



## TECHNICAL SPECIFICATION

### PRD 300 Diamond Core Drilling



- ❖ Fuel efficient.
- ❖ Low maintenance.

- ❖ Easy to operate.
- ❖ Low operating cost

**Miners preferred hydrostatic surface core drilling rig capable to drill 300 Mtr of NQ size.  
High speed & torque top drive rotary head**

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





<b>Application</b>	Surface Exploration : Limestone, Coal, Iron ore & other minerals
<b>Capacity</b>	NQ : 300 m
	HQ : 200 m
	PQ : 100 m
<b>Drilling Angle</b>	45° to 90°
<b>Prime Mover*</b>	The rig hydraulic system is powered by a suitable deck engine.
<b>Platform Structure</b>	Heavy I and C-section welded steel structures covered with 5mm chequered plate
<b>Mast Assembly</b>	Strong structural steel twin tubular box type construction, Foldable mast
	Rotary Head Travel : 3500 mm
	Rod handling : 3 m
	Rod pull out : 6 m
<b>Mast Raising Cylinder</b>	The mast is raised and lowered by a dual hydraulic cylinder.
<b>Mast Dumping</b>	The mast is provided with a dumping arrangement for angle drilling.
<b>Feed System</b>	Single hydraulic cylinder with 1:1 ratio
	Pull Up Force : 6900 kgf
	Pull Down Force : 3500 kgf
	Pull Up Speed : 21 m/min
	Pull Down Speed : 40 m/min
<b>Rotary Head Assembly (Top Head Drive)</b>	2 Speed Drill head with a floating spindle driven by a hydraulic motor. The drill head has a slide-out arrangement for hoisting.





<b>Rotary Head Assembly (Top Head Drive)</b>	1 <sup>st</sup> Ratio	Torque: 3175-1161 N-m Speed : 113-309 rpm
	2 <sup>nd</sup> Ratio	Torque: 958-350 N-m Speed : 375-1026 rpm
	Floating Spindle Stroke	75 mm
<b>Hydraulic System</b>	Variable displacement hydrostatic closed loop pump for Rotation Variable displacement pump for Feed, Winch's, Water pump & Auxiliary Fixed displacement pump for Hydraulic oil cooler	
	Maximum System Pressure : 3000 psi (210 bar)	
	Hydraulic Oil Cooler : 120 gpm	
	Hydraulic Tank Capacity : 300 litres	
<b>Control Panel</b>	A centralised control panel is at the rear left end of the equipment for a convenient view of the drill table, which is provided with all necessary gauges, a control system, and an emergency switch.	
<b>Levelling Jacks</b>	4 no's Hydraulic levelling jacks are provided for quick setting and levelling of the drill rig. Locking check valves for safety with adequate capacity to withstand loads.	
<b>Foot Clamp</b>	Hydraulic operated Rod clamp has gripping range of PQ, HQ and NQ sizes	
<b>Water Pump</b>	A hydraulically operated triplex mud pump with necessary fittings, a pressure regulator, a flow regulator, and a suction filter are provided.	
	Maximum Flow : 80 lpm	
	Maximum Pressure : 750 psi	





<b>Main Hoist</b>	Capacity: 3 ton Line Speed: 35 m/min Wire rope Dia: 16 mm Wire rope length: 30 Mtr
<b>Wire line winch</b>	Capacity: 1 ton Line Speed: 100 m/min. Wire rope Dia: 6 mm Wire rope length: 400 Mtr
<b>Break out wrench</b>	Hydraulically operated BOW system with double-acting cylinder and pipe wrench.
<b>Additional Fitments</b>	Mine safety features, like spin guard, side guard, safety guard for rotating components, night lightening system, emergency stops.
<b>User Manual</b>	Manual for Operation, Maintenance and Spare Parts
<b>Mounting Option*</b>	Crawler / Truck / Skid
<b>Optional</b>	DTH drilling provision / customized requirement if any.

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



