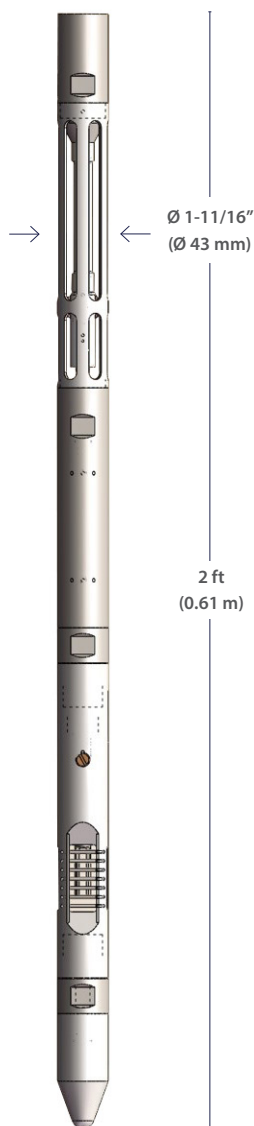




COMBINED WATER HOLDUP TOOL / DENSITY TOOL (QCD)

QCD offers capacitance (water holdup) and tuning fork density sensors in one module. This compact tool is fully compatible with GOWell's Pegasus series tools and the PegasusStar system. A compact PL string can be formed by combining this **QCD** with Pegasus modules PTF, FBM and GTC.

The density calibration is performed by using air, diesel, water and brine. The viscosity calibration is performed by using a range of silicon oils of known viscosity.



QCD

FEATURES

- Compact design by combining water holdup and fluid density
- Density unaffected by highly radioactive scale and well deviation
- No radioactive source – ease of logistics
- Accurate, repeatable density measurement
- Fluid viscosity estimate
- Compatible with all Pegasus series tools

APPLICATIONS

- Water Hold-Up measures the dielectric constant of the surrounding borehole fluid to determine the water holdup
- The QCD tool is a non-radioactive method of determining liquid and gas density unaffected by well deviation

SPECIFICATIONS

QCD43 - CAPACITANCE / DENSITY	
P/N 100511757	
GENERAL SPECS	
Maximum Operating Pressure	15,000PSI (103MPa)
Maximum Operating Temperature	350°F (175°C)
Instrument Diameter	1-11/16" (43 mm)
Length	2 ft. (0.61 m)
Weight	8.8 lbs (4 kg)
Range of Density	0~1.25g/cc
Accuracy of Density	±0.02g/cc (Viscosity 0~50cs) – ±0.03g/cc (Viscosity 51~800cs)
Resolution of Density	0.01g/cc
Repeatability of Density	±0.01g/cc
Resolution of Holdup	1%
Accuracy of Holdup	±2%
Range of Holdup	0~50%