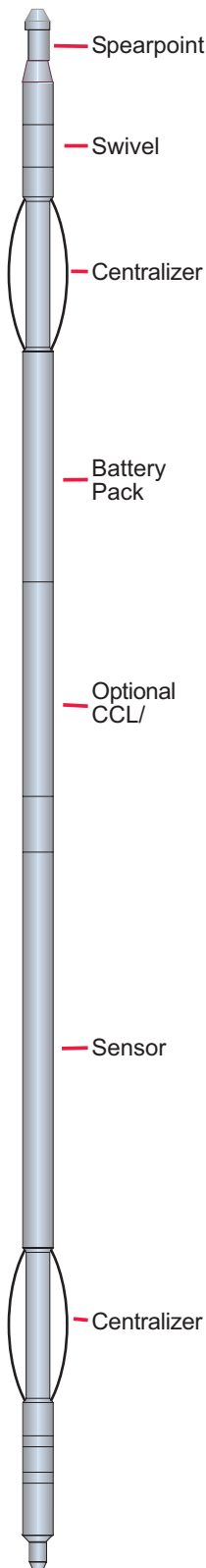


Memory KEEPER



Wellbore Orientation and Surveying

Highly-Accurate Cost-Effective Gyro Surveys

Scientific Drilling's Memory Keeper is an extension of its proven Keeper Gyro Surveying System. Using state-of-the-art wireline surveyor sensors, the Memory Keeper uses either standard D-cell alkaline or lithium batteries with an optional CCL/gamma. It produces highly accurate gyro surveys at locations where wireline is not available or where the reduced cost of slickline is a plus.

Stand-Alone Versatility

Memory Keeper eliminates the need for wireline and sets the standard for high-accuracy gyro survey applications. The Memory Keeper requires no onsite power for the downhole sensor or surface equipment. This battery powered system can be attached to virtually any string of sensors that require borehole attitude and position correlation.

Multi-Faceted Applications

- High-accuracy casing surveys
- High-accuracy drillpipe surveys
- Slimhole surveying
- Orientations

Continuous, High-Speed Operations

The Memory Keeper operates in continuous high speed mode from surface to bottom. Onboard memory stores data at a rate of 6 new surveys per second. Each measurement is time-stamped for synchronization with depth data collected by the parallel-running surface computer. Survey computations can be performed at intervals as small as one foot while running at 350 feet per minute. The survey information is uploaded using a high-speed digital communications link and computed onsite.

Accuracy and Reliability Through Engineering Excellence

Memory Keeper's on site pre- and post-diagnostics provide the ultimate in survey data reliability and accuracy. Proprietary quality assurance algorithms are embedded to verify all survey computations. Memory Keeper makes use of over 20 years of high-accuracy gyro survey engineering excellence.

Technical Specifications			
*Accuracy:	Subject to well profile		
Pressure Rating:	20,000 psi (137,900 kPa)		
Survey Speed:	=600 ft/min (=150m/min)		
Diameter:	1.75" (4.5cm)	1.85" (4.7cm)	2.125" (5.4cm)
Length:	18 ft (5.5m)	19 ft (5.8m)	19 ft (5.8m)
Weight:	110 lbs (50kg)	120 lbs (54kg)	140 lbs (63kg)
Temperature Rating:	300°F	400°F*	400°F*
Battery Power:	Alkaline = 12 hours Lithium = 30 hours		

* Error ellipse calculations available upon request for individual well profiles.