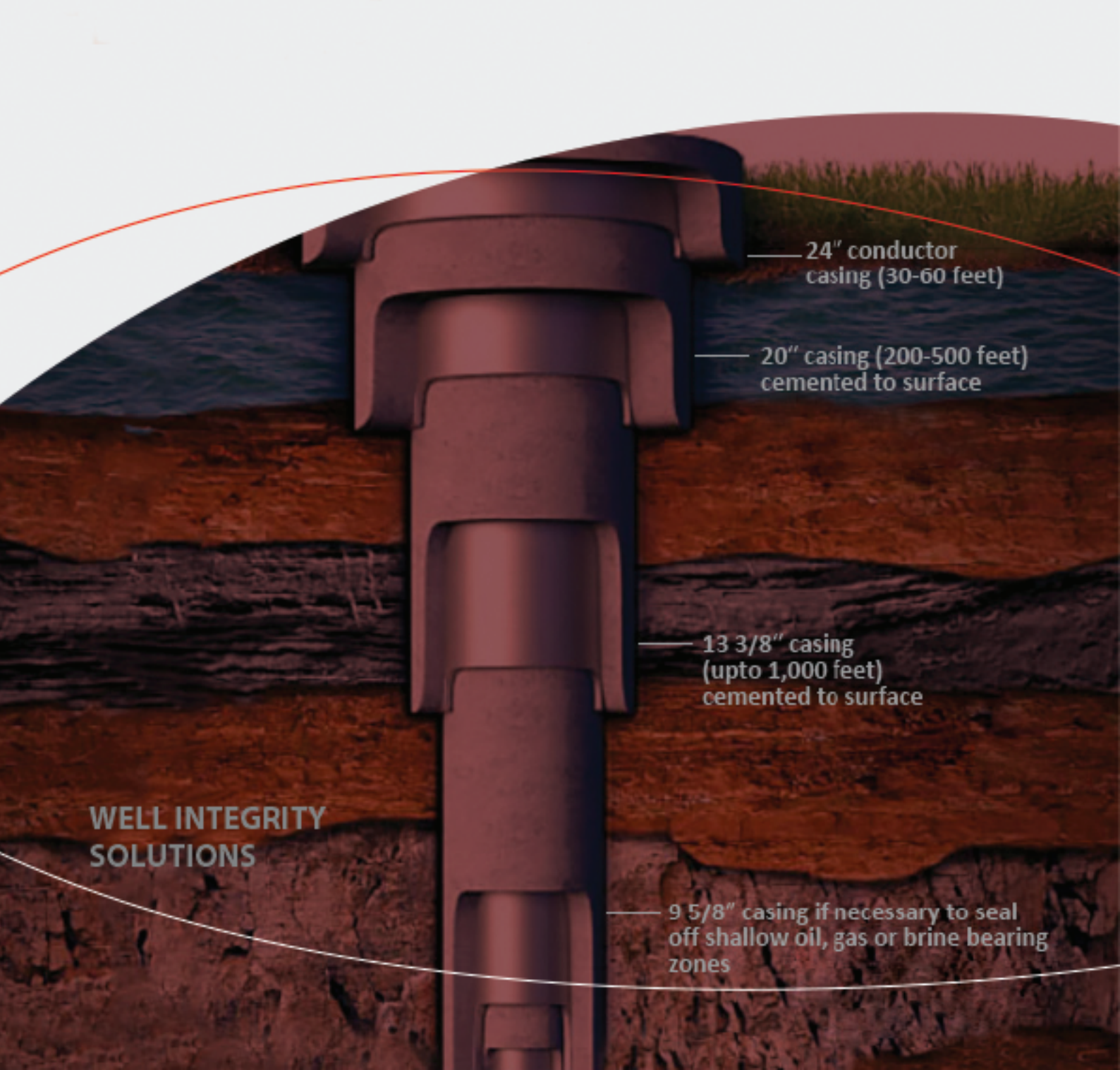


# GINNOVO

MSNT

## Memory Digital Spectral Noise Tool



24" conductor casing (30-60 feet)

20" casing (200-500 feet)  
cemented to surface

13 3/8" casing  
(upto 1,000 feet)  
cemented to surface

WELL INTEGRITY  
SOLUTIONS

9 5/8" casing if necessary to seal  
off shallow oil, gas or brine bearing  
zones

# Memory Digital Spectral Noise Tool (MSNT)

Memory Digital Spectral Noise Tool is intended for recording intensity and spectral characteristics of acoustic noise along the wellbore in order to identify fluid and gas inflow intervals, as well as streaked flows accompanied by acoustic noises in the well during hydrodynamic and geophysical studies of drilling, production and injection wells.

The tool records signal from the piezoelectric sensor at predetermined equal intervals and records them in 512 frequency channels. Recording of information is made in digital form in internal non-volatile memory of the tool. Flash memory is used as memory chips, which allows you to save information when power sources are turned off. After measurement execution, information is transferred to a computer for processing and analysis. Data can be saved on a computer and transferred to other data processing programs. The tool does not require erasing memory. Instrument uses two channels with different gain factors to increase the dynamic range. This allows to use data from channel with less gain for channel overloaded with high gain.

## Specifications:

### Noise tool channel

Frequency range, kHz	0,05 – 50
Number of frequency channels	512
Sampling interval, sec	1-99
Frequency of conversion of the input signal (ADC), Hz	51200
ADC bit depth	16
Number of frequency channels	512
Number of analog channels for recording	2

### Analog channels

a) large signal channel (gain ratio ~ 80)	
b) small signal channel (gain ratio ~ 2500)	
Inaccuracy of the internal clock per day, s, not more than	+5

### Tool memory

Tool memory capacity	128 MB
Memory filling time, from	9 hrs (survey cycle 1s) to 37 days (survey cycle 99 s)
Time to read all memory	about 20 minutes
Information retention time	10 years
Number of write cycles into internal memory	10000

### Peak operational parameters

Operating temperature range, °C	32-212; 32-248; 32-302
Maximum pressure, kgf/cm <sup>2</sup>	588.39; 784.53
Power supply	
Power supply from a DC source (Standard version - battery with diameter of 0.55 in, length 1.97 in)	3.6V

Minimum supply voltage at which device operating characteristics are retained, V	3,3
Consumption current in storage mode, µA, not more than	40

Average current consumption in operating mode depends on set survey cycle and tends to 3mA (1s - 6mA; 2s - 5mA)

Tool operation time depends on the type of batteries and set survey time: for example, if the battery capacity is 1A/h and survey time is 1s, the device will work on power supply for  $1000/6 = 166$  hours = 7 days

The tool allows you to monitor battery status during a communication session with a computer.

### **The software allows:**

1. To turn the unit on and off in recording mode via computer
2. To view actual values by channels and power supply voltage when checking the tool
3. To set survey cycle from 1 to 99 seconds, program operating mode of the tool
4. To display measurement data from the instrument to the computer
5. To view data on computer screen and print it in numerical and graphical form
6. To connect to a computer via USB 2.0

### **Indicators of tool reliability**

Mean time between failures, not less than	20000 h
Average recovery time, no more than	4h

### **Overall dimensions and weight**

Length, in	22.44
Diameter, in	1.49, 1.65
Weight, lbs, no more than	1.45



# GINNOVO

Ginnovo International  
Level 4<sup>th</sup>, Gold Tower (HQ)  
Jumeirah Lake Towers (JLT), Cluster (I)  
Office# 4F, P.O. Box 87305  
Dubai, United Arab Emirates

Tel. +971 (4) 368 2133  
E-mail. [info@ginnovo-group.com](mailto:info@ginnovo-group.com)  
Web. [www.ginnovo-group.com](http://www.ginnovo-group.com)