



Robbins  
48" M-SBU

BW  
NACAP LAND & MARINE  
PELAWANG / BIREUEN PIPE TONG



## INNOVATIVE TECHNOLOGY. PROVEN SOLUTIONS.

Own or rent Robbins trenchless equipment and experience the most time and cost effective way to complete your next project. Over one hundred contractors around the world can attest that these machines are the most efficient way to bore rock.

Robbins employs a highly qualified, knowledgeable team that can help you tackle your next project with confidence. With over fifty years of experience, no other company exists that knows more about hard rock excavation.

The Small Boring Unit (SBU) Division at The Robbins Company consists of these machine types:

**Small Boring Unit:** Requires an ABM and full-face auger

**Motorized Small Boring Unit:** Similar design to the SBU-A but with steering capabilities and a motor

**Single Shield Rockhead:** A small single-shielded hard rock tunnel boring machine

**Double Shield Rockhead:** A small double-shielded hard rock tunnel boring machine that is self-propelled with a gripper system

**Auger Boring Machine:** Ideally used with SBU products

For detailed machine information, specification sheets are available. To learn more about Robbins visit our website at: [www.TheRobbinsCompany.com](http://www.TheRobbinsCompany.com).

# HARD ROCK. EASY DECISION.

## Small Boring Unit

Extend your boring capabilities with the Robbins Small Boring Unit (SBU-A). Excavate rock faster without the hassle of pneumatic hammers or other less effective tools. Beat your competition on the bid, experience high advance rates, and walk away more profitable when you use the Robbins SBU-A on your next project.

The SBU-A is a small diameter cutterhead equipped with disc cutters and a high-capacity thrust bearing assembly. The SBU-A can be used with any Auger Boring Machine, which provides forward thrust for machine advance and torque to rotate the cutterhead. A full-face auger fits directly onto a taper hex shaft in the thrust bearing assembly. At the onset of the bore, the SBU-A is welded to the lead casing. Line and grade can be established the first 20 to 30 feet (6 to 9 m) of the bore via stabilizer pads mounted on the machine.

The SBU-A bores rock from 4,000 to over 25,000 psi (25 to 175 MPa) UCS. Typically SBU-As are utilized on crossings from 100 to 300 ft (30 to 90 m) long; however, some have been used on drives over 500 ft (150 m). The length of the drive depends on the ground conditions.





## DRIVEN TO BORE ROCK.

### Motorized Small Boring Unit

Perform extraordinary bores with the Robbins Motorized Small Boring Unit (SBU-M). Bore longer tunnels, through harder rock, on line and grade during your next project.

The SBU-M is a motorized rock boring machine for excavating mixed ground to hard rock. Similar to the SBU-A, the SBU-M utilizes disc cutters mounted on a cutterhead. The SBU-M derives torque from an in-shield drive motor and thrust from an Auger Boring Machine or pipe jacking unit. Muck is normally removed using an invert auger.

To steer the machine, the operator has the ability to articulate the front shield and adjust stabilizer pads. The operator's console is located inside of the machine's rear shield. Accuracy is attained by continuously monitoring line and grade using a laser targeting system.

The SBU-M is designed to achieve bores longer than 500 ft (150 m) through rock that is 4,000 to over 25,000 psi (25 to 175 MPa) UCS. With this method, steel casing is initially installed. If the contract calls for a different type of lining, then a pipe-jacking system can install other types of pipe.



# GO THE DISTANCE.

## Rockhead

For the most challenging hard rock bores, the Robbins Rockhead is the best solution. Modeled after large diameter tunnel boring machines, the Rockhead is the most sophisticated small diameter machine offered by Robbins. It has the ability to bore over 1,000 ft (300 m) in length.

Thrust and torque are generated through an in-shield drive motor and thrust cylinders. The operator's console is located inside the rear shield. For steering, the forward shield can be articulated and stabilizer pads adjusted. Disc cutters are mounted on the cutterhead and can be changed at any point during the bore.

Both Double Shield and Single Shield Rockheads are available. The Double Shield Rockhead is self-propelled using a gripper system. The Single Shield Rockhead must be used in conjunction with a pipe-jacking system or a primary liner erected in the tailshield. Primary liner is required for the Single Shield Rockhead to thrust against.

Various types of final lining can be used depending on your project. There are several options for muck removal including a conveyor, small invert auger, and muck cars.





## NOT JUST ANOTHER BORING MACHINE.

### **Auger Boring Machine**

Complete your next bore more efficiently and safely. The Robbins Company has developed a heavy duty Auger Boring Machine (ABM) that is more reliable and productive than competitors'. Designed to work with Robbins SBUs, Robbins Auger Boring Machines can take on the some of the toughest bores.

Various cutterheads are available to excavate soil, sand, clay, cobble, glacial till, soft shale and some sandstone. Both the SBU-A and the SBU-M are the ideal attachments to be used with the Robbins ABM in hard rock and mixed ground.

The Robbins ABM has been successfully used on projects worldwide. The ABM matches or exceeds all industry-required safety standards in order to ensure crew safety. The majority of ABM crossings are 175 ft (53 m) to 225 ft (68 m) in length; however, some bores have exceeded 600 ft (180 m).





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