ROCBOLT TECHNOLOGIES: **MINING**

High Energy Absorption Mesh (HEA)

Where ground conditions are rock-burst prone and challenging, HEA mesh by ROCBOLT Technologies provides improved surface containment with the addition of pre-laced wire strand. In dynamic conditions where an excavation surface deforms, the strata loading is effectively transferred to all bolts and tendons, with a strong connection between the bolts and mesh offered by the HEA mesh installation.

HEA Mesh has the ability to allow large deformations whilst maintaining a high load capacity. The ability of HEA mesh to absorb energy in dynamic and repeated loadings can complement yielding reinforcement as an element in a complete dynamic system.

Key Benefits

- Superior containment of rock mass
- Jumbo specific for rapid installation
- Reduced shotcrete requirement
- Deformation plus strength for superior performance

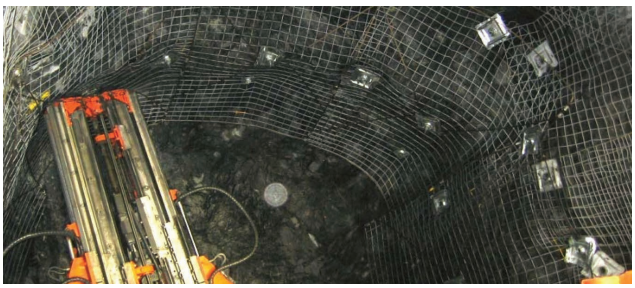
Indicative Performance*

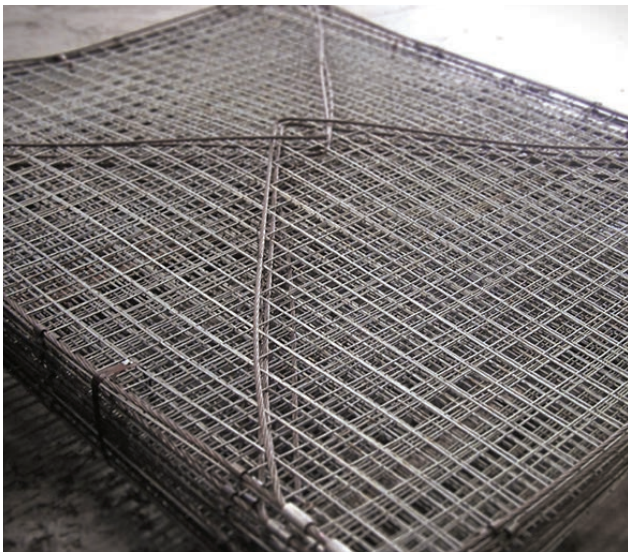
- Deformation (typical maximum value at sheet centre): 900mm
- Point loading (typical maximum value at sheet centre): 17.5 tonnes

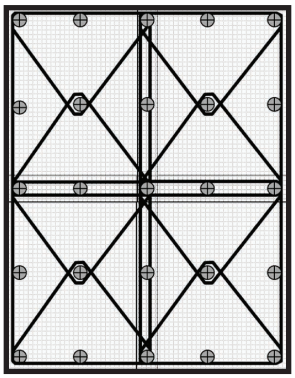
* Based on University of Western Australia laboratory test results - underground loading conditions may differ.

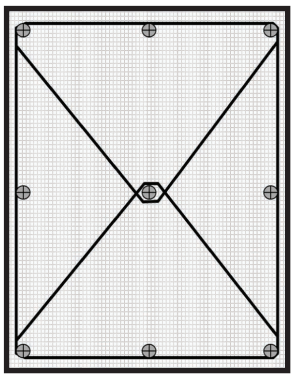
Product Properties	Typical
Sheet Size (Typical)	2400 x 3000 mm
Aperture	100 x 100 mm
HEA Mesh Wire Diameter	5.6 mm
Mass per Sheet	45.5 kg
Cable (Strand) Diameter	12.7 mm
Cable Tensile Strength	1870 kN

* Other sizes available per customer requirements









Installation Overview

The pre-laced modular concept of HEA mesh is designed to meet the development intensive requirements of Jumbo based one pass mesh and bolt installations. This is achieved by the mesh behaving as standard mesh during handling and bolting.

The bolting pattern provides interconnection of the cable lacing system between successive HEA mesh modules. Correct overlay of HEA mesh sheets and bolt placement is critical to ensure cable lacing performs as a complete system. HEA mesh effectively removes the ‘weak link’ of support systems.

HEA mesh provides a cost effective solution to the high energy demands of rock burst containment.