

# CONSTRUCTION

# **CABLE SLING**

# **COST-EFFECTIVE, LONG-TERM CONTROL**

#### DESCRIPTION

The Cable Sling System (CSS) is a highly costeffective solution that provides long-term control.

Cable Sling Systems are available in 0.6" and 0.7" in a two- or three-piece system with the appropriate connector units, based upon each customer's requirements.

#### USES

The Cable Sling System (CSS) is used for long-term, permanent roof control and long wall applications.

## **ADVANTAGES**

- Uncompromising Strength.
- Customized Options.
- The new cable connector system eliminates the waste created when separate barrel and wedge units are provided
- This unique design incorporates the wedges and helps keep them "clean" for maximum installation loads.
- The cable connector can be loaded to the cable tensile strength without shearing the strand.



#### **TECHNICAL DATA**

Minova's research indicates that the design capacity of the CSS should be limited to the ultimate strength of the cable being used, approximately 30 or 40 tons.

## **SPECIFICATIONS**

Materials	Strand	Borehole	Plate
0.6" Gr270K	Bright, Galvanized	1", 1-3/8"	6" x 16" Gr2
0.7" Gr270K	Bright, Galvanized	1", 1-3/8"	6" x 16" Gr2

# **APPLICATION METHOD**

- Drill a 1" or 1-3/8" diameter hole, depending on application, at an angle of about 45 degrees, into the mine roof approximately 1' – 2' from pillar edge. The borehole should be about 1" longer than the length of cable to be inserted. The entry spacing of slings is dependent upon support requirements and mining conditions.
- 2. Insert predetermined Minova resin cartridge(s) into the borehole.
- 3. Push the angled cable until resistance is felt from resin cartridge(s). Bring wrench and bolter head up to cable and rotate slowly until you reach the

#### **TECHNICAL DATA SHEET**



back of the hole. Spin the angled cable in the clockwise direction only for the recommended time and hold until resin has cured.

It is very important that cable ends are cleaned and free of any dirt or residue before you perform this step: Install a cable connector onto end of the angle cable by sliding the cable through the connector until the cable protrudes about 2 inches.

- 4. Repeat Steps 1 through 3 for angle cable end on opposite side of entry.
- Insert one end of horizontal cable cross member through the cable connector to accommodate the required length of your cable jack (usually about 15 inches).
- Insert other end of horizontal cable member through the cable connector on the opposite side. Pull horizontal cross member as tight as possible by hand.
- 7. Roughly position the 6" X 16" cable sling plates as closely to angle bolt holes as possible. These can be readjusted as sling is slowly tightened to conform to the roof geometry, cutter and loading conditions.

Your Minova technician can provide assistance with the latest strategies on bearing plate placement.

8. Slide the cable jacking system until tight against barrel and wedge assembly on the cable connector. Begin hydraulic jacking to tighten cable. Re-check position of the bearing plates and repeat tensioning cycle until desired cross member loads are achieved.

#### **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: <u>www.minovaglobal.com</u>.

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

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