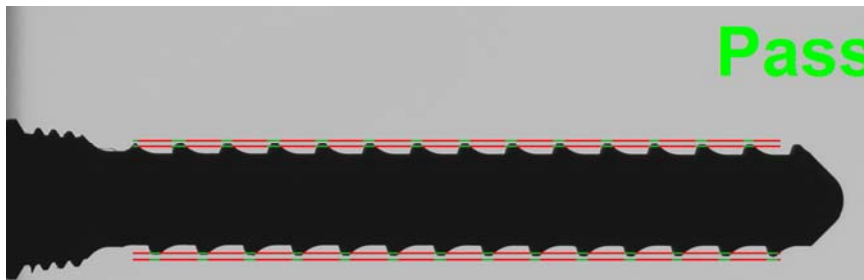*"The Fastest, Easiest, Most Accurate Way to Compare a Part to a CAD File™*
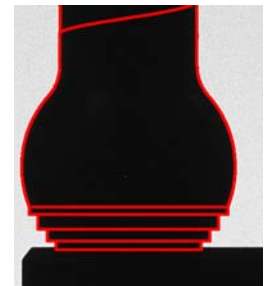
THE PERFECT SOLUTION FOR CHECKING BONE SCREWS

There are many reasons why the VisionGauge® Digital Optical Comparator is widely used by medical device manufacturers to check bone screws:
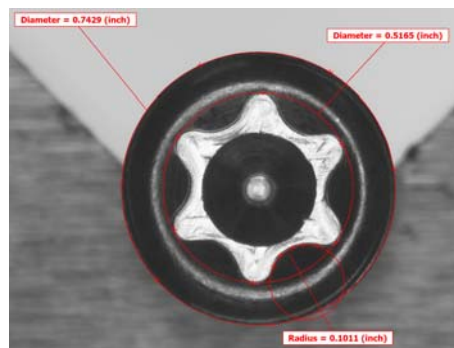
- Automatically compare bone screws against their CAD data
- With its proprietary patented CAD-Auto-Align and CAD-Auto-Pass/Fail tools, the system can check screws completely automatically, regardless of their orientation!
- Eliminate operator subjectivity!
- Automatically collect measurements, statistics, images and other data for complete device history information
- Thanks to the system's extended depth-of-field, the entire screw can be in focus even at the helix angle (no need to constantly refocus)!
- With the optional rotary stage, you can automatically measure the helix angle, very accurately!
- Measure the screw's major and minor diameters, tooth pitch & spacing and other characteristics, - even runout - completely automatically and to a very high accuracy
- The system is perfect for checking bone screws directly on the shop floor
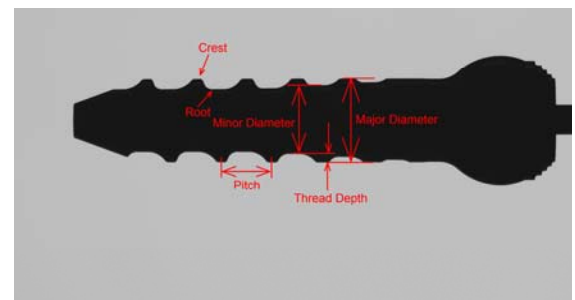

Patented CAD-Auto-Align™, CAD-Auto-Pass/Fail™
& Tooth Checker™ tools are perfect for locating the teeth crests and/or roots
and checking the part's profile

Check all the features of interest, quickly and to very high accuracy

Check all of the features on the head

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

Automatically measure screw dimensions

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)	42"
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
Supplementary monitor	Optional
Patented Auto Pass / Fail™	Yes, with user-selectable bi-directional tolerances
Patented 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™ 10 [3]
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] Other operating systems available on request.

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