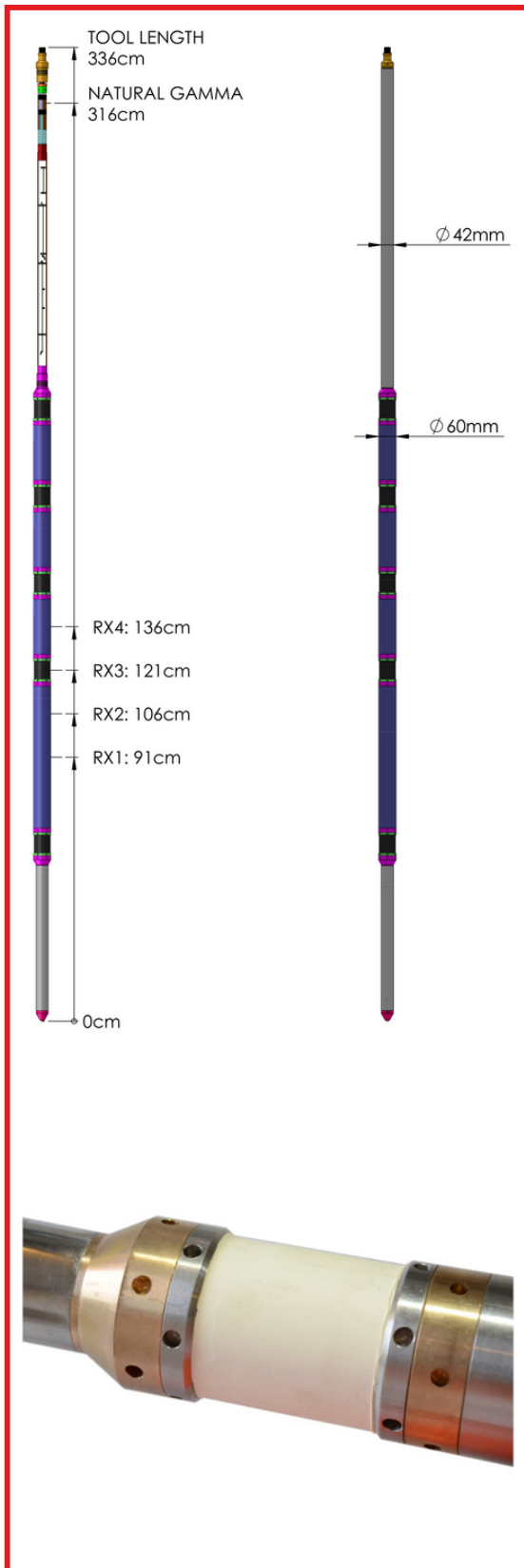


Fullwave Sonic probe



The advantage of the **FWS60** tool is that it digitises and transmits to the surface the full sonic waveform arriving at each receiver during a user-configurable sampling window. For each receiver the user can choose one of three sampling periods to optimise the acquisition according to the application and/or formation characteristics.

The sonic waveform data provided by the **FWS60** has many applications: these include the determination of formation mechanical properties, fracture analysis, permeability and porosity estimation and cement bond assessment.

According to customer preference, the probe can be supplied with three (version 3RX) or four (version 4RX) receivers.

As an additional option, the probe can be supplied with a natural gamma detector to provide addition.

Specifications

- ✓ Diam. (transducers/tool body): 60 mm / 42 mm
- ✓ Length (depends on config.): 2610 mm (3RX)
2960 mm (3RX + gamma)
3060 mm (4RX)
3360 mm (4RX + gamma)
- ✓ Weight: up to 35 kg
- ✓ Max. operating temperature: 70°C
- ✓ Max. operating pressure: 150 bar

Data / sensor parameters

- ✓ Transmitter-receiver spacings: 0.6, 0.9, 1.2 m (3RX)
0.6, 0.9, 1.2, 1.5 m (4RX)
- ✓ Signal frequency: 12 to 15 kHz
- ✓ Acquisition resolution: 16-bit / 96dB dynamic range
- ✓ Sampling frequency: 250 kHz (4µs sampling)
- ✓ Sampling period: 256, 512 or 1024 samples

Accessories / options

- ✓ Natural gamma detector: ø25 x 50 mm NaI(Tl) crystal
- ✓ Bowspring centralisers

Borehole conditions

- ✓ Fluid-filled borehole
- ✓ Open or cased borehole