



INCREASED FLEXIBILITY AND ACCURACY IN ITALIAN-BASED INK PROCESSING PLANT DUE TO MICRO MOTION CORIOLIS FLOWMETERS



RESULTS

Accurate measurement of finished product

Enabled the management of batches within strict tolerance parameters

Reduced process time

Improved flexibility due to automation and architecture



Application

A world leader in the production of water-based sublimation inks for digital printing on synthetic materials (mainly polyester) located in Italy worked with Emerson to improve their production flexibility and quality. Their inks are used in the most wide range of applications: automotive, advertising, soft signage, interior decoration, technical clothing, sports equipment and fashion.



Challenge

Because of their growth, the Italian-based company launched a strategic program aimed at exponentially increasing its production within five years. The company wanted to transform its production from a mostly manual system utilizing loading cells to fully automatic. To change it over to fully automatic, the company had to make sure that accuracy was maintained to a degree of error smaller than 1%. Kiian Digital needed consistency, reliability, and quality for their solution to match with their fundamental approach.



Solution

The company chose to go with 50 Micro Motion mass flowmeters. Each one of the 50 mass flowmeters supplied by Micro Motion was able to feed two different dosage production lines: one dedicated to large batches that are fully automated, and another for the manual production line which is a semi-automated production of small lots or samples. The excellent repeatability and rangeability achieved by the flowmeters guaranteed that quality remained constant whatever the quantity of ink produced - whether it was a large batch or just a sample. In fact, it enabled batch management that was an order of magnitude better than required.

Thanks to the flexibility achieved by the automation and its architecture, only a few months after reaching full production capacity, the company can fully meet the objectives of its five year strategic plan, and can even go beyond the needed production capacity without sacrificing quality. Furthermore, previous operations consisting of both gravimetric dosage and injection of products into a mixer has been reduced to a single cycle operation, drastically reducing process time.

AN-002020