

A TECHNICAL GUIDE TO AUTOMATIC and SEMI-AUTOMATIC
FILLING MACHINES
 COMPLETE BOTTLING AND PACKAGING SYSTEMS



The Proven Standard®... Since 1941.

KAPS-ALL
PACKAGING SYSTEMS INC.

KAPS-ALL CAPPER®
 FEED SYSTEMS®

FILLS-ALL®
 ORIENTAINER®

KAPS-ALL PACKAGING SYSTEMS, INC.
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www.kapsall.com

- Fills all containers with free-flowing to viscous products
- Patented, microprocessor controlled — ensures fast changeovers
- Expandable, compact stainless steel designs for quiet, accurate fills
- Includes many standard features not found on competitive models
- 2 year guarantee—The longest in the industry

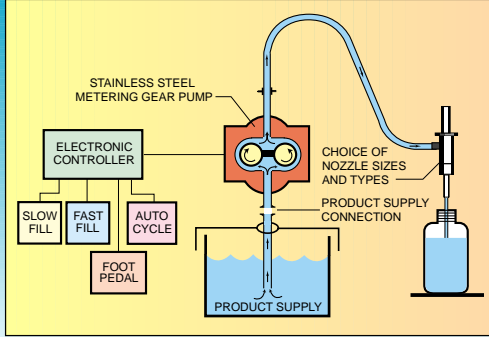
INTRODUCTION

All **FILLS-ALL®** quality fillers are designed for multipurpose filling operations– from free-flowing to viscous products. Only Kaps-All Packaging Systems, Inc. offers such a wide range of filling methods and techniques. This selection provides you with the best filling system for your specific application. They offer accuracy, repeatability and ease of use with little or no changeover parts. State-of-the-art components offer maximum performance, reliability and versatility to keep pace with your production requirements. **FILLS-ALL** fillers can operate separately or can be integrated into a complete packaging system. A free filling demonstration and testing of your products are available at no cost or obligation.

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Gear Pump Product Flow Diagram



Gear Pump Fillers fill vials to gallons, from water-like liquids to viscous products. Accuracy to ±0.5% or better.

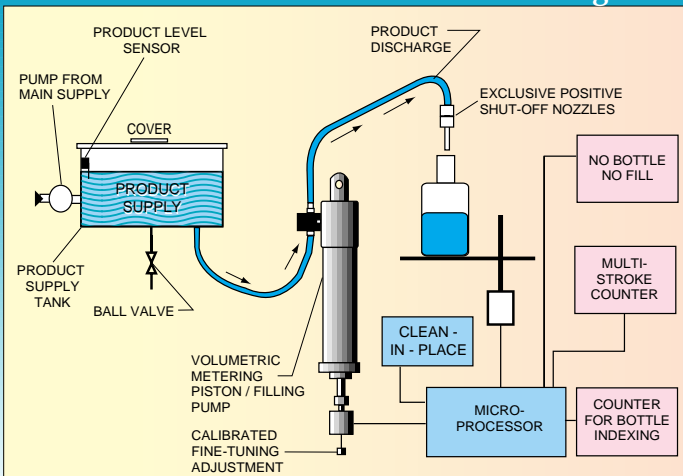
Filling Methods Available:

- Volumetric • Pressure • Rotary •
- Pressure/Gravity • Gear Pump •
- Gravity • Vacuum • Piston •
- Fill-To-A-Level • Cosmetic Fill •
- Electronically Controlled Fill •
- In-Line • Combination Fillers •
- Automatic/Semi- Automatic •

FILLS-ALL Fillers – Ideal For The Entire Spectrum Of Filling Applications

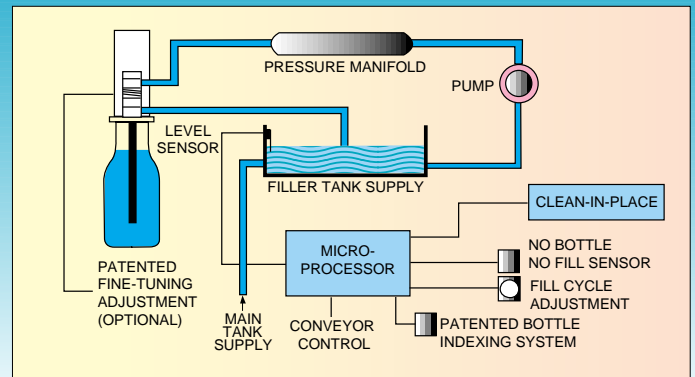
- Pharmaceutical • House-Hold Products • Automotive • Industrial •
- Veterinary • Cosmetic • Biomedical • Paint • Biotech • Chemical •
- Toiletries and Hygienics • Laboratory • Food • Sanitary • And more •

Volumetric Piston Filler Product Flow Diagram



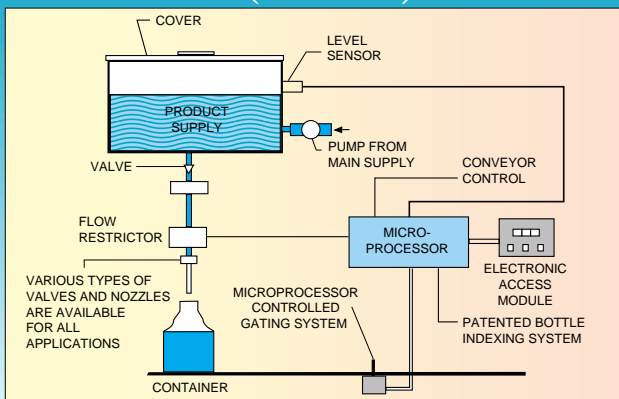
Volumetric Fillers operate from either a floor level reservoir, overhead reservoir or a manifold. A microprocessor controls all filler functions. Handles free-flowing to semi-solid liquids

Pressure/Cosmetic Fill (Fill-To-Level) Product Flow Diagram (Rotary and Straight Line Filler Models)



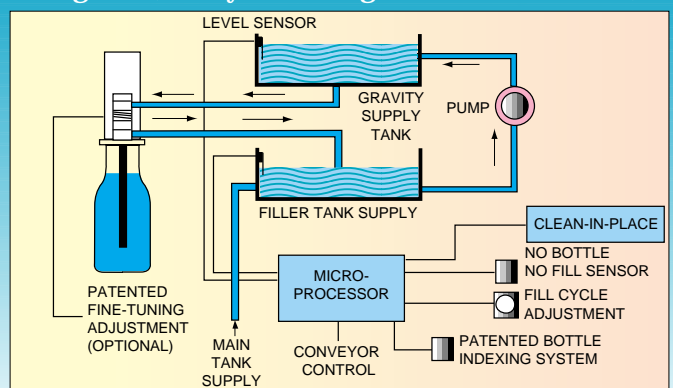
Pressure Fillers handle free flowing to semi-viscous products. An excellent filling system for foaming products. Fills to a pre-determined level.

Timed/Volumetric Product Flow Diagram (Model ECF)



Volumetric/Gravity Fillers are designed to handle free flowing products such as drinks, cleansers, solutions, light oils, etc. A microprocessor with key pad controls allow for individual nozzle settings and fine tuning.

Gravity/Cosmetic Fill (Fill-To-Level) Product Flow Diagram (Rotary and Straight Line Filler Models)



Gravity Fillers handle free flowing up to low-viscous products. An excellent filling system for foaming products. Fills to a pre-determined level.

Exclusive features found on FILLS-ALL® fillers

- Unique design allows for fast changeovers from vials to gallons.
- 1 Stainless steel level sensor for supply tank.
- 2 Adjustable patented bottle gating system (count in, count out).
- 3 NEMA 4 electrical enclosure.
- 4 Main air supply filter/regulator and shut-off with lockout.
- 5 Easy finger-tip controls permit operator easy access to all fill valves and settings.
- 6 Stainless steel CONVEYS-ALL® conveyors with electronic variable speed controls.
- 7 No bottle - no fill electronic controls.
- 8 Easily adjustable nozzle height settings accommodate vials to gallons.
- 9 All supply tanks are specially designed to accommodate FILLS-ALL fillers with minimum waste of product.
- 10 Portable on swivel casters.
- 11 Requires minimal floor space.
- 12 Finger-tip nozzle positioning.

- 13 Standard operator safety guards are provided with all automatic FILLS-ALL fillers.
- 14 Bottle counter.
- 15 Precision stainless steel nozzle rack.
- 16 Stainless steel leveling screws with floor pads.
- 17 Heavy duty one piece welded stainless steel frame.
- 18 Fully adjustable patented stainless steel conveyor guide rails.
- 19 Programmed electronic microprocessor ensures precision filling and repeatable fast changeovers.

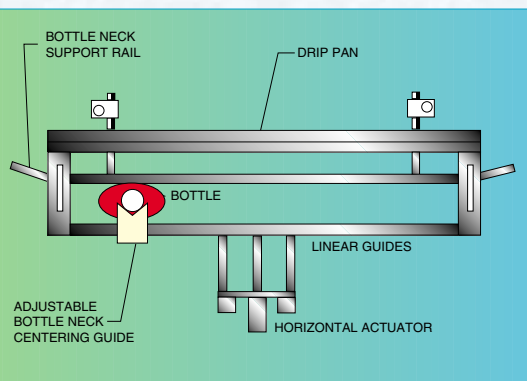
- 20 Nozzles (and valves) available in several sizes, styles and materials for most applications.
- 21 Modular design - expandable from 1 to 24 nozzles. Electronic access module (Model ECF). Stainless steel screws and hardware are standard. Various product supply pumps available to fit all requirements. Numerous patented features aid in accuracy, performance, repeatability and reliability. FILLS-ALL offers many components as standard equipment that are optional, or not available at all on competitive units.



Typical FILLS-ALL® Filler

Bottle Locating System (Neck centering)

A horizontal comb-type bottle neck centering guide for bottles with small or irregular neck openings provides exact bottle positioning for nozzle entry. This adjustable system easily accommodates a wide range of container sizes and shapes. The bottle locating system is available for all models ensuring a trouble-free filling operation.



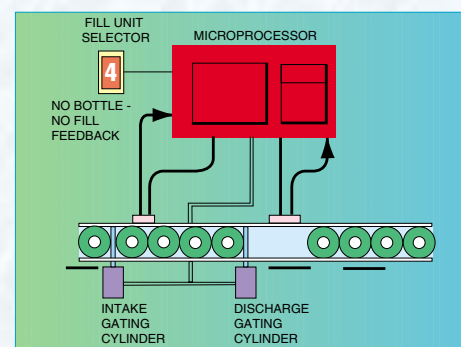
Exclusive Synchronized Dispensing Systems

FILLS-ALL fillers have an exclusive programmed microprocessor and numerous safety features, ensuring that all functions of the filler are synchronized at all times. As examples: 1) The filler cannot discharge product unless the proper number of bottles have entered the filling stage area and until all the previously filled bottles have left. 2) The conveyor speed can be varied at any time during the fill cycle without further timer adjustments. 3) Filled bottles cannot leave until the nozzles are completely up and out of the bottles. 4) Pistons cannot dispense product unless completely aspirated. 5) Filling cannot occur unless nozzles are in the bottles, etc.

Exclusive Container Indexing Systems (Patented)

All automatic FILLS-ALL fillers have an improved method for feeding and positioning containers into and out of the filling stage area. The microprocessor counts the correct number of bottles to be filled, then closes the gating stage. The conveyor automatically stops for a more gentle fill before filling begins. After fill completion, downstream gating opens and counts the bottles leaving to ensure a complete cycle. Simple control settings allow operator to set the correct number of nozzles being used. This unique system eliminates the need for star wheels, screw indexes and other costly change parts. This system also reduces

costly set-up time between changeovers, and eliminates the need for time consuming no bottle-no fill delay settings.



Pressure, Gravity and Pressure-Gravity Fillers

FULLY-AUTOMATIC (COSMETIC/FILL-TO-A-LEVEL)

PRESSURE FILLER MODEL FA-P



FEATURES FOR ALL COSMETIC/ FILL-TO-A-LEVEL MODELS:

FILLER METHOD:

Cosmetic fill-to-a-level. Containers are filled to an operator set level. Excess fill or foam is returned to supply tank (See flow diagram on page 2).

VERSATILITY (Standard):

Change product, fill volume and fill rate in minutes. Fills most free flowing liquids on one machine with a volume range of vials to gallons. Calibrated finger-tip volume controls and electronic sequencing ensure repeatable and fast changeovers with little to no change parts.

EASE OF OPERATION

(Standard):

FILLS-ALL® fill-to-a-level fillers are easy to set-up and operate. They require no skilled operators. The filling machines come with a two year guarantee — the longest in

the industry. **FILLS-ALL** cosmetic fillers operate quietly with only one main moving part thereby reducing downtime and maintenance costs. Disassembles quickly for cleaning or can be cleaned-in-place (CIP).

1 FINE TUNING ADJUSTMENT (Optional-Patented):

Each filling nozzle can be fine-tuned to adjust the fill level dispensed with calibrated settings. (See inset photo - above).

2 NO BOTTLE—NO FILL (Standard-Patented):

Sensor allows filler to wait until there are bottles under all of the nozzles before initiating the fill cycle. Bottles are counted in and out to minimize fill cycle time, and maximize performance.

3 FILLING NOZZLES: (Standard):

Several sizes and types are available. These closed tip nozzles are designed to provide the operator with an efficient foam-free fill. Stainless steel is standard and other materials are available for difficult applications. Nozzles are automatically lowered into the containers initiating the fill cycle, thus minimizing foaming and splashing.

4 NOZZLE RACK (Standard):

The stainless steel track is long enough to allow complete adjustability of nozzle quantity and positions. Expandable from two (2) to twenty-four (24) nozzles. Conforms to a wide range of bottle shapes, sizes and heights with the use of a simple built-in gauge.

5 ELECTRICAL (Standard):

For easy cleaning, NEMA 4 electrical enclosures and components are used to allow for wash-down of equipment. Electronics and electrical components are modularized for quick replacement. **FILLS-ALL** fill-to-a-level fillers feature one main control panel with all controls within easy reach. Hazardous location controls available upon request. Power safety lockouts.

6 TANKS AND MANIFOLDS (Standard):

Fabricated of stainless steel and other suitable materials. Tanks and manifolds utilize sanitary, easy to clean, unique designs which eliminate product waste.

**COMBINATION
PRESSURE-GRAVITY
FILLER
MODEL FA-PG**



Operator safety guards removed for clarity.

**GRAVITY
FILLER
MODEL FA-G**



12 CONSTRUCTION (Standard):
One piece welded all stainless steel frame on swivel casters for portability, complete with floor pads and stainless steel leveling screws for installation. Unique design allows user the option of placing filler over an existing conveyor or with its own optional stainless steel variable speed conveyor providing a uniform, stable surface for vials to gallons. Conveyors come standard with electronic variable speed controls and are available up to 38 feet long.

10 ELECTRONIC MICROPROCESSOR (Standard):

Programmed controller automatically sequences all machine functions for trouble-free filling cycles, eliminating the need for separate timers, timing set-ups and lengthy changeovers.

11 BOTTLE COUNTER (Standard):

Digital counter automatically keeps track of the number of bottles filled. Can be reset between runs assisting operator in determining production count.

BOTTLE CENTERING GUIDES (Optional):

Available with horizontal comb-type bottle centering neck locator for applications requiring exact nozzle entry. (See diagram on page 3 and photo 23 on page 7).

OTHER ACCESSORIES AND FEATURES AVAILABLE:

- Low cost means of filling a wide range of free-flowing to semi-viscous liquids.
- In-place cleaning capability.
- Intermittently stopping conveyor.
- Final filtering available.
- Bottle neck centering guide.
- Minimal lubrication required.
- Compact design requires a minimal amount of conveyor space.
- In-case filling capability.
- Vacuum filling.
- Gas purging prior to or after filling.
- Advanced design eliminates the antiquated filling method of multiple cams and numerous moving parts.
- Semi-automatic models for short runs.
- Custom designs for special applications are also available.
- RS-232 connections for computer and remote operation.

7 ANTI-BACKUP BOTTLE DETECTOR (Optional):

If filled containers backup into the nozzle filling area, the filler will automatically pause and wait for downstream machinery to catch up and then automatically resume the filling cycle.

8 NOZZLE DRIP PAN (Optional - Patented):

Automatic cam operated stainless steel pan will catch any hard to handle drip prone products. Easily adjustable for most container styles and sizes.

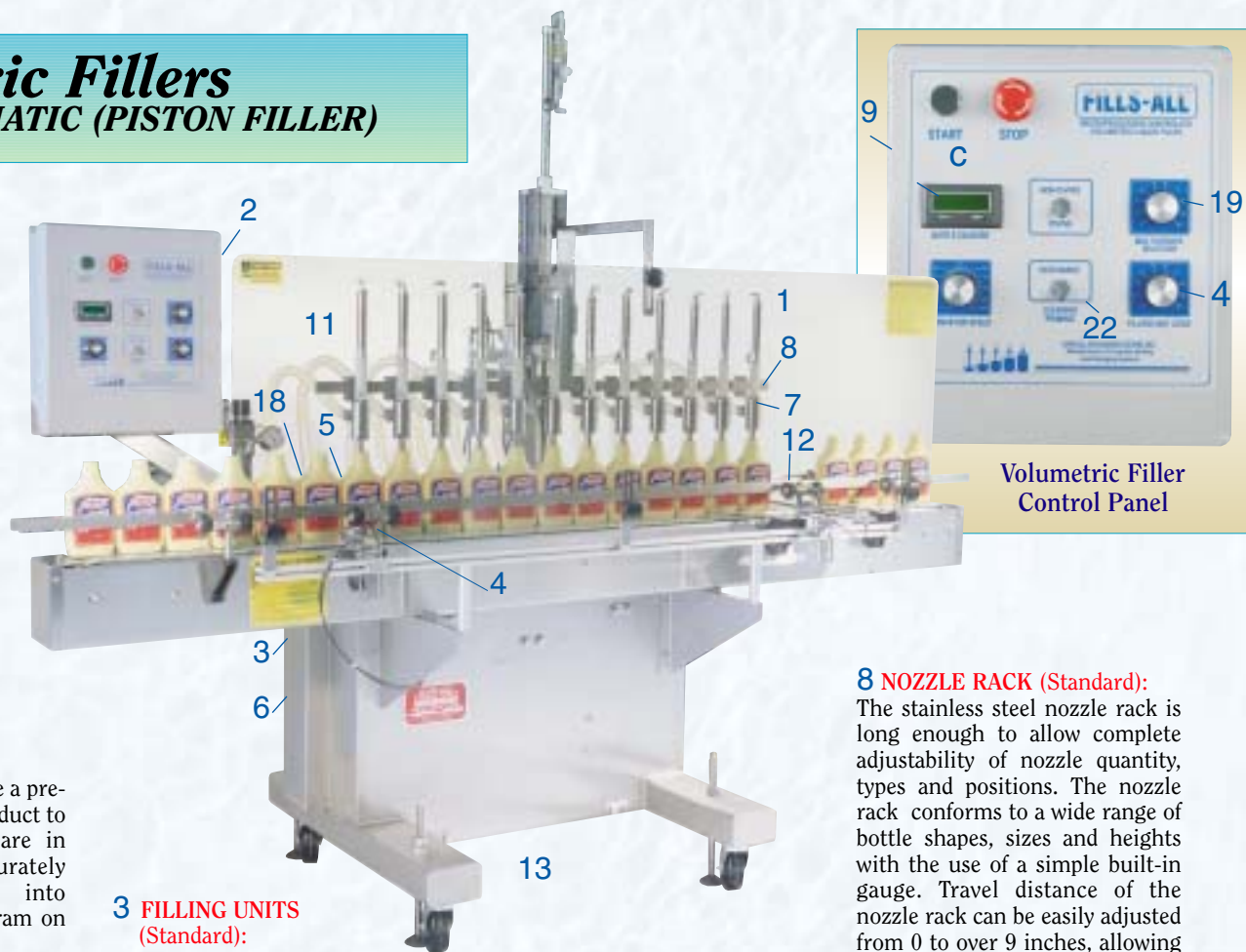
9 AUTOMATIC GATING INDEXING SYSTEM (Standard):

Stainless steel cylinders automatically locate the empty containers under the filling nozzles. After filling, the containers are released and the cycle is repeated. This system is ideal for a wide variety of bottle shapes and sizes since the stainless steel cylinders are mounted on fully adjustable stainless steel support brackets. This unique system counts bottles in and out for trouble-free operation with no changeover parts.

Volumetric Fillers

FULLY AUTOMATIC (PISTON FILLER)

FULLY AUTOMATIC VOLUMETRIC PISTON FILLER MODELS VOL-32-4, and VOL-32-8



Volumetric Filler Control Panel

FILL METHOD:

Piston filling units aspirate a pre-determined amount of product to be filled. When bottles are in place, the pistons accurately dispense the product into containers (See flow diagram on page 2).

VERSATILITY (Standard Patented):

Microprocessor allows for change of product, fill volume or fill rate in minutes. Finger-tip controls adjust a fill volume range of as much as 10 to 1 (or greater) with a single knob control. Infinitely adjust your fill rate with simple calibrated dials. Fill flowable liquids and semi-liquids on one machine. Calibrated volume controls ensure repeatable and fast changeovers.

1 EXPANDABLE FILLING SYSTEM (Standard):

Modular design is easily expandable from two (2) to twenty-four (24) filling units and nozzles which can easily be added to increase your production line capacity as required. One volumetric filler model can handle a full filling volume range from several milliliters to gallons. (See chart on page 9).

2 ELECTRONIC MICROPROCESSOR (Standard):

The programmed controller sequences all machine functions for trouble-free filling cycles and eliminates the need for timers, timing set-ups and lengthy changeovers.

3 FILLING UNITS (Standard):

FILLS-ALL® fillers feature Type 316 stainless steel self-priming, positive displacement, volumetric piston metering pumps at the heart of its filling system. A 35cc pump is offered for micro-fills and an 1100cc piston pump for fills of 1 gallon or more. All FILLS-ALL piston pumps are highly accurate and can be easily and rapidly disassembled, minimizing downtime, or they can be cleaned in place (CIP). Pumps are interchangeable, eliminating the need for multiple filler models. Units are capable of filling water-thin to highly viscous products. Teflon and other special compound piston seals eliminate metal to metal contact. (See chart, Page 8).

4 AUTOMATIC GATING AN INDEXING SYSTEM (Standard-Patented):

Stainless steel cylinders automatically locate empty containers under the filling nozzles. After filling, the containers are released and the cycle is repeated. Unique patented system counts bottles in and out for trouble-free operation. This system is ideal for a wide variety of bottle shapes and sizes since the stainless steel cylinders are mounted on fully adjustable stainless steel support brackets, permitting rapid adjustment.

5 MASTER VOLUME CONTROL (Standard Patented):

One control knob accurately sets the desired fill volume on all the filling units simultaneously. Changeover time is greatly reduced and repeatability is assured by utilizing the calibrated controls provided on the filler.

6 FINE TUNING ADJUSTMENT (Standard):

In addition to the master volume control feature, each filling unit can be individually fine-tuned to adjust the volume dispensed by each nozzle with calibrated settings.

7 FILLING NOZZLES (Standard-Patented):

Available in several designs including: Check valve type

- Closed tip
- Positive cut-off
- Spring return
- Combination check valve closed tip spring return
- Air actuated closed tip positive cut-off.

The nozzles are designed to provide the operator with a drip free, foam free and string free fill. Fabricated of Type 316 stainless steel. Other materials available.

8 NOZZLE RACK (Standard):

The stainless steel nozzle rack is long enough to allow complete adjustability of nozzle quantity, types and positions. The nozzle rack conforms to a wide range of bottle shapes, sizes and heights with the use of a simple built-in gauge. Travel distance of the nozzle rack can be easily adjusted from 0 to over 9 inches, allowing for the exact range of bottom-up fill desired.

9 ELECTRICAL (Standard):

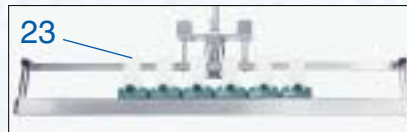
For easy cleaning, NEMA 4 electrical enclosures and components are used to allow for wash down of equipment. FILLS-ALL fillers feature a main control panel with all controls within easy reach. Hazardous location controls available upon request.

10 INDEPENDENT SPEED CONTROLS (Standard-Patented):

The aspirating and discharge rates are hydraulically controlled and can be independently adjusted with calibrated settings allowing for full operator control when filling products of varying viscosities and properties.

11 ADJUSTABLE SUCK BACK (Standard with check valve nozzles):

Excess liquid at nozzle opening is sucked back into the nozzle providing a clean, sharp cut-off at the completion of the fill cycle, thereby preventing dripping or stringing of most products. This unique system offered by FILLS-ALL allows for the degree of suck back to be adjusted without the need for vacuum. (For check valve type nozzles and pistons only).



12 ANTI-BACKUP BOTTLE DETECTOR (Optional):

If filled containers backup into the nozzle filling area, the filler will automatically pause and wait for the jam downstream to clear and then automatically resume the filling cycle.

EASE OF OPERATION (Standard):

FILLS-ALL® fillers are easy to set-up and operate. They require no skilled operators. Filling units, electronics and electrical components are modularized for quick replacement. The filling machines come with a two year guarantee—the longest in the industry. The Model VOL-32 **FILLS-ALL** fillers operate quietly with only one main moving part. Downtime and maintenance costs are minimized due to little or no changeover parts. Disassembles quickly for cleaning or can be cleaned-in-place (CIP).

ACCURACY (Standard):

Piston filling units are available for accuracies to $\pm 0.5\%$ or better. This insures against underfill and overfill eliminating product give-away. Calibrated incremental gauges assure quick changeover and repeatability.

13 CONSTRUCTION (Standard):

One piece welded stainless steel frame on swivel casters for portability. Unique design allows user the option of placing filler over an existing conveyor or its own optional stainless steel variable speed conveyor.

14 BOTTOM-UP FILLING SYSTEM HYDRAULICALLY REGULATED (Standard):

When nozzles are automatically lowered into the containers initiating the fill cycle, the rate that nozzles rise can be precisely controlled and operator-adjusted to obtain optimum performance for the product being filled. This minimizes foaming, splashing and eliminates air pockets for viscous materials. After filling is complete, the nozzle rack rises rapidly to allow for faster cycling. A non-diving nozzle mode and a fixed preset filling position mode are standard.

15 HOLDING TANK (Optional):

Portable on casters, and fabricated of stainless steel, this unique design eliminates product waste and is available in several sizes including a standard 30 gallon capacity. Easy to clean and available with options such as covers, level sensors, automatic valves, pumps, etc.

16 SHUTTLE VALVE FILLING UNITS/PISTONS (Patent pending):

The **FILLS-ALL** exclusive shuttle valve pistons are designed to handle highly viscous products and products with particulates. The units clamp together with sanitary seals for ease of cleaning and for sensitive products.

17 DUAL DISCHARGE SPEED CONTROL (Optional):

Allows operator to have one or two discharge fill rates during same fill cycle. Permits faster fills for tapered and long neck containers.

18 NO BOTTLE — NO FILL (Standard-Patented):

Sensor allows filler to wait until there are bottles under all of the nozzles before initiating the fill cycle. Bottles are counted in and out to minimize fill cycle time, and maximize performance.

19 MULTI-STROKE COUNTER (Optional):

Electronic digital switch allows operator to program the number of times the piston pumps will be actuated, thereby dispensing a larger volume of product than would normally be possible with any given pump size. Typical applications are filling 16oz. containers with 5oz. pumps or filling 1/2 gallon containers with 36oz. pumps.

20 BOTTLE COUNTER (Standard):

Digital counter automatically keeps track of the number of bottles filled. Can be reset between runs assisting operator in determining production count.

21 FINGER-TIP NOZZLE POSITIONING (Standard-Patented):

No tools needed for mounting or positioning of nozzles.

22 CLEANING AND PRIMING SWITCH (Standard):

Pistons (filling units) and nozzles can be cycled for rapid cleaning and product priming.

23 BOTTLE CENTERING GUIDES (Optional)

Available with a fully adjustable horizontal comb-type bottle centering neck locator for applications requiring exact location nozzle entry. (See diagram on page 3 and photo 23 above).

OTHER ACCESSORIES AND FEATURES (Standard):

- Low cost means of filling a wide range of free-flowing to viscous liquids
- Hazardous location controls are available
- Intermittently stopping conveyor
- Minimal lubrication required, eliminating downtime due to faulty maintenance
- Drip pan for hard to handle products
- Compact design — minimal amount of floor space required.
- In-case filling capability
- Nitrogen purging prior to or after filling
- Advanced design eliminates the antiquated filling method of multiple cams and numerous moving parts
- Heated molten product filling
- Custom designs for special applications are also available.

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Compact Volumetric Fillers

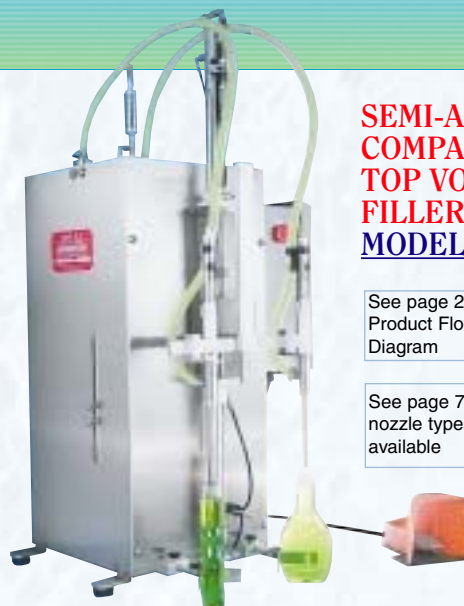
AUTOMATIC and SEMI-AUTOMATIC (PISTON FILLER)

**FULLY AUTOMATIC
COMPACT
VOLUMETRIC
FILLER**
(Shown with
Optional
CONVEYS-ALL®
Conveyor)
Model VOL-A



Automatic and semi-automatic piston fillers (Models VOL-A and VOL-B) have most of the same features as the full sized Model VOL-32 filler (pages 6-7). These highly accurate, economical fillers are ideal for applications such as: reduced speeds, short production runs, limited space and trial runs where precision filling of a wide range of product is required.

SEMI-AUTOMATIC COMPACT BENCH- TOP VOLUMETRIC FILLER **MODEL VOL-B**



See page 2 for
Product Flow
Diagram

See page 7 for
nozzle types
available

ESTIMATED PRODUCTION AND MAXIMUM NUMBER OF FILLING UNITS FOR MODEL'S VOL-A, VOL-B, VOL-32-4 and VOL-32-8

Standard Filling/ Unit Sizes		1 oz. 35cc	3 oz. 95cc	5 oz. 150cc	10 oz. 300cc	20 oz. 600cc	36 oz. 1100cc
Maximum	MODEL "VOL-A"	4	4	4	2	2	2
Number of	MODEL "VOL-B"	2+	2+	2+	2	2	2
Filling Units	MODEL "VOL-32-4"	12+	12+	12+	12	8	4
(Pistons and	MODEL "VOL-32-8"	12+	12+	12+	12	10	8
Nozzles)							
Estimated*	MODEL "VOL-A"	60	40	30	24	16	10
Maximum	MODEL "VOL-B"	24	18	16	14	12	8
Production	MODEL "VOL-32-4"	200	150	90	72	40	20
Rate B.P.M.	MODEL "VOL-32-8"	200+	150+	90+	72+	50	36

*Based on water with Boston Round containers in non-diving mode. Flow properties of product, fill volume and container design will determine actual filling speeds.

+More filling units may be added for special applications. (One cc equals 1 milliliter).

Gear Pump Fillers

**Fills Vials To Gallons –
Water-like to Viscous
Products**

**SEMI-AUTOMATIC,
COMPACT
BENCH TOP
FILLER**
Model FA-GB



See page 7 for
nozzle types
available

See page 2 for
Product Flow
Diagram

Compact/Semi-Automatic

- Big machine features in a compact design
- Accuracy to $\pm 0.5\%$ or better.
- Ideal for a wide range of products.
- Quick setups and changeover with calibrated settings.
- Rugged all stainless steel construction.
- Dripless, precise fills.
- No tools required for fast and easy setup and cleaning (User friendly).
- 316 stainless steel metering pump and product contact parts (seals available in several materials).
- Sanitary ferrules with quick release stainless steel sanitary clamps for easy cleaning of pump and nozzles.
- Pre-wired for foot pedal operation when auto-cycle timer is not used.

Electronically Controlled, Timed-Volumetric Fillers

Low Cost Premium Fillers

CHECK THESE FEATURES:

Fill Method: By accurately maintaining a constant head pressure and having a valve control of 1/10 or 1/100 of a second, precise volumes are dispensed. (See flow diagram on page 2).

1 Change product, fill volume and fill rate in minutes.

Fill a wide variety of free-flowing products on just one machine.

2 Electronic microprocessor sequencing ensures repeatability and fast changeovers for all machine functions.

3 Accuracies up to $\pm 0.5\%$ or better.

Requires no skilled operators.

4 No moving parts eliminates downtime and maintenance.

5 Disassembles quickly for easy cleaning or can be cleaned in place (CIP).

Comes with a two-year guarantee—the longest in the industry.

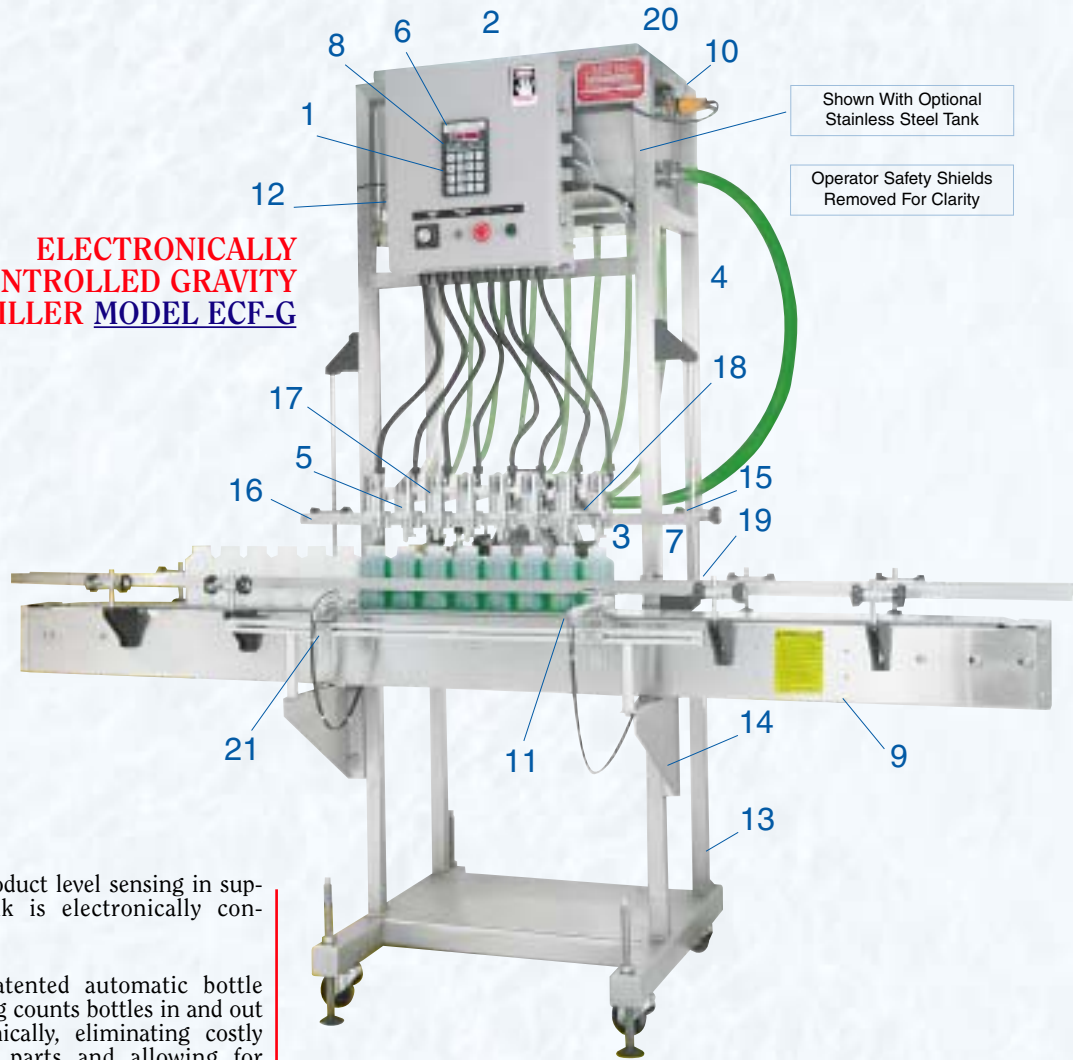
6 Microprocessor with key pad controls, allows for individual nozzle settings and fine tuning.

7 Electronically controlled no bottle/no fill safety feature.

8 Electronic bottle counter to keep track of bottles filled.

9 Intermittent or continuous motion conveyor.

ELECTRONICALLY CONTROLLED GRAVITY FILLER MODEL ECF-G



Shown With Optional Stainless Steel Tank

Operator Safety Shields Removed For Clarity

10 Product level sensing in supply tank is electronically controlled.

11 Patented automatic bottle indexing counts bottles in and out electronically, eliminating costly change parts and allowing for rapid changeovers.

12 For easy cleaning, NEMA 4 electrical enclosures are used to allow for wash down of equipment. **FILLS-ALL®** fillers feature a main control panel with all controls within easy reach.

13 Rugged one-piece welded frame construction with swivel casters for mobility and stainless steel leveling screws with floor pads for in-line operation.

14 Unique design allows user the option of placing filler over an existing conveyor or can be used with its own optional stainless steel, variable speed conveyor providing a uniform, stable surface for vials up to gallons.

15 Modular design requires no change parts and is expandable from 1 to 9 filling nozzles. To increase your production capacity larger systems of up to 24 nozzles are also available.

16 Sanitary stainless steel nozzle rack allows complete adjustment of nozzle quantity, type and position to conform to a wide range of bottle shapes, sizes and heights.

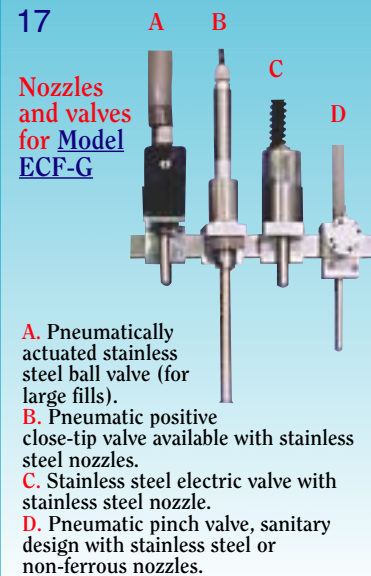
17 Nozzles are designed to provide a drip-free, foam-free and string-free fill. Available in several types and sizes.

18 Finger tip nozzle positioning. Nozzles are easily adjusted by sliding them along a stainless steel nozzle rack without tools.

19 Patented knob adjustments control nozzle rack height. Accommodates vials to gallons.

20 Comes complete with supply tank and cover.

21 Electronically controlled stainless steel gating system is designed for rapid adjustment to handle a wide variety of containers.



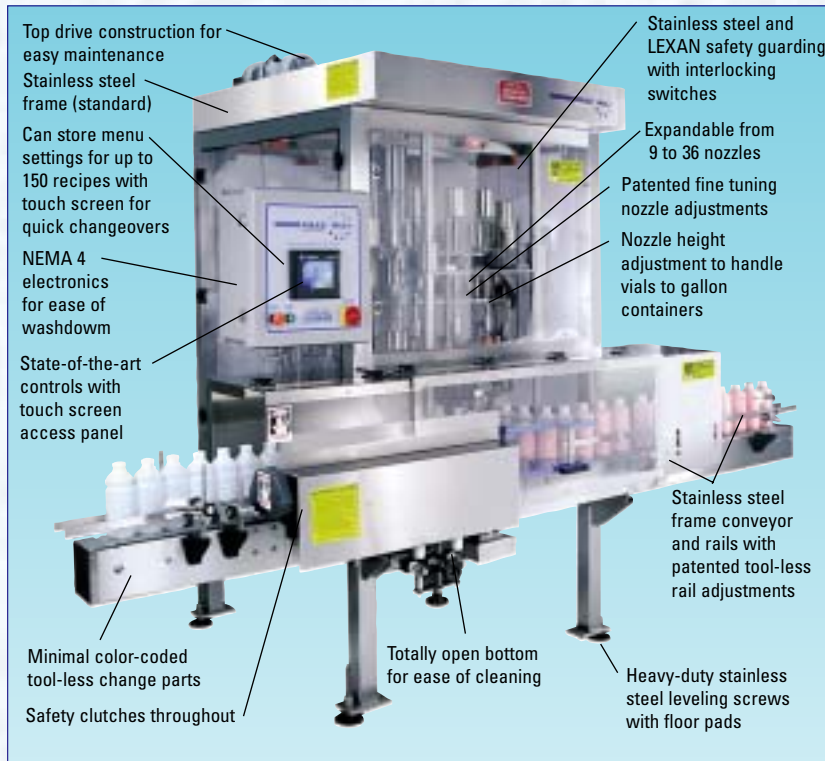
17 Nozzles and valves for Model ECF-G

- A.** Pneumatically actuated stainless steel ball valve (for large fills).
- B.** Pneumatic positive close-tip valve available with stainless steel nozzles.
- C.** Stainless steel electric valve with stainless steel nozzle.
- D.** Pneumatic pinch valve, sanitary design with stainless steel or non-ferrous nozzles.

- User friendly controls and design — Easy to operate.
- Stainless steel nozzle rack with patented stainless steel clamp adjusts nozzle height from vials to 5 gallon containers without tools.
- Color-coded quick nozzle disconnects for cleaning without tools.
- Exclusive dual discharge fill speeds, (fast pre-fill and slow final fill). Ideal for difficult applications.
- Auto-cycle timer allows for continuous bottle filling.
- Pneumatic positive shut-off closed-tip nozzles for light and viscous products are used for splashless drip-free, string-free filling valves (stainless steel 316).
- 2 year guarantee — the longest in the industry.

Versatile, High Speed Rotary Fillers

MODEL FA-R Rotary Filler



Check these features:

- Several models to meet most production requirements (9-36 nozzles).
- PLC controls with available touch screen for easy operation ("Displays everything").
- Filling capacity from vials to gallons with one machine.
- Handles containers of all materials.
- Ultra-heavy duty stainless steel construction—2 year guarantee . . . the longest in the industry.
- Contact parts are stainless steel.
- Numerous built-in safety features—interlocked guarding, No bottle-no fill controls to monitor ALL filling operations.
- Conveyor back-up controls, safety clutches.
- Color coded, tool-less quick changeovers.
- Patented nozzle fill volume adjustment enables easy control of each nozzle for extremely accurate and repeatable fills.
- Quick and easy installation—Easily integrates into your production line.
- Designed and manufactured for long term reliability and durability.
- Maximum performance, minimum cost.
- Foam control, no splashing or spilling, clean fill.
- Numerous available conveniences such as bottle counter, rate meter, digital speed display, pump supply pressure display, menu with recipes for quick changeovers, closed loop controls, jog for easy set-up, etc.
- Uniquely designed manifold/product transfer systems allows for simple, clean, trouble-free filling. "Dual" manifold reduces seals, parts and tubings enabling quicker changeovers and easier cleaning.
- Hazardous location controls available.

Ask about our separate detailed literature on **FILLS-ALL's** complete line of Rotary Fillers

Bottle Cleaning Prior To Filling

CLEAN·N·VAC® Automatic Container Cleaners

Both CLEAN·N·VAC® Models (AC-12 and AC-I) automatically remove dust, dirt, carton lint and other foreign matter. These systems use a combination of high pressure, ionized air and highly efficient vacuuming. The ionizing neutralizes static electricity freeing dust and dirt for effective cleaning. In addition the Model AC-I inverts the containers over an effective cleaning area of up to 30 inches. Models are available as stand-alone units or in conjunction with other equipment such as a FILLS-ALL® FILLER, KAPS-ALL® CAPPER, ORIENTAINER® UNSCRABLERS, etc., or can be integrated into a complete bottling line.

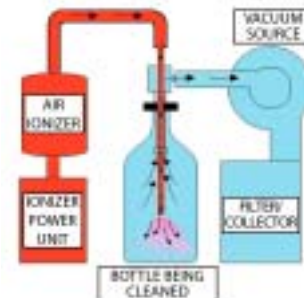
Contact Kaps-All For More Information.



Model AC-I — CLEAN·N·VAC® Continuous Motion Container Inverter/Ionizer and Vacuum Bottle Cleaner



Model AC-12 Clean·N·Vac®



A combination of high pressure, ionized air and highly efficient vacuuming automatically removes dust, dirt, carton lint and other foreign matter.

Custom Filling

FILLS-ALL's experienced engineers are available to work with you on your special filling requirements.



5 Gallon Semi-Automatic Filler and hazardous location fillers



Combination Dual Filler/Capper

Complete Filling And Bottling Systems Are Available For The Entire Spectrum Of Packaging Applications:

- Pharmaceutical • Industrial • Cosmetic • Biotech
- Laboratory • House-Hold Products • Biomedical • Chemical
- Food • Automotive • Veterinary • Paint
- Toiletries • Hygienics and Sanitary • And more!

The Proven Standard® . . . Since 1941.

KAPS-ALL PACKAGING SYSTEMS INC.

KAPS-ALL CAPPER®

FILLS-ALL®

FEED SYSTEMS®

ORIENTAINER®

200 Mill Road, Riverhead, NY 11901 USA
Tel (631) 727-0300 • Fax (631) 369-5939

www.kapsall.com

Orienting, Cleaning, Filling, Material Handling, Conveying, Capping and Sealing Systems

- Combination modular systems can operate together or separately.
- Integrated turn-key systems from unscrambling to cleaning, to filling, to capping to sealing to accumulating.
- Exclusive patented designs have minimal moving parts for quick changeovers.
- Modular design – Expandable to grow with your needs.
- Easy to set-up and operate—No skilled personnel required.
- Various models are available for all applications.
- Handles from vials to gallons, plastic, glass or metal.
- Handles all shapes, heights and diameter containers.
- Rugged stainless steel construction.
- 2 year guarantee – the longest in the industry.
- Free training in our plant.

ADDITIONAL PACKAGING EQUIPMENT:

Kaps-All Packaging Systems, Inc. manufactures vacuum fillers and rotary pump volumetric fillers in addition to gravity, pressure and volumetric fillers. This selection provides you with the best filling method for your specific application. Also, automatic screw cappers, over-cappers, induction foil cap sealers, orienters, feeders, bottle unscramblers, accumulating tables, electronic torque meters, sensors and digital recorders are available to provide full line capabilities from a single source ensuring product compatibility for your filling and capping needs. Our sales and engineering staff is always available if you need additional information.

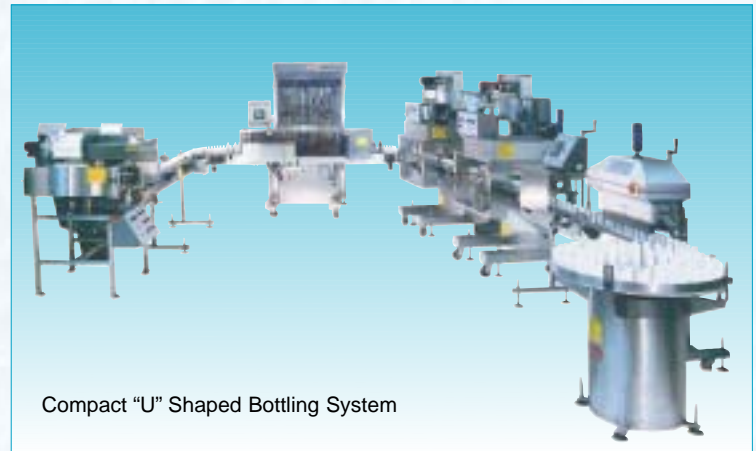
FREE FILLING DEMONSTRATION AND TESTING OF YOUR PRODUCT . . . NO COST – NO OBLIGATION

Contact Kaps-All for an initial evaluation of your products. We also offer free filling demonstrations and testing in our plant without any obligations on your part. We're convinced that once you see the versatility and state-of-the-art design of the **FILLS-ALL®** fillers you will appreciate the positive filling accuracy, dependability and low cost of the various models available. Kindly provide us with your production specifications and product to be tested *(a minimum quantity of 15 times the volume of the largest container to be tested and filled). Approximately 16 containers of each size to be tested should also be submitted .

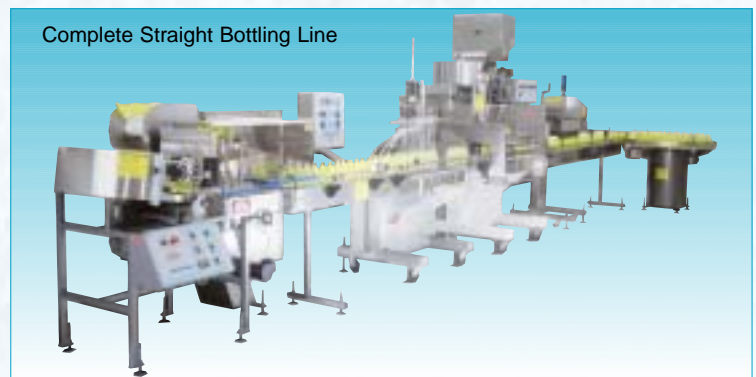
*If hazardous, contact Kaps-All prior to shipping products.



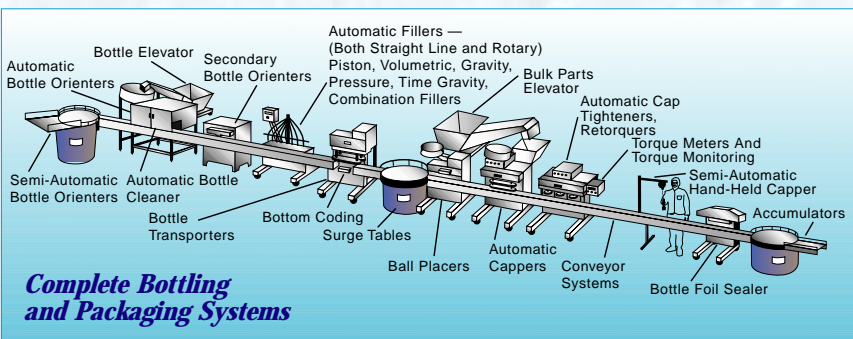
Capper/Sealer/Accumulating Bottling Line



Compact "U" Shaped Bottling System



Complete Straight Bottling Line

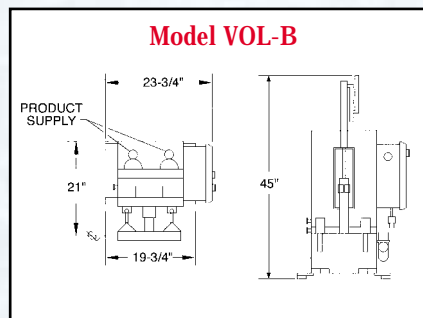
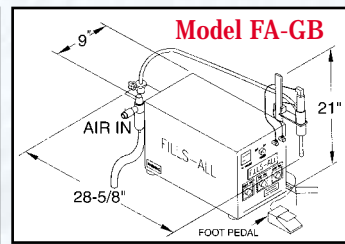
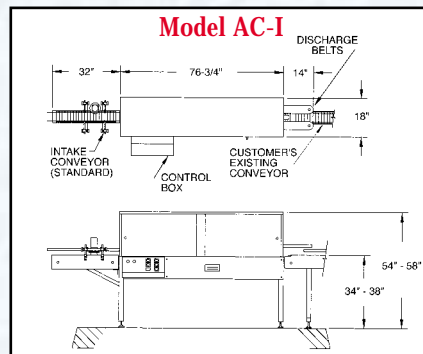
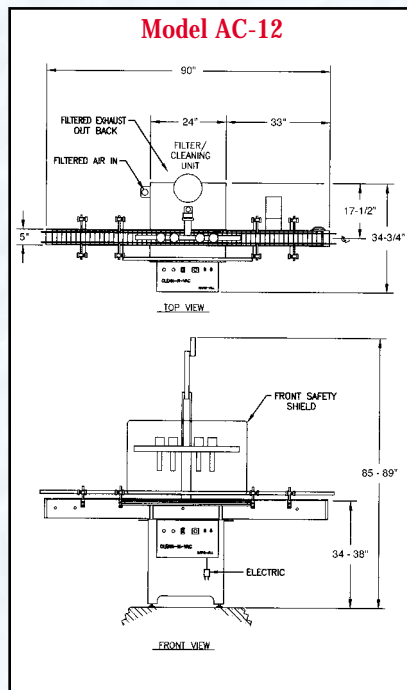
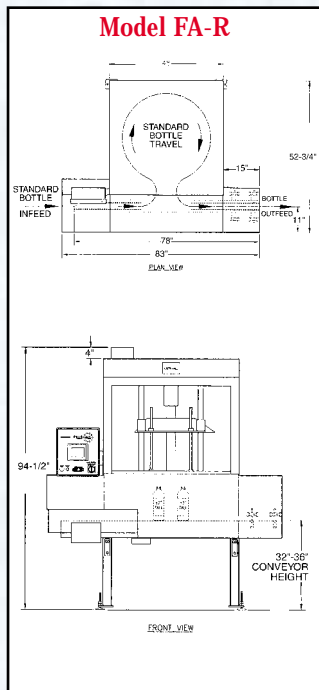
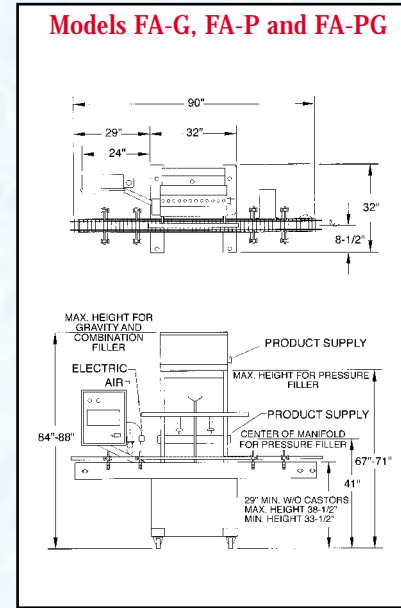
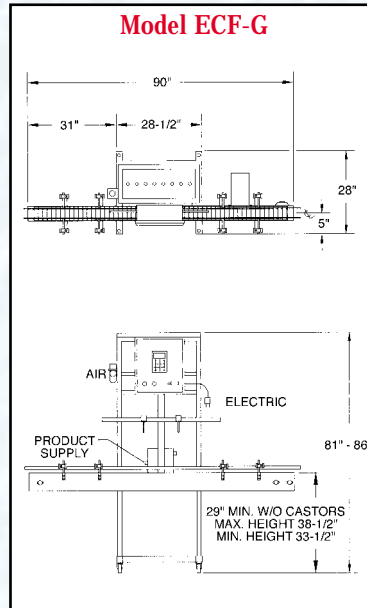
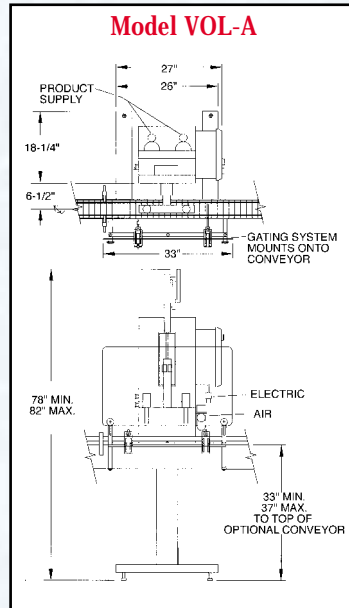
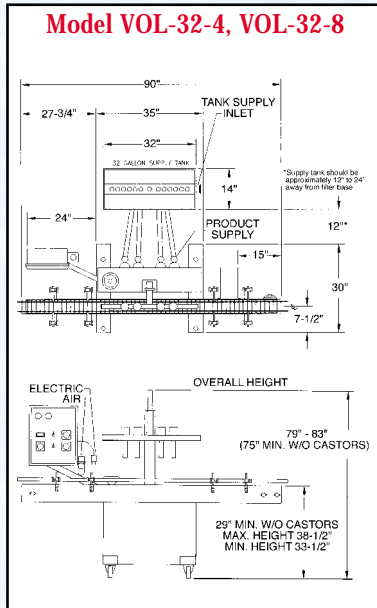


Contact KAPS-ALL today for additional literature on our other fine packaging and bottling machines.



FILLS-ALL® Automatic and Semi-Automatic FILLING MACHINES COMPLETE BOTTLING AND PACKAGING SYSTEMS

DIMENSIONS AND SPECIFICATIONS



Electric and Pneumatic* Requirements

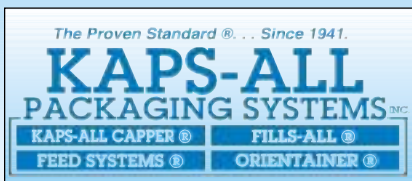
All models operate at 120 volts AC
 60/50 cycles (Hz), 2 Amps.
 (Add 2.3 Amps for conveyor if used).
 (Add 6 Amps for Model FA-GB).
Air Consumption at 90 PSI

Model	S. C. F. M.
FA-R	0
FA-P	1 to 2
FA-G	1 to 2
FA - PG	1 to 2
VOL-32	3 to 4
VOL-A	2 to 3
VOL-B	2 to 3
ECF-G	1
FA-GB	0.1 to 1

S.C.F.M. = Standard Cubic Feet Per Minute
 *Approximate values not including product supply pumps.

All dimensions are in inches unless otherwise noted.

Note: Due to Kaps-All Packaging Systems, Inc. commitment to maintain leadership in the filling and bottling industry, dimensions and specifications are subject to change without notice.



www.kapsall.com



KAPS-ALL PACKAGING SYSTEMS, INC.
 200 Mill Road, Riverhead, NY 11901-3125 USA
 Tel (631) 727-0300 • Fax (631) 369-5939

- KAPS-ALL® Bottle Cappers and Cap Tighteners • FILLS-ALL® Rotary and Straight Line Automatic and Semi-Automatic Liquid Fillers
- Bulk Loaders • FEED SYSTEMS® Rotary and Escalator Parts Feeders • ORIENTAINER® Bottle Orienters and Unscramblers
- Accumulators • CLEAN-N-VAC® Bottle Cleaners • CONVEYS-ALL® Conveyor Systems • Ball Placers • Bottle Carriers
- Heat Induction WATERLESS CAP SEALER® • Inspection Systems • EASY KAP® Hand Cappers • Desiccant Inserters
- Electronic Torque Metering and Monitoring • Custom Packaging Machinery •