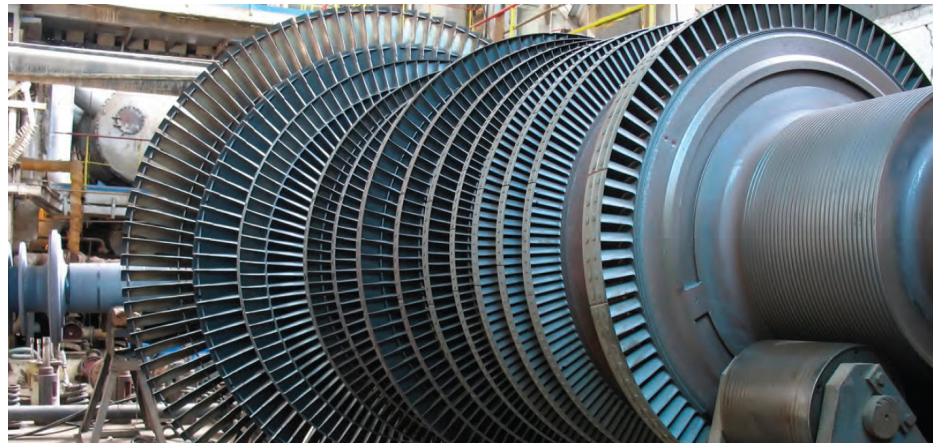


FACT SHEET

3D METROLOGY SERVICES

Our cutting-edge metrology technology provides precise 3D measurement data

Precise and accurate measurement information can mean the difference between success and failure when it comes to your products and services.



3D Scanning Services

In the lab or on site, our state-of-the-art equipment consists of the latest 3D optical scanners with accuracies up to $\pm 0.0002''$ (0.005mm) depending on the application.

The accuracy, resolution and measuring area are completely adaptable to your application requirements.

This allows for the highest resolution of detailed small parts with measuring volumes down to 3.5" (89 mm) and extremely fast digitizing of large objects.

We use the highest quality industrial non-contact 3D scanners to provide you with precision scans and detailed resolution at high speeds.

Scanning of large objects is also available. All of our instruments are portable, which allow us to work on-site at your facility should the objects of interest be too large to transport.

Scan to CAD Analysis

Intertek's scan-to-CAD deviation analysis is a proven method for assessing the accuracy and quality of diverse physical objects.

This method can be used to analyze a newly manufactured part or determine the rate of wear and deterioration of in-service components.

This process highlights deviations between the 3D scan and the CAD model to identify surface features and other geometry when out of tolerance.

Neutral CAD formats such as IGES, JT Open and STEP as well as native formats like Solidworks, CATIA, NX and PRO/E can be utilized with our workflow. In addition, measurement plans in CSV, DMI, ASCII, IPP and FTA data formats can be imported as the basis for dimensioning and inspection.

The deliverable provided with this type of analysis is a color deviation map with areas of nonconformance highlighted and reported.

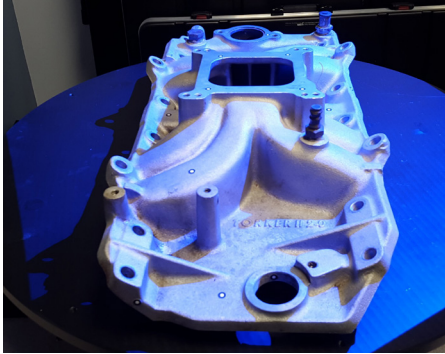
Part to Part

Our part-to-part analysis is used to precisely compare two parts and report any deviations between them when a CAD model is not available.

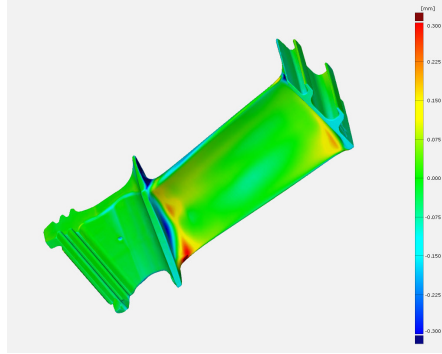
We scan two mating parts and digitally compare them to identify interference or validate fit. This method is used to identify compatibility, potential issues, or wear analysis.

First Article Inspection

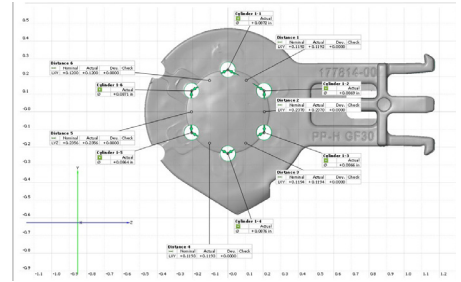
We carry out first article inspections to ensure that the product conforms to specifications and follow strict Geometric Dimensioning and Tolerancing (GD&T) methods to conform to ASME and ISO standards.



In-House Part Scanning



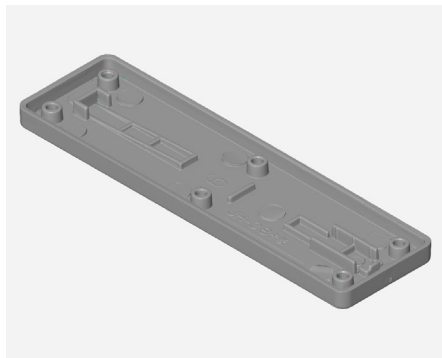
Scan Data to CAD Deviation Color Comparison



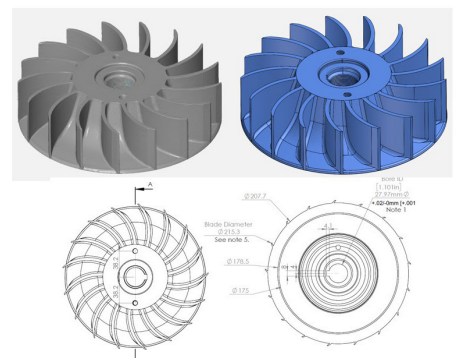
Virtual GD&T Inspection



On-Site Scanning



Plastic Component Scan Data



Digital Part Inspection Reports

Investigative

We combine precision metrology, laser scanning and dimensional control techniques to define failures after events.

After processing the captured data with specialized software, we provide you with the critical dimensional information necessary to better understand the event.

Reverse Engineering / 3D Modeling

By utilizing the best hardware and software to convert 3D scan data into high quality feature-based CAD models, our services can help improve your product or recreate components no longer being manufactured or able to be sourced.

Customized Reporting

We provide custom reporting solutions containing detailed information in the specific format you require. These deliverables can contain snapshots, images, tables, diagrams, text, and graphics.

In addition to providing reports and CAD drawings, we can also provide you with free software that assists you with analyzing your data.

Comprehensive Delineation of Physical Objects

Whether you need to compare a CAD model to a manufactured part, reverse engineer a critical piece of equipment or perform detailed analysis on damaged equipment, Intertek has the solution for you.

With sub-millimeter accuracies we service companies involved in a variety of industries including aerospace, automotive, casting and forging as well as oil and gas, medical, chemical, nuclear, and power generation.

Regardless of the size, shape or complexity of an object or component, we have the instruments, software, and expertise to meet your needs.

FOR MORE INFORMATION



specialtyservices@intertek.com



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