

A technical guide to Automatic and Semi-Automatic

Filling Machines

> Complete Bottling and Packaging Systems



- > Fills all containers with free-flowing to viscous products
- > Patented, microprocessor controlled – ensures fast changeovers
- > Expandable, compact stainless steel designs
- > Includes many standard features not found on competitive models
- > 2 year guarantee—The longest in the industry
- > Numerous models and filling methods to fit your exact needs
- > Clean, quiet and accurate filling

The Proven Standard®...Since 1941.



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All **FILLS-ALL®** quality fillers are designed for multipurpose filling operations— from free-flowing to viscous and semi-solid (with particles) 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, clean filling 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 filling demonstration and testing of your products is available at no cost or obligation.

Basic Filling Methods Available

FILLING METHODS AVAILABLE:

- Volumetric · Piston · Rotary · Pressure/Gravity · Gear Pump · Pressure
- Gravity · Fill-To-A-Level · Cosmetic Fill · Electronically Controlled Fill
- In-Line · Dual Lane · Combination Fillers · Automatic/Semi-Automatic.

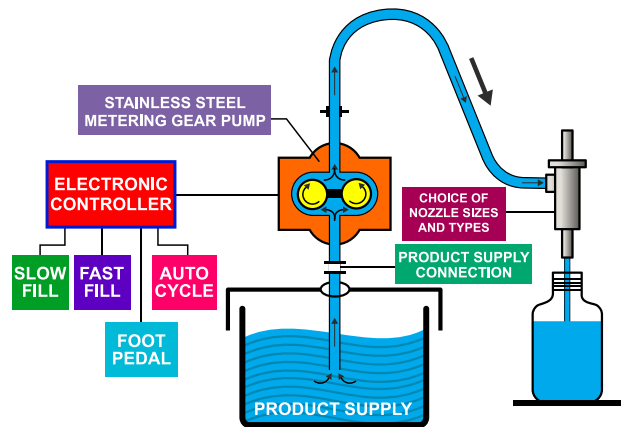
FILLS-ALL® FILLERS ARE IDEAL FOR THE ENTIRE SPECTRUM OF FILLING APPLICATIONS:

- Pharmaceutical · House-Hold Products · Automotive · Industrial · Veterinary
- Cosmetic · Biomedical · Paint · Biotech · Chemical · Toiletries and Hygienics
- Laboratory · Food · Sanitary · Personal Care · Liquids with Particulates

> Gear Pump Product Flow Diagram

FA-GB, FA-GEAR-6 and FA-GEAR-12

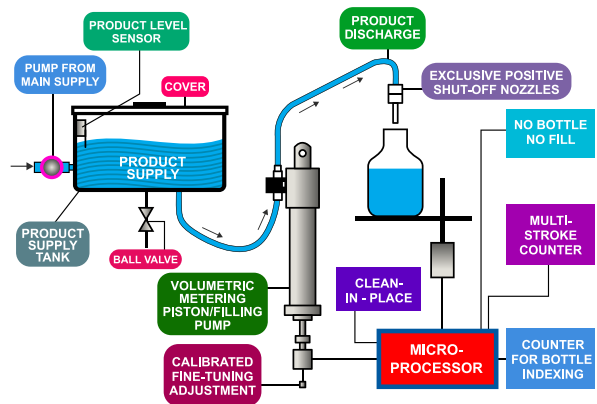
Gear Pump Fillers fill vials to gallons, from water-like liquids to viscous products. High Accuracy.



> Volumetric Piston Filler Product Flow Diagram

VOL-B, VOL-A-E, V-8-E and V-16-S-E

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. Accuracy to +/- .5 %

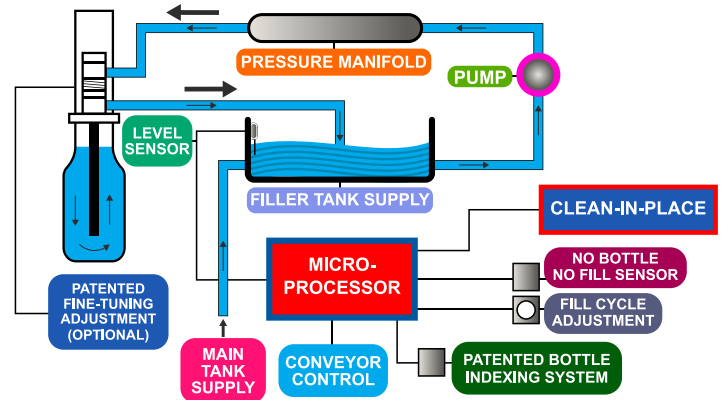


Basic Filling Methods Available

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

FA-P-E, FA-PG-E, FA-R

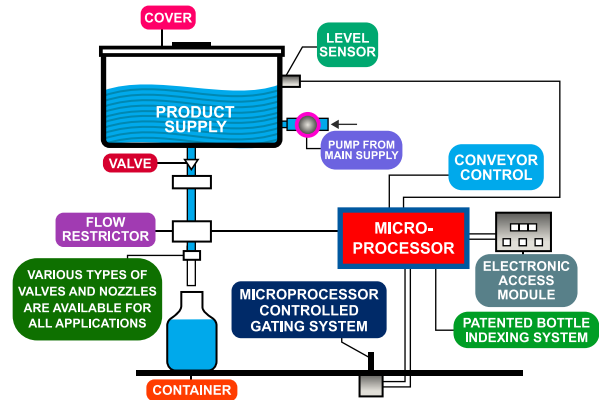
Pressure Fillers handle free flowing to semi-viscous products. An excellent filling system for foaming products. Fills to a pre-determined level.



> Timed/Volumetric Product Flow Diagram

ECF-G

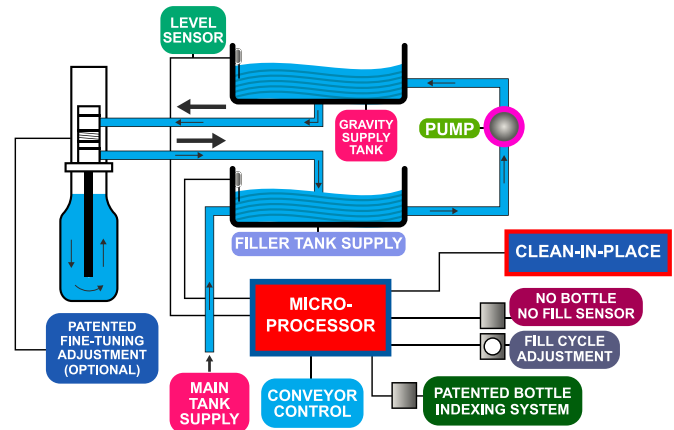
Volumetric/Gravity Fillers are designed to handle free flowing products such as drinks, cleansers, solutions, light oils, etc. A microprocessor with key pad controls allow for individual nozzle settings and fine tuning.



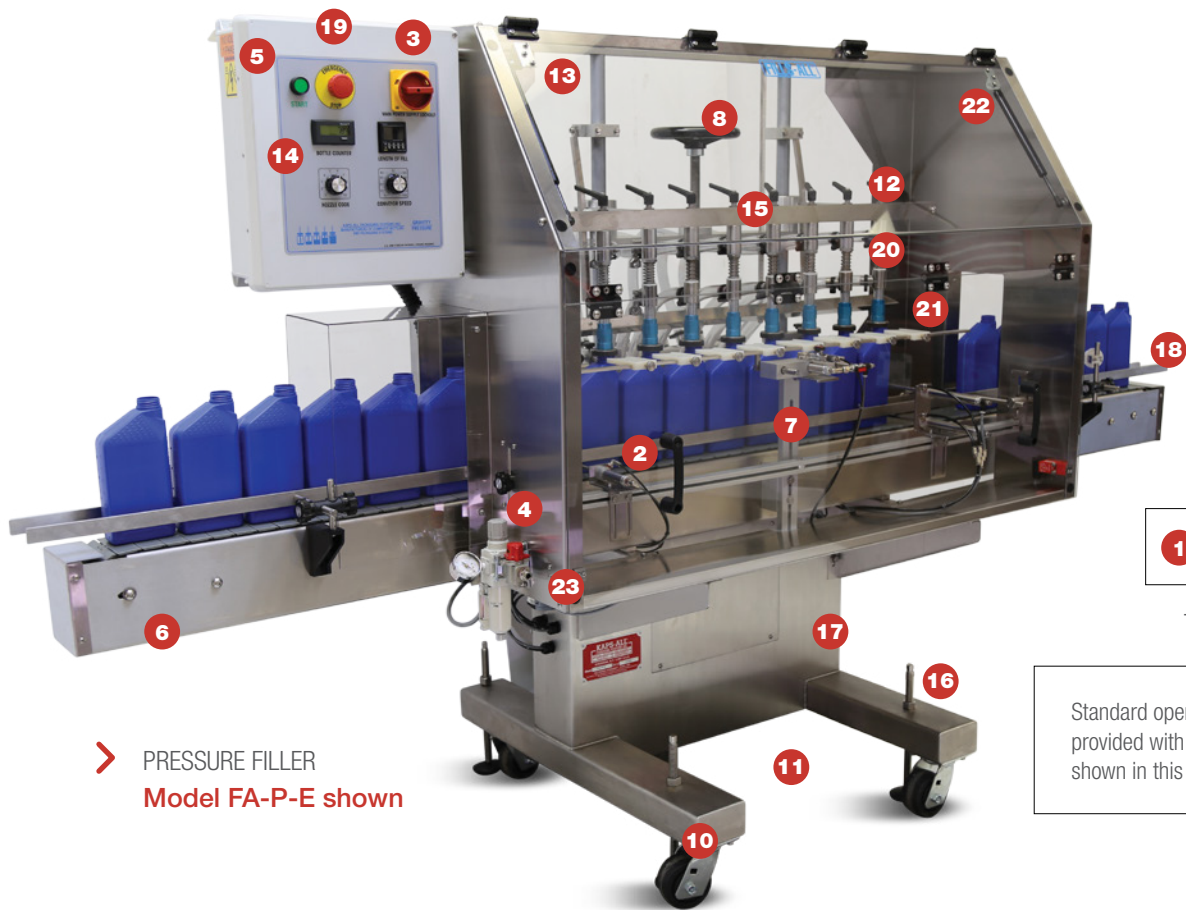
> Gravity/Cosmetic Fill (Fill-To-Level) Product Flow Diagram (Rotary and Straight Line Filler Models)

FA-G-E, FA-PG-E, FA-R

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



➤ **PRESSURE FILLER**
Model FA-P-E shown

1 9 24 25 (Not shown)

Typical **FILLS-ALL®** Filler

Standard operator safety guards are provided with all automatic FILLS-ALL fillers shown in this brochure.

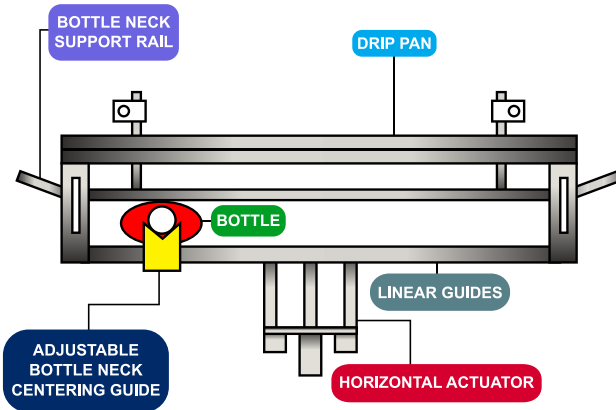
Unique design allows for fast changeovers from vials to gallons.

- 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 values 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 Tool-less.
- 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 rail system.
- 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 (depending on model). 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 features as standard equipment that are optional, or not available at all on competitive units.
- 22** - S.S. and Lexan guarding.
- 23** - Interlocking safety switches.
- 24** - Bottle backup sensor available.
- 25** - All S.S. contact parts with various seal materials available.

Exclusive features available on **FILLS-ALL®** Fillers



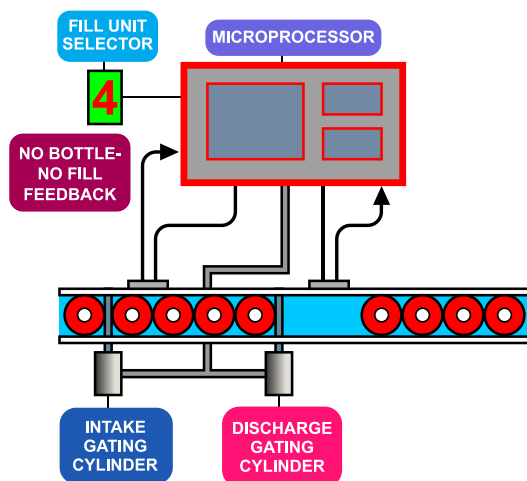
> (SEE PAGE 10, PICTURE 23)

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 without the need for further change parts. The bottle locating system is available for all models ensuring a trouble-free filling operation. Timing screw systems available for the most difficult of bottle designs.

EXCLUSIVE SYNCHRONIZED DISPENSING SYSTEMS

FILLS-ALL® fillers have an exclusive programmed microprocessor with 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 troublesome 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 have entered 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, conveyor re-starts to ensure a complete cycle. Simple control settings allow operator to set the correct number of nozzles being used. This unique system eliminates

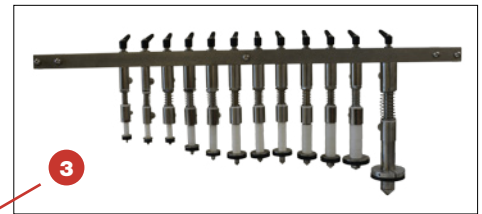
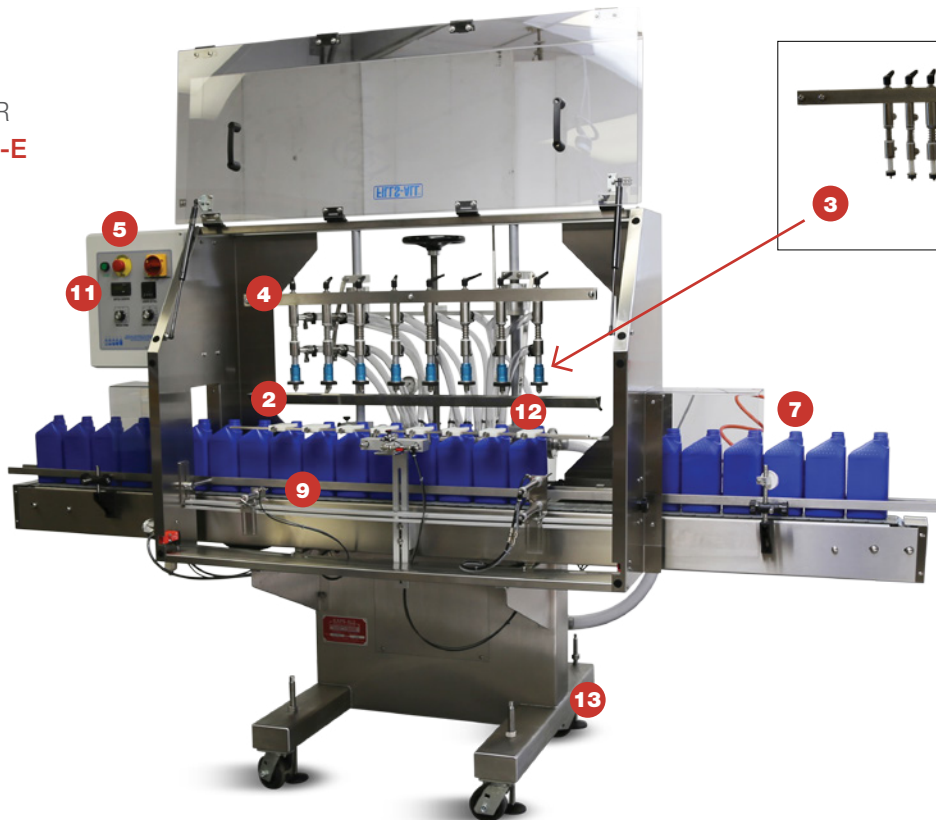
the need for star wheels, screw indexes and other costly change parts. This system also reduces costly set-up time between changeovers, and eliminates the need for time consuming no bottle-no fill delay settings.

Pressure, Gravity and Pressure-Gravity Fillers

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

> PRESSURE FILLER MODEL FA-P-E

Operator safety guard opened for clarity.



Filling Nozzles



Back view of FA-P-E Pressure Filler

EXCLUSIVE SYNCHRONIZED DISPENSING SYSTEMS

FILLING 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 4).

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 individually to adjust the fill level dispensed with calibrated settings. (See photo 1 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.

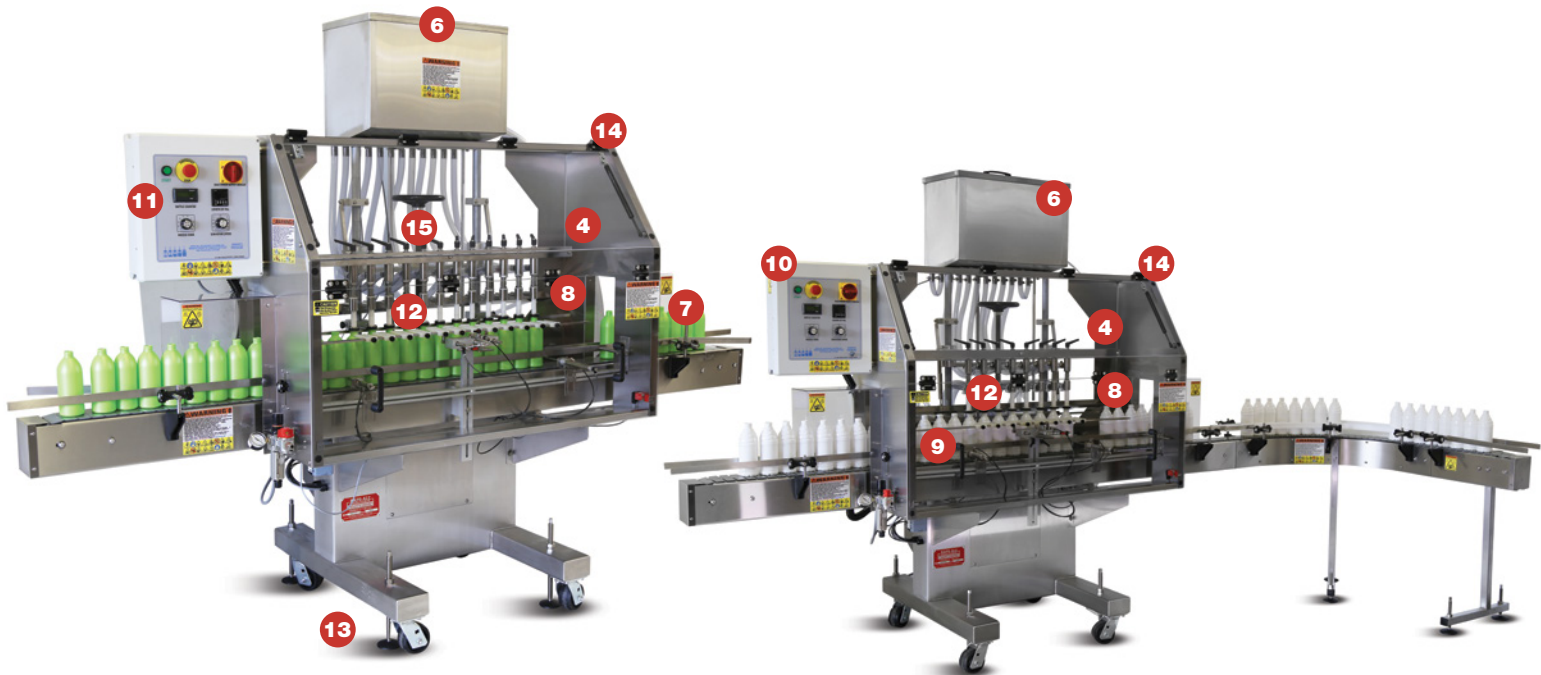
4 - NOZZLE RACK (Standard): The stainless steel track is long enough to allow complete adjustability of nozzle quantity and positions. Expandable from two (2) to twenty-four (24) nozzles. Conforms to a wide range of bottle shapes, sizes and heights with the use of a simple built-in gauge.

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 with-in easy reach. Hazardous location controls available upon request. Power supply safety lockouts.

6 - TANKS AND MANIFOLDS (Standard): Fabricated of 316 stainless steel and other suitable materials. Tanks and manifolds utilize sanitary, easy to clean, unique designs which eliminate product waste.

Pressure, Gravity and Pressure-Gravity Fillers

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



> GRAVITY FILLER **MODEL FA-G-E**

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

7 - ANTI-BACKUP BOTTLE DETECTOR (Optional): If filled containers backup on the conveyor, 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 fill-ing, the containers are released

and the cycle is repeated. This system is ideal for a wide variety of bottle shapes and sizes. 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.

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. It can be reset between runs assisting operator in determining production count.

12 - BOTTLE CENTERING GUIDES (Optional): Available with horizontal comb-type bottle centering neck locator for applications requiring exact nozzle entry. (See diagram on page 6 and photo 23 on page 10).

13 - 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 includes its own stainless steel variable speed conveyor providing a uniform, stable surface for vials to gallons. Conveyors are available up to 38 feet long.

14 - S.S. and Lexan guards with safety interlocks.

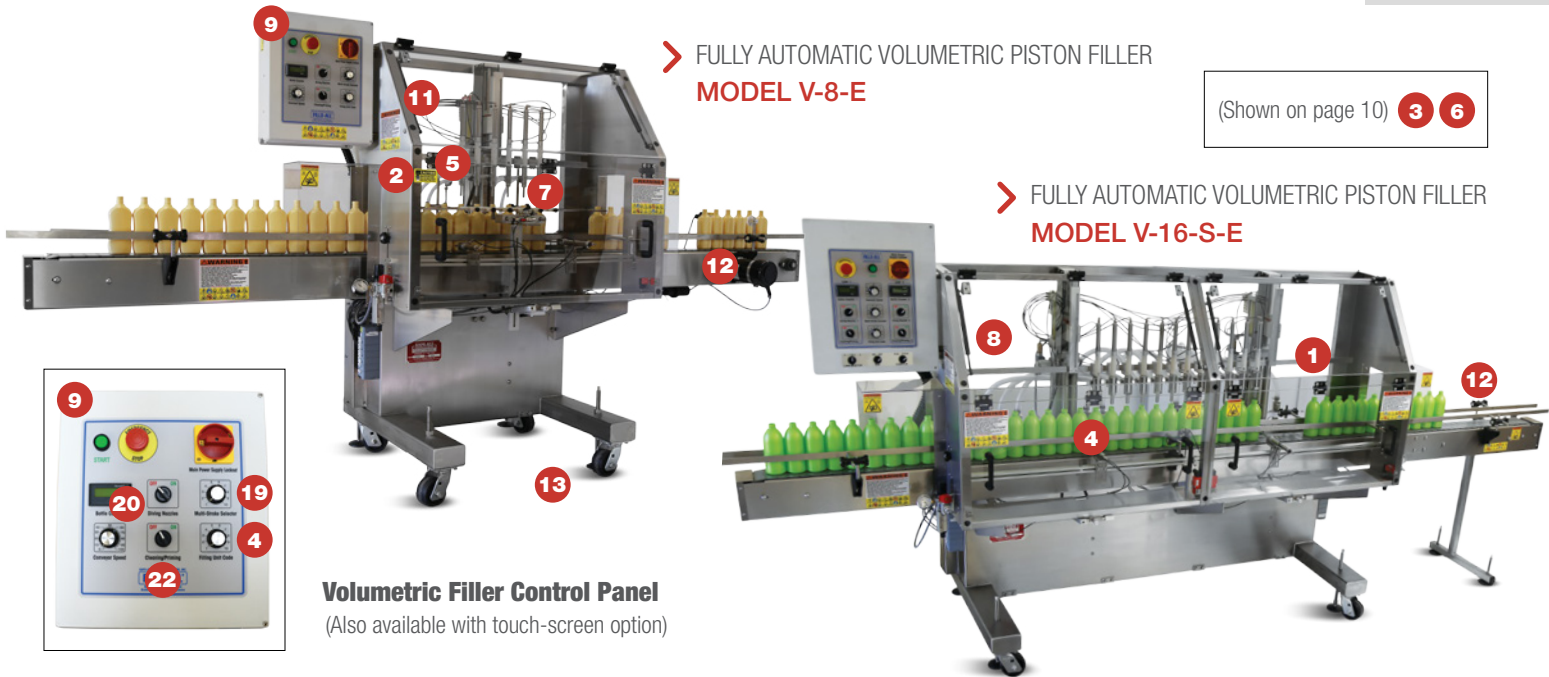
15 - Nozzles enter bottle to minimize splashing and maximize cleanliness.

OTHER ACCESSORIES AND FEATURES AVAILABLE:

- Low cost means of filling a wide range of free-flowing to semiviscous liquids.
- In-place cleaning capability.
- Intermittently stopping conveyor.
- Final filtering available.
- Minimal lubrication required.
- Compact design requires a minimal amount of conveyor space.
- In-case filling capability.
- 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.
- Ethernet connectivity.

Volumetric Piston Fillers

FULLY AUTOMATIC



> FULLY AUTOMATIC VOLUMETRIC PISTON FILLER
MODEL V-8-E

(Shown on page 10) **3 6**

> FULLY AUTOMATIC VOLUMETRIC PISTON FILLER
MODEL V-16-S-E

Volumetric Filler Control Panel
(Also available with touch-screen option)

FILL METHOD: Piston filling units aspirate a predetermined amount of product to be filled. When bottles are in place, the pistons accurately dispense the product into containers (See flow diagram on page 3).

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 filling volume range from several milliliters to gallons. (See chart on page 11).

2 - NO BOTTLE - NO FILL (Standard): 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 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. 12cc to 1100cc pumps are offered for fills up to 1 gallon. 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 11).

4 - AUTOMATIC GATING AND 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. 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 (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.

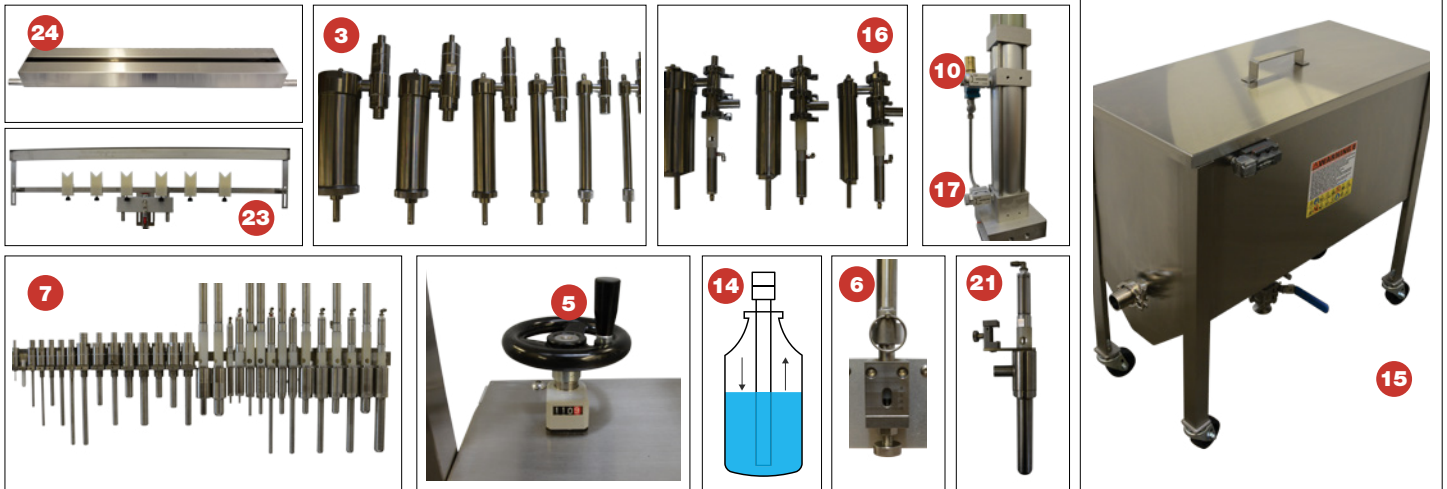
9 - ELECTRICAL (Standard): For easy cleaning, NEMA 4 electrical enclosures and components are used to allow for wash down of equipment. FILLS-ALL® fillers feature a main control panel with all controls within easy reach. Hazardous location controls available upon request.

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, eliminating the need for vacuum. (For check valve type nozzles and pistons only).

Volumetric Piston Fillers

FULLY AUTOMATIC



12 - ANTI-BACKUP BOTTLE DETECTOR

(Optional): If filled containers backup on the conveyor, 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 Models V-8-E, V-16-E-S and V-A-E FILLS-ALL® fillers operate quietly. 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 giveaway. Calibrated incremental gauges assure quick changeover and repeatability.

13 - CONSTRUCTION (Standard): One piece welded stainless steel frame on swivel casters for portability. Unique design includes its own 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. (See photo 15 above).

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 - S.S. AND LEXAN GUARDING (Standard): Operator safety guards are provided to protect operators. Guards include safety interlocks.

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 6 and photo 23 above).

24 - CLEANING TRAY (Optional): For easy cleaning of system after running and minimal downtime between batches (CIP-clean in place).

OTHER ACCESSORIES AND FEATURES

- 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 product filling
- Custom designs for special applications are also available.

Compact Volumetric Fillers

> FULLY AUTOMATIC COMPACT VOLUMETRIC FILLER
(Includes 7' 6" CONVEYS-ALL® Conveyor) **MODEL VOL-A-E**



AUTOMATIC AND SEMI-AUTOMATIC (PISTON FILLER)

Automatic and semi-automatic piston fillers (Models VOL-A-E and VOL-B) have most of the same features as the full sized Model V-8-E filler (pages 9-10). 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 3 for Product Flow Diagram.

See page 10, picture 7 for nozzle types available.

ESTIMATED PRODUCTION AND MAXIMUM NUMBER OF FILLING UNITS FOR **MODELS VOL-A-E, VOL-B, V-8-E, V-16-E-S**

Standard Filling/ Unit Size		1/3 oz. 12cc	1 oz. 35cc	3 oz. 95cc	5 oz. 150cc	10 oz. 300cc	20 oz. 600cc	36 oz. 1100cc
Maximum Number of Filling Units (Pistons and Nozzles)	Model "VOL-A-E"	4	4	4	4	2	2	2
	Model "VOL-B"	2+	2+	2+	2+	2	2	2
	Model "V-8-E"	12+	12+	12+	12+	12	10	8
	Model "V-16-E-S"	24+	24+	24+	24+	24	20	16
Estimated* Maximum Production Rate B.P.M.	Model "VOL-A-E"	60	60	40	30	24	16	10
	Model "VOL-B"	24	24	18	16	14	12	8
	Model "V-8-E"	180+	180+	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.

Gear Pump Fillers Compact/Semi-Automatic

> SEMI-AUTOMATIC, COMPACT BENCH TOP FILLER **MODEL FA-GB**

See page 3 for Product Flow Diagram.

See page 10, picture 7 for nozzle types available.



FILLS VIALS TO GALLONS — WATER-LIKE TO VISCOUS PRODUCTS

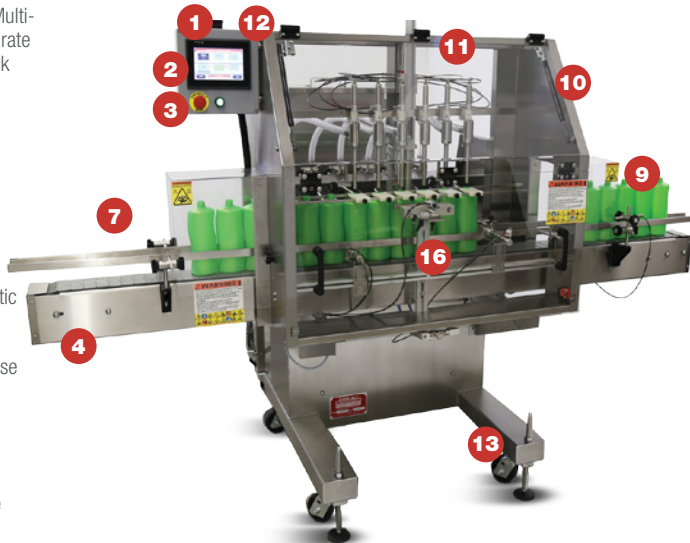
- Big machine features in a compact design.
- Highly repeatable fills.
- Ideal for a wide range of products.
- Quick setups and changeover with calibrated settings.
- Rugged all stainless steel construction.
- Dripless, precise fills.
- No tools required for fast and easy setup and cleaning (User friendly).
- 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.

Gear Pump Fillers

Fully Automatic

➤ AUTOMATIC GEAR PUMP FILLER MODEL FA-GEAR-6

- 1** - Advanced color touch screen controls for ease of operation: Recipes, Multi-Level Password Protection, Accurate High Speed Fill Dispensing, Quick Changeovers, etc.
- 2** - All Washdown Controls for Easy Cleaning
- 3** - Advanced Controls Upgradeable from one - Twelve Nozzles
- 4** - 8' 6" long Stainless Steel Conveyor With Patented Automatic Bottle Gating System
- 5** - Sanitary Product Ferrules For Ease of Pump Setup and Cleaning
- 6** - S.S. Positive Closed tip Nozzles and Check Valve Nozzles from 3/16" to 1" diameter for a Precise Drip-Free Fill Every Time Without the Need for Drip Pans
- 7** - S.S. Patented Adjustable Conveyor Rail System Mounts for Easy Adjustment



- 8** - Multiple Pump Sizes Available for Higher Speed on Large Fills or Better Resolution on Small Fills
- 9** - Conveyor Safety Sensor for Backed-up Bottles
- 10** - Enclosed SS/Lexan Safety Guarding with Interlocks
- 11** - Fully Adjustable Diving Nozzles
- 12** - LED Indicator Stack Light
- 13** - Stainless Steel Compact Design Swivel Casters with Floor Pads and Adjustable S.S. Leveling Screws
- 14** - Metering Pumps Available for Ambient and Hot Fills as Needed
- 15** - Easy to Add More Metering Pumps and Additional Nozzles
- 16** - Bottle Neck centering for Positive Nozzle Entry

VOLUMETRICALLY FILL WATER-LIKE TO VISCOUS PRODUCTS AND VIALS TO GALLONS ON ONE MACHINE!

(Not shown) **8 14 15**

Touchscreen Allows Numerous Features:

- A** - Intermittent/Continuous Conveyor Operation
- B** - Automatic Maintenance Reminder
- C** - Fast/Slow Speed Adjustment
- D** - Recipes for over 100SKUs
- E** - Multi-Level Passwords
- F** - I/O Status Display
- G** - Bottle Counters
- H** - Diving Nozzle selector
- I** - Cleaning/Priming Controls
- J** - Individual Fill Pump Settings
- K** - Conveyor Speed Settings
- L** - On Screen Photoeye setup
- M** - Custom Programming... and more



3/16" TO 1" CLOSED TIP NOZZLES



SANITARY PRODUCT INLETS AND OUTLETS

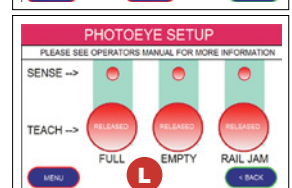
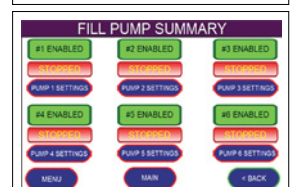
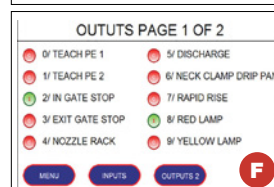
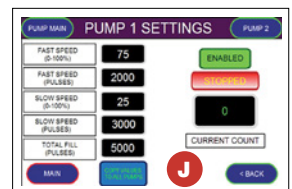
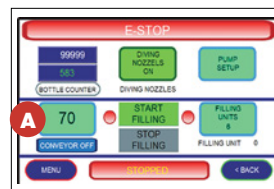


DIVING CLOSED TIP NOZZLES AND NECK CENTERING GUIDES



COMPLETE SYSTEM WITH OPTIONAL TANK OR FILL RIGHT OUT OF YOUR DRUM OR TANK

Sample of Typical Screens on MODEL FA-GEAR-6



Electronically Controlled, Timed-Volumetric Fillers

LOW COST PREMIUM FILLERS

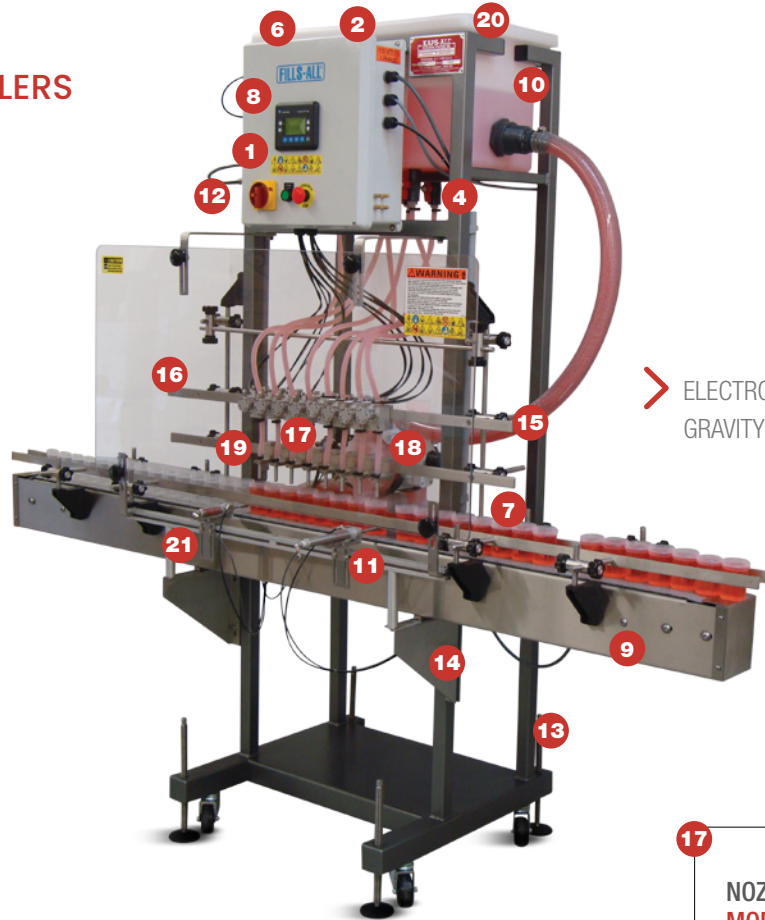
FEATURES:

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 4). **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** - Accurate Repeatable fills. 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). **6** - Microprocessor with HMI 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.

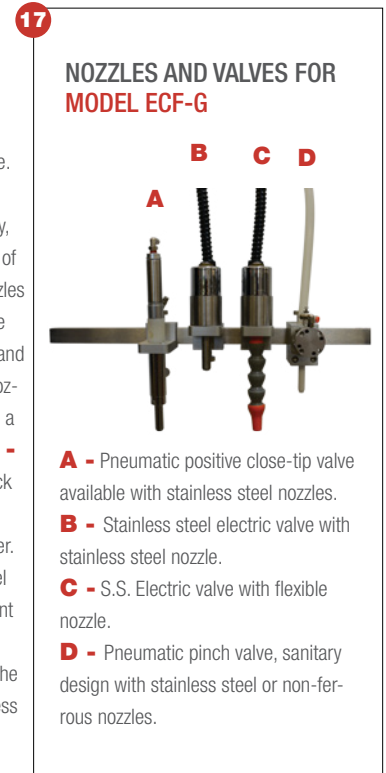
- User friendly controls and design — Easy to operate.
- Stainless steel nozzle rack with patented stainless steel clamp adjusts nozzle height from vials to 5 gallon containers without tools.
- Quick nozzle disconnects for cleaning without tools.
- Pneumatic positive shut-off closed-tip nozzles are used for splashless drip-free, string-free filling valves (stainless steel 316)
- 2 year guarantee — the longest in the industry.

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** - Compact 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. **22** - Comes with a two-year guarantee—the longest in the industry. **23** - All non-stainless product contact parts available for sensitive products. (See picture 17, nozzle "D")



➤ ELECTRONICALLY CONTROLLED GRAVITY FILLER **MODEL ECF-G**



NOZZLES AND VALVES FOR MODEL ECF-G

- A** - Pneumatic positive close-tip valve available with stainless steel nozzles.
- B** - Stainless steel electric valve with stainless steel nozzle.
- C** - S.S. Electric valve with flexible nozzle.
- D** - Pneumatic pinch valve, sanitary design with stainless steel or non-ferrous nozzles.



Versatile, High Speed Rotary Fillers

> ROTARY FILLER MODEL FA-R

- 1 -** Top drive construction for easy maintenance
- 2 -** All Stainless steel frame (standard)
- 3 -** Can store menu settings for up to 150 recipes with touch screen for quick changeovers (optional)
- 4 -** NEMA 4 electronics for ease of washdown
- 5 -** State-of-the-art controls with touch screen access panel (optional)
- 6 -** Minimal color-coded tool-less change parts
- 7 -** Safety clutches throughout

- 8 -** Stainless steel and LEXAN safety guarding with interlocking switches
- 9 -** Expandable from 9 to 24 nozzles
- 10 -** Patented fine tuning nozzle adjustments (optional). (See page 7, photo 1)
- 11 -** Nozzle height adjustment to handle container sizes up to a gallon
- 12 -** Stainless steel frame conveyor and rails with patented tool-less rail adjustments
- 13 -** Heavy-duty stainless steel leveling screws with floor pads
- 14 -** Totally open bottom for ease of cleaning

FEATURES:

- Several models to meet most production requirements (9-24 nozzles).
- PLC controls with available touch screen for easy operation (“Displays everything”).
- Filling capacity from ounces to a gallon 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.
- Available as pressure, gravity or both filling modes to best suit your needs.

> ASK ABOUT OUR SEPARATE DETAILED LITERATURE ON FILLS-ALL'S COMPLETE LINE OF ROTARY FILLERS

> **CUSTOM FILLING:** FILLS-ALL's experienced engineers are available to work with you on your special filling requirements. We have been in the bottling business for over 78 years, with some 45 patents and decades of experience. You can trust your production needs with us.

CLEAN-N-VAC®

Automatic Container and Bottle Cleaners

2 models available to suit your exact needs!
For low, medium and high-speed bottling lines.



➤ CLEAN-N-VAC® MODEL AC-35



➤ CLEAN-N-VAC® MODEL AC-65

Both models automatically remove dust, dirt, carton lint and foreign matter using a combination of:

- Inverting of bottle
- High pressure (Intermittent with multiple nozzles) ionized air with ionizing monitor
- Highly efficient vacuuming
- Be certain of your products integrity and quality assurance
- Ionizing nozzle monitor for performance verification and ease of maintenance.

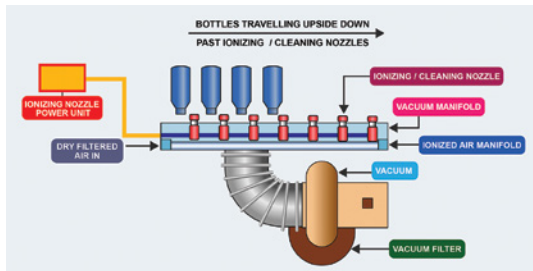
Additional Features:

- The model AC-35 handles up to 3.5" diameter bottles. The AC-65 can handle up to 6" diameters
- Ionizing feature neutralizes static electricity freeing dust and dirt for thorough cleaning
- Inverts containers over an effective cleaning range of up to 30 inches (Depending on model)
- Feeds bottles, inverts, ionizes, injects filtered pressurized air, cleans with positive vacuuming and re-orient bottles onto the conveyor
- Handles all materials including glass, plastic, metal, corrugated, etc.
- Handles a wide range of container shapes round, square, rectangle, oval, tapered, etc.
- Few to no change parts required
- Quiet, compact, versatile, low profile design
- Stainless steel construction
- The longest guarantee in the industry - two full years

➤ **ASK ABOUT OUR SEPARATE DETAILED LITERATURE ON THE CLEAN-N-VAC® COMPLETE LINE OF AIR RINSERS.**

CLEAN-N-VAC®

Automatic Container and Bottle Cleaners



> BOTTLE CLEANING PRIOR TO FILLING

A combination of high pressure, ionized air and highly efficient vacuuming automatically removes dust, dirt, carton lint and other foreign matter. This feature is on our AC-35 and AC-65 bottle cleaners and also available on our automatic bottle unscramblers.

> ORIENTAINER® BOTTLE AND JAR UNSCRABLERS WITH INTEGRAL BOTTLE CLEANER

KAPS-ALL Automatic Bottle Unscramblers effectively automate packaging production lines affording increased efficiency, savings and productivity. Savings are realized through effective use of personnel and associated costs over manual/semi-automatic bottle placement and cleaning.

> MODEL AU-3C



- Fast changeovers - from one size to another.
- Can handle most container shapes including: round, square, rectangular, oval, tapered, F-style, etc. with few to no change parts.
- Low profile design for increased safety, makes servicing and changeovers easy with no need for ladders or step stools.
- Stainless steel, low profile hopper design can be filled from three sides.
- No drop chutes, cages, pockets, rollers, belt splicing/cutting, cleats, funnels, clamps, vacuum conveyors or expensive tooling needed for changeovers.
- AU-6C can orient 1/16 oz. to 1-gallon containers on same machine (handles plastic, metal and composite/corrugated containers).
- Rugged construction with non-marring contact surfaces for no-scuff orientation.
- Few moving parts minimize maintenance and maximize machine efficiency.
- Quiet and smooth operation with orienting speeds over 300 BPM (attainable speeds depend on bottle size, shape and model).
- Hand wheels and calibrated settings allow for ease and repeatability of changeovers.
- Minimal air required for bottle ionizing/cleaning.
- Adjustable electronic speed controls to

> MODEL AU-6C



- accommodate all line speeds without extra expensive options, from several containers per minute to several hundred per minute.
- Comes standard with oversized stainless-steel clean-out door on supply hopper.
- Fully automatic, easy to set up and operate -no skilled personnel required.
- Enclosed with stainless steel and polycarbonate safety guards with interlocks.
- Use your existing conveyor or can be provided with a Kaps-All® conveyor to suit your requirements.
- Comes complete with stainless steel elevating screws with floor pads.
- The ORIENTAINER® has been designed with the knowledge of nearly 80 years of packaging and orienting design experience.
- Since the ORIENTAINER® places the containers directly onto your conveyor, the need for additional (or special vacuum) conveyors is eliminated.
- Electronic bottle counter (totalizes the number of bottles oriented).
- Unscramblers without cleaners are also available.
- The longest guarantee in the industry - 2 full years, at no extra cost.

> ASK ABOUT OUR SEPARATE DETAILED LITERATURE ON ORIENTAINER® COMPLETE LINE OF BOTTLE UNSCRABLERS

Complete Orienting, Cleaning, Filling, Material Handling, Labeling, Conveying, Capping, Inspection and Sealing Systems

➤ YOUR ONE-STOP SHOP FOR COMPLETE BOTTLING SYSTEMS.

- Combination modular systems can operate together or separately.
- Integrated turn-key systems.
- 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 rotary fillers, piston pump volumetric fillers, gravity fillers, pressure fillers 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, inspection machines, conveyors, labelers, sensors and digital recorders are available to provide full line capabilities from a single source ensuring product compatibility for your filling, capping and labeling 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.

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



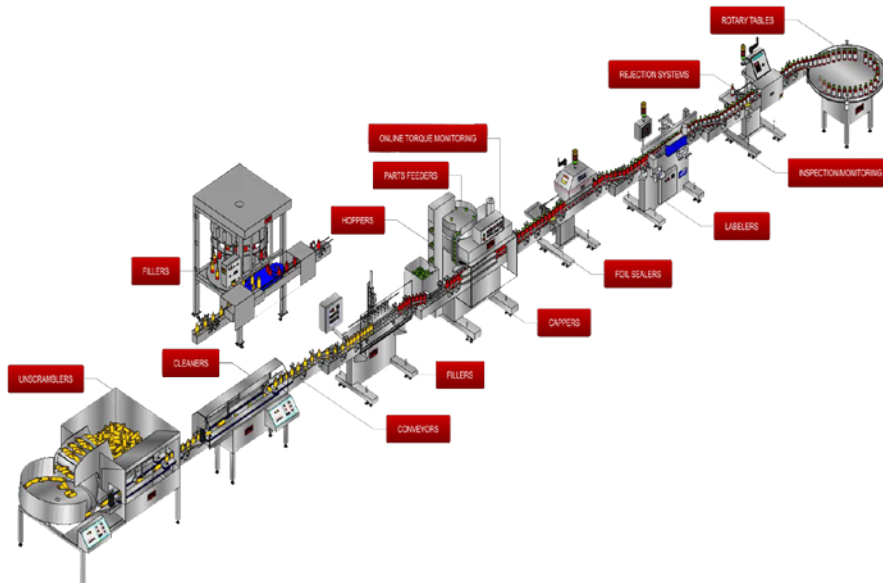
➤ Model AC-35 Cleaner with Feed Systems® rotary table



➤ Feed Systems® unscrambling table, V-8-E filler, A-6 capper, AM-DA inspection machine and FS-A Accumulation table.



➤ Model A-6 capper with AM-250 Induction Sealer and LW-40 labeler

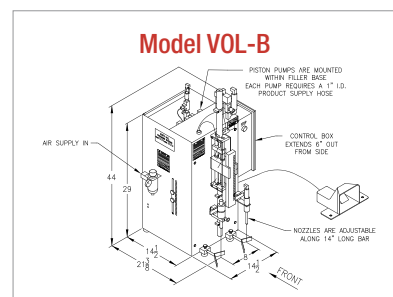
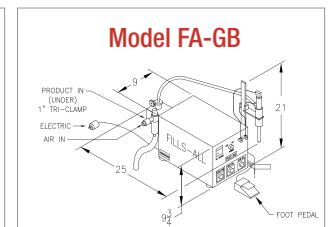
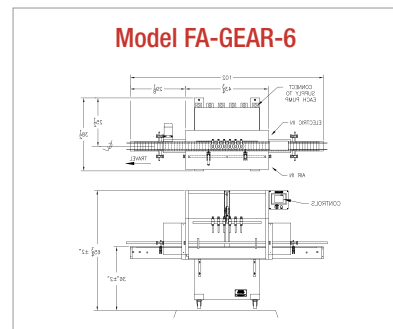
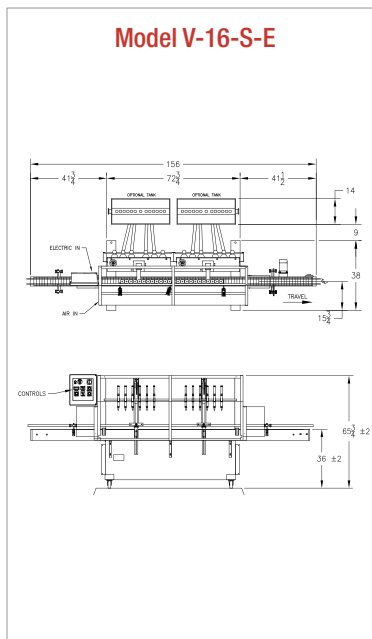
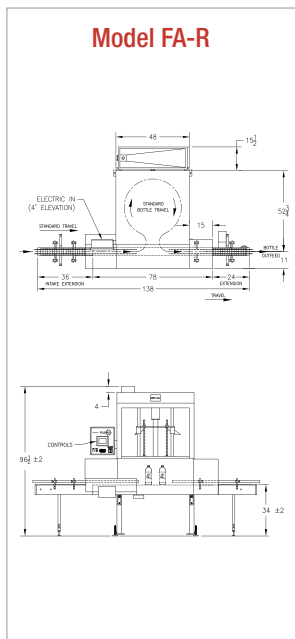
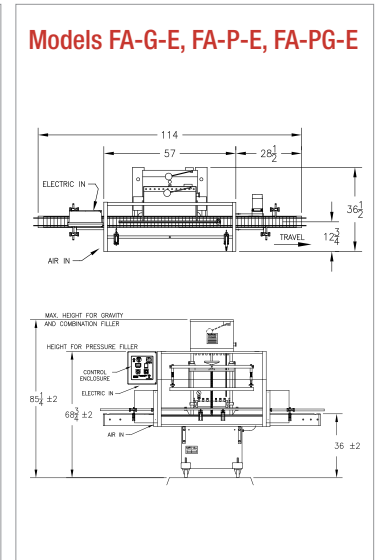
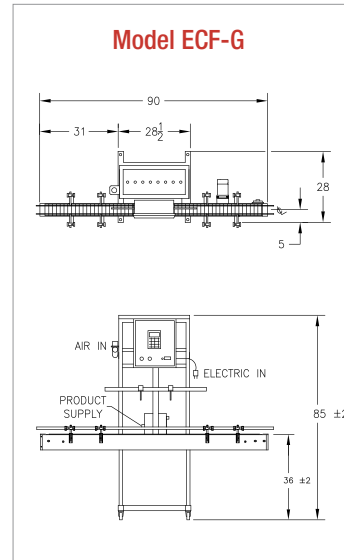
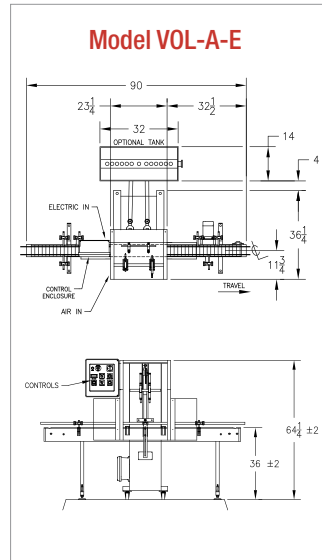
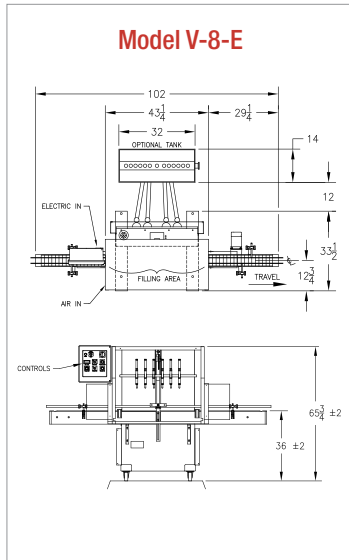


CONTACT KAPS-ALL TODAY

for additional literature on our other fine packaging and bottling machines.



Dimensions and Specifications



Electric and Pneumatic* Requirements

Most models operate at 110-125 volts AC 50/60 cycles (Hz), 2 Amps. (Add 2.3 Amps for conveyor if used) (Add 6 Amps for Model FA-GB). FA-GEAR-6 is 208-240 volts AC 50/60 cycles (Hz)

Air Consumption at 90 PSI

Models.	S.C.F.M.
FA-R	0
FA-P-E	1 to 2
FA-P-G	1 to 2
FA-PG-E	1 to 2
V-8-E	3 to 4
V-16-S-E	6 to 8
VOL-A-E	2 to 3
VOL-B	2 to 3
ECF-G	1
FA-G	0.1 to 1
FA-GEAR-6	1 to 2

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, available options and specifications are subject to change without notice.

KAPS-ALL PACKAGING SYSTEMS^{INC.}

KAPS-ALL CAPPER[®]

FILLS-ALL[®]

FEED SYSTEMS[®]

ORIENTAINER[®]

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!

Two Locations To Better Serve You:



> 251 North Congress Ave.
Delray Beach, FL 33445



> 200 Mill Road, Riverhead,
NY 11901 USA

Tel (631) 727-0300 | Fax (631) 369-5939 | Email sales@kapsall.com

- KAPS-ALL[®] Bottle Cappers and Cap Tighteners • FILLS-ALL[®] Rotary and Straight Line Automatic and Semi-Automatic Liquid Fillers • Bulk Loaders • FEED SYSTEMS[®] Rotary 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 •



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