

Production Dual Caliper (X-Y)

PDC

Production Logging Tools

Sondex



DESCRIPTION

The Sondex Dual X-Y caliper is run centralised in the Production Logging tool string. The caliper incorporates proven roller centraliser technology and has a pair of caliper arm mechanisms set at 90 degrees to each other to measure casing inside diameter in the X and Y axes. The caliper assembly is fully collapsible down to tool diameter for running into and pulling out of hole.

OPERATING PRINCIPLE

The caliper is spring loaded and follows tubing ID while running in hole. It opens fully on leaving the tubing to enter the casing. Each arm operates as an independent unit exerting a constant radial force in any casing diameter. LVDT sensors protected within the main shaft accurately measure by induction the position of the coupled collars external to the shaft. The position of the collar blocks are related to the tubing ID.

APPLICATIONS

- Determination of X-Y diameters at 90 degrees.
- Measuring of casing deformation and major corrosion.
- Detection of scale build up in casing and tubing.
- Correction of spinner derived fluid velocity for varying casing or open hole completion diameter.
- Identifying ID to correlate with changes in holdup patterns.

INTERFACING & TOOL COMBINATIONS

- Simultaneous Operation with other PL Tools.
- 1 ³/₁₆" UN 12 tpi Sondex GO or other Heads.

OPTIONS

- Springbow version for open hole completions.
- Ultrawire™ (UW) toolbus or Memory toolbus (Mbus).
- Special heads to suit customer specification.
- Extended arms to increase range to suit customer request.

SPECIFICATION

	UW	Mbus
Supply voltage	+18V DC	+12V DC
Current	24mA at +18V	20mA at +12V
Measure Range	2" - 9" diameter	
Max. Pressure	15,000psi (12,000 for 1.5")	
Max. Temperature	350 Degree F (177C)	
Resolution	0.015"	
Accuracy	0.1" < 150deg C	0.2" < 165deg C 0.3" < 177deg C
Length	37.5"	
Weight	14.5lbs	
Measure points	9.75-11.25"(X) 6.75-8.25"(Y)	9.75-11.25"(X) 6.75-8.25"(Y)
Diameter available	1 11/16" & 1.5"	
Materials	Corrosion Resistant Throughout	