



Robotized painting of rotor blades for wind turbines.



Inropa™ BladePainter technology is developed for robotic painting and gel coating and automatically adapts programs according to the shape, size, and position of the blade.



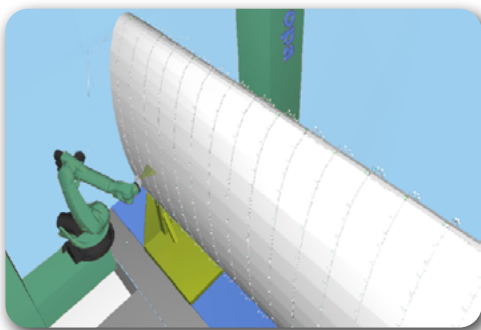
Reduced time consumption and personnel costs



Targeted coating thickness for wear zones



Consistent, superior finish over large surfaces



BladePainter automatically measures the shape and position of each part.

#### BENEFITS OF THE BLADEPAINTER

Inropa™ BladePainter utilizes the Inropa™ LaserScanner to establish an accurate surface model of each individual blade, including any offsets caused by variations in positioning during production. The Inropa™ LaserScanner works in 3D, enabling the system to generate a specific program opti-

mized for each individual blade. This ensures high quality with precise coverage and visual quality, independent of potential variations in blade size, shape, and positioning.

The precise application of paint makes it possible to determine an optimal balance between sufficient surface quality and minimal paint consumption. Reduced paint consumption (approximately 30% compared to manual painting) often provides a fast return of investment.

### 3D LASER

The system automatically measures the shape of the surface and position of each product being painted. The 3D laser scanning system establishes

a full 3D model of the individual blade. Each scanner measures a specific area of the blade. The composition of several laser scanners provides the 3D model of the complete surface.



The composition of several laser scanners provides the 3D model of the complete surface. Based on these scans, BladePainter generates the paint programs automatically.

### AUTOMATIC ADAPTION TO VARIATIONS

The robot programs used for painting the blades are generated automatically on the fly for each blade as the blade is transferred through the scanning area on its way towards the painting robots. The scanned surface model of each blade enables the system to adapt precisely to that individual blade.

### FAST ADJUSTMENTS

Because of the individual adaptation to the blade's surface, it is much faster to adjust the system to new blade sizes or types. This is often done without any reprogramming.

Inropa™ BladePainter may also be equipped with a grinding or cleaning tool for robotic grinding and cleaning

of the blades without manual interaction.

### MOVING BLADES OR PAINT FACILITY

The concept for moving the blade requires some space in the production area. As an alternative, a feasible solution is to place the blades in fixed positions and let the scanning and painting facilities move along the side of the blades. This solution can be implemented in order to fit the technology into existing production facilities.

### TECHNOLOGY FROM AUTOMOTIVE INDUSTRY

Inropa™ BladePainter technology is already used in numerous industries, including the automotive industry.