

STAXX FLEX

ROBOTIC FIBER
PLACEMENT



COMPOSED TO COMPETE

- Layup of complex 3D-parts
- High Efficiency and Versatility
- Easy Handling and Maintenance

STAXX FLEX - ROBOTIC FIBER PLACEMENT

Area of Application

The STAXX FLEX is a high performance automated fiber placement end-effector for complex two- and three-dimensional parts. Its low weight of 440 kg including material enables it to be mounted on standard industrial robots of the 500kg class.

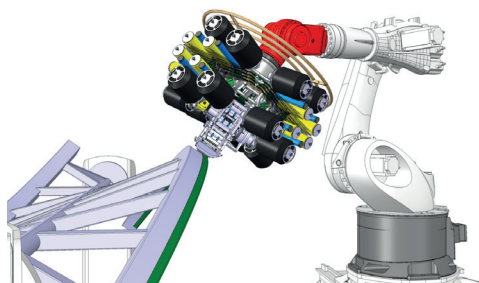
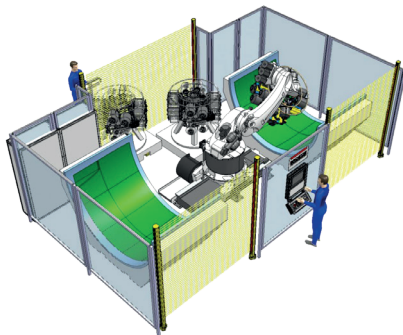
The system is ideal for automated fiber placement in serial production. It supports common materials such as PrePreg and Dry Fiber up to 50K per tow.

The open, modular design ensures good accessibility to all components and quick and easy maintenance without tools. An automatic changing device can be integrated to further increase productivity. This allows maintenance work and material loading to be carried out parallel to the laying operation.

Technical Data

Net weight 280 kg / 620 lb	Female layup radius down to 800 mm
Including material 440kg / 970 lb	
Max. laying speed 60 m/min	Material flexibility:
Cut on the fly 45 m/min	Thermoset and Thermoplast 1/4" and 1/2"
Segmented compaction roller for even distribution of compaction force to all tows	Heating unit utilizing IR lamps or laser diodes
16 x 8kg material spools on board	Long-life cutting unit >10.000 cuts without rework

Flexible Work Cell Configuration



Special Features

High performance coupled with great versatility

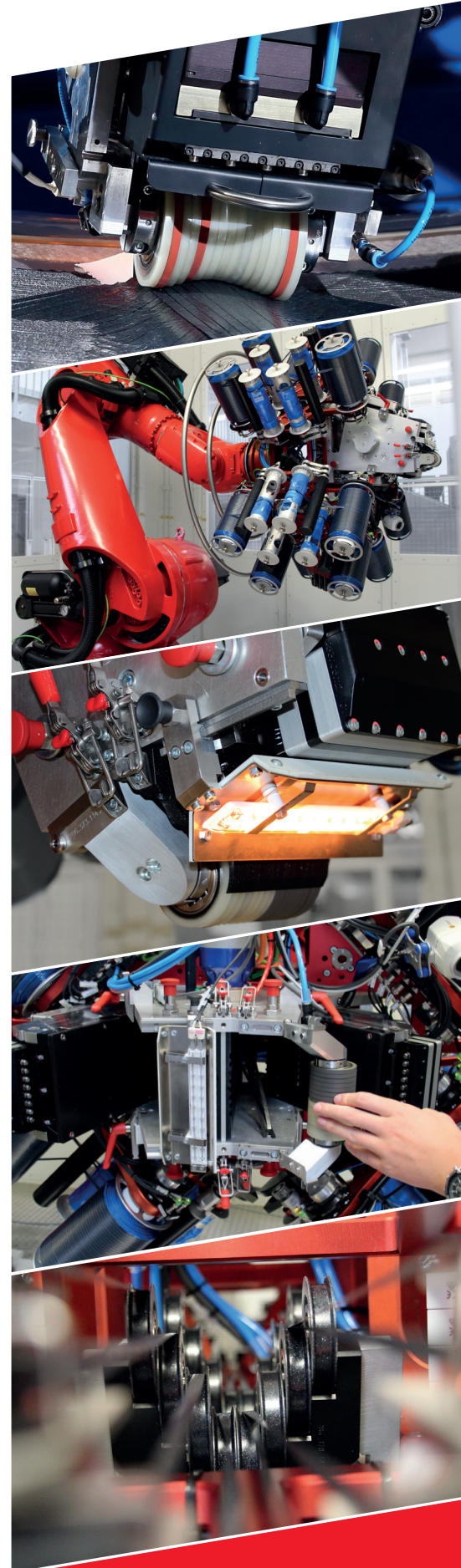
- High performance at complex parts, designed for 2D and 3D operation
- Various material types (PrePreg, DryFiber, etc.)
- High depositing mass due to the high laying and cutting speed with 16 tracks
- Flexible use on a variety of positioning systems (industrial robot, machine style gantry, open gantry optional available)

Integrated Quality Control

- Constant compaction force
- Compaction roller following the contour
- Camera based inline ply inspection
- CAM system with digital twin for layup and performance simulation

Ease of use

- Open and modular design
- Ergonomic access to major components
- Changable standard components, service parallel to operation.



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