

Interface

FORCE MEASUREMENT SOLUTIONS.

CASE STUDY

Accuracy Matters for Weighing and Scales



Weighing and Scales

Force measurement and force sensing play a significant role in most manufactured products today. The production of these goods frequently utilizes load cells and torque transducers in one or more stages of the product life cycle, whether that is in early design of a component, testing durability of a product feature, or in equipment used to safely deliver the products to market. One of the most popular application types for sensors used in scales and weighing. This includes weighing parts, weighing equipment in assembly and production, weighing during distribution and of course transportation. Interface provides a range of products for these types of use cases.

Challenge

Manufacturers everywhere, from those that produce heavy machinery to pharmaceutical companies, are utilizing weight in their design, build and supply. Defined weight is used in most product specifications, which requires extreme accuracy in measurement. Utilizing precision force sensing solutions and instrumentation allows product engineers and manufacturers of all types to collect data in real time. In addition, IoT enabled weighing and scale solutions are frequently used in the modernization of products and industrial automation.

Interface Solutions

Interface supplies highly accurate and reliable load cells and sensor technologies for weighing and scale solutions. Weighing and scales must be dependable and always provide correct data. Precision sensors are a critical part of this requirement. Interface load cells can measure across a wide range of force, from 0.02 to 2,000k lbf. We offer a wide range of weighing sensors combined with instrumentation using a variety of communication channels, including Bluetooth, to allow users to gather data in-facility or remotely. Additionally, we can customize sensors to meet your exact needs and specifications for specific weighing use cases.

For instance, facilities and cities use connected force sensing trash receptacles for optimizing schedules of waste management companies to reduce costs and increase efficiencies. In another example, innovative smart pallet force sensing helps to track products and goods at the dock to reduce expenses and increase productivity.



SSB Sealed Beam Load Cells



WTS 1200 Standard Precision
LowProfile® Wireless Load Cell

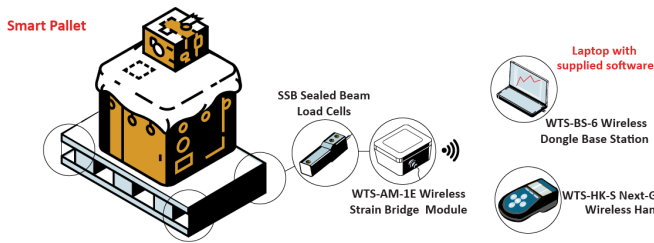


MBP Overload Protected
Miniature Beam Load Cell



9870 High Speed High
Performance TEDS Ready Indicator

Smart Pallet Weighing Solution

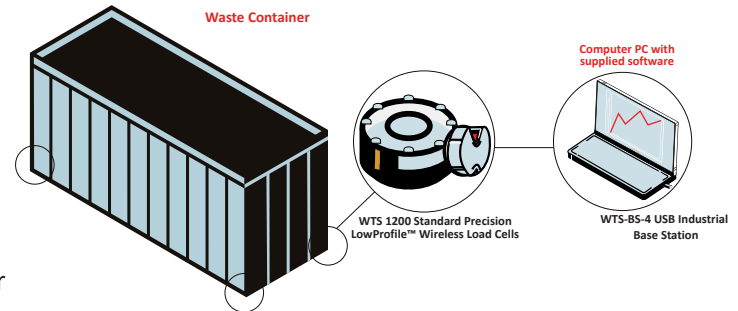


A customer wanted a pallet weighing solution in their warehouse to monitor their products and goods that come through day in and day out. They also wanted to be able to verify if any products were stolen based on the weight and determine pricing for their goods based on the weight. Finally, they preferred a smart, wireless solution. Interface suggested using multiple SSB Sealed Beam Load Cells and installing it within the corners of the bottom pallet. Heavy loads are put onto the pallet, which is captured when connected to WTS-AM-1E Wireless Strain Bridge Transmitter Modules. The force results are wirelessly transmitted and

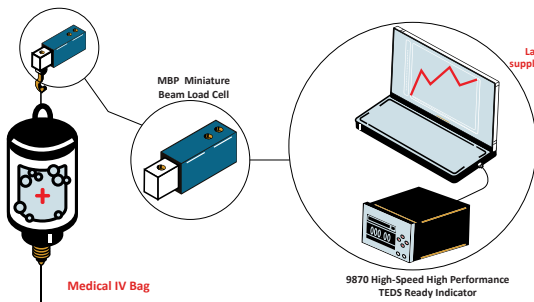
logged to the customer's PC using the WTS-B5-6 Wireless Telemetry Dongle Base Station with supplied software. Using this solution, the customer was able to successfully monitor the weight of their pallets, thus monitoring their products and goods arriving and departing the facility daily.

Waste Management Container Weighing

A waste management company wanted to measure the capacity of their waste containers to know when it is time to dispose the waste. Interface's Model WTS 1200 Standard Precision LowProfile™ Wireless Load Cell was installed at the bottom of each waste container leg to measure the sum weight of the container. The data was then transmitted to the WTS-B5-4 USB Industrial Base Station with the supplied Log100 software. The customer was then able to determine when their waste container was at full capacity to dispose of the waste, or to transfer it.



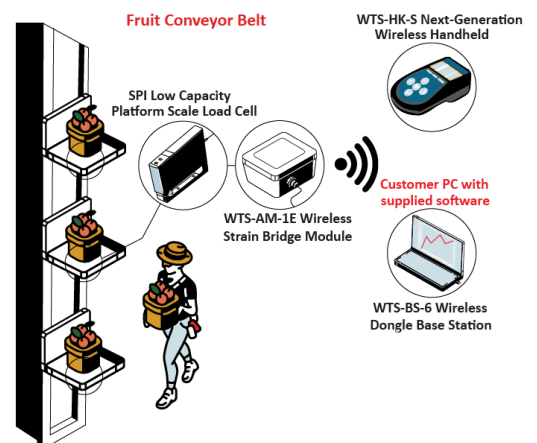
Medical Bag Weighing



It is critical to monitor the amount of material in a medical bag for obvious health and safety. Medical staff needs to know if a medical bag is empty or if the dispensing tubes are blocked at any given time. Force measurement technologies are used in this OEM medical application. Using Interface's MBP Miniature Beam with built-in overload protection, combined with Interface instrumentation, force readings are captured, displayed and stored for strict monitoring. Health professionals review and monitor medical bag weights to ensure medicine is properly dispensed and bag is replaced empty.

Fruit Weighing

A customer wanted to weigh the bins full of fruit that are loaded onto conveyor belts that transfer the fruit to other steps of the distribution process. Interface suggested installing SPI Low Capacity Platform Scale Load Cells, along with WTS-AM-1E Wireless Strain Bridge Transmitter Modules, in the center of the platforms the bins of fruit are loaded on. The WTS-AM-1E's wirelessly transmits the data collected from the SPI's to the WTS-HK-S Next-Generation Wireless Handheld, and the WTS-B5-6 Wireless Telemetry Dongle Base Station when connected to the customer's PC. Results can then be graphed, logged, and seen in real time. This solution allowed the custom to successfully weigh the fruit bins in real time when loaded onto the conveyor belt.



Learn More

Interface has been supplying force measurement solutions for large and small weigh and scale applications for more than 50 years. If you are in the market for accurate and reliable force solutions for weighing, visit our website at www.interfaceforce.com, or call to speak to one of our application engineers at 480-948-5555.