

Mentor Visual iQ HD

**Detect Defects Faster
and More Accurately**



HD imaging – a world first for GE's 3D measurement enabled video borescope

GE has answered the need for more efficient and reliable internal inspections with the Mentor Visual iQ VideoProbe™ - field use and case studies show it minimizes asset downtime with high-definition (HD) technology. No other 3D measurement-enabled video borescope on the market offers you this capability.

Remote Visual Inspection (RVI) using borescopes has become an essential Non-Destructive Testing (NDT) method in industries such as aerospace, power generation, and oil and gas. It allows you to check the condition of components, welds and material surfaces inside structures like engines, turbines, combustion chambers and pipelines without resorting to disassembly.



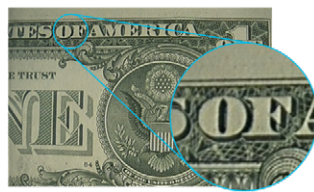
Inspect in high definition

To date, progress toward realizing the full potential of borescope devices has been held back largely by their standard-definition (SD) image resolution. GE's Mentor Visual iQ HD has overcome that barrier with its 1.2MP (megapixel) CCD (charge-coupled device) imager giving you a world-leading saved image resolution of 1280 x 960 pixels.

This, in turn, empowers the digital zoom to magnify features without rapidly pixelating the view – a problem which limits the zoom's value in SD borescopes. When zoomed to 1.8X, the Mentor Visual iQ HD still produces an SD quality image, and it will carry on significantly further without noticeable pixilation.



Standard Definition



High Definition

Make better decisions, faster

HD visual inspection is part of a package of technological and ergonomic advances which can cut inspection time by about 25 percent (per Gas Turbine Inspection Use Case 2018). Your inspection productivity and efficiency will increase, and you will benefit from the market's highest POD (probability of detection) for indications such as pitting, cracking and corrosion.

The primary aim of these developments is to avoid asset failure, with consequent losses due to damage and downtime. Better imaging reduces your risk of missing defects. Better POD means previous inspections with poor visibility that led to taking an assembly apart, are now much less likely, saving countless working hours with increased inspection accuracy. Time and accuracy play a fundamental role in an inspection, simply translating to spiraling costs if you do not have a device that allows you to deliver.

The Mentor Visual iQ HD wins on all counts, as it enables well-informed decisions to be made quickly and confidently.



Move up to the latest visual and 3D measurement technology

Through GE's TrueSight™ technology, the Mentor Visual iQ brings you the advantages of HD visuals, a high-intensity light source and superior visual processing. Clearer, sharper videos and still images are obtained as a result. The optional phase tip allows you to view and take measurements at the same time, avoiding some of the time-consuming multiple optical tip changes required by other borescopes.

High resolution also means you can make precise measurements at longer distances. This expands the maximum scanning and measurement area, enhances POD, and minimizes 'noise' in the 3D point cloud produced from spatial data gathered by the device.

With the Mentor Visual iQ HD you gain advantages from a combination of GE Real3D™ technologies which provide more advanced 3D imaging, defect detection and analytical capabilities than those of any competitor. They include fully-surfaced 3D point cloud visualization, advanced measurement algorithms and assisted defect recognition, as well as 3D surface masking for further clarity and insights. The level of precision and repeatability in the measurements obtained is unmatched.

In addition, the borescope can be fitted with GE's long-range 3D measurement optical tip. With this in place, you can accurately measure larger features and scan more challenging surfaces at greater distances.

Save time and effort

The Mentor Visual iQ HD makes your inspections easier, quicker and more productive, starting with its highly portable, ergonomic and rugged design. You can handle the unit comfortably in some of the most difficult spaces and it will withstand the toughest environments.

Versatile QuickChange™ high-resolution probes and optical tip adapters can be fitted quickly to meet each challenge. For very specific purposes, you can select from a range of interchangeable specialty probes.

The UV VideoProbe, for instance, uses fluorescent light to help you access small, remote areas for NDT inspections. The LongSteer™ Probe, in lengths up to 30 meters, is ideal for inspecting piping, heat exchangers and boiler tubes. For retrieval of foreign objects and debris, the Working Channel Probe is the market's most complete solution.



Choose maximum digital efficiency

Navigation of the device's bright, high-resolution touchscreen is intuitive, fast and precise, even when wearing gloves. Unlike its competitors, Mentor Visual iQ HD has multi-touch and pinch-to-zoom functionality, just like a smartphone or modern tablet. A unique dynamic warning message system, which activates during measurement, troubleshoots your results and advises solutions to common errors.

Menu-directed inspection (MDI) software simplifies operation, guiding you swiftly through every process with clear on-screen and stored advice. Manual note-taking becomes unnecessary, as all information is easy to record, tag, store, search and manage securely via the device. Sharing data and producing reports is simple too.

Advanced connectivity allows remote control of the unit via your tablet, using iView Remote. You can also communicate wirelessly with colleagues, using InspectionWorks Connect software, to stream live video and collaborate in real time on decision making.





Upgrade today with Berg Engineering

The introduction of GE's Mentor Visual iQ HD presents you with a great opportunity to upgrade from legacy systems such as XLG3 and XL Go. You can buy or rent it from the specialists at Berg Engineering and Sales Company, Inc. Serving engineering industries since 1969, including sales and comprehensive support to the NDT, RVI, material testing and metallalographic sample preparation equipment sectors.

Berg has maintained strong customer relationships for over 50 years, built on providing world-leading inspection solutions, a large rental fleet and great service. Its technical staff is factory trained and certified by GE, offers complete on-site training, preventative maintenance and free guidance.

Find out why you need the Mentor Visual iQ HD

To learn more about the Mentor Visual iQ HD

[Click here](#)

or register now for our upcoming webinar on the Mentor Visual iQ HD on January 23rd @ 10:00 AM, CST.

[Click here](#)

Berg Engineering & Sales, Company Inc.
3893 Industrial Ave. Rolling Meadows, IL 60008
www.bergeng.com
info@bergeng.com
1-847-577-3980

**BAKER
HUGHES**
a GE company



Channel Partner