Medical Equipment Manufacturing: Signature Analysis of I.V. Bag Stopper Incisions

Highlights:

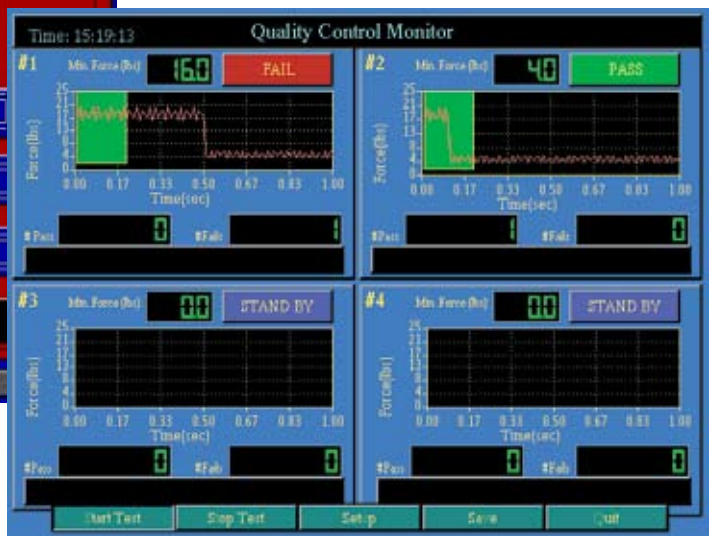
- Identifies improperly cut parts based on characteristic load vs. time analysis
- Provides PASS-FAIL information to the user and controlling PLC
- User configurable data collection parameters
- Signature Analysis and full reporting
- Failed data saved by date and cycle number
- Historical data review

This system is configured for a large pharmaceutical company to improve the quality of intravenous bag plug production. The system monitors four separate force waveforms created by hydraulic knives which advance and create incisions in rubber IV stoppers.

The waveforms are analyzed and used to pass or fail each incision based on signature parameters entered by engineering personnel. The test results for all failed parts are automatically logged to disk along with the date and time, and the machine cycle number. This data is then used to correlate failures with individual knives or shifts.

As tools wear or as quality conditions or materials change, the operator can simply redefine the signature parameters for each knife to meet the new standards and maintain consistent quality.

Screen showing Application Data



Screen showing IV Stopper Insertion Force versus Time Waveforms

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