



# Directional Drilling Services

Every well has unique characteristics and challenges, so there are different tools and techniques to drilling each well specially in Iran's Oil and Gas fields. HPOGC offers a wide variety of drilling Motors that will lead to high penetration rates and reliability on any well. Whatever the formation or drilling conditions, we take the guesswork out of the selection process by engineering the right combination of power and speed to maximize results.

Directional drilling is the science of deviating a wellbore along a planned path to a target located a given lateral distance and direction from vertical.

With our experienced people, leading technology and passion for exceptional customer service, we provide a complete range of directional drilling services, delivering results that are second to none. Our focus is on achieving cost & time efficiencies, to ensure optimized drilling performance and precise well bore placement so as to increase Rate of Penetration (ROP) and maximize reservoir exposure.



## Our services include

- Well Designing & Drilling engineering
- MWD & LWD Services
- Downhole motors and Repair/Maintenance service
- Drilling Tools, sales and Rental





## Special services

- Slim hole and ultra slim hole drilling (From 2 7/8" hole size)
- High temperature motor and power section (Up to 160 degC)
- Under balance-air drilling motors (UBD motors)
- Under balance MWD system (Electro Magnetic Pulse)
- Motors with extended power section
- Extra performance with even wall rubber technology in Stators (ERT Motors)

## HPOGC Measurement Services

Our MWD technologies and services are designed with versatility, speed and precision in mind. For conventional wells, our mud pulse MWD system delivers reliable, accurate results.

Positive Pulse system, Directional Electronics, Gamma probe and surface systems for online Display of Tool face, Inclination, Azimuth and recording of Gamma plot. The MWD tool is retrievable, thus saving the Client of any liability during Hostile hole conditions leading to stuck situations.

Proven reliability with over 2900 hrs MTBF
Collar sizes 3.5" - 9.0" O.D
Operates downhole to 150° C and 15,000 psi
Wireline retrievable and reseatable
Gamma enabled
Low power consumption resulting in over 500 hrs of single battery life
Increased performance in LCM environments

### Configuration

Flow Ranges	0.30-0.63m*/min, 3.5 in. OD.collar
	0.38-1.14m*/min, 4.75 in. OD.collar
	0.57-2.27m*/min, 6.75 in. OD.collar
	1.50-4.45m*/min, 9.0 in. OD.collar
Pressure Drop	100 psi 1.52m*/min
Data Transmission	Positive - Pulse
Retrieveability	Yes
Temperture	-20°C to +150°C
Electrical Power/ Operating Time	Lithium Battery /400 to 500 hrs per battery pack (standard tensor style battery)
Maximum LCM Material	40-50 ppb concentration ,medium nut plug,pre-mixed
Shock /Vibration	1000g/0.5 milisecond / 5-30 Hz
Inclination Accuracy	± 0.1
Toolface Accuracy	± 0.5 0-360°
Azimuth Accuracy	± 0.15 0-360°
Pressure	20,000 psi
Gamma	Yes

