**MECHANICAL SPECS**

Probe Length  
20.98 - 26.51 ft (6.39 - 8.08 m)

Probe OD  
(Standard probe) 1.875 in (47.6 mm)

**COLLAR SIZES VS. FLOW RATES**

<table>
<thead>
<tr>
<th>Collar Sizes</th>
<th>Flow Rate</th>
<th>Dogleg Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>(inches)</td>
<td>(gallons/minute)</td>
<td>sliding/rotating</td>
</tr>
<tr>
<td>4 ¼</td>
<td>100 - 400</td>
<td>30° / 15°</td>
</tr>
<tr>
<td>6 ½</td>
<td>200 - 700</td>
<td>20° / 10°</td>
</tr>
<tr>
<td>6 ¾</td>
<td>200 - 700</td>
<td>21° / 10°</td>
</tr>
<tr>
<td>8 ¼</td>
<td>400 - 800</td>
<td>14° / 8°</td>
</tr>
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**ENVIRONMENTAL SPECS**

- **Maximum Pressure**: 20,000 psi (138,000 kPa)
- **Temperature**
  - Maximum Operating: 302° F (150° C)
- **Lost Circulation Material**
  - Fine: .............. 15 lbs/bbl
  - Medium: ............ 10 lbs/bbl
  - Coarse: ............. 8 lbs/bbl
- **Maximum Vibration**: 20 gms (5-1000 Hz)
- **Maximum Shock**: 500g ½ sine ½ msec
- **Operating Time**: Up to 300 hrs utilizing 2 lithium batteries

**SENSOR SPECS**

- **Sensor Type**: 3-axis coriolis vibratory rate gyro
  - 3-axis accelerometer
  - 3-axis magnetometer (optional)
- **Telemetry**: Mud Pulse
- **Frequency Range**: 0.33 - 1.30 Hz Field Programmable
- **Data Rates**: 0.5 - 1.1 bps (downlink adjustable)

**INSTRUMENT ACCURACY**

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<thead>
<tr>
<th>Measurement</th>
<th>Range</th>
<th>Accuracy</th>
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<tr>
<td>Gyro Inclination</td>
<td>0 - 180°</td>
<td>±0.05°</td>
</tr>
<tr>
<td>Gyro Azimuth</td>
<td>0 - 360°</td>
<td>±0.1°</td>
</tr>
<tr>
<td>Gyro Tool Face</td>
<td>0 - 360°</td>
<td>±1.0°</td>
</tr>
<tr>
<td>Gravity Tool Face</td>
<td>-180 - 180°</td>
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</tr>
<tr>
<td>Magnetic Inclination</td>
<td>0 - 180°</td>
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</tr>
<tr>
<td>Gamma (cps)</td>
<td>0 - 255.5°</td>
<td>5%</td>
</tr>
</tbody>
</table>

Gyrodata’s gyro while drilling service, Quest™ GWD provides all-attitude, high-accuracy, high-performance coriolis vibratory rate-gyroscopic surveys in real-time as drilling progresses. A three-axis digital magnetometer and gamma ray are optional add ons. This gyro while drilling tool includes Gyrodata’s retrievable pulser technology, and provides steering and survey data in vertical to horizontal applications.

**MARKET + APPLICATIONS**

- Vertical, Directional & Horizontal Drilling
- Multi-Well Pad Drilling
- Offshore & Riserless Drilling
- Onshore Drilling
- Batch Well Drilling
- High Latitude Drilling
- Gross Error Detection
- Definitive Wellbore Placement
- Ellipse of Uncertainty Reduction
- Areas of Magnetic Interference
- Collision Avoidance
- Side-Tracking
- Relief/Intervention Well
- IFR & MWD Validation

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