

Improved productivity and paper quality for Quena Paper mill with ABB drives



Quena Paper Industries Co is a premier producer for newsprint, printing, and writing papers, based in Quena, Egypt. The mill has an annual production of 120,000 tons, with raw materials mostly made up of sugarcane remains, known as bagasse. In operation since 1999, Quena Paper has a current annual production value of 800 million Egyptian pounds and is the largest writing and printing paper grade mill in the country.

01 ABB and Quena Paper in collaboration

Aging technology

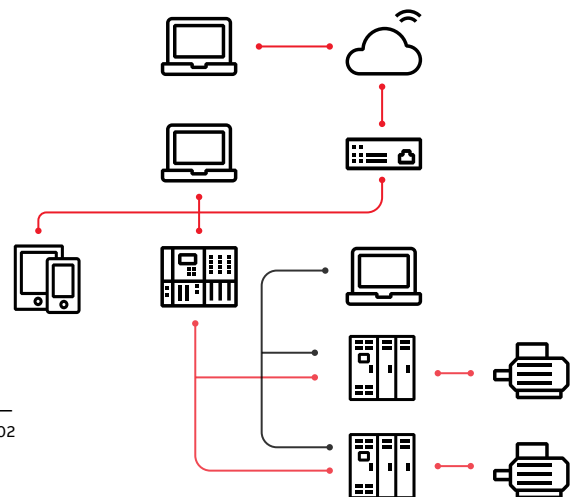
The mill was facing significant challenges to their paper making operations due to the aging of the previously installed drives on Paper Machine 1 / PM1. As the drives had come to the end of their product lifecycle, the mill was facing challenges associated with obsolete technology including limited support and the continued unavailability of spare parts. There were also concerns about the ongoing reliability of the machine, anticipating an increased risk of breakdowns and failures as well as costly unplanned shutdowns, which would have led to increased maintenance costs.

Modernizing critical operations

Upon reviewing the right supplier to support the mill with the modernization of their critical operations, Quena Paper chose ABB, a global leader in industrial automation and drive technology, for two key reasons; our comprehensive portfolio of solutions, and our network of local sales and service centers, technical support, and demonstrated expertise.

The scope of the project included the supply, erection, installation, commissioning and tuning of ABB's ACS880 multidrives and Paper Machine Drives PMC800 library for the paper machine drives, modernizing the mill's production processes with state-of-the-art automation and control capabilities. Combining our industry-specific expertise and comprehensive turnkey approach, our

team developed a highly tailored solution to empower Quena Paper to achieve their operational, financial and sustainability goals.



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Completed in February 2024, the seamless execution of the turnkey project ensured a coordinated and efficient implementation process, delivered within the planned project timeframe and therefore minimizing disruptions to the mill's production schedule. 'ABB's PMC800 library installation was very smooth and with a fast start up and has resulted in enhanced operational efficiency and reduced our unplanned downtime and operating costs,' shared Eng. Hossam Salem, Head of Electrical Division, Quena Paper.

02 ABB Paper Machine Drives PMC800 Library

Optimized operations and energy efficiency

Since the commissioning, ABB's cutting-edge drive and control solutions have enabled the mill to optimize operations, improve productivity, and enhance energy efficiency through data-driven control and monitoring. The collaboration between ABB and the local engineering team has also facilitated a great knowledge transfer and the development of local expertise in advanced drive technologies.

ACS880's advanced control algorithms provide precise speed and torque control and have ensured consistent paper quality and end-product for the mill. ABB's AC drives (micro and machinery, general purpose, industrial and industry specific drives) comply with the strictest requirements of the standard for energy efficiency and are classified as IE2, complying with EU Ecodesign requirements.

PMC800 library's pre-engineered functionality has simplified the configuration and optimization of the paper machine control system. Following commissioning, our dedicated service and support team have stayed actively engaged with the mill to ensure the continued optimal performance of the

drive systems, enabling the mill to maintain operational excellence for their long-term operations.

'The partnership between Quena Paper and ABB is of strategic importance to the mill's operations. By collaborating with a trusted and reliable technology provider, we have been able to enhance the reliability and efficiency of our production processes, reduce the risk of costly downtime and maintenance expenses, and gain access to the latest drive technology and ongoing support,' said Eng. Hossam Salem, Head of Electrical Division, Quena Paper.

'Quena Paper's highly experienced team together with ABB experts collaborated to minimize the shutdown time and enable a smooth startup, which was a key contributor to the success of this project', shared Ahmed Fathy, Industry Local Business Line Manager, Pulp and Paper, ABB Process Industries.

'ABB and Quena Paper have demonstrated a model partnership of innovation and growth in Egypt's paper industry, building a stronger future together,' said Mahmoud Shalash, Local Sales Manager, Pulp and Paper, ABB Process Industries.



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