

Captured by SPACE®

2-1/8 in. azimuthal viewer prototype

New release of the SPACE® series now in field trials

The 2-1/8 in. SPACE azimuthal viewer prototype is a state-of-the-art high-resolution cased-hole ultrasound imaging tool. Using the established technology applied in medical ultrasound imaging, SPACE is designed and built for the hostile environments encountered downhole. This allows the creation of detailed high-resolution 3D images of internal tubing or casing condition in most production fluids.

A multi-element 3.5MHz circumferential ultrasound transducer array, combined with electronic focusing and signal multiplexing, allows the flexibility to optimize image quality for different tubing sizes with no moving parts. The transducer operates in pulse-echo mode.

Logging is performed dynamically with high-resolution 2D images obtained in real-time. Our proprietary visualisation software enables the creation of 3D images within seconds of data acquisition.

Field trials

The pilot series is currently in field trials and we are inviting customers who have potential applications for the new SPACE azimuthal viewer and suitable candidate wells to engage with us. The surveys will be carried out in close collaboration with our SPACE engineers, our Technology Centre team, and our customers to ensure maximum benefit to all parties.

Applications

- General imaging applications with extended features unavailable to optical camera
- Inspection of downhole jewellery with complex internal geometries such as SPM and DHSV
- Evaluation of metal loss, corrosion or damaged pipe
- Inspection of wellbore restrictions
- Sand screen, ICD and perforation evaluation

Benefits

- Works in all production liquids—liquid does not need to be optically clear
- High accuracy measurements in three dimensions
- Real-time high-resolution 2D images—3D renderings created within seconds
- Operates on new adaptive high-speed telemetry system



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Specifications - 2-1/8 in. azimuthal viewer

Physical

Outer diameter, in [mm]	2 1/8 [54] / 3 [76]
Length, ft [cm]	7.7 [236]
Weight, lb [kg]	51 [23]

Environmental

Maximum temperature, °F [°C]	275 [135]
Maximum pressure, psi [bar]	8000 [552]

Electrical

Voltage, VDC	240
Current, mA	200

Functional

Vertical resolution, in [mm]	0.39 [10]
Maximum azimuthal resolution, deg	1.88 / 1.25
Accuracy, mm	0.5 - 1
Precision - ID, in [mm]	± 0.008 [± 0.2]

Operational

Recommended logging speed, ft/min [m/min]	3-30 [0.9-9.1]
Logging mode	Real time

Well conditions

Fluid	Water, brine, production liquid
Minimum casing size, in [mm]	3 1/2 [89]
Maximum casing size, in [mm]	13 3/8 [340]



For more information contact

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