

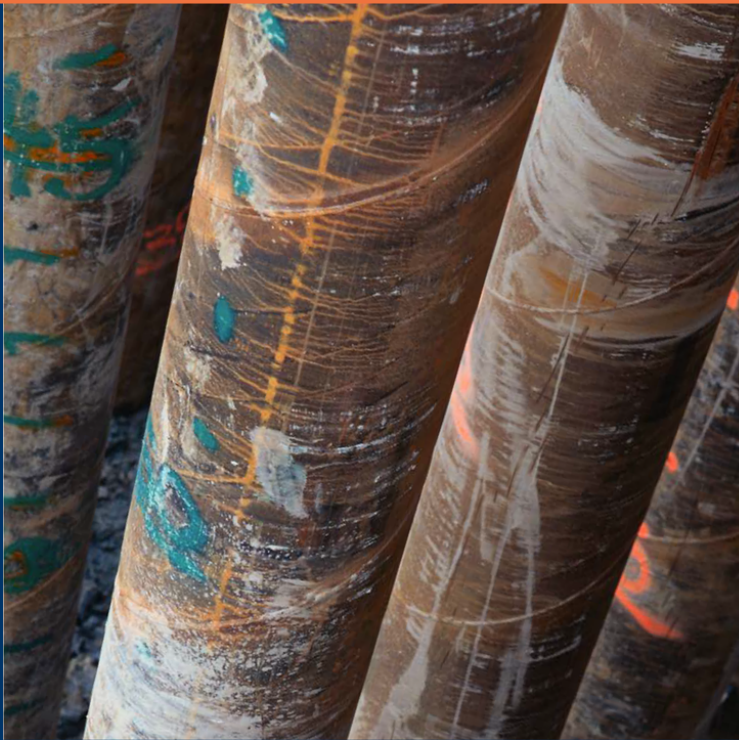


Industrial Mechanical Integrity

MI Solutions is uniquely qualified to be a high quality, proactive partner with our clients for the provision of inspection and testing services. Our business model focuses on providing cost-effective inspection solutions to minimize our client's risk.

**OUR FOUNDATION:**

**INNOVATION, QUALITY, AND SAFETY**



**EMAT  
TECHNOLOGY**

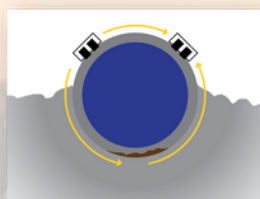
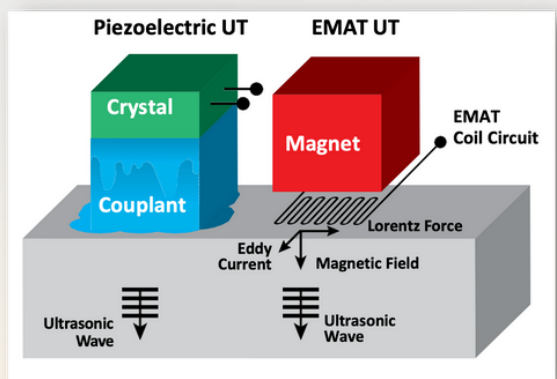


**ELECTROMAGNETIC  
ACOUSTIC  
TRANSDUCER  
(EMAT)  
TECHNOLOGY  
PROVIDES  
EFFECTIVE  
ASSESSMENT OF  
CORROSION IN  
PLACES WHERE  
MANY OTHER  
TECHNOLOGIES  
FAIL  
TO DELIVER.**

Electromagnetic Acoustic Transducer (EMAT) technology provides effective assessment of corrosion in places where many other technologies fail to deliver.

EMAT is a reliable method of screening for corrosion and isolated pitting in many previously inaccessible areas. (EMAT) is a transducer for non-contact acoustic wave generation and reception in conducting materials. Its effect is based on electromagnetic mechanisms, which do not need direct coupling with the surface of the material. Due to this couplant-free feature, EMATs are particularly useful in harsh, i.e. hot, cold, clean or dry environments.

After decades of research and development, EMAT has found its applications in many industries such as primary metal manufacturing and processing, automotive, railroad, pipeline, boiler and pressure vessel industries, in which they are typically used for Non Destructive Testing (NDT) of metallic structures.



MRUT-A Mode  
signal projection

MRUT- C Mode  
signal projection



### Key advantages of using EMAT

- No couplant is needed
- Dry inspection
- Uses a non-contact method
- Easier for sensor deployment
- Screen for corrosion from unlagged locations up to 3m each way (6m in total)

### Applications of EMAT

- Thickness measurement for various applications
- Corrosion Under Supports (CUPS) using MRUT-A mode
- Flaw detection in steel products
- Plate lamination defect inspection
- Bonded structure lamination detection
- Laser weld inspection for automotive components
- Weld inspection for coil join, tubes and pipes
- Pipeline in-service inspection
- Railroad rail and wheel inspection
- Austenitic weld inspection for the power industry
- Material characterization

Our approach to adopting technology continuously looks ahead and regularly invests in the latest technologies available to our industry. We do this so we can deliver the most advanced inspection methods.

### LOCATION:

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