

# Frequency Conversion Deep Hole Drilling Machine

This drilling machine leverages frequency conversion for enhanced performance. It employs a Siemens PLC system to ensure high control precision and power factor.



## Overview

### Extra-Deep Well Drilling Capability

The ZJ90/6750DB is a high-performance frequency conversion drilling machine engineered for 9000-meter deep well operations. By utilizing advanced digital exchange frequency conversion technology, this rig offers superior control precision and high efficiency for oil field exploration. Its robust design ensures reliability through intelligent safety systems and a sophisticated, fault-tolerant control architecture.

## Technical Performance

### Performance Metrics

**1600 HP**

Drill Pump Rating (F-1600HL)

### Drilling Depth Capability

9000 m

## Control & Automation

### Control Technologies

Siemens PLC, Digital Frequency Conversion, Intelligent Monitoring, Automatic Drilling

## Winch System

### Winch System Features

- Single axle two-grade exchange frequency conversion
- Stepless speed regulation
- Two-pairs-one control model
- Hydraulic disc and electric dynamic braking
- Optimized acceleration characteristics

## Safety & Reliability

### Safety and Redundancy

- Intelligent safety cutting
- Excess afterheat backup pattern
- High fault-tolerant performance
- Real-time operation monitoring