

## WIZblade General Specifications

### Performance

• Typical Automatic Alignment Time:	50 seconds
• Typical Cross-Section Scanning Time (both sides):	8 seconds
• Platform Accuracy:	$E=(3+3.5L^*) \mu\text{m}$
• Total Machine Accuracy:	14 $\mu\text{m}$ (2 sigma)
• Total Machine Repeatability:	4 $\mu\text{m}$ (2 sigma)
• Data Capture Rate:	50 points per second

L\* = Length in meters

### Platforms

Model	Stroke (mm)			Weight (Kg.)
	X	Y	Z	
WIZblade 5-4-4	500	400	400	245
WIZblade 7-6-4	700	550	400	740
WIZblade 7-7-5	700	650	500	800
WIZblade 10-6-4	1000	550	400	870
WIZblade 10-7-5	1000	650	500	950
WIZblade 12-7-5	1200	650	500	1050

Larger models are available upon request

- Renishaw PH10 Motorized Head
- Drive: DC - brush
- Feedback: Linear encoder

### Utility Requirements

- Power Supply: 110/220 VAC, 16 Amps.
- Air Supply: 17 liter/min @ 5 bar, 0.5 CFM @ 75 PSI

### Notes

- Platform Accuracy is verified according to ISO 10360-2 standard
- Total Machine Accuracy verified by scanning a standard ball bar

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**NEXTEC**  
3D Inspection Technologies

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# WIZblade

The Best Blade  
Inspection Solution



**NEXTEC**  
3D Inspection Technologies

# Inspects, Analyzes, Reports,

## The answer for high speed – high precision blade inspection

- Top Speed
- Comprehensive Solution
- Automatic Alignment – No expensive fixtures
- Top Accuracy
- Customized Inspection Reports

## The Turbine Blade Industry Challenge

The Turbine Blade industry (New production and MRO) challenges a need to enhance the quality control of blades in terms of speed, precision, cost, setup, automation, and process control.

## The WIZblade Solution

The WIZblade is a turnkey Blade Inspection Solution for rapid high precision measuring of turbine blades, both finished (machined) and unfinished (forged) blades.

The Turbine Blade Inspection Solution features the highly acclaimed WIZprobe™ – Nextec's laser scanning probe, state-of-the-art motion controller, and WIZblade application software, all developed and made by Nextec Technologies.



WIZblade

## The WIZprobe™

- WIZprobe is an advanced non-contact laser-scanning sensor for fast, accurate and highly reliable geometric measurements
- WIZprobe measurement accuracy is guaranteed over a very wide range of material types, colors, surface finish and laser beam angles
- The WIZprobe is small in size and has a standard PH-10 interface
- Unique adaptive control capabilities enable self-calibration and adaptation to changing conditions during the scanning process

## The Blade Inspection Software

- Real time display of actual points and contour profile plots on the screen at any cross section during "on-the-fly" data acquisition
- Inspection reports generation with high-resolution information and all relevant turbine blade dimensions
- Data analysis and automatic comparison to design data and defined tolerances
- High resolution, high density leading and trailing edges measurement
- Multicolored display of the designed and measured profiles, along with the tolerance envelope
- Dynamic rotation and zooming of the measured data
- Automatic software alignment of blade position
- Option - The 3D scan data can be exported to any CAD compare software for 3D part analysis and inspection

# Alerts, Improves



## The Motion Controller

- High performance motion controller
- Data acquisition is captured on the fly

## The Platform

- A variety of different Platform sizes are available to accommodate customers' specific applications
- Optional Kit for CMM retrofit

## Unprecedented Accuracy

- WIZprobe™ laser sensor with superior accuracy meeting the most stringent Blade tolerances
- The WIZprobe™ laser scanning sensor offers a large dynamic range and un-precedent precision

## Ease of Ownership

- Powerful and user-friendly application software
- Complete turn-key solution

## Fast Return on Investment

The combination of exceptional performance and low price ensures a fast Return On Investment with superior process control at reduced manpower.