



Line Simulator



Filling Line Abrasion Simulation

- Valuable tool for evaluation of new bottle designs or design modifications
- Useful for routine assessment of coatings and serviceability
- Ideal for evaluating the effects of bottle-to-bottle contact

The Agr Line Simulator is designed to provide an accelerated, reproducible, and standardized abuse treatment in the laboratory. This treatment simulates abrasions due to container-to-container contact, which are characteristic of normal filling and handling lines. The Line Simulator is an ideal tool for determining the effectiveness of container designs, decorations, and labeling with respect to the abrasive effects of the production line. By simulating the effects of line abuse at the time of package design, savings can be made in both time and money.

OPERATING PRINCIPLE

The Line Simulator carries containers on a circular aluminum drive plate covered with a non-metallic disk. A motor drives the disk at 35 rpm, simulating a container speed of approximately 840 bottles per minute using 12 ounce capacity bottles.

The containers are guided in a circular path by two pairs of non-abrasive plastic rails. A rubber-covered gate, activated by an adjustable spring, interrupts the flow of containers through the channel. This creates line pressure, resulting in approximately 25% slippage of the containers on the cover disk. The equivalent linear speed of the bottles is about 630 bottles per minute (12 ounce capacity bottle). The containers rotate against each other as they pass through the gate and receive an impact as they catch up to the line.

At a point just ahead of the gate, water from an adjustable spray head is automatically turned on by an electric valve during the abuse treatment. The duration of abuse is controlled by an automatic reset timer that can be set from five seconds to five minutes.

FEATURES

- Adjustable rails and spacer disks
- Test duration timer
- Stainless steel construction
- Adjustable water spray nozzle
- Variable speed drive motor

OPTIONS

- Bottom abrader kit/stepdown plate
- Metal rail assemblies and lower disks to simulate container-to-metal contact
- Additional rails for other container sizes



- ✓ **Save time and money**
- ✓ **Test the effects of line abuse on labels, design features, and decorations in the laboratory**
- ✓ **Ideal for glass, plastic and aluminum bottles as well as cans**
- ✓ **Works with labeled containers, including shrink labels**

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