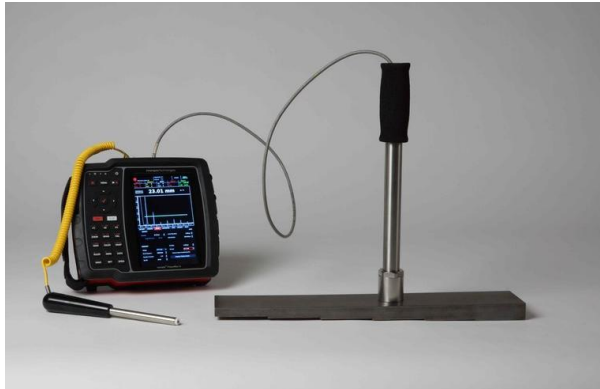


Electromagnetic Acoustic Transducer EMAT

Applus+ has developed proven and tested procedures for EMAT inspections in accordance with applicable codes. Our technicians are rigorously assessed and trained, both internally and externally, on data acquisition and interpretation.



THE Applus+ SOLUTION

For inspections at extreme temperatures, Applus+ uses EMAT, an electromagnetic acoustic transducer that utilises ultrasonic waves without the need for liquid couplants. Through air coupling, component temperature does not impact negatively on an inspection.

Applicable services include:

- Flaw detection in steel products
- Lamination identification for plate and bonded composites
- Weld inspections; material characterisation
- Pipeline in-service inspections such as CUPS
- Wall-thickness inspections on components with scaling

Target customers

Electromagnetic acoustic transducers have been employed on a variety of equipment and across a vast range of fields including:

- Upstream
- Midstream
- Downstream
- Transport pipelines
- Refining

- New construction
- Power
- Aerospace
- Nuclear
- Offshore
- Maintenance

Information obtained is essential to maintaining the mechanical integrity of components in all industries.

Key customer benefits

Standard ultrasonics requires the use of liquid couplants for energy propagation, whereas electromagnetic acoustic transmission does not, making this application a viable option for components in service and under extreme temperatures.

Thanks to ongoing technological developments, potential inspection challenges can be readily overcome with this application. EMAT is suited to a variety of techniques and provides reliable results where conventional methods are not possible.