

## Thickness Measurement and Normal Beam Flaw Detection Without Couplant

EMAT and DCUT Sensors and Accessories

### EMAT – Non-Contact Ultrasonic Sensors for Metallic Components



Inspections at extreme temperatures



Corrosion mapping



Bolt-load measurement



Stress measurement

### DCUT – Dry-Coupled UT Sensors for Metallic and Non-Metallic Components



Flexible sensors for curved surfaces



Hard-to-reach components

### Applications

#### Non-contact EMAT sensors for metallic components

- Thickness measurement and normal beam flaw detection in extreme environments
- Corrosion mapping on rough, coated, oxidized parts without surface preparation
- Bolt-load measurements
- Stress measurement on train wheels, rails and plates

#### Dry-Coupled UT (DCUT) piezoelectric sensors

- Thickness measurement and normal beam flaw detection on non-metallic and highly resistive materials where EMAT does not work.
- Spot measurements from the inside of small diameter tubes and parts with complex geometries
- Measurements on hard-to-reach components

### Instruments

All sensors are designed to work with our new and legacy instruments including CODA, VOLTA, and PRIMO SC. Capable of measuring materials  $>0.25\text{mm}$  with  $\pm 2.5\mu\text{m}$  accuracy.



CODA



VOLTA



PRIMO SC

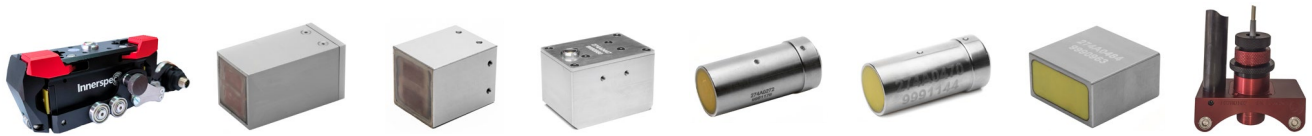


[sales@innerspec.com](mailto:sales@innerspec.com)



[www.innerspec.com](http://www.innerspec.com)

USA | Spain | UK | China | Mexico



## Thickness Measurement and Flaw Detection (normal beam) with EMAT

- Extreme temperatures -30°C – 650°C
- Spot measurements and linear scanning
- Shear and Longitudinal wave sensors
- High-temperature scanners



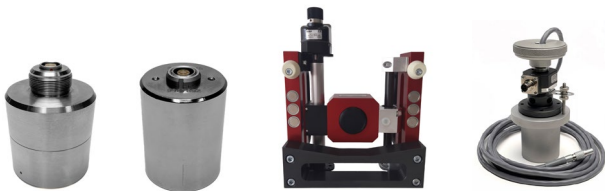
## Corrosion Mapping

- Corrosion mapping on rough, coated, oxidized parts
- Spot measurements and linear scanning
- Shear wave sensors



## Bolt-load Measurements

- Shear wave (EMAT) and Shear + Longitudinal (EMAT + Piezo) wave sensors
- Customized bolt-load application software



## Stress Measurements

- Shear wave dual-polarization EMAT sensors
- Customized stress measurement application software
- Custom sensor positioner for rail wheels
- Meets EN 13262:2011 and VPI 09



## Thickness Measurement and Flaw Detection (normal beam) with DCUT

- Dry-Coupled Ultrasonic Technology (Piezo)
- Spot measurements and linear scanning
- Flexible sensor technology
- Extension poles for hard-to-reach places



Visit our website for full details on our complete catalog of sensors and accessories!