





# PROPOSAL Cable Bolt Safety Caps

# Cost effective hazard control, personnel safety & mobile equipment

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SAFETY PRODUCTS TO ENHANCE OPERATIONAL EFFICIENCY

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# **PROJECT SCOPE**

Assess the value of the Cable Cap to remove the hazard posed by cable bolt tails to operators, machinery and vent bag at your underground operation.

### CONTEXT

Cable bolts are used extensively in the underground mining industry in a variety of applications such as deep reinforcement and brow support. Cabe bolts are typically made from 15.2mm post tensioning strand and are ridged in nature.

The cable bolt tail is the section of the cable bolt protruding from the ground and is typically 200 – 300mm in length due to operational and geotechnical requirements. Due to the ridged nature of the cable bolt the exposed tail poses a serious hazard to the underground workforce as well as mobile equipment and vent bags.

The Cable Cap is a highly visible safety cap which is fitted to the exposed cable bolt tail and is permanent once installed. This cap highlights the hazard posed by the cable bolt tails in the low light underground environment and provides protection to personnel, mobile equipment and vent bags.



Figure 1

Cable Caps installed on cable bolt tails providing protection to the vent bag, West Australian gold mine.

### HOW IT WORKS

The Cable Cap is made from a rubberised plastic and is internally tapered. The collar of the Cable Cap has been designed with a 'lead in' to accommodate for grout and mud likely to be on the cable bolt tail.

The Cable Cap is installed by hand (generally at the plate and tension stage of the cable bolt cycle) with no installation tools required and is secured to the cable bolt tail through a friction fit as shown in figure 2.



#### Figure 2

Cable Cap secured to the exposed cable bolt tail via a friction fit, note the 'lead in' section which allows the caps to be installed over grout and mud which is common on cable bolt tails.

### ANALYSIS

Cable Caps are currently being used in over 20 underground mines throughout Australia. The Cable Cap is a low cost product which has been able to demonstrate significant value to these mines in regards to increased safety and reduced equipment damage. A summary of these advantages are outlined below.

### Safety

- Reduction in cable bolt tail related injures to underground personnel.
  - These type of injures are common with service crew works being undertaken from elevated work platforms in cable bolted drives for example the running electrical cables from an IT basket.

#### Cost

- Reduction in damage caused by cable bolt tails to;
  - Windows and tyres on mobile equipment
  - o Vent bag
- Reduction in man hours allocated to fixing and replacing damaged vent bags.
- Increased vent flow at the working face due to vent bags not being punctured by cable bolt tails.



#### Figure 3

Cable Caps providing protection to underground personnel and mobile equipment on an access pillar to an ore drive, West Australian nickel mine.

### SUMMARY

The Cable Cap can provide safety and cost advantages to your underground operation by providing a low cost solution to a common work place hazard.

Our team look forward to discussing this project with you further.

Kind regards

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Sam Thomas Director ME SAFE +61 4 22 928 066 sam@mesafe.com.au www.mesafe.com.au

