



Heavy-duty lifting for the ceramics industry

water solutions

UNIQA PUMPS AND MOLIB-TECH® TECHNOLOGY, ENERGY EFFICIENCY AND RESISTANCE TO ABRASION

Situation

In the district of Modena, we recently helped the ceramics industry to overcome a number of problems related to the lifting of wastewater. Using the technology of **Uniqa**, the electric submersible pump in Premium IE3 efficiency class, ceramics manufacturers can now count on pumping that is anti-clogging and energy efficient. The Uniqa solution was used in combination with the next-generation technology called **Molib-tech®**, an innovative system that increases the strength of components.

Solution

In the ceramics industry, the production of tiles and bricks exposes pumps to a critical process: the extremely abrasive nature of slip (a rather viscose binder with a creamy consistency produced by mixing water and clay), the presence of ceramic fragments in fluids to be treated and the high viscosity, make it essential to employ appropriate handling technology that can guarantee efficiency and reliability.

We were asked by an important company in the ceramics sector to devise a solution for the lifting of wastewater from ceramic processing: the brief was to provide enduring resistance to the abrasive force of pumped liquids, slip and water from the tile squaring process.

The solution that Zenit technicians came up with was Uniqa, equipped with a vortex impeller in cast iron that guarantees the full free passage essential for this type of industrial application with unstrained liquids. Each Uniqa electric submersible pump is designed exactly for the duty point and takes into account the unique features that every installation may require, so as to meet all needs in all applications, both industrial and civil.

With the installation specifications guaranteed, the technicians turned to the resistance of the hydraulics to slip and ceramic fragments, both extremely abrasive. The entire pump body and impeller of **Uniqa** are coated with **Molib-tech®**, the innovative system that increases the strength of the hydraulic components.

The **Molib-tech®** covering technology consists of a layer of molybdenum carbide applied in a "cold" coating. This process is ideal for preventing serious wear due to erosion or cavitation on pump impellers, suction flanges and bodies. Unlike a conventional ceramic coating, the layer of molybdenum does not cause any change in clearance or loss of performance, leaving the treated components' surface significantly harder than cast iron.

Benefits

Putting their trust in Zenit, the ceramics company adopted the proposed solution and to date the lifting system for slip and wastewater from ceramics processing is still fully functioning. The installation of Uniqa pumps has ensured energy efficiency and reliability; the combined use of Uniqa and Molib-tech® technology has virtually eliminated wear from soiled liquids, preventing plant downtime due to continuous repairs of damage caused by slip and optimising production times and energy resources.

In addition, the modularity of Uniqa pumps will enable future integration of new parts or the substitution of any parts necessary without devaluing the initial investment.



Inside the ceramic industry



UNIQA ZUG V

Customer	Industrial				
Company Profile	Ceramic Industries				
Location	Fiorano Modenese	Country	Italy	Area	Europe
Application	Heavy lifting for industrial applications				
Installed Products	UNIQA ZUG V 080 11/4 AW with Molib-Tech® treatment				
Date	June, 2017				