

PRECISION FROM FORMULA TO FINAL PRODUCT

Interface
FORCE MEASUREMENT SOLUTIONS.

The cosmetics industry relies on precision at every stage of product development and manufacturing, from compacting powders and filling containers to testing product texture, packaging integrity, and consumer application forces. As cosmetic products become more sophisticated and manufacturing processes become increasingly automated, Interface provides measurement solutions that help manufacturers monitor and validate these critical processes, delivering accurate force data for everything from cosmetic compaction and dispensing to packaging and automated production.

The global beauty industry is valued at more than \$450B. The scale of demand of consumer cosmetics means even small improvements in manufacturing consistency can have a significant impact across high-volume production. Force measurement helps manufacturers monitor processes such as powder compaction, filling, pressing, and packaging to maintain repeatable production.

The global beauty market is projected to grow approximately 5% annually through 2030. As production volumes increase, automated equipment must maintain consistent performance over repeated cycles. Interface load cells provide real-time force feedback that can be integrated into automated machinery for process monitoring, quality control, and predictive maintenance.

Force testing can identify inconsistencies in pressed powders and cosmetic compacts. During testing, measured force can help identify issues such as voids, improper filling, or variations in the powder mixture, providing manufacturers with an objective way to evaluate product consistency.

Skincare manufacturing involves processes such as filling, dispensing, pressing, and packaging where controlled force can help verify consistent product delivery and package performance. Compact load cells can be integrated into equipment where space is limited while still providing precise force measurements.

Interface miniature load cells have a low-capacity measurement capability, making these force sensors suitable for applications where cosmetic products, components, or mechanisms require very small and controlled forces to be measured for production quality and consistency.

