

Case Study



Loulis Toshevo

The Challenge

When an organization wants to expand their business abroad, there are various challenges that they will face. When this process is done through an acquisition process of an existing business, the challenges ahead are even greater.

The information flow and business reporting with regards to the production and performance rates of the country of origin is of a great importance for the expansion process, while also trying to adapt the suitable equipment needed which will aim to result in high level of flexibility and adaptability in order to branch into new markets.

These are factors that only experienced groups and teams will ever be able to achieve.



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The Solution

The already existing flour mill located in Bulgaria, was very limited in both production rates and space and even more when it came to batch plant issues. Thus, an experienced team of Acmon engineers sat together with the customers project team and thoroughly created an in depth detailed 3D design in order to find the ultimate solution that could reach the flexibility required while also keeping the high standard set by Loulis flour mills over the last century.

Square shape silos help to increase storage capacity by 27% keeping the same footprint. State of the art screw conveyors after the bin activator on each silo with different lengths and through a complex configuration ensures the feeding of the main Buhler mixer while at the same time can feed the bulk loading station or the homogenization process from silo to silo or even the bagging machine.

A high-end microdosing station enhance by flour improvers with integrated vibrating sieves putted in place, ensure that an accuracy level of 6 grams per product is maintained. A semi dense phase pneumatic conveying ensures that the entire batch of micro ingredients will be conveyed smoothly and on time to the core batch.

► With regards to the quality reassurance, an inline centrifugal sieve at 12tn/hr protects any contamination of products that may exceed 1.2mm. While at the bulk loading station, a vibrating sieve with a rate of 20tn/hr with 650microns screen size which is situated right before the loading, secures that top-quality flour will reach the customers key accounts through the bulk trucks.

► Magnet separators certified at 10.000 gauss and inspection doors with safety features Log Out Tag Out, are placed at every equipment station and especially at critical points of control keeping sanitation, safety and end product quality approach to a maximum.

► While the new batch plant was being built by the Acmon Systems' engineers, the Software team at Acmon Data was customizing the TracePro software to accurately address the needs for packaging control at the factory, as well as the processing of all shipments of finished products, in collaboration with the SAP system of Loulis Mills.



► An automated system was designed to mark the packaged products with barcode labels and track the actual production for every batch in real time, providing in-depth visibility, monitoring, and reporting functionality for the production line at all times.

► A print & apply system for bags was also incorporated into the process, following the

industrial touch screen monitor installed on the production line. The correct label is automatically sent to the print & apply system for every package as part of each production order and all production data is sent back to the SAP system without requiring any human interference.

This project enables the Group to migrate to the new Industry 4.0 era



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The Benefit

A very elegant and premium quality batch plant ready to serve the most premium customers in eastern Europe as a result of this project. A high-end technological factory has been built on the base of the existing old one, leveraging both our clients and our group's outcome.

All productivity lines and ordering processes are now centrally monitored and controlled using a workstation, but the most significant benefit is that of achieved interconnectivity between the SAP systems of all Loulis Mills plants (Kenfood, Sourpi & Toshevo) with the TracePro system.

A data "bridge" connecting the 3 plants enables complete control of production in real time, providing efficiency and cost accuracy. This project significantly improves interconnectivity between the production plants of Loulis Mills, enabling the Group to migrate to the new Industry 4.0 era.



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Acmon throughout every collaboration has shown an excellent and professional front. Even during the designing phase, the ACMON's team always had the right awareness while designing a functional flour mixing plant, as well as during the execution of the project where excellent project management was adapted all within the agreed time frame. We have also used ACMON's TracePro system which has helped greatly in order to make our production "paperless" while at the same time having the necessary data in order to maintain a clear monitoring of KPI's, therefore always making the right decisions.

Nikos Loulis
CEO Loulis Mills S.A



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