

ACOUSTIC IMAGING SCANNER

The Acoustic Imaging Scanner (AIS) employs the changeable ultrasonic transducer subs at the bottom of the tool. The transmitter sends ultrasonic pulses from 400 Hz up to 1 MHz and measures the ultrasonic waveforms reflected from the internal and external surfaces.

The resonant frequency of the casing provides the casing wall thickness, external and internal casing flaws, and casing corrosion. AIS provides a high-resolution view of the internal surface of the casing and cement bond quality.

In open hole wells AIS provides determination of the angle of inclination and fracture dip azimuth and layers of various acoustic impedance.

Applications:

- Cement quality evaluation in terms of casing-cement contact
- Internal and external casing inspection with a high level of detailization (corrosion evaluation and monitoring)
- Perforation intervals assessment
- Fractures and cavities evaluation for open hole wells

Advantages:

- 2 in 1 (tubular thickness evaluation + cement bond)
- Slim trough tubing design



Tool Specifications	
Changeable transducers	Yes
Working frequency	400 Hz – 1 MHz
Diameter detectable range	3.5"-7.1" (89-180 mm)
Maximum Operating Temp	150°C (302°F)
Maximum Operating Pressure	11,600 PSI (80 MPa)
Logging speed	1.0-5.0 m/min
Tool length	9.8 ft (3.0 m)
Tool OD	1.9" (48 mm)
Tool weight	66 lbs (30 kg)
Acoustic Transducers	1.9"
SRO / Memory	Surface read-out
H2S resistance	6% standard