AUTOCLAVE CHAMBER/LOAD TEMPERATURE MEASUREMENT

APPLICATION

A major multinational pharmaceutical manufacturer of contact lens fluid located in North America was experiencing increasing demand for their leading product. In order to meet this demand they were required to increase their production shift pattern and consider the installation of additional autoclaves.

PROBLEM

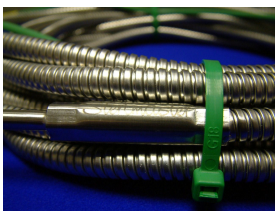
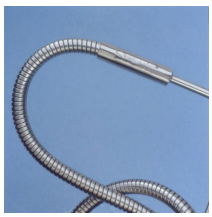
The existing autoclaves were large AMSCO machines operating on a water cycle sterilization system. Due to the depth of the chamber the load probes required a chamber cable length of 7 metres in order for the operators to position the probes before loading the cart into the chamber. The length of the load probe cable meant that the jacket frequently became damaged by the cart wheels when the cart was being maneuvered.

Even a small cut in the jacket was sufficient to allow water under pressure to penetrate down to the PT100 detector and also to exit the jacket at the lead wire terminations. The frequent sensor failures caused by this damage meant that a new approach would be needed if the client was to be able to meet the new production requirements.



SOLUTION

The Sterimaster® with its double interlock stainless steel flexible conduit and a chamber entry using a rigid stainless steel tube was proposed. A trial using four Sterimaster® load probes was successfully carried out on an initial machine for a 6 month period. Following this trial the remaining autoclaves were then fitted with Sterimaster® load probes as soon as the original probes failed or were outside the acceptable tolerance level. For further information please see Data Sheet PDS-005-104.

BENEFIT

The clients production commitments were met and whilst the unit cost of the Sterimaster® probes were higher than the original units, the Sterimaster® probes were considered to have provided a return on investment within a very short period of time. The operators found that whilst a level of care was needed to protect the sensing end of the probe, the high flexibility of the stainless steel conduit allowed ease of probe location and small obstructions did not hinder autoclave loading. If the wheels of the cart did run over the conduit and deform it, the sensor cable remained intact.

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