



Advanced Test Equipment Corp.

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EVIDENT

RollerFORM™ Phased Array Wheel Probe

C-Scan Inspection without Immersion



The RollerFORM™ phased array wheel probe from Evident is designed to address the inspection of composites and other smooth-surfaced materials. An affordable and easy-to-implement replacement for full 2D encoding systems, the RollerFORM scanner is a viable alternative to immersion techniques.

The RollerFORM tire's unique material provides high-quality, immersion-like ultrasonic testing. Minimal couplant and pressure are required to achieve excellent coupling and a strong signal, even in difficult scanning positions.

Key Features

- Offered in two sizes with a 51.2 mm or 128 mm beam width.
- Exceptional coupling with minimal couplant.
- Acoustic impedance similar to water.
- 25 mm water delay line enables inspection of composites up to 50 mm thick.
- Can be used in accordance with existing aircraft manufacturer procedures.

Standard Inclusions

- Phased array probe with OmniScan™ connector.
- Waterproof encoder.
- Laser guide.
- Indexer and Start Acquisition buttons.
- Filling/spraying pump and tubing.



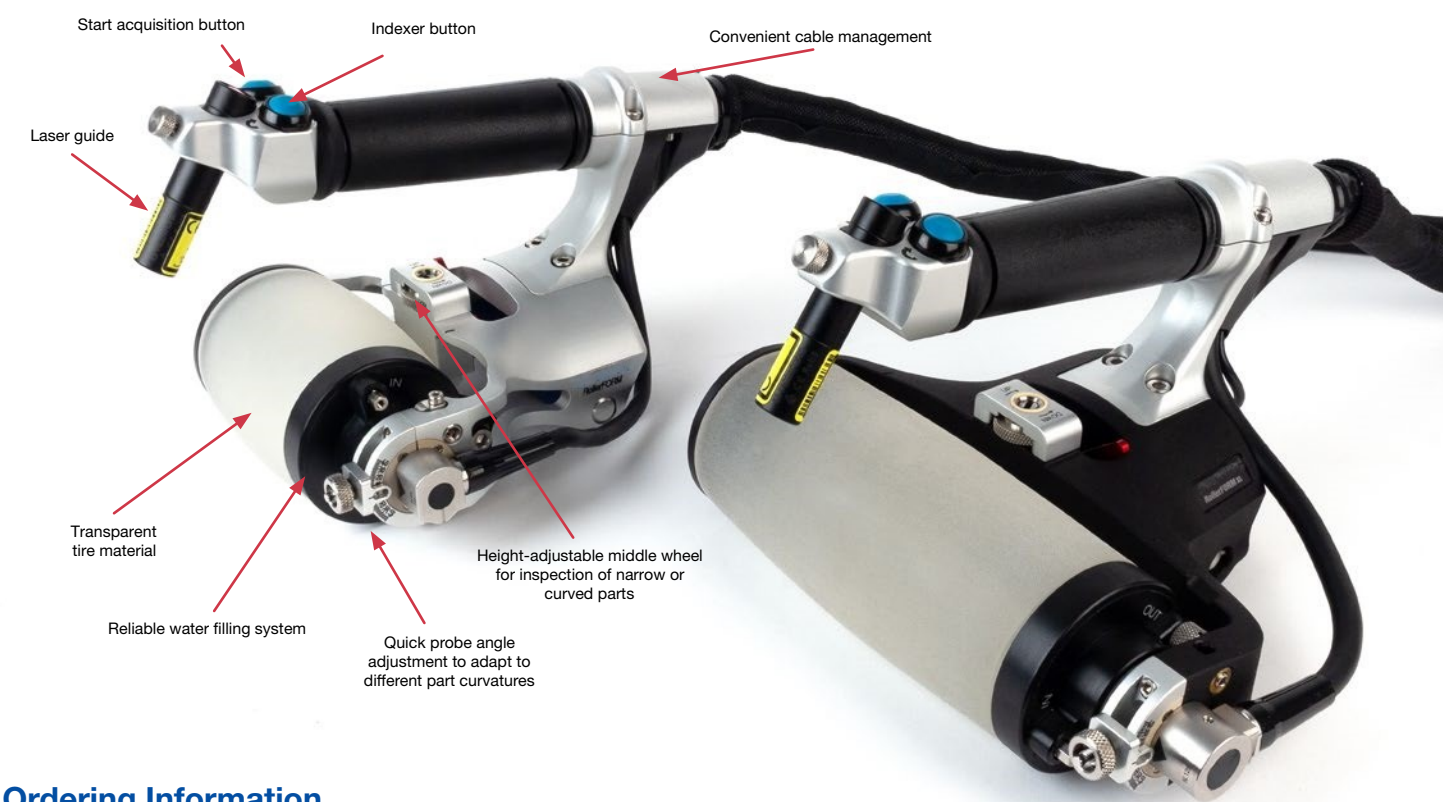
Just Roll It for Instant Results

The RollerFORM™ scanner, combined with an OmniScan™ flaw detector, uses zero-degree ultrasonic beams for manufacturing and maintenance inspections. Common applications include delamination sizing and porosity quantification in composite core material, as well as wall-loss monitoring in metals.

The RollerFORM XL scanner's wider tire and probe offer greater coverage for increased productivity and improved probability of detection (POD). For more attenuative materials, the 1 MHz version of the RollerFORM XL scanner has a larger aperture, which improves the ultrasound beam penetration for challenging applications such as wind blade spar cap and shear web bonding inspections.

With its integrated indexing button, the ergonomically designed RollerFORM scanner enables you to map the surface of an inspected material by acquiring multiple one-line C-scans and combining them in real time into a single image. The built-in laser guide facilitates straight and precise one-line scans.

In addition to providing exceptional coupling, the tire of the RollerFORM wheel is made of a unique material that closely matches the acoustic impedance of water, allowing efficient transmission of ultrasound energy to the part. Since the tire is transparent, you can easily identify the presence of air bubbles or contaminants within the water chamber.



Ordering Information

Part Number	Frequency (MHz)	Delay Line Height (mm)	Number of Elements	Pitch (mm)	Active Aperture (mm)	Elevation (mm)	Probe Casing Model
RollerFORM-3.5L64	3.5	25	64	0.8	51.2	6.4	IWP1
RollerFORM-5L64	5	25	64	0.8	51.2	6.4	IWP1
RollerFORMxl-1L128	1	25	128	1	128	13	IWP2
RollerFORMxl-3.5L128	3.5	25	128	1	128	6.4	IWP2
RollerFORMxl-5L128	5	25	128	1	128	6.4	IWP2

Available with 2.5 m (8.2 ft) or 5 m (16.4 ft) long cables.



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