

Pressure Vessel Inspection: Non-Intrusive Inspections

Applus+ provides NDT inspections on pressure equipment, particularly inspections which require pressure vessel certification under statutory safety requirements.

Applus+ can deliver both intrusive pressure vessel and tank inspections or non-intrusive, depending on the inspection requirements. Non-intrusive inspection (NII) techniques can be used to complement an internal inspection programme; provide evidence for deferment of human entry; or to replace an intrusive vessel inspection programme.

A well-planned non-intrusive vessel inspection can offer significant advantages to operators, including improved efficiency and reduced risks to personnel.



THE Applus+ SOLUTION

Applus+ has significant experience in preparing and executing many types NII pressure vessel and tank inspections. NII requires careful, systematic consideration and, through our in-depth knowledge of pressure vessel systems, we are able to optimise inspection practices to ensure the ongoing integrity of our clients' equipment.

With our experienced teams of vessel inspection engineers and skilled technicians worldwide, deploying both conventional and advanced techniques, Applus+ can provide clients with a complete inspection solution that is both efficient and safe.

Target customers

Non-intrusive inspections can be used to inspect a variety of pressure vessels, although these NDT inspections require more sophisticated and considered approach than a normal intrusive inspection.

The vessel type, service, geometry, materials, credible damage mechanisms and inspection and maintenance history all require an appropriate technique or combination of techniques identified for each area of the vessel. An air-receiver vessel, with no credible internal damage mechanisms could be assessed, for example, using ultrasonic testing NDT techniques.

Several factors impact on its effectiveness of the vessel inspection and may affect the decision of whether to opt for an NII technique or not. To determine the scope of the NDT vessel inspection required, our technicians work closely with clients to plan well-defined NDT programme.

Key customer benefits

Applus+ non-intrusive pressure vessel inspections offer the following benefits to clients:

- Reduced risks to personnel
- Reduced downtime for shutdowns/turnarounds
- Improved efficiency with no-entry into the system
- Reduced system contamination and less potential to introduce new issues
- Cost savings
- Data recorded in a comprehensive RBI system