

Slow Cutting for Higher Productivity & Safety

The Sandvik Bolter Miner



SANDVIK Bolter Miners

... for Roadway Development

- First Bolter Miner („ABM20“) at Tahmoor Coal mine, Australia 1991



SANDVIK Bolter Miners

... for Roadway Development

- Bolter Miner MB670 at Buertai Coal mine, China, 2010



SANDVIK Bolter Miners

... for Salt Minerals Production

- „Bolter Miner“ principle used for high-performance salt and potash cutting
- Heilbronn salt mine, Germany
- Zielitz salt mine, Germany
- Polkowice-Szierszowice mine, Poland



Foto © K + S Kali GmbH

Bolter Miner Variations

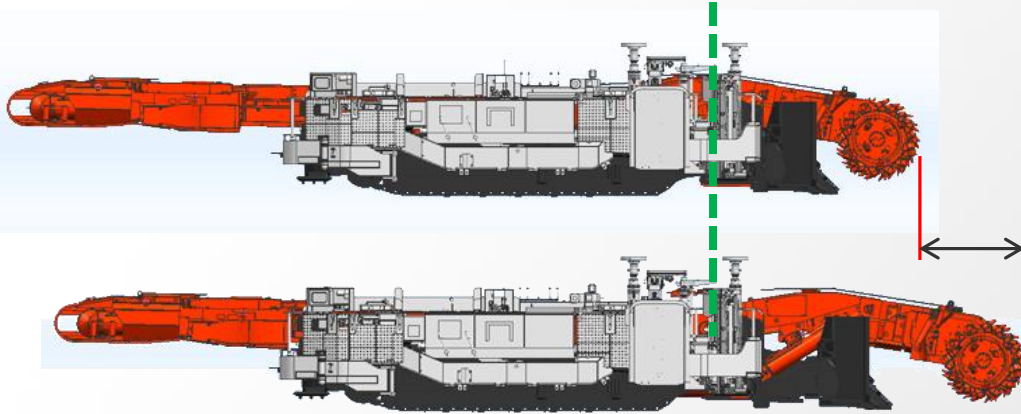
Country- specific

- USA: MB450, MB610
- CAN: MB670
- EUR: MB670, MB770
- CIS: MB670
- CHN: MB650, MB670
- AUS: MB610, MB650, MB670
- RSA: MB200, MB300, MB750



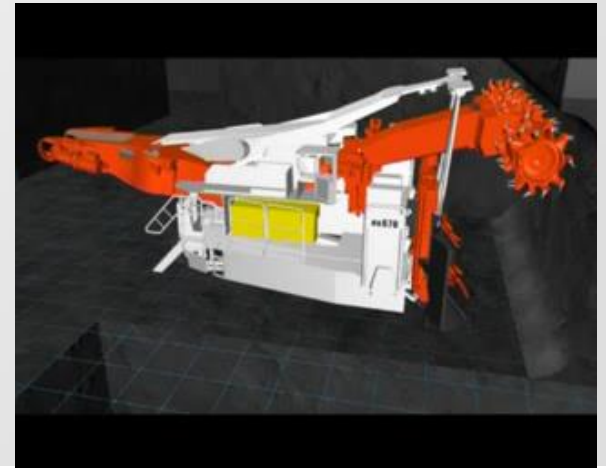
Bolter Miner MB600 Series

Operation Principle - Sump Distance



Sump distance:

- 1.0 m (39 in).....MB650&MB670
- 1.4 m (55 in).....MB610



SANDVIK Bolter Miners

Experience since 1990

ATRS / Canopy → Safety for operators & stability for bolting

Slow speed cutting
+ low dust creation
+ high cutting force
+ reduced pick use

Sandvik cutting tools
for high performance
at high torque

loading & bunkering
20 - 27 tons/min
capacity



39 - 55 in (1 - 1.4 m) sump distance
for increased bolt row distance

Simultaneous cutting
and bolting

Flexible bolting at
close distance to face

low machine height for
easy relocating

Wide crawler tracks for
low ground pressure

Bolter Miner MB600 Series

Selected Operator Safety Features



- Low dust creation due to low cutter speed
- Dust extraction ducting integrated (some models)
- External water sprays for dust suppression & ignition prevention
→ evolution from “Wet” to “Dry” drum
- Large ergonomic working areas / platforms
- Platforms lift + extend hydraulically (some models)
- Push-button controls (some models)
- Intensive lighting
- All materials within easy reach

Bolter Miner MB610 MSHA

The bolter miner for US coal mines



- Low cutter speed → low dust & high torque
- Automated front and rear stabilizer
- Low ground pressure due to wide crawler tracks
- On-board roof & rib bolter (dry drilling)
- Up to 37° roof bolter tilt angle
- 55 in (1.4 m) sump distance
- apron movement allows cutting narrow corners
- 79 in (2 m) machine height for easy relocating

MB610 @ CONSOL BAILEY



Bolter Miner MB610

Increased Safety & Ergonomics for operators

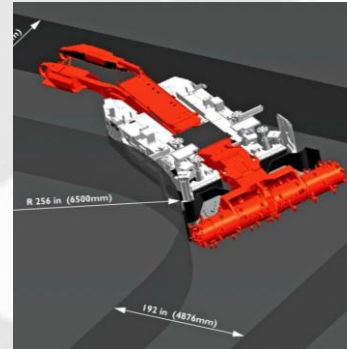
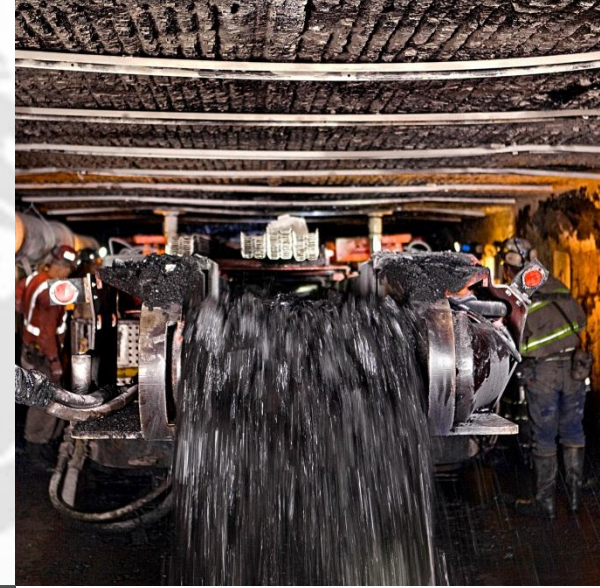
- Automatic cutting cycle
- Low cutter speed → low dust
- Rib protection shield
- Roof rock deflector
- Low noise levels



Bolter Miner MB610

Increased Productivity

- Simultaneous cutting & bolting
- Automatic cutting cycle
- Low cutter speed → high torque & low dust
- 18 – 20% higher cutting rate
- Can cut hard rock layers
- 4 Auto-stabilizers → high cutting stability
- Low ground pressure → easy on the floor
- Apron movement allows cutting narrow corners



Bolter Miner MB610

Reliable Performance

- Automatic cutting cycle → all motors operate at most economical utilization
- Low cutter speed → low pick usage
- Data logging system
- Increased component life span



Bolter Miner MB610

First year @ CONSOL Bailey

Start end Oct 2011

Year 2012 advance:

- 17 300 meters (56 200 ft) advance
- 37.7 meters (124 ft) shift average
- 106 meters (348 ft) best shift





What do we do?

We manufacture advanced special alloys and ceramic materials, industrial tools and mining equipment. We work in close cooperation with our customers and we invest heavily in research and development.



What are we?

We are a world leading high technology engineering group.



Who are we?

Our corporate culture is characterized by a combination of high technology development and a proud team spirit.