

From its beginnings in 1979, Robertson Geologging pioneered the development of slim-hole digital borehole logging systems and techniques. Now, as probably the largest global supplier of slim-hole borehole-logging equipment in the world, RG supplies well-logging instrumentation and contract logging services to every continent. Industries served include oil and gas, nuclear and civil engineering, geotechnical, water-well management, environmental and mining. Our subsidiary company, Robertson Geologging (USA) Inc., directly supports the North and South American markets while an extensive network of factory-trained local agents and representatives provides support elsewhere. Robertson Geologging is majority owned by the OYO Corporation of Japan and enjoys the technical and organisational benefits of membership of this major international group. Our headquarters are located in the UK, close to Llandudno in North Wales. The site also contains our design and development department and our main assembly unit. On-site test facilities include a borehole, calibration blocks and ovens and autoclaves capable of testing complete probes at temperatures up to 260degC and pressures up to 100MPa.

AL BAYAN TECHNICAL EQUIPMENT L.L.C are the authorized distributors of Robertson Geologging in GCC.

Three-arm Caliper Probe

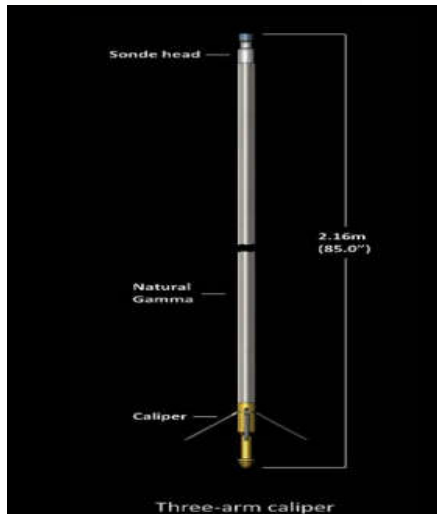
The three-arm caliper provides a single continuous log of borehole diameter as recorded by three mechanically coupled arms in contact with the borehole wall. 38mm and 60mm models are available to suit a range of well diameters. The caliper is a useful first log to determine the borehole conditions before running more costly probes or those containing radioactive sources.

Principle of Measurement:

Opening and closing of the motor-driver caliper arms is by surface command, allowing the probe to run into the borehole with the arms retracted. Once opened, the spring-loaded arms respond to borehole diameter variations as the probe is raised up the borehole.

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High Resolution Acoustic Televiewer

The HRAT provides a continuous high-resolution oriented ultrasound image of the borehole wall. The probe uses a fixed acoustic transducer and a rotating acoustic mirror to scan the borehole walls with a focused ultrasound beam. The amplitude and travel time of the reflected acoustic signal are recorded as separate image logs. Features such as fractures reduce the reflected amplitude and appear as dark sinusoidal traces on the log. The travel-time log is equivalent to a high-precision 360-arm caliper and shows diameter changes within open fractures and 'break-outs'. Directional information is also recorded and used to orient the images in real time.

Impeller Flowmeter Probe

The impeller flow meter provides a continuous log of vertical fluid velocity within a borehole. Two sizes of high-sensitivity probes satisfy most borehole-size requirements and expected flow rates.

Principle of Measurement:

The probes are equipped with lightweight helical impellers mounted on double sapphire bearings. The impellers contain magnets which actuate Hall-effect switches within the probe to detect impeller rotation. Separate log channels record the time of rotation according to fast and slow time-based for improved resolution at high and low flow rates. Up hole and down hole rotations are distinguished within the sonde.

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RG Micro Logger2 with USB



With a new USB interface for your laptop computer and built-in borehole video support, the Micrologger2 is probably the most powerful portable logging system on the market. This featherweight, smaller in size than the average notebook, packs a powerful punch and supports all RG probes and cameras, including the latest acoustic and imaging types. The Micrologger2 needs only a PC, probe and a RG or third-party supplied winch to provide high-quality logging and borehole television for every situation.

FEATURES



Logging

- Supports RG and many third-party probes
- USB high-speed link to PC
- Compatible with most winches/cables
- Remote control of SMART winch
- Real-time data display and printing
- Supports Windows™ printers
- Data output in LAS and RG formats
- Modular construction for easy field maintenance



Video

- Supports RG, Laval, Hytec and CCV cameras
- Uses same winch/cable for logging and video
- Full control of lighting, focus, iris, pan/tilt from PC
- Supports depth and text overlays
- Grabs and prints individual frames
- Optional booster supply for 150W external lighting

Imaging

- Direct support for High-resolution Digital Optical Televiewer (Hi-OPTV) and High-resolution Acoustic Televiewer (HRAT) probes





SALES INFORMATION

01 005 001	RG USB Micrologger2
01 005 002	110/220VAC power supply for ML2 and winch
01 005 030	150W lighting booster power supply
01 005 022	Canvas bag for Micrologger2

PROBE APPLICATIONS



Typical examples of system configurations by application follow below. Examples show basic, intermediary and advanced systems, and these can be used as a guideline when requesting a quotation from RG. For further information and advice when choosing your system, please do not hesitate to contact your nearest RG representative.

Application	Basic System	Intermediate System	Advanced System
 <p>Groundwater</p>	Micrologger II Winch Electric Log Probe Temperature/Conductivity Probe	Micrologger II Winch Electric Log Probe Temperature/Conductivity Probe 3 Arm Caliper Probe Impeller Flowmeter Water Sampler Borehole Camera	Micrologger II Winch Electric Log Probe Temperature/Conductivity Probe Borehole Geometry Probe Impeller Flowmeter Water Sampler Dual Neutron Probe Sidewall Density Probe Cement Bond Log Borehole Camera
 <p>Environmental</p>	Micrologger II Winch Induction Probe and/or Electric Log Probe Temperature/Conductivity Probe	Micrologger II Winch Induction Probe and/or Electric Log Probe Water Quality Probe Heatpulse Flowmeter	Micrologger II Winch Induction Probe and/or Electric Log Probe Water Quality Probe Heatpulse Flowmeter Water/Gas Sampler UV Probe
 <p>Coal Mining</p>	Micrologger II Winch Density Gamma Probe 3 Arm Caliper Probe	Micrologger II Winch Sidewall Density Probe 3 Arm Caliper Probe Verticality Probe Sonic Probe Focussed Electric Probe HRAT - Acoustic Televiwer	Micrologger II Winch Sidewall Density Probe 3 Arm Caliper Probe Verticality Probe Sonic Probe Focussed Electric Probe HRAT - Acoustic Televiwer Dual Neutron Probe 4 Arm Dipmeter Probe
 <p>Minerals</p>	Micrologger II Winch Ultra-Slim Natural Gamma Probe and/or Triple Gamma Probe Sidewall Density Probe	Micrologger II Winch Triple Gamma Probe and/or 1024 CH Spectral Gamma Probe Sidewall Density Probe Magnetic Susceptibility Probe IP Probe Verticality or Gyro Probe	Micrologger II Winch Triple Gamma Probe and/or 1024 CH Spectral Gamma Probe Sidewall Density Probe Dual Neutron Probe Sonic Probe Magnetic Susceptibility Probe IP Probe 3 Arm Caliper Probe Verticality or Gyro Probe HRAT - Acoustic Televiwer and/or DOPTV - Optical Televiwer
 <p>Geotechnical</p>	Micrologger II Winch HRAT - Acoustic Televiwer and/or DOPTV - Optical Televiwer 3 Arm Caliper Probe	Micrologger II Winch HRAT - Acoustic Televiwer DOPTV - Optical Televiwer 3 Arm Caliper Probe Sidewall Density Probe PS Suspension Log	Micrologger II Winch HRAT - Acoustic Televiwer DOPTV - Optical Televiwer 3 Arm Caliper Probe Sidewall Density Probe PS Suspension Log Sonic Probe Dual Neutron Probe Borehole Sonar Probe



For more details contact albatech@eim.ae or visit <http://www.geologging.com>



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