

**FILAMATIC®**



# **AUTOMATIC CUBITAINER® FILLING & CAPPING SYSTEM**

*Individually fills  
and caps Cubitainer®  
combination packages  
as they travel  
along the conveyor.*



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# **AUTOMATIC CUBITAINER® FILLING & CAPPING SYSTEM**

## **FEATURES:**

- Requires less capital investment, less floor space and fewer operators than a standard unpacking/filling/capping/repacking line.
- Filling accuracy to  $\pm 1/2\%$ .
- Fills water-thin to viscous products.
- Push-button setup and changeover.
- Handles container sizes from 10 liters to 20 liters. Other container sizes available upon request.
- A standard line occupies under 18 x 8 square feet of floor space.
- Cap size 38 mm. Other cap sizes available upon request.
- Production rates from 4 to 10 containers per minute. Other rates available upon request.
- All metal product contacting parts fabricated of Type 316 stainless steel and W-88 non-galling stainless steel.
- Designs for use with hazardous materials are available.

The new Filamatic Cubitainer® combination package filling and capping system provides an efficient, cost-effective method of automatically liquid filling and capping Cubitainer® containers. Eliminates multiple operations. There is no need to remove the Cube® Insert from the box while filling or capping, and normally no need to pre-inflate the insert before filling. Manual handling of heavy containers is greatly reduced. Much of the setup and changeover can be accomplished via push-buttons on the control panel. Because the new line requires only one operator, labor costs are reduced by 50% or more, compared to a standard production line that consists of separate box unpacking, filling, capping and box repacking/sealing equipment. The overall capital investment is far less than that required for individual machines. Required floor space is also minimized.

## **WIDE RANGE**

The Filamatic Cubitainer® filler/capper can handle containers ranging in size from 10 liters to 20 liters, at production rates from 4 to 10 containers per minute. Other container sizes and fill speeds are available upon request. Cap size of 38 mm can be accommodated. Designs for other cap sizes are available upon request. Volumetric fill accuracy is normally within  $\pm 1/2\%$  or better. Designs for use with hazardous materials are available.



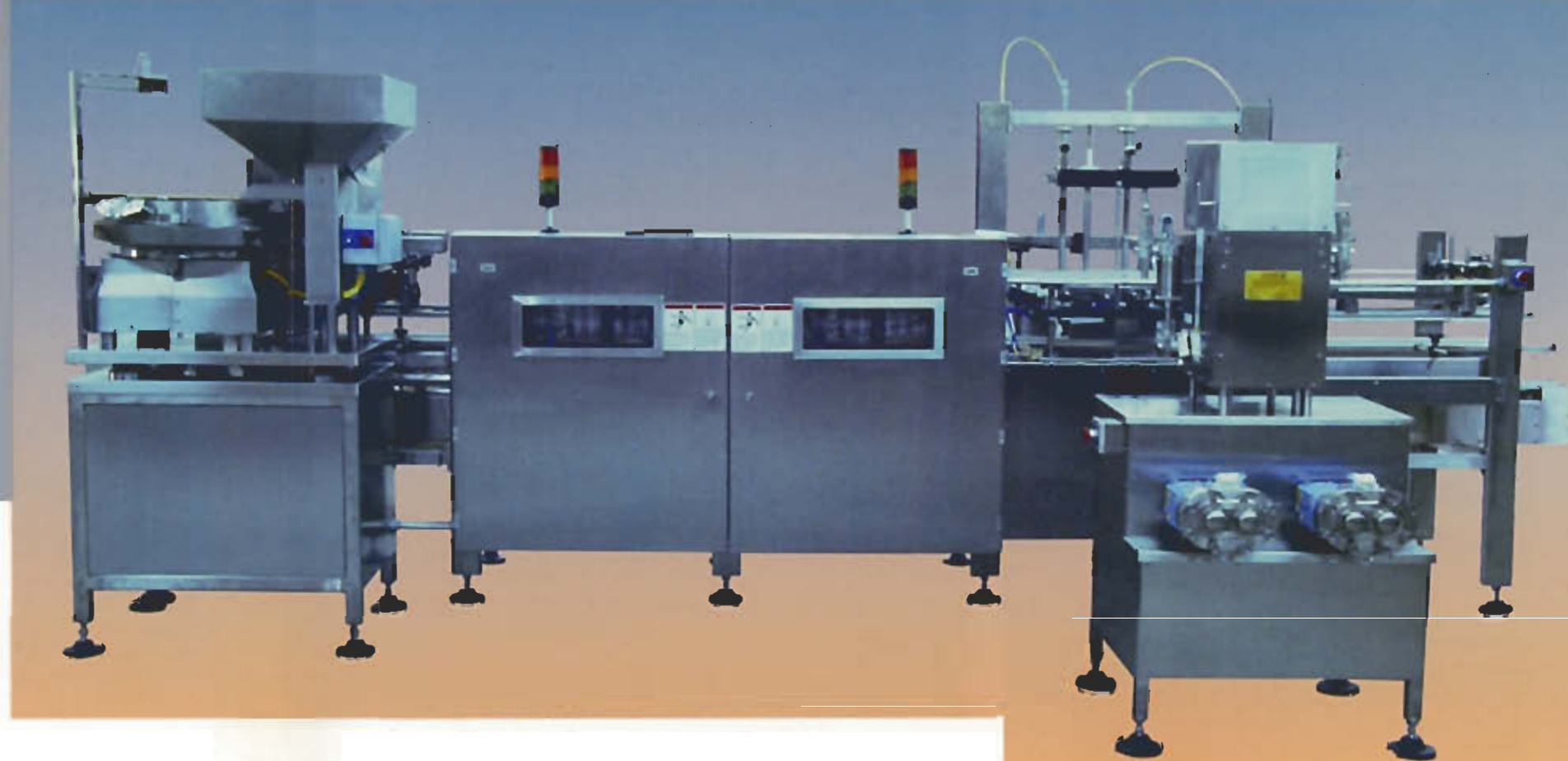
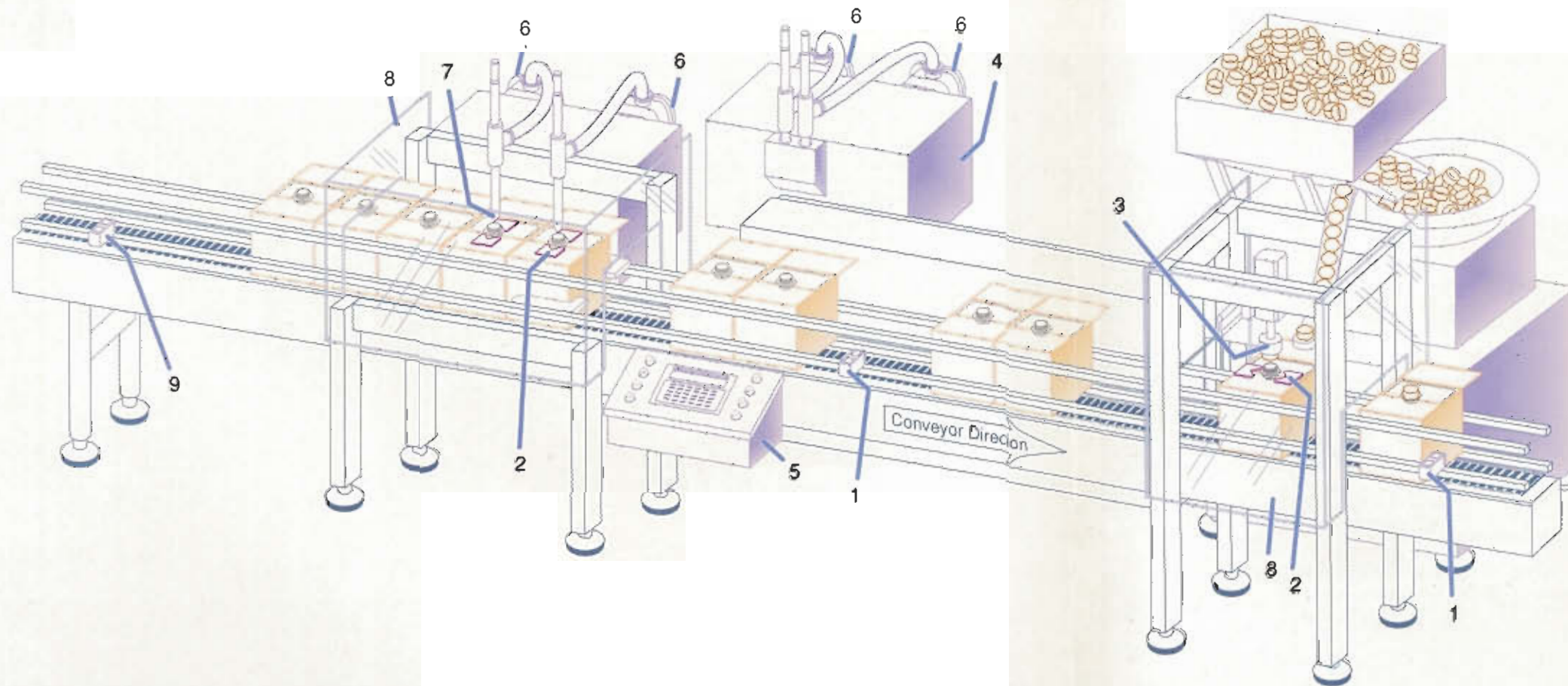
## HOW IT WORKS

The pre-boxed Cubitainer® is placed on the infeed of the Filamatic conveyor. The neck of the container is positioned between the neck locate rails. The conveyor transports the boxed container to the filling area, where sensors check for the presence of a container. Sensors also make sure that containers have not backed up from the capping area downstream.

The neck of the container is grasped with a horizontal locator. A filling nozzle descends into the mouth of the container, and the liquid is discharged at a moderate rate of speed. If the container has not been pre-inflated during the boxing process, the force of the liquid discharging from the nozzle will open the container inside the box. The nozzle can be programmed to bottom-up fill or locate fill the container from a static position, as determined by the foaming or non-foaming properties of the liquid.

- 1 Anti-backup sensors signal the machine to stop if containers back up into the filling or capping areas.
- 2 Grippers stabilize the neck of the plastic insert during filling and capping.
- 3 Optional servo-torquing permits "on the fly" push-button torque control.
- 4 An optional second fill module can double your production by filling four containers at a time rather than two. It can also be used to clean one pair of fill stations while the other pair is running production.
- 5 An optional menu-driven panel permits push-button control over most filler and capper functions.

- 6 Precision Rotary Pumps handle a variety of liquids with fill accuracies to  $\pm 1/2\%$ .
- 7 An optional vacuum removes excess product from the nozzle tip to prevent dripping and stringing.
- 8 Lexan® enclosure helps to insure safety by isolating the operator from moving parts and/or hazardous liquid products.
- 9 A no-container no-fill sensor prevents product from dispensing if a container fails to enter the fill area.



*(Rear View) - The standard Cubitainer® filling & capping line occupies under 18 x 8 square feet of floor space.*

The liquid is metered by rotary positive displacement pumps, which provide an accuracy to  $\pm 1/2\%$ . The pumps are self-priming, and will handle free-flowing to viscous liquids. If an additive is to be mixed with the primary fill, it can be dispensed by positive displacement piston pumps after the primary fill is completed.

An optional valve-in-tip, no-drip suck-back nozzle removes any residual liquid or foam from the nozzle tip.

After filling, the containers are transported via straight-line conveyor to the capping area. A gripper mechanism centers the neck of the bottle, then a pick and place mechanism equipped with an air-operated gripping chuck presents, places and tightens a cap. An optional servo-torquing device permits precise control of cap application torque while the machine is in operation. If a cap is missing, or not tightened to the proper torque, the container will be rejected.



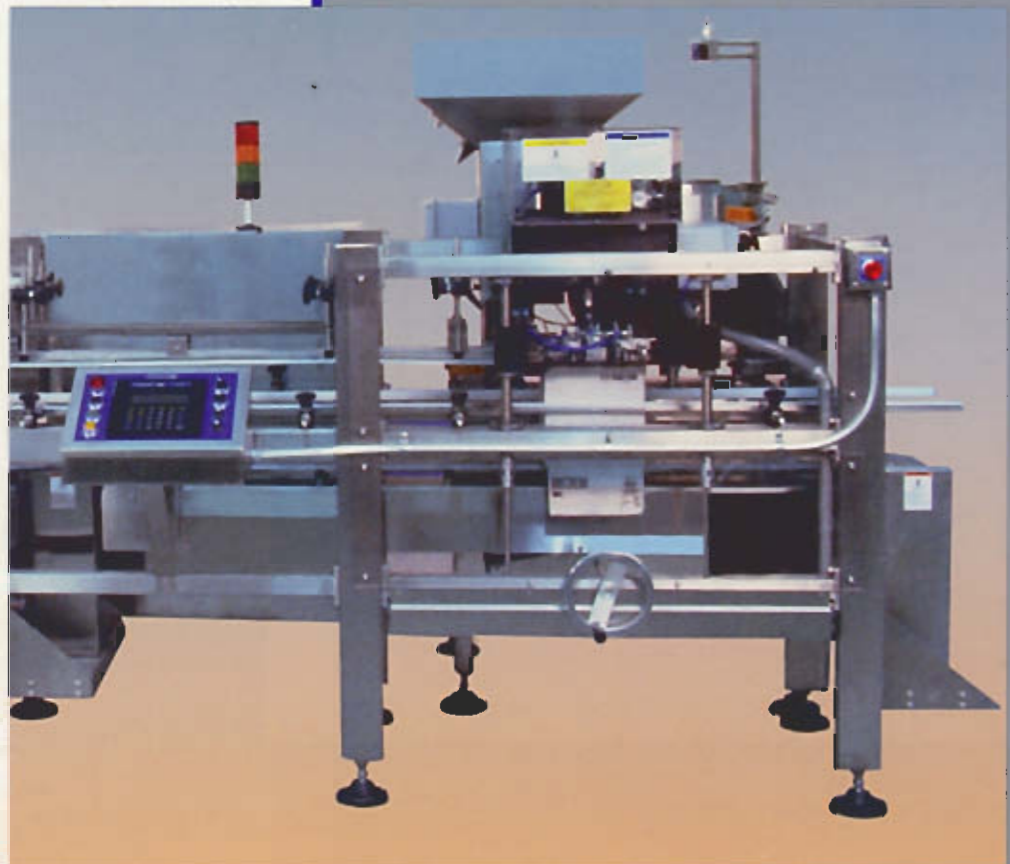
*The filler handles container sizes from 10 to 20 liters, at production rates from 4 to 10 containers per minute.*

## EASY TO USE

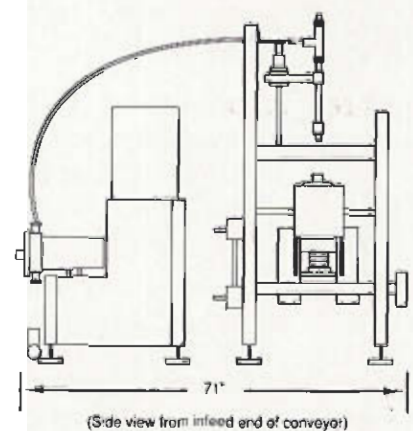
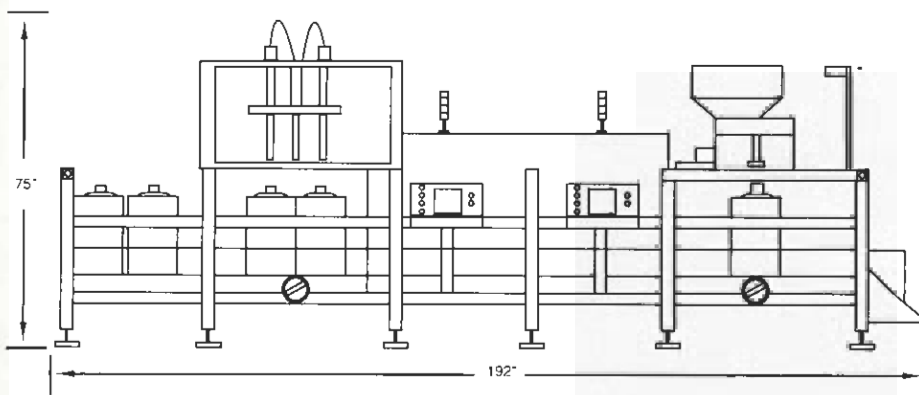
The Filamatic filling/capping system is easy to use, even by inexperienced personnel. The operator simply feeds the Cubitainer® units onto the conveyor infeed, and positions the neck of the plastic container in the guide rails. The pre-boxed containers are filled and capped automatically, then are discharged directly into the case sealing machine of your choice.

Most adjustments, such as fill volume, fill speed for foamy/non-foamy products, and cap application torque for various cap styles, can be made with the push of a button on the control panel. A menu-driven interface prompts the operator each step of the way. Pre-programmed recipes simplify setup for frequently used container sizes.

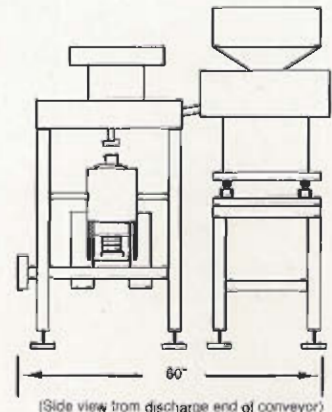
Machine adjustment for container height can be made with a single hand crank elevator assembly.



*At the capping area, a gripper mechanism centers the neck of the bottle, then a pick and place mechanism presents, places and tightens a cap.*



(Side view from infeed end of conveyor)



(Side view from discharge end of conveyor)

### Specifications:

Production Rate: 4 to 10 containers per minute. (Other rates to order.)  
 Container Range: 10 liter to 20 liter (Other sizes to order.)  
 Cap Sizes: 38 mm (Other sizes to order.)  
 Fill Accuracy:  $\pm 1/2\%$  or better  
 Metal Product Contacting Parts: Type 316 stainless steel and W-88 non-galling stainless steel  
 Dimensions: All dimensions shown are for reference only.  
 Other configurations to order.

### Free Testing Service

We will be happy to test run your product to determine the Filamatic model best suited for your needs. There is no cost or obligation for this service. Simply call our Technical Sales Department at (410) 764-0900, or fax them at (410) 764-7719. They will discuss your application with you, and will indicate the quantity of product and containers we will require for testing. In addition, please send the MSDS for an acceptance number before sending the sample. If an MSDS is not available, call or fax our Safety Director at the numbers mentioned above.

### Write for details on other Filamatic® and Capamatic® Packaging Machinery

- Rotary Pump Type and Piston Pump Type Semi-Automatic Fillers
- Piston Pump Type Automatic Volumetric Fillers
- Automatic and Semi-Automatic Screw Cappers
- Monobloc Machines—Fill/Plug/Cap on one compact base
- High Speed Filling/Stoppering/Traying Lines
- Air-Operated Fillers
- Rotary Pump Fillers
- Bottle/Unscramblers/Feeders
- Bottle Accumulators
- Container Cleaners

### The following Filamatic patents symbolize our commitment to remain in the forefront of liquid filling and packaging technology:

U.S.A. - 29482 (reissue), 31393 (reissue), 32074 (reissue), 3911976, 3959703, 3971494, 4004620, 4014472, 4055281, 4077441, 4142561, 4182387, 4201251, 4212416, 4227627, 4230160, 4269298, 4294294, 4593720

CANADA - 993418, 1015861, 11048480, 1050636, 1054109, 1055199, 1058581, 1077448, 1093037, 1101387, 1101809, 1102761, 1110571, 1111310, 1148515, 1222927

Other U.S., Canadian and Foreign patents issued and pending.



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