BCC is your ultimate and complte partner for paper based growing systems. We develop, produce, deliver, install and service customized complete solutions or standardized machines for growing all type of crops in the FiberCell system worldwide.

BCC
Plant the Planet

BCC FIBERCELL CUTTING PRODUCTION LINE

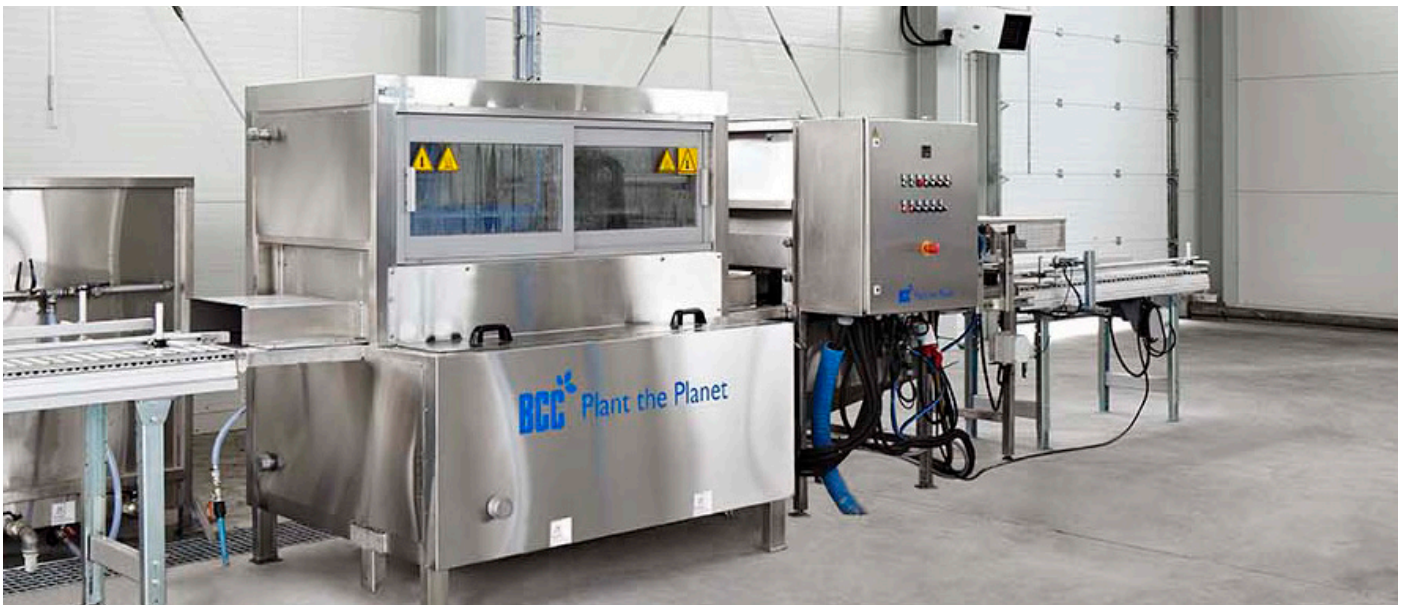
The BCC multi-row FiberCell cutting production line is a fully integrated line which includes the following main components and functions:

1. Tray washing and sterilising
2. Growing media mixing and feeding
3. FiberCell filling, cutting and placing
4. Watering of FiberCells
5. Setting line for cuttings including dibbling and accumulation of trays

The line is customised to run with the FiberCell 96 holder. Production capacity of the line: **14.400** cells per hour.

TRAY WASHER AND DESINFECTION

The BCC Tray Washer consists of two parts i.e. a high-pressure unit for mechanical cleaning (@ 40 bar pressure) and a hot water washer section for thermal disinfection ((>80°C).). This combination ensures effective removal of mineral particles, organic and inorganic components and biological contaminants from used trays.



SPECIFICATIONS

High Pressure Section

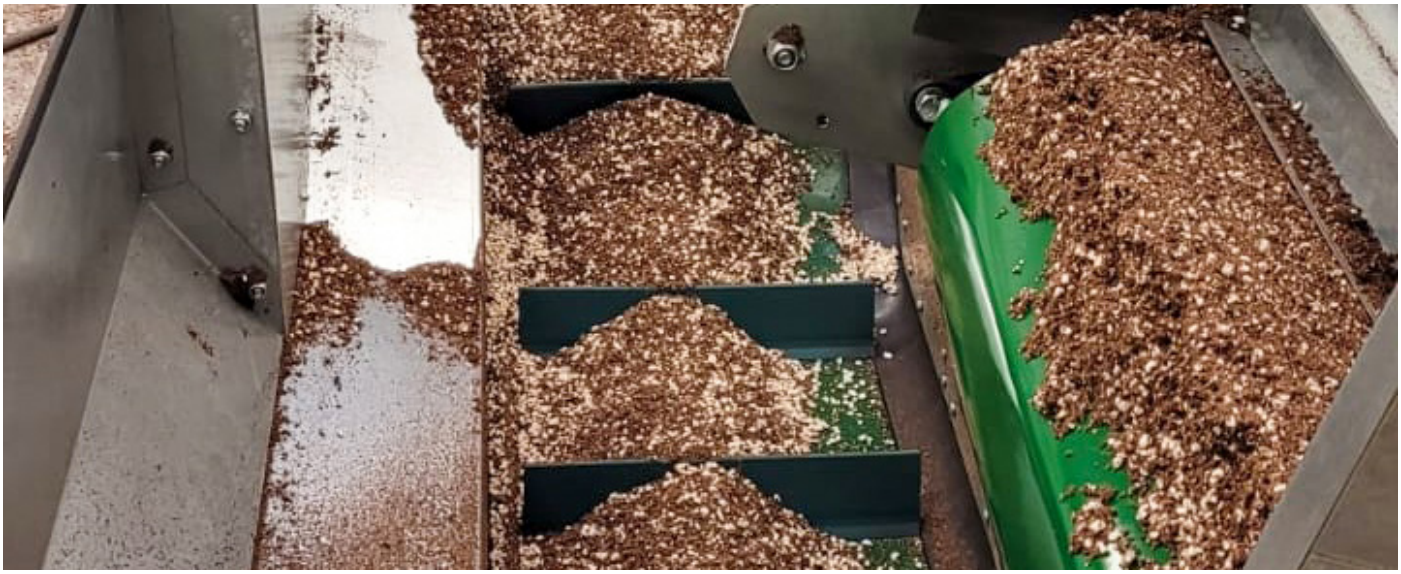
Dimensions	1300 x 1000 x 1600
Power supply:	3 x 400V, 50Hz
Power requirement:	8kW
Compressed air consumption:	300 litres/minute at 6Bar
Water consumption:	80 litres/minute at 5Bar

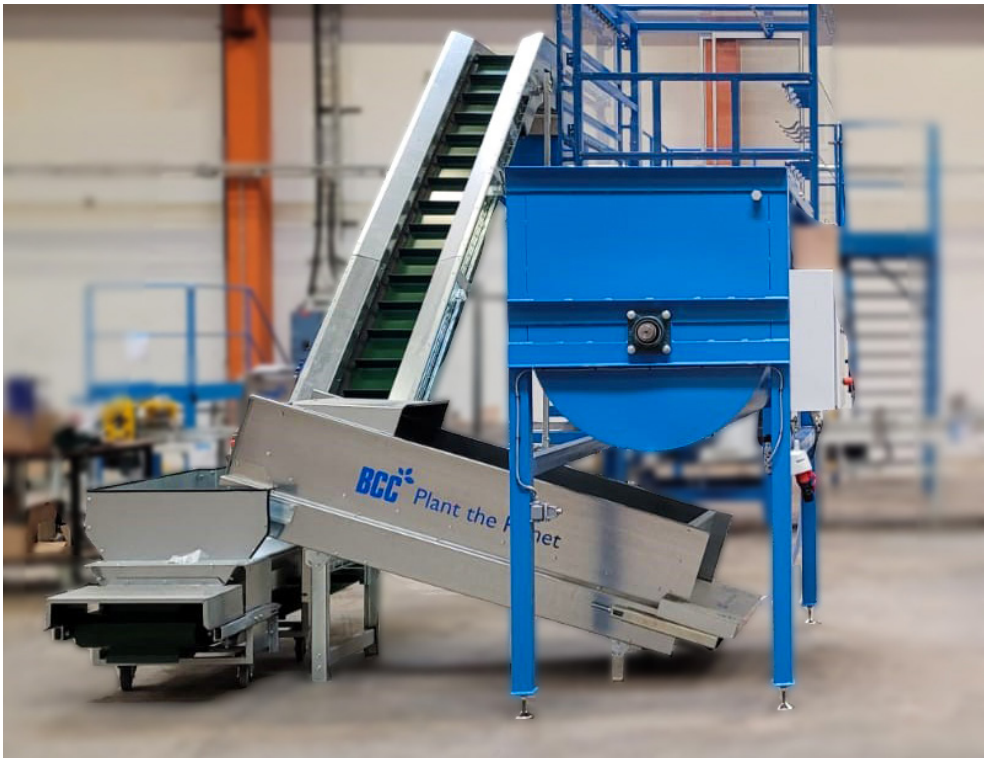
Hot Water Section

Dimensions	2500 x 1100 x 1600
Power supply:	3 x 400V, 125Amps, 50Hz
Power requirement:	9kw x 4.
Water consumption:	80 litres/minute at 5Bar

GROWING MEDIA MIXING AND FEEDING

Even and homogeneous mixing of organic and inorganic components is ensured by the ribbon blending process of the Batch mixer. The Batch mixer includes a watering function to ensure the moisture content of the substrate is adjusted for efficient filling and compaction of FiberCells. Media feeding is automated using level-detecting sensors and pneumatics. Media is transported to the Batch mixer and FiberCell filler via a series of conveyors including an inclined media infeed conveyor, media buffering unit and an inclined Z-conveyor.





SPECIFICATIONS

Infeed media conveyor

Dimensions	4500 x 500
Power supply:	3 x 400V, 50Hz
Power requirement:	0.25W

Batch Mixer

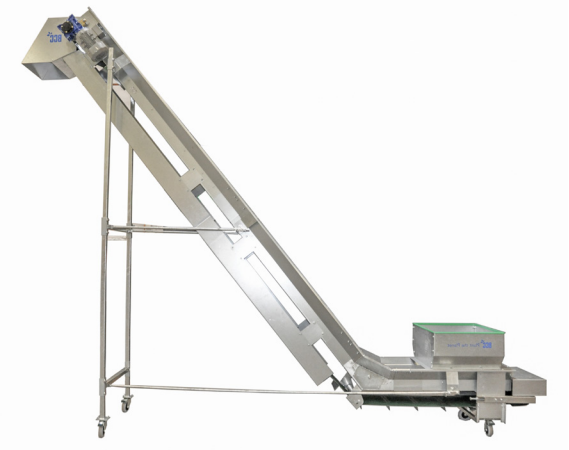
Dimensions:	2400 x 1200 x 2200
Hopper capacity:	approx. 1m3
Power supply:	3 x 400V, 25Amps, 50Hz
16amps	
Power requirement:	4kW
Compressed air consumption:	
20 litres/minute at 6Bar	
Water consumption:	30 litres/minute at 2Bar

Buffer Media Feeding Unit

Dimensions:	2500 x 800 x 1500
Hopper capacity:	approx. 0,35-0,4m3
Power supply:	3 x 400V, 50Hz
Power requirement:	0.37kW

Z-Conveyor

Dimensions	6000 x 900 x 3900
Power supply:	3 x 400V, 50Hz
Power requirement:	1.1kW



8-ROW FIBERCELL FILLER

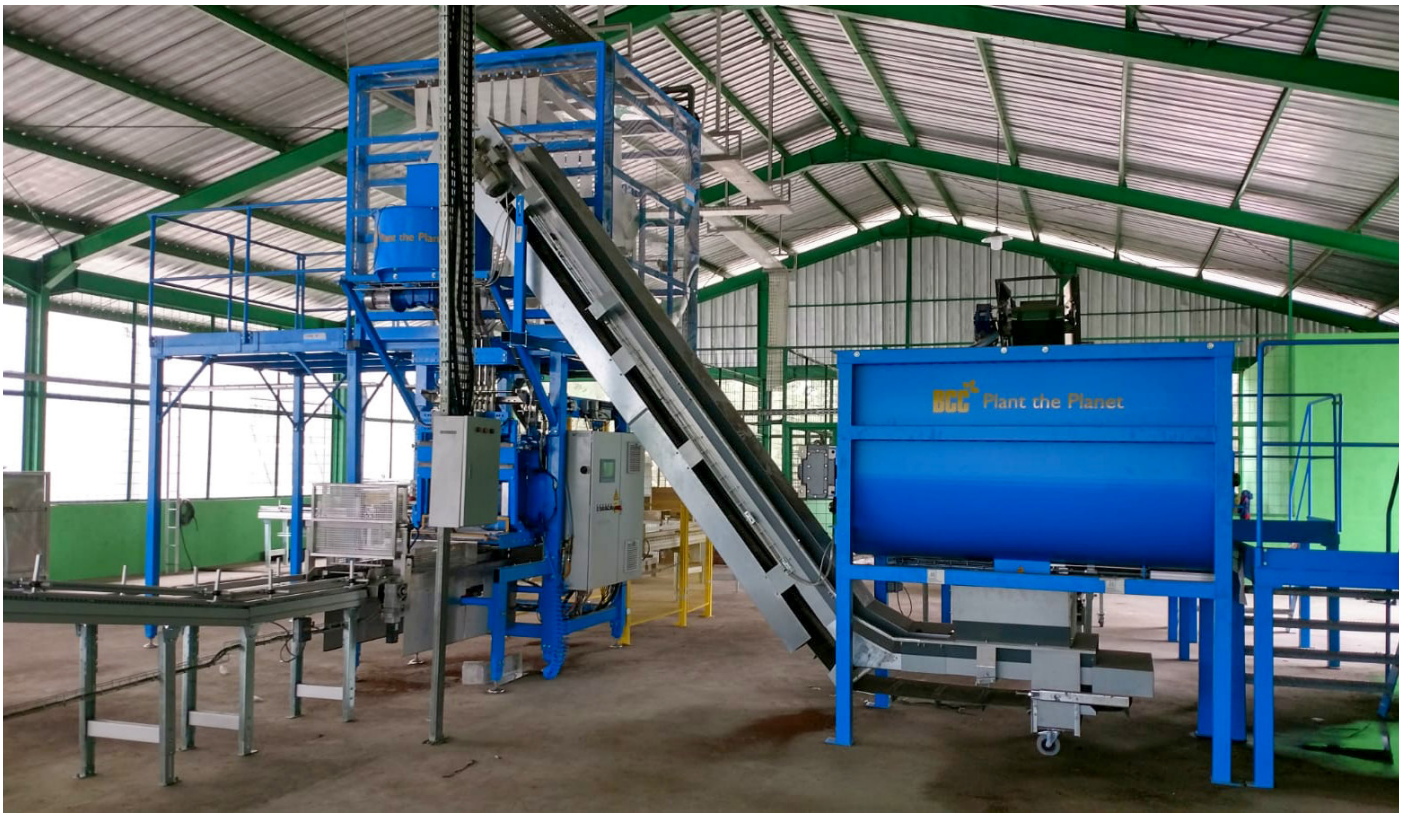
The BCC 8-row FiberCell Filler is a vertical feeding unit and used for filling of the FiberCell-96 holder.
The filler has all the main functions including paper roll feeding, heat gluing, media filling, cell cutting and cell placing. Filling of media is done through vacuum which is adjustable to determine compaction of media in the FiberCells. The vacuum system is accessible for maintenance.

Cutting knives are made from high quality steel for longer life and can be resharpened. The cutting knife exchange frame is easy to remove and replace with a sharpened unit.

Cell length is adjustable: 100mm, +10mm, -20mm.

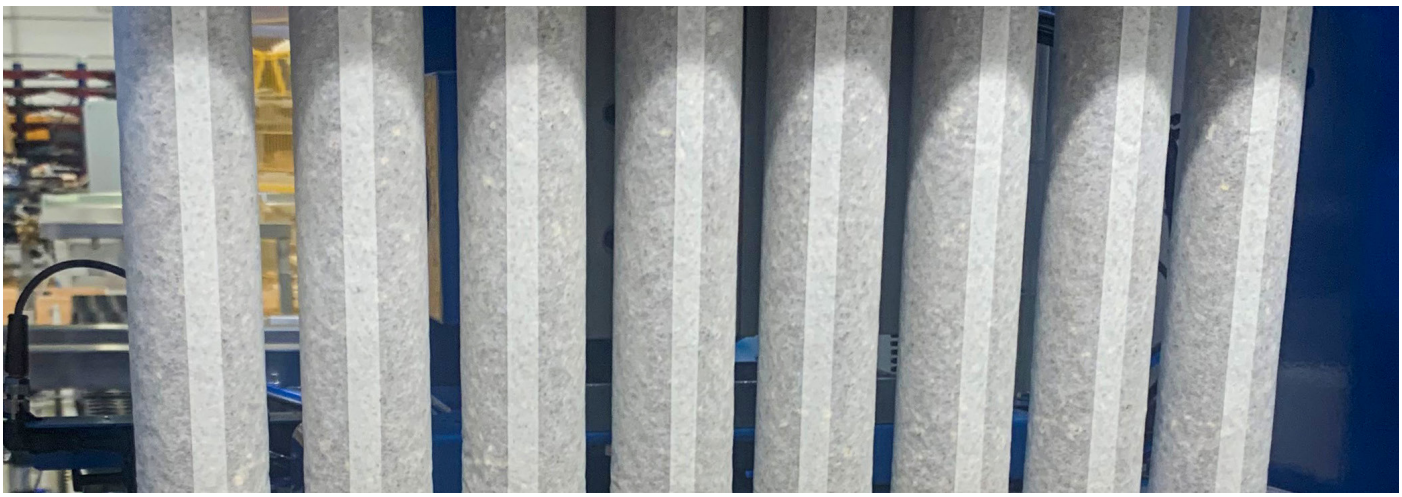
Operating speed is adjustable up to a max speed of 1.7-1.8 seconds per cycle (8 cells per cycle). Automated placing of cells into holders.

The paper magazine tower is fully enclosed to protect paper from the environment (optional).
Fillers are equipped with a communication module which allows remote access to the unit for back-up support.



SPECIFICATIONS

Dimensions:	approx 6100 x 5000 x 4600 (depending on site)
Hopper capacity:	150 litres
FiberCell material size:	35mm Ø, length adjustable (90-110mm)
Production capacity:	14400 cells per hour
Power supply:	3 x 400V, 25Amp, 50Hz
Power requirement:	12kW
Compressed air consumption:	1320 litres/minute at 6Bar

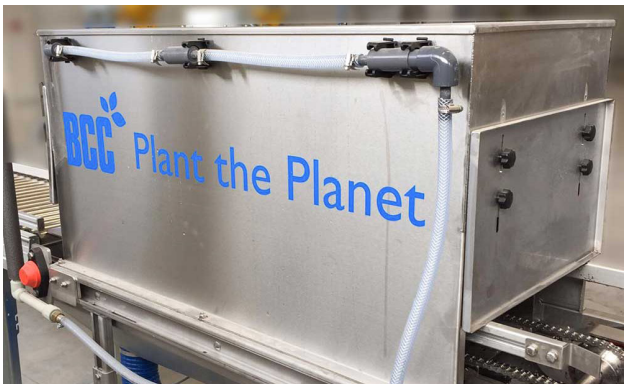


WATERING UNIT

After the FC96 holder is filled with FiberCells, a driven roller conveyor transfers the holder from the Filler to the Watering Unit where water is applied to each FiberCell. This ensures growing media is settled and firm to allow for centre spike dibbling to prepare for setting of cuttings.

SPECIFICATIONS

Dimensions:	1400 x 1000 x 1500
Power supply:	3 x 400V, 50Hz
Power requirement:	0.2kW
Water consumption:	20 litres/minute at 2Bar



MANUAL SETTING LINE (8-PAX)

The FC96 holder runs through a spike dibbler unit which prepares each FiberCell with a centre hole for setting of cuttings. Holders are then transferred via an inclined high-grip belt conveyor to the top accumulating conveyor of the Manual Workstation. The line accommodates 8 persons, 4 on either side of the line. Each station is fitted with a tilting work platform where cuttings are set into the FiberCells. After setting of cuttings, the holder is transferred to the lower outfeed conveyor and onwards to the accumulation conveyor for loading and transfer. The accumulation conveyor is fitted with a misting function to keep cuttings cool.

Cutting preparation tables accommodate 4 persons where cutting material is prepared for the setting people. A total of 4 cutting preparation tables are included.

SPECIFICATIONS

Spike Dibbler

Dimensions	600 x 700 x 1200
Spike size:	5mm Ø
Power supply:	Supplied from setting line
Compressed air consumption:	50 litres/minute at 6Ba

SPECIFICATIONS

Inclined High-grip Belt Conveyor

Dimensions:	3000 x 600 x 1100
Power supply:	Supplied from setting line

Manual Workstation, 8-pax

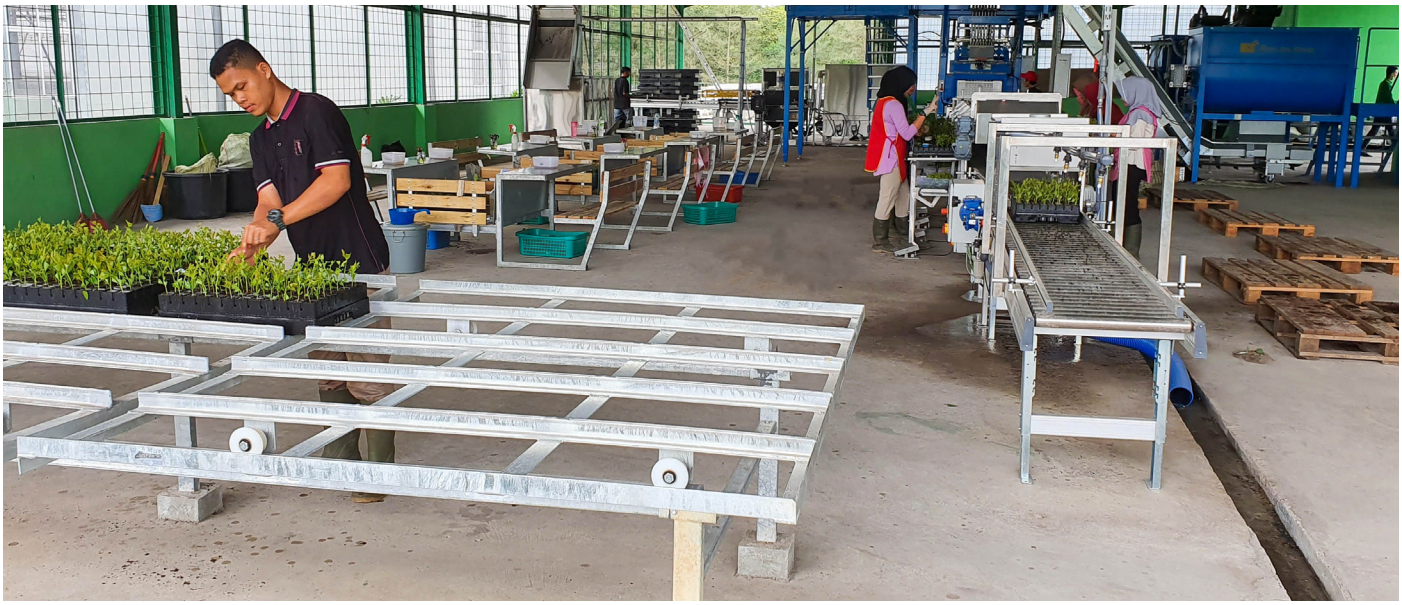
Dimensions:	5300 x 1500 x 1600
Power supply:	3 x 400V, 50Hz
Power requirement:	0.2kW
Workstations:	8 individual tilting stainless steel work platforms

Cutting preparation tables

Dimensions	1320 x 2680 x 770
Power supply:	N/A
Work platform:	Stainless steel

Accumulation conveyor

Dimensions:	6000 x 500 x 800



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