

Arctic Land Drilling Rig for Extreme Cold Climates

This drilling rig is designed to operate in temperatures ranging from -45 to +40 . It incorporates a thermal insulation system, heating system, and heat recovery system.



Overview

High-Performance Arctic Land Drilling Rig

This 1,250 HP land drilling rig is specifically engineered for high-efficiency operations in extreme cold climates. With a drilling depth capacity of 13,200 ft (4,000 m) and a static hook load of 550,000 lbs, it provides the robust performance required for demanding oil and gas exploration. The system features advanced AC motor drives and a cantilever mast design to ensure reliability and safety in harsh environmental conditions.

Core Performance

Key Performance Metrics

1250 HP

Rating

13200 ft

Drilling Depth

550000 lbs

Static Hook Load

4000 m

Drilling Depth

Mast & Substructure

Mast Specifications

Feature	Specification
Mast Type	Cantilever
Height	105/142 ft
Base	21 ft
Substructure Type	Box and box/slingshot
Height to Rotary Table	23 ft

Power System

Power Generation & Control

- Drive: AC motor
- Power Control: Variable frequency drive (VFD)
- Main Engines: 3 x 3512B Models
- Main Generators: 3 x SR4 Models (1,500 kVA rating)
- Emergency Generator: 1 x 3406 Model (or equivalent)
- Voltage: 600v / 50Hz

Hoisting & Drilling Equipment

Hoisting Equipment

Component	Value
Draw Works Type	KR E-1250-AC
Draw Works Rating	1,250 hp
Max. Line Pull	34 mt
Drilling Line Diameter	1 1/4"
Table Opening	27 1/2"

Mud System

Mud System & Capacities

Parameter	Capacity/Rating
Pump Type	F-1300
Pump Horsepower	1,300 hp
Active Mud System	1,163 bbl
Reserve Mud System	755 bbl
High Pressure Line	5,000 psi (Dual Arrangement)
Double Standpipe	5,000 psi

Load Capacities

Load Ratings

Casing Load: 550,000 lbs • Setback Load: 350,000 lbs • Static Hook Load: 550,000 lbs