

"Field Application Of Concentrated Remote Control Blasting System"

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ABSTRACT

We developed concentrated remote control blasting system to blasting simultaneously at a large number of sites in a mine of large scale.

This system is consisted of three parts, the first part is a control station with high voltage power source units, the second part is a relay terminal with relaying and branching units, and the third part is a blasting machine with charging and discharging units. The control station is connected with the blasting machine by mean of control bus wire. The blasting machine adopts MBS(electromagnetic induction blasting system) for the reason of safety and good handling.

Actually, two system are working at the biggest underground zinc and lead mine in Japan. In order to fire simultaneously many blasting sites, this system is consisted of two control stations, fourteen relay terminals, and one hundred six blasting machines. Total length of control bus wire is about 45km. Firing operation is commanded at the office which is situated outside the mine.

This system has more than five thousands satisfactory results up to present. The total efficiency had risen as much as 191 percent and the blasting work hours had been reduced to 70 percent.