

## Introduction

This package is an affordable and easy-to-use solution to assess the remaining wall thickness of tubes, pipes, and vessels. In time-based mode and with an encoder, Prisma has both B-scan and C-scan capability. Both tools improve the detection of thickness variations and pitting spots. Prisma features all the corrosion visualization tools required to produce a comprehensive report. The unit comes with UTstudio+ software that helps users carry out further analysis such as defect measurement and include annotation. This manual phased-array solution improves inspection coverage and ensures that any corrosion and erosion progression is properly assessed.



Figure 1 – the PRISMA showing a corrosion mapping layout

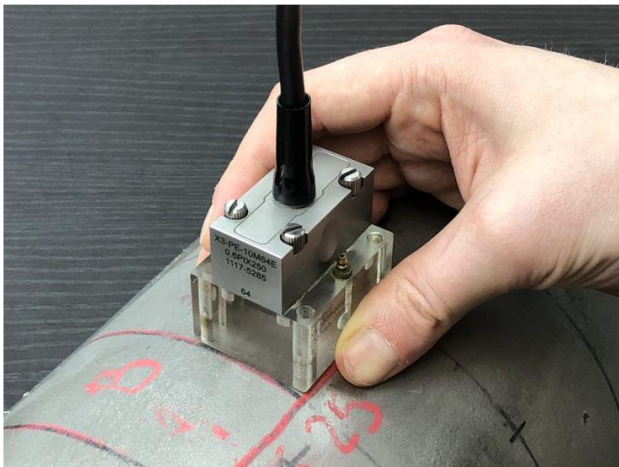


Figure 2 – X3A probe and wedge, contoured for pipeline inspection

Frequency recommendations according to the thickness (T):

$T < 5\text{mm} = 10\text{MHz}$

$5\text{mm} < T < 75\text{mm} = 5\text{MHz}$

$75\text{mm} > T = 2.25\text{MHz}$

## Industries

- Chemical & Petrochemical Sector
- Oil & Gas Sector
- Nuclear Energy Sector
- Wind Power Renewables Sector
- Military Sector
- Maritime Shipping Industries
- Mining Sector
- Construction and Infrastructure
- NDT Service Providers

## Application

- Corrosion / Thickness measurement
- Casting / Forging Inspection
- Storage Vessel Inspection
- Asset integrity

## Typical Parts

- Pipelines
- Boiler tubes
- Storage vessels
- Pressure vessels
- Flare stacks

## Inspection Techniques

- Phased Array L-Scan

## Features and Benefits

- Higher POD on large surface inspections
- Better coverage with a single PA transducer than conventional UT
- Colour maps allow better visualisation of results.

For further information or support, please contact the Sonatest Applications Team: [applications@sonatest.com](mailto:applications@sonatest.com)

### Recommended Tool Package

Category	Part #	Description
Acquisition Unit	PRISMA UT BNC KIT or PRISMA UT LEMO KIT	Prisma UT BNC Standard Kit or Prisma UT LEMO Standard Kit
Product option	PRISMA 16:64 TOFD	Prisma software 16:64 PA (up to 16 focused elements over 64 arrays)
Probe	X3A-003 or D5A-001 Note: X3 probe at 5 MHz shall be considered as the default one	X3A-5M64E-0.6x10-SQX2.5
Wedges	X3AW-001 Note: X3 wedges shall be considered as the default ones	X3AW-0L25-IHC in AOD range of: 4", 6", 8", 12", 16" and 24" and flat.

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