Mecmesin

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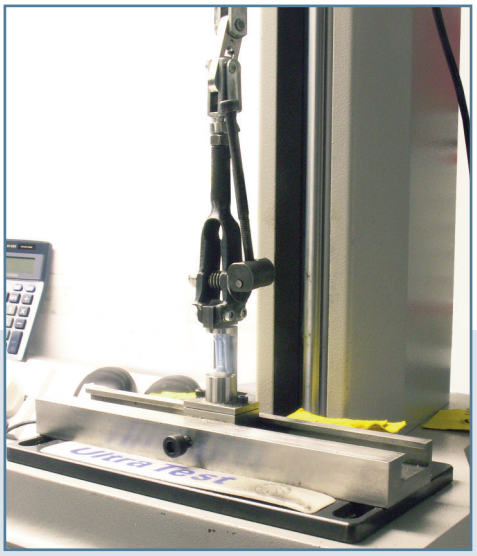
Lancet Needle Retention Test

Specification

UK based medical device company, Owen Mumford design and manufacture a range of blood glucose monitoring and control equipment used by healthcare professionals and consumers across the globe. The company manufacture a variety of single use lancets, used by diabetes sufferers to obtain capillary blood samples when mounted into a lancing device. The lancet comprises a steel needle moulded into a plastic base with a twist-off cap covering the point. To ensure the needle is not dislodged from its base when the cap is removed prior to use, stringent in-house production specifications dictate the minimum acceptable retention force of the needle within the plastic surround.



Solution

Owen Mumford use a Mecmesin AFG 500 force gauge on an UltraTest stand (now superseded by the MultiTest 1) to perform retention tests on the lancet needles at regular 6-hourly intervals. This guarantees consistent manufacturing quality. The plastic base is placed under a custom-engineered mounting block, with the needle tip exposed vertically. A lever-operated pin vice is fitted to the tip and a tensile load applied to the needle at a rate of 200mm/min until it is dislodged from the plastic base. This durable Mecmesin system has been in constant use at the point of production for over 8 years.

System

- AFG 500 Force Gauge
- Lever-Operated Pin Vice
- UltraTest Stand (now superseded by the MultiTest 1)
- Custom-engineered mounting block (lower fixture)

Testimonial

“We have been using Mecmesin equipment to perform retention tests on our range of lancet needles for over 8 years. We find the system easy to use for regular in-process checks, and generally reliable with prompt servicing from Mecmesin when required.”

John Potter, Quality Systems Engineer
Owen Mumford Ltd

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