

Multifinger Imaging Tool (MIT 40 finger)

The 40 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 with extended length fingers to increase the measurement range.

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	40 standard	40 extended
Temperature rating	350°F (177°C)	
Pressure rating	20,000 psi (138 MPa)	
Tool diameter	2.75 in. (70 mm)	
Tool length	66 in. (1.68 m)	
Tool weight	70 lb (31.75 kg)	
Toolbus	Ultrawire*	
Current consumption	<30 mA (logging) / <500 mA (motor operating)	
Measurement range	2.75–7.0 in. (70–178 mm)	2.75–10.0 in. (70–254 mm)
Accuracy, radial	±0.02 in. (0.51 mm)	±0.025 in. (0.64 mm)
Resolution, radial	0.0015 in. (0.04 mm)	0.0022 in. (0.06 mm)
Finger tip width	0.064 in. (1.63 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	



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