

Achieving unprecedented productivity and quality in the tire industry

In its advanced manufacturing plant in Qingdao, China, Sentury Tire has exploited logistics automation to achieve rapid ROI and continues to enjoy improved plant utilization, lower labor costs and enhanced quality.

THE CHALLENGE

Despite being established as recently as 2009, Chinese manufacturer Qingdao Sentury Tire Co Ltd (Sentury Tire) is one of the industry's fastest growing suppliers and ranks among the top 75 tire companies globally. Its products – some of which now rank above those of market-leading competitors – are available in over 150 countries. To create a first-class global reputation for its three brands – Sentury, Landsail and Delinte – the company has focused on creating efficient, dynamic, lean and smart tire factories that feature automated material handling and total control of the process flow. When Sentury decided to automate the handling of green tires at its Qingdao plant, the company turned to Cimcorp.

THE SOLUTION

When it was originally set up in 2009, the Qingdao factory had been a manual operation, as was conventional in the Chinese tire industry. However, the company's Chairman, Qin Long, had a vision to automate the plant in order to boost efficiency significantly. In the factory's second phase of development, therefore, Sentury Tire decided to invest in an automated system to take care of the handling of PCR green tires from the tire-building machines to the curing presses. Supplying a solution based on its Dream Factory concept, Cimcorp was able to meet Sentury's demands for rapid delivery, installing the system in record time.



SCAN THE
QR CODE
TO SEE IT
IN ACTION!

3.8k
MORE TIRES
PER DAY

75%
LOWER LABOR
COSTS

96.5%
OVERALL PLANT
UTILIZATION

QR CODE
CIMCORP
DREAM
FACTORY



CIMCORP

Passion for optimized material flow

Such was the success of the Cimcorp solution at its Qingdao plant in China, Sentury Tire decided to invest in more extensive logistics automation for its next plant in Rayong, Thailand.

DREAM FACTORY

combines Cimcorp's proven gantry robot technology with specialist software to enhance efficiency and productivity. After receiving the order from Sentury, Cimcorp delivered a turnkey material handling solution for PCR green tires in Qingdao in stages, with operation beginning just nine months later and installation completed five months after that.



Cimcorp's project team even managed to speed up the planned schedule, putting the lines into operation two months ahead of the original date.

Dream Factory is the driving force. Currently we can produce 3,800 more tires a day than if our operations were manual. Daily production is around 15,000 tires.

THREE INDEPENDENT AUTOMATION LINES

each take care of the handling and transfer of green tires from tire building to curing.

Cimcorp's automation keeps an optimal buffer between the tire-building machines and the curing presses. Integration of the green tire buffer and the transfer systems results in 100% tire availability at the curing presses.

CONTROL OF THE MATERIAL FLOW is ensured by Cimcorp WCS (Warehouse Control System), which integrates the various technologies – robots, monorails and conveyors – into a seamless system.

Qin Long
President & CEO
Sentury Tire, China

the company was the rapid ROI provided by the Cimcorp solution. This resulted from the speed of installation, in turn made possible by the modular nature of the Dream Factory concept. Sentury knew that the faster its production lines could be up and running, the more quickly it could achieve the critical flow of revenue and profit.

HIGHER OVERALL PLANT UTILIZATION

was achieved at the Qingdao plant, increasing from 72 percent to 96.5 percent. An important factor in this improvement is the 100% availability of green tires at the curing presses, ensuring optimum utilization of some of the most valuable process machinery.

LOWER OPERATING COSTS

result from the improved efficiency and lower staffing required through

automation. Sentury calculates that its annual labor costs are 75% lower than in competitors' conventional factories of a similar scale.

PRODUCT QUALITY IS HIGHER – 99.67 percent of tires at the Qingdao plant can now be released immediately to the next process step, compared to 92 percent in the previous manual system.

REAL-TIME DATA and total computer control enable Dream Factory to optimize production and inventory management, streamline material flows, minimize buffering and maximize manufacturing efficiency.

BENEFITS & RESULTS

Logistics automation has increased efficiency and expanded capacity for Sentury Tire. A key benefit for

CIMCORP

Passion for optimized material flow

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