

Introduction

Linear scanning can be a challenge if the scanner is too bulky to properly adapt to the physical shape of the part being inspected. In this situation, the X3 Glider is often the solution. The Glider is made of the same patented rubber wedge as the Sonatest Wheelprobe 2. It guarantees exceptional acoustic performance and easily adapts to irregular surfaces, making it the ideal solution for composite radiuses or changes in geometry. Moreover, when combined with the RSflite and the AXYS scanner, the Glider has a small footprint and can record individual C-scan stripes with unsurpassed speed. The overall inspection can be reconstructed and further analysed in the Sonatest UTmap software.



Figure 1 – The RSflite workflow is optimised for composite inspection



Figure 2 – X3 Glider wedge

Frequency recommendations according to the thickness (T):

$T < 3\text{mm} = 10\text{MHz}$

$3\text{mm} < T < 25\text{mm} = 5\text{MHz}$

$25\text{mm} > T = 2.25\text{MHz}$

Industries

- Aerospace Aeronautical Inspection
- Aerospace Astronautical Inspection
- Wind Power Renewables Sector
- Maritime Shipping Industries
- NDT Service Providers

Application

- Casting / Forging Inspection
- Composite Material Inspection
- Plastics Inspection
- Storage Vessel Inspection
- Material Bonding Inspection
- Asset integrity

Typical Parts

- Composite material parts
- Thin plate corrosion
- Impact damage inspection
- Curved surface parts

Inspection Techniques

- Phased Array L-Scan

Features and Benefits

- The RSflite user interface is optimized for composite inspections
- The X3-Glider wedge adapts to irregular surfaces
- Small footprint
- The patented rubber impedance is optimized for 5MHz
- UTmap software, with its CScan stitching capability, increases overall productivity and inspection accuracy
- Automatic flaw-sizing algorithm for area assessments

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

Recommended Tool Package

Category	Part #	Description
Acquisition Unit	VEO3 RSFLITE BNC or RSFLITE LEMO	128-channel linear scanning instrument
Probe	X3A-003	Frequency: 5 MHz Elements: 64
Wedges	X3AW-001 X3AG-001	0 deg wedge X3-Glider wedge made of rubber
Encoder	AXYS-001	Compact and universal single-axis encoder Cable length: 2.5 m
Software	UTMap	Software suitable for C-Scan analyses

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