

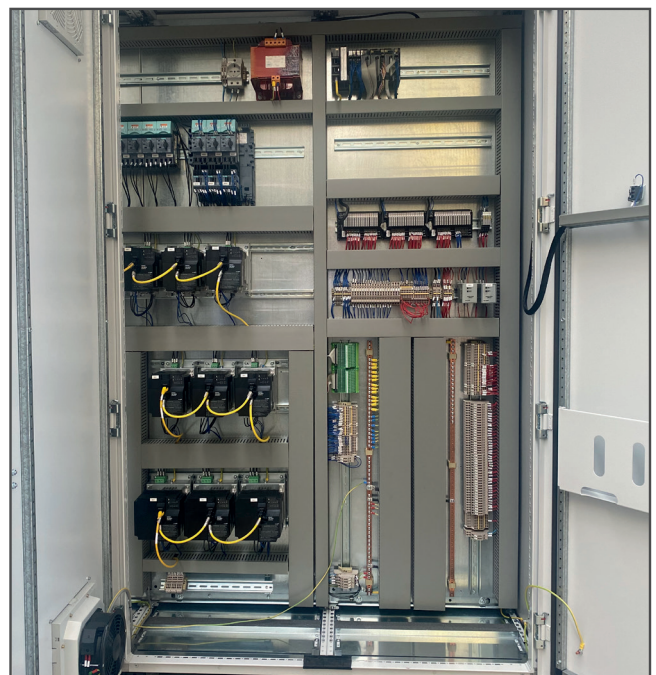
Enhancing safety and efficiency: OMRON's new M1 inverter transforms tile manufacturing

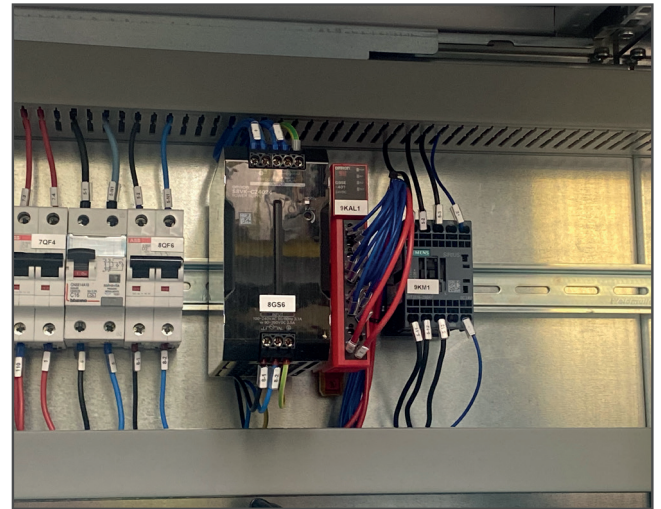
Gruppo Romani, a market leader in the production of porcelain stoneware tiles in Italy, has enhanced their manufacturing process by upgrading an outdated press feeding system, with a solution implemented by Bluengineering, an OMRON System Integrator. The new solution also needed to meet the strict safety standards required by the group.

Press feeding systems are commonly used in ceramics and tile production, such as porcelain stoneware tiles. A press feeding system is crucial to ensure a consistent supply of raw materials (such as clay or other ceramic materials) to the press machine.

In addition to improving safety and modernizing their operations, the maintenance team at Gruppo Romani desired a solution that would aid in diagnostics and fault detection. Bluengineering and Gruppo Romani opted for OMRON's new M1 inverter – a cutting-edge frequency converter that had recently been introduced in the market.

The distinguishing feature of the M1 inverter is its unique ability to incorporate both hardware-based and EtherCAT- based Safe Torque Off (STO) functionality. This innovation ensures the swift and adaptable development of secure applications. In addition, the native EtherCAT fieldbus seamlessly integrated with the Sysmac





development environment, enabling shorter startup times and the provision of rapid and pragmatic diagnostic tools.

The outcome of this collaboration was a secure, modern application that not only elevated safety standards but also minimized production downtime. The M1 inverter's

integration into the tile manufacturing process demonstrates how a sophisticated press feeding system can facilitate the precise supply of materials to the press, thereby enhancing the efficiency and quality of porcelain stoneware tile production.

About Bluengineering srl

Bluengineering srl is an engineering company operating in process control in various production sectors - ceramic, packaging, food, chemical and mechanical - with particular attention to automation dedicated to the production of porcelain stoneware ceramic tiles. The company is strongly oriented towards technological innovation, and strives for the continuous improvement of production processes, using the most modern equipment available on the world market. Bluengineering also stands out for its fast, efficient and precise after-sales service. Among the most important activities developed by Bluengineering Tecnologie are: the upgrade and regeneration of obsolete automatic systems programming of PLCs and industrial PCs; electrical systems for industrial automation; electrical panels for industrial automation and process control; dry colouring of atomised products; systems for colouring the slips; and weighing belts for atomised powders, granulated products and raw materials. www.blueng.com

About Gruppo Romani S.p.A. Industrie Ceramiche

Gruppo Romani, founded in 1968, is an expression of the authentic 'Made in Italy' entrepreneurship. Born out of passion, competence and technological research, today it is recognised and appreciated all over the world for the unique style of its ceramic solutions and its complete dedication to product quality with a view to continuous evolution. Gruppo Romani, through its Serenissima, CIR Ceramiche, Cercom and Cerasarda brands, tells an industrial story with a high craftsmanship value, integrated with ongoing technical and production innovation. The ability to interpret and anticipate the aesthetic trends of the market, supported by cutting-edge plant design, is the basis of the group's offerings. The quality of the product and services, customer satisfaction, respect for the environment and the territory are mandatory commitments for Gruppo Romani. They are fundamental cornerstones of the business philosophy supported by the Romani family and are pursued daily by every single component of the company. www.grupporomanispa.com

About OMRON Corporation

OMRON Corporation is a global leader in the field of automation based on its core technology of 'Sensing & Control + Think'. OMRON's business fields cover a broad spectrum, ranging from industrial automation and electronic components to automotive electronic components, social infrastructure systems, healthcare, and environmental solutions. Established in 1933, OMRON has over 29,000 employees worldwide, working to provide products and services in 120 countries and regions. In the field of industrial automation, OMRON supports manufacturing innovation by providing advanced automation technologies and products, as well as through extensive customer support, in order to help create a better society. For more information, visit OMRON's website at: industrial.omron.eu