

Automated Honeycomb Potting

Airborne automated solutions | 2020

- Save time in work preparation
- Optimise the material consumption
- Reduce the cost of non-quality



Airborne

Automating Honeycomb Potting

Why automate

Airborne's Automated Honeycomb Potting solutions automatically apply potting resins for local reinforcements in honeycomb cores.

Compared to the manual approach, an automated solution is easily repeatable, more accurate and faster, thereby boosting the production output. Our smart integral solutions enable a safe and clean work environment, decreasing contact with hazardous substances significantly.

- No work preparation needed
- Save processing time
- Reduce material consumption
- Eliminate manual work
- Work in a cleaner and safer way
- Reduce the cost of non-quality
- Redeploy skilled workers

How it works

Our Automated Honeycomb Potting solutions are designed to efficiently and accurately fill honeycomb blanks with potting compounds via an automated platform.

The workflow is automated from design to manufacturing. Any shape of potting geometry can be realised and the machine code is automatically generated by our smart software.

We offer solutions for continuous production for high rate manufacturing as well as more flexible and affordable technologies for different requirements.



Specifications

Airborne's Automated Honeycomb Potting solutions are designed around a core module with the following capabilities and performance parameters:

Materials Honeycomb blanks (e.g. Nomex)

Resins 1 component or 2 components
(with mixer head)

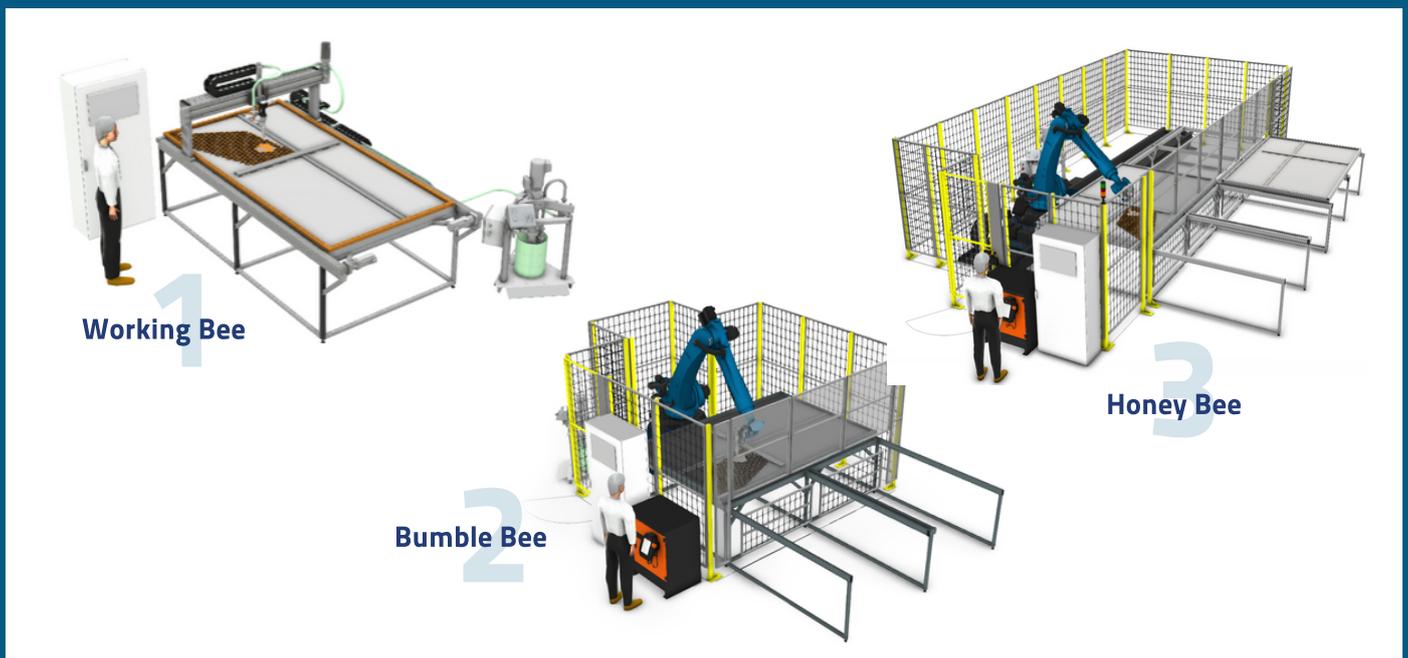
Main properties

- Filling program based on DXF-data
- Honeycomb blanks up to 3 m x 2 m
- Blank thicknesses tested up to 60 mm

Benefits

- Save preparation and process time
- Save time in work preparation
- Optimise the material consumption
- Reduce the cost of non-quality
- Increase efficiency
- Safer and cleaner
- Flexible and easy to upgrade

Automated Honeycomb Potting portfolio



Working Bee

- 25 m² required floor area
- Type: Gantry
- Flat Honeycomb blank for 2D potting

Bumble Bee

- 44 m² required floor area
- Type: Robot
- 2D and 3D potting

Honey Bee

- 85 m² required floor area
- Type: Robot on a track
- 2D and 3D potting
- Position 2 or more parts for a high production rate

Airborne's Digital Automation Portfolio

Production volumes in the composites industry are increasing, while unit prices are reducing and cycle times are shrinking. Companies therefore look for ways to radically reduce touch labour and takt time, minimise footprint, improve material utilisation and reduce time to market of new, complex, engineered composites products. To meet these needs, Airborne developed a suite of digital manufacturing solutions for composites manufacturing. Automated Honeycomb Potting is one of the building blocks in Airborne's digital offering.



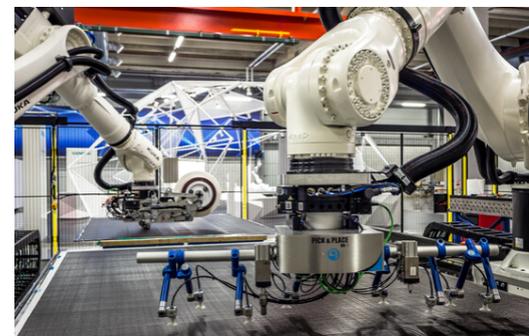
Automated Kitting

Our kitting solution makes kits from composite plies, reducing work preparation, labour and cleanroom cost at a relatively low investment.



Automated Laminating

Our Lamination solution makes the layup of tailored thermoset prepreg preforms effortless, by combining tape laying, cutting, and pick & place in a single cell.



Automated Preforming

Our Preforming solution makes manufacturing thermoplastic prepreg and dry fiber composite components competitive, by automating the preforming process with pick-and-place.

About Airborne

At Airborne we believe that innovation in manufacturing through automation, digitalisation and advanced analytics is the catalyst for the significant increase in productivity companies need to stay competitive. We understand the complexity and cost involved in producing composite components for demanding applications in highly regulated industries. Our legacy in advanced composites manufacturing makes us experts in developing and delivering automated solutions that enable our customers to achieve high production rates and radically low conversion costs.

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