

# Solutions@Mecmesin

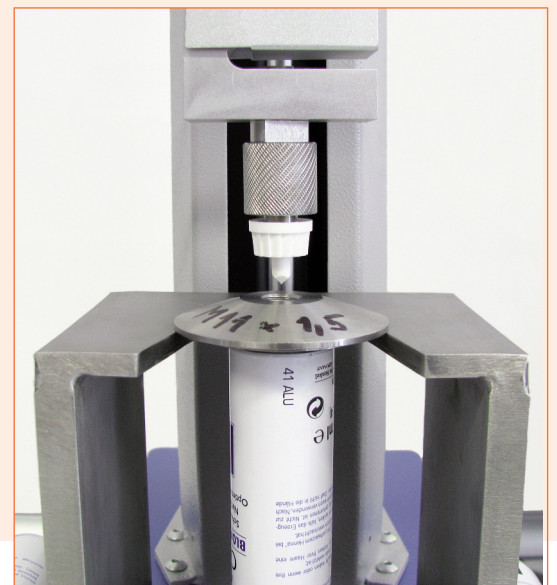
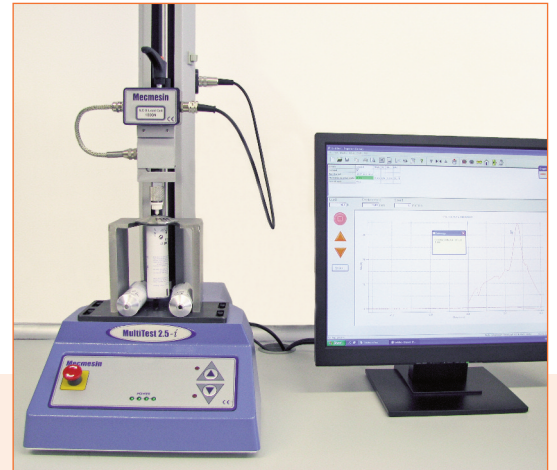
## Aluminium Tube Seals

### Specification

One of the largest packaging tube suppliers in Central Europe specialises in laminated plastic and aluminium tube containers for the cosmetics industry. The aluminium tubes are self-sealed, with a reversible cap containing a spike for piercing the seal ready for use. The strength of the seal must keep it secure from bursting, whilst being easily opened by hand using the cap. The company required a means of testing seals against their own quality standards, imitating the consumer's means of opening.

### Solution

Mecmesin supplied a MultiTest 2.5-*i* test stand with a specially-constructed sample holder. Working in collaboration with Mecmesin engineers, a series of collars were made, into which the various tube samples are screwed. This avoids pressure on the tube, which is not being assessed. The motorised stand presents the correct plastic cap to the seal in a controlled way. A 1000 N intelligent loadcell records the applied force throughout the piercing cycle. As the Emperor™ software acquires the data, it presents the characteristics of the breaking seal as a real-time graph on the computer screen. The software has a library of test sequences for various products so that instant pass/fail indication is given. All test data is stored for analysis and comparison. Resetting the stand and test programmes for different samples is quick and simple. The major advantage to the company is the speed of throughput for test samples, the accuracy of the measurement, and the immediacy of results.



Real-time graphing of seal piercing, with (below) detail of the sample held in place by the custom collar and bracket

### System

- MultiTest 2.5-*i* test stand
- 1000 N intelligent loadcell
- Custom-made sample holders

### Other Packaging Solutions

- Coefficient of Friction Test
- Cork Extraction Test
- Cosmetic Packaging Pull-off Test
- DVD Removal Force Test
- Flexible packaging seal strength

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## packaging industry



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