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PET Beer Bottles

Specification

A leading European brewing company, part of a global group, produces economy brands in plastic (PET), as well as glass bottles. The PET bottles must be quality-tested for top-load crush strength, and the caps for both unscrewing and release of the tamper-evident ring. Many tests must be done each day on the production line to ensure consistent compliance against internal quality standards.

Solution

The company was supplied with two test stands. A Vortex-*d* is used for torque testing the caps, and a computer-driven MultiTest 5-*xt* is used for the top-load crush test.

The motorised Vortex-*d* unscrews caps at a set rate of rotation and is used with a Mecmesin Advanced Force & Torque Indicator (AFTI). This records all test profiles and downloads the data for graphical display, comparison and analysis in Mecmesin's Emperor™ Lite software.

The MultiTest 5-*xt* is fully computer-controlled via a touch screen, and is used with a 2500 N intelligent loadcell and perforated compression plate. A library of customisable test programmes ensures consistent operation every time. Real-time graphic display on the screen, with pass/fail indication, gives instant results, and all test profiles are recorded for comparison and analysis in the Emperor™ software.

The company chose the systems for the way both tests are very quick to set up, and give instant, accurate results under conditions that are reproducible with complete consistency.

System

- Vortex-*d* motorised test frame
- 10 N.m intelligent torque loadcell
- Emperor™ Lite software
- MultiTest 5-*xt* test stand
- 2500 N intelligent force loadcell (interchangeable)
- Compression plates
- Emperor™ control and analysis software



Top-load crush testing



Bottle cap torque testing

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beverage industry



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