

Technical Specification

PRD AUTOLOADER



A robust deep hole drilling rig with a pull up force of 14100 kg capable of drilling 6 ½" diameters up to 450 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.

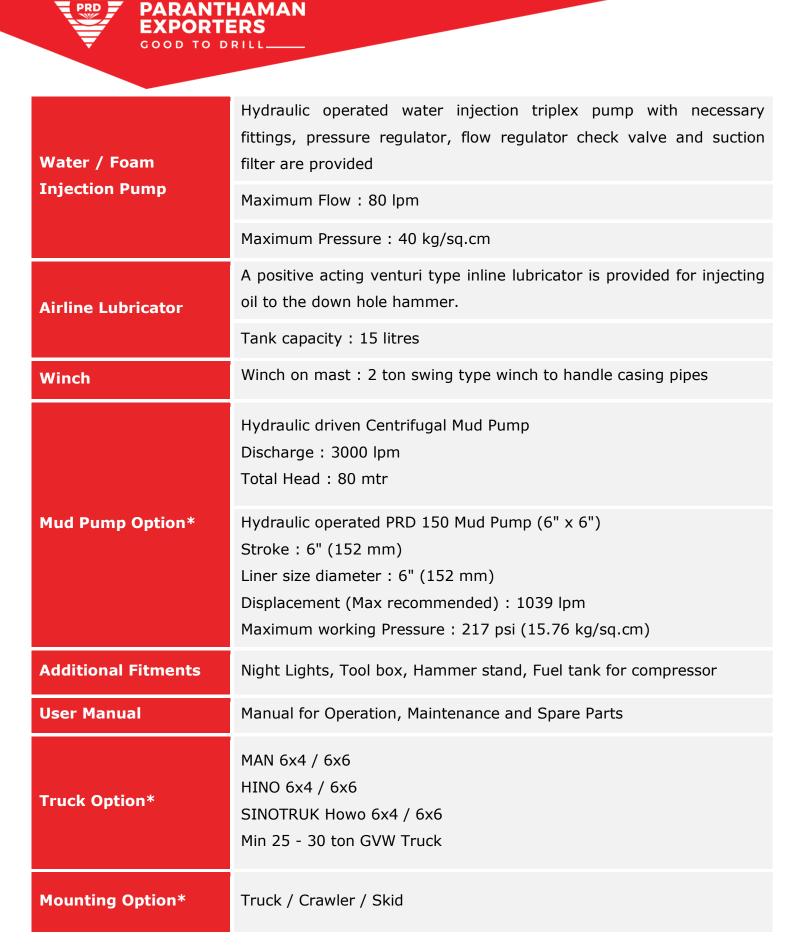


PRD

Apllication	Domestic Water Wells
Capacity	Hole Diameter : 165 - 356 mm (6 $^{1}/_{2}$ " - 14")
	Maximum Depth : 450 m @ 6 $^{1}/_{2}$ " (165 mm) diameter
Drilling Method	DTH and Rotary Drilling
Prime Mover*	Rig hydraulic system is powered from Truck Engine with PTO option through Transfer Gearbox arrangements
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 : 7750 mm
	Rotary Head Travel: 6130 mm
	Rod Handling : 5 m
	Centralizer Opening : 16" (406 mm)
Mast Raising Cylinder	Mast is raised and lowered by single hydraulic cylinder
Feed System	1 x Double acting hydraulic cylinder with 1:3 rope reeving system
	Pull Up Force : 14100 kgf (31020 lb.f) @ 210 bar
	Pull Down Force : 8600 kgf (18920 lb.f) @ 210 bar
	Pull Up Speed : 30 m/min
	Pull Down Speed : 50 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 single hydraulic motor.
	Maximum Torque : 4500 Nm
	Rotation Speed : 0 - 100 rpm Fine controlled

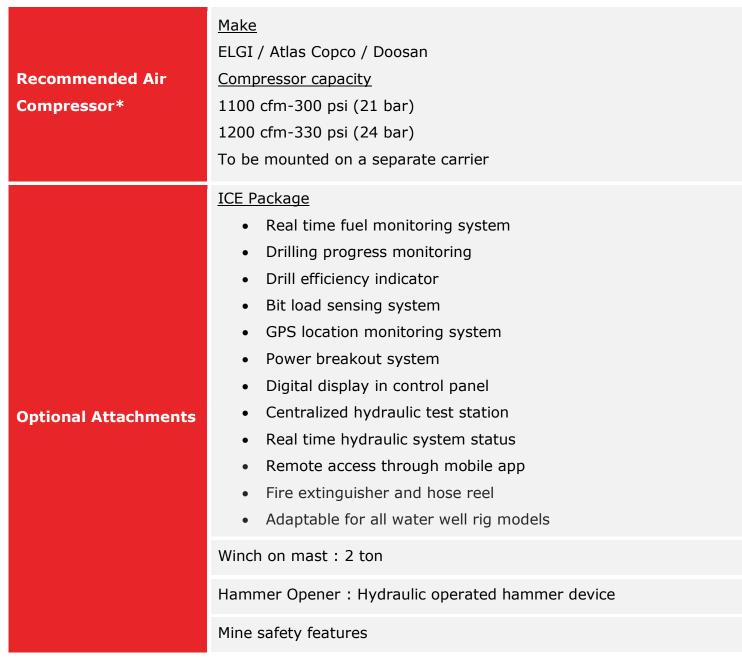


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Hydraulics	2 x Fixed displacement pump for Feed and Rotation 1 x Fixed displacement pump for Mud pump 3 x Fixed displacement pump for Hydraulic cooler, Auxiliary operations and Micro feed 2 x Fixed displacement pump for Auto Rod handling operations 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 Separate control panel is provided for Rod Handling system to operate
Levelling Jacks	manually. 4 x Hydraulic levelling jacks are provided for quick setting and levelling with heavy duty telescopic guides. Locking check valves for safety with adequate capacity to withstand load
Automatic Rod Changer	Automatic rod handling system for easy loading & unloading of drill pipes from the deck. The rod changer unit is controlled by a PLC system and has a provision to handle the rod changer manually. Deck can accommodate 40 rods of 5 m length which makes 200 m of drill pipe.
Rod Breakout	Hydraulic operated V type Jaw system is provided to hold and breakout the Rods.









*Combinations will vary according to our Design feasibility







Happy Drilling Forever with PRD Rigs