

## CASE STUDY

### Ceramics

EVO SERIES™ ELECTRIC PROCESS PUMP

#### Market Needs

Ceramic fabrication is considered an extreme heavy-duty environment for pumps. Due to the specific characteristics of the pumped product and the working environment the pumps used in production require a rugged design and to be reliable and robust!

Ceramic slip is very abrasive. When the slip is pumped into molds for sanitary ware the product needs to be perfectly homogeneous and without micro bubbles inside. Bubbles will make the final sanitary ware brittle causing the mold to eventually crack. For these reasons the pump technology selected in these applications needs to be a pump able to handle abrasive fluids and, at the same time, have a very gentle pumping system with low pulsation.

Ceramic production is generally organized by long batches which meaning the pump has to run continuously for many days and sometimes weeks. The pump also need to adapt to different production stages or different batch requirements, this means the pump has to be flexible and controllable at the same time.

All those features, together with high energy efficiency and low maintenance cost, are existing today only in the EVO Series™ process pump!



**EVO SERIES™**  
THE EVOLUTION IN PROCESS PUMPS

- ✔ **Customer type:** A large ceramic manufacturer & leader in sanitary ware market.
- ✔ **Problem:** Problems varied according to customer production architecture.



#### Customer A

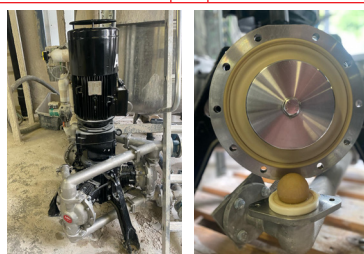
The main issue for this customer was high energy consumption and frequent maintenance intervals. This customer was experiencing heavy-duty energy consumption from the previously installed technology and the frequent maintenance intervals had become a pain point that was costing the customer time and money.

#### Solution

Thanks to the efficient design with three chambers, the EVO Series™ pump reduced energy consumption and increased productivity. The time between maintenance intervals has doubled. This has reduced the maintenance time and expense.

#### Results

The pump ran for 300 days, almost 24/7, at very low speed and 4 bar with no maintenance required so far. For the customer this represent 3 to 4 times less maintenance stops per year and a calculated 80% reduction in energy consumption.



#### Customer B

This customer is producing extremely premium quality sanitary ware. The previous system was compiled of complex piping, dampeners, and buffer volume in order to eliminate any pulsation in the line and fulfill molds at a controlled flowrate and pressure with no variation.

#### Solution

The customer has experienced a breakthrough after installing the EVO Series™. They have been able to achieve the same level of quality and reduce the number of scrapped items per batch!

The EVO Series™ mechanical design with three chambers together with a closed loop control of the pump allows the EVO Series™ to provide a superior level of controllability with almost pulse-less flow after minimal meters of piping.

LEARN MORE ABOUT EVO SERIES™ ELECTRIC DIAPHRAM PUMPS AT [AROZONE.COM](http://AROZONE.COM)