

# 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