



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.





Application	Domestic Water Wells Monitoring holes Irrigation
Capacity	Hole Diameter : 165 - 356 mm (6 ½" - 14") Maximum Depth : 600 m @ 165 mm (6 ½") diameter
Drilling Method	DTH and Rotary Drilling
Prime Mover*	Rig hydraulic system is powered from Truck Engine with PTO option through Transfer Gearbox arrangements or suitable Deck Engine - 210 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 : 9000 mm Rotary Head Travel : 7950 mm Rod Handling : 5 m Centralizer Opening : 16" (406 mm)
Mast Raising Cylinder	Mast is raised and lowered by single hydraulic cylinder
Feed System	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 : 50 m/min Pull Down Speed : 72 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 spindle thread connection of API 2 7/8 IF driven by double hydraulic motor.
	Maximum Torque : 6545 Nm
	Rotation Speed : 0 - 100 rpm Fine controlled
Hydraulics	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
	Maximum System Pressure : 3045 psi (210 bar)
	Hydraulic Oil Cooler : 120 gpm
	Hydraulic Tank Capacity : 600 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, pressure regulator, flow regulator, check valve and suction filter are provided
	Maximum Flow : 80 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 winch to load drill pipe into rod changer with a lifting capacity of 1 ton
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 phase : 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 : 350 psi
Recommended Air Compressor*	<u>Make</u>
	ELGI / Atlas Copco / Doosan
	<u>Compressor capacity</u>
	1100 cfm-300 psi (21 bar) 1200 cfm-330 psi (24 bar)
Mud Pump Option*	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)
	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)
Mud Pump Option*	





Additional Fitments	Night Lights, Tools box, Hammer stand, Fuel tank for compressor
User Manual	Manual for Operation, Maintenance and Spare Parts
Truck Option*	Ashok Leyland 3123 8x4 MAN 6x4 SINOTRUK Howo 6x4 / 6x6 Min 25 - 30 ton GVW Truck
Mounting Option*	Truck / Crawler / Skid
Optional Attachments	<u>ICE Package</u> • 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 • Adaptable for all water well rig models
	Winch on mast : 2 ton
	Hammer Opener : Hydraulic operated hammer device
	Rod Carousel : 4 Carousel rod changer
	Mine safety features

**Combinations will vary according to our Design feasibility*







Happy Drilling Forever with PRD Rigs

