



SITOP Power supplies

Lighting up the future

The choice of a power supply system is not often subjected to much scrutiny when planning a new manufacturing line. However, as Jinan Tobacco discovered, power supply performance has a direct impact on uptime, product quality, and profits.

The power supply may seem like a basic part of a production line. But its reliability has a direct impact on productivity and product quality. **This is particularly true in the tobacco industry, where power outages are one of the main causes of downtime and lost profits.** Jinan Tobacco is one of China's largest tobacco companies and one of the country's most innovative companies. It wanted to build a new manufacturing line with the capacity to shred 2,000 kg of tobacco an hour. To achieve this ambitious goal, the line needed to be able to identify power issues at an early stage to minimize the risk of lower productivity.

Power supply for a high-intensity process

Previously, Siemens had helped Jinan Tobacco build the first highly automated tobacco factory – the first factory to use Profinet in China. Jinan Tobacco hoped to repeat this success by becoming the first in its industry sector to implement the first smart power supply system around the world, the Sitop PSU8600 integrated power supply system. The system would supply power for high-intensity shredding technology supplied by Beijing Aero-top Hi-tech. Siemens installed an integrated power supply system comprising its Sitop PSU8600

base unit and BUF8600 buffering modules providing reliable 24 V electricity for the S7-1500 control system. All devices support ProfiEnergy and are integrated within TIA Portal.

Continuous, uninterrupted power

The key to the project's success was identifying power issues before they actually caused a power failure. Thanks to integration within the TIA Portal, Jinan engineers receive real-time data and breakdown warnings from the power supply system so they can identify and eliminate faults at a very early stage. In the event of a power overload or short circuit, Sitop PSU8600 instantly switches to the BUF8600 buffering module for continuous power supply. This ensures running operation at all times, allowing Jinan Tobacco to achieve its production targets. Director Cheng Lin Feng, Jinan Tobacco project manager, says, "For us, modularity is very important. Not only can it save cabinet space, reduce the number of devices, and labor costs, but, more importantly, it reduces breakdown points and makes it easier to eliminate hidden dangers."

Intelligent "heart" enriches digital management

Jinan Tobacco already had confidence in Siemens based on their collaboration during previous automation projects. The successful implementation of the integrated Sitop PSU8600 power supply system confirms the business partner's expertise for state-of-the-art solutions. As Cheng says, "The Sitop PSU8600 power supply system satisfied all our requirements by providing data for enhanced energy management. Previously, power

supply quality could not be evaluated directly. However, with Sitop PSU8600 and its integration in TIA Portal, we can supervise and control the power supply online." The tobacco industry is continuously innovating to improve production performance. The successful integration of Sitop PSU8600 in TIA Portal demonstrates how digitally controlled power supplies can increase productivity and profits for tobacco manufacturers. It also lays a solid foundation for future digital factories.

At a glance

- Power failure is the primary cause of downtime and lost profits in tobacco manufacturing
- Siemens implemented a Sitop PSU8600 integrated power supply system, including BUF8600 buffer modules, and a Simatic S7-1500 control system
- All devices support ProfiEnergy and are integrated within TIA Portal
- Sitop PSU8600 paves the way for digital management of power supply, which lays a solid foundation for a digital enterprise



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