Candy Stamp Force Testing
Load Cell

Industry: Industrial Automation

Summary

Customer Challenge

Manufacturers of hard shell candies often stamp text or logos on the candy shells. Stamping too hard breaks the candy shell. Stamping too light results in an uneven or incomplete imprint.

Interface Solution

A test apparatus uses an Interface Model WMC Mini Load Cell attached to hydraulic actuators to measure the compression force required.

Results

Engineers determine specific force needed to properly apply the imprint without breaking the candy shell.

Materials

- WMC Sealed Stainless Steel Mini Load Cell
- 9330 Battery Powered High Speed Data Logging Indicator
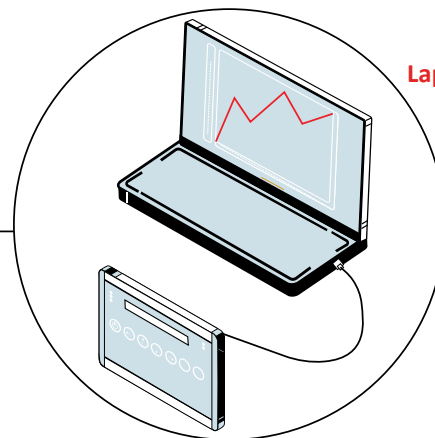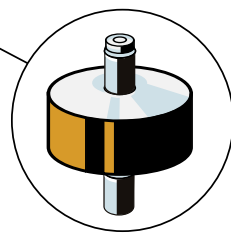- Customer PC or Laptop

How It Works

1. A hard shell candy is placed in a support under the test apparatus.
2. An Interface Model WMC Mini Load Cell is mounted between the hydraulic actuator and the candy being tested.
3. Force applied by the hydraulic actuator bends the top of the sealed load cell while the resistance from the candy bends the bottom of the load cell.
4. The two ends of the load compress toward the center where strain gages convert the applied force to an electrical signal.
5. Electrical signals are sent to the Interface Model 9330 and displayed in lbs. A USB connection to a laptop running the included graphical software shows the force profile as the load is applied.
6. The test engineer continues to apply hydraulic force until the shell cracks.

Candy Stamp Machine
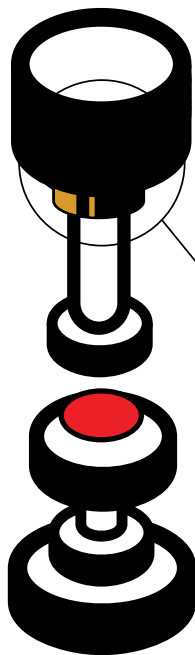
WMC Sealed Stainless Steel Mini Load Cell

Laptop

9330 Battery Powered High Speed Data Logging Indicator

INTERFACE
FORCE MEASUREMENT SOLUTIONS.

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