

360^{CV}

Phoenix's 360^{CV} (Clear Vision) MWD tool surveys inclination and gamma in real-time closer to the bit; delivering a precise view of where the well is directed and greater accuracy when honing into your target.

With traditional MWD tools, directional measurements are calculated 17m (52 ft) behind the bit, which requires greater estimations to project where the bit actually is. In contrast, the 360^{CV} system's inclination measurements are taken 1m (3 ft) above the motor.

OPERATING PARAMETERS

Parameter	Range
Telemetry	Positive Mud Pulse
Collar Sizes	89 mm–229 mm (3½" – 9")
Operating Flow Rate	0.7–4.2 m ³ /min (1,100 gpm) ¹
Mud Weight	900 kg/m ³ –2,150 kg/m ³ (7.5 ppg–18 ppg)
Sand Content	<2%
Operating Temperature	-20°C – 150°C (-4°F - 302°F)
Operating Pressure	Maximum 135,000 kPa (20,000 psi)
Pressure Drop Across Tool	700 kPa @ 1.5 m ³ /min (100 psi @ 400 gpm)

¹ Operating flow rate depends on collar size, maximum for 121 mm (4 ¾) size is 1.5 m³/min (400 gpm)

MWD SENSOR SPECIFICATIONS

Parameter	Range	Accuracy
Inclination	0–180 Deg	+/- 0.2 Deg
Gamma	0–1,024 cps	+/- 1 AAPI

* 360^{CV} is non-retrievable

* Distance of the sensor to bit is dependant on motor length, provided measurements are based on a 7.5m (25 ft) motor

- ▶ In horizontal legs, the well path can be kept centered in the formation, eliminating exposure to the formations above and below the target
- ▶ Fewer corrections creates a more consistent well bore, which reduces torque and drag complexities
- ▶ More accurate well bore placement saves drilling time and improves recovery rates

360^{CV} DISTANCE FROM BIT

TRADITIONAL MWD DISTANCE FROM BIT