

FILAMATIC NEWS

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*Manufacturers of Liquid
Filling, Capping and
Packaging Systems*



New Filling And Capping Line Features Versatility, Accuracy And Quick Changeover

National Instrument Company introduces a new filling/capping line that utilizes a newly patented, low-inertia collet chuck to apply screw cap or snap cap closures. This line handles odd shaped containers and caps and is electrically and mechanically controlled through one digital operator interface. Fill volumes, cap torque, diagnostic information and run time can be adjusted by the touch of a button. Tradenamed **FILAMATIC**® Model V-300-LD-4/CAL-1-SP, this line can achieve production rates of at least 30 containers per minute in fill sizes from 3mL to 2200mL, with accuracies to $\pm 1/2\%$. It is ideal for packaging water-thin liquids to semi-viscous and viscous liquids.

The Model V-300-LD-4 filling machine features a horizontal nozzle centering device and the no-bottle no-fill and anti-back up systems. The AUK-3 indexing system is designed to handle a broad range of containers. A wide range of product viscosities can be handled by simply interchanging the Filling Units.

After filling, the containers travel to the Model CAL-1-SP capping machine. Two feeder tracks are supplied with this capper, enabling both screw caps and snap caps to be applied. This capper is designed specifically to accommodate screw caps 18mm or 28mm in size. The feeder tracks carry the caps from the feeder bowl discharge and position them for pick-off. The screw cap transfer arm transfers the caps to the capping chuck, which elevates slightly to insert the caps into the capping head. The capping head then descends to the preset height and tightens the caps onto the containers.

The servo-driven cap tightening system provides a superior method of tightening caps where accurate torque application and reliability are required. Operation has been dramatically improved by the use of a new low-inertia collet chuck. The quick-change collet is fabricated from a one piece stainless steel jawset. Its low inertia improves the performance of the cap servo feedback control system, providing precise torque control and shorter cycle times. No tools are required for changeover from one cap size to another.

The snap cap transfer arm receives the cap from the snap cap ejector, which is an air actuated plunger that inserts the cap into the cap transfer arm. It then holds the cap by a vacuum and rotates 180 degrees to position the cap directly over the container neck. As it descends, it forces the cap onto the container.

The capper's drive motors and actuators are located inside the base of the machine to enhance safety and provide a much simpler design and cleaner operation. The fill check and cap check stations monitor the filling/capping operations to allow only precisely filled and properly torqued containers to reach the labeler.

National Instrument Company has integrated an Omega bottle unscrambler and an Accraply labeler into the new filling/capping line, providing a complete production line. Specifically designed to maximize production line accuracy, flexibility and ease of changeover, a machine can be exchanged or removed from the line to accommodate filling needs. A trayer can also be added, if required.

The **FILAMATIC**® V-300-LD-4/CAL-1-SP can be designed for operation with flammable liquid products.