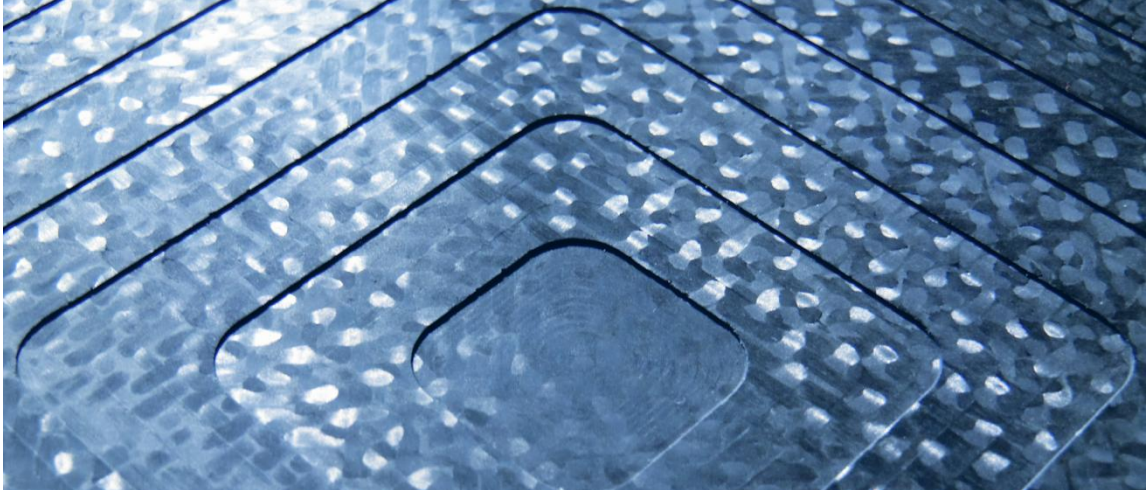


# Composites Repair and Reworking. Solutions for Automatic Scarfing.



## **The new kind of repair preparations: Fast, accurate and automatic**

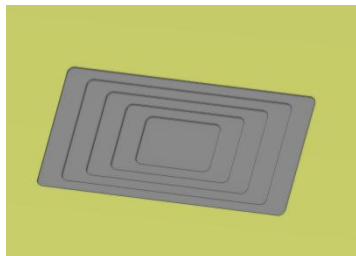
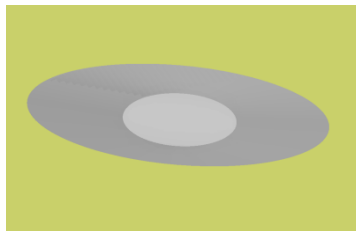
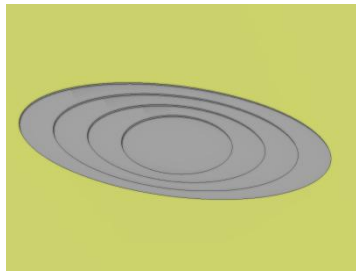
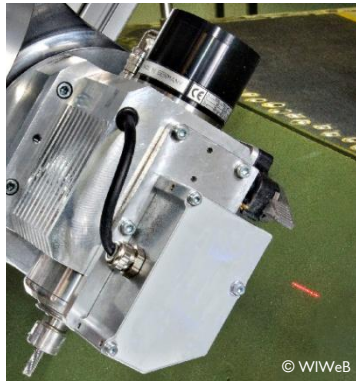
Manual repair and reworking of CFRP components is time-consuming and work-intensive. This is especially true of scarfing performed as preparation for patch repair.

With geometrically adaptive 5-axis milling, CFRP components of different shapes can be scarfed fully automatically.

Automation solutions from BCT reduce machining times substantially while at the same time improving the quality of the repair preparations.

For adaptation to different tasks, the BCT software can be installed on both mobile and stationary NC milling machines.

# **BCT.**



### **Automatic scarfing**

With the software solution "OpenARMS-CompR" (Composite Repair and Reworking), scarfing is performed automatically. The program comes with a convenient user environment that makes setup easy.

### **Scarfing geometry**

Patch patterns and scarfed areas of all kinds can be milled. The geometry of the tapered or stepped scarfing is given by the master milling program, e.g. 2½D pocket milling with 3 axes.

For circular, elliptical, "racetrack" and rectangular patches CompR offers an integrated NC path generator. Special shapes can be generated with commonly used CAM packages and then imported by CompR.

### **Scanning**

CompR generates scarfed areas on "unknown" component-geometries. It does not require CAD data of any kind.

The line scanner first captures the topography of the damaged area and then scans the 3D geometry with a high degree of accuracy.

### **Adaptation**

First a 3D surface model reproducing the actual geometry of the damaged area is generated from the scanned points.

The 3-axis master milling program described in 2D is then transferred to the 3D surface geometry. The geometrically adapted milling programs have 5 axes and run parallel to the contours of the actual geometry of the damaged area.

### **5-axis milling**

On the mobile or stationary NC machine 5-axis milling of the scarfed area is then performed. A wide variety of milling strategies and cutting tool geometries can be used here.

### **Flexible and adaptable to customer requirements**

The modular system concept of OpenARMS-CompR can be adapted - and expanded - in a flexible manner to perform a wide range of tasks for the repair and reworking of composites components.

BCT is your expert for automated processes, extreme accuracy, high throughput, cost reduction and flexibility.

Give us a challenge! We look forward to solving your problem!

# **BCT.**