

Products & Solutions

for forest nurseries

Plant the Planet



The BCC Semi Automatic Packing Line



Robust and flexible design



Multifunctional packing solution in a limited packing area



Depugged seedlings are easy to extract from the tray



Packed seedlings are palletized manually

The BCC Semi-Automatic Packing Line

The BCC packing line/-s offer an effective way of packing seedlings and plants in boxes, and at the same time cleaning and washing of the emptied trays, preparing them for storage or future use.

The general function of the 2- and 3-level semi-automatic packing lines can be divided into three main operations:

1. Packing of plants in boxes
2. Washing and disinfection of trays

Note that there may be technical discrepancies between the given text in this product leaflet and the specified solution to each customer.

THE PROCESS

1. Packing of plants in boxes

Cardboard boxes are folded and prepared and then placed on the inclined box infeed conveyor in the 3-level solution. The boxes are then transported up by the infeed conveyor and onto the top accumulating roller conveyor of the 3-level packing line.

Note that the cardboard boxes are put next to the working stations if used in the 2-level solution.

At the same time trays with plants are positioned on the tray infeed roller conveyor. The trays are accumulated on this roller conveyor and then enter the tray deplugger where trays are deplugged. The infeed pusher then moves the deplugged plants onto the middle level accumulating roller conveyor of the 3-level solution and the upper roller conveyor using the 2-level solution.

Filled boxes and empty trays are transported away on the lower level. Each work place has a fixed working table and a movable lifting table.

Each operator takes a tray with deplugged plants from the middle or upper conveyor and places the tray on the fixed table. An empty box is then collected from the top conveyor or from the side depending on packing solution and further places the tray on the lifting table. The lifting table can be adjusted to suitable working height.

Then the operator will manually lift the plants from the tray and, after visually having inspected them; further place the plants in the box. Plants that do not meet the set biological criteria are discarded and put back into the tray. When the tray is emptied (except for any discarded plants and/or blind peat plugs remaining in the tray) it is

put on the lower roller conveyor. When the box is completed with plants, the operator will push a button and the lifting table will be lowered and reach the optimal angle in order for the box to slide down easily onto the lower level roller conveyor. The lifting table is then again raised up to original position. A new tray with deplugged plants is collected from the conveyor as well as a new, empty box and plant packing will continue.

The filled boxes and the empty trays are transported on the lower level belt conveyor to the tray/box selection pusher, where the boxes are pushed out and onto the undriven box accumulating roller conveyor. The boxes will then be manually picked up for sealing and wrapping in plastic or according to the customer's own requirements.

The empty trays are not pushed aside, but will instead continue upwards the inclined conveyor belt in the direction of the tray cleaning station.

2. Washing and disinfection of trays

When reaching the top of the inclined conveyor the empty trays can be pushed into the tray-knocking station (optional) or continue directly into the high-pressure unit and then further into the hot water unit.

After being washed, the trays are pushed onto the tray accumulating roller conveyor where they are picked up for storage or further handling.



BCC semi-automatic packing line offers the customer a unique and customized solution. In contradiction to traditional plant packing, the BCC solution offers an ergonomic design to optimize productivities, maximize quality and reduce physical fatigue.



OPERATIONAL BENEFITS & KEY FEATURES

- Better work environment through ergonomic design to optimize productivities, maximize quality and reduce physical fatigue.
- Compatible for different tray types with exchange packages
- Fully integrational packing solution with washing line, palletizer, etc
- Fully customized according to nursery's requirements in terms of physical and budget limitations.
- Modular concept for easy extension.
- Centralized production for improved monitoring and control of operations.
- Continuous feed and availability of filled trays to avoid production stoppages.
- Stainless steel operator tables.
- Low maintenance.
- Fast and reliable operation
- Low investment cost compared to fully automated solutions

TECHNICAL DATA

Dimensions (L x W x H):	10 000 mm x 4 000 mm x 1 200 mm
Weight:	900 kg
Power Supply:	3 x 400V, 50 Hz, 10 A, 2 kW
Compressed air consumption:	300L/min, 600kPa (6 Bar)

Disclaimer - As BCC AB equipment is continuously developed and refined, the design and capacity can differ from the figures listed here.

** Note that the equipment can be customized to meet individual requirements.*

