

CONTINUOUS WEIGHING TEA MANUFACTURING

Continuous weighers accurately measure line throughput by weight, adding significant value and efficiency to production lines. To promote operational efficiency, flooding and starving of downstream processes is eliminated and feeding is optimized.

A tea producer approached Rospen with a request to measure their plant's operational throughput. With a target manufacturing rate of 800-1,700kg/hr, our main challenge was to design a system that was capable of handling tea particles between 0.2-3.2 mm and a bulk density between 210-400 kg/m³. More importantly, weighing accuracy was of particular importance to the client, who presented us with a target of +/- 1% or better of the plant throughput. In many configurations, it is difficult for continuous weighers to achieve accuracies in excess of +/- 5%. To meet the client's higher accuracy requirements, a batch flow meter would be required.

To start, we removed an existing but redundant weighing system from the plant and our engineers designed a new weighing system based on a continuous batching process to fit the space envelope. The new weigh hopper continuously receives tea from a bucket elevator, measures the batch weight and subsequently discharges tea onto an ongoing conveyor. The PLC based control system displays the real time throughput for the plant together and each batch is logged on a dedicated laptop supplied by Rospen. This supports the shift and campaign master totals and historical recording process.

ROSPEN's scope of work included:

- ▶ Design, manufacture and remote commissioning of the continuous weigher.
- ▶ Design and build of the PLC, HMI, Laptop and logging software.
- ▶ Delivery of equipment, including PVOC arrangements.
- ▶ Remote support for installation and commissioning.



MANUFACTURING FOR YOUR REQUIREMENTS

Our unrivaled industry experience combined with advanced design and system versatility to provide a range of benefits.

Highly qualified engineers	Precision	Reliability
 Our engineers are masters in their field. Rospen engineers are degree-qualified and equipped with comprehensive knowledge and experience to provide custom solutions to unique client challenges.	 Rospen systems are designed to perform with precision accuracy under all operating conditions.	 Our systems are built to ensure long term reliability, maximum up-time and lowest on-going operational costs.
Hygiene	Maintenance	Flexibility
 No matter the application, from pharmaceutical or food to quarry use, our machines are designed with easy strip-down features for hygienic cleaning.	 Design ingenuity enables quick and easy access for maintenance and low downtime.	 Standard design features ensure complete flexibility within existing manufacturing.



CONTACT US

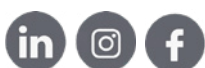
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