

Multifinger Imaging Tool (MIT 24 finger)

The 24 finger MIT is used to detect very small changes to the internal surface condition of tubing or casing with a high degree of accuracy. The tool may be run through tubing to log casing deeper in the well.

Description

The MIT is available in a range of diameters to suit varying casing/tubing sizes. The number of fingers increases with the diameter of the tool to maintain maximum surface coverage. The tools can be run in combination with other Well Integrity instruments and Ultrawire* Production Logging tools. When the tool is run in hole, the fingers are closed to prevent damage. Once at logging depth, a motor is activated from the logging system or by the memory tool and the fingers open. A continuous measurement of the pipe's surface condition is made as the tool is logged up. The tool has an inclinometer to indicate the finger positions relative to the high side of the pipe, so that features can be orientated correctly during data processing. MIT data can be used to generate 3D images of pipe condition using Sondex's visualization software Well Integrity Visual Analysis (WIVA). Well Integrity Processing, Evaluation & Reporting (WIPER) software can also be used to make a statistical analysis of the pipe condition.

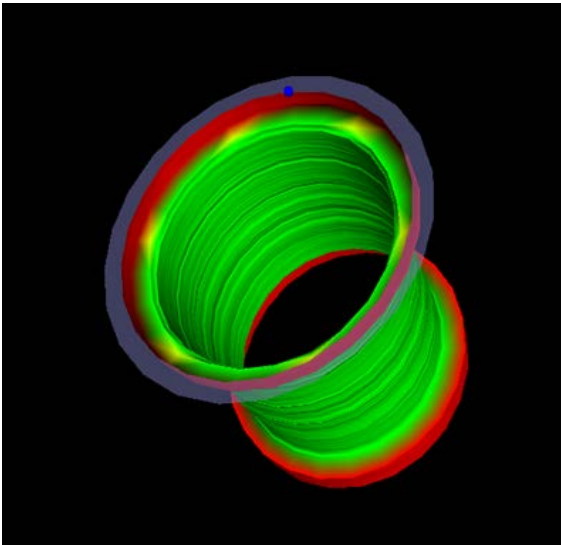
Features

- Available in 40 or 60 finger versions
- Surface readout or memory options
- Combinable with other Ultrawire tools
- 3D data analysis using WIVA software
- Statistical analysis using WIPER software
- Suitable for all well deviations
- Extended finger lengths available for all tools (optional)

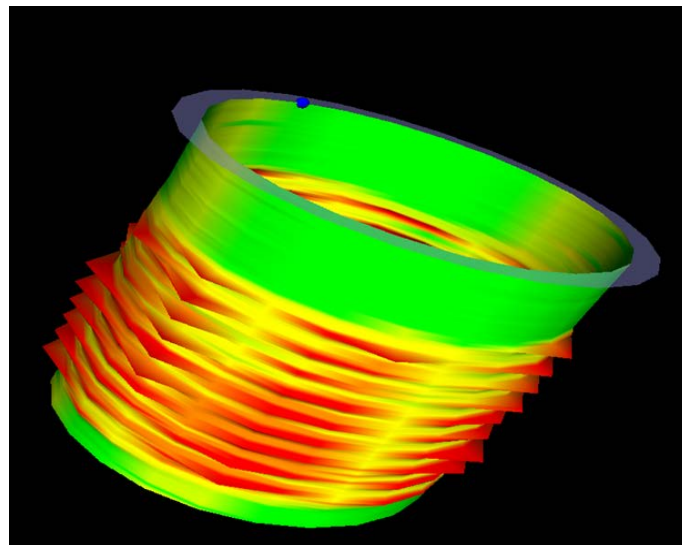


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Specifications		
Number of fingers	24 standard	24 extended
Temperature rating	350°F (177°C)	
Pressure rating	15,000 psi (103.4 MPa)	
Tool diameter	1 11/16 in. (43 mm)	
Tool length	64.6 in. (1.64 m)	
Tool weight	20.7 lb (9.38 kg)	
Toolbus	Ultrawire*	
Current consumption	<30 mA (logging) / <400 mA (motor operating)	
Measurement range	1.75–4.5 in. (45–114 mm)	1.75–7 in. (45–178 mm)
Accuracy, radial	±0.02 in. (0.508 mm)	
Resolution, radial	0.002 in. (0.051 mm)	0.003 in. (0.076 mm)
Finger tip width	0.063 in. (1.60 mm)	
Finger contact force	0.75–1.25 lbf (3.4–5.7 N)	
Logging speed	30 ft/min (10 m/min) recommended, 60 ft/min (20 m/min) maximum	
Materials	Corrosion resistant throughout	



This 3D view from WIPER software shows the variation in ID after setting Casing Patch.



This 3D view from WIPER software shows the perforations done in the interval.