Process:	Execute Production

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01	NEW	02/01/2022

Process Scope

This procedure describes the execution of an Initial production order; what is part of the plan to produce flow.

The execution phase can only take place once the creation of the initial production order is performed. Once the formulation order (or the service PO: the toller may produce or may fill a product) is sent to the toller; the toller knows the activities he needs to execute. The toller will then indicate (via email to the SC planner) the date when he will be able to perform this activity. With this information the SC planner can add the confirmed delivery date in this formulation order.

The planner will make sure that all the stock needed to perform this production activity is available at the location of the toller before the date that the toller can execute this production activity. Therefore, the planner will launch the required Transfer orders (in the same LE) to move the stock towards the toller. All these stock movements will be executed by Transport (Manage Transport Process) that is performed by Belchim itself. It means that the SC planner needs to request transport requirements from the transport planner. See the Processes of Manage Transfers.

Once the required stock is received at the toller (this will be mainly Bulk and/or Active Ingredient stock), the production process can be executed. The toller will perform the production process of the raw materials into a finished bulk product. Later the toller fills the bulk stock into consumable finished products. (For some products the toller will only perform the filling step as we deliver here already the conditioned bulk stock).

When the toller has executed the production, he will provide the SC planner a production reconciliation sheet. This document provides all production relevant info; like produced quantities; batch numbers and possible losses during production.

The SC planner will then book this production order in D365. A production order will be booked for every single finished or refilled product that is produced. The reason for this is that every single product is linked to another created initial production order.

The SC planner will indicate the production date and the produced quantity together with the received batch number information.

D365 will indicate the components that are linked to this produced product; based upon the formula for this product. The SC planner can check for every component if the proper quantity is mentioned. A batch number for the used components will be indicated on the reconciliation sheet and then the production order can be booked.

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The moment that the production order is booked, D365 automatically books the formulation order so that this service item can be consumed as well in the production order. If there is not sufficient stock (this implies that the toller has provided incorrect info on the reconciliation sheet or BCP has not completed all required goods transfer steps) of one of the components of the production order; the production order will not be booked. This means that negative stocks based upon using the wrong components or the wrong quantities will not be possible anymore. Once the production order is successfully booked, the produced product is booked and the used components are consumed. The SC planner can indicate that his production order is finished.

This produced product can now be shipped towards the WH or the LE that needs this product. Therefore, the planner will use the Transfer orders (in the same LE) or Intercompany Transfer orders (across LE's) issued automatically at the moment of the initial production order creation.

The SC planner will request a transport requirement from the transport planner to execute these transfers. See for this step the processes Manage Transfers & Manage Transport

At last, finance will issue the invoice of the received formulation order and the SC planner can change the status of his production order into the "end" status. Like this the cost price of the service activity will become part of the cost price of this final product.

Process Visualization

## Process Steps
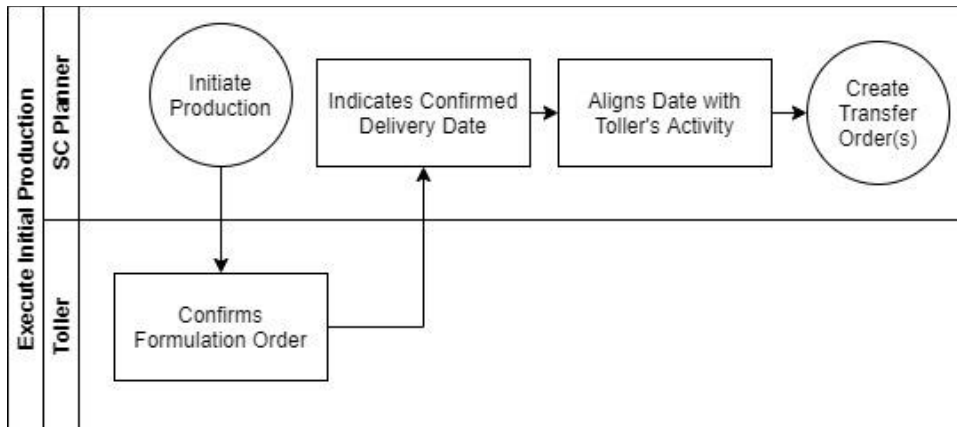
Confirm Form. Order

Step 1: Confirmation formulation order

The SC planner has sent during the creation of the initial production step a formulation order to the toller to perform this tolling activity. With the feedback of the toller, the SC planner can indicate the confirmed delivery date of this order.

The execution date mentioned in the system will be aligned with the physical activity at the toller. The planner can then better check if a toller is running late or he has not yet confirmed the receipt of a tolling activity request.

The SC planner does not need to send this new confirmation order (with the modified date) to the toller.

Link to work instruction "WI Step 1"
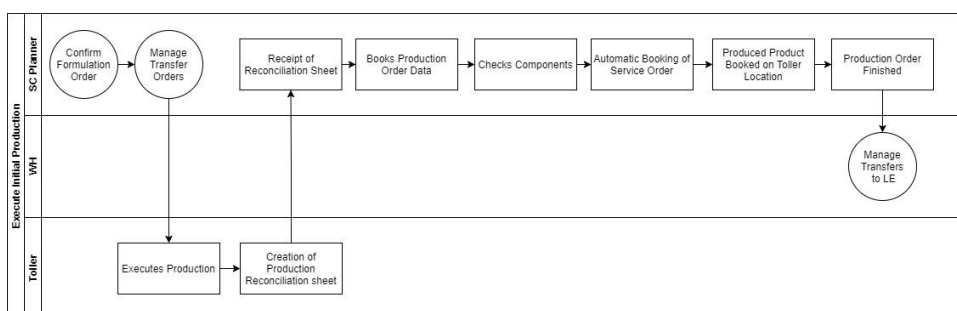
Transfer & Book

Step 2: Transfer or IC Transfer: towards toller

The SC planner will create some Transfer orders (in the same LE) to move the stock to the toller (see manage Transfers). As all tolling activities will be performed in the Belgian entity; the stock remains Belgian property during the tolling activity (stock receipt; tolling & booking of the stock).

This stock is ordered in full truck or full container loads and is stored in an external warehouse (Globachem). Only the required quantities will be shipped towards the toller to use in a production activity. As such, we avoid idle stock in a toller's production facility.

The SC planner will request a transport requirement to the transport planner to execute these transfers from the WH towards the Toller. Once the toller received the stock, the SC admin will execute the booking of these Transfer orders based upon the received documents provided by the toller.

"WI Step 2"

Step 3: Physical production activity

The Toller will perform the Production activities once the raw materials (bulk or active ingredients) are received.

This production step can contain distinct phases:

- Filling the bulk into consumable filling products (based upon received bulk product)
- Conditioning the active ingredients into consumable finished products (based on AI)
- Conditioning the active ingredients into a finished product in bulk (known as intermediate)
    - From this step in a second phase the conditioning towards a consumable finished product can take place

Depending on the size of the production activity the toller can perform all these production activities in one run or in separate runs. The toller will plan his production himself based upon the volumes per packaging size and the type of products that he needs to produce.

"WI Step 3"

Step 4: Booking of the production order

The toller will provide the production reconciliation sheet once the production is partially or completely finished.

On this document the SC planner can find the following info:

- Produced quantity per finished product
  - Indication of the batch number & the production date
- Used quantity of raw materials
  - Indication of loss/gain quantities

The SC planner will book in D365 the production order based on the received information from the toller. The planner will indicate the quantity and the batch number of the produced products. If the batch number is new, the planner also needs to indicate the country of origin.

D365 will indicate the components of this produced product based upon the formula for this product. The Planner needs to check that the corresponding components are mentioned and used by the Toller.

Once the SC planner books the production order, the created formulation order will be booked automatically so that this service item can be consumed as well in the production order. For every used physical component, the planner needs to indicate the batch number that is used & consumed during the production step.

The moment that the production order is booked, the components of this formula will be consumed. The produced product will be booked and subtracted from the stock at the location of the toller.

A production order can only be booked if all the components of the finished product have sufficient stock for the batch numbers mentioned.

The production order can be reported as finished and the stock can be used for other purposes.

Link to work instruction "WI Step 4”
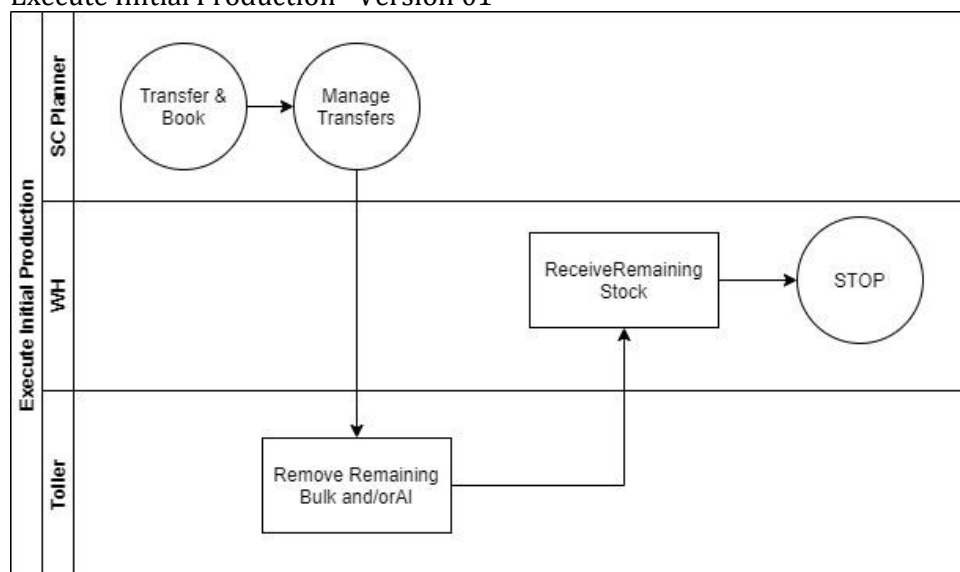
Transfer to LE

Step 5: Transfer or IC Transfer: towards Destination LE

The produced stock can now be shipped towards the country that needs this stock. The SC planner will trigger the Manage Transfers process. (He can execute the Transfer orders or intercompany transfer orders that were automatically created at the moment of the creation of the initial production order).

Manage transfer process: The SC planner will launch a transport requirement towards the transport planner to pick up the stock at the toller and deliver it to the WH of the LE that requests this stock.

After production it is the goal that all produced products can be shipped from this toller to a WH because a toller is not a storage location for long term.

When the campaign of production orders is finished, the toller should send back the remaining bulk or active ingredients to a warehouse (e.g. Globachem) so that the toller has no idle stock available at the end of the season.

Link to work instruction "WI Step 4”

Process Responsibilities

	SC Admin	SC Planner	Transport Planner	SC Manager	Toller
1) Confirmation formulation order		R		A	
2) Transfer or IC Transfer: towards toller	R booking	C	R transport	A	
3) Physical production activity					R
4) Booking of the production order		R		A	
5) Transfer or IC Transfer: towards Destination LE	R booking	C	R transport	A	

Exceptions

Tollers situated in a country where Belchim NV has no tax number (e.g., ES, GB & AT)
- The stock that will be sent towards these tollers will be performed by an IC transfer rather than a Transfer in the same legal entity.

Exceptionally in high season produced stock can be sent directly from a toller towards a final customer instead of transferring first to a WH (e.g., phyteurop stock towards FR client).

Control points

- All production orders are covered by an agreement (PA/TA or manual agreement)
  - Based on the underlying service items of a production order.
- No production order can be booked when insufficient stock of a component.

Abbreviations

PA: Purchase agreement
TA: Trade agreement
WH: Warehouse
LE: Legal entity

Associated Tools & documents

[List references to any specific procedures, work instructions, documents and used tools which are required to comply with this document;]