

# Take your remote visual inspection to the next dimension with Everest Mentor Visual iQ VideoProbe™

## Real3D™ Measurement technologies

Advanced video borescopes allow inspectors to map, measure, and analyze indications with a fully surfaced 3D point cloud, and to share images and data wirelessly with remote experts.

**3D Phase Measurement** – A patented technology that uses phase shifted structured light to compute a 3D point cloud. Eliminates tip changes by providing a high-quality, full-screen image for general inspection with measurement on demand. Currently available on 6.1mm diameter probes only.

**3D Stereo Measurement** – Combines a patented stereoscopic optical design with proprietary processing algorithms to compute a fully surfaced 3D point cloud. Available on 3.9mm, 4mm, 6.1mm, 6.2mm or 8.4mm diameter probes.

## Make better decisions with a Real3D point cloud

When measuring on a 2D image with traditional stereo or shadow measurement, 3D surface contours, 3D data quality, and cursor placement correctness are often difficult to assess. This can lead to costly mistakes. With Real3D technologies, available only on the Everest Mentor Visual iQ, the interactive, fully-surfaced 3D point cloud which allows cursor position adjustment combined with the insightful 3D Surface Mask enable in-depth evaluation from multiple perspectives leading to fewer mistakes and better decision making.

## Exclusive measurement capabilities:

- **Auto Accuracy NIST Verification** – automatically measures NIST traceable verification block target to check system accuracy
- **Depth Assist** – automatically places 4th Depth cursor at the deepest or highest point
- **Measurement Auto Repeat** – performs repetitive measurements, such as blade tip clearance, with a single button press
- **Projected Plane** – the use of a Measurement plane in combination with another measurement type to mathematically project the plane of a surface over the entire image and measure on that plane.



With Mentor Visual iQ's advanced tip optics, you can inspect full screen and measure on demand.

## Chose the right measurement type for your inspection application

**Length**

- Simple measurement of features or components
- Length of cracking
- Component size migration through expansion or erosion/corrosion/wear
- Remaining size of wear indicators
- Location/zone of indications on a part

**Point To Line**

- Turbine blade edge damage
- Gap width
- Weld width
- Missing blade corners

**Depth**

- Blade tip to shroud gaps
- Pits or dents from corrosion, erosion, or FOD impact
- Pipe inside diameter
- Weld height
- Stator vane rock
- Gap width

**Depth Profile**

- Depth of isolated corrosion or erosion pits
- Depth of FOD impact damage
- Weld height or wear groove depth
- Quick assessment of surface contours

**Multi-Segment**

- Total travel path of a crack
- Blade edge blending or indication entry angle
- More accurate than a length measurement on curved or irregular surfaces

**Area**

- Blade corners
- Coating loss
- Surface area of pitting or corrosion
- Area of FOD impact
- Material with projected plane

**Area Depth Profile**

- Corrosion, erosion and pitting
- FOD impact damage
- Maximum weld height
- Maximum wear groove depth

**Blade Tip Clearance**

- Turbine production quality assurance
- Compressor and turbine efficiency checks
- Turbine casing ovality assessment