

Casing Oscillator for Pile Foundations

This casing oscillator is a robust piece of construction machinery designed for pile foundation work. It features a complex hydraulic system and a multi-tiered platform structure with safety railings, emphasizing operator safety and accessibility.



Product Overview

High-Efficiency Casing Oscillator

This hydraulic rotary casing drilling rig provides a high-performance solution for complex pile foundation projects. By eliminating the need for mud and minimizing environmental impact, it ensures a cleaner, safer, and more efficient construction site. The system is engineered to handle challenging strata including quicksand, pebbles, and karst, while maintaining high vertical precision and concrete bond strength.

Performance Metrics

Average Drilling Speed

14 m/h

Drilling Efficiency

Maximum Excavation Depth

70 m

Hole Verticality Tolerance

3% - 5%

Operational Advantages

Operational Benefits

- No noise or vibration during operation
- Mud-free construction process
- Improved concrete bar grip strength
- Lower concrete filling factor (saves ~13%)
- Excellent sediment control (bottom sediment within 2.5cm)

Suitable Formations

Pebble, Silt, Quicksand, Fine Sand, Karst, Backfill Soil, Swamp

Applications

Industry Applications

- Deep foundation pit enclosure
- Urban transformation projects
- Railway and bridge construction
- Port and hydraulic infrastructure
- High-rise building foundations
- Inclined pile construction