



## Technical Specification

### PRD MAX DRILL



**A combination bore hole drilling rig with a pull up force of 18000 kg capable of drilling 6 ½" diameters up to 600 m depth. Drilling hole size range from 6 ½" to 14".**

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





<b>Application</b>	Domestic Water Wells Monitoring holes Irrigation
<b>Capacity</b>	Hole Diameter : 165 - 356 mm (6 ½" - 14") Maximum Depth : 600 m @ 165 mm (6 ½") diameter
<b>Drilling Method</b>	DTH and Rotary Drilling
<b>Prime Mover</b>	Rig hydraulic system is powered from Truck Engine with PTO option through Transfer Gearbox arrangements
<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 : 9000 mm Rotary Head Travel : 7950 mm Rod Handling : 5 m Centralizer Opening : 16" (406 mm)
<b>Mast Raising Cylinder</b>	Mast is raised and lowered by single hydraulic cylinder
<b>Feed System</b>	2 x Double acting hydraulic cylinder with 1:3 rope reeving system Pull Up Force : 18000 kgf (39600 lb.f) @ 210 bar Pull Down Force : 11800 kgf (25960 lb.f) @ 210 bar Pull Up Speed : 40 m/min Pull Down Speed : 58 m/min





<b>Rotary Head Assembly (Top Head Drive)</b>	<p>Fabricated steel body with spur gear reduction and oil bath lubrication type gearbox along with top air entry and spindle thread connection of API 2 7/8 IF driven by double hydraulic motor.</p> <p>Maximum Torque : 6545 Nm</p> <p>Rotation Speed : 0 - 100 rpm Fine controlled</p>
<b>Hydraulics</b>	<p>2 x Fixed displacement pump for Feed and Rotation 1 x Fixed displacement pump for Mud pump 3 x Fixed displacement pump for Hydraulic cooler, Auxiliary operations and Micro feed</p> <p>Maximum System Pressure : 3045 psi (210 bar)</p> <p>Hydraulic Oil Cooler : 120 gpm</p> <p>Hydraulic Tank Capacity : 600 litres</p>
<b>Control Panel</b>	<p>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</p>
<b>Levelling Jacks</b>	<p>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</p>
<b>Breakout Wrench</b>	<p>Hydraulic operated break out wrench is provided for fast breaking of rod joints</p>
<b>Water / Foam Injection Pump</b>	<p>Hydraulic operated water injection triplex pump with necessary fittings, pressure regulator, flow regulator, check valve and suction filter are provided</p> <p>Maximum Flow : 80 lpm</p> <p>Maximum Pressure : 40 kg/sq.cm</p>





<b>Single Rod Changer</b>	Manually operated single rod changer to couple drill pipe to Rotary head
<b>Winch</b>	Hydraulic operated auxiliary winch to load drill pipe into rod changer with a lifting capacity of 1 ton
<b>Welding Machine</b>	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 phase : 6.0 kVA @ 220v, 50 Hz
<b>Airline Lubricator</b>	A positive acting venturi type inline lubricator is provided for injecting oil to the down hole hammer.
	Tank capacity : 15 litres
	Working pressure : 350 psi
<b>Air Compressor</b>	Make: Doosan
	Model: PA415ATC
	Compressor capacity: 1200 cfm-330 psi
<b>Mud Pump</b>	Hydraulic operated PRD 150 Mud Pump (6" x 6")
	Stroke : 6" (152 mm)
	Liner size diameter : 6" (152 mm)
	Maximum Displacement : 1039 lpm
	Maximum working Pressure : 217 psi (15.76 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</b>	SINOTRUK Howo 6x4 290HP

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

















**HAPPY DRILLING FOREVER WITH PRD RIGS**

