

Case Study: Rossi S.p.A.

Improving Sugar Mill Efficiency with Fenner Industrial Motion's MAV Keyless Locking Device in Collaboration with Rossi Gearboxes



CHALLENGE: IMPROVING SUGARCANE ROLLER MILL PERFORMANCE

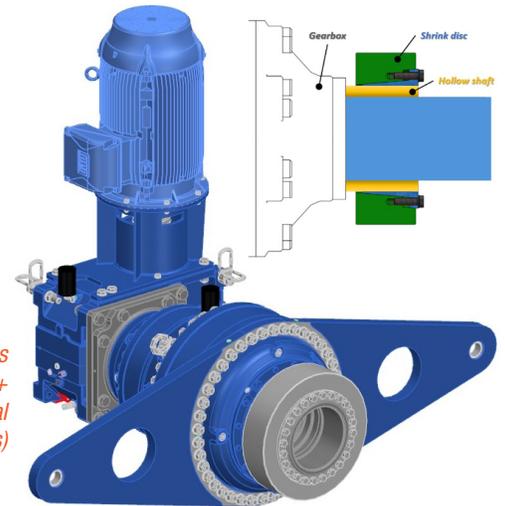
Sugarcane roller mills are essential components in the sugar industry, responsible for extracting sucrose-rich juice from sugarcane by squeezing it between two/three rolls. The efficiency and effectiveness of these mills are crucial for the overall performance of sugar production. As the industry evolves, it faces increasing pressure to improve environmental conditions, safety, operational flexibility, and reduce costs associated with maintenance and energy consumption.

The transition from traditional mechanical drives to electric mill drives has revolutionized sugar mills by offering better regulation and control, enhanced safety, and significant operational cost reductions. However, to maintain such improvements, the power transmission components in these systems must also evolve to meet growing demands for performance and reliability.



FENNER INDUSTRIAL MOTION'S SOLUTION: MAV KEYLESS LOCKING DEVICE

Fenner Industrial Motion, through its MAV product line, worked with Rossi, a leader in industrial gearboxes, to provide a keyless locking device for the sugar mill's power transmission system. Rossi's gearboxes are used globally in every stage of sugar production, from cane preparation to crystallization. The solution was the **MAV Shrink Disc 3009 560,00 x 940,00 SPECIAL**, which created a rigid, frictional connection between the gearbox's hollow shaft and the crusher rollers' solid shaft, eliminating the need for traditional keys/couplings or mechanical fasteners.



ENGINEERING SOLUTION: CUSTOMIZATION AND EFFICIENCY

The solution had to handle a **significant torque of 2,500 kNm**, while keeping the overall system compact and minimizing stress on the components. The MAV-designed shrink disc met these strict requirements, improving both performance and cost-efficiency in the power transmission system.

A SUCCESSFUL PARTNERSHIP

MAV and Rossi have been collaborating for over a decade, providing both standard and custom solutions across a range of industries. By combining Rossi's high-performance gearboxes with MAV's keyless locking device, the partnership has delivered a **flexible and reliable solution for sugar mills**, improving the efficiency and durability of power transmission systems.



Fenner Industrial Motion wants to continue to be your trusted partner, providing high-quality, customized power transmission solutions worldwide, learn more at fenner.com and connect with us!