

Cosmetics Compaction Interface Mini™

Industry: CPG

Summary

Customer Challenge

A cosmetics manufacturer needed to improve the consistency of pressed powder products such as blush, foundation, bronzer, and eyeshadow. Variations in compaction force produced products that were either too fragile or excessively compressed, impacting quality and customer satisfaction. The manufacturer needs a precise force monitoring system throughout each press cycle to ensure uniform product density.

Interface Solution

Interface integrated a LWPF1 Press Force Load Washer into the cosmetics compaction machine to measure the compression force applied by the press ram during each cycle. Its compact size allowed it to fit easily within the press assembly while delivering highly accurate force measurements in a demanding production environment. The load cell was connected to an Interface INF-USB3 Universal Serial Bus Single Channel PC Interface Module with supplied software enabling operators to monitor and collect the data.

Results

Interface's solution produced consistent cosmetic products. Real-time force measurement reduced rejected parts and minimized material waste.

Materials

- LWPF1 Press Force Load Washer
- INF-USB3 Universal Serial Bus Single Channel PC Interface Module with supplied software
- Cosmetics compaction press machine
- Customer PC

How It Works

1. Loose cosmetic powder is dispensed into a makeup pan beneath the compaction press. A LWPF1 Press Force Load Washer measures the compression force as the press compacts the powder.
2. The force results were monitored when connected to the INF-USB3 Universal Serial Bus Single Channel PC Interface Module. Consistent force measurements ensure every cosmetic compact achieves uniform density, improving product quality while reducing waste and rejected parts.

