Equipment Solutions for Endoscopy Tube Components

Opportunity

A U.S. medical device manufacturer was searching for ways to reduce manual labor costs and improve overall quality in their endoscopy devices. Automated dispensing equipment is needed to increase assembly speed and improve product quality.

Substrates: PC (Polycarbonate) || TPE (Thermoplastic Elastomer)

Challenges

- Manual assembly process requires 6 operators to produce sufficient number of parts
- Hand dispensing was inconsistent and lead to poor quality in assembled product tests
- High cost of labor, rework, and scrap increased product cost and lowered profit margins

Solutions

Product(s) used: Loctite 400D Benchtop Robot, Loctite 7701, Loctite 4310

New Automated Dispense

Parts loaded onto a fixture on the Loctite 400D Benchtop Robot for an automated application of both the primer and adhesive. Only 3 operators are needed for the complete assembly process.

Outcome

The Henkel equipment solution lowers assembly costs, insures a higher level of assembled product quality, and allows labor assets to be redirected to more profitable areas of product assembly.

Benefits

- Loctite 400D Robot produces the same number of parts with only 3 operators - a 50% labor savings
- Automated product application increases assembled product quality to reduce rework and scrap costs
- Robotic application of Loctite 7710 and Loctite 4310 also reduces product waste to lower overall material costs