



**Geo-Vista**

## **Cement Bond Imaging Logging System (CBILog)**

PI Data Acquisition System (PIDAS)

Ultrasonic Scan Imaging Tool-Slim (USI-S)

Radial Cement Bond Logging System (RadialCBL)

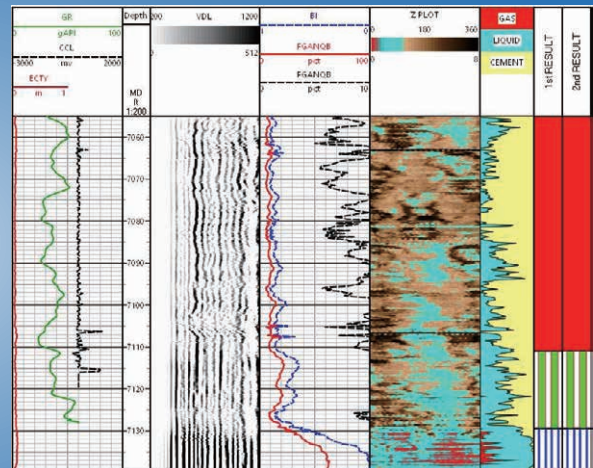
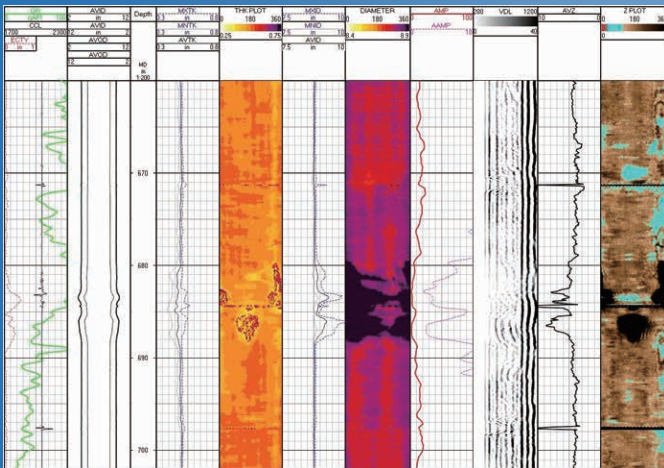
Hexapod Segmented Bond Tool (HSB)

Multi-Finger Imaging Tool (MFI)

Telemetry/Gamma Ray/Orientation Tool-Single Conductor (TGO-S)

Casing Collar Locator-Slim (CCL-S)

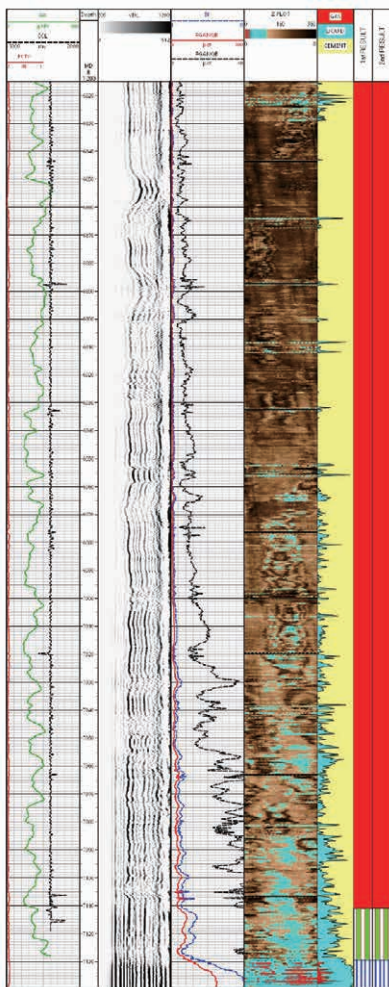
Temperature/Tension/Mud Resistivity Tool-Slim (TTR-S)



[www.RenheSun.com](http://www.RenheSun.com)  
[www.geovista.cn](http://www.geovista.cn)

## Applications

- Delivers the high-quality cement evaluation and casing inspection results with the USI-S / RadialCBL service
- Ensures high-resolution (0.0039 in.) characterization of the casing inner wall, with the MFI tool's direct-contact caliper technology
- Improves understanding of casing conditions, with additional provision of interactive 3D mapping and statistical reports
- Tractor or PCL conveyance for deviated and horizontal well applications
- Traditional cased hole pressure controls equipment compared to 7 conductor cable

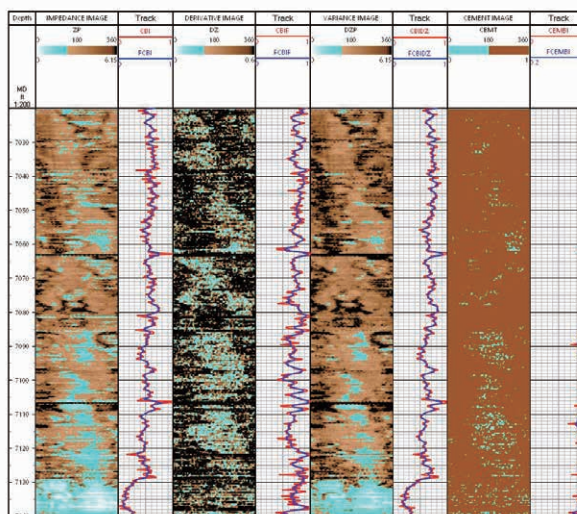
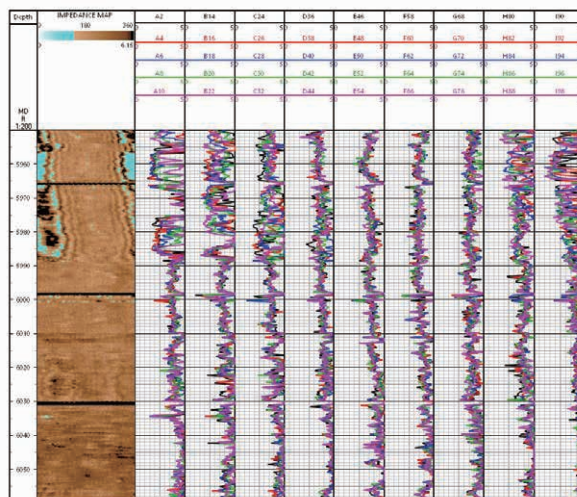


## Introduction

The Combination of the Ultrasonic Scan Imaging Tool-Slim (USI-S), Radial Cement Bond Logging Tool (RadialCBL) and Multi-Finger Imaging Tool (MFI) string was designed to augment well-integrity data acquisition with three independent data-acquisition technologies, particularly when suspected poor casing conditions are likely to impact data acquisition from acoustic tools. It enables enhanced well evaluation.

The USI-S / RadialCBL / MFI tool string was designed with 2.875 in. OD for smaller hole size and can be run with single conductor cable which is needed for traditional cased hole PCE work. The tool string acquires multiple data sets from 3.75 in. to 12.9 in. ID casing, including cement impedance, 5-ft. acoustic waveform, and 2D imaging logs, as well as interactive 3D maps of casing inner wall and statistical reports on casing wear.

This comprehensive solutions package permits the customer to fully understand the condition of both the casing and the cement when well conditions demand service innovation.



## Features

- The system records the data including the original signal of the instrument, calibrated engineering value and the processed data. Because the original signal of the instrument is recorded, the logging data could be reprocessed by different parameters if required.
- All of the calibration value and verification value could be displayed by the operator, therefore, it is easy to confirm: the value of the super-value will flash, causing the operator's attention.
- Repeated curves can be real-time displayed on the main logging curves to verify the repeatability of the curves.
- Real-time plotting of cross-plot graphs allows the operator to verify the correctness of the logging response which is based on the expected model.
- Real-time environmental correction eliminates the subjective assessment of the operator's quality control process.
- Real-time similarity correction verifies the integrity of the acoustic waveform data.
- Using personnel safety and data protection systems.
- Reduces wellsite operating time and ensure system reliability by using advanced computer technology and redundant design simplify data acquisition and processing.

\* Telemetry :




MGTS  
SGTS  
RGTS

## Wireline Perforating Panel (WPP)

### Features

- Wide voltage input (100 Vac-240 Vac)
- With safety switch
- PFC power supply is up to 150 V, and perforating and coring power supply adopts the mode of external DC power supply
- The polarity of perforating and coring voltage is adjustable

## Introduction

The  PI Data Acquisition System ( PIDAS) is designed for data acquisition and processing in combination with Open-hole and Cased Hole tool. This  PIDAS is based on portable notebook as a host and remote transmission system with high-speed data communication.



## Specifications

### Physical Dimensions & Weights

Height	29.13 in. (740 mm)
Depth	29.33 in. (745 mm)
Width	27.56 in. (700 mm)
Shipping Weight	160.9 lbs. (73 kg)

### Environmental Characteristics

Operating Temperature	0°C~+50°C
Storage Temperature	-20°C~+75°C
Relative Humidity	< 95%
Vibration (3D)	3 g 10-60 Hz (When not working)
Shock (3D)	3 g 10-60 Hz (When not working)
System Power Supply	85-265 Vac, 43 Hz-70 Hz
Downhole Instrument Power Supply	
AC Power	0-720 Vac, 2 A, 1440 W 0-1440 Vac, 1 A, 1440 W
DC Power	0-1000 Vdc, 2 A, 2000 W

## System Composition

Portable surface logging system is divided into: data acquisition system, power supply system and other major parts. The functions of each part is as follows:


1. Surface Data Acquisition System: the computer is the core, controlled by several loaded software, to complete a variety of logging operations. Such as the processing, recording, display, quality control and fast processing and interpretation of logging data on the wellsite. Including: PC, Wireline Acquisition Panel (WAP).
2. Power Supply System provides power to the surface system and downhole equipment. Currently, logging power supply system usually use vehicle generators or wellsite power.
3. Hoist Display Unit (HDU) is the display unit for the Surface System. Equipped with a color LCD touch screen display, the unit provides a continuous display of depth information. In addition, HDU also displays other variables monitored and provides a visual and audible alarm when any of these variables are outside a preset range.




## Features

- Used for a variety of downhole instruments for openhole and cased hole with different modules.
  - PI Data Acquisition System (PIDAS)
  - Post-processing & presentation management (FileView)
  - PI Wireline Formation Sampling and Testing System (PIWST)
    - PI Formation Coring Software (PIWST-FCT)
    - PI Mechanical Sidewall Coring Software (PIWST-MSD)
    - PI Reservoir Characterization Tester Software (PIWST-RCT)
    - PI Formation Test, Fluid Analysis, Pump-Thru Software (PIWST-FFP)
  - PI Production and Engineering Logging System (PIPES)
    - PI Down Hole Camera Software (PIPES-DHC)
    - PI Free Point Indicator Software (PIPES-FPI)
    - PI Mechanical Downhole Cutter (PIPES-MDC)
    - PI Rotary Magnet Ranging Software (PIPES-RMR)
    - PI Gyroscope Orientation Software (PIPES-GOT)
    - PI Downhole Casing & Tubing Tractor Software (PIPES-CTT)
    - PI Downhole Hydraulic Tractor Software (PIPES-DHT)
    - PI MFI Logging System (PIPES-MFI)
    - PI Memory Acquisition and Processing Software (PIPES-MAP)
  - PI Vertical Seismic Profile System (PIVSP)
  - Microseismic monitoring data processing and interpretation software (MMDPI)
  - PI Logging While Drilling System (PILWD)
    - PI Rotary Steerable Software
    - PI LWD Data Presentation Software
    - PI LWD Remote Monitoring Software
- Using multi-window to display nuclear logging equipment which is obtained by the spectrum, acoustic and imaging instruments. These windows can be controlled by the user, in order to display the original data or the processed data, so that, the operator can control the quality of the real-time logging data.
- Provides Multi-tasking and distributed processing at the wellsite, improving log data integrity and wellsite efficiency.

## PIDAS Software Introduction

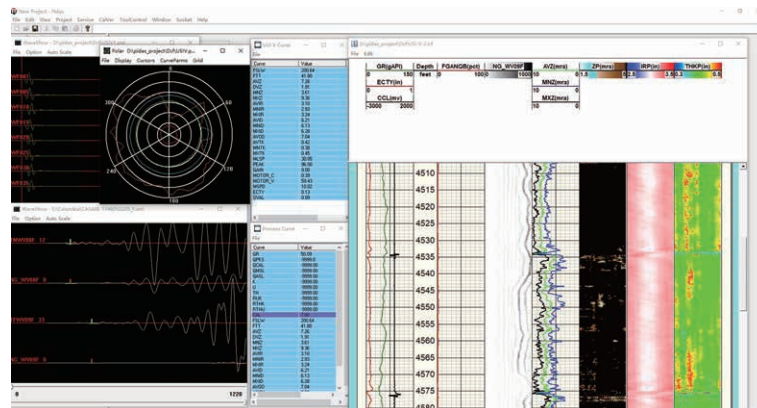
The PIDASView software contains two parts:  PIDAS software and FileView software. Each part can run independently.

The  PIDAS software is a control acquisition processing system based on WINDOWS with multi-task & multi-user, and using a large number of modern image processing technology.

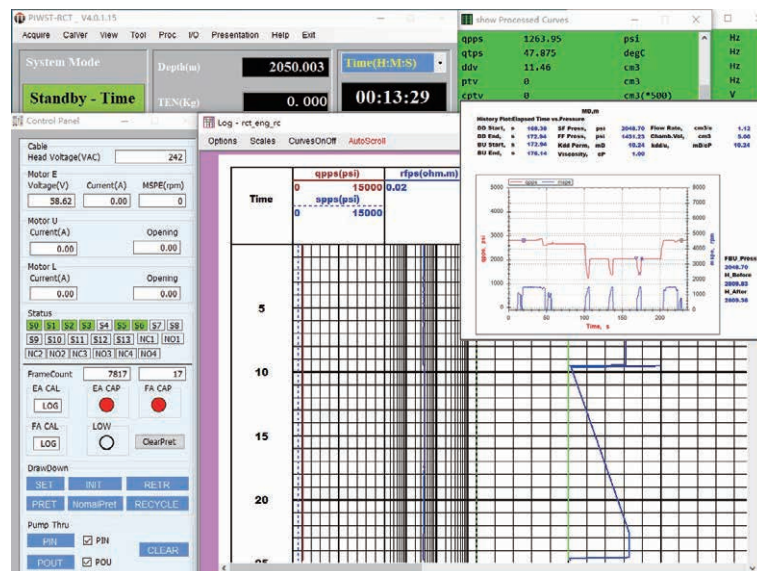
The control acquisition processing system is used to acquire and process various signals of the downhole logging instrument detector and to control other functions of the downhole instrument and converts the acquired signals to engineering values and provides the logging data required by the user.

By equipment array, imaging and large information, real-time logging data acquisition, control and processing achieve multi-parameter acquisition and multi-task time-sharing processing. PIDAS software can be used for a variety of downhole instruments for openhole and cased hole with different modules.

The FileView is a post-processing and presentation software. It can support the basic functions, such as the heading, toolstring, well sketch, calibration, parameters, log plot, data convert, etc. Also, it can provide the data analysis and processing, 2D, 3D, cross plot, compose plot, etc. advanced functions.



USI-G/CBL/VDL service by PI Data Acquisition System module



Pressure Test and Sampling service by PI Reservoir Characterization Tester Software PIWST-RCT module

## Features

- Equipped with a safety switch to ensure safe operation.
- Power supply to GR and CCL instruments, the voltage is up to 160 Vdc.
- Adjust the polarity of the power supply
- Both hands must be used simultaneously for perforation and coring to ensure the safety of the operation.
- Using an external DC power supply, the perforation voltage and current no limited by this panel.
- With BYPASS mode, connected with any system.
- Perforation and coring functions, no more panels required.
- Provide a powerless CCL visual indication and signal conditioning

## Introduction

Wireline Perforating Panel (WPP) is used for Perforating Control, Coring Control, PFC (Perforating Formation Correlation) power supply for Gamma Ray and CCL, Powerless CCL. It is the first panel connected to the cable drums, and suitable for 7-Conductor and Mono-conductor cable.



## Specifications

### Physical Specifications

Length	17.7.00 in. (45 cm)
Width	19 in. (48.26 cm)
Height	5.3 in. (13.35 cm)
Weight	22.05 lbs. (10 kg)

### Electrical Parameters

AC Input	100-265 Vac / 47-63 Hz
PFC Output Voltage	0-160 Vdc

### Environmental Specifications

Operating Temperature Range	32°F (0°C) to 104°F (+40°C)
Storage Temperature Range	-4°F (-20°C) to 158°F (+70°C)
Maximum Humidity	95%

## Applications

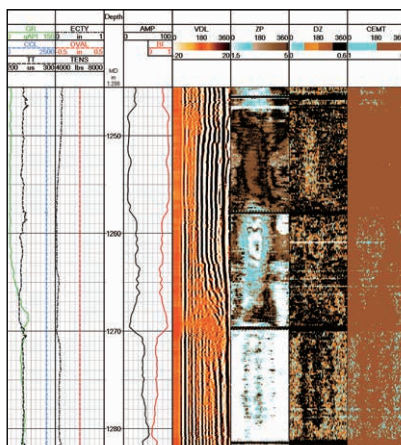
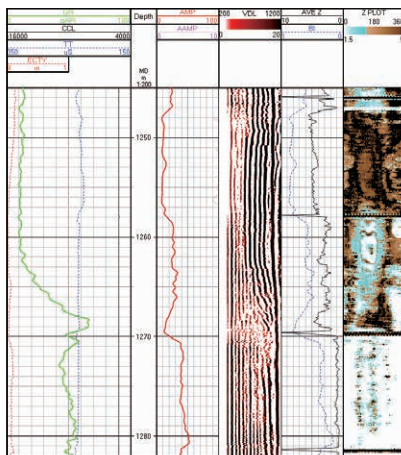
- Casing Inspection (both Thickness and Diameter)
- Ultrasonic Cement Evaluation/ Imaging

## Benefits

- Reveals bonding and image channels in the cement sheath directly outside the casing

## Features

- Measures casing properties such as thickness, internal, and external diameters



## Introduction

The USI-S tool provides high-resolution cement and casing evaluation images oriented with respect to high side-low side of the wellbore, enabling identification of both internal and external casing wear, erosion, corrosion, or mechanical damage.

USI-S provides the same capabilities as the USI-V/USI-F/USI-G, but with a smaller diameter tool, the cement evaluation and casing inspection service can now be acquired in 4-1/2 in. to 13-3/8 in. casing.

USI-S tool consists of 2 sections: electronic assembly and scanner assembly. USI-S tool is MGTS interface type tool.

## Specifications

Maximum Temperature	350°F (175°C)
Maximum Pressure	20,000 psi (137.9 MPa)
Tool Diameter	2.875 in. (73 mm)
Power Supply	180 Vdc, 200 mA

### Cement Bond & Casing Corrosion Mode

Firing Rate	36, 45, 60, 72, 90 shots/scan (Optional)
Vertical Scan Rate	4 scans/ft. at 3.0 in. sampling
Vertical Sampling(Software)	6.0, 3.0, or 1.0 in.
Logging Speed	60, 30 or 10 ft./min (Depending on sampling rate)
Principle	Ultrasonic Pulse Echo and time of flight
Primary Curves	Reflected Amplitude, Radius Acoustic Impedance, Casing Wall Thickness
Secondary Curves	Relative Bearing, Deviation, Fluid TT, Compressive Strength, Mud Impedance

### Imaging Inspection Mode

Firing Rate	180 shots/scan
Vertical Scan Rate	40 scans/ft. at 3.0 in. sampling
Vertical Sampling(Software)	0.3 in.
Logging Speed	21 ft./min
Principle	Ultrasonic Pulse Echo and time of flight
Primary Curves	Reflected Amplitude, Travelling Time
Secondary Curves	Relative Bearing, Deviation, Fluid TT, Radius
Minimum Diameter Hole	3.75 in. (95 mm)
Maximum Diameter Hole	13 in. (330 mm)
Wireline Requirements	7-Conductor Cable
Transducer	250 kHz, 350 kHz, 450 kHz, flat type 380 kHz, focal type 300 kHz, mud transducer

Combinability	MGTS type tool
Motor Speed	2-5 rps (Adjustable)
Centralizer	Inline centralizer
Head Assembly	
Fixed	3-1/8 in., 3-5/8 in., 4-3/8 in., 5-5/8 in., 7 in. dia.
Adjustable	3 in.-5.25 in. effective head radius

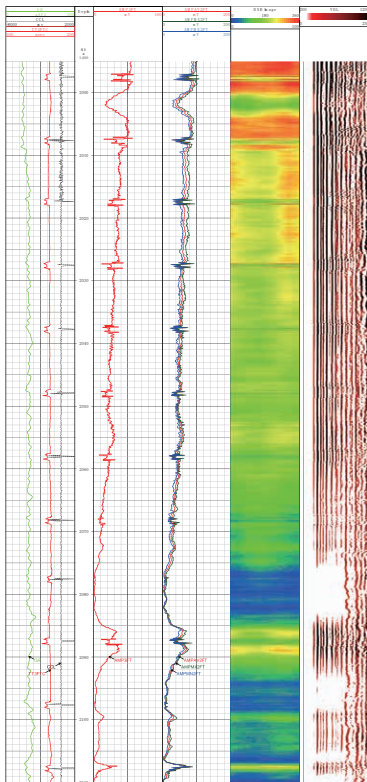


## Applications

- Evaluation of cement bond quality and integrity
- Location of free-pipe and cement-top

## Features

- 360° cement bond imaging view
- RBM could combine with a pipe scraper, logging while pipe cleaning under thru-pipe logging memory mode
- OSB & DSB could combine with USI-V/USI-G
- Combine with Multi-Finger Imaging Tool (MFI-24 /MFI-40/ MFI-60)



Calibration Tank

## Introduction

The Radial Cement Bond Tools provide the operator with an accurate and economic means of inspecting the quality of the cement bond to casing and formation.

The tools evaluate the cement bond quality and integrity to both casing and formation by providing the measurements of the cement bond amplitude (CBL) through the near receiver (3 feet), and variable density log (VDL) through the far receiver (5 feet). Depending on tool size, the tool has 6/8/12 segmented receivers. These radial receivers are used to provide a high resolution cement bond imaging view.

## Specifications

	Radial Bond Logging with Memory Mode (RBM) (6 segments)	Octopod Segmented Bond Tool (OSB) (8 segments)	Dodeca Segmented Bond Tool (DSB) (12 segments)	
Pressure (Maximum)	20,000 psi (140 MPa)	20,000 psi * (140 MPa)	20,000 psi * (140 MPa)	
Temperature (Maximum)	350°F/175°C	350°F/175°C*	350°F/175°C*	
Diameter	1.78 in. (45 mm)	2.13 in. (54 mm)	2.5 in. (63 mm)	2.88 in. (73 mm)
Length	9.93 ft. (3.03 m)	11.48 ft. (3.5 m)	13.12 ft. (4.00 m)	
Weight	40 lbs. (18.1 kg)	110 lbs. (50 kg)	231.48 lbs. (105 kg)	
<b>Transducer Type</b>				
<b>Receiver (s)</b>				
Bandwidth	18-32 kHz	18-24 kHz	18-24 kHz	
Receiver (3 ft.)	6 Segments Synthesized	Monopole	Monopole	
Receiver (5 ft.)	Monopole	Monopole	Monopole	
Receiver (2 ft.)		8 segments	12 segments	
<b>Transmitter (s)</b>				
Type	Piezoelectric (Monopole)			
Bandwidth	18-22 kHz	18-24 kHz	18-24 kHz	
Number	1	1	1	
<b>Recommended Casing Range</b>				
Minimum Casing OD	2.875 in. (73.0 mm)	4.00 in. (101.6 mm)	5.00 in. (127 mm)	
Maximum Casing OD	7.5 in. (190.5 mm)	10 in. (254 mm)	10.75 in. (273 mm)	13.375 in. (340 mm)
<b>Data Acquisition</b>				
Maximum Logging Speed	100 ft./min (30 m/min)**			
Tool Positioning	Centralized			
Gamma Ray	Optional Integrated			
CCL	Optional Integrated			
Temperature	Optional Integrated			
<b>Power Requirements</b>				
Input Voltage	150 to 220 Vdc	150 Vdc/180 Vac***	150 Vdc/180 Vac***	
Input Current Required	50 mA	90 mA	80 to 90 mA	

\* 25,000 psi (172.4 MPa) / 400°F (204°C) is optional.

\*\* The maximum speed is 30 ft./min (9 m/min) if connect with USI-V/USI-G.

\*\*\* Mono-conductor cable is DC powered, multi-conductor cable is AC powered.



DSB



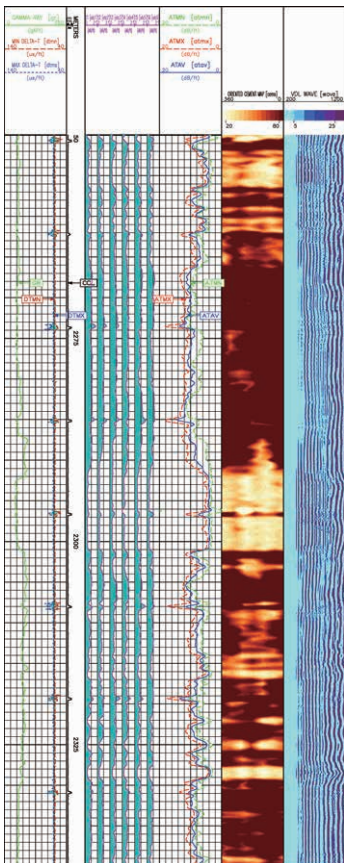


## Applications

- Evaluate cement bond quality in six sectors
- Cased-hole wells
- Continuous cement map
- Advanced channel analysis

## Features & Benefits

- Evaluates multiple-size casing strings in one logging pass
- Through tubing to log the exposed casing section
- Provides qualitative analysis in light cement
- Provides accurate measurement, even in fast formations, heavy mud, and thick wall casing
- Combinable with Ultrasonic Scan Imaging Tool (USI-V/USI-G)
- Combinable with Tractor in high deviated and horizontal wells



## Introduction

The HSB is a unique cement bond logging tool. It can find and define channels in the cement annulus which could result in a poor hydraulic seal. Conversely, the HSB can reliably find zones of uniform bonding over only a few feet of casing. Under conditions where a short bonded interval produces an adequate hydraulic seal, unnecessary squeeze jobs can be avoided.

## Specifications

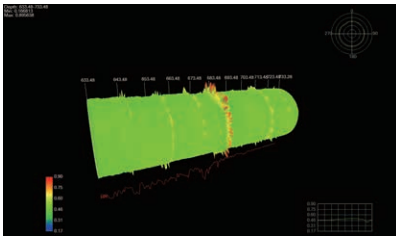
Maximum Temperature	350°F (175°C)
Maximum Pressure	20,000 psi (137.9 MPa)
Minimum Casing ID.	4.0 in. ID (101.6 mm)
Maximum Casing ID.	15.5 in. ID (393.7 mm)
Tool Diameter	3.38 in. (85.7 mm)
Make-up Length	
Pad section	17 ft.-3.87 in. (5.28 m)
VDL section	7 ft.-8.13 in. (2.34 m)
Shipping Length	
Pad section	19 ft. (5.79 m)
VDL section	9 ft.-3.81 in. (2.84 m)
Weight	
Pad section	240 lbs. (108 kg)
VDL section	108 lbs. (49 kg)
Maximum Logging Speed	
Auxiliary Data Mode	Limited only by GR resolution required
Normal Mode	35 ft./min (10.7 m/min)
Measurement Range	0-22 dB/ft. Compensated attenuation
Absolute Accuracy	±1.0 dB/ft. or 10% of log value
Repeatability	±1.0 dB/ft. or 10% of log value
Vertical Resolution	0.25 ft. (76.2 mm) Basic measurement Normal Presentation presents data averaged over 3 ft. (91 cm)
Radial Resolution	60 degrees
Depth of Investigation	2 in. (50.8 mm)
Power Requirements	150 Vdc
Wireline Requirements	Single conductor
Detector Type	
VDL	20 kHz Piezo-electric cylinder
Pads	100 kHz Piezo-electric Stack
Pad Force	50 lbs. (22.7 kg)





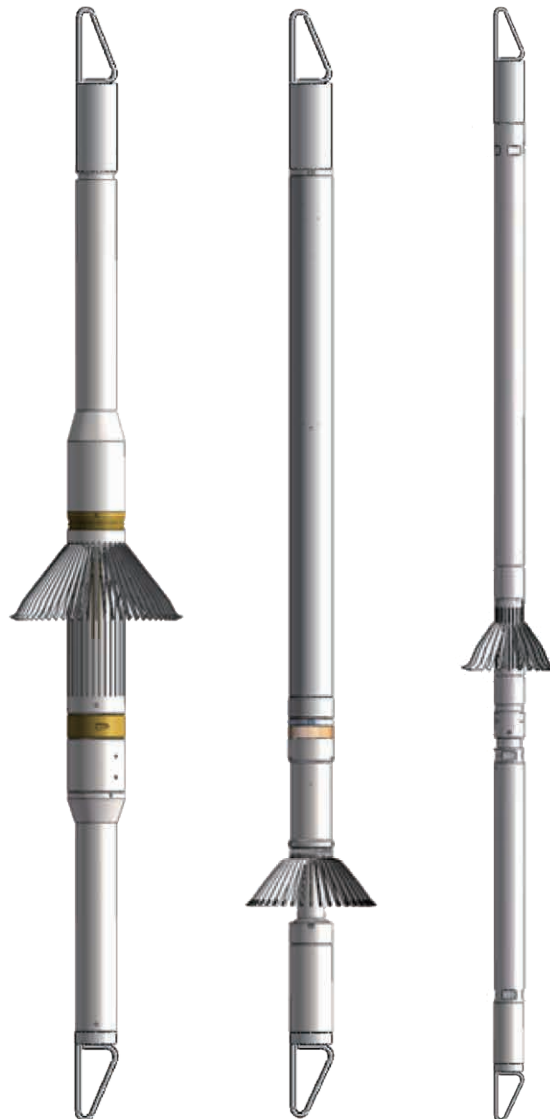
## Applications

- Casing Deformation
- Casing Wear
- Perforation Mapping
- Accurate location of holes or anomalies



## Introduction

The Multi-Finger Imaging Tool (MFI) is used to detect very small changes to the internal surface condition of tubing or casing with a high degree of accuracy. A range of tool sizes with 24, 40, or 60 fingers are available to suit different casing diameters and each tool has two types fingers to increase the measurement range. The tool includes an inclinometer to indicate well bore deviation and the tool bearing relative to the high side of pipe.



## Specifications

Item	MFI-24	MFI-40	MFI-60
Max. Temperature	350°F (175°C)		
Max. Pressure	15,000 psi (103 MPa)		
Make-up Length	4 ft.-2.59 in. (1.285 m)	7 ft.-6.12 in. (2.29 m)	6 ft.-0.36 in. (1.84 m)
Shipping Length	5 ft.-4.57 in. (1.64 m)	7 ft.-11.64 in. (2.43 m)	6 ft.-5.88 in. (1.98 m)
Weight	20.7 lbs. (9.38 kg)	79.4 lbs. (36 kg)	111.3 lbs. (50.5 kg)
Tool Diameter	1.688 in. (43 mm)	2.875 in. (73 mm)	4 in. (102 mm)
Min. Hole Diameter	1.97 in. (50 mm)	3.15 in. (80 mm)	4.5 in. (115 mm)
	(4.5 in. finger)	(7 in. finger)	(10 in. finger)
Max. Hole Diameter	4.5 in. (114.3 mm)	7 in. (177.8 mm)	10 in. (254 mm)
	(4.5 in. finger)	(7 in. finger)	(10 in. finger)
Recommended Logging Speed	22 ft./min (6.7 m/min)		
Max. Logging Speed	43 ft./min (13.3 m/min)		
Radial Accuracy	±0.02 in. (0.5 mm) STD	±0.02 in. (0.5 mm) STD	±0.025 in. (0.64 mm) STD
	±0.02 in. (0.5 mm) EXT	±0.025 in. (0.64 mm) EXT	±0.03 in. (0.76 mm) EXT
Radial Resolution	0.0039 in. (0.1 mm)		
Rotation	±3°		
Inclinometer	±3°		
Power Requirements	18 Vdc (Nominal) 13-23 Vdc (Range)		
Current Consumption	30 mA @ 18 Vdc (Logging)		
	450 mA @ 18 Vdc (Motor operating)		
Extending Finger	7 in. fingers (EXT)	10 in. fingers (EXT)	14 in. fingers (EXT)
	Min: 1.97 in. (50 mm)	Min: 4.7 in. (119 mm)	Min: 4.5 in. (115 mm)
	Max: 7 in. (177.8 mm)	Max: 10 in. (254 mm)	Max: 14 in. (356 mm)
	Tool OD 1.688 in. (43 mm)	Tool OD 4.33 in. (110 mm)	Tool OD 4 in. (102 mm)



### Applications

- Data control
- Lithology identification
- Measuring bed thickness
- Borehole orientation

### Introduction

This tool is the downhole telemetry interface tool. The primary function of the TGO-S is to act as a repeater of the telemetry channels and to create the SGTS tool Bus. A secondary function is to acquire data from several sensors located in its electronic cartridge and outside of it. It can acquire the signal of natural gamma-ray, three orthogonal accelerometers and magnetometers, it can acquire the data from the downhole temperature/tension/mud resistivity.

### Specifications

Maximum Temperature	350°F (175°C)
Maximum Pressure	25,000 psi (172.4 MPa)
Tool Diameter	2.75 in. (70 mm)
Minimum Hole Diameter	3.5 in. (89 mm)
Maximum Hole Diameter	16 in. (406.4 mm)
Make-up Length	9 ft.-0.12 in. (2.75 m)
Shipping Length	10 ft. -3.08 in. (3.13 m)
Weight	75.85 lbs. (34.4 kg)
Maximum Tensile Force	49,000 lbs
Maximum Compressive Force	44,500 lbs
Maximum Logging Speed	60 ft./min (18 m/min)
Gamma Ray Energy Range	0.06 to 3.5 MeV
Accuracy	GR: ±3% of measured value
Measure Point	1 ft.-1.7 in. (448mm) from bottom of sub
Orientation:	
Sensor Accuracy	Azimuth ± 1.5 degrees Deviation ± 0.25 degrees
Drift Azimuth	Deviation range 9° to 90° DAZ ± 1.5 degrees Deviation range 5° to 9° DAZ ± 6.0 degrees Deviation range 1° to 5° DAZ ± 10.0 degrees
Power Requirements:	
Operating Voltage & Current	180 Vdc, 55 mA
Wireline Requirements	Single or Multi-Conductor Cable





## Applications

- Depth Measurement

## Introduction

The CCL-S Tool measurement is based upon the principle that a changing magnetic flux within the tool sensor coil generates a voltage across the terminals of that sensor coil. The magnetic field of a CCL-S magnet is affected by any magnetically sensitive material close to it, such as the casing in a borehole. A collar or joint in the casing changes the magnetic flux field including the flux passing through the sensor coil ends adjacent to the magnets, causing an electric voltage to be generated.



## Specifications

Maximum Temperature	350°F (175°C)
Maximum Pressure	25,000 psi (172.4 MPa)
Tool Diameter	2.75 in. (70 mm)
Minimum Hole Diameter	3.5 in. (89 mm)
Maximum Hole Diameter	12.0 in. (305 mm)
Make-up length	1 ft.-10.42 in. (0.57 m)
Shipping length	3 ft.-1.38 in. (0.95 m)
Weight	20 lbs. (9.1 kg)
Source Type	Magnets
Sensor Type	Coil
Maximum Tensile Force	100,000 lbf.
Maximum Compressive Force	100,000 lbf.



### Applications

- Detect and measure borehole temperature mud resistivity (Rm), and external cablehead tension and compression forces at the top of the tool string

### Introduction

The TTR-S is a 2.75 in. diameter sub containing three types of sensors for measurement of cablehead tension/compression force, borehole temperature, and mud resistivity.

### Specifications

Maximum Temperature	350°F (175°C)
Maximum Pressure	20,000 psi (137.9 MPa)
Tool Diameter	2.75 in. (70 mm)
Minimum Hole Diameter	3.5 in. (89 mm)
Make-up Length	5 ft.-1.3 in. (1.56 m)
Shipping Length	6 ft.-4.28 in. (1.94 m)
Weight	45.2 lbs (20.5 kg)
Maximum Logging Speed	100 ft./min (30 m/min)
Measurement Range	
Cablehead Tension	0 to 12,000 lbs Tension 0 to 10,000 lbs Compression
Borehole Temperature	32°F to 450°F (0°C to 230°C)
Mud Resistivity	0.01 ohmm to 10 ohmm
Absolute Accuracy	
Cablehead Tension	± 800 lbs Tension ± 5% * ± 800 lbs Compression ± 5% *
Differential Cablehead Tension	± 100 lbs Tension ± 100 lbs Compression
Borehole Temperature	± 4°F ± 5% (2°C ± 5%)
Mud Resistivity	0.01 ohmm ± 5%
* The absolute accuracy is limited because of effects of pressure, temperature, and measurement electronics. Therefore the TTR-S should only be used as a differential CHT device.	
Repeatability	
Cablehead tension	± 100 lbs Tension ± 100 lbs Compression
Borehole Temperature	± 2°C
Mud Resistivity	± 0.01 ohmm
Maximum Tensile Force	50,000 lbf.
Maximum Compressive Force	18,000 lbf.





Marketing Manager  
Xujie Zhang  
Mobile: (+86) 13521254100  
Email: zhangxj@renhesun.com

International Sales Manager  
Sharry Liu  
Mobile: (+86) 13911317865  
Email: sharry@renhesun.com

Sales Manager  
Dr. Hong Mei  
Contact: +1 8323585168  
Email: meihong@renhesun.com  
Address: 910 Chinquapin Place,  
Houston, Texas, USA 77094

Product Manager  
Hongai Zhang  
Mobile: (+86) 18911632096  
Email: zhangha@renhesun.com

International Sales Director  
Chen Gang  
Mobile: (+86) 13817367599  
Email: chengang@renhesun.com

Sales Manager  
Chen Hua  
Contact: +971 524515130  
Email: chenhua@renhesun.com  
Address: View 18 Office No. 2102,  
Downtown Jabel Ali, Dubai, UAE