

OnePass

Portable Ultrasonic Rail Flaw Detection System



Key Features

- Portable, 12-channel, battery powered, digital ultrasonic flaw detector
- RailTruck software with A-Scan, B-Scan, recognition engine & full audit capability
- Lightweight, rugged tablet user-interface
- Smart Tracking of GPS locations
- SmartFlow couplant delivery
- On-board hand test kit with wireless flaw detector software
- Rugged transport case



Portable Ultrasonic Rail Flaw Detector

OnePass is a portable rail flaw detection system designed to inspect tracks with only a single pass over the rail. This innovative, digital solution for manual rail inspection is ideal for ultrasonic testing in railway yards, crossovers, plug rail and short run applications.

- Nordco has bundled the latest detection and digital processing technologies in a compact unit to bring leading UT capabilities to hand-testing applications. OnePass is designed with the same wheel probe and Digital Signal Processing Technology as is employed in Nordco full-featured rail flaw detection vehicles. Nordco's RailTruck software produces detailed logs and reports of all identified defects.
- Ergonomically designed, the OnePass inspects rail integrity with an industry leading eleven transducers and presents software recognized defects in a B-Scan view. Detect verification is supported with an integrated hand test kit and onboard flaw detection software.



Hand Test Kit

XL9-11 Rolling Search Unit

The OnePass employs Nordco's exclusive XL9-11 wheel probe technology designed specifically to perform ultrasonic testing on rail, featuring eleven inspection transducers and a maintenance free direct encoder for local distance measurement:

- One zero-degree crystal for both **web coverage** and **base detection**
- One 37.5-degree forward-facing crystal and one 37.5-degree rear-facing crystal for **full rail web coverage**
- Three 70-degree forward-facing crystals (field, center and gage) and three 70-degree rear-facing crystals (field, center and gage) for **full head coverage**
- One side-looking field crystal and one side-looking gage crystal for **longitudinal cross-rail coverage**



XL 9-11 Rolling Search Unit (RSU) with Direct Encoder

Product Specifications

Category	Specification	Description
Flaw Detection Technology	UT Signal Processor	High-Definition, 12 Channel Digital Distance Resolution: 1/48" (0.5mm)
	XL9-11 Wheel	9" Rolling Search Unit with light weight construction, featuring 11 independent transducers for full coverage of the rail head, web and loss of base. Field and gage side looking transducers for vertical split head detection.
	Rail Capture	Self-retracting, adaptive roller mechanism
	Computer	Tough Tablet with GPS & WiFi Touch Screen, GPS, 4G LTE, WIFI
	Software	Nordco RailTruck - Digitizer, A-Scan, B-Scan, audible test record GPS Defect Tagging
Capacities	System Battery	24V, 13Ah Ni-Mh (can be air-shipped)
	Couplant Capacity	5 quarts with SmartFlow Technology
	Weight	OnePass: 60 lbs (27.2 kg) - empty tank Tablet & Holder: 6.6 lbs (3 kg)
Environmental	Operating Conditions	10 to 100 °F (-15 to 38 °C), light rain

Accessories	Accessories Kit	Included
	On-board Hand Test Kit	Included, 2.2 lbs (1 kg)
	All-In-One Transport Case	Included, 190 lbs (86 kg) - fully loaded
Options	Service Vehicle Kit	Small Tool Case, Vehicle bracket
	Outtrigger	Tripod mount, keeping the OnePass vertically aligned. Ideal for long range tests.
	Rain & Sun Shield	Canvas protection for tablet to keep tablet shaded and dry.



No extra training needed!
Same software runs on
OnePass and Nordco's Rail Trucks

Common Rail Test Software App

1. A-Scan & Digital Scope
2. B-Scan with defect tagging
3. Recognition engine & context view
4. Project & defect tracking
5. Pause test feature
6. SmartFlow couplant control
7. Audio feedback
8. Wireless communication
9. GPS tracking of OnePass & defects

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