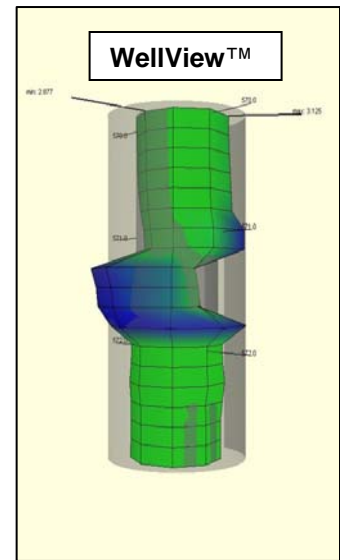


1.75" MEMORY TUBING CALIPER

The Scientific Production Services Memory 24 finger Multi-finger Caliper is a high accuracy, high-resolution tool providing detailed inspection of the inside of the completion string and components. The high quality measurement allows the use of 3-dimension imaging and calculation of metal wear or corrosion and mineral deposition.

Operating Principle

The tool comes in two configurations, Standard model 350 degrees F (175 C) High Temperature model 428 degrees F (220 C) that uses a special hybrid flask. A Lithium Battery powers the tool. The caliper can be run on Slickline for simple well control. The tool is programmed at surface. Once the tool is at depth the program stored in memory starts data acquisition and opens the fingers. The fingers are spring loaded and are carbide tipped. The fingers push against the ID of the casing or tubing with a low force as the tool is logged up the hole. Movement of each finger is transmitted to a Minimum and Maximum measurement system and individual (Profiling Fingers) located every 45 degrees. The combination of Min-Max and individual measurement fingers will provide you with all the information necessary to evaluate the condition of your tubing. The movement of each finger is transferred to a sensor. The sensor data is stored into memory and is retrieved once the tool is at surface. At the end of the run the fingers will automatically close. Repeats sections can be made with this tool. It can be opened again by using the talk-down system. The tool can be reopened as many times as desired. The tool includes an inclinometer to measure tool deviation and high side. Internal and external temperatures are recorded.



Applications

Quantification of scale or corrosion build up, accurate location of holes or anomalies in the tubing or casing. Identification of downhole hardware and damage.

Options

- 350 F (177 C) or 428 F (220 C) Temperature Versions
- Logging Speeds between 15 ft/min (900 ft/hr) and 60 ft/min (3600 ft/hr)
- WellView 3-D imaging software
- WellView statistical joint analysis software
- Sample rates as low as 1/10th of a second
- 24" Roller or Bow Spring Centralizers used on top and bottom



SPECIFICATIONS	
Diameter	Standard 1.75" (44.45 mm) Flashed 1.82" (47 mm)
Length	Caliper 83.5" (2121 mm) Centralizers 24" (609.6 mm) x 2 Total Length 131.5" (3340 mm)
Weight	23 lbs (10.45 kg)
Measurement Range	1.85"-4.5" (47-114.3 mm) Optional 1.85" – 7" (47- 117.8 mm)
Sensor Sample Rate	Minimum 0.1 second
Radial Resolution	0.005" (0.127 mm)
Radial Accuracy	+/- .03" (0.762 mm)
Inclinometer Accuracy	5 degrees rotation and deviation
Finger Contact Force	1.5 to 3 lbs
Max. Pressure	15,000 psi
Max Temperature	350 degrees F (177 degrees C) High Temp Version 428 degrees F (220 degrees C)
Materials	Corrosion Resistant Throughout



Scientific Production Services

(A Division of Scientific Drilling International)

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