MAYAK

Software and Hardware Complex

MADE IN RUSSIA

– is designed to determine the displacement of the rock mass after blasting in open-pit mining °

The use of a Software and Hardware Complex makes it possible to increase the efficiency of useful components extraction due to the operational management of losses and dilution, significantly improves the quality of ore mining planning °

Rock mass displacement Stability of the rock out to the mill Losses and dilution management monitoring

Stability of the rock out to the mill

Losses and dilution

Increase of Mining Production

Increase of the profitability of extracting useful components

Forecast of the useful minerals distribution in the blasted rock

In vitro vision°

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Components

Specialized equipment MAYAK with software and sensors for monitoring the of rock mass displacement °

MAYAK Sensor

– is designed to determine the value of ore contours displacement after blasting on the basis of direct measurement.

Operating temperature, °C	-45...+45
Detection depth*, m	до 15
Time of MAYAK operation in the standby mode before blasting, days	31
Shelf life, months	24

Programmer

– device for contactless activation and programming of MAYAK sensors.

Detector

– A specialized detector for detecting sensors in rock.

GNSS support *optional

In vitro vision°

MAYAK COMPLEX

Advantages

We build long-term relations, so we care about product quality and offer advanced solutions °

Deep location and high detection accuracy

Easy to use – just throw it into the hole

Use of two Sensors in one hole

Solution for wet holes

Zero current consumption during storage

Comfortable and easy sensor setup in the office

Clear and stable signal against a background of strong interference

Automatic detection of the sensor ID – up to 32 unique identifiers

The survival rate of sensors in a blast – min 90%

Possible to select the type of signal transmitted by the sensor

Quick detection of the sensor location

Export of sensor coordinates to external systems

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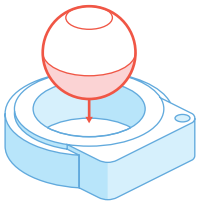
Field Controller

Unified software for detection and programming of the Sensors

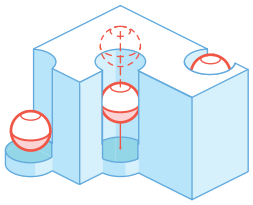
Complex operation main stages

1



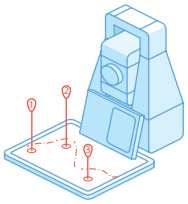
With the help of the Programmer, the MAYAK sensors are set to the required mode of operation

2



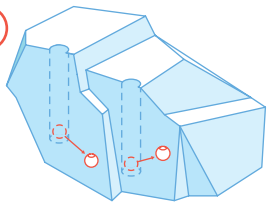
Sensors are placed in separate holes drilled along the ore body contour

3



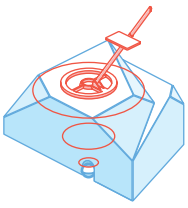
Determine the initial coordinates of the sensors

4



During the blast, the rock is displaced with the sensors

5



The Detector records the location of the sensor in a system of three coordinates (X, Y, Z)

6

Based on the sensor actual coordinates, the value of the ore contour displacement after the blasts is calculated

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