The Borehole Geometry probe consists of a 4-arm caliper combined with a verticality measurement.

The probe can replace the 3-Arm Caliper (710mm range) with advantage where the borehole cross-section departs from circular and where directional information is required for well-completion studies and formation stress analysis. The top section can be logged as a standard verticality.

**Principle of Measurement:**
The XY caliper provides continuous measurements of borehole diameter from two independent pairs of linked arms. The verticality section includes a triaxial magnetometer and three accelerometers. Data from these are combined by a downhole microprocessor to provide real-time, continuous logs of probe orientation and borehole inclination and direction.

**SPECIFICATION:**

**Features**
- Sensitive X-Y caliper
- Continuous orientation log for all borehole inclinations

**Measurements**
- X and Y calipers
- Borehole deviation and drift
- Borehole volume (derived)
- True vertical depth (TVD)
- Natural gamma

**Applications**
- Water/minerals/engineering
- Borehole diameter in two axes
- Borehole break-out for stress analysis
- Cracks, fissures and casing defects

**Operating Conditions**
- Borehole type: open/cased, water/air-filled
- Centralisation: recommended, non-magnetic centralisers required
- Recommended Logging Speed: 5m/min

**Specifications**
- Diameter: 60mm
- Length: 3.54m (in two sections) or 1.81m
- Weight: 19.5kg complete (5.5kg for top section)
- Temperature: 0-70°C (extended ranges available)
- Max. pressure: 20MPa
- Caliper range: 75mm to 700mm

**Part Numbers**
- I002044  Borehole Geometry probe with natural gamma