

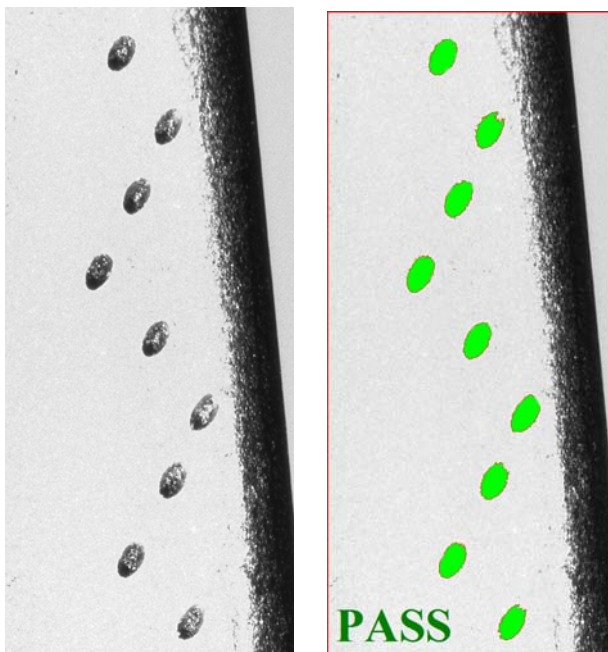
*The Fastest, Easiest, Most Accurate Way to Compare a Part to a CAD File™*

## THE PERFECT SOLUTION FOR CHECKING EDM-DRILLED HOLES

There are many reasons why the VisionGauge® Digital Optical Comparator is widely used by manufacturers across a broad range of industries (including aerospace and power generation) to check EDM-drilled holes:

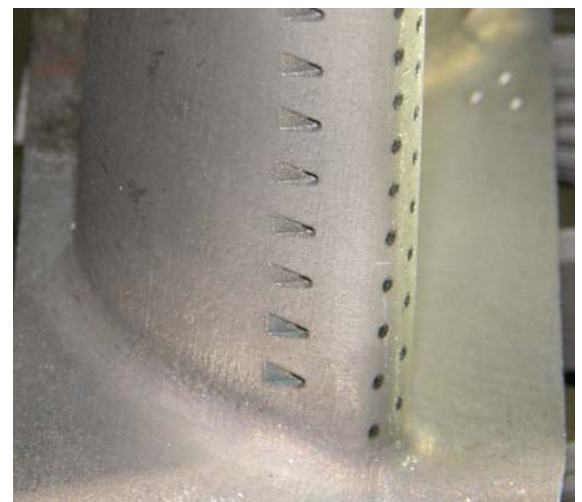
- Automatically verify hole presence & accurately measure hole location
- Supports both round and shaped holes
- 5 axes of motion (X, Y, Z, Rotary, Tilt) to properly view parts from all sides & angles
- Quickly, easily and accurately inspect 100% of the holes on your parts
- Robust shop floor design
- Can output the hole offsets which can be used to modify EDM drilling programs
- Mounting system allows your parts to go directly from the EDM drilling machine to the inspection system without re-fixturing (quick & easy and also minimizes stack-up error, etc...)
- The system can be supplied with the same working envelope as your EDM drill. If you can drill it, we can check it!
- Holes can be checked either one at a time, looking straight down each hole's nominal axis (ideal for coated parts, to minimize errors due to coating thickness variations) or multiple holes can be checked at once, viewing them at an angle (which is even faster and well suited for uncoated parts or parts with a uniform coating thickness)
- The system has an extended depth of field, so that everything is perfectly in focus regardless of the part's geometry (even in areas of very high curvature) as well as a very long working distance (so that there is lots of clearance between the part and the entire optical system to comfortably accommodate large and unusually-shaped parts)
- Automatically create reports and collect measurements, statistics, images and other data for complete documentation
- Fast and intuitive "operator review" mode allows the operator to quickly revisit out-of-tolerance areas, etc...

The VisionGauge® Digital Optical Comparator is a very cost-effective, perfectly adapted solution for checking EDM-drilled holes. It is rapidly becoming the new standard in the industry!



Automatically Verify Hole Presence and Location

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



Supports Both Round & Shaped Holes,  
Anywhere on the Part!

# 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 <sup>1</sup>
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	0.5 micron <sup>2</sup>
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	<ul style="list-style-type: none"> <li>• LED-based (for very stable illumination conditions, with a very long life)</li> <li>• Programmable and computer-controlled (for repeatable illumination conditions)</li> <li>• Both reflected (i.e. front) and transmitted (i.e. back) illumination modules are available</li> </ul>
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 <sup>3</sup>
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 <sup>4</sup>
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)

<sup>1</sup> Available in both single magnification and multi-mag configurations. Other optical magnifications available on request.

<sup>2</sup> Other encoder resolutions available on request.

<sup>3</sup> 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.

<sup>4</sup> Other operating systems available on request.

## Distributed By:



## Developed By:

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