# **ROBBINS** SBU DIVISION

# DOUBLE SHIELD TBM (SBU-DS)

The Double Shield TBM (SBU-DS) is ideal for long tunnels (over 10,000 ft) without intermediate access. The SBU-DS is a manned-entry, hard rock tunnel boring machine. The machine is used in conjunction with a back-up system for auxiliary functions. In unstable ground, the SBU-DS can erect liner within the tail skin, while in stable ground the machine can be used without lining. Muck is removed using muck trains with conveyor-loading muck skips.

#### SBU-DS APPLICATIONS

- Long tunnels with no intermediate access
- Line- and grade-critical tunnelling
- Bore lengths up to 10,000+ ft

#### GUIDED BORING

The SBU-DS can be steered throughout the drive using hydraulic stabilizer pads and articulation cylinders. Line and grade accuracy is continuously monitored with a laser targeting system.

### TUNNELING WITH NO LIMITATION

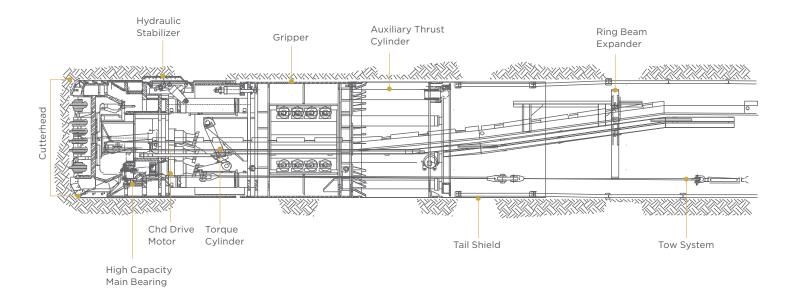
Not just for utility crossings, the SBU-DS can bore entire tunnels in much harder rock than other SBU Division products. A ring bearing and bull gear drive allow for larger diameter 17 inch disc cutters to be used, with greater thrust and higher torque. The machine is capable of boring in rock of 44,000 psi UCS or higher over long distances.

### AVAILABLE FOR PURCHASE OR LEASE





## DOUBLE SHIELD TBM (SBU-DS)



SPECIFICATIONS

MACHINE DIAMETERS 88 to 118 inches (Larger sizes available)

ROCK STRENGTHS 4,000 to over 36,000 psi UCS

GROUND CONDITIONS Medium to very hard rock, or mixed ground

CUTTERHEADS Both hard rock and mixed ground cutterheads are available

CUTTERS All machines can be equipped with 12 inch to 17 inch discs, depending on geology.

### SBU-DS 88/97 INCH

Bore Diameter - 88 in to 97 in Boring Stroke - 30 in Main Bearing - Tapered Roller Machine Thrust - 617 ton max

Cutterhead Drive -5 x hydraulic motors Drive Motors -

2 x 350 hp water-cooled Max. Torque -

232,300 ft-lb at 12 RPM Max. System Press. - 345 bar

### SBU-DS 102/118 INCH

Bore Diameter - 102 in to 118 in Boring Stroke - 50 in Main Bearing - Tapered Roller Machine Thrust - 1,543 ton max Cutterhead Drive - Electric Drive Motors -4 x 250 hp water-cooled Max. Torque -907,200 ft-lb at 9 RPM Max. System Press. - 345 bar



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