

DSI Dynamic Hollow Bar Bolt R28

Product code: DSIHBR28DYN24dm
Product specification: Dynamic self-drilling hollow core bolt
Category: Hollow core bolts to be grouted with pumpable resin

Introduction

The DSI Dynamic Hollow Bar Bolt R28 is a powerful, dynamic hollow core bolt offering a very high energy absorption capacity and fast and safe self-drilling installation with trouble-free application in unstable boreholes. It enables fast development, especially in a jointed/broken rock mass and speeding up the rehabilitation works.



Key features

- For seismic, squeezing, and quasi-static jointed or broken ground conditions
- Fast and safe self-drilling installation with trouble-free application in unstable boreholes
- Very high dynamic capacity
- Excellent behaviour when subjected to shear loading
- Best results with pumpable resin systems (Mineral Bolt)
- Special heat treatment of the entire bolt allows for elongation and energy absorption of more than 45 kJ depending on the conditions of the test (confirmed by independent testing)

Main advantages

- Fast drilling and placing due to drilling, bolt installation and grouting in a single operation
- Neither separate installation nor removal of casing and drill rods
- Similar installation methods for all ground conditions
- Choice of drill bits for different ground conditions
- The hollow core not only provides flushing with air or water during drilling, but also grouting the anchor tendon

Technical specifications

Description	Unit	DSI Dynamic Hollow Bar Bolt R28
Nominal outer diameter	mm	28
Nominal inner diameter	mm	8.5
Length	m	2.4
Tensile load bearing capacity ¹	kN	250
Shear load bearing capacity ²	kN	255
Energy absorption capacity ³	kJ	45

¹ Determined during pull-out tests of bolts installed with Mineral Bolt resin in high strength concrete blocks conducted by an independent institution.

² Determined during shear tests of bolts installed with Mineral Bolt resin in high strength concrete blocks conducted by an independent institution.

³ Determined during dynamic loading of bolts bonded with Mineral Bolt resin in steel tubes, in the so-called split tube test, according to the procedure described in the ISRM Suggested Method (2025), conducted by an independent institution.

Technical specifications

Description	Unit	DSI Dynamic Hollow Bar Bolt R28
Elongation ¹	%	15
Critical embedment length ²	cm	50
Thread (left hand)	Internal standard based on ISO 10208 and 1720	

¹ Determined during pull-out tests of bolts installed with Mineral Bolt resin in high strength concrete blocks conducted by an independent institution.

² Minimum value of the critical bonding (embedment) length of R28 Dynamic bolts bonded with Mineral Bolt resin, determined across multiple types of tests on bolts installed directly in steel tubes, as well as in concrete and various types of rock.

Installation/applications The DSI Dynamic Hollow Bar Bolt R28 is perfectly suited for self-drilling installation using a pumpable resin system (Mineral Bolt).

Product range and accessories The DSI Hollow Bar System offers several products and accessories, including drill bits, couplings, plates, and much more.

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.