

AR-125 Diamond Core Rig Specifications

The Alaska Drilling and Completions (ADC) AR-125 Diamond Core Drill Rig is a powerful and versatile surface drilling unit engineered for precision and reliability in remote exploration environments. Built on a heavy-duty frame with modular components, the AR-125 can be rapidly assembled in remote locations, making it ideal for fly-in projects and rugged field conditions. It supports NQ, HQ, and PQ core sizes with depth capacities exceeding 4,000 feet depending on formation. Its advanced hydraulic system delivers high torque and smooth control, while integrated safety devices maximize both productivity and crew safety. The AR-125 is ADC's flagship rig for mid-range hole depths with a minimal environmental footprint.

Depth Capacity	
NQ	4000 Feet / 1219 Meters
HQ	3000 Feet / 914 Meters
PQ	1500 Feet / 457 Meters

Hydraulic System		
Primary Pump 150 cc	Variable Displacement Piston Type Load Sensing/Pressure Compensating	
Max Flow	63 gpm	238.5 l/mi
Max Pressure	5000 psi	344.8 bar
Secondary Pump 75 cc	Variable Displacement Piston Type Load Sensing/Pressure Compensating	
Max Flow	33.3 gpm	108.9 lpm
Max Pressure	5000 psi	344.8 bar

Feed Frame / Mast		
Stroke	6 Feet	1.8 Meters
Pull Back	26,500 lbf	12,020 kg
Thrust	17,800 lbf	8,073 kg
Rod Pull	20 Feet	6 Meters
Angle	45° of vertical to 90° vertical	
Foot Clamp	Hydraulic, up to 4.5" capacity (PWL)	

Options	
Drill Base / Platform or Skid	
Fuel Cell	
Fluid / Pressure Pumps	
Mud Mixer / Tank	
Fluid Control Manifold	

Power Unit	
Engine	Isuzu 6B Turbo Diesel
Size	6.5 Liter / 396 Cubic Inch
Horse Power (HP)	175 HP @ 2200 RPM
Cooling	Water Cooled with Intercooler

Drill Head			
Type	Hollow Spindle		
Size	P, Accepts up to 4.5"		
Chuck	Hydraulic		
Rotation Motor	Rexroth 107 cc / Variable		
Transmission	Funk 4 Speed / Mechanical		
Transmission Gear Ratio	1st Gear	6.27:1	
	2nd Gear	3.12:1	
	3rd Gear	1.75:1	
	4th Gear	1.00:1	
RPM / Torque	<u>Gear</u>	<u>RPM</u>	<u>Torque / lbft</u>
PU @ 2200 RPM (No Load)	1st	122 - 199	3,925 - 2,400
	2nd	246 - 400	1,963 - 1,195
	3rd	439 - 714	1,096 - 670
	4th	769 - 1,250	628 - 383

Hoists		
Main Line Max Pull	25,000 lbs	11,339 kg
Speed / Bare Drum	140 fpm	43 m/min
Wireline / Bare Drum	2,500 lbs	1,133 kg
Speed/ Bare Drum	650 ft/min	198 m/min
Capacity (.250 cable)	4,500 ft	1,371 m

Weights		
Note: add 10-20 % for Hoses and Fluids		
Engine Module	1,650 lbs	748 kg
Hydraulic Module (Dry)	1,536 lbs	696 kg
Draw Works Frame & Winch's	4,100 lbs	1,860 kg
Feed Frame	1,720 lbs	780 kg
Drill Head / Rotation Unit (P)	1,600 lbs	726 kg
20' Mast, Includes Crown Block	2,400 lbs	1,088 kg
Skid Base (total 6 pieces)	6,500 lbs	2,950 kg
Supply Pump	750 lbs	340 kg
Mix Tank	1,100 lbs	500 kg



ADC's AR-125 Diamond Core Rig with Skid Base on Location