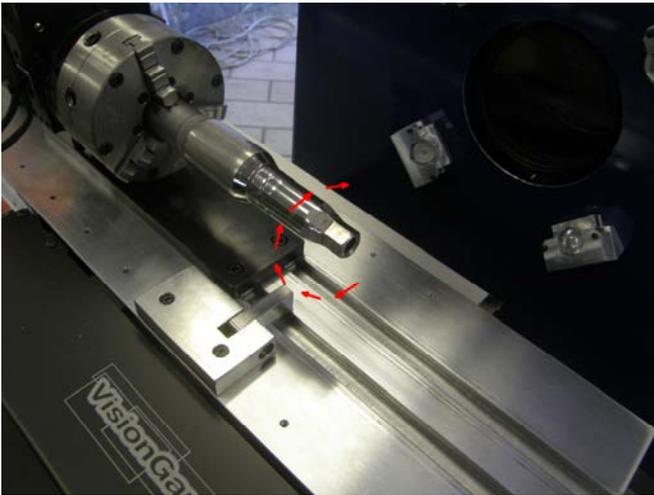*The Fastest, Easiest, Most Accurate Way to Compare a Part to a CAD File™*

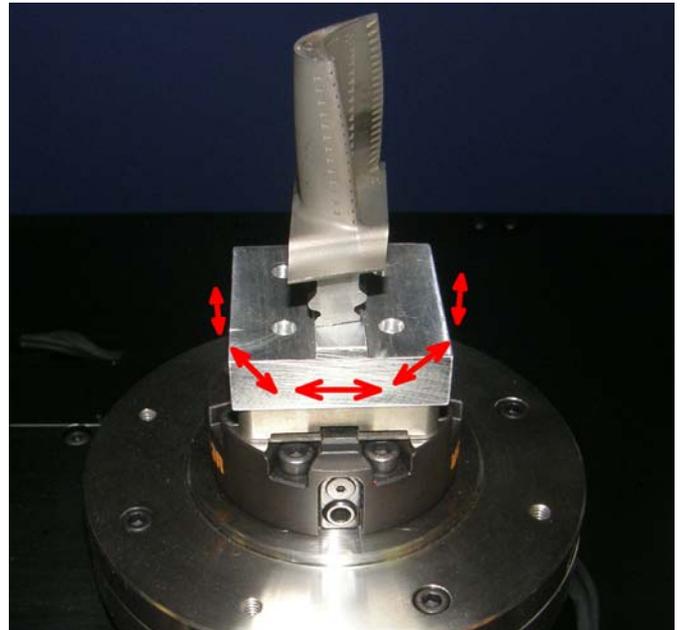## New Min/Max Tool for Automatic Part Alignment!

The VisionGauge® Digital Optical Comparator's new "Min/Max" software tool is the perfect solution for automatically aligning a part using a rotary stage. The tool can be setup to rotate the part and find the position that either minimizes or maximizes a dimension.

Common examples include the following:

Rotary stage and workholding for
turnkey runout measurement application

In this case, the Min/Max tool is used to align the flats
on the part perfectly horizontally, completely automatically

Automatic alignment of a turbine blade fir tree

With this new Min/Max tool, it's extremely easy to setup an automated routine for the alignment of any kind of part. Also, results are extremely repeatable. This advanced tool uses high-order interpolation for very accurate sub-sampling. This means that is the position of best alignment can be found very accurately, at any orientation (not just at the sampled orientations).

This new tool is completely integrated with all of the VisionGauge® Digital Optical Comparator's other tools so that all of its results can easily be recoded, transmitted, databased, sent to Excel™ or any other data capture application, put in a report, etc…

This new Min/Max tool further increases the wide range of applications that can easily and reliably be solved using the VisionGauge® Digital Optical Comparator.

- **Fast!**
- **Accurate!**
- **Easy to operate!**

VisionGauge® Digital Optical Comparator 500 Series - Principal Specifications

Available configurations	Both horizontal and vertical
Standard optical magnifications (equivalent to traditional comparators)	5X, 10X, 20X, 50X and 100X [1]
Image viewing area (diagonal)	38"
Motorized X, Y & Z axes	Yes
X, Y & Z stage movement	High-accuracy crossed-roller movement
Auto-Focus	Yes
X & Y axis encoder resolution	0.25 micron [2]
LASER module (for Z-axis measurement)	Optional
High-accuracy rotary axes	Optional
Extended stage travels	Optional (along all 3 axes)
External 3-axis, 3-speed joystick to control the stage	Yes
Illumination	• LED-based (for very stable illumination conditions, with a very long life) • Programmable and computer-controlled (for repeatable illumination conditions) • Both reflected (i.e. front) and transmitted (i.e. back) illumination modules are available
Lens	Very low distortion telecentric, with long working distance and extended depth-of-field
Real-time mathematical image processing, enhancement and correction	Yes
Multi-monitor display	Yes [3]
Overall Quad-Monitor size	35" (wide) x 27" (high)
Auto Pass / Fail (to determine if the part matches the CAD data)	Yes, with user-selectable bi-directional tolerances
CAD Auto-Align	Yes: automatically align the CAD data to the part (either XY or XY & Rotation alignment) along an arbitrary number of user-specified datums.
Extended set of high-accuracy measurement tools	Yes
Sub-pixel accurate edge detection	Yes
Quickly carry out on-screen measurements using either the mouse or joystick	Yes
Joysticks	3-axis, 3-speed industrial grade
Image annotation tools	Yes
Quickly and easily save images of parts, either with or without the CAD overlay, and either with or without measurements as well as time & date information	Yes
Built-in SPC capabilities, with automatic numerical charts & PASS / FAIL graphs	Yes
Automatic data export to Excel™	Yes
Automatic data export to other applications	Yes (through Windows™ DDE or other mechanisms)
Built-in Dynamic Data Exchange (DDE) support	Yes
Easy file data import & export	Yes
Supervisor-level / operator-level password protection	Yes
Operating System	Windows™ 7 [4]
Built-in "F1 Help"	Yes
Fan & filter unit on main cabinet	Yes (to create a positive pressure and keep dust out)
Power requirements	Either 110V or 220V, 15 Amp (single cord)
CE Markings	Available upon request
Operating temperature	10 °C - 35 °C
Clear and easy-to-use documentation (both printed and electronic "pdf" format)	Yes
Support (by phone, fax & email)	Included for a full year
Warranty	1 year (complete)

[1] Available in both single magnification and multi-mag configurations. Other optical magnifications available on request.
[2] Other encoder resolutions available on request.
[3] Basic system configuration includes a quad-high-resolution-monitor display that allows real-time viewing of the live video image in full 1:1 resolution.
[4] Other operating systems available on request.

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