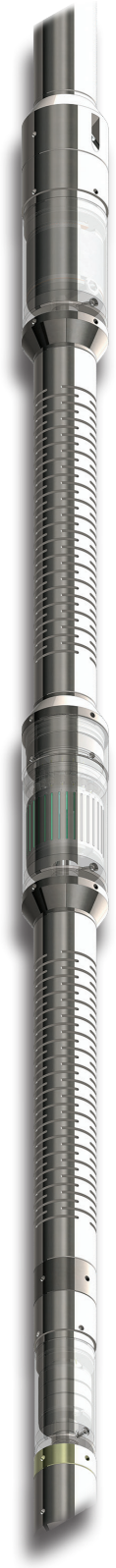
12-16 Sectors High Definition Radial Incremental Bond Tool (HD-RIB)

Titan Division | Instruments

Features

- Hunting's hybrid telemetry
- Wellbore and internal temperature sensor
- 450°F (204°C) flasked versions available
- Compatible with Hunting's Compensated Neutron, GR-Neutron and CCL
- Gravity high side azimuthal option available
- 14- to 20-kHz sonic signal
- Canister architecture
- Can accommodate casing sizes ranging from 7 in. (178 mm) to 18 in. (457 mm)



Benefits

- Optimal casing signal and data transmission
- Efficiently and easily maintained
- Real-time tool quality control
- Accurately assesses cement bond quality and hydraulic isolation in larger diameter holes
- Locates top of cement

Hunting's High Definition Radial Incremented Bond (RIB) tools are built using higher resolution segmented receivers to more accurately measure circumferential data necessary to determine if there is channeling in the cement, or to indicate low compressive strength in larger diameter cased holes.

Casing to cement bonding can be accurately determined by measuring the amplitude of the first arrival at the 3-ft receiver. A deeper investigating VDL receiver confirms the interpretation and also shows formation bond by a full Variable Density Log (VDL) wave display. VDL to transmitter spacing has been optimized for hole diameter.

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Specifications

Part Number	3-1/4 in. [83 mm] 12 Sector	4-1/2 in. [114 mm] 16 Sector
Standard	8112-3256NPE300-03-00 8112-3256LPE300-03-00 (High-side)	8112-4506NPE400-03-00 8112-4506LPE400-03-00 (High-side)
High Temperature	8112-3259NPE300-03-00 8112-3259LPE300-03-00 (High-side)	8112-4509NPE400-03-00 8112-4509LPE400-03-00 (High-side)
Measurements		
Vertical Resolution	1.5 ft RIB	3 ft RIB
	3 ft CBL and 5 ft VDL	3 ft CBL and 6 ft VDL
Sector Azimuthal Resolution	30° Cement map	22.5° Cement map
GTF Synchronized with Sector #1 - All Tools	*Available Option	
Borehole Temperature Accuracy** (°F)[°C]	+/-1% from 75 - 400 [24 - 204]	
Internal Tool Temperature Accuracy** (°F)[°C]		
Cable Head Voltage, VDC	As Measured at Cable Head	
Rec Logging Speed (ft/min)[m/min]	60 [18.3]	
Mud Type • Weight - All Tools	Must be liquid • No limitations	
Offset From Bottom Shoulder (in.)[cm]		
Temperature • Transmitter	76.5 [194.3] • 70.0 [177.8]	88.6 [225.0] • 81.2 [206.2]
RIB	61.0 [154.9]	63.2 [160.5]
3-ft Crystal • 5-ft or 6-ft Crystal	52.0 [132.1] • 40.0 [101.6]	63.2 [160.5] • 45.2 [114.8]
Environmental		
Temperature rating		
Standard (°F)[°C]	-25 to 375 [-32 to 190.6]	
High Temperature (°F)[°C]	-25 to 450 [-32 to 232]	
Pressure Rating (psi)[MPa]	20,000 [138]	
Material - All Tools	H_2S-Resistant Construction	
Mechanical		
Outside Diameter (in.)[mm]	3.25 [82.6]	4.50 [114.3]
Length (ft)[m] {Hi Temp}	9.13 [2.78 {10.75 [3.28]}	10.29 [3.14] {11.86 [3.61]}
Weight (lbs.)[kg] {Hi Temp}	135 [61] {160 [73]}	202 [92] {234 [106]}
Min. Casing Size (in.)[mm] RIB	7 [177.8]	8.63 [219]
Max. Casing Size (in.)[mm] CBL/VDL	12.75 [324]	18 [457]
Top • Bottom Connection	1-3/16 in. GO Box • 1-3/16 in. GO Pin	
Max. Tension (lbf)[kN]	60,000 [267]	
Electrical		
Operating Voltage & Current (At Cable Head)	120 +/-15 VDC @ 55±5 mA	
Auxiliary Tool Input	Single or Bi-Level Pulse	
HT Telemetry -All Tools	HT Telemetry	
Analog Bi-Level Pulse (pulse height & width)	±12V max • 1µs min, 30 µs max	
Sonic Transmitter Frequency (RIB/VDL) KHz	20/18	14/14
Cable Type - All Tools	Single or Multi-Conductor	
High Capacitance Lines - All Tools	7/32 in. 500°F (260°C)	
Crystal Type - All Tools	Piezoelectric	
Pressure Compensation - All Tools	Sliding Cans	

*Available Option Gravity Highside Reference to Radial Sector #1 [+/-2° {5° to 90° Borehole Inclination]
**Temperature Reading is Less Accurate Below 75°F [24°C] and Above 400°F [204°C]

About Hunting's Titan Division

For successful cased hole logging and perforating services, tool reliability, availability, and time line of delivery are essential. Hunting supplies customers worldwide with the right tools to get the job done. Our product lines include state of the art, high quality wireline and tubing conveyed perforating (TCP) gun systems, hardware and accessories, shaped charges, and electronic logging tools.

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