



Application Story

Plastic bag quality control

The Product

The standard DP range of Digital Spring Push Probes has justifiably become the work horse of the gauging industry. Very high resolution, excellent linearity and high data speed come as standard. Long life precision bearings, and an IP65 rating ensure that probes maintain their performance for millions of cycles.

Range: 2mm to 20mm – Accuracy: Up to 0.05% of reading – Resolution: Up to 0.01µm – Repeatability; Up to 0.15µm

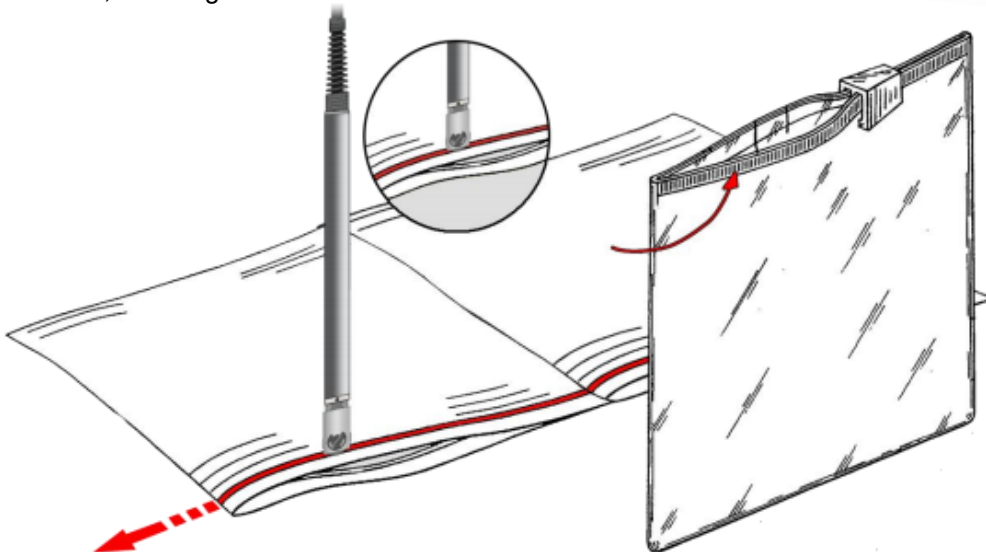
The Challenge

The position and measurements of a zipper on a plastic bag needs to be taken in-process as the material is dispensed from a roll and prior to the cutting and heat sealing progress. Measurements needed are height of the zipper whilst zipped, and the gripped.

A readout is also required at the gauging location to assist in machine set-up and to monitor product quality.

The Solution

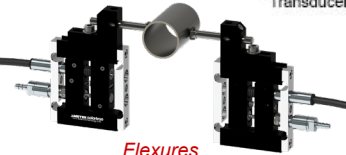
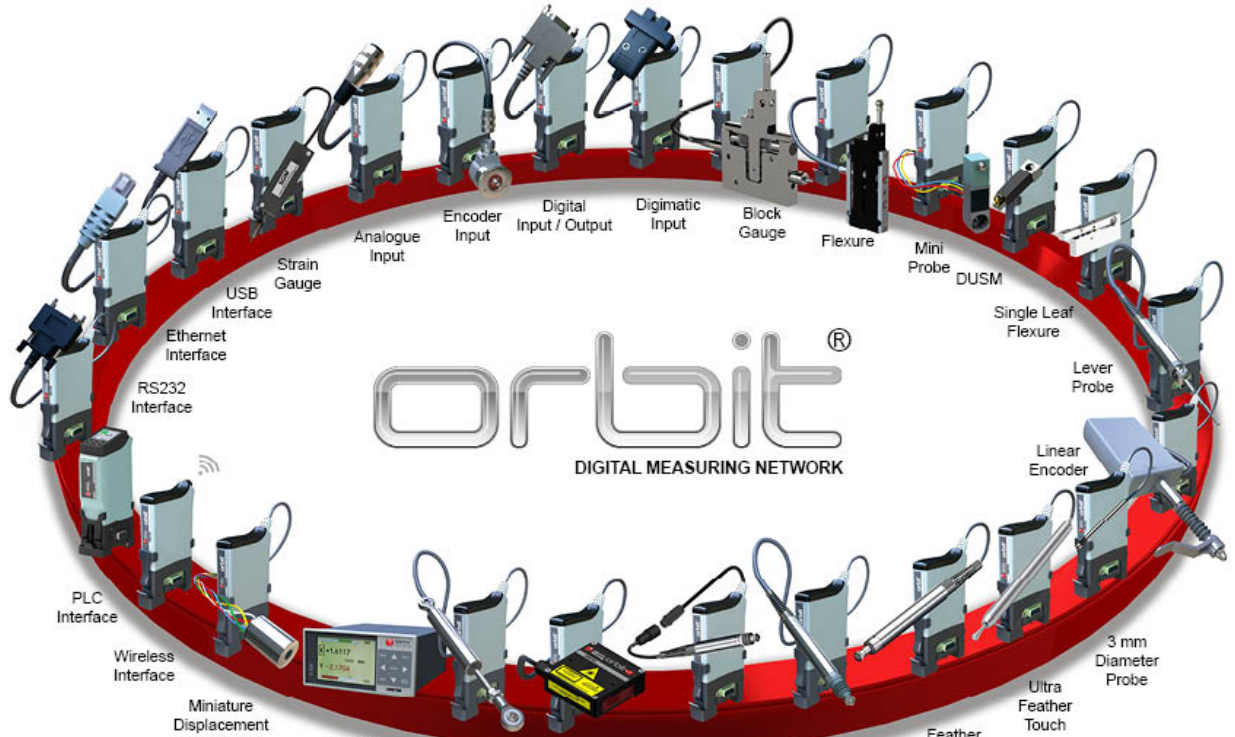
6 machines were designed and created, each using 8-10 Digital Probes with a SI7500 readout. Connection was made to a PLC, which could then automatically shut down the production line if the products were out of spec. This in-process gauging application allowed for issues to be identified and resolved before a large quantity of products were produced, reducing waste and down-time.



Plastic bag moves along as probe check height and thickness

Orbit® – The Total Measurement System from Solartron Metrology

The Solartron Orbit® Digital Measurement System, provides a limitless set of measuring system solutions, with numerous different interfaces to computers and PLC's.



Flexures



Block Gauges



Displacement

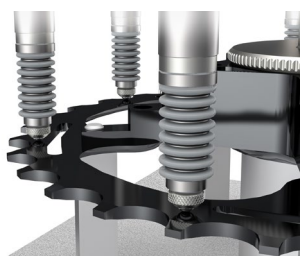


Multi Channel Wireless Gauge



Bore Gauging

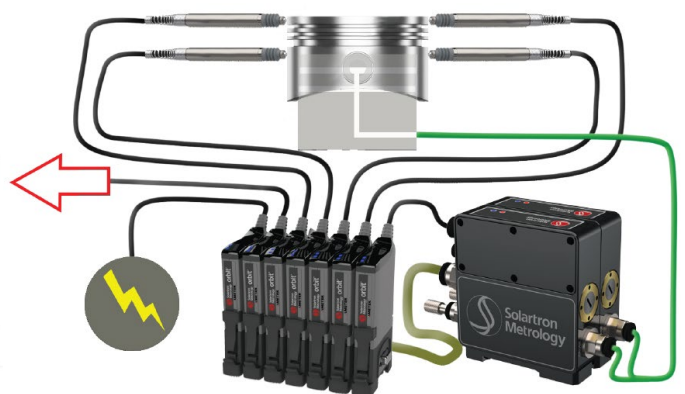
G-Type (With signal conditioning mounted at the end)



Gauging Flatness of a Bicycle Gear



Orbit GCS Software



Measurement of Piston with Air Gauging checking ID, and connected to Orbit with the Air Gauge Module. OD Checked with Digital Probes.