



## Technical Specification

### PRD 500 T



**A compact bore hole drilling rig with a pull up force of 5100 kg capable of drilling 4 ½" diameters up to 150 m depth. Drilling hole size range from 4 ½" to 6".**

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
<b>Capacity</b>	Hole Diameter : 114 - 152 mm
	Maximum Depth : 150 m @ 114 mm (4 ½") diameter
<b>Drilling Method</b>	DTH and Rotary Drilling
<b>Prime Mover*</b>	Rig hydraulic system is powered from suitable Deck Engine - 38 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 : 3250 mm
	Rotary Head Travel : 2300 mm
	Rod Handling : 2 m
	Centralizer Opening : 10 5/8" (270 mm)
<b>Mast Raising Cylinder</b>	The mast is raised and lowered by single hydraulic cylinder
<b>Feed System</b>	1 x Double acting hydraulic cylinder with 1:2 rope reeving system
	Pull Up Force : 5100 kgf (11220 lb.f) @ 160 bar
	Pull Down Force : 3100 kgf (6820 lb.f) @ 160 bar
	Pull Up Speed : 36 m/min
	Pull Down Speed : 59 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 spindle with rope thread connection driven by single hydraulic motor.
	Maximum Torque : 2100 Nm
	Rotation Speed : 0 - 80 rpm Fine controlled





<b>Hydraulics</b>	<p>1 x Fixed displacement pump for Feed and Rotation 1 x Fixed displacement pump for Auxiliary operations and Micro feed 1 x Fixed displacement pump for Hydraulic oil cooler</p> <p>Maximum System Pressure : 2320 psi (160 bar)</p> <p>Hydraulic Oil Cooler : 70 gpm</p> <p>Hydraulic Tank Capacity : 130 litres</p>
<b>Control Panel</b>	<p>Centralized control panel 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 Lug mounted Hydraulic levelling jacks are provided for quick setting and levelling of the drill rig. 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 : 50 lpm</p> <p>Maximum Pressure : 50 kg/sq.cm</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 : 5 litres</p> <p>Working pressure : 250 psi</p>





<b>Recommended Air Compressor*</b>	<u>Make</u> ELGI / Atlas Copco / Doosan <u>Compressor capacity</u> 600 cfm - 200 psi (14 bar) 540 cfm – 185 psi (13 bar)
<b>Mud Pump Option*</b>	Engine / Hydraulic driven Centrifugal Mud Pump Discharge : 600 lpm Total Head : 30 mtr
<b>Additional Fitments</b>	Night Lights, Tools box
<b>User Manual</b>	Manual for Operation, Maintenance and Spare Parts
<b>Truck Option*</b>	Ashok Leyland 4 x 2 Single Axle Trolley Pickup truck
<b>Mounting Option*</b>	Truck / Trolley / Skid
<b>Optional Attachments</b>	Winch : 0.5 ton

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











**Happy Drilling Forever with PRD Rigs**

