

UHT Dimension™ X-Y Caliper



The UHT Dimension™ is the first X-Y Caliper tool in the industry for use in Ultra-High Temperature environments of up to 325°C, providing two independent diameter measurements of the wellbore profile on Memory mode.

The UHT Dimension tool has been designed specifically for geothermal and other ultra-high temperature wells.

X-Y Caliper tools are widely used in the Oil & Gas industry to measure the internal diameter of well completions. The UHT Dimension tool, by Probe, is the first such tool designed specifically to endure the extreme temperatures encountered in geothermal applications.

Based on renowned Kuster® high-temperature technology, the UHT Dimension tool provides two perpendicular measurements of the internal diameter of the well to deliver a continuous log measurement. Accurate and reliable on-depth well dimensions in environments at up to 325°C (617°F) allow precise identification of downhole:

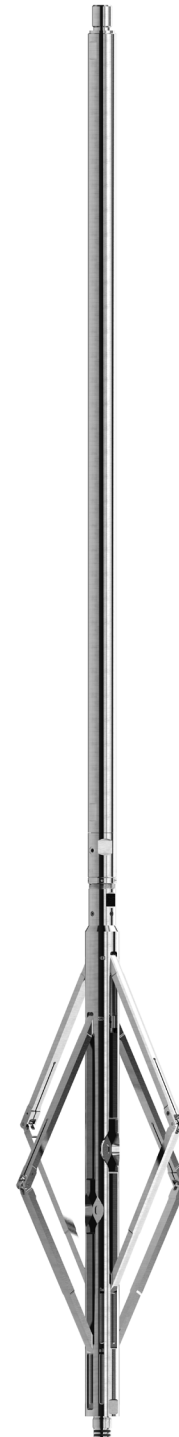
- Scale build-up
- Mechanical Components
- Wear and other anomalies
- Enabling accurate flow profile calculations

The tool incorporates a robust mechanical design with single roller arms that conform to most wellbore conditions, however, optional triple roller arms are also available for added efficiency when running over slotted sleeves or sand screens.

The tool can be operated on slickline in Memory mode.

The UHT Dimension incorporates an external fast-response resistance temperature detector (RTD), exposed to the wellbore to accurately detect minute temperature variations thus enabling effective leak detection and depth correlation applications.

The tool can operate for up to 4 hours at 325°C in real-time mode, and up to 6 hours at 300°C in memory mode. All material used within the downhole suite meet NACE MRO175 specifications for corrosive well bore environments.



2.125 in. UHT X-Y Caliper

Mechanical Specifications	
Outside diameter, in [cm]	2.125 [5.40]
Length, ft [cm]	Memory: 9.8 [296.32]
Weight, lb [kg]	Memory: 67 [29.9]
Temperature rating, °F [°C]	617 [325]
Pressure rating, psi [MPa]	10,000 [68.9]
Measurement Specifications	
Output	Temperature, diameter (2 perpendicular measurements: X and Y)
Minimum Sampling Rate, samples/sec	Temperature: 1 Diameter: 20
Temperature	
Resolution	0.002% F.S.
Accuracy	0.15% F.S.
Response time, sec/18°F [sec/10°C]	1.5
Diameter	
Maximum Diameter, in [cm]	14.0 [35.56]
Minimum Diameter, in [cm]	3.0 [7.62]
Accuracy, in [cm]	±0.25 [±0.635]
Hardware Characteristics	
Sensor type	Caliper: DVRT Temperature: RTD
Application Mode	Memory