

Arctic Drilling Rig for Extreme Cold Climates

This drilling rig is designed to operate in extreme cold environments, with a working temperature range of -45 to +40 . It features a thermal insulation system, heating system, and heat recovery system for efficient operation in arctic conditions.



Overview

High-Performance Arctic Drilling Solution

This 250t arctic drilling rig is specifically engineered for extreme cold climates, featuring a 1,250 HP AC motor drive and a robust cantilever mast. With a drilling depth capacity of 13,200 ft (4,000 m) and a static hook load of 550,000 lbs, it provides the power and stability required for demanding exploration projects. The system integrates advanced variable frequency drive (VFD) controls and a comprehensive mud management system to ensure efficient and safe operations in remote, harsh environments.

Performance Metrics

Key Performance Indicators

13200 ft

Drilling Depth

550000 lbs

Static Hook Load

1250 HP

Drive Rating

Mast & Substructure

Mast Type	Cantilever
Mast Height	105 / 142 ft
Substructure Design	Box and box / slingshot
Height to Rotary Table	23 ft

Power System

Power Control Type

Variable Frequency Drive • AC Motor Drive

Primary Power Generation

Component	Quantity	Rating
Main Engines	3 units	1,476 hp each
Main Generators	3 units	1,500 kVA
Emergency Generator	1 unit	3406 equivalent

System Voltage	600v / 50Hz
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Hoisting & Drilling

Load Capacities

- Casing Load: 550,000 lbs
- Setback Load: 350,000 lbs
- Max Line Pull: 34 mt

Draw Works Type	KR E-1250-AC
Drilling Line Diameter	1 1/4"
Table Opening	27 1/2"

Mud System

System Capacities

System Type	Volume
Active Mud System	1,163 bbl
Reserve Mud System	755 bbl

Mud Pump Configuration	F-1300 (1,300 hp)
High Pressure Line	Dual 5,000 PSI arrangement