



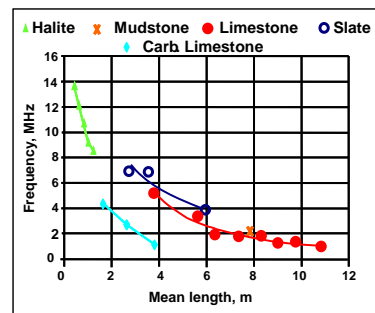
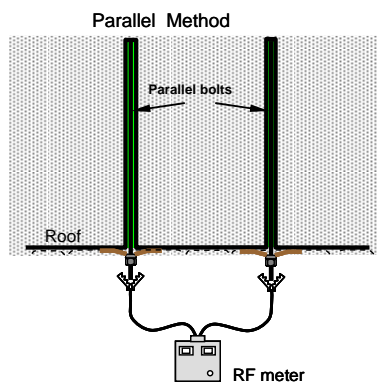
# ▶ Rock Bolt Integrity Testing Radio Frequency



Testing rock bolts with the RF System in a coal mine

## Method

The bolts/cables to be tested are connected in pairs as shown below and by comparing results with known lengths/embedment it is possible to calibrate a particular system and obtain the desired information.



The method is patented under UK patent 2 304 417 "A method and apparatus for monitoring reinforcing tendons"

## Radio Frequency Method

Golder RMT has developed a rock/cable bolt integrity testing system which uses a tuneable radio frequency (RF) source. The equipment is just clipped to the bolt/cable and is therefore quick and simple to use.

The RF system can provide the following information:

- ▶ Length of installed bolt/cable – this can be used to detect broken bolts/cables
- ▶ Variation in anchorage properties

We have considerable experience in the using of the RF testing system in various rock types including:

- ▶ Igneous rocks such as granite
- ▶ Metamorphic rocks such as slates, quartzite
- ▶ Sedimentary rocks such as mudstones, sandstones, limestone, potash, salt

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