

# INSPECTION AND TESTING SERVICES NDT- Non Destructive Testing Services



ABV Inspections Pty Ltd provide industrial plant Inspection and testing services throughout Australia and the Pacific Region.

ABV Inspections can carry out Non-Destructive Testing (NDT) using a wide range of modern techniques and procedures. Test methods available include Ultrasonics- UT, Magnetic Particle- MT, Dye Penetrant- DPand Eddy Current- ET.

We have highly trained, accredited and experienced inspection personnel. We ensure our staff maintain their experience and qualifications by keeping them up-to-date with the latest techniques, training and trends within the industry.

Non-Destructive Testing (NDT) is a vital service for plant and asset reliability and integrity. Upon completion of any NDT test, ABV Inspections will issue a detailed test report that is compliant with the relevant Australian (or International) standard or as specified by the client.

# **UT- Ultrasonic Testing**

Ultrasonic testing- UT uses high frequency sound waves to test materials and can be used to determine material thicknesses and loss of thickness due to corrosion or erosion, as well as internal discontinuities within materials or welds such as cracking and porosity.

ABV Inspections can carry out UT Thickness surveys to structures, vessels, Plate, pipework, rolled products, castings and forgings as well as detection of laminations in materials.

UT Flaw detection can be carried out by ABV Inspections to detect defects such as cracking, porosity (welds) and weld defects such as lack of penetration and lack of fusion in welds.

UT Testing is widely accepted, highly reliable, proven method for detecting defects.



Document Name	NDT Brochure			Document No	ABV4-1001
Created date	23/7/2016	Last Reviewed date	23/7/2016	Document Expiry Date	23/7/2017
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# **MT- Magnetic Particle Testing**

Magnetic Particle testing –MT- is an NDT method used for the detection of surface breaking or sub surface cracking just below the surface in ferrous materials.

MT is a quick and reliable test method. By applying a magnetic field externally or applying an electric current through a ferrous material and applying ferrous particle solution defects can be detected on welds, castings, forgings.

ABV Inspections can also carry out fluorescent Magnetic Particle testing using a fluorescent solution and Ultraviolet (UV) "black light" for higher sensitivity testing of components.



## **PT- Dye Penetrant Testing**

Dye Penetrant Testing- PT uses liquid penetrant (either visible or fluorescent) to detect surface breaking imperfections or defects. PT is a reliable, proven method for testing welds, castings, forgings and components

PT is generally used for the detection of defects in non-ferrous materials.



## **ET- Eddy Current Testing**

A Magnetic field inducted into test material by an electrical current is the basis for Eddy Current testing. Changes in the induced Eddy Current Field indicates to the operator that a defect may be present. Eddy current testing is used for the detection of defects in Welds, castings, forgings and is commonly used in aerospace industries for the detection of In- Service defects.

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