Zerynth®

MEGA DIAMANT

CASE STUDY
IoT technology for workplace safety

• **Industry 4.0**

• **Wire breaks prediction**

• **Remote monitoring**

• **Security compliance with real-time alerts**

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MEGA DIAMANT

Zerynth®

DISCOVER HOW ZERYNTH SUPPORTED MEGA DIAMANT IN ENSURING SAFETY IN MARBLE QUARRIES THANKS TO IOT TECHNOLOGY.

30% Reduction of machine 30% damage risks

24h Real-time monitoring of diamond wire performance

30% Saved time of assistance and revision

Our goal was to create a smart solution to monitor in real time the machine parameters and the state of wear of our diamond wires, improve safety conditions in the workplace, facilitate our customers in keeping tool registers and optimize the service times. With the support of Zerynth we have created our customized solution, unique in the stone market, and we have achieved the objectives set in less than 8 months, increasing the prestige of our brand.

Marco Bartoli - Managing Director, Mega Diamant

Industry

Marble

Asset

Cutting machinery for materials such as marble, granite, stone, concrete, and steel

The Challenge

The stone sector has received a great boost thanks to technical progress and digitalization, which has brought greater **sustainability, competitiveness and safety in the workplace**.

The machines used today are increasingly sophisticated and meet the highest requirements of economic and environmental sustainability. Quarries today definitely aim at reducing the use of **water resources, controlling energy consumption and reducing safety risks**.

For these reasons Mega Diamant, a leading company in the production of diamond tools and wires, was looking for an IoT solution that was able to prevent failures and guarantee maximum safety of its products.
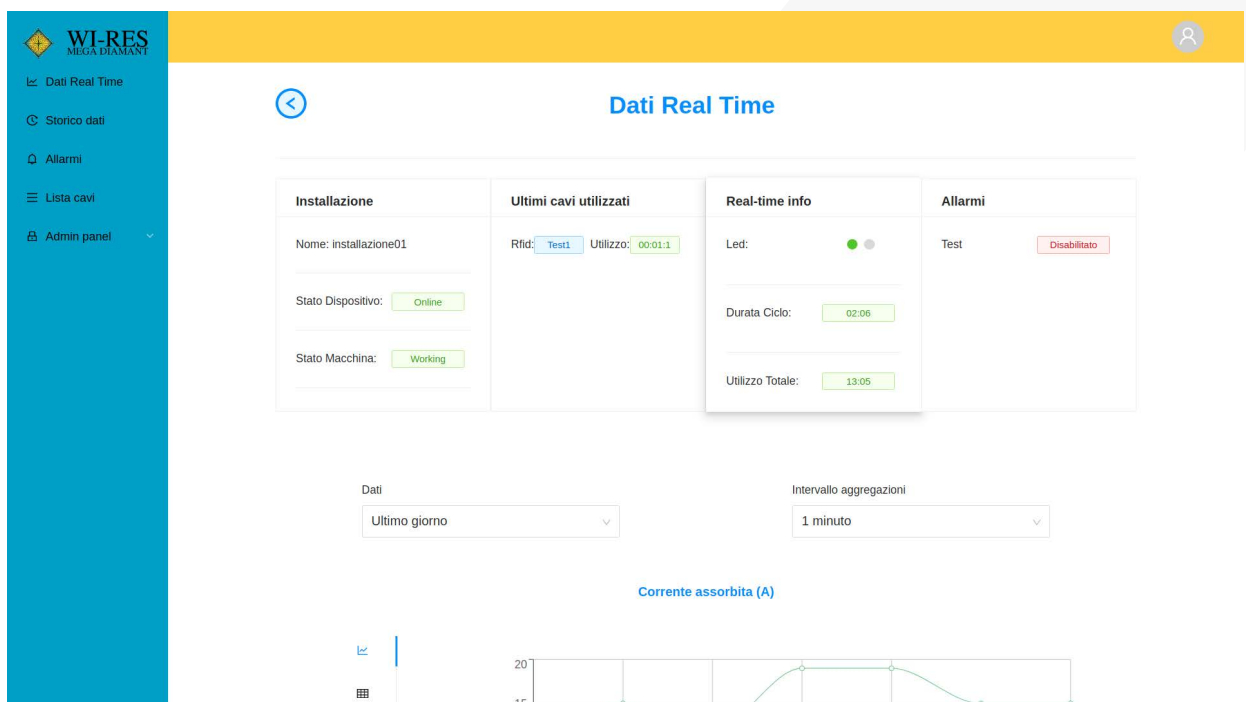
Zerynth

The Solution

The Zerynth team provided Mega Diamant with Wi-Res Box, a vertical IoT-enabled solution for real-time monitoring and predictive maintenance. Each diamond wire is associated with a digital identification number represented by a magnetic card installed in tag RFID. It should be inserted in a special receiver presented in the pocket of Wi-Res Box every time when the wire is in work.

Thanks to this it is possible to create a record in the Zerynth Platform containing information about the type of wire used, the maximum operating time and the monitoring of **the energy consumption of the machine**. Furthermore, through the installation of industrial lamps, any failure, malfunction or improper use is reported in real time.

Thanks to the customised dashboards, Mega Diamond can now **monitor the speed of rotation, power consumption** and **on/off machine status** in order to start calculating the beginning of wire using. Moreover, now it is possible also to track the machines parameters and send real-time alarm notifications.

The Results

Increased Efficiency
20% reduction of unexpected wire breaks
Improved Quality
24/7 real-time monitoring and alarm notification of machine on/off status
Compliance with security regulations
100% security compliance with real-time alerts

Why did MEGA DIAMANT choose Zerynth?

Mega Diamant successfully expanded its large range of high quality products and excellent services with an IoT Workplace Safety Solution capable of real-time recording and monitoring of diamond wire conditions.

In just 9 months, Zerynth implemented Wi-Res Box and enabled Mega Diamant to remotely monitor all operating parameters of the machinery in real time such as the rotation speed, the motor frequency and the total amount of energy consumed.

Moreover, thanks to a specially developed application and the Zerynth Dashboard, Mega Diamant can obtain all data in the form of dashboards, generate custom reports in convenient formats, and also receive real-time alerts; thereby, with the goal of ensuring all employees a "zero accident" workplace.

About Zerynth

Zerynth enables companies to streamline production processes and increase the value of connected industrial products. Through a plug-and-play IoT & AI platform, we connect any industrial machine, allowing for a complete 4.0 transformation quickly, flexibly, and securely.

Founded in 2015, Zerynth has grown steadily. Today it has 40+ team members with deep IoT expertise and industry knowledge with over 150 customers across many industries: from manufacturing to agriculture to energy to logistics. Zerynth is based in Pisa, Italy, but also is active in international projects, and foresees an expansion both in EU and non-EU countries during the next three years.

GET START WITH ZERYNTH
Ready to see what Zerynth can do for your business?

LET'S TALK!