Shutterlock’s Friction Rock Stabilisers are attracting world attention. Their design allows them to tighten as lateral rock displacement occurs, enhancing their yielding capacities.

How it works
Shutterlock’s friction Rock Stabilisers are made up of two main parts:

- A hollow shaft with a large split down its length. One end is tapered, the other has a welding ring lug to hold the plate in place;
- A square plate used to stabilise the shaft and hold it in place, as well as retaining mesh.

The tapered end allows the tube to be compressed into a smaller hole made into the rock. The tube exerts radial torques which grow stronger as rock displacement occurs, generating an active support resistance. *see pic 1*

The system components
This is all you need: the tube and matching domed bearing plate, and inexpensive driver tool to fit the rock drill you use to drill the hole.

Various male and female drivers are available to fit all rock drills, stopers and drifters for all Friction Rock Stabiliser models. A pull tester will help you verify the effectiveness of the stabilisers after installation, and over time. Pull collars are available for each tube diameter.

Choices of tubes and plates
Friction Rock Stabilisers are manufactured in the following: 33mm, 39mm, 46mm and 47mm diameter tubes and are available in lengths to suit your requirements. These can be supplied in black or hot dip galvanised steel to satisfy environmental corrosive conditions.

Conforms to ground shifts, grips even tighter
Pull tests prove the superior holding power of the Friction Rock Stabiliser system. After installation (when ground shifts can loosen an ordinary rock bolt), the Friction Rock Stabiliser tube grips more tightly. Days or weeks later, when the average conventional bolt becomes ineffective and needs re-torquing, a typical stabiliser tube remains its load-bearing characteristics. *see pic 2*

In the hold, the tube exerts forces against the rock over its full contact length as well as providing plate support *see pic 3*

It never needs tightening. The tubular structure and high strength of the Friction Rock Stabilisers allow it to conform to rock displacements.

Full length support
The Friction Rock tube applies frictional properties over its full contact length; not just at the end of an ordinary point-anchor bolt does. The tube and bearing plate exerts forces against the rock immediately upon installation.

Compare the advantage of the Friction Rock Stabiliser system over any other ground support system

- Immediate full length anchor rock reinforcement
- Instant full load-bearing capacity
- Excellent yielding characteristics
- Individual marked for full traceability
- When rock displaces, forces increase
- No ancillary equipment required
- Accommodates large ground movements
- Can be used in an excavation geometry
- Not prone to tensile failure
- Simple design
- Made to customer specifications
- Can inspect visually
- Unlimited shelf life
- No pressuring or mixing
- No torquing or re-torquing
- High tolerance to variations in bore hole diameter
- Load rock in compression
- Axial and radial support
- Minimal stress concentration
- If bearing plate knocked off, support is maintained
- Available in black or hot dip galvanised steel
- Millions of successful installations worldwide
- One international standard
- Experienced technical assistance
- Insensitive to blast variations

Shutterlock’s total quality commitment by OEM
ISO1461 Quality Management System
Certified material only: Supraform S420MC
In-house tube manufacturing
Robotic welding ring
Certified calibrated in-house destructive product testing

**FRICION ROCK STABILISERS**

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**WALL THICKNESS OF SPLIT SETS**

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Quick & Easy Installation

- W Plate 300 x 300mm, with integrated washer 150 x 150mm
This is used to support mesh that is suspended by the split sets

Examples of Driver Dolly’s that are manufactured for Split Set installation purposes.