



Technical Specification

PRD OZ DRILL



A versatile deep hole drilling rig with a pull up force of 25800 kg capable of drilling 6 ½" diameters up to 750 m depth. Drilling hole size range from 6 ½" to 20".

Note: The images provided here are for reference only and do not depict the exact specification outlined in this document.





Application	Cathodic Protection
	De-watering holes
	Monitoring holes
	Irrigation
Capacity	Hole Diameter: 165 - 508 mm (6 ½" - 20")
	Maximum Depth: 750 m @ 165 mm (6 ½") diameter
Drilling Method	DTH and Rotary Drilling
Prime Mover*	Rig hydraulic system is powered from suitable Deck engine - 260 hp
Platform Structure	Heavy I and C section welded steel structure covered with 5mm chequered plate
Mast Assembly	Strong structural steel twin tubular box type construction
	Mast Overall Length: 10500 mm
	Rotary Head Travel: 7000 mm
	Rod Handling: 5 m and 6 m
	Drill rod size: 4 ½" OD (114 mm)
	Centralizer Opening: 16" (406 mm)
Mast Raising Cylinder	Expandable: 21" (533 mm) Split type
	Mast is raised and lowered by two hydraulic cylinders
Mast Dumping	Mast is provided with forward dumping arrangement
Feed System	2 x Double acting hydraulic cylinder with 1:2 rope reeving system
	Pull Up Force : 25800 kgf (56760 lb.f) @ 210 bar
	Pull Down Force : 17700 kgf (38940 lb.f) @ 210 bar
	Pull Up Speed : 46 m/min
	Pull Down Speed : 67 m/min





Rotary Head Assembly (Top Head Drive)	Fabricated steel body with spur gear reduction and oil bath lubrication type gearbox along with top air entry and bottom entry mud swivel having 90 mm spindle with thread connection of API 6 5/8 Reg driven by two hydraulic motor.
	Maximum Torque: 9000 Nm
	Rotation Speed: 0 - 100 rpm Fine controlled
Hydraulics	2 x variable displacement piston pump for Feed & Rotation 1 x fixed displacement pump for Mud pump 2 x fixed displacement pump for Hydraulic cooler, Auxiliary operations and Micro feed
	Maximum System Pressure: 3045 psi (210 bar)
	Hydraulic Oil Cooler: 120 gpm
	Hydraulic Tank Capacity: 850 litres
Control Panel	Swing out - Centralized control panel is at rear end of the equipment for convenient view of drill table provided with all necessary gauges, control system and emergency switch. Locking arrangement is provided for the safety of control panel
Levelling Jacks	4 x Hydraulic leveling jacks are provided for quick setting and leveling with heavy duty telescopic guides. Locking check valves for safety with adequate capacity to withstand load
Breakout Wrench	Hydraulic operated break out wrench is provided for fast breaking of rod joints
Water / Foam Injection Pump	Hydraulic operated water injection triplex pump with necessary fittings, check valve and suction filter are provided
	Maximum Flow: 100 lpm
	Maximum Pressure: 40 kg/sq.cm
Single Rod Changer	Manually operated single rod changer to couple drill pipe to Rotary head





Winch	Hydraulic operated auxiliary swing type winch to load drill pipe into rod changer with a lifting capacity of 1 ton to handle casing pipes.
	Winch on mast: 2 ton swing type winch to handle heavy accessories
Welding Machine	Hydraulic driven semi brushless welding alternator is provided for welding casing pipes.
	Recommended Weld rod size : 2.5 mm to 5 mm only
	Weld current: 300 amps @ 60% duty cycle
	Optional single phas : 6.0 kVA @ 220v, 50 Hz
Airline Lubricator	A positive acting venturi type inline lubricator is provided for injecting oil to the down hole hammer.
	Tank capacity: 15 litres
	Working Pressure: 500 psi
Recommended Air Compressor*	<u>Make</u>
	ELGI / Atlas Copco / Doosan
	<u>Compressor capacity</u>
	1200 cfm - 330 psi (24 bar)
	1500 cfm - 400 psi (27 bar)
Mud Pump Option*	1270 cfm - 365 psi(25 bar) / 425 psi(29 bar)
	Hydraulic / Engine operated PRD 200 Mud Pump (8" x 6")
	Stroke: 8" (203 mm)
	Liner size diameter: 6" (152 mm)
	Displacement (Max recommended): 1333 lpm
	Maximum working pressure: 285 psi (20 kg/sq.cm)





Mud Pump Option*	Hydraulic / Engine operated PRD 250 Mud Pump (10" x 7") Stroke : 10" (254 mm) Liner size diameter : 7 " (178 mm) Displacement (Max recommended) : 1980 lpm Maximum working pressure : 292 psi (20.53 kg/sq.cm)
Additional Fitments	Night Lights, Tool box, Hammer stand, Fuel tank for compressor
User Manual	Manual for Operation, Maintenance and Spare Parts
Truck Option*	SINOTRUK Howo 6x6 / 6x4 / 8x4 MAN 6x6 / 6x4 Min 25 ton GVW Truck
Mounting Option*	Truck / Crawler / Skid
Optional Attachments	<u>ICE Package</u> <ul style="list-style-type: none">• Real time fuel monitoring system• Drilling progress monitoring• Drill efficiency indicator• Bit load sensing system• GPS location monitoring system• Power breakout system• Digital display in control panel• Centralized hydraulic test station• Real time hydraulic system status• Remote access through mobile app• Fire extinguisher and hose reel
	Winch on platform: 5 ton
	Tilting rotary head for easy rod handing
	Mine safety features

**Combinations will vary according to our Design feasibility*





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