

Introduction

Used throughout industry, nozzles are found on all vessels connecting them to pipework and ancillary items. Each nozzle is unique being related to the vessel and pipe sizes, thickness, angle, and material. Traditional UT inspection is time consuming, creating a scan plan and then performing the scan using multiple transducers. When using the Veo3 and Nozzle Scan the set ups can all be done offsite, thereby substantially reducing, and easing site work. The scanner is placed onto the nozzle with the correct offset and with one pass the inspection is completed. Because there is no need to change to different angled probes, the speed of inspection is significantly quicker, especially when the Nozzle Scan is coupled up with the Veo3, a very fast PAUT unit. The unit is suitable for use on non-ferrous materials. Post analyses can be performed using UT Studio+, giving the technician the ability to easily identify, characterise and size defects. Detailed reports are available automatically.

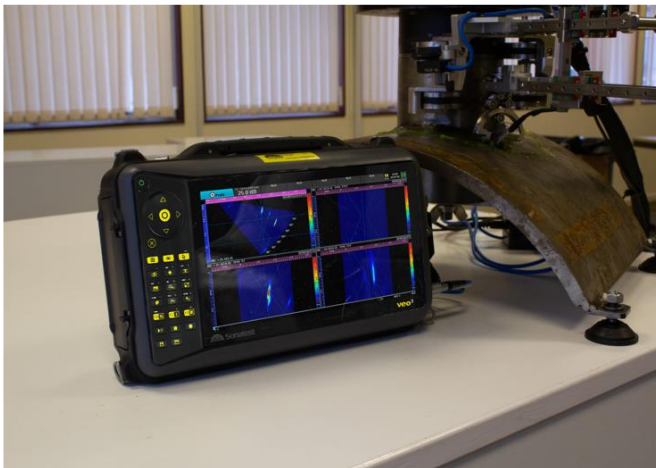


Figure 1 – Veo3 and Nozzle scan setup

Advantages:

Veo3

- One of the fastest units on the market, 125 MHz acquisition frequency
- Easy to follow wizard set up process
- Industry best signal to noise ratio
- Ability to create reports direct from the unit itself

Nozzle Scan

- Easy set up
- Speeds up inspection compared to manual methods

Industries

- Chemical & Petrochemical Sector
- Oil & Gas Sector
- Nuclear Energy Sector
- NDT Service Providers

Application

- Weld Inspection
- Storage Vessel Inspection
- Asset integrity
- Flaw Detection and Evaluation

Typical Parts

- Nozzles
- Nodes
- Flanges

Inspection Techniques

- Phased Array S-Scan
- TFM
- TFMi™

Features and Benefits

- Dual axis encoding
- Quick and easy setup of the scanner on target nozzles

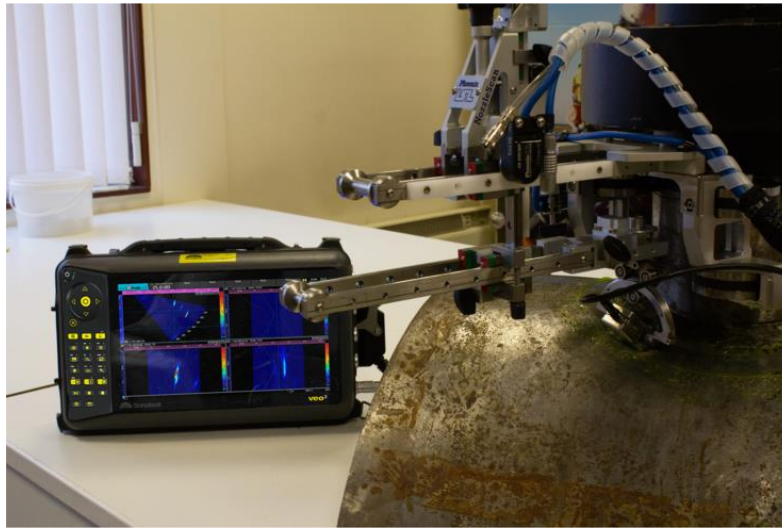


Figure 2 – Veo3 scan setup

For further information or support, please contact the Sonatest Applications Team: applications@sonatest.com

Recommended Tool Package

Category	Part #	Description
Acquisition Unit	Veo3 32:64PR BNC Veo3 32:64PR LEMO	Veo3 32:64 BNC Or LEMO
Probe	X2B-001	5MHz 32 Element PAUT probe
Wedges	X2BW-002 X2BW-003	N45s wedges N60s Wedge
Scanner	N/A	Phoenix 2 AXIS nozzle scan
Software	UTStudio+	Software for all types of analysis

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