



Nuclear Pressure Vessel Weld Inspection with Ultrasound

Introduction

There are numerous intermedia NDT controls throughout the manufacture of a Pressure Vessel. One of these is longitudinal welding examination on a single ring.

We are talking about inspection with traditional UT on a Welding, standard thickness between 15 to 25 cm , example of base material ASME 336F22V.

Challenge

One of the most important aspects of this type of inspection is traceability. When using the traditional technique, obtaining unambiguous defect data was often difficult and time-consuming for this type of examination.

Normally, this type of equipment does not provide comprehensive data traceability, hence the technician was responsible for reporting the data as clearly as possible on the final paper report. The only document that could be found.

Traditional Solutions

Control is carried out using various angle probes, and in the event of a defect, the technician is taking note of the event and reports it in the final report.

According with the standard request DAC or TCG curve feature is active; calibration is usually performed on a block produced with the same material.

Inspection has to be performed on 100% of the welding.

Typically, the report is delivered to the final client in PDF format and saved on the quality server with no extra information. Everything is built on a foundation of trust.

Screening Eagle Technologies Solution

The [Proceq UT8000](#) allows customers to do the same test in a more convenient manner. The iPad is always close at hand, and the magnetic holder keeps it securely attached to the component. Because the instrument is worn on the belt, it is lighter to carry and the screen is more visible in all lighting conditions.



With the [UT8000's](#) connectivity and traceability features, the inspection will be sent immediately to [Workspace](#) and the data will be accessible from anywhere via browser. Location, time inspection, parameter setting, raw echo data, photos, and much more will all be available and recorded automatically. All of this information will stay accessible, and the final consumer will have tangible verification of the control's quality.

See more application notes on ultrasound inspections with the UT8000 in our [Tech Hub](#).