

## Solutions@Mecmesin

### Cosmetic Packaging Pull-off Test

#### Specification

A bench-top testing system was required to repeatably test the pull-off force on a variety of cosmetic containers. The system needed to allow a relatively high volume of containers to be tested with the minimum level of training required for users.

The customer also required a torque tester to determine the torque necessary to operate the lipstick barrel.

#### Solution

Dedicated fixtures were used to hold the cosmetic containers. The lipstick container was held by a 'fork' - shape grip on the base of the test stand. The internal barrel (in which the lipstick was held) was secured using an adjustable collet grip.

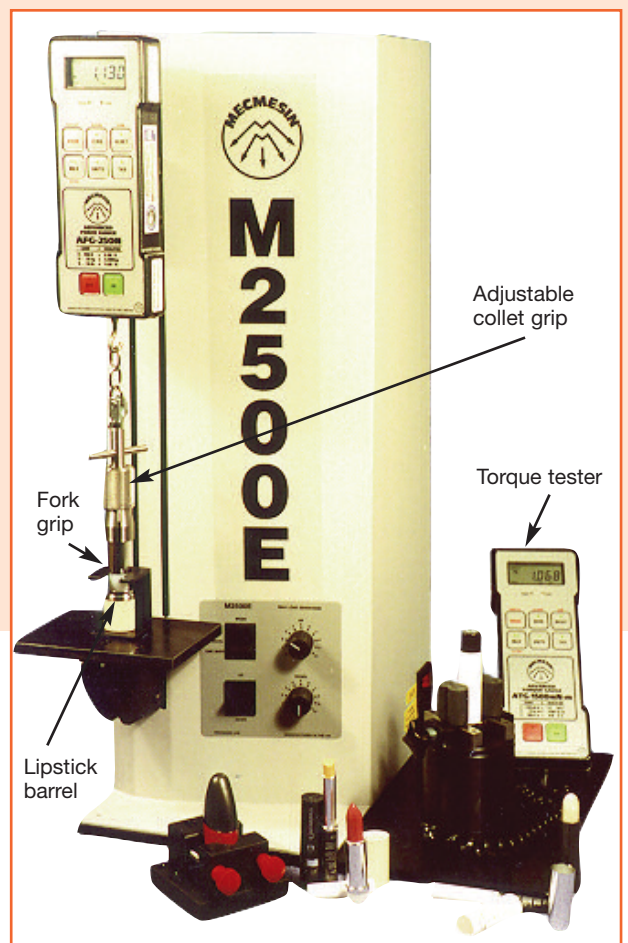
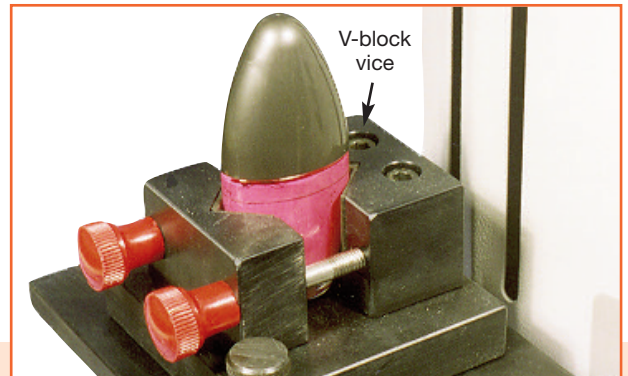
To avoid the risk of damaging the loadcell by excessive torque on tightening the collet grip, the lipstick barrel was first inserted in the grip and then connected to the gauge by a flexible chain-link.

The nail-varnish container was held in a simple V-block vice. The cap was removed by first applying a disposable adhesive pad with loop, then connecting the loop to the gauge's test hook.

The adhesive bond was stronger than the pull-off force required to remove the cap. The motorised test stand ensured the necessary level of repeatability was achieved.

#### System

- Motorised test stand
- AFG 250N
- Dedicated fixtures
- 1.5N.m torque tester



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