

**FLEXIBLE  
TOOLING**  
FAST PANEL  
SET-UP

- Maximum Flexibility for Panel Set-Up
- Fastest Reconfiguration
- High Payload

**COMPOSED** TO COMPETE



## FLEXIBLE TOOLING - TECHNICAL INFORMATION

### Area of Application

The Flexible Tooling is a multi positioner system that allows the automatic assembly of aircraft panels in various shapes and sizes. The flexible tooling is available for a number of different machine types, thus highly adaptable to customers needs for aircraft production.

- Support of compound skin panels
- Loading/unloading of skin panels in horizontal and vertical orientation
- Positioning of skin panels
- Skin Panel Holding with vacuum cups and clamps during fastening process
- Continuous riveting without interruption for repositioning of contour boards

### Technical Data

Adjustable length without limitation for various applications	Less than 2min for reconfiguration
Width and height optimized for assembly of narrow body and wide body aircraft	10-15 min for machine stop to restart
Positioning accuracy linear axis $\pm 0.1$ mm	Maximum panel weight 1,500 kg
Loading / unloading in vertical and horizontal position	No dedicated tooling required



### Special Features

CNC controlled

- Siemens 840D controlled
- Offline Programming with Broetje-Automation OLPS V5
- Simulation enabled

Machine independent

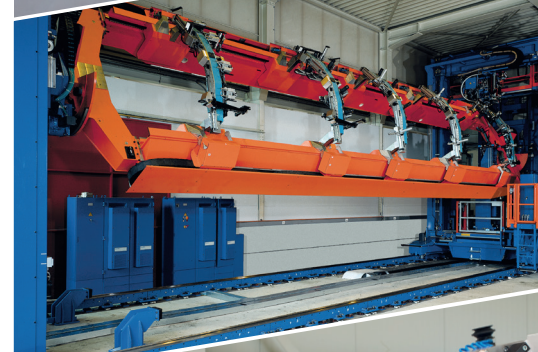
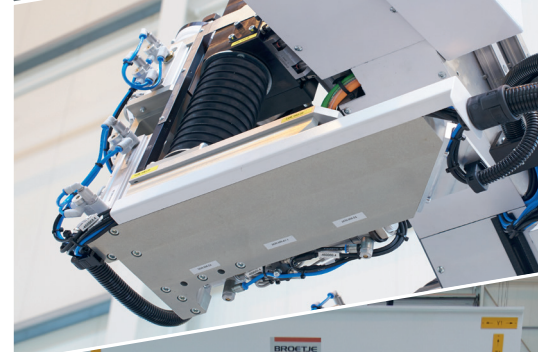
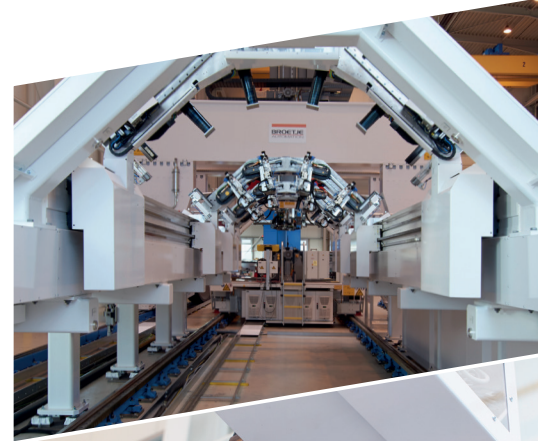
- Multi Panel Assembly Cell (MPAC)
- Integrated Panel Assembly Cell (IPAC)
- C-Frame Panel Assembly Cell (CPAC)

Proven design

- Multiple Installations world-wide
- Further options upon request

Prepared for the future

- Flexible solution to apply different panel types for future aircraft programmes



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