Industry: Medical Device

Product: Irrigated blade assembly for endoscope

Problem/Goal:
A medical device company manufactures an irrigated blade assembly for an endoscope which requires accurate repeatable leak test results.

The test fixture must also have the flexibility to be able to adjust to a variety of test part lengths.

Resolution:
For this customer, TME designed a test fixture slide rail.

Attached to the TME Solution™ leak test system the unit is designed to test two sizes of the irrigated blade assembly. The TME Solution detects leakage from a test part by sealing the open (distal) end of the part, pressurizing the part at the proximal end, and performing a pressure decay leak test. The test fixture is composed of a fixed base with two clamps, one fixed and one movable to adjust to the length of the test part. Two different seal sizes were provided for the movable clamp to optimize sealing.

The system is provided with a clamp timer function to enable complete sealing of the test part before the leak test begins.

Test results are displayed as one of the following:
1. “Gross leak”: indicating that a leak exists that exceeds the pressure tolerance. A red “Rejected” light shows on the instrument face.
2. “Accept”: Indicates the part has passed the leak test. A green “Accept” light shows on the instrument face.
3. “Reject”: Indicates the test part has a small leak which exceeded the preset acceptable pressure decay level. A red “Reject” light shows on the instrument face.

Sealing fixtures:
TME has designed and manufactured over 1,200 unique test fixtures to solve leak and leak/flow test problems in the Medical Device, Pharmaceutical, Automotive, Electronic and Packaging industries.

TME Solution leak test system:
This instrument has proven through the years to be one of the most reliable and long-lasting custom and standard leak test instruments. It is a high resolution leak or leak/flow tester featuring one or four channel concurrent or sequential leak and flow testing. It can perform burst, occlusion, vacuum and decay, crack and differential pressure or vacuum testing.

For more information: Click this link: TME Solution or enter this URL in your browser: www.tmelectronics.com/leak-and-leak-flow-testers/tme-solutions.cfm