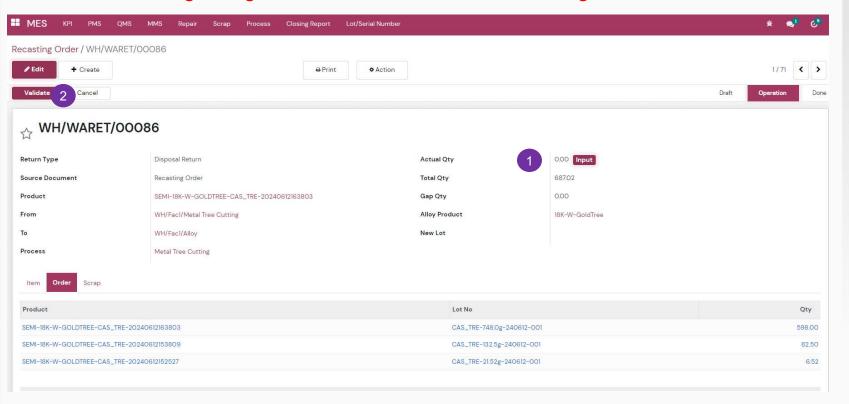
- Search function.
- 2. Download function as Excel.
- 3. Generate return order button.
- 4. Displays the list of return instructions generated by the "Recasting List" function. The most recently created return order is at the top of the list. Select the relevant instruction sheet and proceed with the return process.

Master Manufacturing Orders

Explain

V. Recasting Order

Check the weight of gold material returned to the casting room

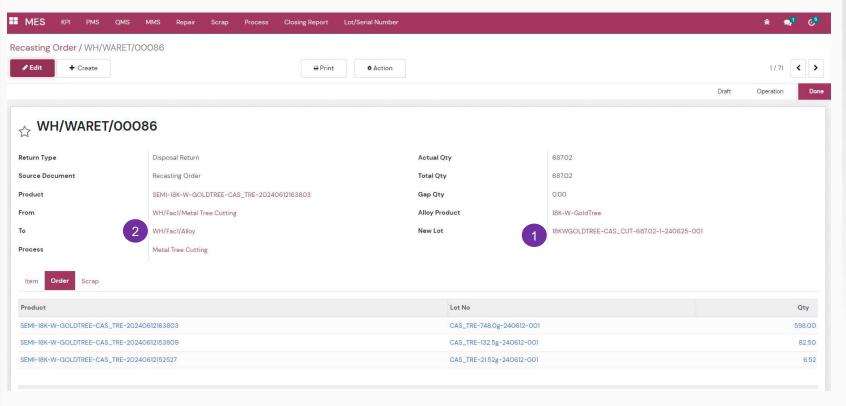


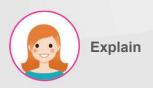
- Casting room personnel check incoming weight.
- 2. Confirm by pressing the "Validate" button.

Master Manufacturing Orders

V. Recasting Order

New lots and storage locations for gold material returned to the mint.





- Issuance of new lots of gold material returned to the mint.
- Returned materials are stored in inventory at the relevant location.



Thank you for using

For Smart Factory

