



Founded in the 70s by a group of 79 farmers in Campo Mourão, in the Midwest region of the State of Paraná, Coamo is a strong cooperative that guarantees security and solidity, promoting the economic, technical, educational and social development of its members. Currently, the Cooperative has 111 units to receive the agricultural production of more than 29 thousand members, located in 71 municipalities in the states of Paraná, Santa Catarina and Mato Grosso do Sul. In 2020, Coamo accounted for 3.1% of Brazilian grain production, demonstrating its strategic importance in the national and international food industry.

The focus on commodity exports - carried out via the export corridor since 1990 - in addition to the constant search for the best service for grain and bran exports, resulted in the construction of Port Terminal II, in Paranaguá.

CUSTOMER CHALLENGES

With the increase in the cooperative's exports, it was necessary to expand the storage and shipping capacity, in order to solve a latent need: to put an end to fluctuations and avoid a possible lack of products for shipment at the port, especially in periods of rain, which make it difficult to transport the units to the terminal. Thinking in a sustainable way, in order to avoid aggressions to the environment, COAMO had the support and expertise of TMSA and, thus, studies began to put into practice a project that best met the needs of the region.



SOLUTION PROPOSED BY TMSA

To meet the requirements and needs of the Cooperative, TMSA has developed equipment that provides a reduction in particulate emissions and energy consumption inherent to the bulk handling process.

Enclosed belt conveyors were designed and supplied, that is, totally closed systems that retain all the dust generated by the movement of the bulk product, which remains totally confined, avoiding waste and dispersion into the environment. Another important point is to avoid the risk of an eventual explosion caused by the dust contained inside the conveyors. Thus, all bearings and roller bearings are designed for mounting on the outside of the conveyor's enclosing housing.

Operational safety is an important feature and differential of the TMSA enclosed conveyor design: all the moving parts of the conveyor are contained within the enclosed body of the equipment, making it impossible to access them during operation.

"We prepared several studies during the entire project stage, one of the decisive points was to eliminate the use of bucket elevators in the expedition, allowing low installation and operating costs. Therefore, we propose a change in the original scope of the expedition



project, using a set of enclosed type belt conveyors, providing a condition of low particulate emissions and, consequently, a clean environment, - Paulo Lambert, commercial director of TMSA."

With the supply of 20 enclosed conveyors with a transport capacity of up to 2,000t/h of grain, the solutions were designed to feed three new vertical silos with a storage capacity of 26,500 tons each. As the cooperative's headquarters are in Campo Mourão, about 554 km from Paranaguá, TMSA developed and supplied a monitoring system that provides real-time information through data and images for remote monitoring of the process.



RESULTS ACHIEVED

Port terminal II now has a shipping capacity of 4,000t/h, which means an advance for all cooperative members, who now have better service for their export process.

TMSA's differential in this type of project is its focus on the customer. The company dedicates time to understand the real needs of the contractor, which allows the development of highly customized and differentiated projects. TMSA also has a unique creative capacity, which results in innovative and sustainable solutions. The company's constant objective is to meet the needs of its customers by providing the best solution, offering lower operating costs and maximum availability.

Developing customized solutions for complex projects, with high quality, safety and sustainability requirements is what makes TMSA unique.

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