

# Innovative Robotics Reduce Labor Costs for Tea Processing

By Dan Bolton July 22, 2019



*The newly constructed Zhejiang Tea Group factory near Hangzhou can process more than 1,000 metric tons of tea. Top of form. (Photo courtesy of Zhejiang Tea Group)*

Last month, Zhejiang Tea Group opened the Transworld Specialty Tea Center, a modern processing facility with a combined capacity of well over 1,000 metric tons of tea. A central innovation is robotics that speed handwork to increase safety and quality.

Automation and artisan tea making are not contradictory. Hundreds of processors utilize robotics to fill and pack tea loose leaf and fine blends for retail. There is also widespread use of fermentation cabinets that extend the sensory capabilities of human operators.

“The tea industry is a labor-intensive industry — from plucking to processing to packing,” wrote Jason Walker, marketing director at Firsd Tea, the U.S. subsidiary of Zhejiang Tea Group. “While automation may offer benefits in terms of safety/quality, the more recognized benefit comes in terms of labor reduction,” he explained.

“It used to take at least 20 people to prep, pack and load a 40-ft container in a day, and now only six people are needed,” said Walker. “Automation and robotics in the new facility greatly reduced the amount of heavy labor needed,” he said.

The automated lines are described as large-scale, continuous processing. The raw tea materials are manually loaded into the line, and then automation takes over. The line carries out the kill-green, pan-firing, leaf shaping, and drying processes. The robot is used to palletize the cases of finished product, said Walker.



*The newly constructed Zhejiang Tea Group factory near Hangzhou can process more than 1,000 metric tons of tea. Top of Form. (Photo courtesy of Zhejiang Tea Group)*

The new processing facility produces green tea (including matcha), black tea, oolong, dark tea, and flavored teas. It is located between Hangzhou's West Lake and Jing Shan Monastery – both significant and historic locations for Chinese tea culture, he said.

"Transworld's new facility integrates agriculture, automated tea manufacture, and tea cultural education. It is best known for its fully automated production line with robot labor — one of the first in China," he said.

Transworld was the first USDA certified organic tea garden in China, and the first USDA organic matcha production facility. The surrounding 200 hectares of tea fields include a Sino-Austrian demonstration organic tea garden of 33 hectares. Parent company Zhejiang Tea Group (ZJT), founded in 1950, is China's largest exporter and the world's largest green tea exporter. The company operates internationally, with operations across China and offices around the world to serve international tea brands.

The company's U.S. office, First Tea, located in New Jersey, was founded in 2012 to serve the U.S., Canada and Mexican tea markets. It operates wholesale and distribution facilities on both the US East and West coast.

Source: [firsdtea.com](http://firsdtea.com)