

Friction Bolt

Product code: FB33

Product specification: Ø33mm Friction Bolt

Category: Rock Bolts - Friction

Key features

- Our Friction Bolt is manufactured from high strength steel tube which has a slot along its entire length. A ring, or collar, is welded on the outer end to hold a domed plate to the rock surface.
- The Ø33mm Friction Bolt is suitable for installation with hand held rock drills (stoppers/drifters).
- Friction bolts can be load tested by fitting a special ring to the bolt prior to its installation. Pull tests can then be conducted with a hollow ram hydraulic jack.
- Further corrosion protection can be provided by hot dip galvanizing.



Product Code Guide

| Bolt Type | Diameter | Length | Coating | Packaging |
|-----------|----------|--------|---------|-----------|
| FB | 33 | 150 | G | WA |

Physical Properties

| | Minimum | Typical |
|------------------------|----------|-----------------------|
| Yield Strength | 415(MPa) | 75kN |
| Tensile Strength | 510MPa | 90kN |
| Mass per Meter | | 1.53kg |
| Friction Bolt Diameter | | Ø33mm |
| Hole Diameter Range | | Ø33mm min./Ø32mm max. |
| Cross Sectional Area | | 175mm ² |

**Installation/
applications**

The hole length should be longer than the bolt, nominally 150mm, to allow for any rock fretting during installation.

The friction bolt is inserted into the hole. The driving dolly is fitted into the rock drill's chuck and then the bolt (with accessories) is placed onto the dolly.

Using full percussion and thrust the bolt is fully driven into the hole until the domed plate is firmly against the rock surface. Care should be taken to ensure the rock drill's feed/thrust is in the same orientation as the hole or the bolt may be bent during installation.

Packaging

Standard bolt lengths include 450mm long and from 600mm to 3,000mm in 300mm increments.


Non-standard lengths are available on application.

Friction Bolts are supplied in standard packs of 150 bolts (Ø39mm & Ø47mm) and 300 bolts (Ø33mm).

**Product range and
accessories**

Sandvik manufactures a comprehensive range of plates specifically designed for this range of bolts.

Typically, plates used

| Product Group | Dragon Fly | Dome Plates | Dome Plate | Pull Ring |
|---------------------|---|---|--|---|
| Product Imagery |  |  |  |  |
| Product Code Prefix | DF | FRP | TDD | PRING |

Phone app

Want to know more; our full product range, knowledge centre, and other details are available via the App; available on iOS and Android devices by searching "Ground Support".


Legal disclaimer

All dimensions, weights, quantities, and specifications are those applicable at the time of this publication and may be amended from time to time. Please contact your local representative for final confirmation of any key specifications.