READ | CASED HOLE

Version 1

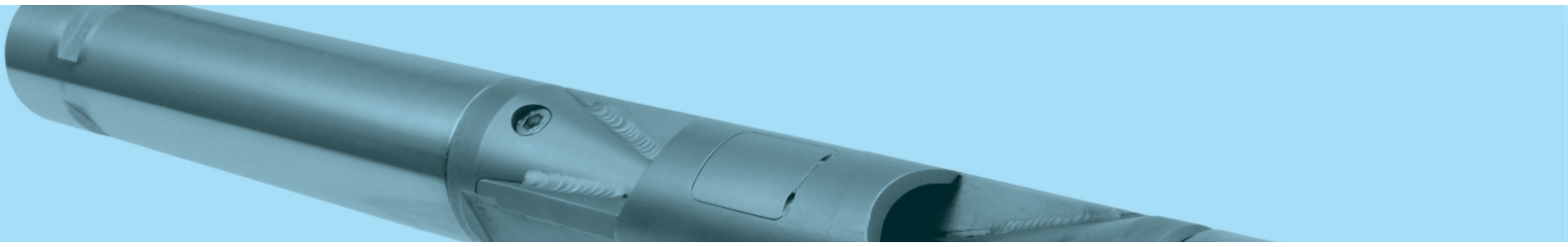

Image courtesy of GE oil & gas

TECHNICAL DATA SHEET

ILS

In-line Spinner Flowmeter

The In-Line Spinner Flowmeter (ILS) is a compact tool which can be run in combination with other conventional or array production logging tools. It provides back-up for full bore spinners as a secondary measurement in the event of spinner jamming or where jetting effects may adversely affect measurements.

The ILS allows for production profiling in tubing and casing within one logging run and is less susceptible to the effects of jetting (high velocity fluid entry from perforations) than a fullbore spinner. The ILS has a shroud that protects the spinner blade as the tool moves through well restrictions. A combination of ILS and Full-Bore Spinner provides a continuous optimised flow profile.

Precision roller bearings allow the spinner to rotate with minimal friction. The spinner rotation is detected by zero drag Hall-effect sensors. The spinner blade has been optimised to have a very low mechanical threshold and is ideal for low flow rates.

APPLICATIONS:

- Production flow profiling in all well deviations
- Leak detection services
- Flow measurement inside sand screens/slotted liners
- High velocity fluid entry from perforations
- Tandem string configuration for high solids risk wells

BENEFITS

— Accurate flow determination from high resolution measurements

— Low start-up friction and inertial mass enabling resolution of small flow changes

— Ruggedised design for use in wells containing high solids

— Reduced susceptibility to localised flow jetting events

— Deployable on Slickline, Electric line, Coil Tubing and Tractor

— Suitable for all well deviations, including horizontal

Image courtesy of GE oil & gas

Specifications

	Slimline	Standard
Temperature rating	350°F (177°C)	
Pressure rating	15,000 psi (103.4 MPa)	
Tool diameter	1 $^{11}/_{16}$ in (43 mm)	2 $^{1}/_{8}$ in (54 mm)
Tool length	17.3 in (439 mm)	
Tool weight	6.5 lb (3.0 kg)	6.8 lb (3.1 kg)
Maximum fluid velocity	3,000 ft/min (15 m/s)	4,000 ft/min (20 m/s)
Spinner threshold (estimated – dependent on density & viscosity)	Water: 5 ft/min (0.025 m/s) Light Oil: 6 ft/min (0.030m/s) Heavy Oil: 8 ft/min (0.040m/s) Gas: 12 ft/min (0.060 m/s)	
Materials	Corrosion resistant throughout	