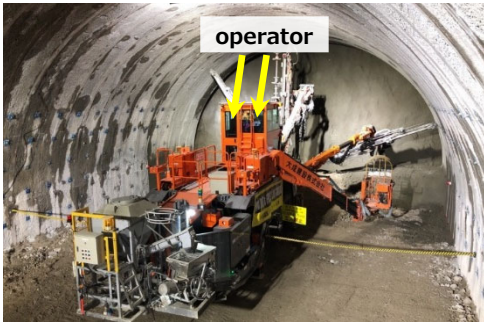


Rock-bolting machine 【BOLTINGER】

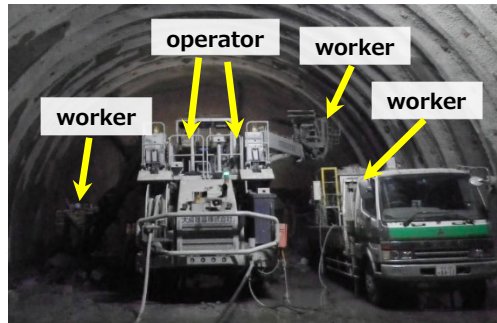
~Fully mechanized rock-bolt work in tunnel construction~

Outline

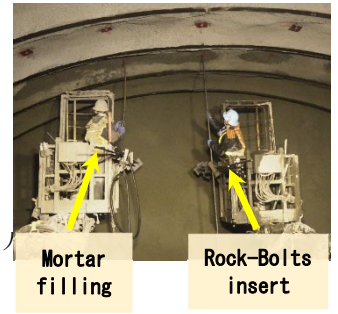
Rock-bolting machine "BOLTINGER" mechanizes the work of rock-bolting which has been done manually. This machine can eliminate dangerous and hard manual work near the face, and improve safety, work environment, and productivity.



Machine layout



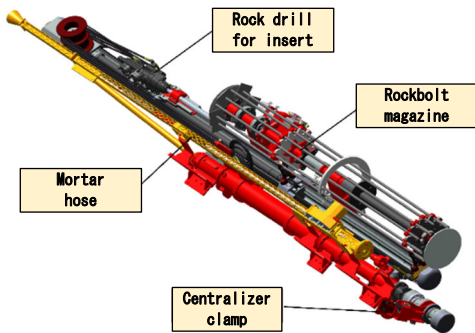
Traditional layout



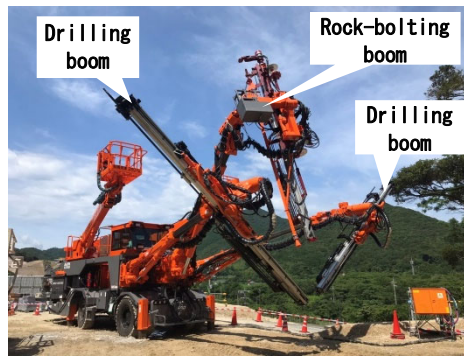
Manual installation

features

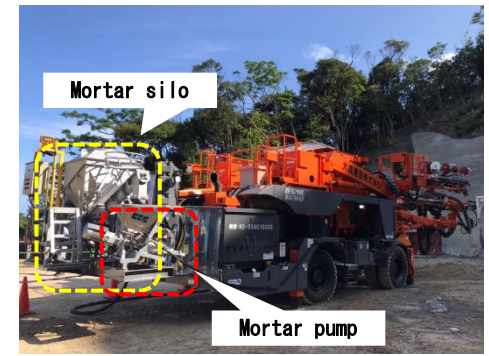
- Various rock-bolts can be constructed
This machine can construct not only rock-bolts with usual length (3 m and 4 m) but also 6m rock-bolts by jointing two parts with 3m length.
- 3 booms configurations with different roles
The central rock-bolting boom following drilling booms equipped both sides makes rock-bolting work efficient
- Mortar supply device is installed behind the machine
A operator is able to fill mortar by pushing buttons placed in the cabin.
- Drilling navigation by computers
By recording the drilling results, the rock-bolting boom is smoothly guided to the accurate construction position.



Rock-bolting Unit



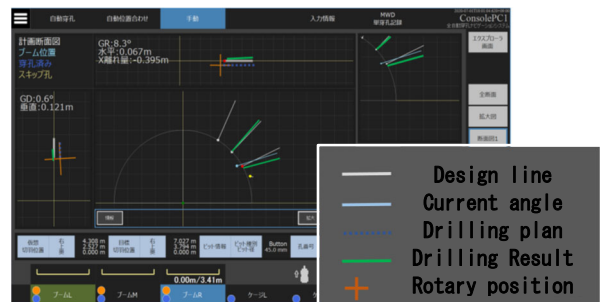
3 booms configuration



Mortar supply device

Advantage

- Productivity improvement
The number of workers can be decreased from 5 (manual installation) to 2 (BOLTINGER)
- Safety improvement
Safety has been significantly improved by completely mechanizing rock-bolt work.



Drilling navigation system