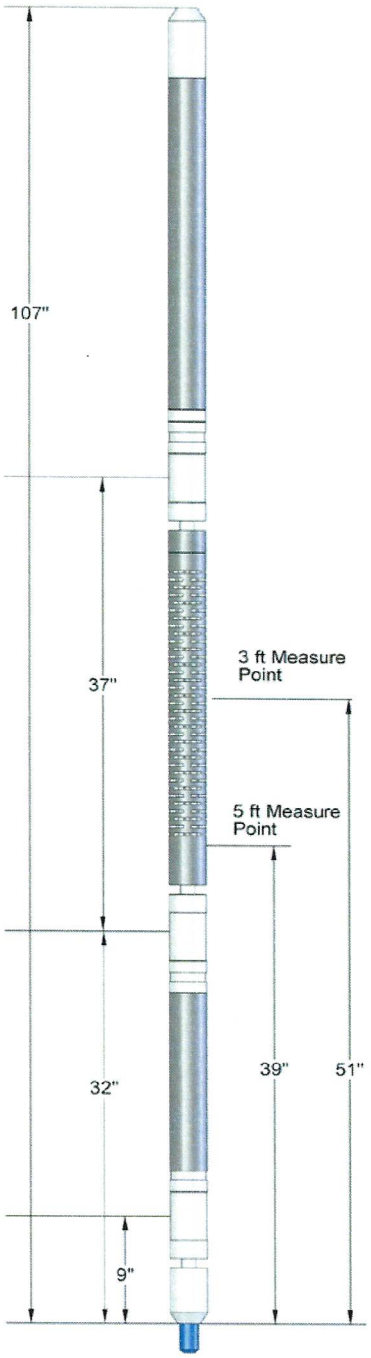
# 2.75 in. RADII Cement Bond Tool

**Tool Part Number: 050-RADII-275**




## DIMENSIONS AND RATINGS

| | | | |
|---|---|---|---|
| Max Temp: | 350°F *(177°C)* | Max Press: | 20,000 psi *(137,895 Kpa)* |
| Max OD: | 2.75 in. *(6.98 cm)* | Min Csg/Tbg ID: | 4.5 in *(11.5 cm)* |
| Length*: | 8.92 ft *(2.72 m)* | Max Csg/Tbg OD: | 11.6 in *(29.5 cm)* |
| | | Weight: | 100 lb. *(45.5 kg)* |

** The length does not include centralizers. A minimum of two inline centralizers are required when running the CBT. Add approx. 2.2 ft.(.67 m) for each centralizer.*

## BOREHOLE CONDITIONS

| |
|---|
| Borehole Fluids: *Salt* ■ *Fresh* ■ *Oil* ■ *Air* □ |
| Recommended Logging Speed: 60 ft *(18.2m)/min:* max. 100ft *(30.5m)/min.at 0.08 ft (.02 m)sample rate* |
| Tool Positioning: *Centralized* ■ *Eccentralized* □ |

## HARDWARE CHARACTERISTICS

| | |
|---|---|
| Source Type: | One piezoelectric crystal fired at 50 msec interval |
| Sensor Type: | *Omni Receiver = One 20 kHz piezoelectric*<br>*Radial Receiver= One 8 segment 20 kHz piezoelectric* |
| Sensor Spacings: | Omni Receivers = 5 ft (1.5 m); 3.00 ft. (.9 m) |
| Firing Rate: | *20/sec* |
| Waveform: | Analog; 3ft (.9 m), 5ft (1.5 m), 8 Sectors Digital; Telemetry Data |
| Recording Time: | *1300μs for each receiver, 250 μs for each sector* |
| Combinability: | GR, CCL, Single or Dual Spaced Neutron, Temperature |

## MEASUREMENT

| | **$E_1$Peak Amplitude** | **Sonic Waveform** |
|---|---|---|
| Principle | *Sonic Wavetrain Attenuation* | |
| Range | *200 to 1500μs* | *200 to 1500μs* |
| Vertical Resolution | *3 ft. (.9 m)* | *5 ft. (1.5 m)* |
| Depth of Investigation | *na* | *na* |
| Precision (1 SD) | *< 1mV* | *na* |
| Primary Curves | *Amplitude (3ft )(.9 m)*<br>*Individual Sector Amplitudes (3 ft) (.9 m)*<br>*TT (3ft) (.9 m),*<br>*VDL(5ft) (1.5 m)* | |
| Secondary Curves | *Head Voltage, Internal Temperature* | |

## CALIBRATION

| | |
|---|---|
| Primary: | *5.5 in.(13.97 cm) – Pressurized Calibration Tank* |
| Wellsite Verifier: | *Free Pipe, Stored Calibration Tank Waveforms on Demand* |

## PHYSICAL STRENGTHS*

| **Hardware** | **Tension** | **Compression** | |
|---|---|---|---|
| Tool Joints | *50,000 lb* | *35,000 lb* | |
| Other | *50,000 lb* | *35,000 lb* | |

* *Strengths apply to new tools at 70°F (21°C) and 0 psi.*

## MEASURE POINTS

| **Measurement** | **Measure Point** (Referenced from bottom of tool) |
|---|---|
| Amplitude, TT | *4.3 ft. (1.3 m)* |
| VDL, Signature | *3.3 ft. (1.0 m)* |