

MINING / CONSTRUCTION

U-BOLT HYBRID TRUSS SYSTEM

DESCRIPTION

Roof conditions in today’s underground mining operations are more challenging than ever before. Weak roof, deep cover and stress fields are but a few of the contributing factors that lead to the increased requirements for added ground control. Trusses, when properly installed, rely on the inherent strength of the strata above support pillars to provide anchorage and compressive forces.

Systems have evolved, and currently many systems incorporate high strength cables as a key component to add flexibility and capacity. One such system is Minova’s U-Bolt Hybrid Truss System.

Two configurations of truss shoe assembly:

- Cast shoe incorporates plate and U-bolt saddle
- 2-Vangle block that can be used with various flat plates

ADVANTAGES

- A variety of truss anchors can be used
- Double Lok
- Tension Rebar
- Resin Bolt
- Continuous Thread Bar (CTB)



TECHNICAL DATA

- Truss bolts made from 7/8” Grade 75 material
- Cross-members made from 0.6” (270K) low relaxation, 7-strand cable
- Nominal strength of 30 tons
- Hole diameters – 1”, 1-3/8”

APPLICATION METHOD

1. Drill hole proper diameter and depth at ± 45 degree angle.
2. Insert proper Minova resin cartridge.
3. Insert truss anchor bolt assembly into hole per the recommendations according to the type of bolt.
4. Attach U-bolts to the shoe or 2-V angle block
5. Insert cable cross-member into cable connector.
6. Insert opposite ends of cable cross-member into U-bolt via the 3-hole block and attach barrels and wedges.
7. Tension the system with the hydraulic tensioning unit or a hand pump assembly.

Cable cross member for strength and flexibility.

Threaded U-bolts for re-tensioning without the need for hydraulic power.

APPROVALS AND CERTIFICATES



an ISO 9001:2015
Quality Management System Certified Company.

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ADDITIONAL DOCUMENTATION

Started more than 135 years ago, Minova is a global manufacturer and supplier of chemical and mechanical earth control products and support equipment. With manufacturing plants on five continents and operations in more than 25 countries, Minova is an industry-leading provider of ground support solutions for the underground mining, construction and energy industries.

If further information is required consult Minova Americas website: www.minovaglobal.com.

- Steel Bolts, Plates, Other Steel Articles Safety Data Sheet (SDS)
- Minova Guide to Resin-Grouted Rock Bolts
- Minova Chemicals, Polymers & Steel Application Guide

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