For Smart Factory

Operating User

MANUAL

MES 3D

ERP + MES + SCADA

Auto & S.I

User Manual

Table of Contents

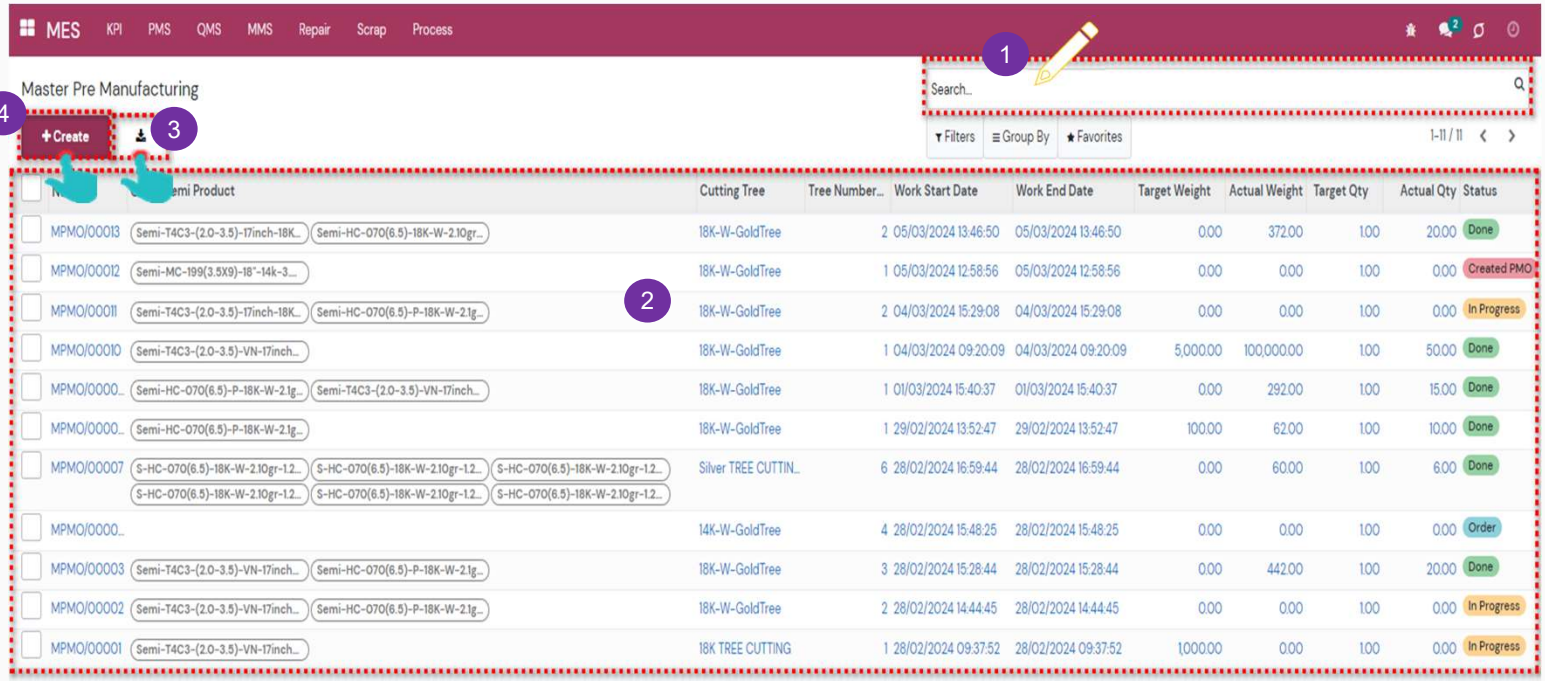
PMS

Pre Manufacturing System

Explain

I. Master Pre Manufacturing

Information on the list of master pre-production forms



	Semi Product	Cutting Tree	Tree Number	Work Start Date	Work End Date	Target Weight	Actual Weight	Target Qty	Actual Qty	Status
MPMO/00013	Semi-T4C3-(2.0-3.5)-17inch-18K.., Semi-HC-070(6.5)-18K-W-2.10gr..	18K-W-GoldTree	2	05/03/2024 13:46:50	05/03/2024 13:46:50	0.00	372.00	1.00	20.00	Done
MPMO/00012	Semi-MC-199(3.5X9)-18"-14k-3..	18K-W-GoldTree	1	05/03/2024 12:58:56	05/03/2024 12:58:56	0.00	0.00	1.00	0.00	Created PMO
MPMO/00011	Semi-T4C3-(2.0-3.5)-17inch-18K.., Semi-HC-070(6.5)-P-18K-W-2.1g..	18K-W-GoldTree	2	04/03/2024 15:29:08	04/03/2024 15:29:08	0.00	0.00	1.00	0.00	In Progress
MPMO/00010	Semi-T4C3-(2.0-3.5)-VN-17inch..	18K-W-GoldTree	1	04/03/2024 09:20:09	04/03/2024 09:20:09	5,000.00	100,000.00	1.00	50.00	Done
MPMO/0000..	Semi-HC-070(6.5)-P-18K-W-2.1g.., Semi-T4C3-(2.0-3.5)-VN-17inch..	18K-W-GoldTree	1	01/03/2024 15:40:37	01/03/2024 15:40:37	0.00	292.00	1.00	15.00	Done
MPMO/0000..	Semi-HC-070(6.5)-P-18K-W-2.1g..	18K-W-GoldTree	1	29/02/2024 13:52:47	29/02/2024 13:52:47	100.00	62.00	1.00	10.00	Done
MPMO/00007	S-HC-070(6.5)-18K-W-2.10gr-1.2.., S-HC-070(6.5)-18K-W-2.10gr-1.2.., S-HC-070(6.5)-18K-W-2.10gr-1.2.., S-HC-070(6.5)-18K-W-2.10gr-1.2.., S-HC-070(6.5)-18K-W-2.10gr-1.2.., S-HC-070(6.5)-18K-W-2.10gr-1.2..	Silver TREE CUTTIN..	6	28/02/2024 16:59:44	28/02/2024 16:59:44	0.00	60.00	1.00	6.00	Done
MPMO/0000..		14K-W-GoldTree	4	28/02/2024 15:48:25	28/02/2024 15:48:25	0.00	0.00	1.00	0.00	Order
MPMO/00003	Semi-T4C3-(2.0-3.5)-VN-17inch.., Semi-HC-070(6.5)-P-18K-W-2.1g..	18K-W-GoldTree	3	28/02/2024 15:28:44	28/02/2024 15:28:44	0.00	442.00	1.00	20.00	Done
MPMO/00002	Semi-T4C3-(2.0-3.5)-VN-17inch.., Semi-HC-070(6.5)-P-18K-W-2.1g..	18K-W-GoldTree	2	28/02/2024 14:44:45	28/02/2024 14:44:45	0.00	0.00	1.00	0.00	In Progress
MPMO/00001	Semi-T4C3-(2.0-3.5)-VN-17inch..	18K TREE CUTTING	1	28/02/2024 09:37:52	28/02/2024 09:37:52	1,000.00	0.00	1.00	0.00	In Progress

Step by step:

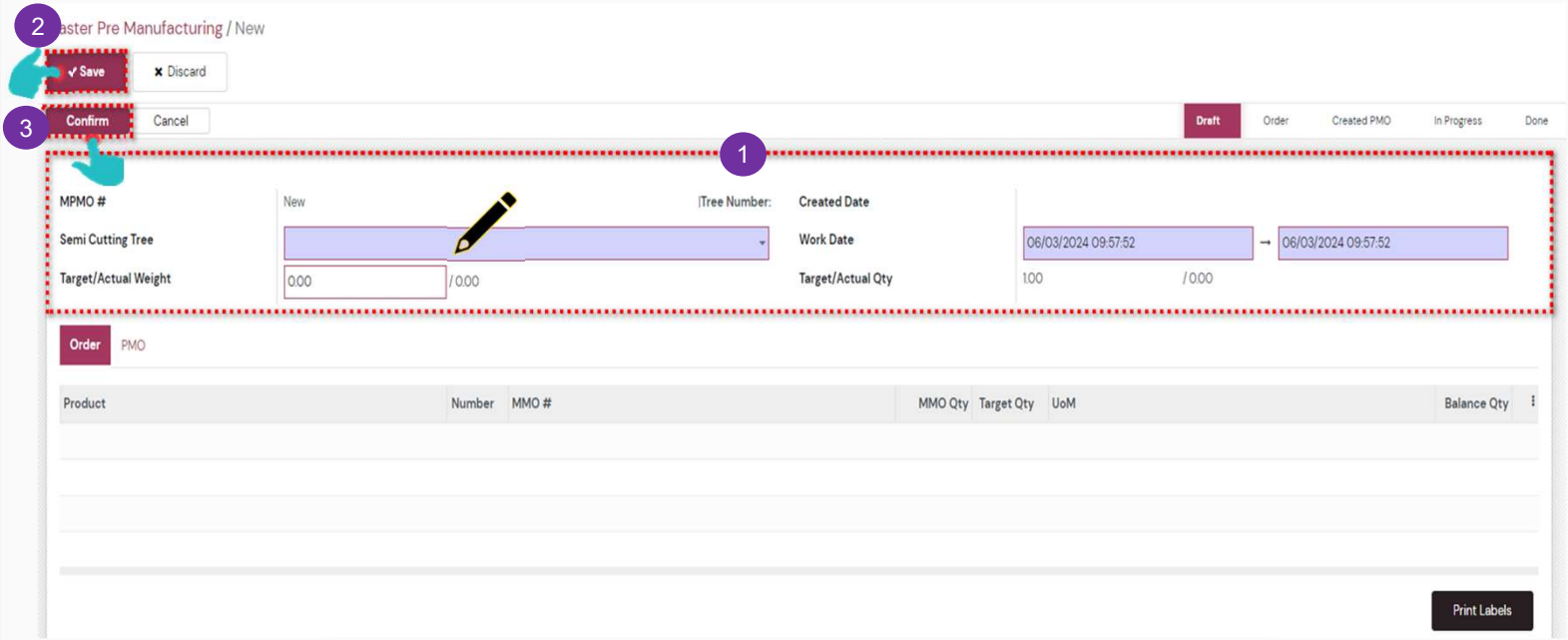
1. Search function
2. Master Pre-production form information
3. Excel file download function
4. Click “Create” to create. See the next slide

PMS

Pre Manufacturing System

I. Master Pre Manufacturing

Create Master pre-production form



Explain

Step by step:

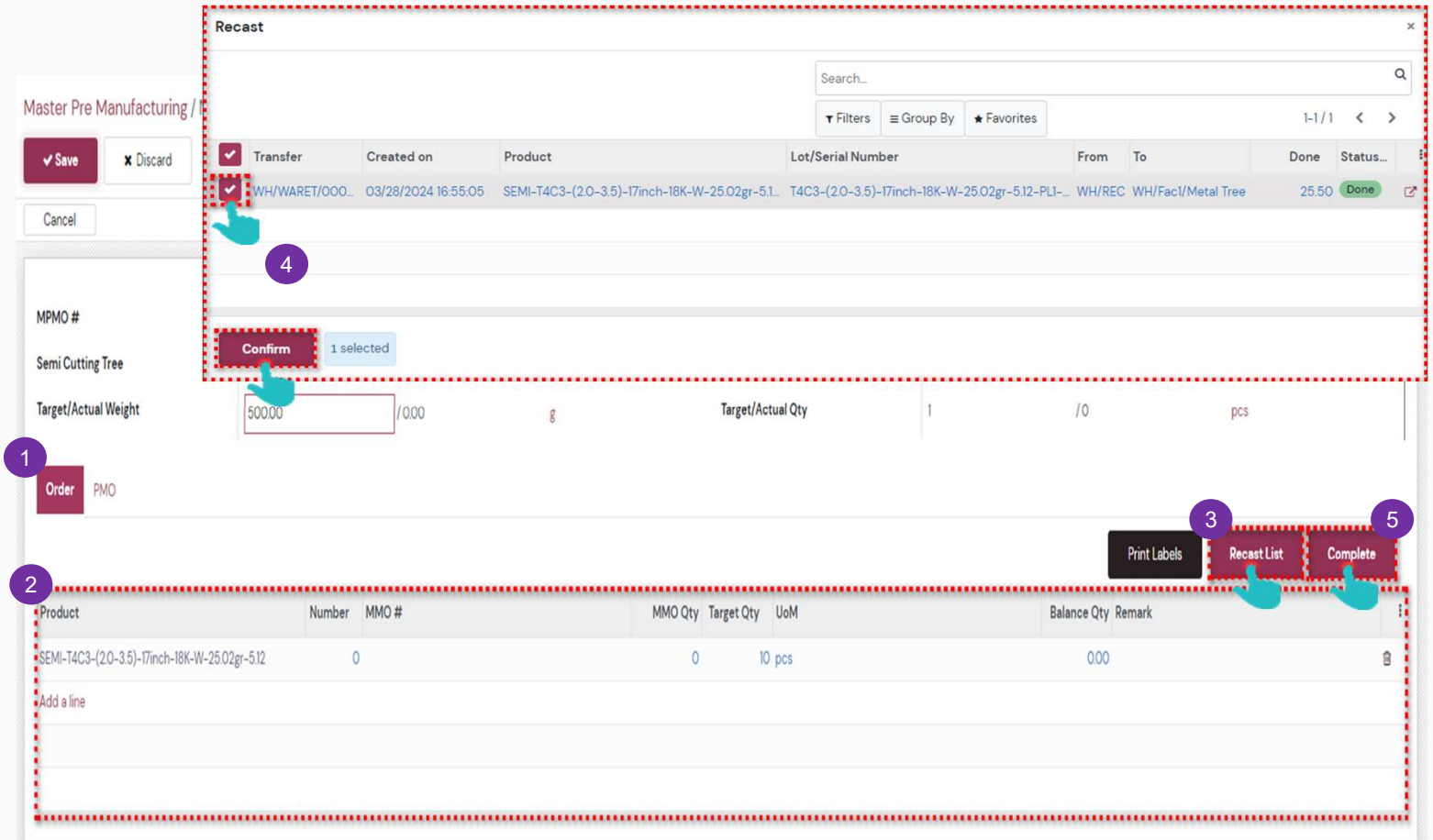
1. Fill in information:
   - Semi Cutting Tree
   - Work Date.
   - Target/Actual Weight
2. Click “Save” to save
3. Click “Confirm” to confirm

PMS

Pre Manufacturing System

I. Master Pre Manufacturing

Add a pre-production output quantity target



Explain

Step by step:

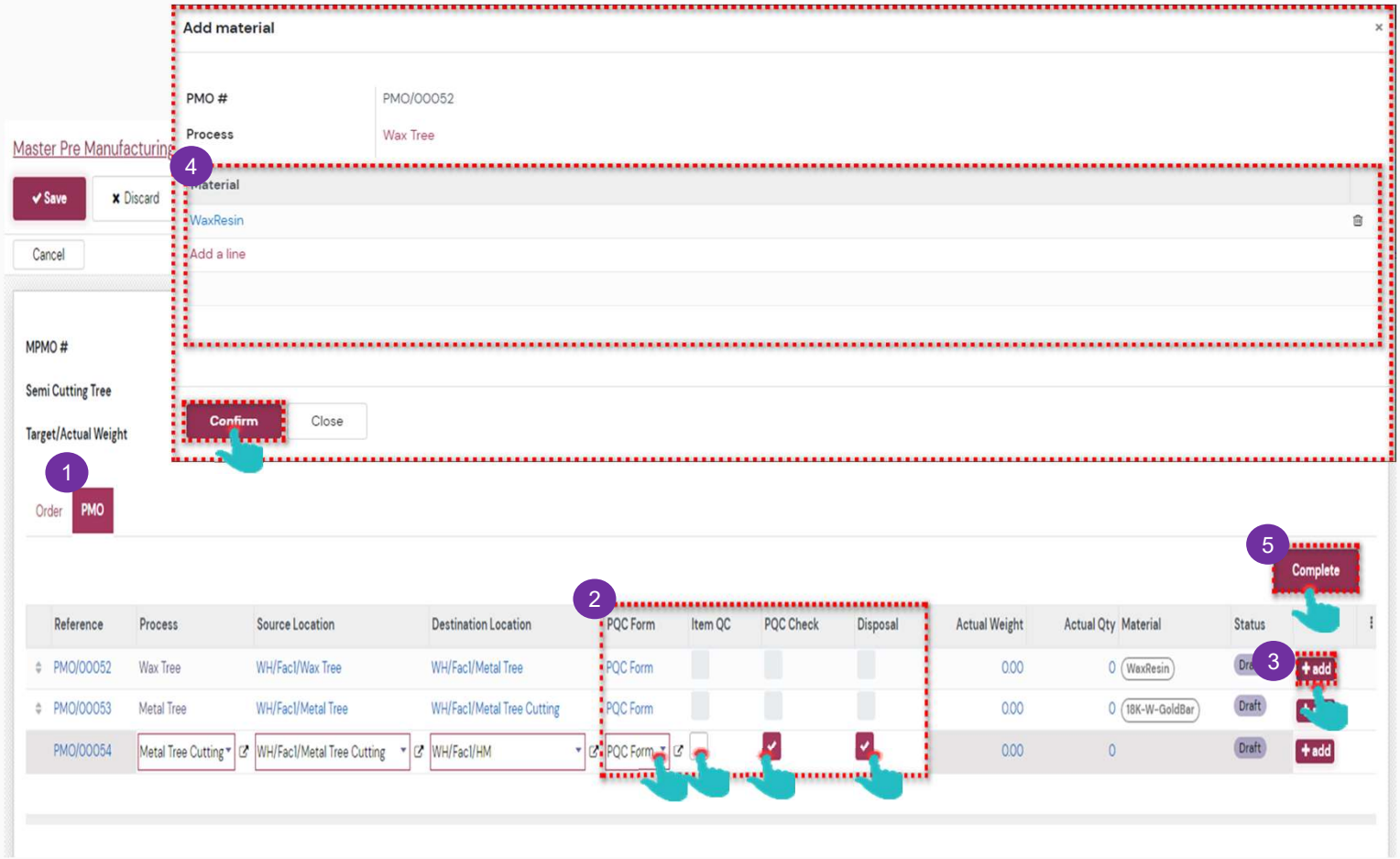
1. The “Order” tab contains information about the target list of output semi-finished products for pre-production
2. Fill in information:
   - Product
   - Number
   - MMO#
   - Target Qty
3. Or click “Recast List” to select semi-finished products to wait for recasting
4. Tick to the semi-finished product and click "Confirm".
5. Click “Complete” to complete the process and change to the next state

PMS

Pre Manufacturing System

I. Master Pre Manufacturing

PMO Setting



Explain

Step by step:

1. At the "PMO" tab, after "Confirm", the PMO list will automatically display after confirming the target. Each PMO will correspond to 1 process. The PMO list will automatically update on the "PMO" page.
2. Select in the information:

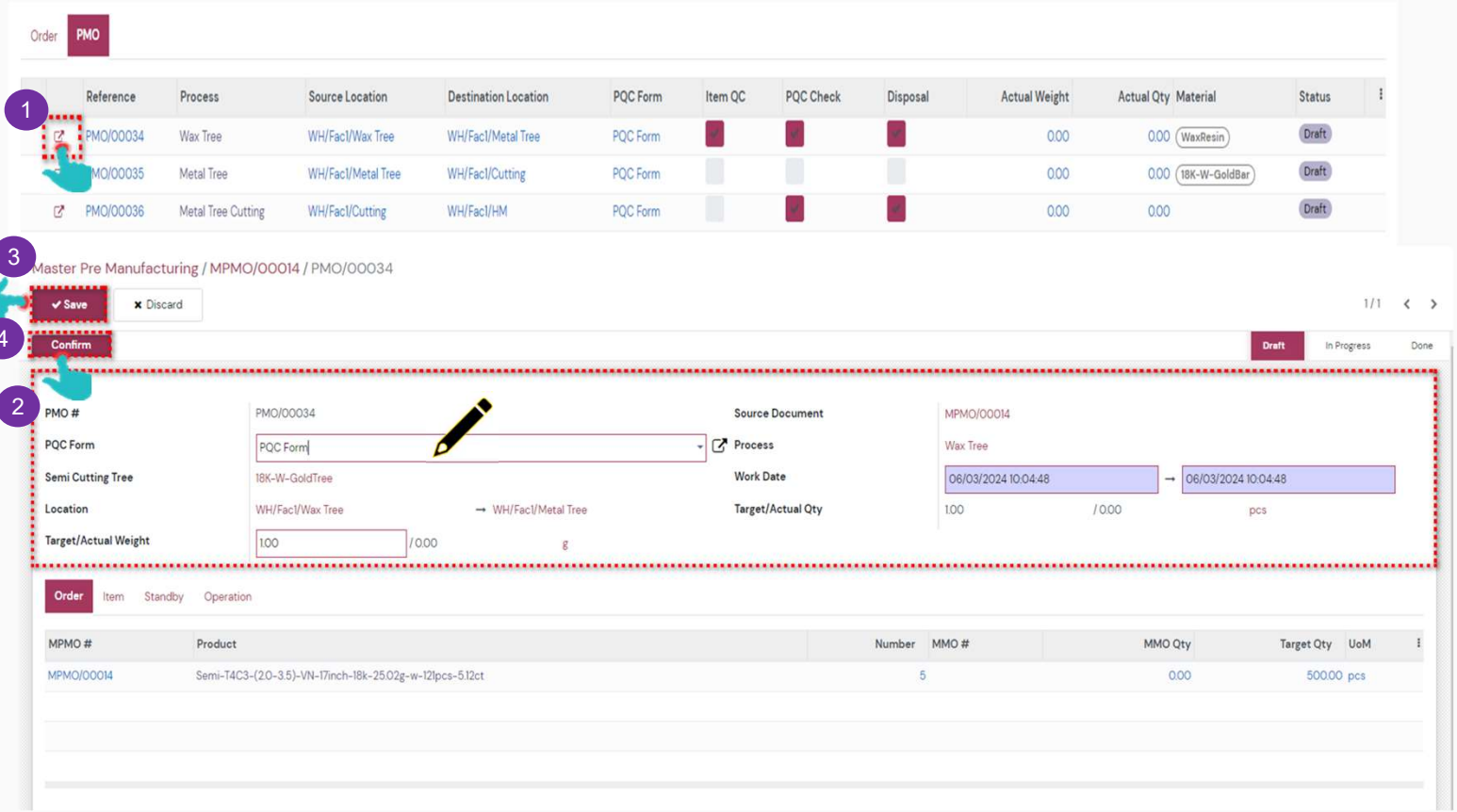
   - Item QC Form: PQC check function
   - Item QC: Tick if the process has Item QC check
   - PQC Check: Tick if the process has PQC check
   - Disposal: Check and return the remaining gold to recasting
3. Click "add" to add materials to use for the process
4. Select the material to use, then click "Confirm" to confirm.
5. Click "Complete" to continue.

PMS

Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Carry out the Wax Tree, Metal Tree and Cutting process



Explain

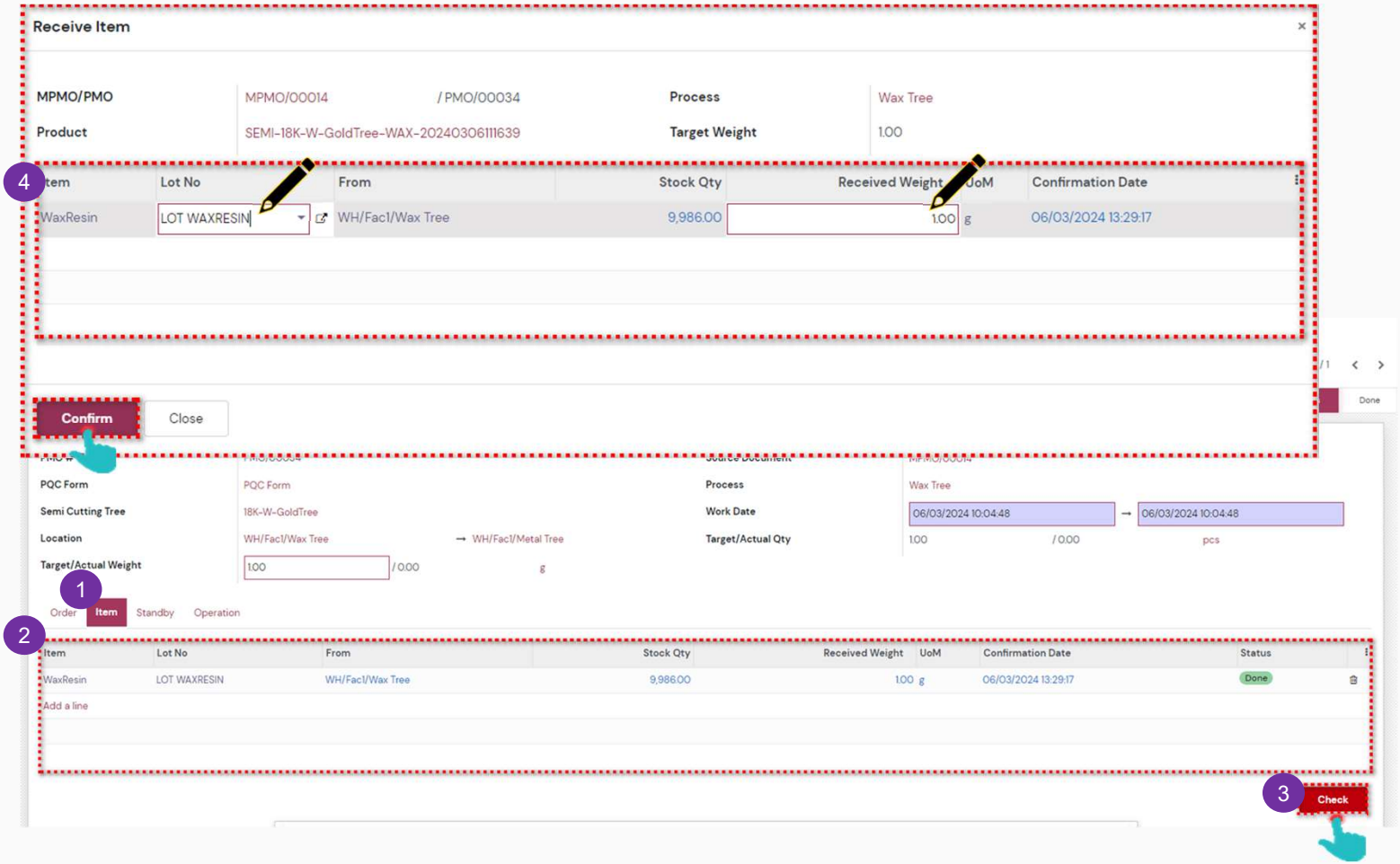
Step by step:

1. Click PMO in the list
2. Fill in the information:
   - PQC Form: PQC check form
   - Work Date
   - Target/Actual Weight.
3. Click “Save” to save
4. Click “Confirm” to confirm

PMS
Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Add input materials to the process



Explain

Step by step:

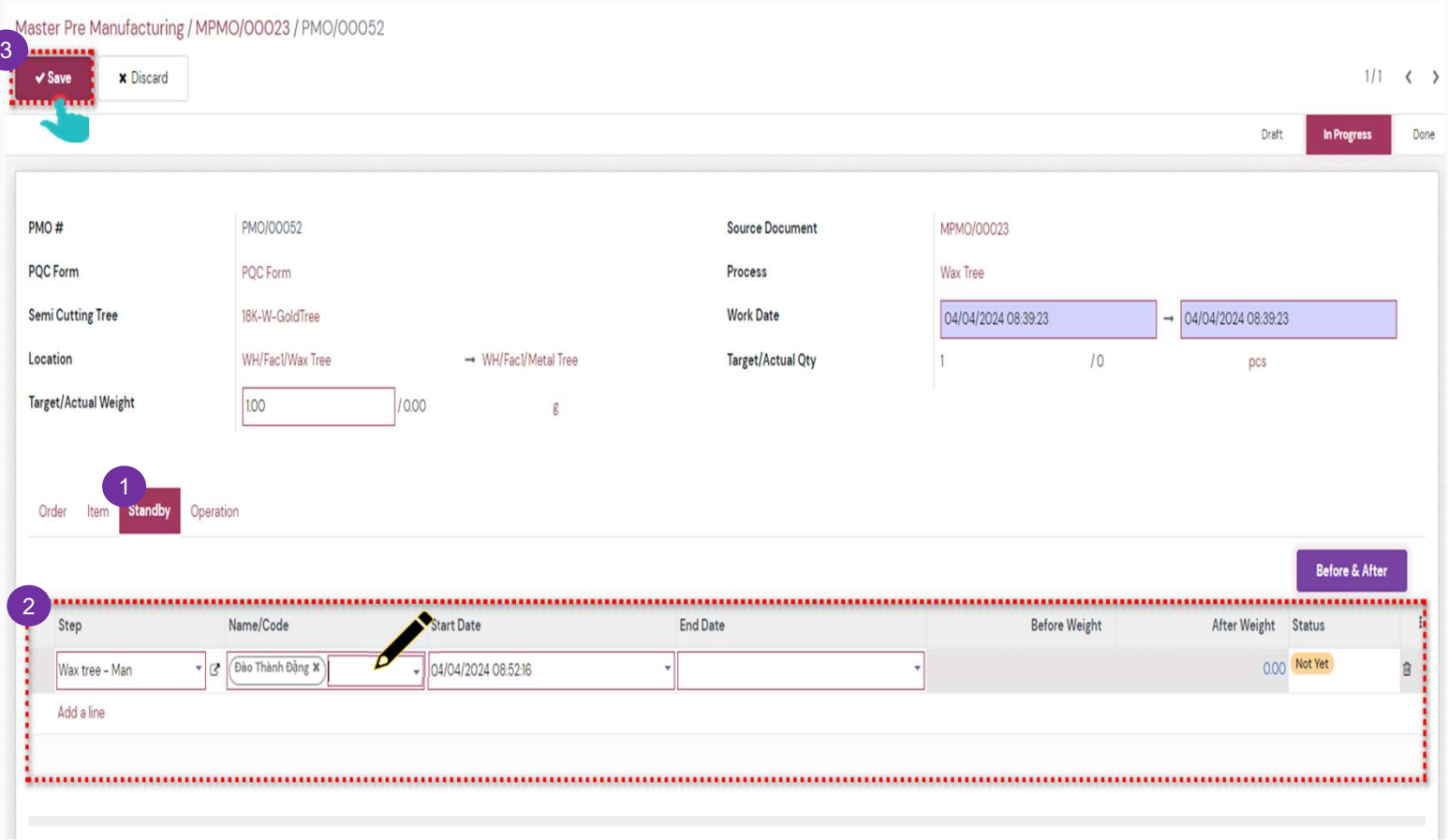
1. The “Item” tab contains information about the list of materials to use
2. Material list information
3. Click “Check” to proceed with adding lots and entering the input quantity
4. Fill in the information :
   - Lot No
   - Received Weight

Then click “Confirm” to continue.

PMS
Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Add workers, machines, and molds to the process



Explain

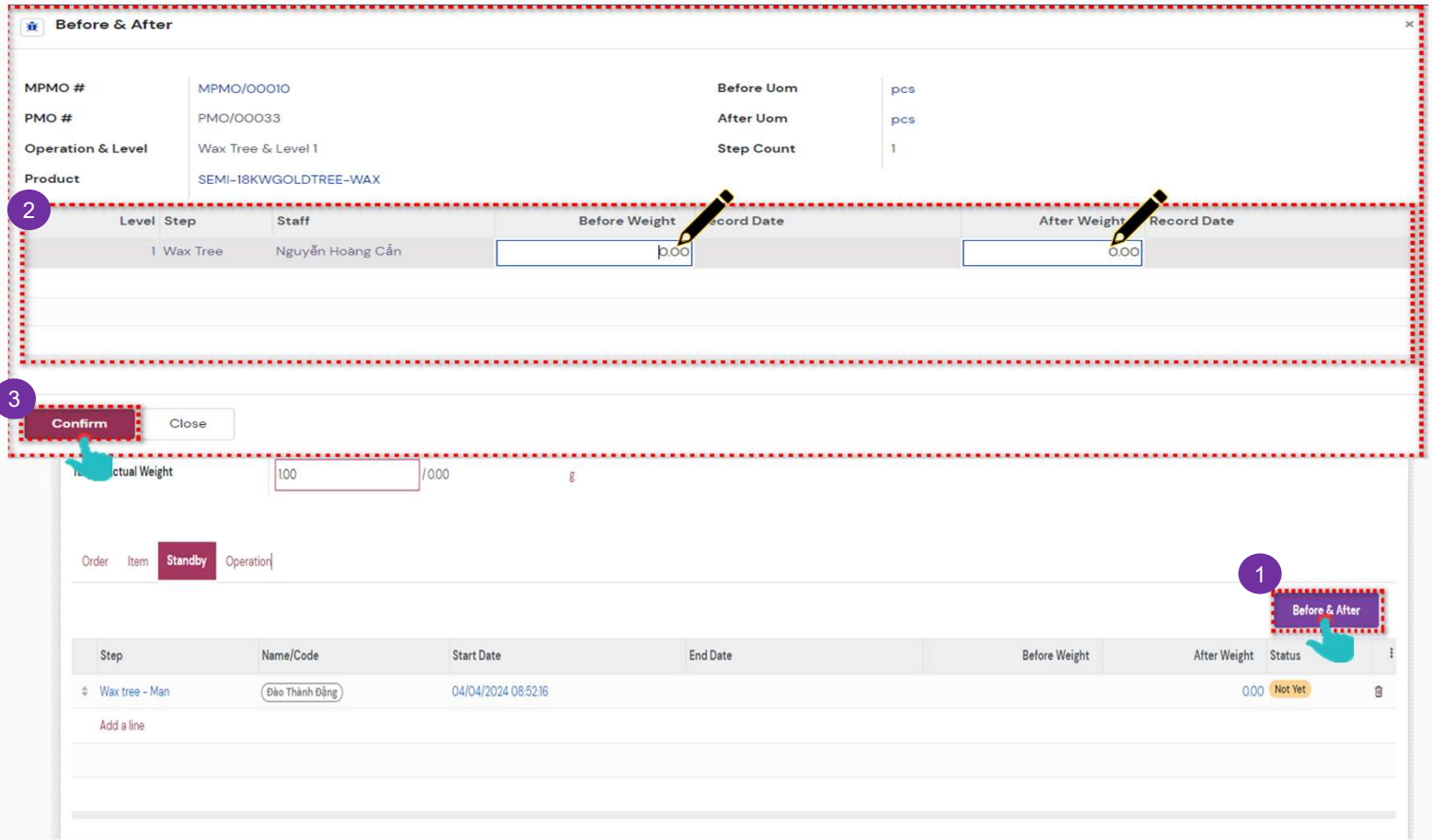
Step by step:

1. At the “Standby” tab
2. Điền các thông tin:
   - Step
   - Name/Code
   - Start Date
   - End Date
3. Then click “Save” to save

PMS
Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Enter the weight before and after production



Explain

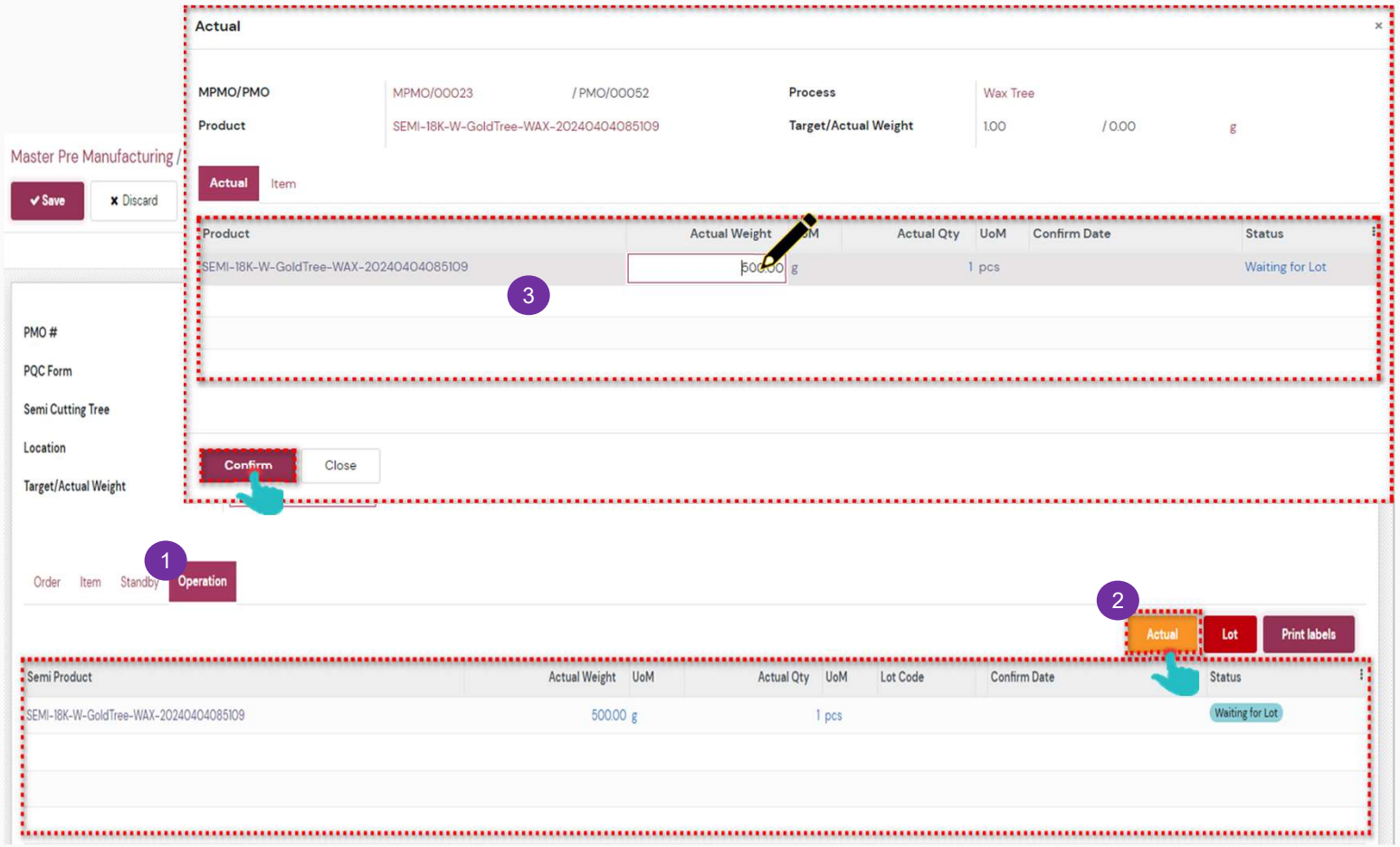
Step by step:

1. Click the “Before & After” button
2. Fill in Before Weight and After Weight.
3. Then click “Confirm” to confirm.

PMS
Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Create actual weight



Explain

Step by step:

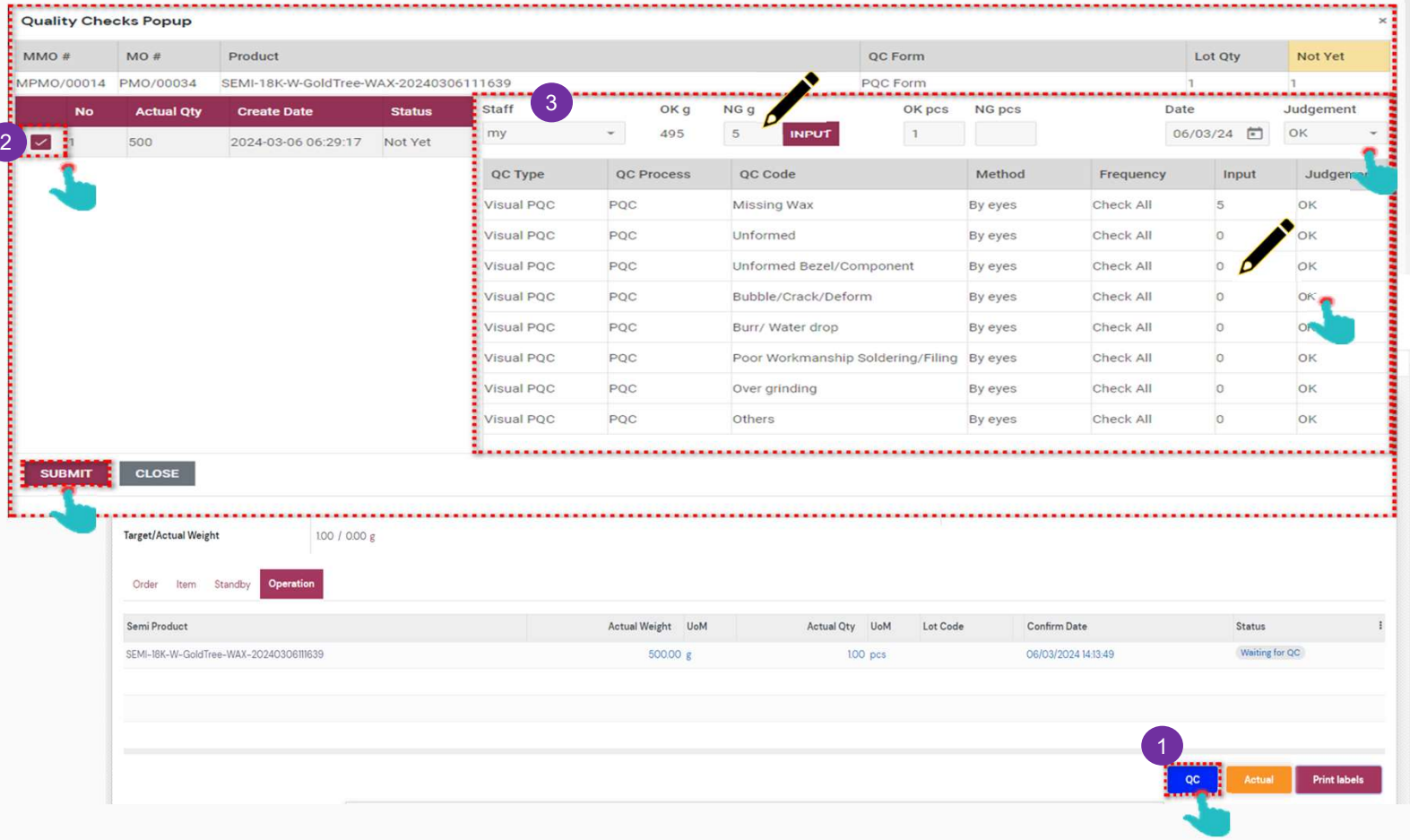
1. At the “Operation” tab. Actual weight & qty information will be automatically updated after entering weight after weighing in the “Standby” tab.
2. Click “Actual” to edit
3. Fill in information Actual Weight. Then click “Confirm”.

PMS

Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Check PQC of output semi-finished products



Explain

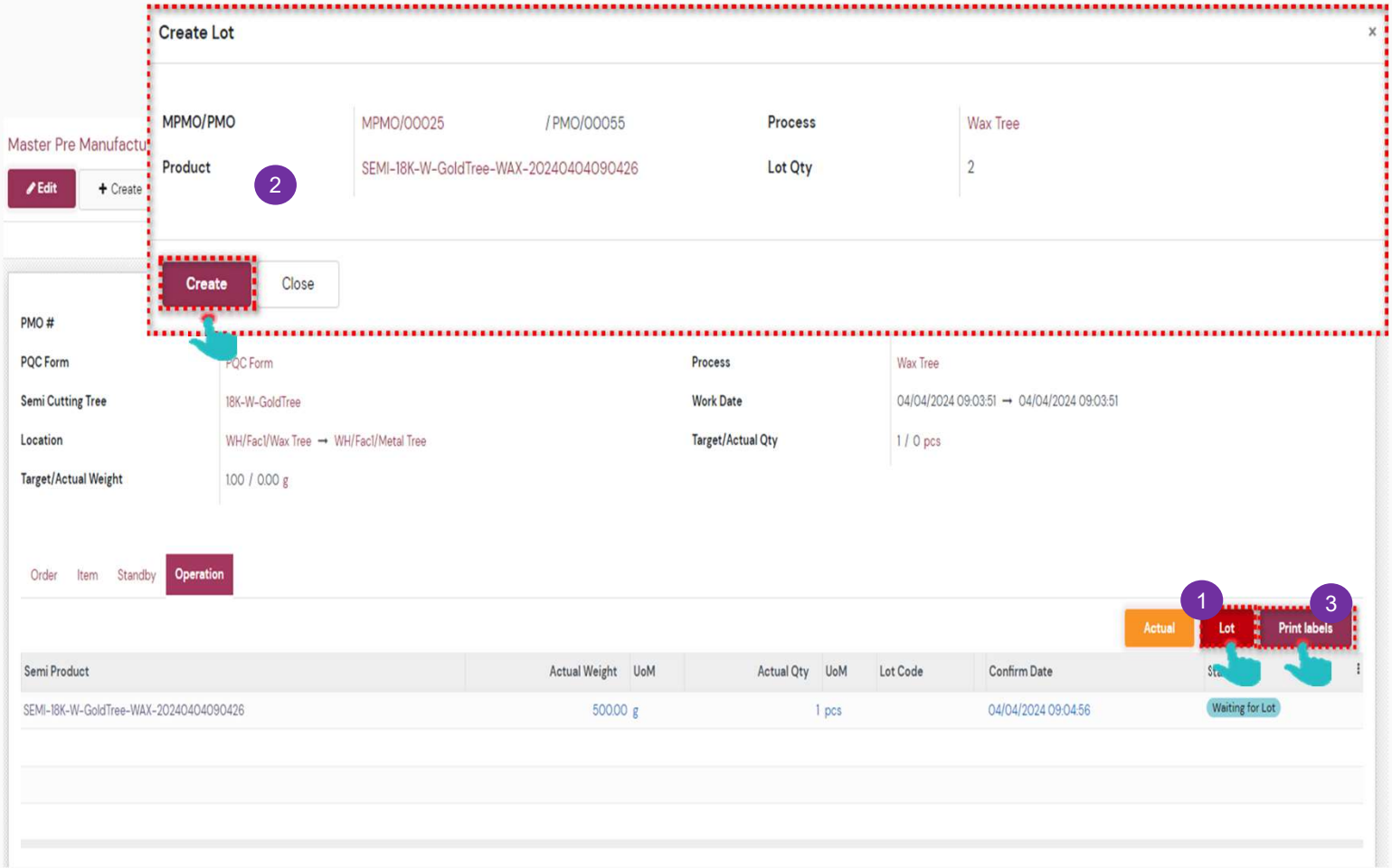
Step by step:

1. Click the “PQC” button to conduct the check
2. Select semi lot from the list
3. Fill in the result information after checking. Then click “Submit” to confirm

PMS
Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Create lot of semi-finished products



Explain

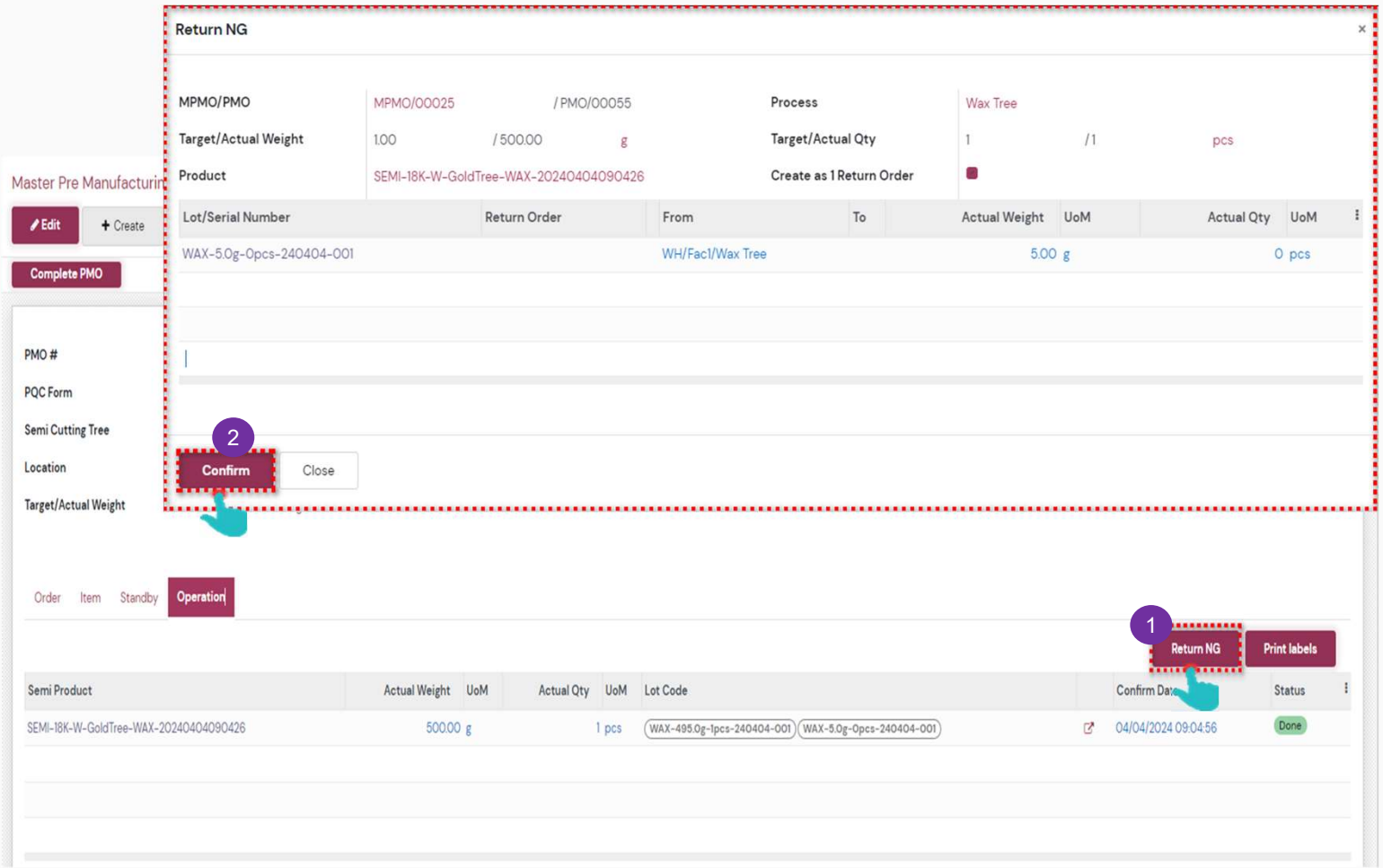
Step by step:

1. Click “Lot” to create
2. Select “Create” to confirm lot creation
3. Click “Print labels” to print QR

PMS
Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Return semi-finished NG products to the repair warehouse



Explain

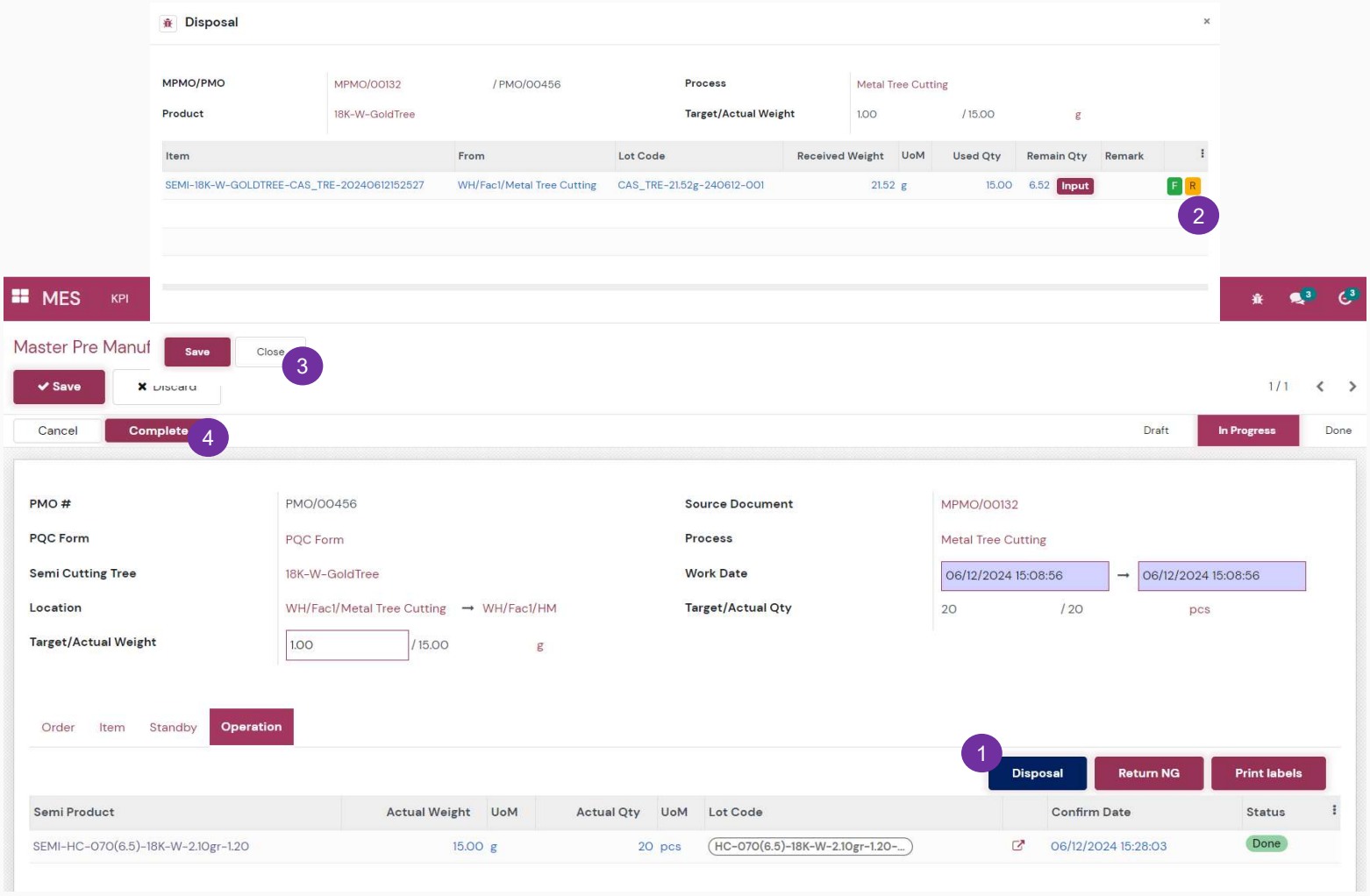
Step by step:

1. Click the “Return NG” button to return
2. Click “Confirm” to confirm creating the return form.

PMS
Pre Manufacturing System

II. PMO (Pre Manufacturing Order)

Disposal process (return of remaining gold amount)



Explain

Step by Step:

1. Proceed by clicking the “Disposal” button.
2. Weight of received gold tree – the weight of the cut product is displayed. Press the “R” button to move the remaining amount to MES > MMS > Recasting List.
3. Close the window by pressing the “Close” button.
4. Click the “Complete” button to complete the MPMO.

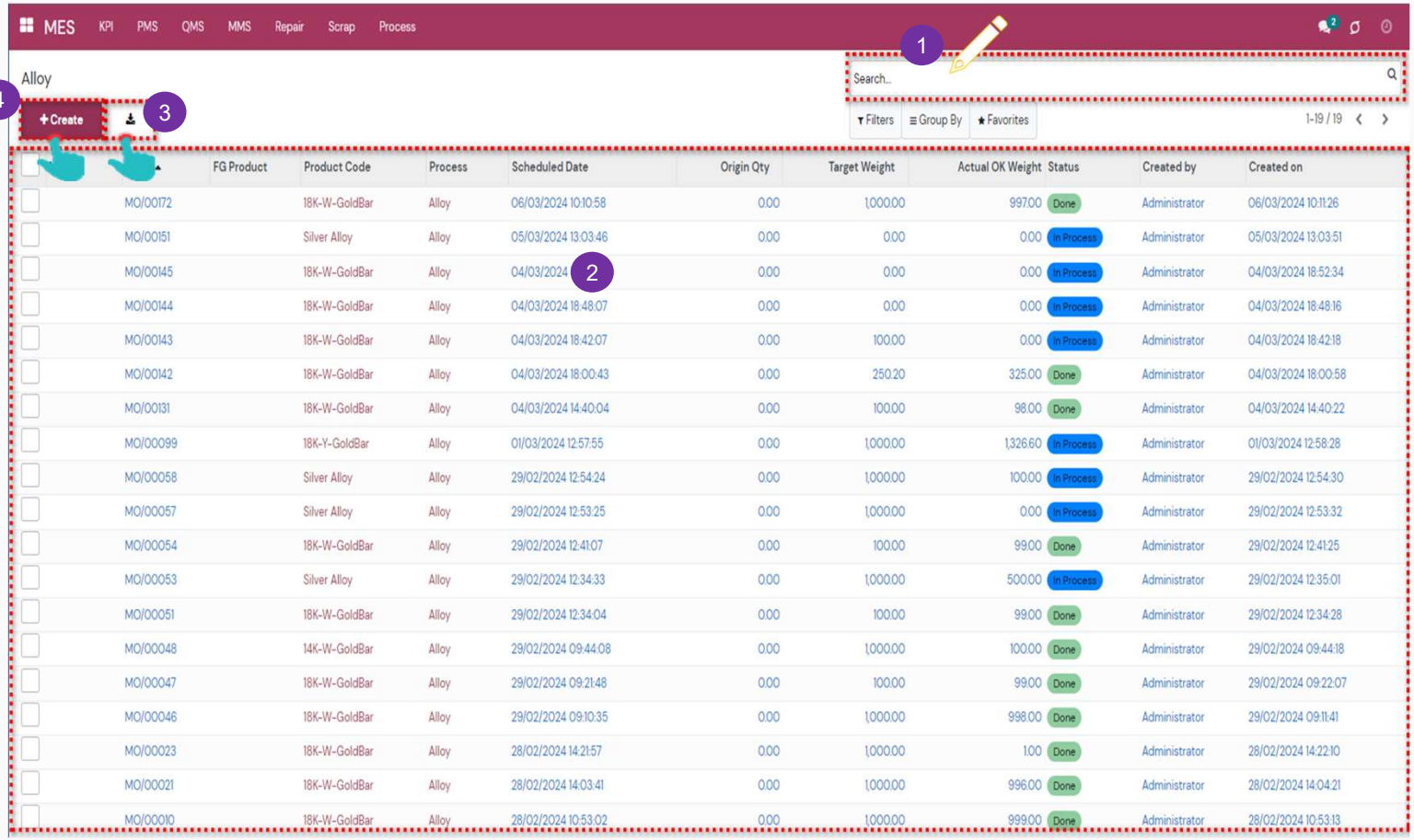
PMS

Pre Manufacturing System

Explain

III. Alloy

Alloy production list information



	FG Product	Product Code	Process	Scheduled Date	Origin Qty	Target Weight	Actual OK Weight	Status	Created by	Created on
MO/00172		18K-W-GoldBar	Alloy	06/03/2024 10:10:58	0.00	1,000.00	997.00	Done	Administrator	06/03/2024 10:11:26
MO/00151		Silver Alloy	Alloy	05/03/2024 13:03:46	0.00	0.00	0.00	In Process	Administrator	05/03/2024 13:03:51
MO/00145		18K-W-GoldBar	Alloy	04/03/2024	0.00	0.00	0.00	In Process	Administrator	04/03/2024 18:52:34
MO/00144		18K-W-GoldBar	Alloy	04/03/2024 18:48:07	0.00	0.00	0.00	In Process	Administrator	04/03/2024 18:48:16
MO/00143		18K-W-GoldBar	Alloy	04/03/2024 18:42:07	0.00	100.00	0.00	In Process	Administrator	04/03/2024 18:42:18
MO/00142		18K-W-GoldBar	Alloy	04/03/2024 18:00:43	0.00	250.20	325.00	Done	Administrator	04/03/2024 18:00:58
MO/00131		18K-W-GoldBar	Alloy	04/03/2024 14:40:04	0.00	100.00	98.00	Done	Administrator	04/03/2024 14:40:22
MO/00099		18K-Y-GoldBar	Alloy	01/03/2024 12:57:55	0.00	1,000.00	1,326.60	In Process	Administrator	01/03/2024 12:58:28
MO/00058		Silver Alloy	Alloy	29/02/2024 12:54:24	0.00	1,000.00	100.00	In Process	Administrator	29/02/2024 12:54:30
MO/00057		Silver Alloy	Alloy	29/02/2024 12:53:25	0.00	1,000.00	0.00	In Process	Administrator	29/02/2024 12:53:32
MO/00054		18K-W-GoldBar	Alloy	29/02/2024 12:41:07	0.00	100.00	99.00	Done	Administrator	29/02/2024 12:41:25
MO/00053		Silver Alloy	Alloy	29/02/2024 12:34:33	0.00	1,000.00	500.00	In Process	Administrator	29/02/2024 12:35:01
MO/00051		18K-W-GoldBar	Alloy	29/02/2024 12:34:04	0.00	100.00	99.00	Done	Administrator	29/02/2024 12:34:28
MO/00048		14K-W-GoldBar	Alloy	29/02/2024 09:44:08	0.00	1,000.00	100.00	Done	Administrator	29/02/2024 09:44:18
MO/00047		18K-W-GoldBar	Alloy	29/02/2024 09:21:48	0.00	100.00	99.00	Done	Administrator	29/02/2024 09:22:07
MO/00046		18K-W-GoldBar	Alloy	29/02/2024 09:10:35	0.00	1,000.00	998.00	Done	Administrator	29/02/2024 09:11:41
MO/00023		18K-W-GoldBar	Alloy	28/02/2024 14:21:57	0.00	1,000.00	1.00	Done	Administrator	28/02/2024 14:22:10
MO/00021		18K-W-GoldBar	Alloy	28/02/2024 14:03:41	0.00	1,000.00	996.00	Done	Administrator	28/02/2024 14:04:21
MO/00010		18K-W-GoldBar	Alloy	28/02/2024 10:53:02	0.00	1,000.00	999.00	Done	Administrator	28/02/2024 10:53:13

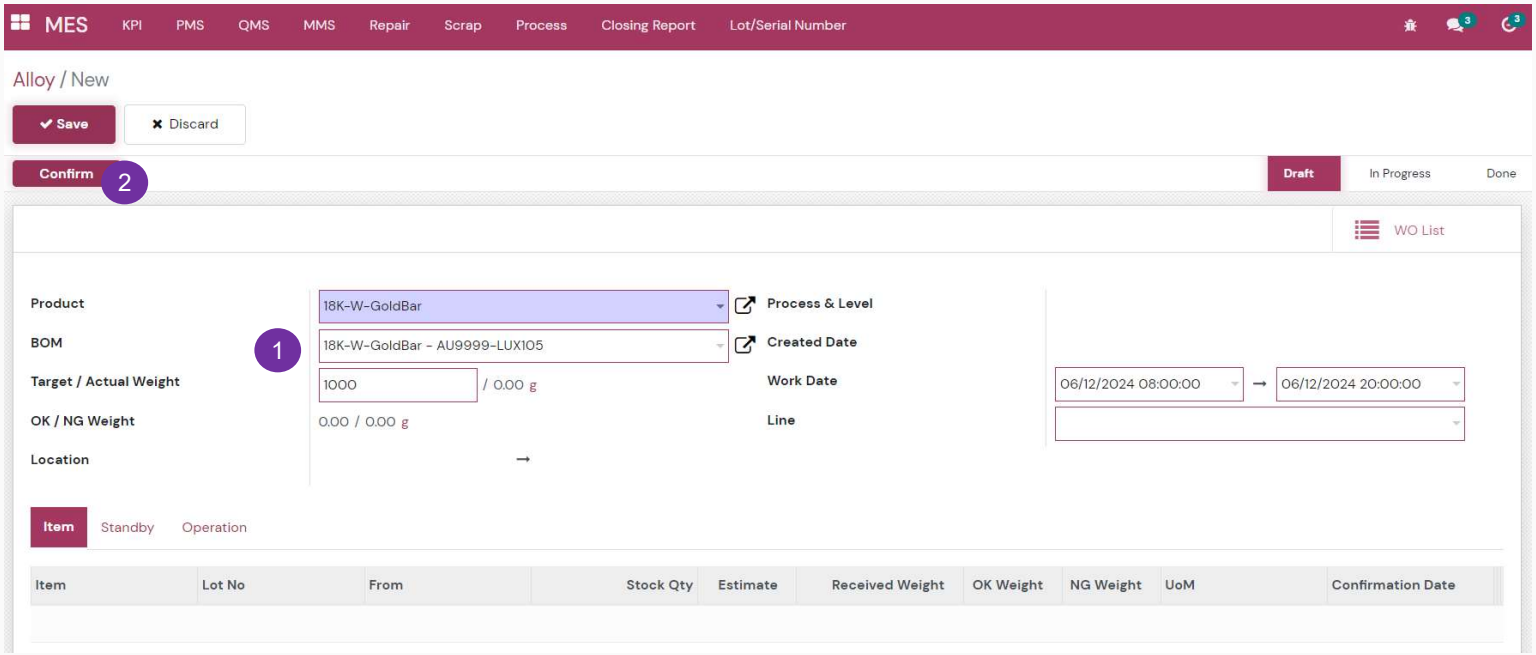
Step by step:

1. Search function
2. Alloy production order information
3. Excel file download function
4. Click “Create” to create. See the next slide.

PMS
Pre Manufacturing System

III. Alloy

Create Alloy Work Orders



Explain

Step by Step:

1. Enter relevant information:

_ Product alloy type designation

_ BOM Designate the BOM version of the relevant alloy

_ Target / Actual Weight Target / Actual Weight

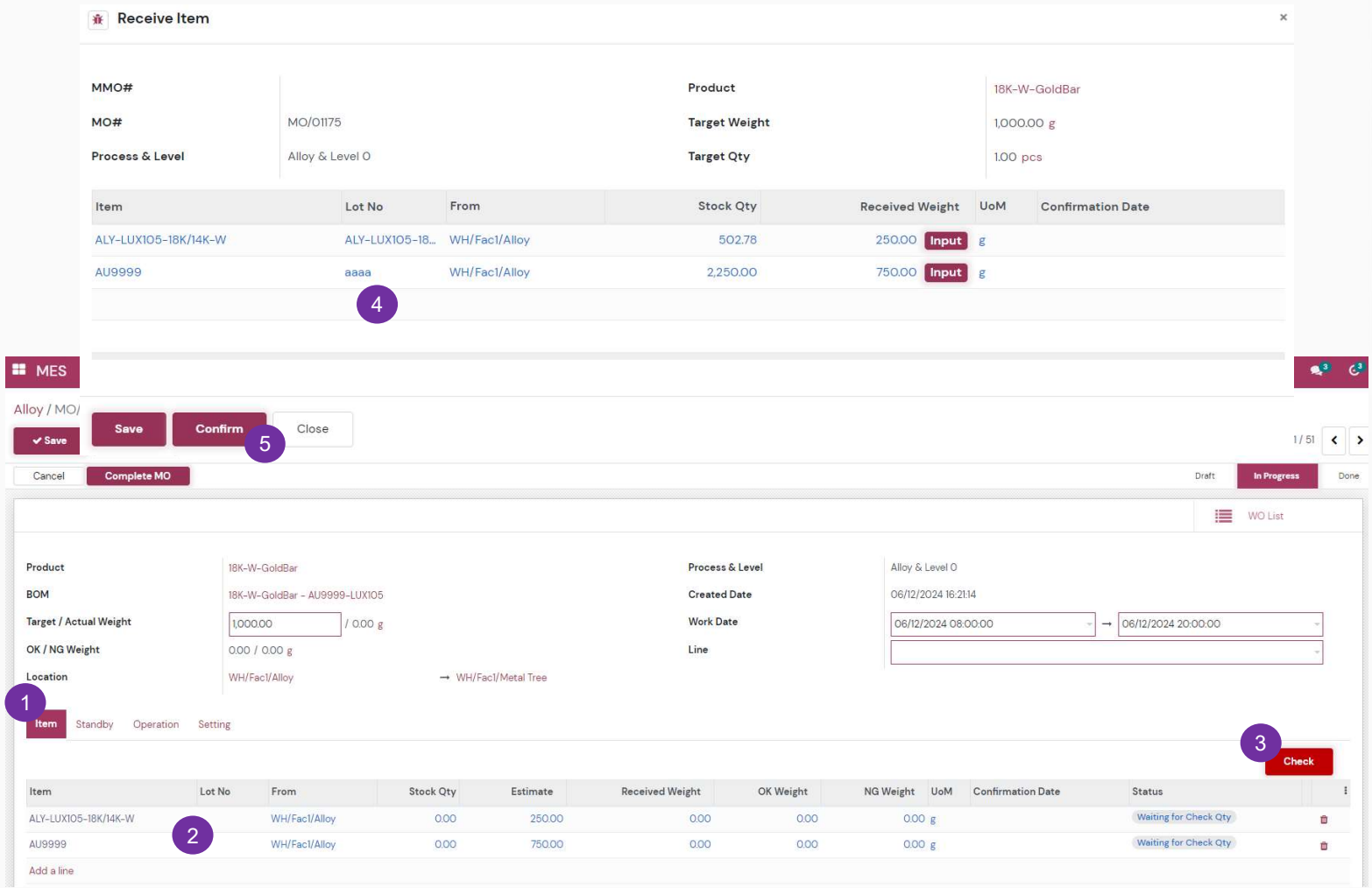
_ Work Date Work date

2. Confirm by pressing the “Confirm” button.

PMS
Pre Manufacturing System

III. Alloy

Enter input materials



Explain

Step by Step:

1. Proceed in the “Item” tab.
2. Display of materials registered in BOM.
3. Click the “Check” button to open the incoming material information window.
4. Enter relevant information:

_ Lot No Lot Code

_ Received Weight

_ Received Qty Quantity received

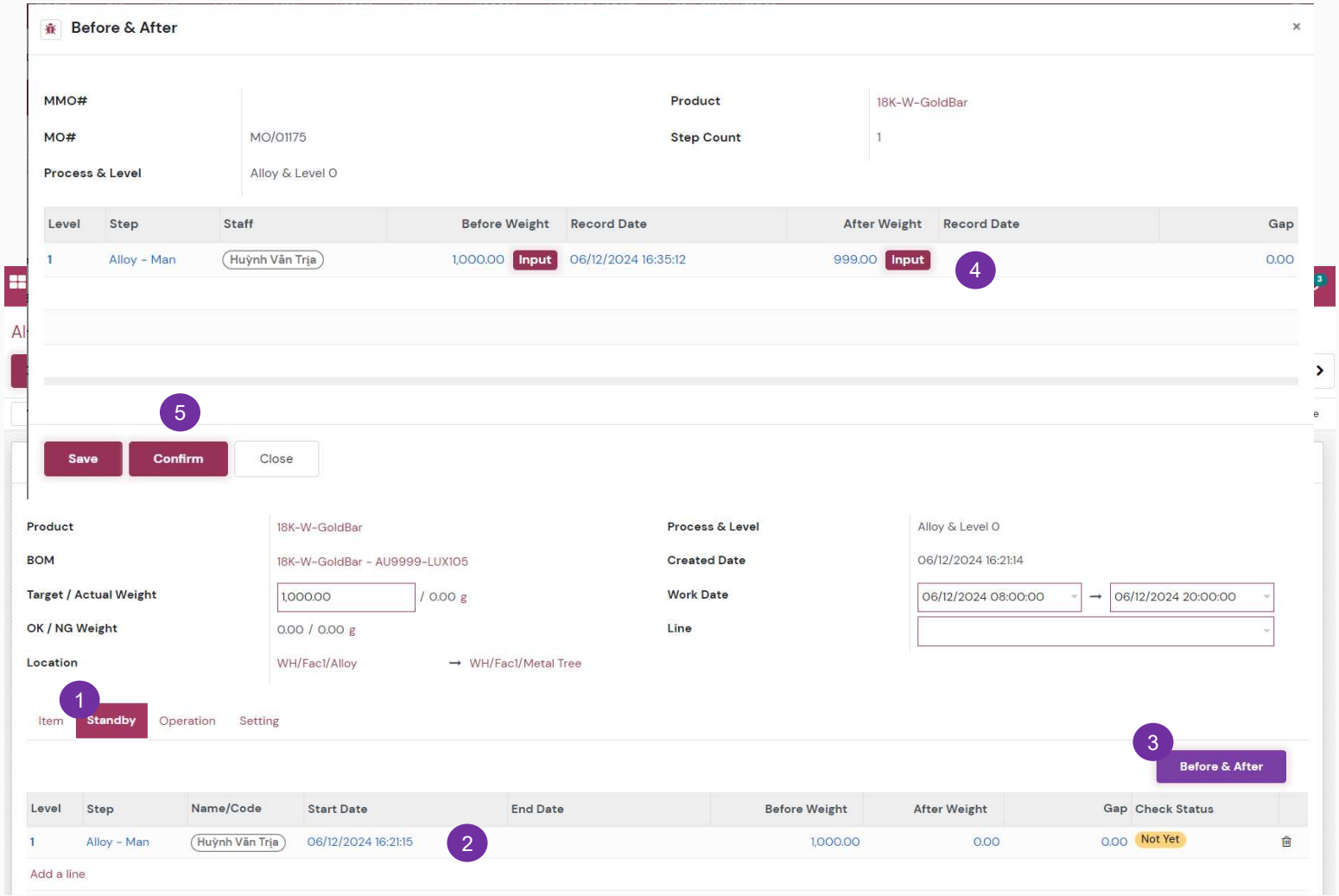
5. Confirm by pressing the “Confirm” button.

** The “Estimate” column displays the estimated amount of gold and alloy needed compared to the target weight.

PMS
Pre Manufacturing System

III. Alloy

Enter the actual weight before/after the process and the employees performing the process



Explain

Step by Step:

1. Proceed in the “Standby” tab.
2. Enter relevant information:

_ Step detailed process

_ Name/Code Name/Code

_ Start Date Start Date

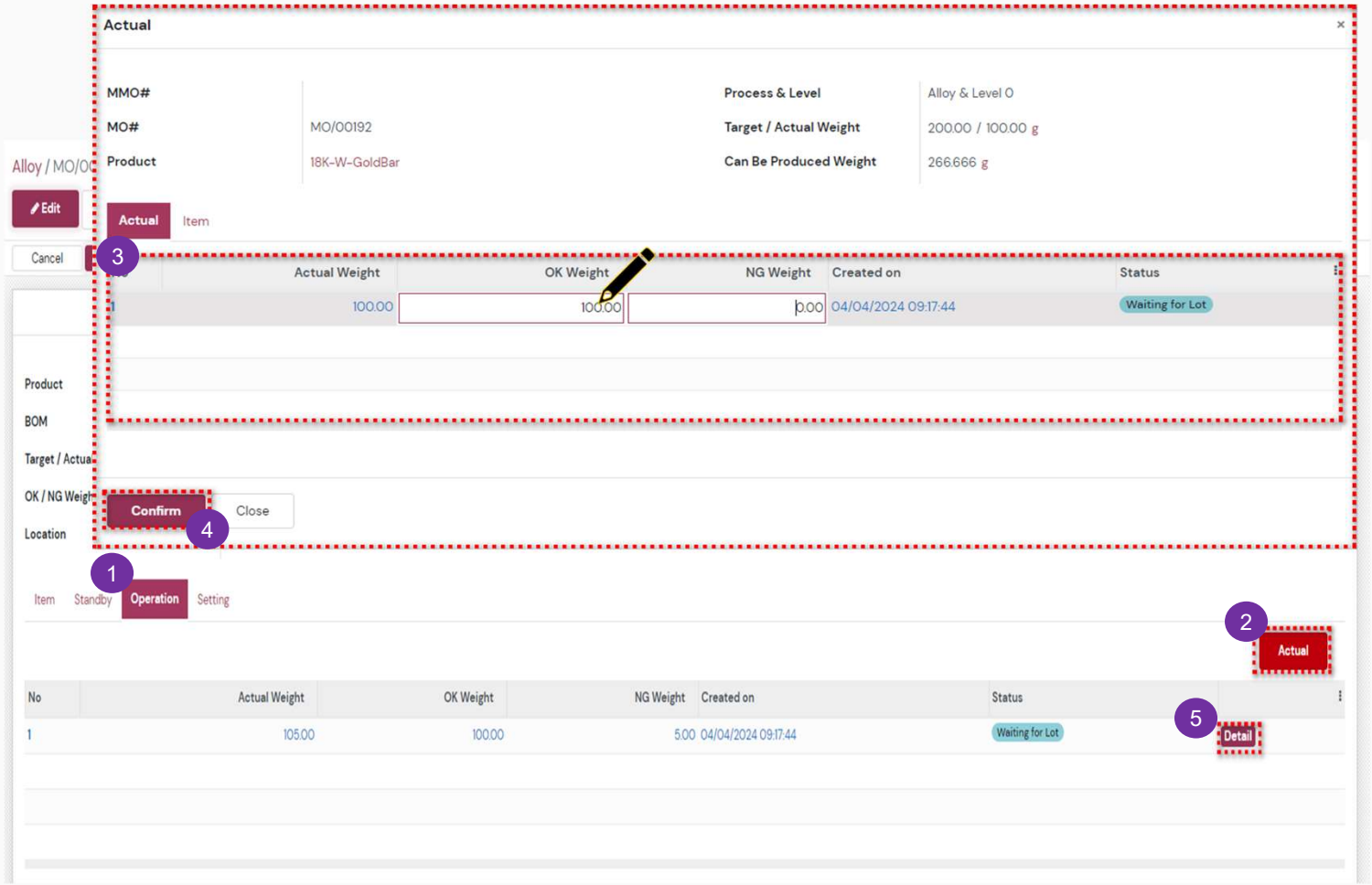
_ End Date End date

3. Click the “Before & After” button to open the weight input window before/after work.
4. Enter weight value in conjunction with electronic scale.
5. Confirm by pressing the “Confirm” button.

PMS
Pre Manufacturing System

III. Alloy

Enter actual weight and quantity after work



Explain

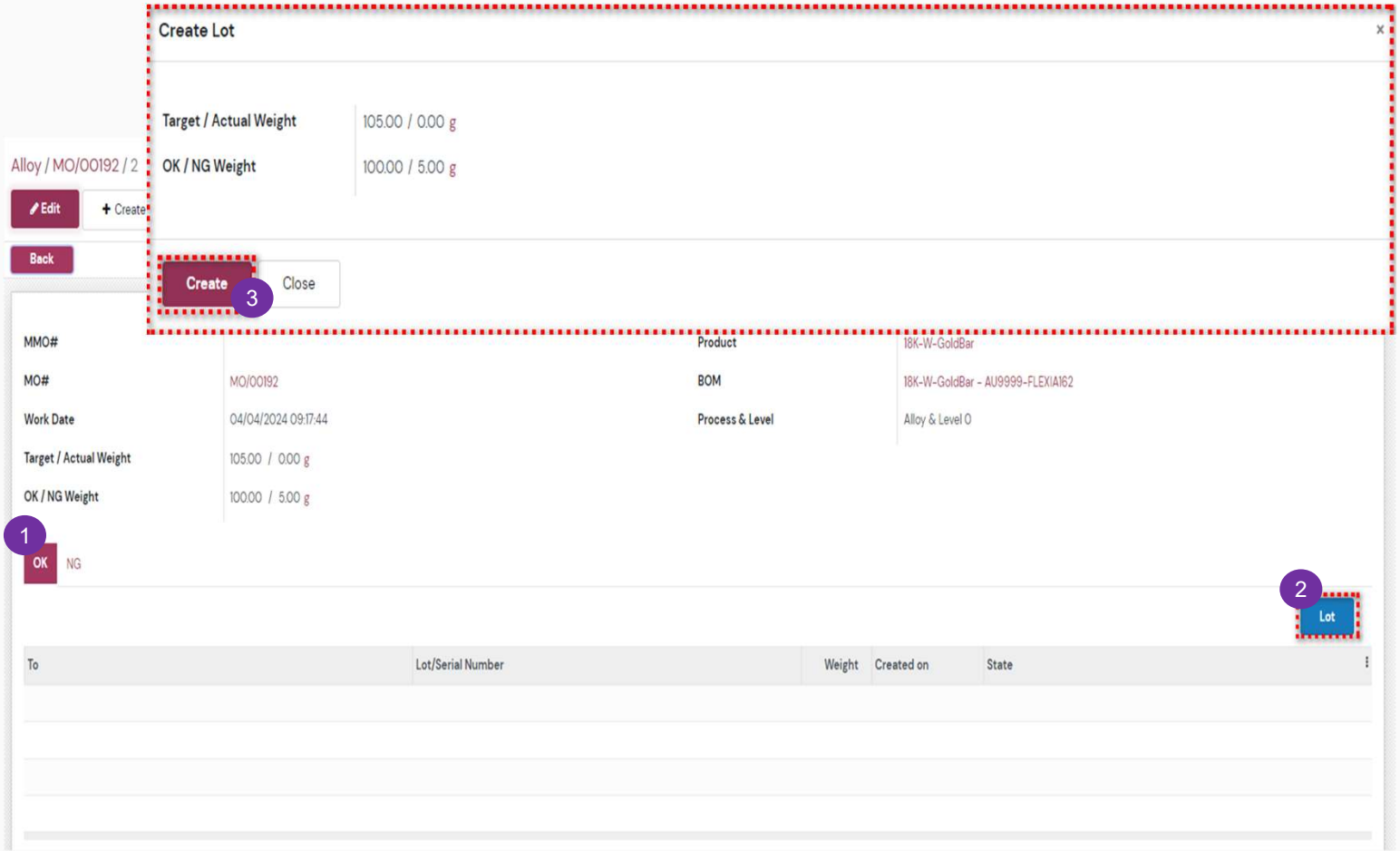
Step by Step:

1. Proceed in the “Operation” tab. The actual weight and quantity values are automatically displayed as the values entered in the previous step.
2. Can be modified by pressing the “Actual” button.
3. Actual weight, actual quantity, good quantity, defective quantity can be modified.
4. Confirm by pressing the “Confirm” button.
5. Issue lot by pressing “Detail” button.

PMS
Pre Manufacturing System

III. Alloy

Create Lot code



Explain

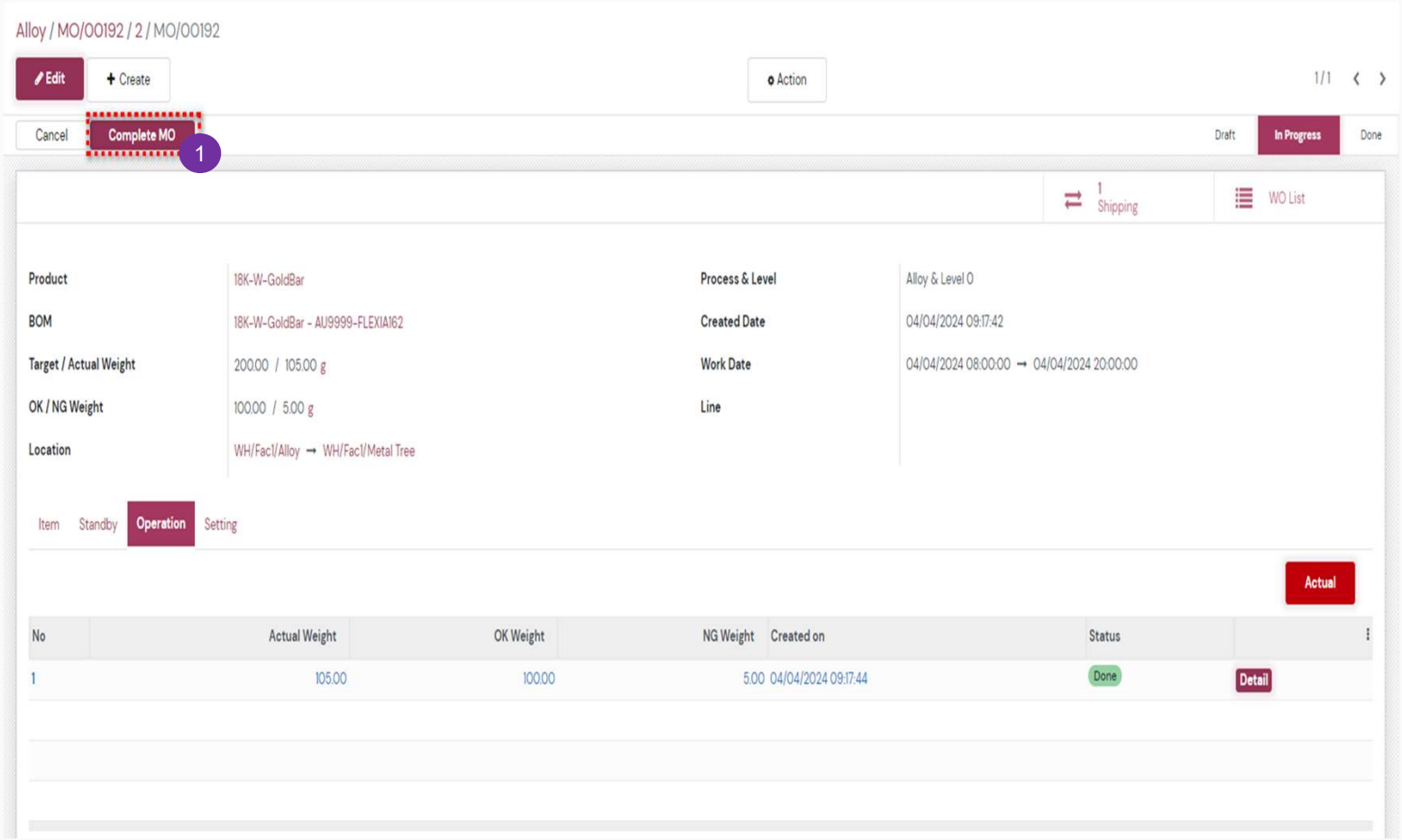
Step by Step:

1. Proceed from the “OK” tab.
2. Click the “Lot” button to open a pop-up.
3. Issue lots by pressing the “Create” button

PMS
Pre Manufacturing System

III. Alloy

Alloy Work Order Completed



Explain

Step by Step:

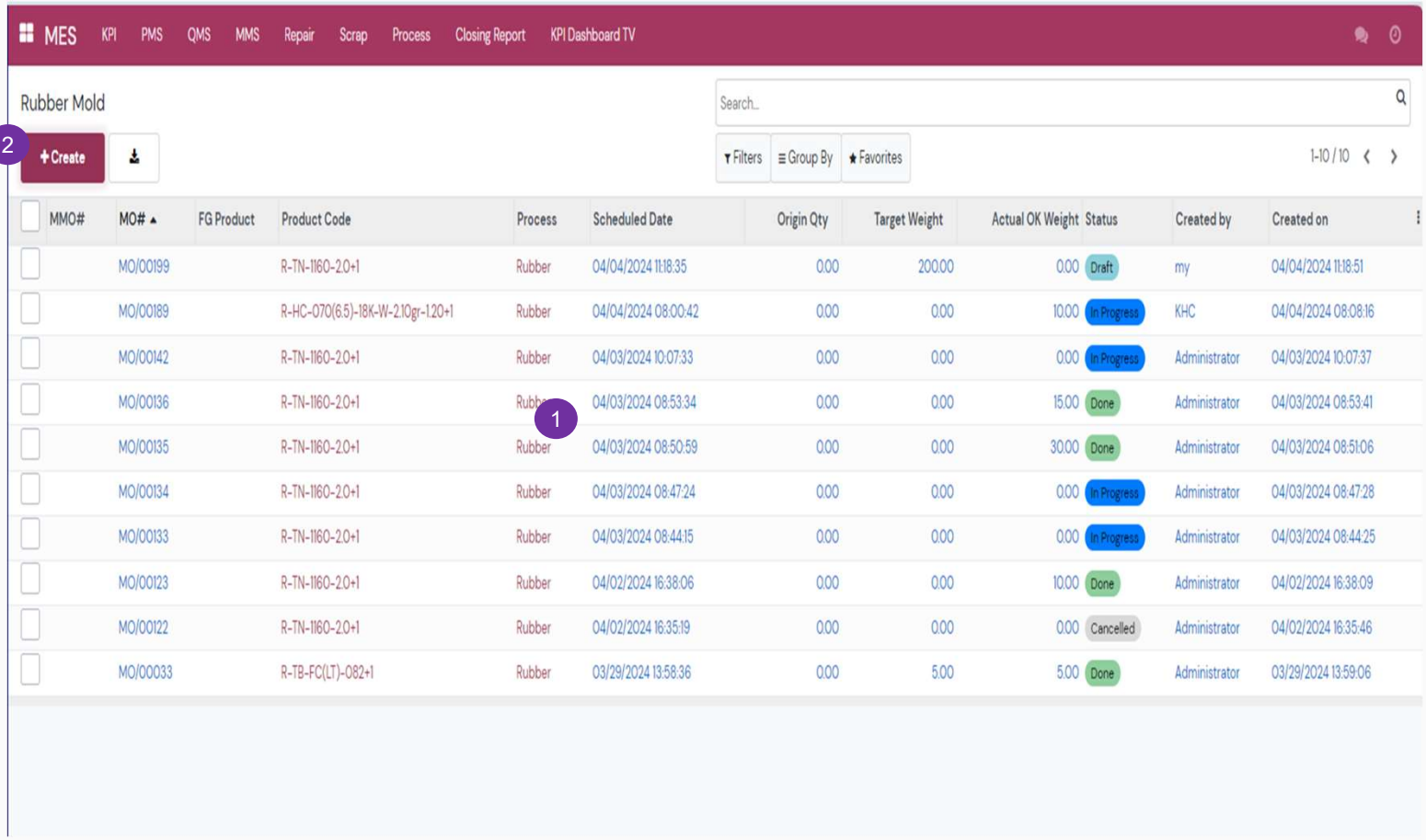
1. Complete the alloy work order by pressing the “Complete MO” button.

PMS

Pre Manufacturing System

IV. Rubber Mold

Information on rubber mold production list



MMO#	MO#	FG Product	Product Code	Process	Scheduled Date	Origin Qty	Target Weight	Actual OK Weight	Status	Created by	Created on
	MO/00199		R-TN-1160-2.0+1	Rubber	04/04/2024 11:18:35	0.00	200.00	0.00	Draft	my	04/04/2024 11:18:51
	MO/00189		R-HC-070(6.5)-18K-W-2.10gr-1.20+1	Rubber	04/04/2024 08:00:42	0.00	0.00	10.00	In Progress	KHC	04/04/2024 08:08:16
	MO/00142		R-TN-1160-2.0+1	Rubber	04/03/2024 10:07:33	0.00	0.00	0.00	In Progress	Administrator	04/03/2024 10:07:37
	MO/00136		R-TN-1160-2.0+1	Rubber	04/03/2024 08:53:34	0.00	0.00	15.00	Done	Administrator	04/03/2024 08:53:41
	MO/00135		R-TN-1160-2.0+1	Rubber	04/03/2024 08:50:59	0.00	0.00	30.00	Done	Administrator	04/03/2024 08:51:06
	MO/00134		R-TN-1160-2.0+1	Rubber	04/03/2024 08:47:24	0.00	0.00	0.00	In Progress	Administrator	04/03/2024 08:47:28
	MO/00133		R-TN-1160-2.0+1	Rubber	04/03/2024 08:44:15	0.00	0.00	0.00	In Progress	Administrator	04/03/2024 08:44:25
	MO/00123		R-TN-1160-2.0+1	Rubber	04/02/2024 16:38:06	0.00	0.00	10.00	Done	Administrator	04/02/2024 16:38:09
	MO/00122		R-TN-1160-2.0+1	Rubber	04/02/2024 16:35:19	0.00	0.00	0.00	Cancelled	Administrator	04/02/2024 16:35:46
	MO/00033		R-TB-FC(LT)-082+1	Rubber	03/29/2024 13:58:36	0.00	5.00	5.00	Done	Administrator	03/29/2024 13:59:06

Explain

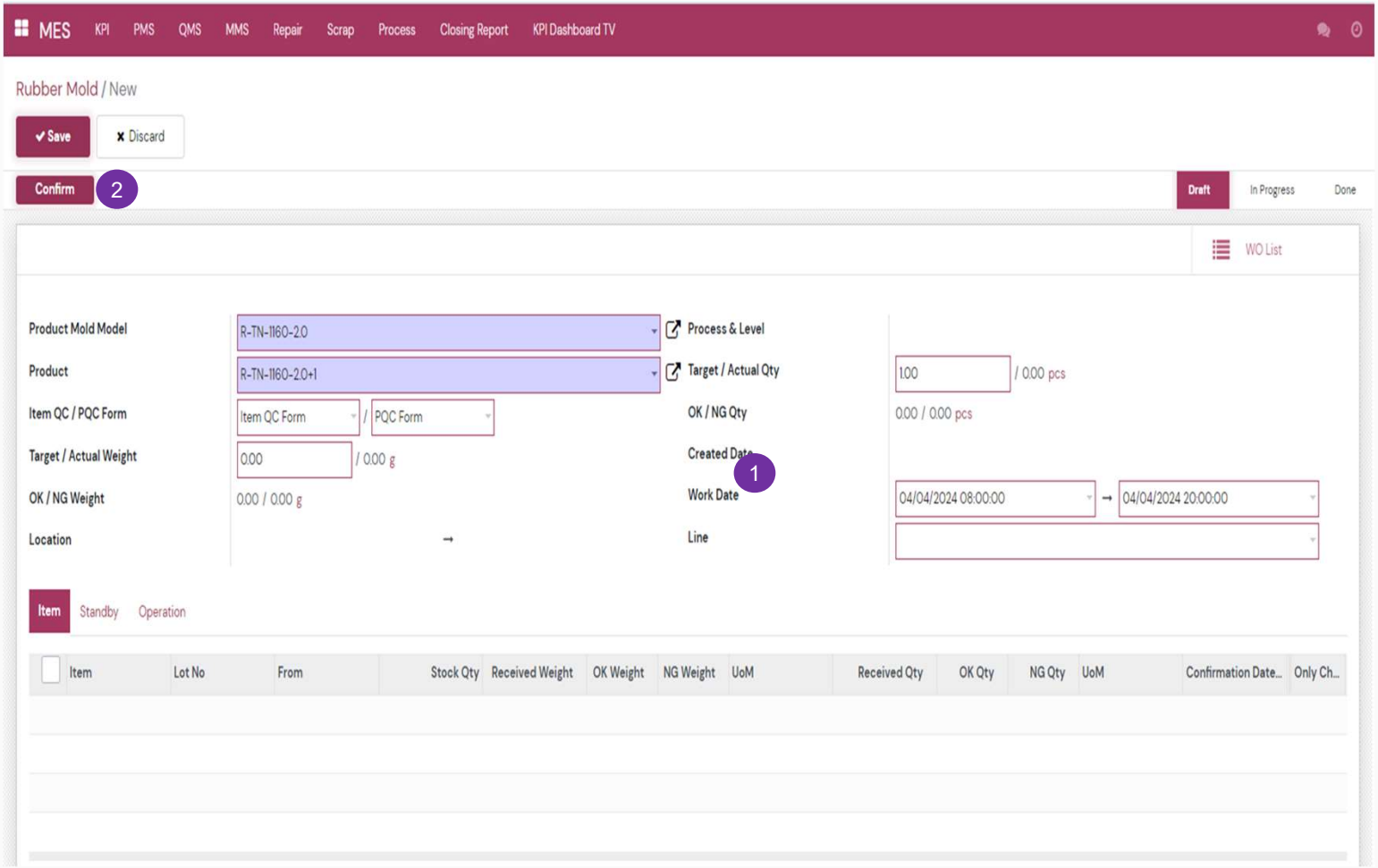
Step by step:

1. Information on Rubber Mold Creation Commands
2. Press the “Create” button to proceed with creating the rubber mold

PMS
Pre Manufacturing System

IV. Rubber Mold

Create rubber mold



Explain

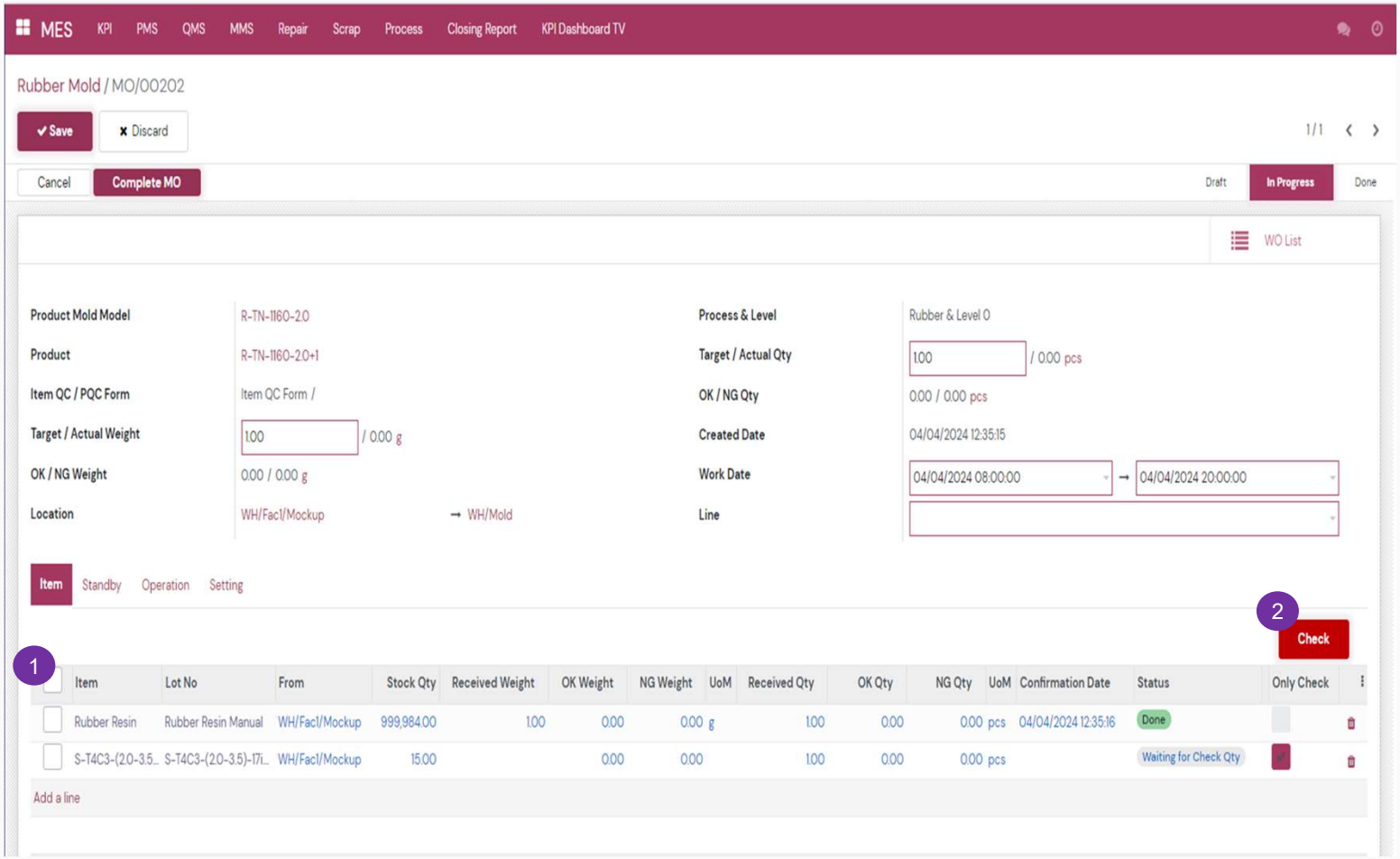
Step by step:

1. Enter the information to create the mold.
2. Click on the Confirm button to proceed.

PMS
Pre Manufacturing System

IV. Rubber Mold

Check the input materials



Explain

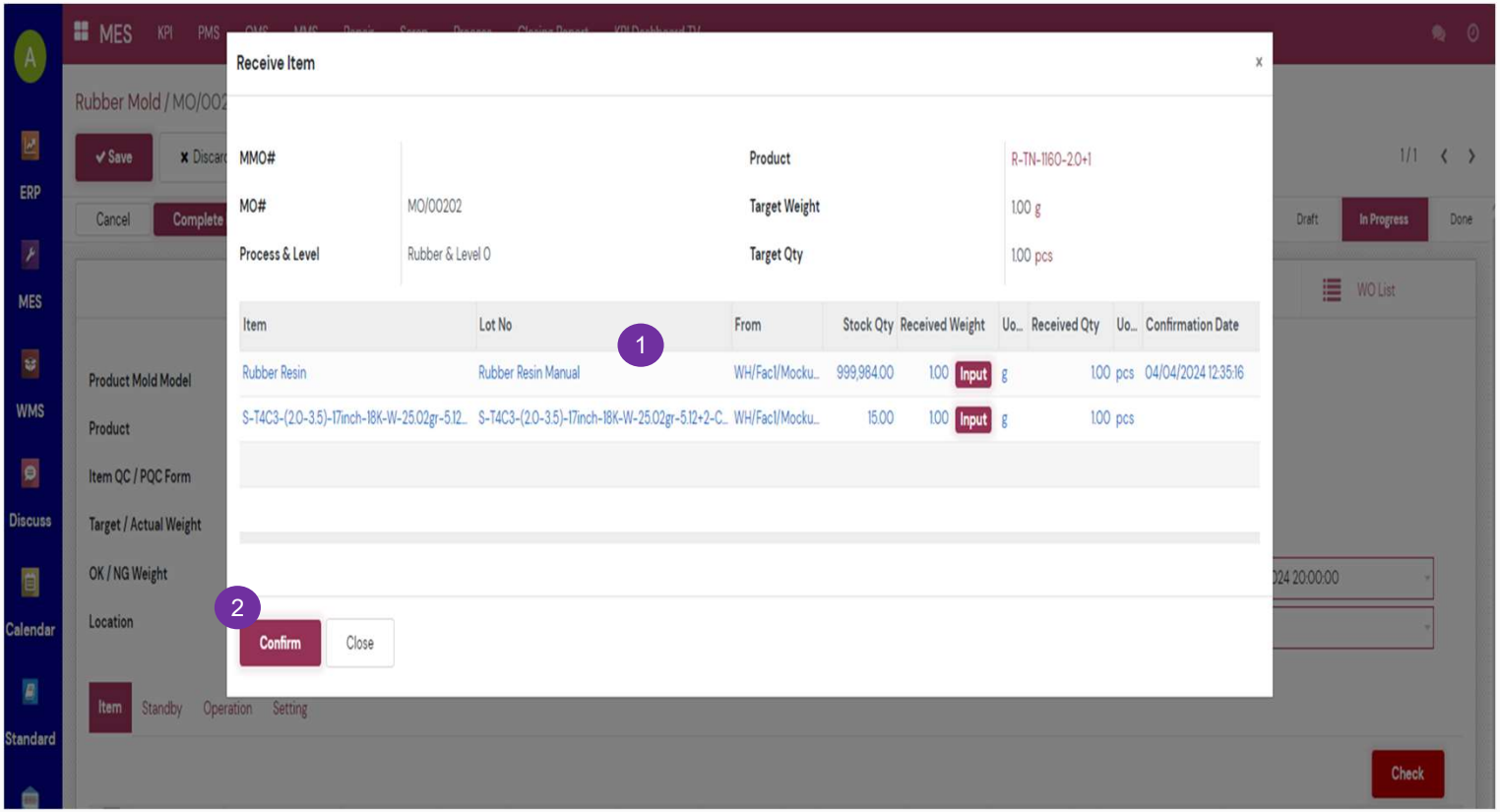
Step by step:

1. After confirming, the materials to be checked will be displayed.
2. Press the button to proceed with checking the input materials

PMS
Pre Manufacturing System

IV. Rubber Mold

Check the input materials



Explain

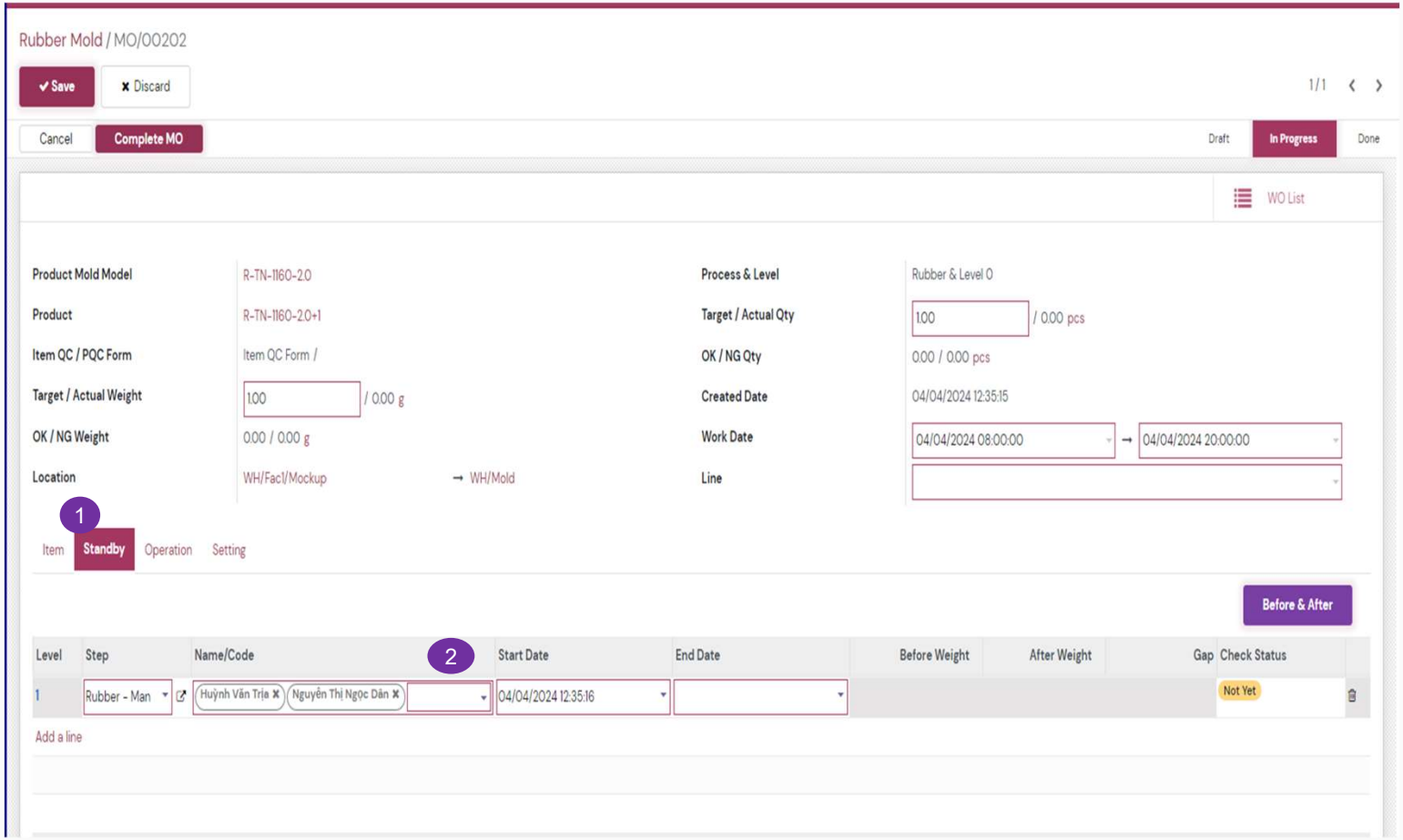
Step by step:

1. Input the gram weight when creating the mold
2. Click on the “Confirm” button to proceed

PMS
Pre Manufacturing System

IV. Rubber Mold

Add rubber mold worker



Explain

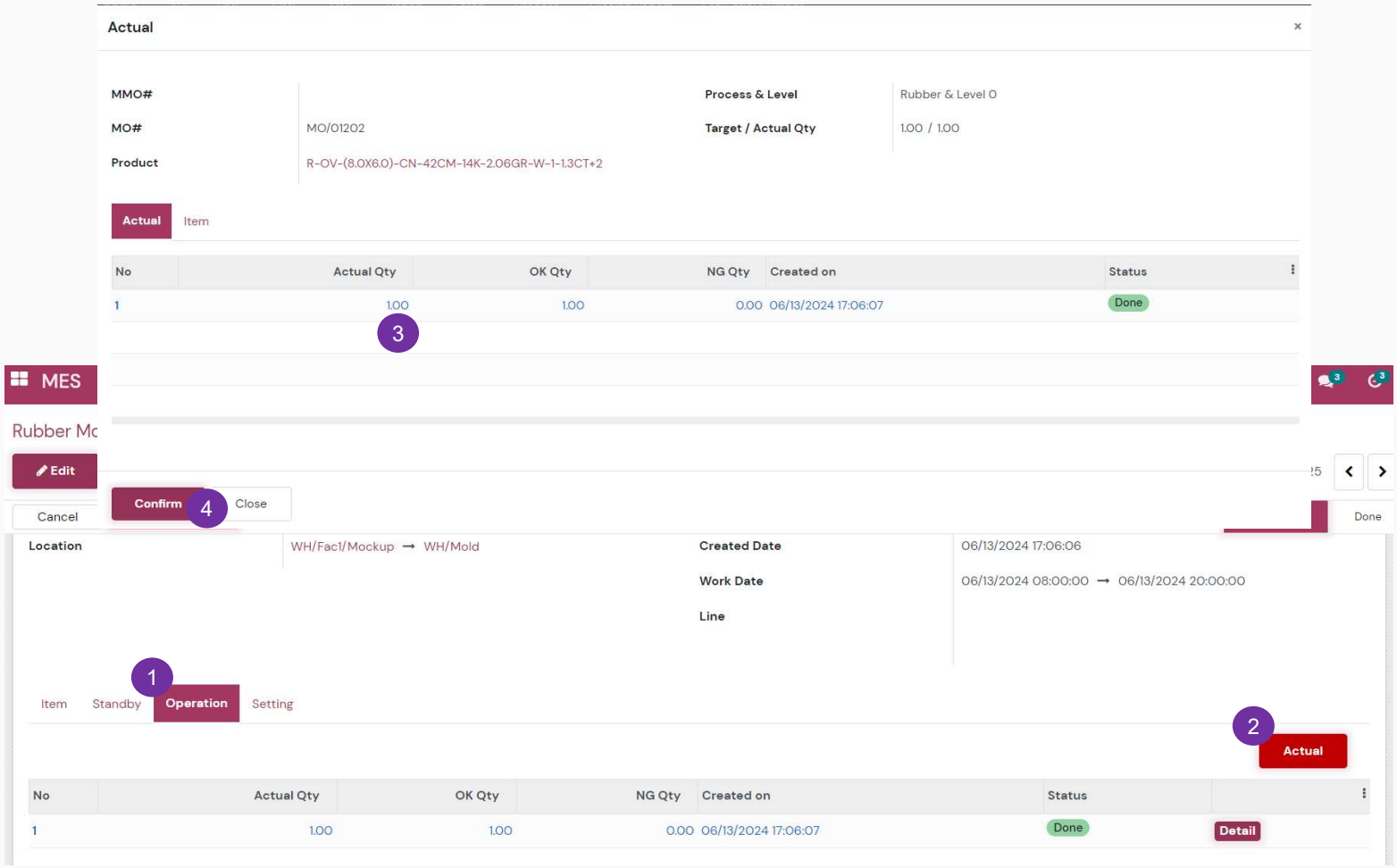
Step by step:

1. In the Standby tab, display the mold worker.
2. Add information about the mold worker

PMS
Pre Manufacturing System

IV. Rubber Mold

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



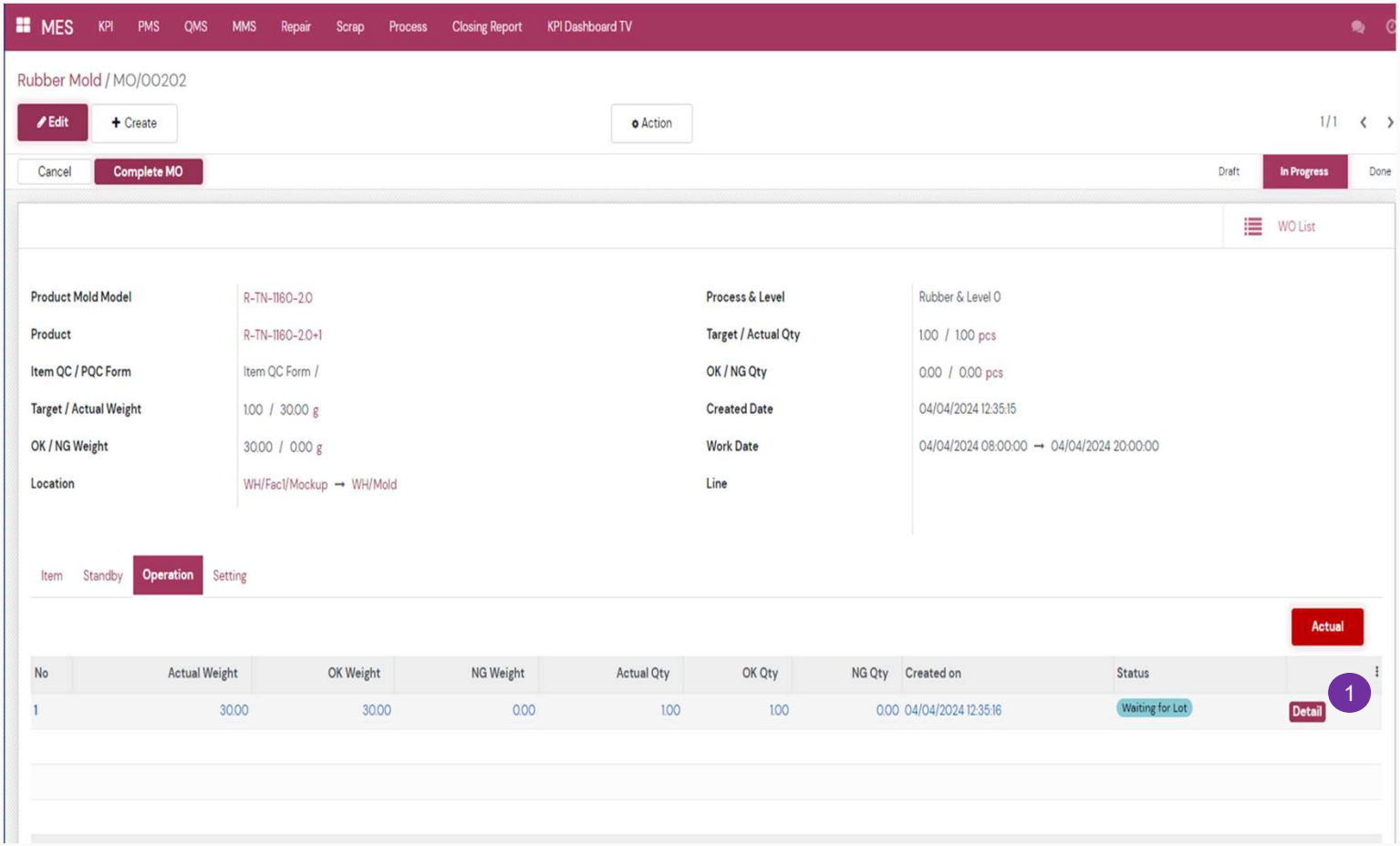
Explain

Step by Step:

1. Proceed in the “Operation” tab.
2. Click the “Actual” button to open the information input window for the item.
3. Enter actual production quantity of rubber mold.
4. Confirm by pressing the “Confirm” button.

PMS
Pre Manufacturing System

IV. Rubber Mold
Create Lot code



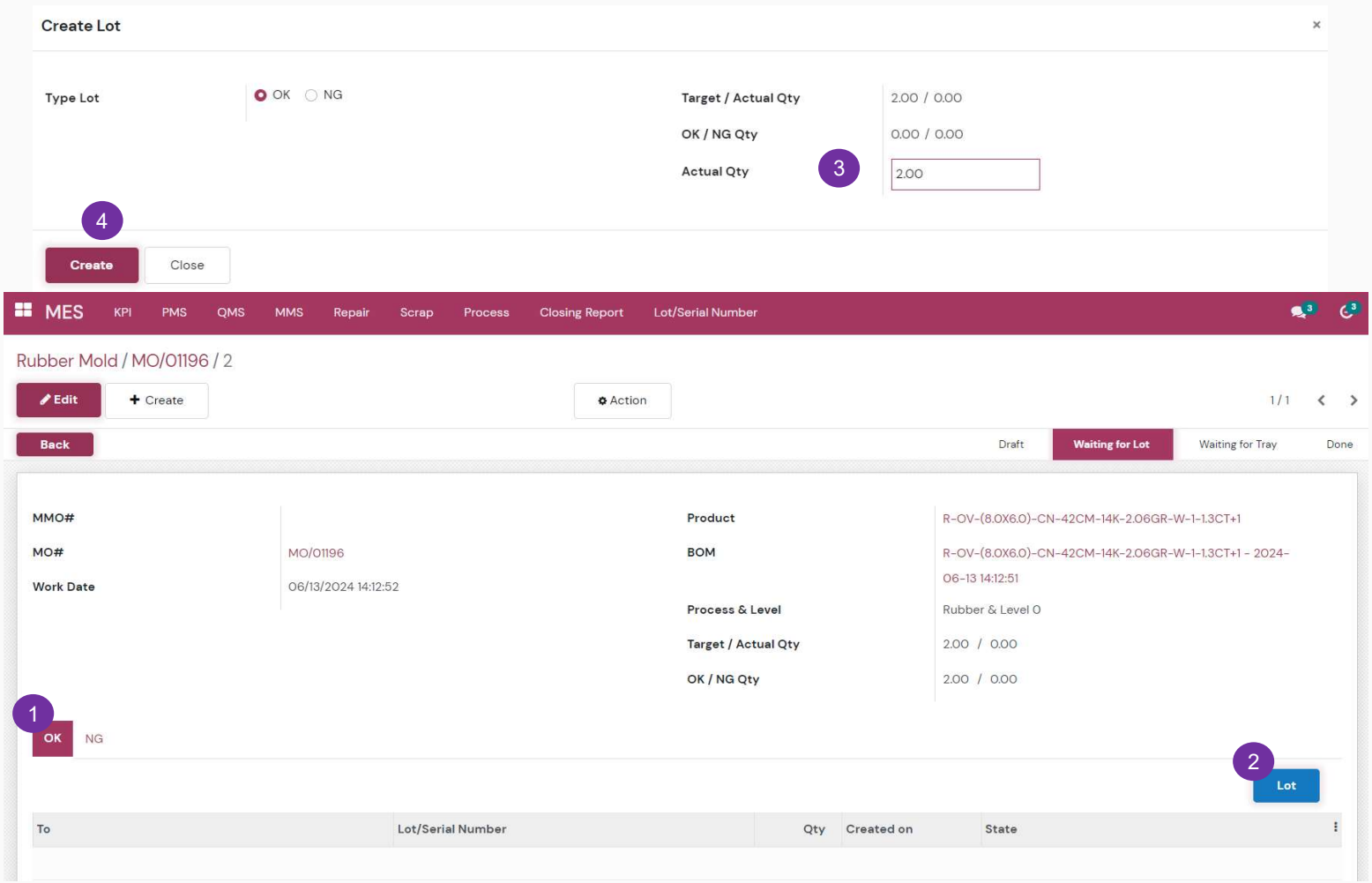
Explain

Step by Step:

1. Click the “Detail” button to proceed with lot code issuance.

PMS
Pre Manufacturing System

IV. Rubber Mold
Create Lot code



Explain

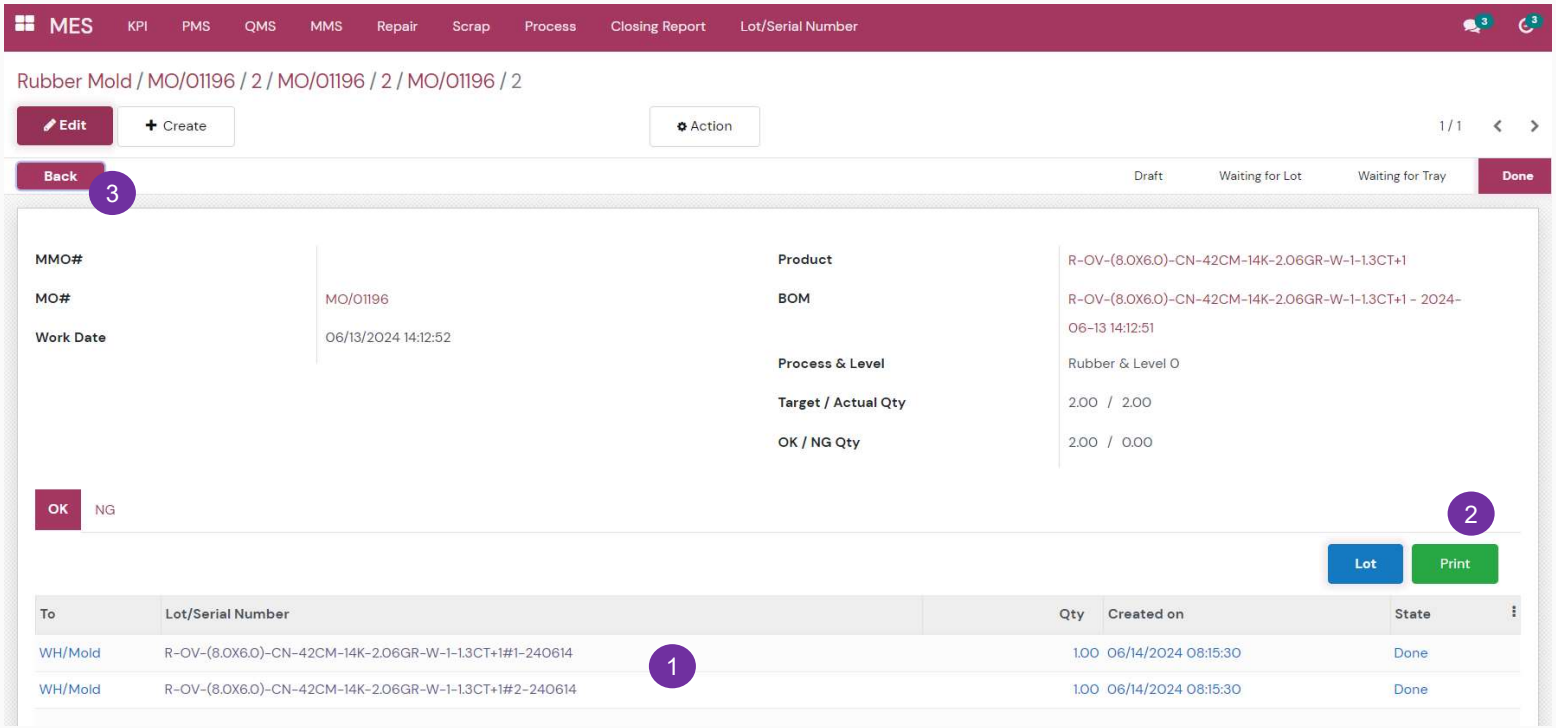
Step by Step:

1. Proceed on the “OK” tab (the rubber mold is not defective).
2. Click the “Lot” button to open a pop-up.
3. Enter the number of lots to be issued according to the number of rubber molds produced.
4. Issue lot by pressing “Create” button.

PMS
Pre Manufacturing System

IV. Rubber Mold

Issuance of lot code for products whose process has been completed



Explain

Step by Step:

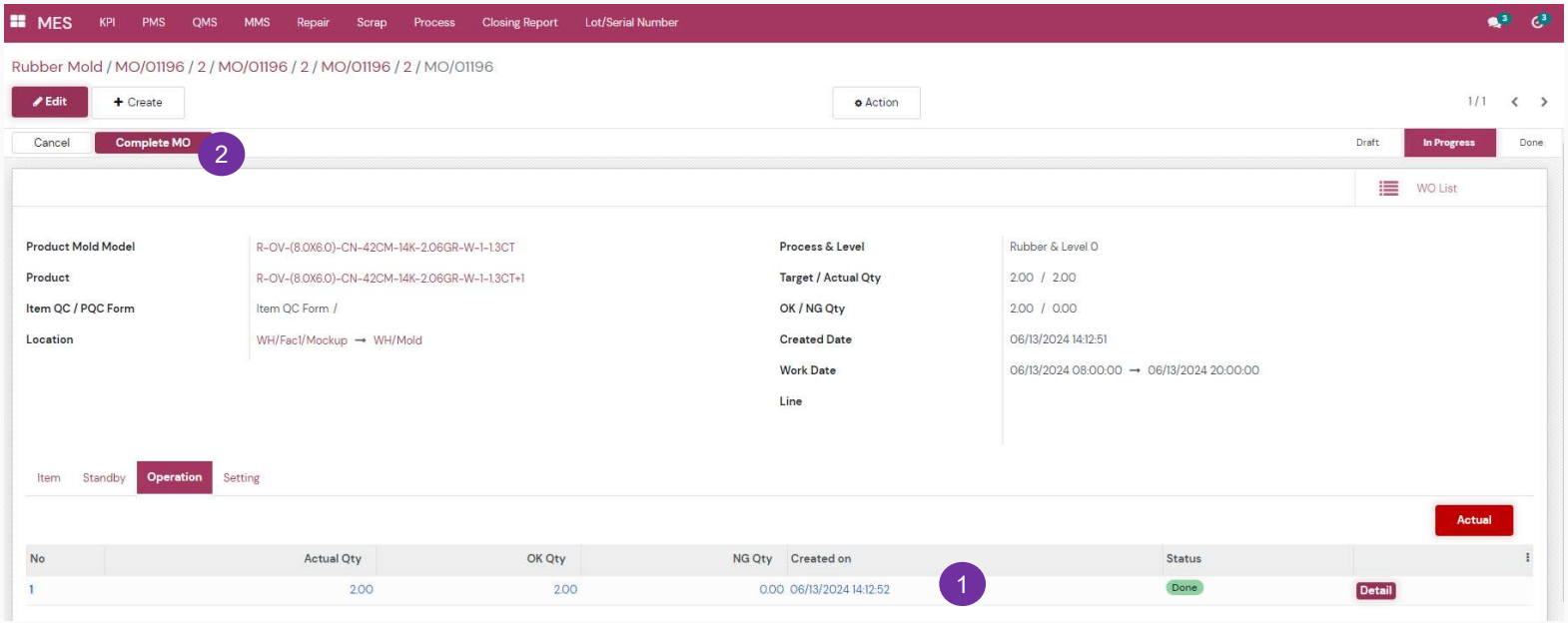
1. Display issued lot information.
2. QR label printing function.
3. Click the “Back” button to go to the main page.

PMS
Pre Manufacturing System

Explain

IV. Rubber Mold

Rubber mold work instructions completed



Step by Step:

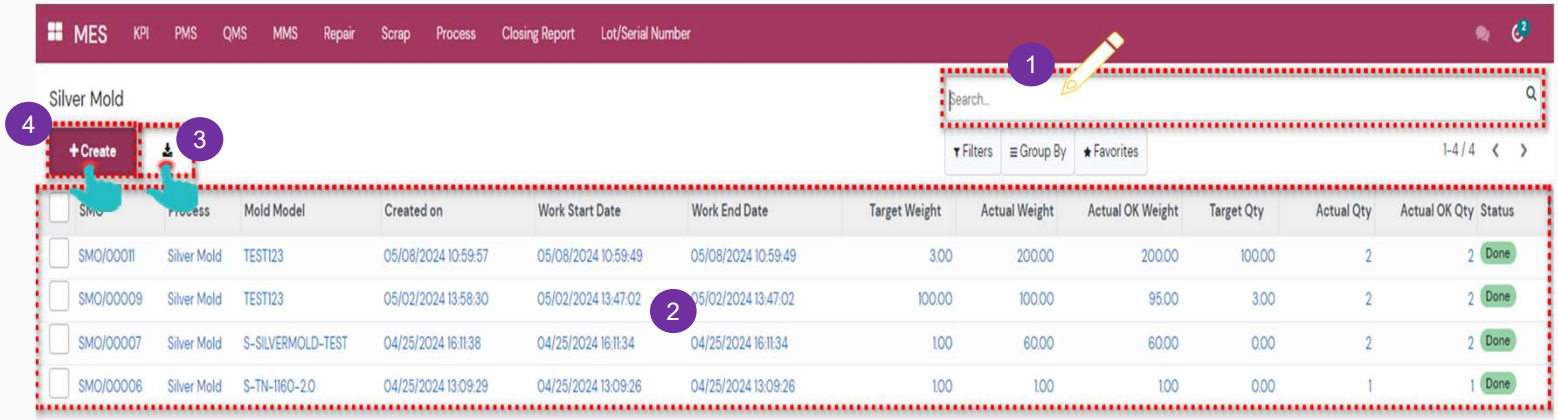
1. Information display of rubber molds that have been produced.
2. Approve the completion of the rubber mold work order by pressing the “Complete MO” button.

PMS

Pre Manufacturing System

V. Silver Mold

Information on silver mold production list



Explain

Step by step:

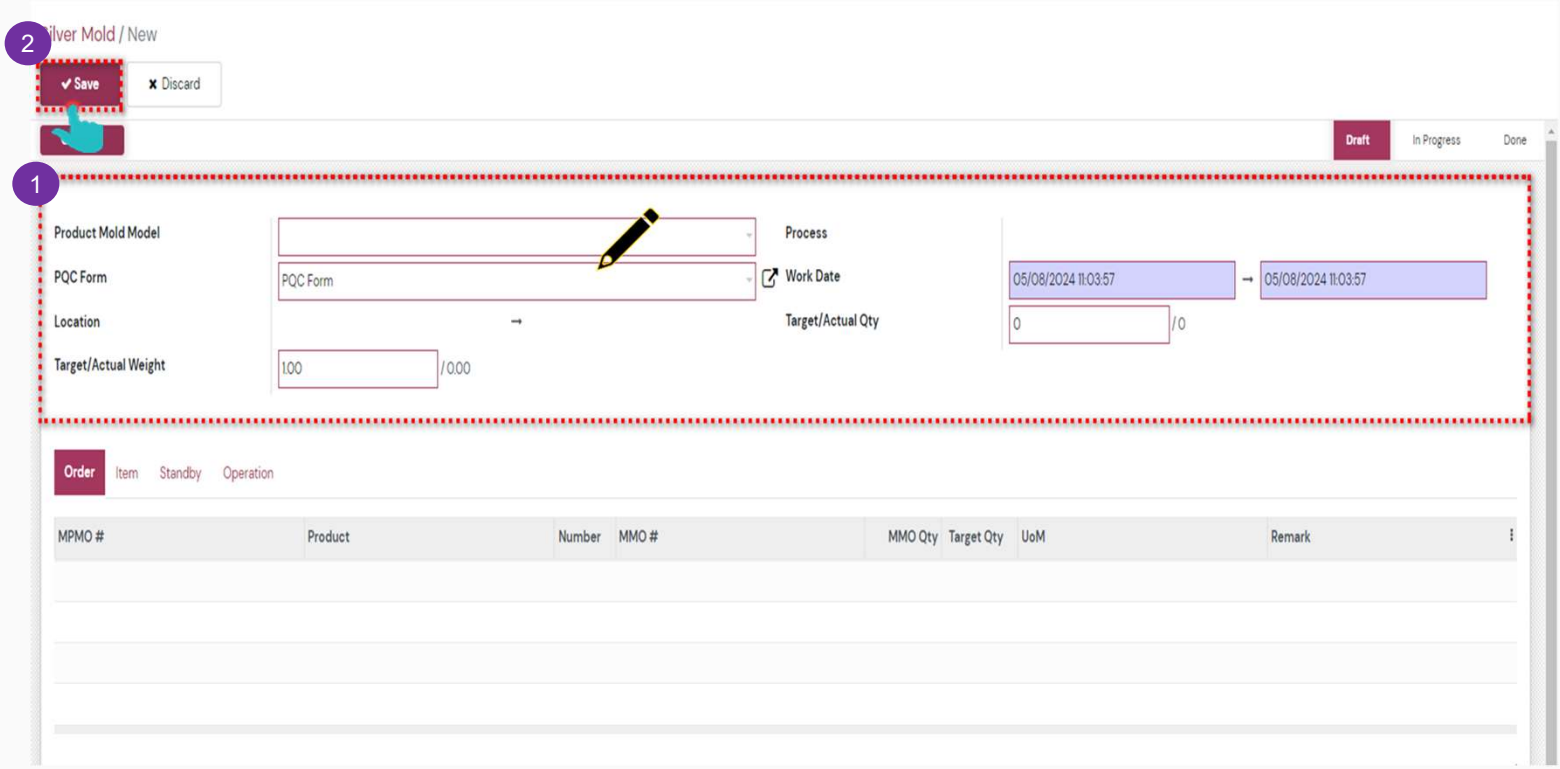
1. Search function
2. Order information for creating silver molds
3. Excel file download function
4. Click “Create” to create. See the next slide.

PMS

Pre Manufacturing System

V. Silver Mold

Create silver molds



Explain

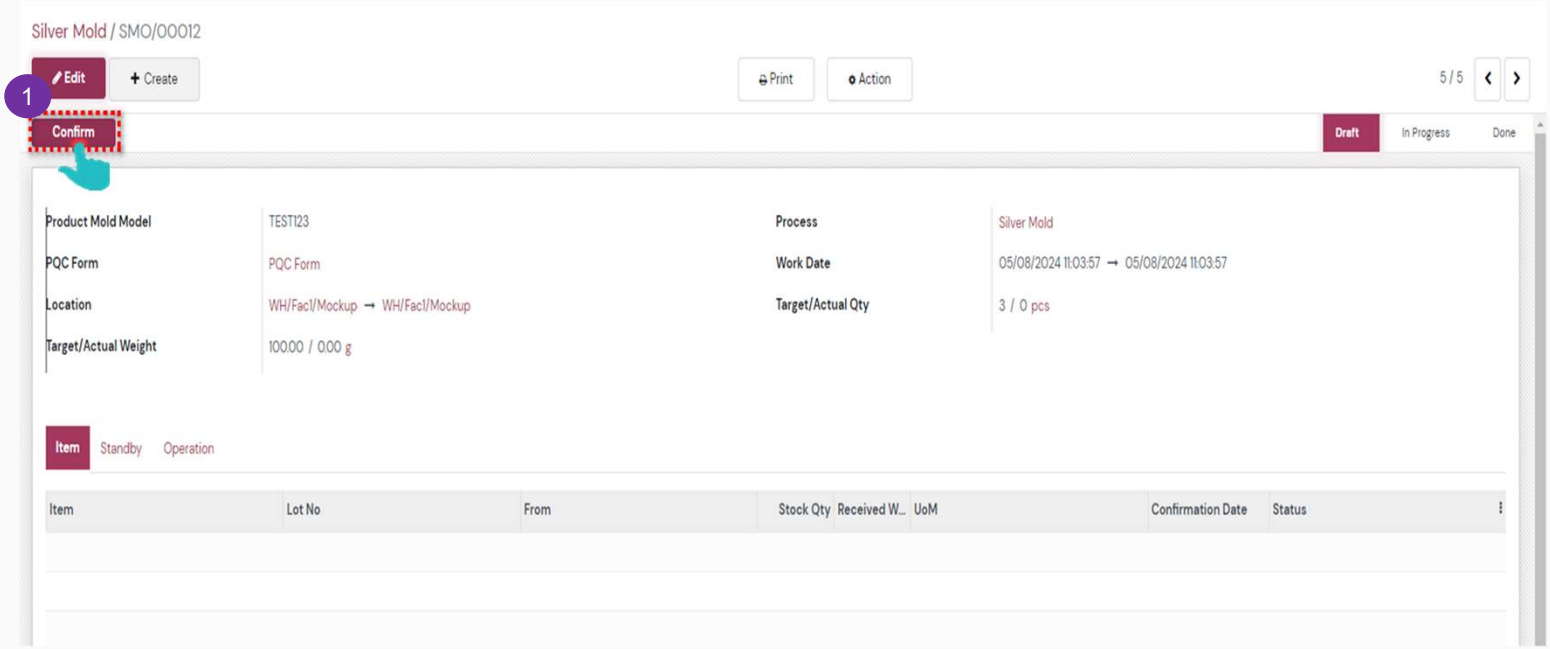
Step by step:

1. Fill in the information:
   - Product Mold Model
   - PQC Form
   - Target / Actual Weight
   - Target / Actual Qty
   - Work Date
2. Then click “Save’

PMS
Pre Manufacturing System

V. Silver Mold

Confirmation of silver mold production



Explain

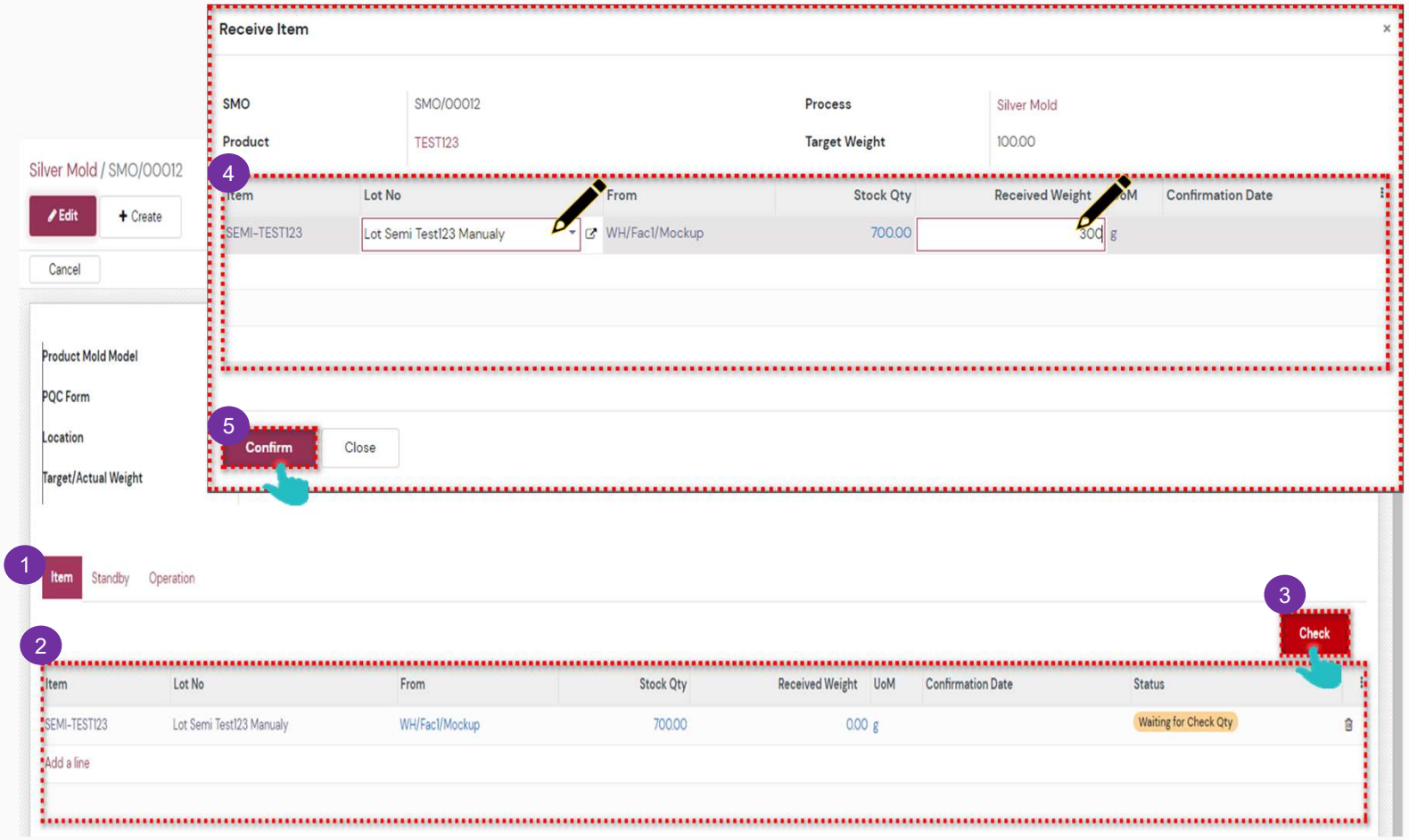
Step by step:

1. Then click “Confirm” to apply.

PMS
Pre Manufacturing System

V. Silver Mold

Add input item



Explain

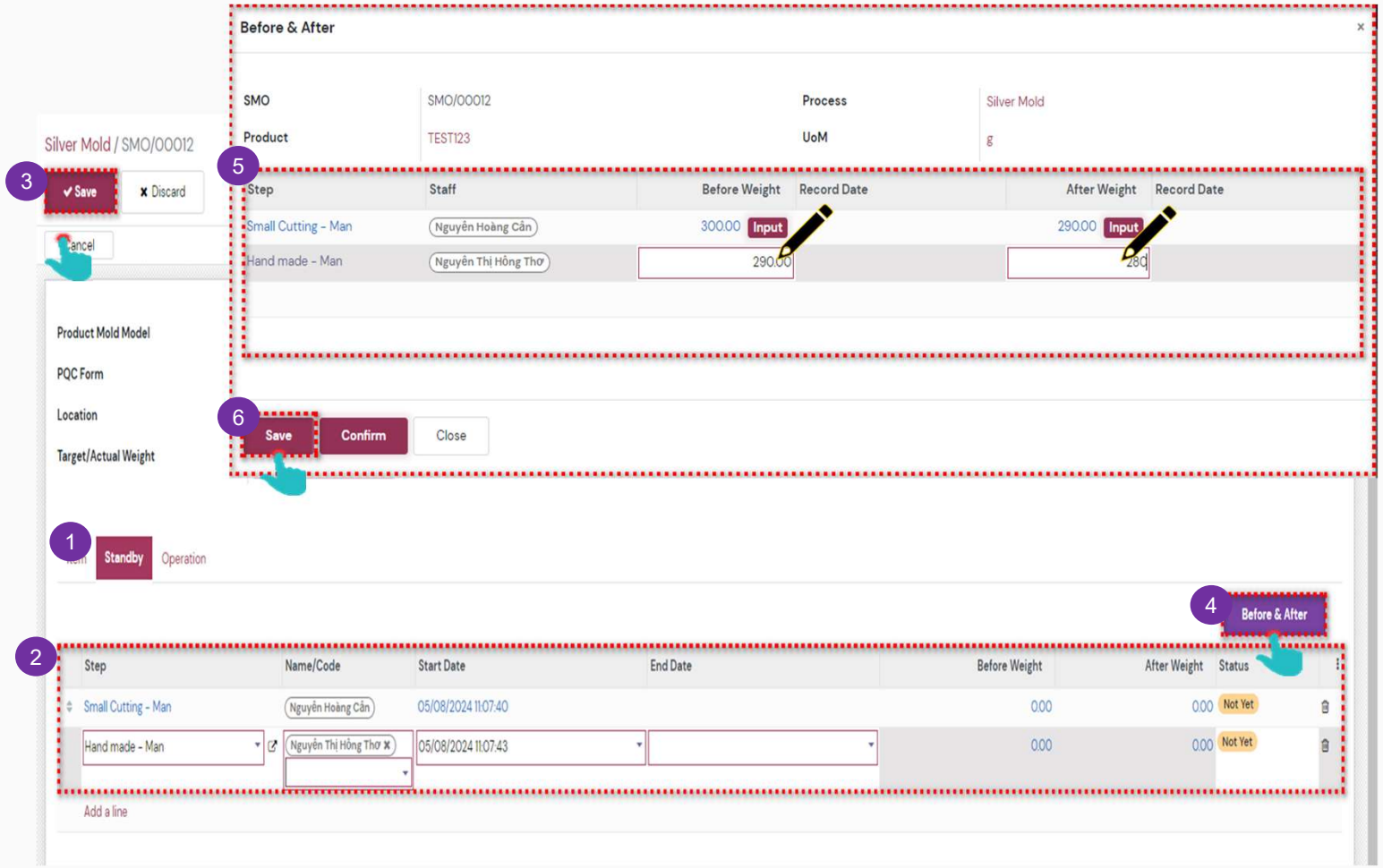
Step by step:

1. The “Item” tab contains information about the input list to use
2. Information on the list of inputs used for silver mold production
3. Click “Check” to add lots and enter input quantity and weight
4. Fill in the information:
   - Lot No
   - Received Weight
5. Then click “Confirm”.

PMS
Pre Manufacturing System

V. Silver Mold

More workers make molds and check weights



Explain

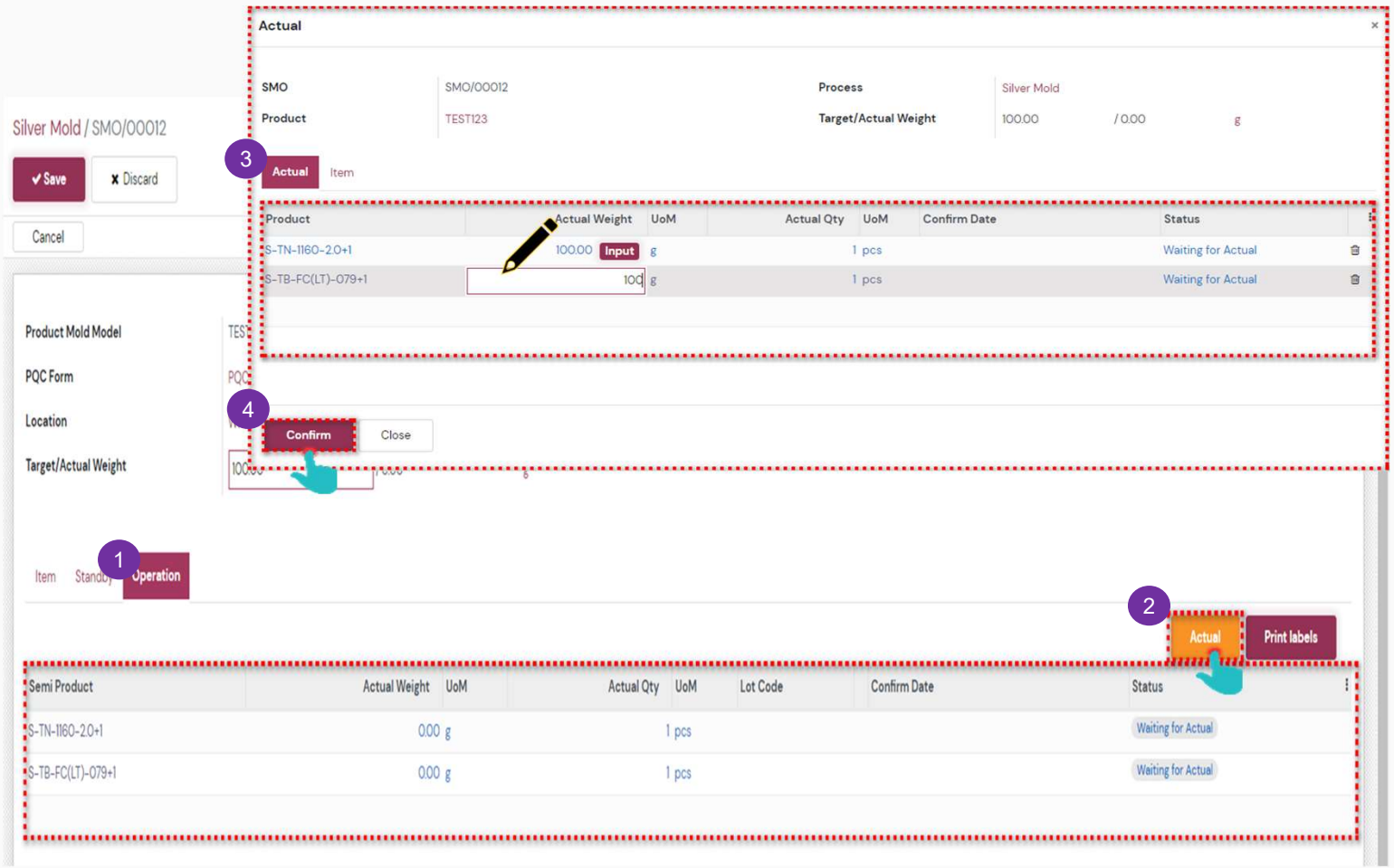
Step by step:

1. At the “Standby” tab
2. Fill in the information:
   - Step: Bước
   - Name/Code
   - Start Date
   - End Date
3. Then click “Save” to save
4. Click the "Before & After" button to proceed with filling in weight information
5. Fill in Before Weight and After Weight information.
6. Then click “Save” to confirm.

PMS
Pre Manufacturing System

V. Silver Mold

Create actual weights for silver molds



Explain

Step by step:

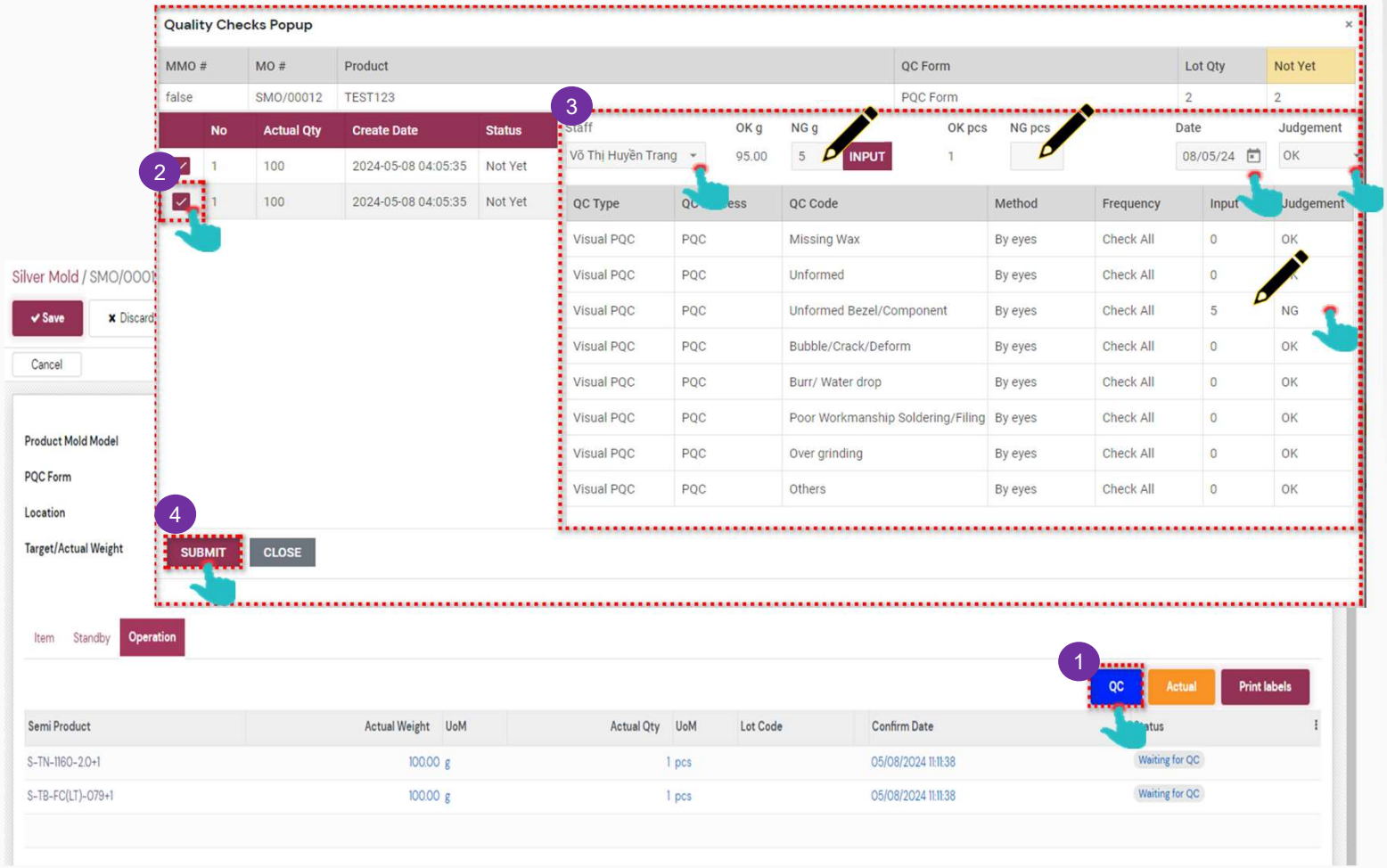
1. At the “Operation” tab.
2. Click “Actual” to add weights
3. Fill in information Actual Weight
4. Then click “Confirm”

PMS

Pre Manufacturing System

V. Silver Mold

Check PQC output



Explain

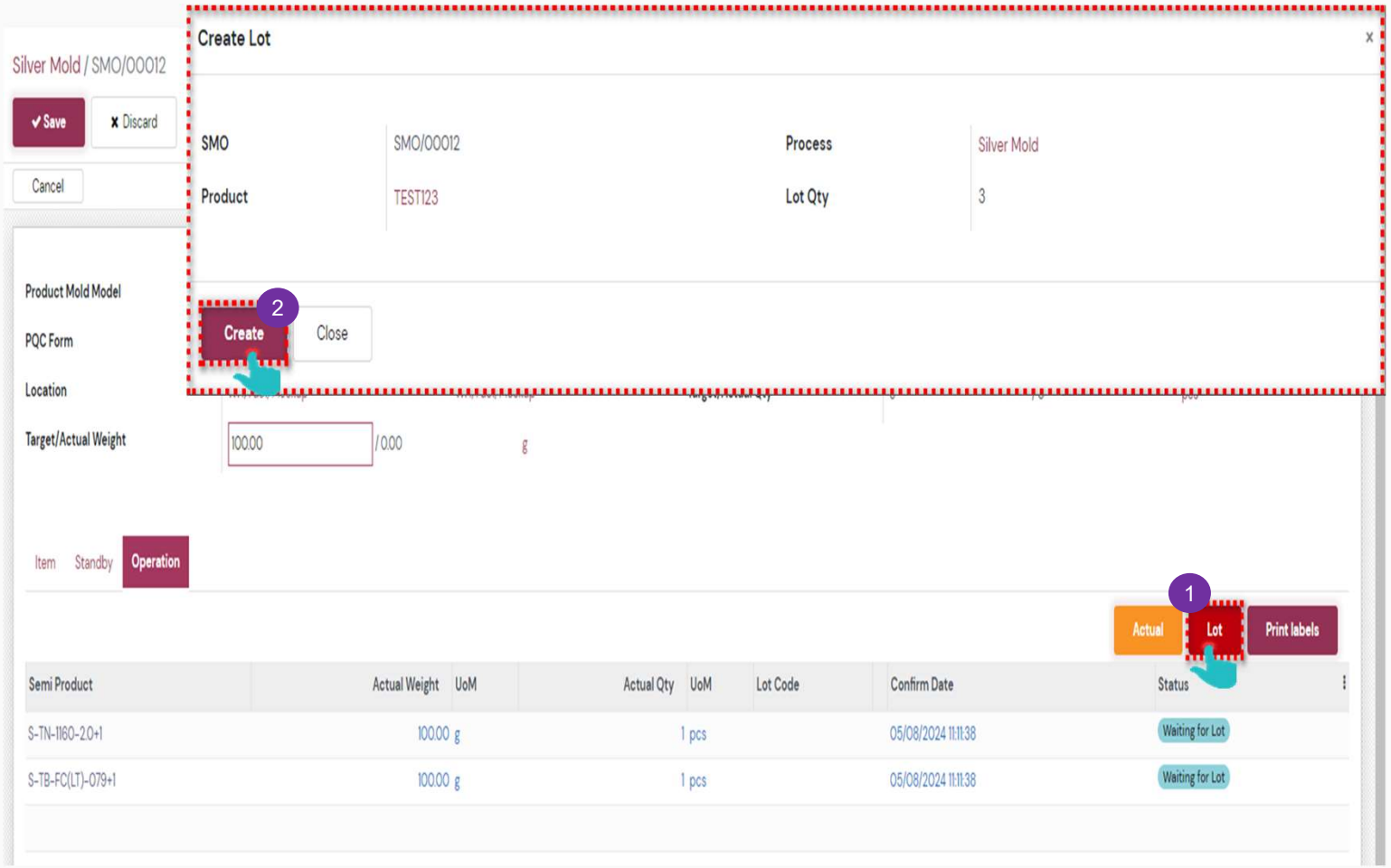
Step by step:

1. Click the “QC” button to conduct the check
2. Select 1 line in the list
3. Fill in the result information after checking.
4. Then click “Submit” to confirm

PMS
Pre Manufacturing System

V. Silver Mold

Create output lots



Explain

Step by step:

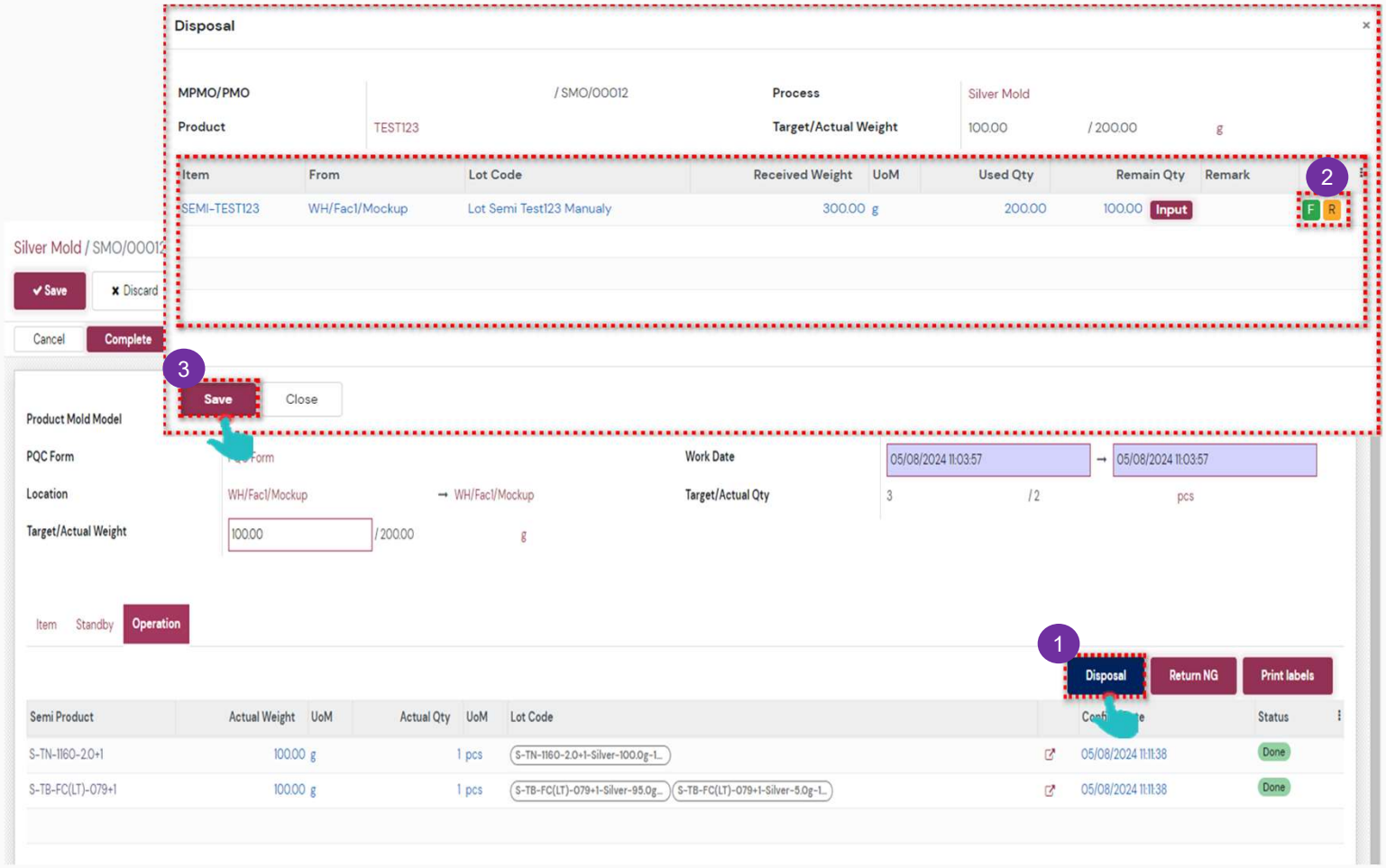
1. Click “Lot” to create
2. Select “Create” to confirm creation.

PMS

Pre Manufacturing System

V. Silver Mold

Return silver remaining in production and confirm production completion



Explain

Step by step:

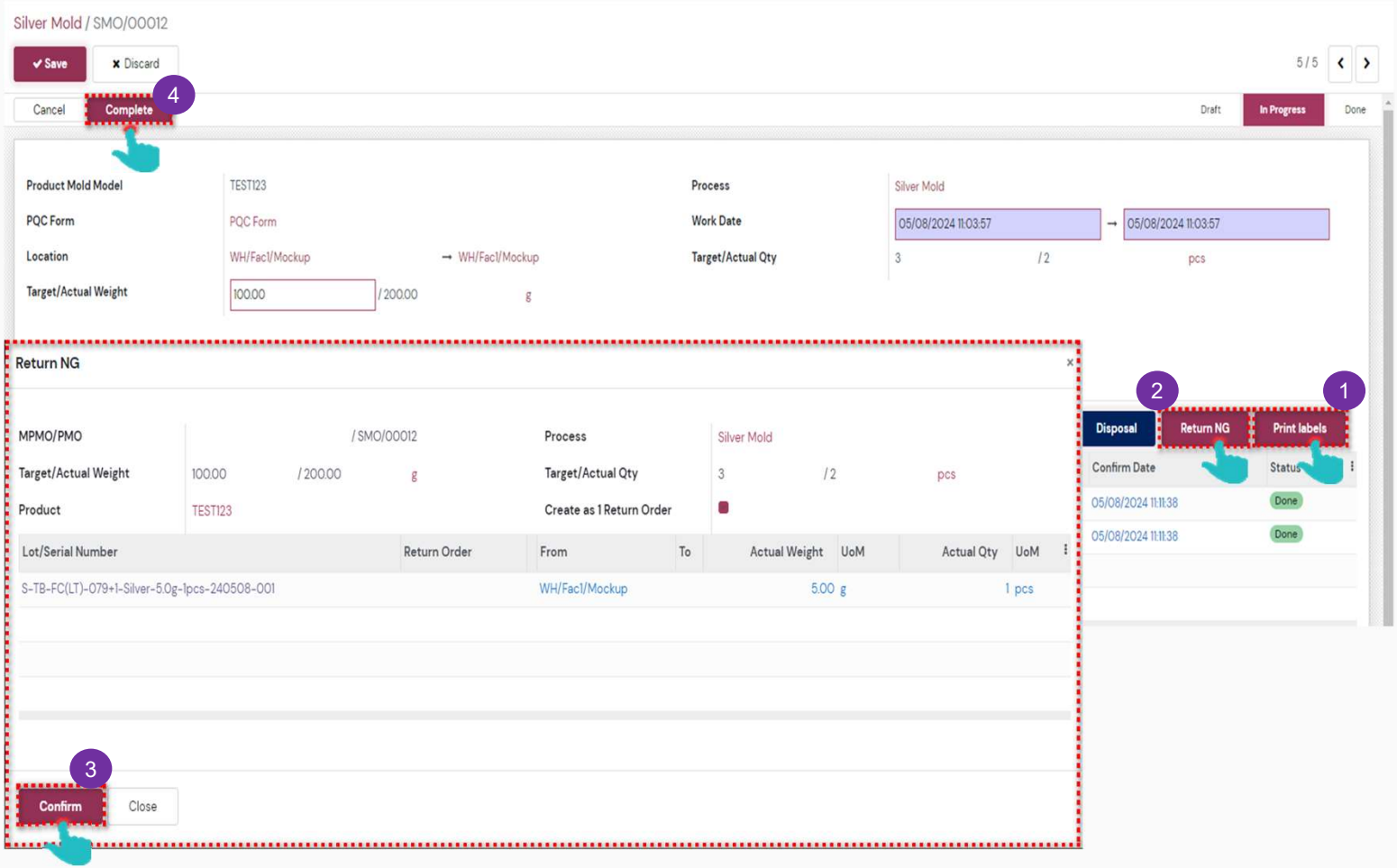
1. Click “Disposal” to return excess silver in production
2. Click “F” to confirm completion of full use, “R” to return when remaining used.
3. Then click “Save”

PMS

Pre Manufacturing System

V. Silver Mold

Transfer the NG lot of silver molds to the repair warehouse



Explain

Step by step:

1. Click “Print labels” to print the lot
2. Click “Return NG” to create a return form to the repair warehouse
3. Click “Confirm” to confirm the return
4. Click “Complete” to confirm completion of the silver mold manufacturing process.

Thank you for using

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