



## 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.





<b>Application</b>	Cathodic Protection De-watering holes Monitoring holes Irrigation
<b>Capacity</b>	Hole Diameter : 165 - 508 mm (6 ½" - 20") Maximum Depth : 750 m @ 165 mm (6 ½") diameter
<b>Drilling Method</b>	DTH and Rotary Drilling
<b>Prime Mover*</b>	Rig hydraulic system is powered from suitable Deck engine - 260 hp
<b>Platform Structure</b>	Heavy I and C section welded steel structure covered with 5mm chequered plate
<b>Mast Assembly</b>	Strong structural steel twin tubular box type construction Mast Overall Length : 8560 mm Rotary Head Travel : 6800 mm Rod Handling : 6 m Centralizer Opening : 16" (406 mm ) Expandable : 21" (533 mm) Split type
<b>Mast Raising Cylinder</b>	Mast is raised and lowered by two hydraulic cylinders
<b>Mast Dumping</b>	Mast is provided with forward dumping arrangement
<b>Feed System</b>	2 x Double acting hydraulic cylinder with 1:2 chain 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





<b>Rotary Head Assembly (Top Head Drive)</b>	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
<b>Hydraulics</b>	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 : 600 litres
<b>Control Panel</b>	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
<b>Levelling Jacks</b>	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
<b>Breakout Wrench</b>	Hydraulic operated break out wrench is provided for fast breaking of rod joints
<b>Water / Foam Injection Pump</b>	Hydraulic operated water injection triplex pump with necessary fittings, pressure regulator, flow regulator, check valve and suction filter are provided
	Maximum Flow : 80 lpm
	Maximum Pressure : 40 kg/sq.cm





<b>Single Rod Changer</b>	Manually operated single rod changer to couple drill pipe to Rotary head
<b>Winch</b>	<p>Hydraulic operated auxiliary swing type winch to load drill pipe into rod changer with a lifting capacity of 1 ton to handle casing pipes.</p> <p>Winch on mast : 2 ton swing type winch to handle casing pipes</p>
<b>Welding Machine</b>	<p>Hydraulic driven semi brushless welding alternator is provided for welding casing pipes.</p> <p>Recommended Weld rod size : 2.5 mm to 5 mm only</p> <p>Weld current : 300 amps @ 60% duty cycle</p> <p>Optional single phase : 6.0 kVA @ 220v, 50 Hz</p>
<b>Airline Lubricator</b>	<p>A positive acting venturi type inline lubricator is provided for injecting oil to the down hole hammer.</p> <p>Tank capacity : 15 litres</p> <p>Working Pressure : 350 psi</p>
<b>Recommended Air Compressor*</b>	<p><u>Make</u> ELGI / Atlas Copco / Doosan</p> <p><u>Compressor capacity</u> 1200 cfm - 330 psi (24 bar) 1500 cfm - 400 psi (27 bar) 1350 cfm - 365 psi(25 bar) / 425 psi(29 bar)</p>
<b>Mud Pump Option*</b>	<p>Hydraulic 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)</p>





<b>Mud Pump Option*</b>	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)
<b>Additional Fitments</b>	Night Lights, Tools box, Hammer stand, Fuel tank for compressor
<b>User Manual</b>	Manual for Operation, Maintenance and Spare Parts
<b>Truck Option*</b>	Ashok Leyland 3123 8x4 MAN 6x6 & 6x4 SINOTRUK Howo 6x6 & 6x4 Min 25 ton GVW Truck
<b>Mounting Option*</b>	Truck / Crawler / Skid
<b>Optional Attachments</b>	<u>ICE Package</u> <ul style="list-style-type: none"><li>• Real time fuel monitoring system</li><li>• Drilling progress monitoring</li><li>• Drill efficiency indicator</li><li>• Bit load sensing system</li><li>• GPS location monitoring system</li><li>• Power breakout system</li><li>• Digital display in control panel</li><li>• Centralized hydraulic test station</li><li>• Real time hydraulic system status</li><li>• Remote access through mobile app</li><li>• Fire extinguisher and hose reel</li></ul>
	Winch on platform : 6 ton
	Hammer Opener : Hydraulic operated hammer device
	Centrifugal Mud Pump with displacement of 600 lpm
	Mine safety features

*\*Combinations will vary according to our Design feasibility*











**Happy Drilling Forever with PRD Rigs**

