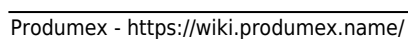


8.2. Production flow



8.2.1. Initiate the flow

To initiate the production flow, press the 'Production' button on the terminal.



8.2.2. Select production line

Select the production line where the production will take place. Press the right arrow button to proceed. Every active production line is displayed on the list.



8.2.3. Select production order

Select a production order from a list. Released production orders that are assigned to the selected production line or that are not assigned to any line yet are displayed on the list.

When there is a started production order on the line, the system automatically proceeds with that order.



8.2.4. Start production

After the production order has been selected, the system will display the details of the production:

1. The code and description of the item to produce.
2. The due date of the production order and the attached remarks.
3. The type of the production indicated with an icon.
4. The planned quantity.
5. Production order number.

To start the production, press the 'Start production' button. When no production line was assigned to the order, it can be started at any production line. After the order has been started on a production line the system automatically assigns that line to the production order.



8.2.5. Identify batch

Depending on the [batch number settings for production](#) the system might ask to enter the batch number, if the product is managed by batches. If both the product and the by-product(s) are managed by batches, the batch number of the by-product(s) is the same as the batch number of the product.

Depending on the [best before date settings for production](#), the system might ask to enter the best

before date, if the product has a best before date. If the product and the by-product(s) have a best before date, the best before date of the by-product(s) is the same as the best before date of the product.

When the product has batch attributes, the system asks for adding those attributes too.

8.2.6. Select lined up location

When there are no components that has to be lined up, the system skips this screen.

When there is a component that has to be lined up in the production order, select the lined up location from the list. Different lined up component are displayed on separate screens. A location is listed if the following is verified:

- The 'Can be lined up' option is enabled for the location
- The location is added to the production line as a lined up location
- A component that has to be lined up is stored on the location

When there is only one location that verifies these criteria, the system automatically proceeds with that location.

This screen can also be reached by pressing the 'Change lined up locations' button on production cockpit.



8.2.7. Production cockpit

The next screen is the Production 'cockpit'.



1. Code, description and barcode of the item to produce.
2. The planned quantity.
3. The number of the production order.
4. The due date of the production order and the attached remarks.
5. The type of the production order indicated with an icon.
6. The list of components that still have to be moved to the production line. The item code, description and barcode of the components and the needed quantity is displayed.

The following components are not listed:

- lined up components
 - time registration components
 - optional components
7. 'Produce' button. See: [8.2.9. Produce](#)
 8. 'Produce by-products' button. See: [8.2.10. Produce by-products](#)
 9. 'Change lined up locations' button. See: [8.2.6. Select lined up location](#)
 10. 'Add items to use' button. See: [8.2.8. Move components to production line](#)
 11. 'Print product label' button. See: [8.2.12. Print label](#)
 12. End production order button. See: [8.2.13. End production](#)
 13. Clock button. Press the button to register time registration items. See: [10. Time registration](#)

8.2.8. Move components to production line

The components can be moved either on the scanner or on the terminal. Use the [‘Move to production line’](#) flow to perform the move on the scanner.

Only stock from the production line’s input location can be moved to the production line. When the [‘Allow to move stock to prod. line from rest location’](#) option is set to true in the [Production controller](#), stock from the rest location can be moved to the production line too.



Press the ‘Add items to use’ button to perform the move on the touchscreen.

There are three possible ways to move the materials to the production line.

- To move only one item, press the ‘Move an item’ button. Identify the product to move. First scan the linked SSCC. When the product has no linked SSCC, press the ‘No SSCC’ button. On the next screen scan the product to move or select it from the list after pressing the ‘Select a product’ button. Every item on the input location is listed and can be moved. After the product has been identified, add the quantity. The moved quantity cannot exceed the quantity stored on the input location.
- To move the entire stock of the components, press the ‘Move all items linked to the production order’ button. The system will move the entire stock of the items linked to the production order, regardless of the planned quantity.
- To move everything from the input location press the ‘Move all items’ button. The system will move the entire stock from the input location, regardless of the planned quantity or the item.

When the ‘Hide all item buttons’ option is enabled in the [Production controller](#), the system automatically proceeds with the ‘Move an item’ task after the ‘Add items to use’ button have been pressed.

When the ‘Auto move all linked items to BOM’ option is enabled in the [Production controller](#), this step can be skipped as the components were automatically moved to the production line after initiating the flow.

After the components have been moved to the production line, the system registers the movement in a ‘Move’ document in the Produmex office module.



When there are no items displayed on the ‘Items still to pick’ list, it means that all the required not lined up materials are already on the production line and are available for the production.

8.2.9. Produce

To produce the items, press the ‘Produce’ button.



After the ‘Produce’ button has been pressed, identify the SSCC to produce on. For the detailed

description see: [8.1.4. Identify the SSCC](#)

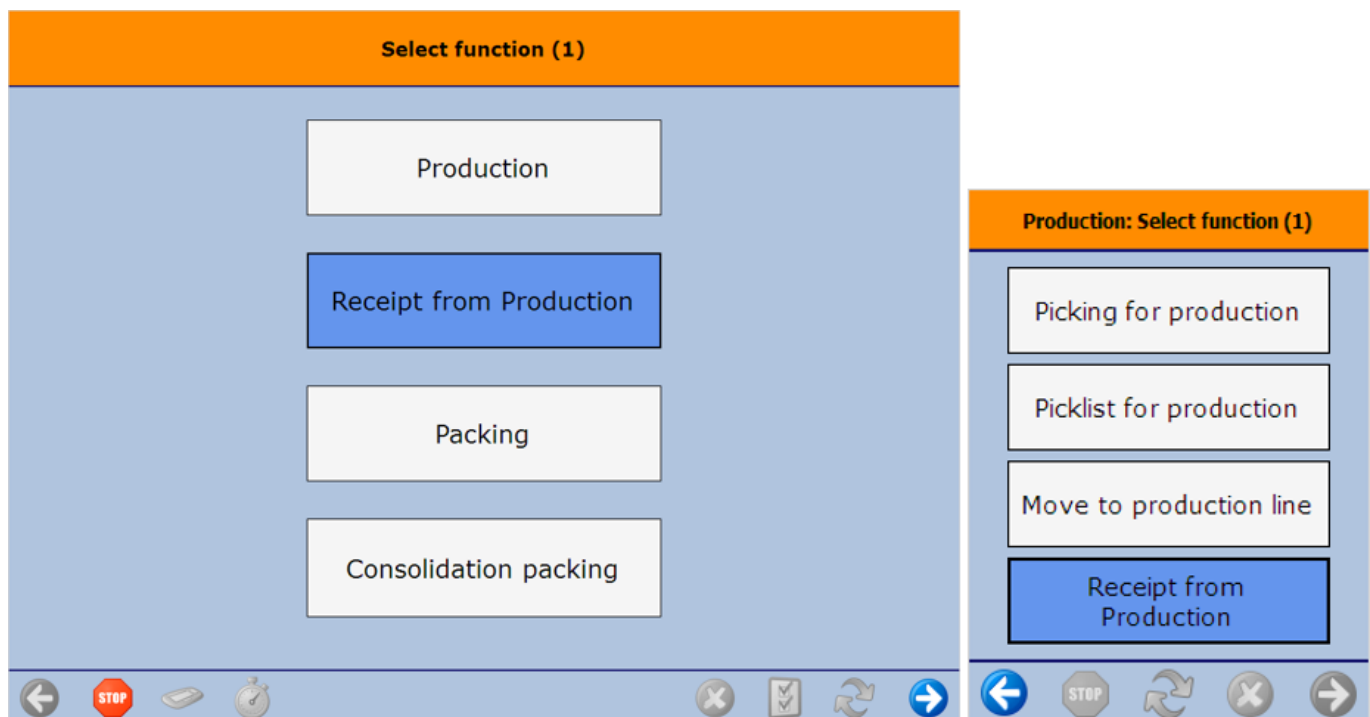
When the item to produce has batch attributes, the system will ask for adding those attributes too after the SSCC has been identified.

On the next screen enter the produced quantity.



- [Production order](#)
- [Release production order](#)
- [Release production order](#)
- [Production picking](#)
- [Production move](#)
- [Production receipt](#)
- [Select production order](#)
- [Identify batch](#)
- [Identify SSCC](#)
- [Identify batch](#)
- [Production](#)
- [Finish production](#)

To initiate the flow, press the 'Receipt from Production' button on the terminal or on the scanner.






1. Select a production order

Select a production order from the list and press the right arrow button to proceed.

When using the default settings, only the production orders with 'Started' status are displayed in the list.

When the 'Allow starting production order on receipt flow' option is set to true on the [Production controller](#), the released production orders with an assigned production line are displayed on the list too. The system will automatically change the status to 'Started' when proceeding with these orders.

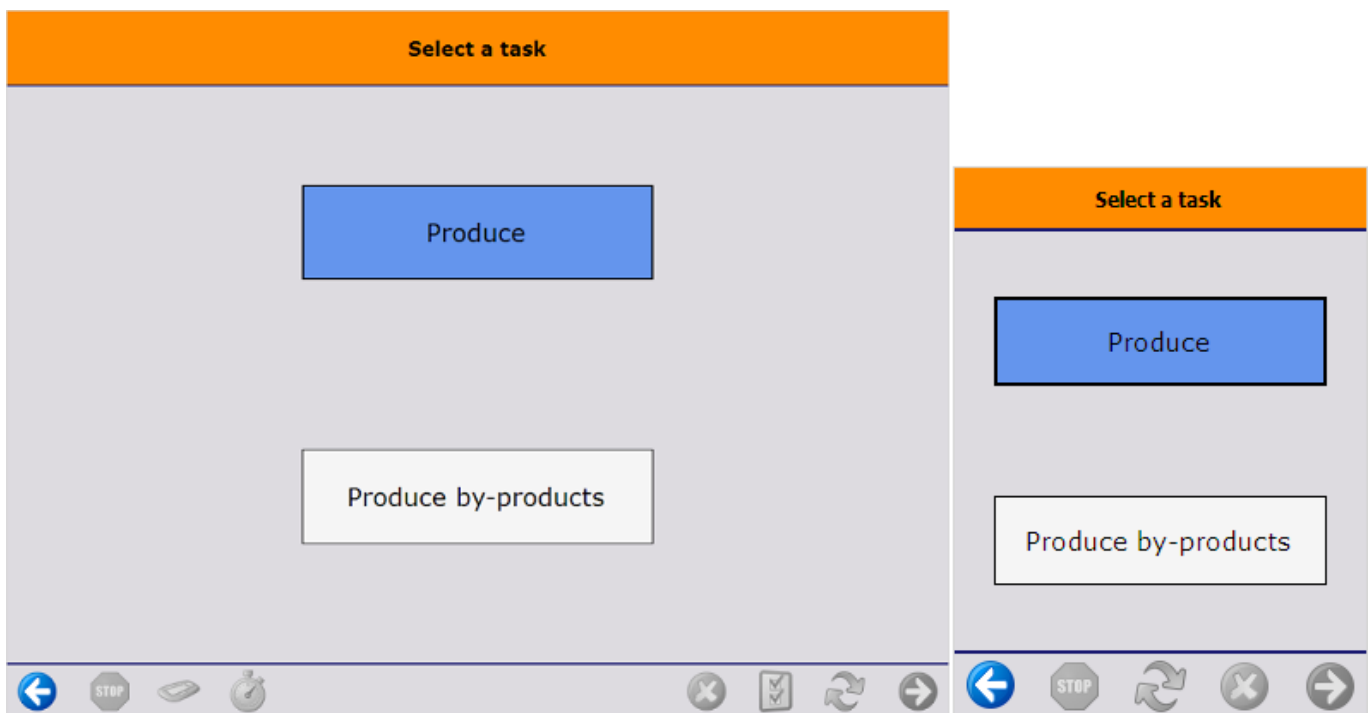


On the scanner, 'Started' orders are indicated with an  icon. 'Standard' and 'Special' type flows are indicated with the  icon. 'Disassembly' productions are indicated with the  icon.

After the production order has been selected, the system checks whether there are enough stock on the production line to produce. When there is not enough stock to produce, an error message is shown.

2. Select a task

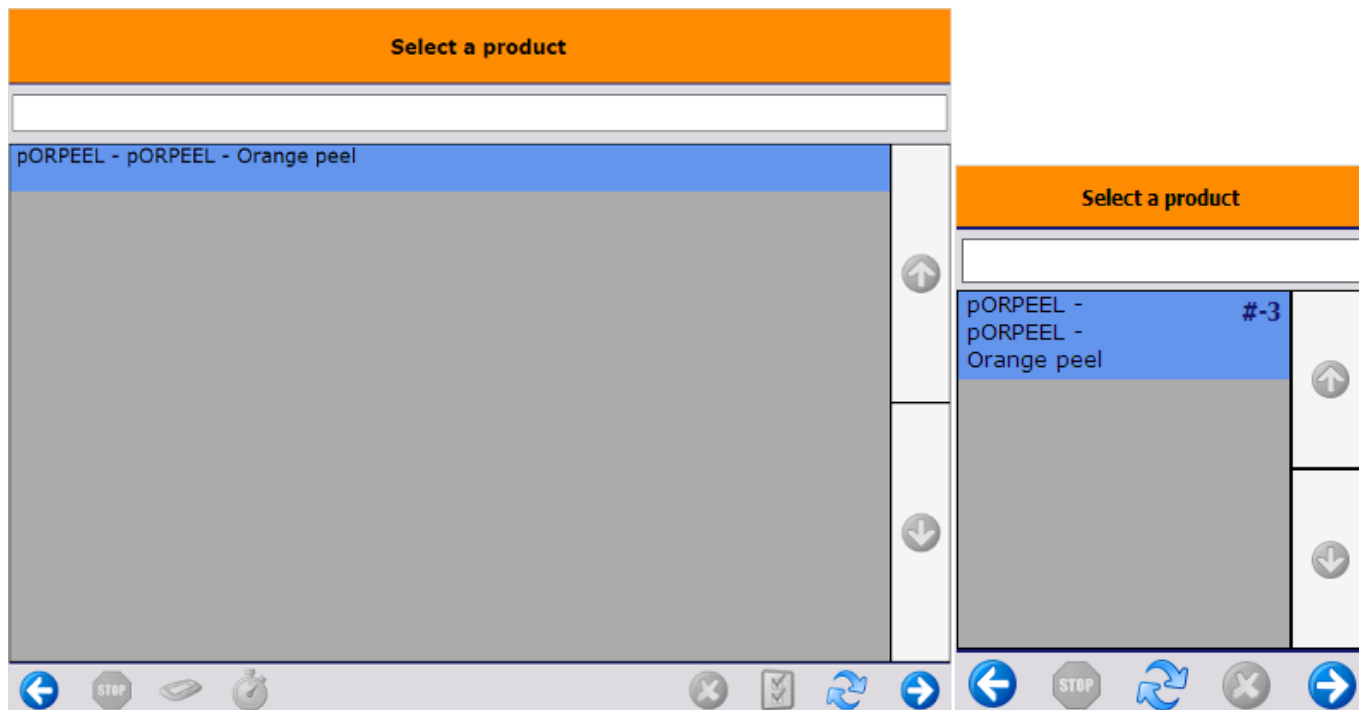
If there is a by-product line on the production order, the Select task screen opens. This screen is automatically skipped if the production order does not contain by-products.



To produce the main product, press the 'Produce' button.

To produce by-product(s), press the 'Produce by-products' button. On the next screen select a by-product to produce from the list. Every by-product from the production order is listed.

The steps of main product and by-product production are similar. The differences are described at each given step.



3. Identify batch

Depending on the [batch number settings for production](#) the system might ask to enter the batchnumber, if the product is managed by batches.

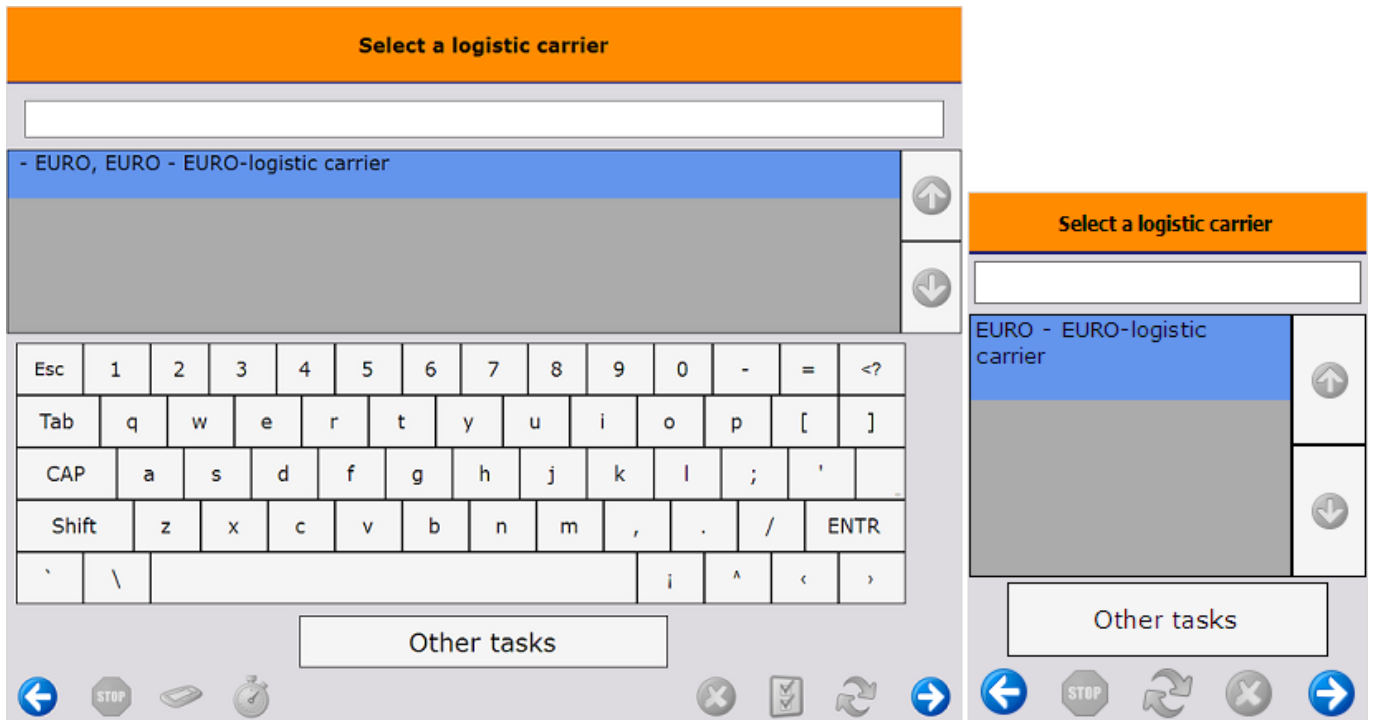
Depending on the [best before date settings for production](#), the system might ask to enter the best before date, if the product has a best before date.



When the product has batch attributes, the system asks for adding those attributes too.

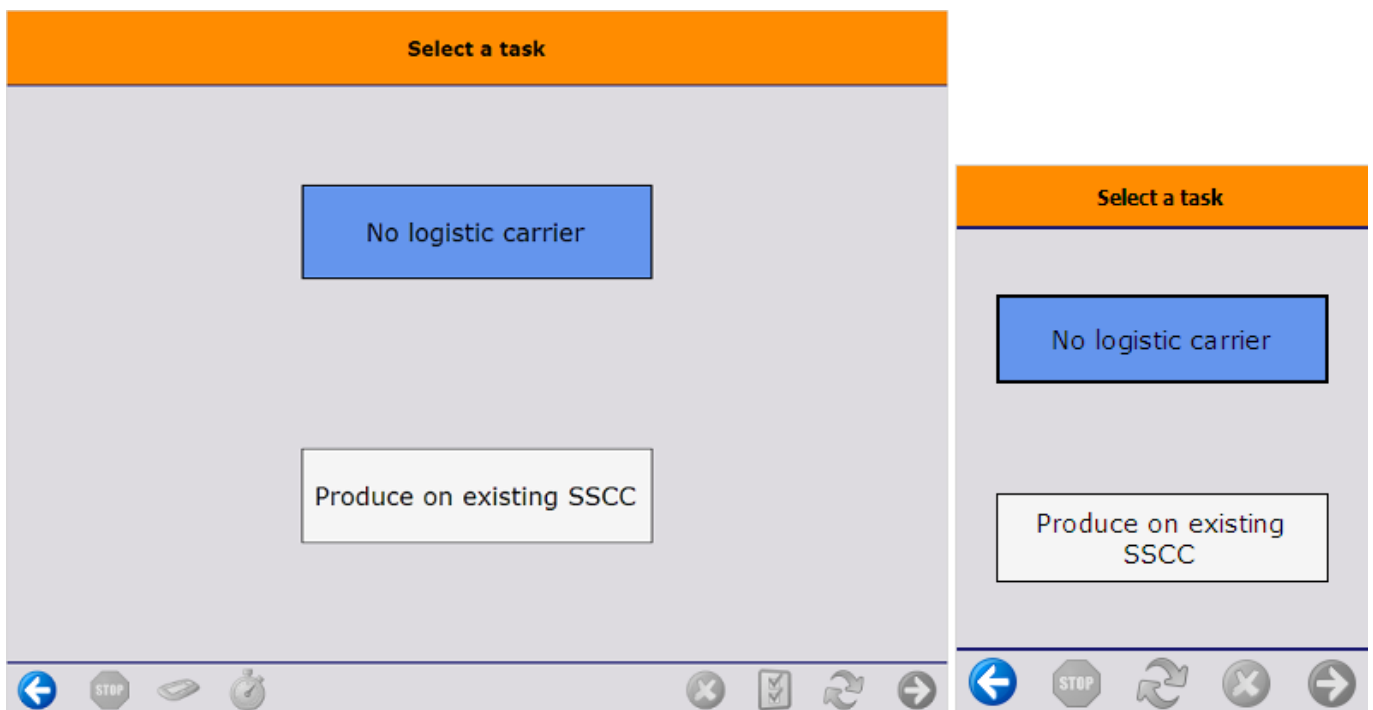
4. Select logistic carrier and identify the SSCC

Then select the logistic carrier from the list. Every logistic carrier that has stock on the '*Stor. Loc. logistic carriers*' location for the [warehouse](#) is listed.

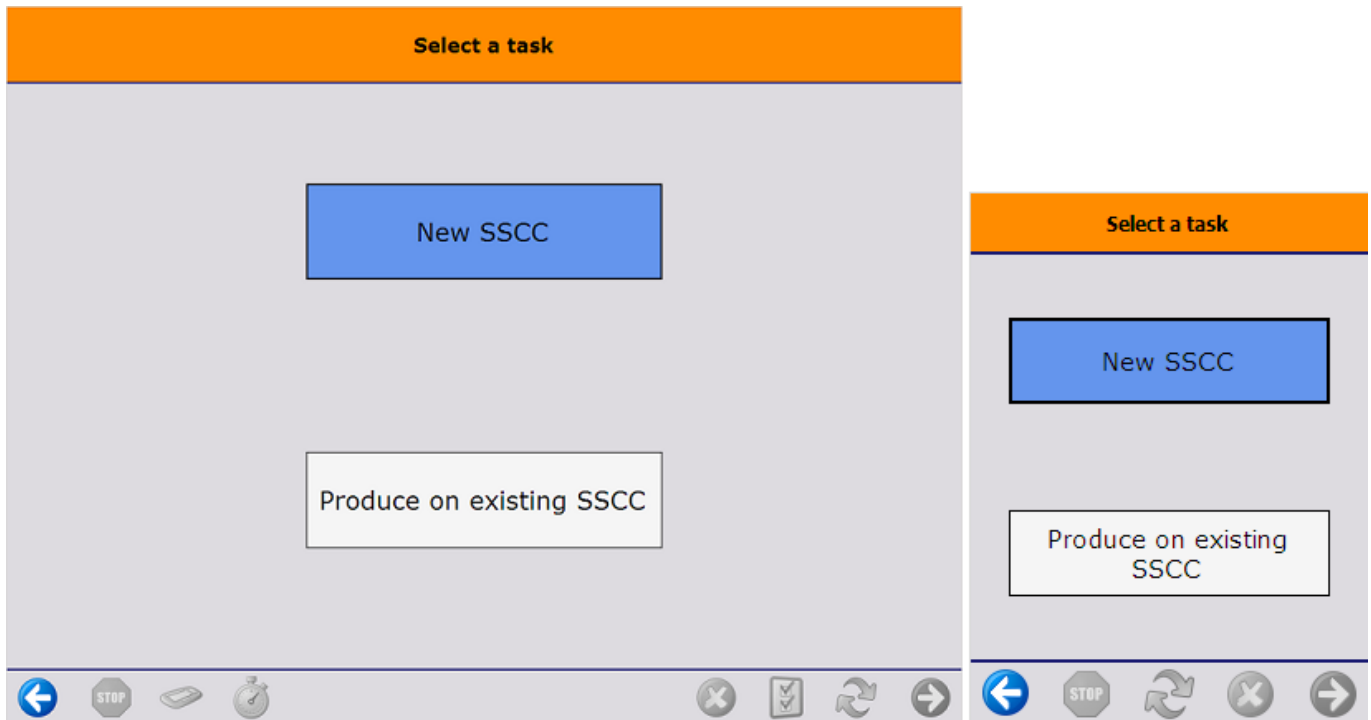


To produce without a logistic carrier press the 'Other tasks' button. On the next screen select a task:

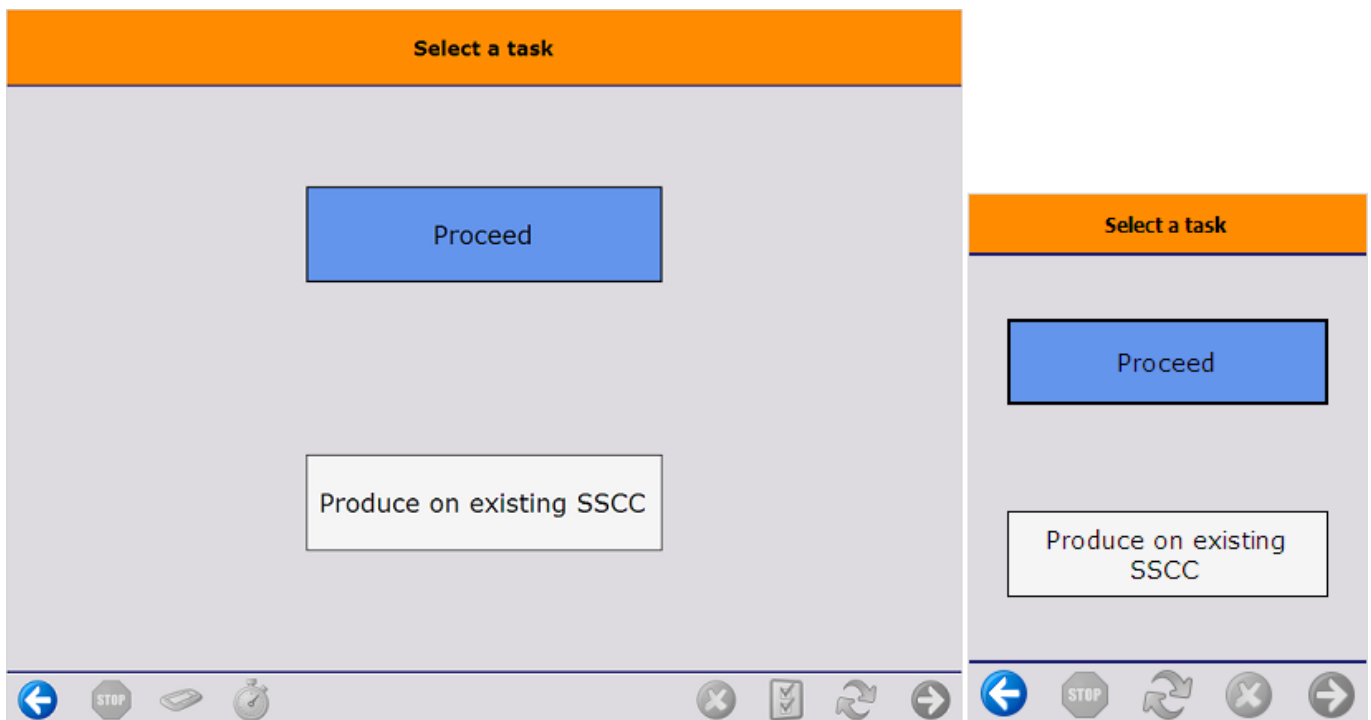
- Press the 'No logistic carrier' button to produce onto a new SSCC.
- Press the 'Produce on existing SSCC' button to produce onto an existing SSCC. On the next screen scan the target SSCC.



The system automatically proceeds to the Select a task screen and skips the Select a logistic carrier screen if there is no available logistic carrier on the '*Stor. Loc. logistic carriers*' location or if the company does not use logistic carriers. In this case the 'New SSCC' button is displayed instead of the 'No logistic carrier' button. Press this button to produce onto a new SSCC. No logistic carrier will be linked to the produced item.



The system also proceeds automatically if the product has a 'Default log. car. production' set on the [Produmex Production tab](#) of the Item Master Data. In this case a 'Proceed' button is displayed instead of the 'No logistic carrier' button. Press this button to create a new SSCC with a linked logistic carrier.



5. Enter the quantity produced

After the SSCC has been defined, add the produced quantity. By default the planned quantity is displayed, but it is possible to produce different quantities.

The maximum of the produced quantity for the main product is calculated based on the following values:

- base quantity of the components from the production order
- the quantity tolerance of components set in the production order
- the available quantity on the production line

Note: lined up components and time registration items are not taken into account when calculating the maximum quantity.

The calculation of the maximum quantity occurs in three steps:

- First the system calculates the maximum producible quantity for each material based on only that material.
$$\text{Maximum quantity} = \text{Quantity on the production line} / (\text{base quantity} * (1 - \text{quantity tolerance}))$$
- Then the system selects the lowest value from the maximum producible quantities. To define the maximum quantity, the system rounds down that value to the decimal places specified for the uom in the Item Master Data of the product.



The produced quantity for by-products is not limited by the available quantity of the materials on the production line.

5.1. Enter the weight

In case of producing a catch weight item, enter the produced weight too. The maximum weight is calculated from the produced quantity, the default weight and the weight tolerance defined in the Item Master Data of the product.



If the *Weight Capture needed during Production* setting is enabled on Item Master Data > Produmex tab > [Production](#) tab, the system displays the *Enter the weight* screen during the flow. In this case the product / by-product must be weighed with a scale.

- Prerequisites: You must define a scale for the production line or the output location of the production line in the [Organizational Structure](#).
- The setting applies to items that are not managed by serial numbers.
- If the item is a catch weight item, you can weigh the item after the first quantity has been added.



5.2. Items managed by serial numbers

When the item to produce is managed by Produmex or 'On release only' type serial numbers, it is possible to add the quantity by scanning the serial numbers or by entering the quantity. When the item to produce is managed by 'On every transaction' type serial numbers, the quantity can only be added by scanning the serial numbers.

For more information about quantity entering methods see: [Screens for entering additional information](#).



6. Production

After the quantity has been added, the product is produced and the system moves the product to the output location. The quality status of the received product is the quality status set as the *Quality status production* on the Production tab of the Organizational Structure.

When the product is produced, the system locks the consumed stock. The locked quantity is calculated from the produced quantity and the base quantity of the component. Materials are not locked for by-products.

Documents:

- When producing by-products, the system creates a receipt for production document for the by-product and no other documents.
- When producing the main product, the system creates a receipt for production document for the main product and issue for production documents for material items which are on lined up location with direct consumption setting.

7. Print event

If set in the Organizational Structure, the '*Production: logistic unit produced event (400)*' print event is triggered and the Production label is printed. The default report of the print event is *DefaultProductionLabel.rpt*.

8. Item produced

On the screen the 'The item is produced' message is displayed. Press 'Ok' to go back to the 'Select a production order' screen. When the 'Proceed with current production order after entering quantity on prod. receipt flow?' option is set to true in the [Production controller](#), the system automatically proceeds with the current production order.



If the production order is not closed, it is possible to produce more than the planned quantity.

Close the production in the Production Manager.

If the *Automatically close production orders on completion? (Y/N)* setting is enabled on the [production controller](#), the production order is automatically closed when the planned quantity for the main product has been reached. The Issue for Production documents are booked with the planned quantities and the components are issued.

8.2.10. Produce by-products

To produce by-products, press the 'Produce by-products' button. On the next screen select a by-product from the list. Every by-product from the production order is listed.



Then select the logistic carrier from the list. Every logistic carrier that has stock on the '*Stor. Loc. logistic carriers*' location for the [warehouse](#) is listed.



To produce without a logistic carrier press the 'Other tasks' button. On the next screen select a task:

- Press the 'No SSCC' button to produce without a logistic unit.
- Press the 'No logistic carrier' button to produce onto a new SSCC.
- Press the 'Produce on existing SSCC' button to produce onto an existing SSCC. On the next screen scan the target SSCC.



The system automatically proceeds to the Select a task screen and skips the Select a logistic carrier screen if there is no available logistic carrier on the '*Stor. Loc. logistic carriers*' location or if the company does not use logistic carriers. In this case the 'New SSCC' button is displayed instead of the 'No logistic carrier' button. Press this button to produce onto a new SSCC. No logistic carrier will be linked to the produced item.



The system also proceeds automatically if the product/by-product has a 'Default log. car. production' set on the [Produmex Production tab](#) of the Item Master Data. In this case a 'Proceed' button is displayed instead of the 'No logistic carrier' button. Press this button to create a new SSCC with a linked logistic carrier.



On the next screen enter the quantity to produce. The quantity to produce is not limited by quantity of materials available on the production line. Displayed information:

1. Production order number
2. Item code and description
3. Batch number of the main product/by-product
4. Best before date of the main product/by-product
5. Open quantity for the main product



After the by-product is produced, the system returns to the Production Cockpit.

In SAP Business One, the receipt from production document is created and the by-product is taken into stock on the output location of the production line.

8.2.11. Receive product

After the quantity has been added, the product is produced. The system moves the product to the output line and books a 'Receipt from Production' document.

The system issues the lined up materials and books an 'Issue for production' document for those components. The issued quantity is calculated as the product of the base quantity of the component and the produced quantity.

8.2.12. Print label

If set in the Organizational Structure, the '*Production: logistic unit produced event (400)*' print event is triggered and the Production label is printed. Default report for the print event:

DefaultProductionLabel.rpt

There is another way to print the label. On the main production screen press the 'Print product label' button. On the next screen add the produced quantity. The system automatically skips this screen, if there is already produced quantity. On the next screen add the number of labels to print.

8.2.13. End production

After the product was produced, the production can be continued, stopped or put on hold. *This screen can also be reached by pressing the 'End production order' button on cockpit.*



To go back to the production lines without finishing the production, press the 'Back to production lines' button. The Produmex status of the production order will remain 'Started'.

To go back to the production cockpit, press the left arrow button.

To put the production on hold, press the 'Put on hold' button. Issue for Production documents will be booked for the consumed quantities and the components will be issued but the production order will remain open.

To stop the production press the 'Stop production' button. Issue for Production documents will be booked for the consumed quantities and the components will be issued and the production order will be closed.

After pressing the 'Stop production' or the 'Put on hold' buttons, confirm the consumed quantities for the components.

8.2.14. Confirm the quantity to consume

The consumed quantity can be modified and confirmed on individual screens for each material. The consumed quantity of lined up materials cannot be modified or confirmed on the touchscreen. The consumed quantity of the time registration components can be added in the next step or after pressing the 'Clock' button on the Toolbar.

When the 'Use waste?' option is enabled in the [Production controller](#), the waste quantities can be added as well.

When the 'Skip consumption screen on flow for linked components?' option is enabled in the [Production controller](#), consumption screens for components that have been prepared (eg. weighted) will be skipped.



The stock on the input location is listed on the screen. The different batches are displayed in separate lines. Products stored on different SSCC's are also displayed in separate lines.

1. The 'Item to consume' is the item code and description of the component.
2. The 'Quantity to consume' is the product of the produced quantity and the base quantity of the component.
3. The 'Difference qty to use' is the difference of the 'Quantity to consume' and the '# Used' quantity.
4. The batch number, the second batch number and the best before date of the batch.
5. The '# On line' quantity is the quantity of the stock that was moved to the production line.
6. The '#Used' quantity is the quantity that was consumed for the production.
7. The '#Rest' quantity is the quantity remaining on the production line.
8. The '#Waste' quantity is the quantity of the waste.

The default '# Used' quantity is calculated based on the following logic:

- If the available quantity is greater than or equal to the quantity to consume:
Default #Used quantity = Quantity to consume.
- If the available quantity is less than the quantity to consume but within the quantity range:
Default #Used quantity = Available quantity.

When the 'Auto fill consumed quantity from prepared quantity on stop production?' option is set to true in the [Production controller](#), the default '#Used' quantity for prepared components (eg. weighted) is the prepared quantity, if it is within the quantity range.

The '# Rest' quantity is the quantity of the stock remaining on the production line. It is calculated by {'#On line' quantity - '# Used' quantity}.

The # Used (9) and the # Rest (10) quantity of the selected batch can be modified in the respective input field. After the modification press the 'Update' button.

Please note: The '# Used quantity' must be within the quantity range defined by the produced quantity and the components base quantity and quantity tolerance. Because the sum of the '# Used' and '# Rest' quantity must be equal to the on line quantity, when modifying either one of them, the other one is automatically updated.

In case of using waste, the # On line quantity is equal to with the sum of the # Used, # Rest and # Waste quantity. When modifying the used or the rest quantity, the system updates the waste (12) quantity automatically. The # waste field cannot be modified manually on the touchscreen.

When confirming the consumed quantity of a serial numbered item, add the serial numbers of the consumed products too. After the consumed quantity has been added, the system ask the method of entering the serial numbers. Select a method then on the next screen scan the serial numbers.

In case of a catch weight component, the default weights are displayed too.

1. The weight to consume. It is calculated from quantity to consume and the weight defined in the Item Master Data.
2. The On line, Used, Rest and Waste weight of the batch. By default it is calculated from the weight of the batch available on the production line and the quantity to consume.
3. The On line, Used, Rest and Waste weight of the item. By default it is calculated from the weight of the item available on the production line and the quantity to consume.
4. The used weight of the selected batch can be modified in this field.
5. The rest weight of the selected batch can be modified in this field.
6. The waste weight of the selected batch is displayed in this field.



Press the right arrow button to proceed to the next component.

8.2.15. Time registration

When the production order contains time registration components, define the consumed quantity for those components as well. For more information about time registration see: [10. Time registration](#)



8.2.16. Issue components

Once the material consumption is confirmed, the used quantities are issued and an 'Issue for production' document is booked. Waste quantities are booked in a separate 'Issue for production' document. Time registration items are issued in a separate 'Issue for production document' too. The remaining stock is moved to the rest location of the production line. The movement is registered in a Move document in the Produmex office module.

8.2.17. Production order status

When stopping the production order, the Produmex and the SAP status of the production order will be changed to 'Closed'.

When putting the production on hold, the Produmex status on the production order will be changed to 'On hold', but the SAP status of the production order will remain 'Released'. The production can be continued after a restart on the production line. The production can only be restarted on the production line where it was performed previously. *It is not possible to start an 'On hold' production in the Production Manager.*



Last
update:
2018/04/27 12:27 implementation:wms:productionmain <https://wiki.produmex.name/doku.php?id=implementation:wms:productionmain&rev=1524832078>

From:
<https://wiki.produmex.name/> - **Produmex**

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