Direct Pipe Laying Machine for Trenchless Construction

Direct pipe laying machines utilize a trenchless construction method for installing pipelines. This method allows for simultaneous excavation and pipeline laying.

ADDITIONAL IMAGES

Overview

Advanced Trenchless Pipeline Installation

This direct pipe laying machine represents a new-type trenchless construction method where excavation and pipeline laying are performed simultaneously. It is specifically designed for high-efficiency projects involving small diameter water diversion, drainage, and oil pipelines. By combining a tunnel boring machine with a powerful pipe thruster, it eliminates the need for pipe installation during the drive and removes the requirement for reception shafts.

Core Features

The specialized cutterhead designed for simultaneous boring and pipe installation.

Key Benefits

- Simultaneous excavation and pipeline laying
- Continuous tunneling up to 1000m in a single drive
- Slurry balance mode for minimal ground settlement
- High-precision guidance system for accurate breakthrough
- Adaptable cutterheads for complicated geological conditions
- Reduced construction risk with machine retrieval capabilities

Performance Metrics

Performance Highlights

100 m	5 m/min	1000 m
Daily Advance Rate	Max Advance Rate	Max One-time Tunneling

Technical Specifications

Machine Specifications by Model

Parameter	Variant A	Variant B
Diameter	1,300 mm	1,505 mm
Weight	200 t	270 t
Maximum Thrust	5,000 kN	8,000 kN
Installed Power	770 kW	820 kW
Shield + Back-up Length	14 m	14 m

Operational Parameters

Operational setup showing the pipe handling and thrusting mechanism at a construction site.

Construction Angle Range	-15° to 15°
Field Performance	Successfully tunneled 200m within 2 hours without failure

Applications

Typical Applications	Oil Pipelines, Water Diversion Tunnels, Water Drainage Tunnels, Small Diameter Tunnelling