

## AR-125 Diamond Core Rig Specifications

*Note: The maximum depth capacity of this core rig depends on several factors, primarily the mechanical limits of the drill string, including the pipe grade, connection strength, and safety factors.*

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<br>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<br>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            | Gear                      | RPM         | Torque / lbf-ft |
| 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