FILAMATIC
THE SPECIALISTS IN LIQUID FILLING SYSTEMS

FILAMATIC
Liquid Filling and Packaging Equipment
Condensed Catalogue

INDEX

Fillers, Semi-Automatic 2,3,4
Filler Accessories, Semi-Automatic 4
Filling Units 5,6
Filling Unit Accessories 7
Automatic Fillers, Synchronomat 8,9
Automatic Fillers, Series AL 10,11
Automatic Filler, Series CVK 12
Automatic Filler, Level Fill Type, Model VAC-100 13
Auxiliary Equipment for Automatic Fillers
- Product Holding Tank
- Manifold
- Air-Wash Bottle Cleaner
- Automatic Cap Tightener
- Rotary Unscrambler
- Rotary Accumulator
Special Fillers 14
NEW!! CLEAN-IN-PLACE FILLERS 14
O.E.M. Applications 15
Auxiliary Packaging Machinery, Semi-Automatic 15,16
- Hand Operated Liquid Fillers
- Paste Fillers
- Tube Closers and Crimpers
- Powder Fillers
- Capsule Fillers
- Bottle Cappers
- Label Gummer
- Bag Closers - Thermal Impulse, Wire and Tape
Liquid Processing Equipment 16
- Portable Viscosimeter
- Hand Refractometers
Free Testing 16

Packaging - Processing
Bid on Equipment
1-847-683-7720
www.bid-on-equipment.com
SEMI-AUTOMATIC VOLUMETRIC FILLING MACHINES

Filamatic bench-top filling machines consist of 1 to 8 positive displacement, piston pump Filling Units, powered by an electronically controlled, variable speed drive. Individual micrometer volume controls for each fill station, graduated in increments of 0.0015", provide a simple, convenient means of adjusting the fill volume. Provides an accuracy of better than ± 1% and a 10 to 1 filling range for each size Filling Unit. Solid state, electronic variable speed drive adjusts the fill rate at the turn of a knob.

FLEXIBILITY
- Change product, fill volume, or fill rate in minutes.
- A wide variety of optional accessories provide maximum productivity for any application.

EASE OF OPERATION
- Install on any convenient bench top.
- Plug power line into nearest electrical outlet.
- Drop intake hose into liquid reservoir. Set micrometer control to desired fill volume, adjust dial to desired filling speed and your Filamatic filler is ready to use.

VERSATILITY
- Finger tip controls adjust fill volume over a 10 to 1 range; fill rate over 7 to 1 (or greater) range.
- Choose from standard or explosion proof drives.
- 53 models provide a choice of 1 to 6 nozzles — up to 16 nozzles with Convert-A-Kit Attachment.
- 160 interchangeable Filling Units. Dispense 0.1cc to 1300cc to a gallon.

ECONOMY
- ±1% or better accuracy insures against underfill or overfill. Eliminates product giveaway.
- Easy to use, clean and maintain, even for inexperienced personnel.

SERVICEABILITY
- All Filamatic fillers are shipped complete with operating instructions and parts manuals.
- Spare parts and spare parts kits are readily available.

THE FILAMATIC FILLING SYSTEM

Filamatic Filling Units are self-priming piston pumps. Product may be supplied from a floor level reservoir, an overhead reservoir or a pressurized source. A graduated micrometer volume control (6) adjusts the piston travel, and thus the volume of liquid dispensed per stroke. Optional ball check or spool valve piston pumps.

BALL CHECK FILLING SYSTEM

Ball Check Filling Units are recommended for filling free-flowing and viscous products.

HOW IT WORKS
Downward motion of piston (1) creates a vacuum in pump chamber (4) opening intake valve (2) and raising the ball off its seat. Preset volume of liquid flows from supply source into the pump chamber (4). Upward motion of piston (1) closes intake valve (2) reseating the ball check and opening discharge valve (3). Liquid is then discharged from nozzle (5).

SPool VALVE FILLING SYSTEM

Spool Valve Filling Units are recommended for filling highly viscous materials, from a pressurized source or, products containing particulates and semi-solids.

HOW IT WORKS
Spool valve actuator causes spool to shift, opening intake port (2) to pump chamber (4) and closing discharge port (3). Downward motion of piston (1) creates a vacuum in pump chamber (4). Preset volume of liquid then flows from supply source into pump chamber (4). When pump chamber is filled, spool valve reverses position, opening discharge port (3) to pump chamber (4) and closing intake port (2). Upward motion of piston then discharges the product from nozzle (5).
**SEMI-AUTOMATIC VOLUMETRIC FILLING MACHINES**

A wide variety of optional accessories enable you to automate any semi-automatic Filamatic filling machine, with the exception of models AB, AB-5, AB-8 and DAB. See Pages 8 & 9.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Number of Nozzles (n)</th>
<th>Max. Capacity (cc/nozzle) (b)</th>
<th>(Based on water-thin liquids)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>1</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>AB-5</td>
<td>1</td>
<td>130</td>
<td>2</td>
</tr>
<tr>
<td>AB-8</td>
<td>1</td>
<td>260</td>
<td>2</td>
</tr>
<tr>
<td>DAB</td>
<td>2</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>DAB-5</td>
<td>2</td>
<td>130</td>
<td>2</td>
</tr>
<tr>
<td>DAB-6</td>
<td>2</td>
<td>130</td>
<td>2</td>
</tr>
<tr>
<td>DAB-8</td>
<td>2</td>
<td>260</td>
<td>2</td>
</tr>
<tr>
<td>DAB-16</td>
<td>2</td>
<td>520</td>
<td>2</td>
</tr>
<tr>
<td>DAB-16-2</td>
<td>2</td>
<td>520</td>
<td>2</td>
</tr>
<tr>
<td>DAB-32-2</td>
<td>2</td>
<td>1300</td>
<td>2</td>
</tr>
<tr>
<td>GF-1</td>
<td>1</td>
<td>Gallon</td>
<td>1</td>
</tr>
<tr>
<td>DAB-5-4</td>
<td>4</td>
<td>260</td>
<td>4</td>
</tr>
<tr>
<td>DAB-16-4</td>
<td>4</td>
<td>520</td>
<td>4</td>
</tr>
<tr>
<td>DAB-32-4</td>
<td>4</td>
<td>1300</td>
<td>4</td>
</tr>
<tr>
<td>GF-2</td>
<td>2</td>
<td>Gallon</td>
<td>2</td>
</tr>
<tr>
<td>DAB-16-6</td>
<td>6</td>
<td>520</td>
<td>6</td>
</tr>
<tr>
<td>DAB-16-6HD</td>
<td>6</td>
<td>520</td>
<td>6</td>
</tr>
<tr>
<td>DAB-32-6</td>
<td>6</td>
<td>1300</td>
<td>6</td>
</tr>
<tr>
<td>DAB-16-8</td>
<td>8</td>
<td>520</td>
<td>8</td>
</tr>
<tr>
<td>DAB-16-8HD</td>
<td>8</td>
<td>520</td>
<td>8</td>
</tr>
<tr>
<td>DAB-32-8</td>
<td>8</td>
<td>1300</td>
<td>8</td>
</tr>
<tr>
<td>DAB-40</td>
<td>10</td>
<td>1300</td>
<td>10</td>
</tr>
<tr>
<td>AL-50</td>
<td>8</td>
<td>520</td>
<td>8</td>
</tr>
</tbody>
</table>

- b. The minimum capacity of any Filamatic filler is 0.1cc.
- d. Available with optional electrically operated explosion-proof drive.

**MODEL AB**

Filling Range: Up to 50 cc

A light duty, single nozzle filler widely used in the laboratory as an automatic pipettor. Ideal for repetitive dispensing of free-flowing liquids. Electronic drive provides speed adjustment from 6 to 85 R.P.M.

**MODEL AB-5**

Filling range: Up to 130 cc

Single nozzle, light duty filler with a range of 13 cc to 130 cc per stroke. Recommended for production filling of aqueous solutions, suspensions, saturated solutions, light oils and other free-flowing liquids with viscosity not exceeding a light syrup. Filling speed adjustable from 3 to 35 R.P.M.

**MODEL AB-8**

Filling Range: Up to 260 cc

A medium duty, single nozzle filler for repetitive dispensing of free-flowing or semi-viscous liquids. Handles aqueous solutions, suspensions, saturated solutions and light oils. Electronic drive provides speed adjustment from 3 to 16 R.P.M.

**MODEL DAB-5**

Filling Range: Up to 130 cc per nozzle

Medium duty, dual nozzle filler for use with free-flowing liquids having a viscosity not exceeding a light syrup. Dispenses up to two 130 cc fills per stroke. Handles aqueous solutions, saturated solutions, suspensions and light oils. Electronic variable speed drive adjusts from 3 to 35 R.P.M. (3 to 70 fills per minute).

**MODEL DAB-8**

Filling Range: Up to 260 cc per nozzle

Medium duty, dual nozzle filler for use with free-flowing liquids having a viscosity not exceeding a light syrup. Dispenses up to two 260 cc fills per stroke. Filling speed adjustable from 3 to 16 R.P.M. (3 to 32 fills per minute).

**MODEL DAB-16**

Filling Range: Up to 520 cc per nozzle

Heavy duty, dual nozzle filler for dispensing free-flowing or viscous liquids in volumes, adjustable from 60 cc to 520 cc (0.3 cc to 520 cc with accessory Filling Units). Electronic drive provides speed adjustment from 3 to 18 R.P.M. Equipped with an SCA-1B Single Cycle System, and adjustable nozzle holder. Available with optional bottom-fill attachment.

**MODEL DAB-16-5**

Filling range: Up to 130 cc per nozzle

Medium duty, four nozzle production filler for use with free-flowing or viscous liquids. Dispenses up to four 130 cc fills per stroke. Furnished with SCA-1B Single Cycle Attachment and nozzle holder. Filling speed adjustable from 2 to 16 R.P.M. (2 to 72 fills per minute).

**MODEL DAB-32-4**

Filling range: Up to 1300 cc per nozzle

Heavy duty, four nozzle production filler for use with free-flowing or viscous liquids. Dispenses up to four 1300 cc fills per stroke. Furnished with a SCA-3B Single Cycle Attachment and nozzle holder. Filling speed adjustable from 2 to 16 R.P.M. (2 to 64 fills per minute).

Write for detailed literature or information on the equipment listed above.
FILLERS SEMI-AUTOMATIC

SERIES ALA —
Air-operated Filamatic Series ALA explosion-proof, semi-automatic fillers provide a low cost means of dispensing inflammable solvents and other hazardous liquids. Supplied complete with single cycle attachment and foot switch.

FILLER ACCESSORIES (SEMI-AUTOMATIC)

FOOT SWITCH
Leaves hands free for other operations. Momentary or maintained contact versions available in both explosion-proof and non-explosion-proof models.

SINGLE CYCLE ATTACHMENT
The Filamatic cycles one time and stops, each time a normally open switch is closed. A toggle switch provides instant choice of single cycle or continuous operation. Microswitch, photo-cell, or proximity switch actuators are available for automatic operation.

DUAL SPEED CONTROLS
U.S. PAT. NO. 3959703
FOREIGN PCT. PENDING
Separate speed adjustments for aspirating and discharge strokes increase the fill rate up to 50%. Recommended when filling viscous lotions and shaker top bottles with restricted openings.

COUNTERS
Five digit reset or non-reset electric counters provide an accurate record of the number of fills.

MULTI-STROKE COUNTER
U.S. PAT. NO. 3024465
Permits cycling filling machine a predetermined number of times for filling containers larger than the capacity of the Filling Units. A typical application would be to fill gallon containers or multi-gallon drums with 1300cc Filling Units.

MODEL BM-700
The Filamatic Model BM-700 Filler is a semi-automatic filler designed for filling molten liquids at temperatures up to 200°F. Can be equipped with up to 8 nozzles for production rates to 160, 2-ounce containers per minute. The entire filling system is enclosed in an electrically heated, thermostatically controlled chamber. Sliding polycarbonate panels provide easy access to the Filling Units. The Model BM-700 filling machine can be converted to automatic operation by adding a Filamatic conveyor and container indexer. All liquid contact parts are constructed of type 316 stainless steel.

MODEL BM-700

<table>
<thead>
<tr>
<th>Model</th>
<th>Maximum Number of each size Filling Unit (cc)</th>
<th>Air Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALA-1</td>
<td>30 60 120 260 520</td>
<td>3 C.F.M. @ 80 PSI</td>
</tr>
<tr>
<td>ALA-2</td>
<td>2 2 1 1 1</td>
<td>5 C.F.M. @ 80</td>
</tr>
<tr>
<td>BM-700</td>
<td>8 8 6 4 2</td>
<td></td>
</tr>
</tbody>
</table>

NOZZLE INSERTER
Recommended for use with type DTV and DTV/A nozzles or any other application where it is necessary to lower the nozzle below the container neck and withdraw after the fill cycle is completed. Not designed for bottom-up Filling.

BOTTOM-UP FILLING ATTACHMENT
Nozzle travel adjustable from 0 to 12". Increases the filling speed for shampoos, detergents and other foaming products. May be used with any Filamatic semi-automatic filler with a Single Cycle Attachment and an FS-1 Foot Switch. Depressing the foot switch automatically lowers the nozzles into the container, initiating the fill stroke. Filling proceeds at a precisely controlled rate as the nozzles rise from the container. Choice of type A/H2 for semi-automatic operation or type A/HC installed in base cabinet for present or future automatic operation.

CONVERT-A-KIT NOZZLE MULTIPLIER SYSTEM
U.S. PAT. NO. 4077441
FOREIGN PCT. PENDING
Patented Convert-A-Kit makes it easy to convert a single nozzle Filamatic to 3-nozzles, a 2-nozzle Filamatic to 8-nozzles and a 4-nozzle Filamatic to 16 nozzles.

DIAL-A-FILL VOLUME ADJUSTMENT
U.S. PAT. NO. 4212416
FOREIGN PCT. PENDING
Simply turn a knob to fine tune the volume dispensed by each Filling Unit, even while the filler is operating. Optional with Convert-A-Kit, standard with CVK and AL Series automatic filling machines.
Filamatic Filling Units are self-contained proportioning pumps designed for dispensing preset volumes of fluids with a high degree of accuracy. They are interchangeable, one with the other on any Model Filamatic Filling Machine up to the rated capacity of the filler. Filamatic Filling Units are available in a wide variety of models, for filling any liquid or semi-liquid that will flow through a tube, including problem materials such as quick-drying adhesives, molten materials, suspensions, corrosive chemicals and products containing a high percentage of particulate matter.

Filamatic Filling Units are available in threaded and non-threaded types. Threaded type Filling Units, recommended for general use, consist of components that fasten together with threaded connections. For sanitary use and applications requiring frequent cleaning and product changes, we recommend the use of non-threaded Cam-Loc® or Quik-Loc® Filling Units. Cam-Loc® Filling Units can be disassembled without using tools. A simple counter-clockwise twist is all that is needed to disassemble cylinder, piston and valves.

Filamatic Filling Units are available with product contacting parts fabricated of type 316 stainless steel, Kel-F and glass, Kynar and glass, or UHMW Polyethylene and glass.

For a description of how the ball check and spool valve filling units work, refer to page 2.

FEATURES:
- Fill any flowable liquid product
- Over 160 standard models to meet your custom requirements
- Accuracy to ±1% or better
- Wide range: 0.10 cc to 1300 cc per stroke
- Filters easily installed on discharge valve — particle retention size from 0.22 microns to 200 microns
- Self-priming. Fill from floor level reservoir or pressurized source
- Optional sanitary construction meets the Good Manufacturing Practices (GMP's) of the Pharmaceutical and Cosmetic Industries.

Pictured here is the QUIK-LOC type FUS/TP Filling Unit mounted on a Filamatic DAB-16 Filler.

External adjustment knob makes it easy to expand or contract the piston rings for precision, leak-proof fit.

To disassemble the QUICK-LOC Filling Unit, remove the Filling Unit from the Filamatic filler and place on a table. Loosen the four tie rod bolts and disassemble the component parts as pictured here.

Disassembly normally can be accomplished within 60 seconds. The entire Filling Unit and filter assembly is now ready for cleaning.
### FILLING UNIT APPLICATION CHART

<table>
<thead>
<tr>
<th>FILLING UNITS</th>
<th>APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FU-0, FU-0-SG, FU-50, FU-50-SG, FUS</td>
<td>Low Viscosity Liquids; i.e., water, alcohol, solvents, etc.</td>
</tr>
<tr>
<td>FUS/T</td>
<td>Same as FUS. Quik-Loc design minimizes assembly and disassembly time.</td>
</tr>
<tr>
<td>FUS/TP</td>
<td>Similar to FUS/T but recommended for low viscosity oral pharmaceuticals.</td>
</tr>
<tr>
<td>FKS</td>
<td>Medium and high viscosity fluids; i.e., creams, lotions, oils, etc.</td>
</tr>
<tr>
<td>FKS/T</td>
<td>Same as FKS. Quik-Loc design minimizes assembly and disassembly time.</td>
</tr>
<tr>
<td>FKS/TP</td>
<td>Similar to FKS/T but recommended for medium and high viscosity oral pharmaceuticals.</td>
</tr>
<tr>
<td>FQS</td>
<td>Medium and high viscosity adhesives and other products containing a solvent which evaporates leaving a residue.</td>
</tr>
<tr>
<td>FQS/T</td>
<td>Same as FQS. Quik-Loc design minimizes assembly and disassembly time.</td>
</tr>
<tr>
<td>FSV/T</td>
<td>Spool Valve Type. For use with clear liquids or products containing particulate matter, such as orange juice, pizza sauce, salad dressing, pepper sauce, etc. Quik-Loc design minimizes assembly and disassembly time. Products may be fed to the Filamatic under pressure.</td>
</tr>
<tr>
<td>SAN</td>
<td>Parenteral drugs and dairy products; i.e., milk, popsicle mixes and cream. Cam-Loc design minimizes assembly and disassembly time.</td>
</tr>
<tr>
<td>SAN/T</td>
<td>Same as SAN. Quik-Loc design minimizes assembly and disassembly time.</td>
</tr>
<tr>
<td>KFU</td>
<td>Corrosive and metal sensitive liquids; i.e., acids, etc. (Plastic contact parts fabricated of Kel-F and Teflon).</td>
</tr>
<tr>
<td>KYU</td>
<td>Corrosive and metal sensitive liquids; i.e., acids, etc. (Plastic contact parts fabricated of Kynar and Teflon).</td>
</tr>
<tr>
<td>PFU/T</td>
<td>Corrosive and metal sensitive liquids; i.e., acids, etc. (Plastic contact parts fabricated of ultra high molecular weight (UHMW) polyethylene. Quik-Loc design minimizes assembly and disassembly time.</td>
</tr>
</tbody>
</table>

### FILLING UNIT SPARE PARTS KITS

A spare parts kit is available for each Filling Unit. Spare parts kits include expendable parts as well as those parts which may be easily misplaced. We recommend one spare parts kit for 1 to 4 Filling Units of the same type.
**FILLING UNIT ACCESSORIES**

**ADJUSTABLE SUCK-BACK**
Residual liquid at the nozzle opening is sucked back into the nozzle when the fill stroke is completed. Patented design provides clean, sharp cut-off and prevents dripping or stringing when dispensing oily or viscous liquids. Optional sanitary design has no internal screw threads.

**DUAL VALVE ASSEMBLY**
Increases fill accuracy by providing additional ball check valve at Filling Unit inlet and outlet valve ports.

**FILTERS (INTAKE TYPE)**
**TYPE FAS FILTER**
All stainless steel construction. Installs on the intake hose of the Filamatic Filling Unit. Filters particles as small as 200 microns from the solution. Easily cleaned by back flushing.

**FILTERS (DISCHARGE TYPE)**
**TYPE FALV FILTER**

**FILTER ADAPTERS**
Adapts Millipore, Pall-Trincor and Gelman Instrument filters for use on Filamatic Filling Units. Particulate retention from 0.22 to 5 microns. Shown are Gelman Instrument 5 micron tubular filters installed on the type FUS-1000 Filling Units.

**FILTER ADAPTERS**
Adapts Millipore, Pall-Trincor and Gelman Instrument filters for use on Filamatic Filling Units. Particulate retention from 0.22 to 5 microns. Shown are Gelman Instrument 5 micron tubular filters installed on the type FUS-1000 Filling Units.

**NOZZLES**
Fabricated to order. Available in a variety of types to provide drip-free, foam-free and string-free fills with your product. Choice of type 316 stainless steel, Kel-F and Teflon or Kynar and Teflon construction.

Note: Type DN, DTV and DNV nozzles are equipped with threaded shanks and are designed for use with "T" nozzle brackets or the Series NB-520 adjustable nozzle stands.
Type DNC, DTVC and DNV/C nozzles are equipped with a straight non-threaded shank and are designed for use with semi-automatic bottom-up fill attachments and automatic Filamatic Fillers.

**TYPE DN and DNC**
Standard nozzle design. Used for almost any product that does not foam. Type DN has a threaded shank. Type DNC has milled-out slot and is intended to be used with Bottom-Up Fill Attachments and Conveyorized Filamatic Fillers.

**TYPE DTV and DTV/A**
Valve-in-tip nozzles provide positive cut-off for drip-free, string-free filling. Used for non-foaming products. Type DTV is actuated by liquid pressure. Valve opens when liquid flows, closes when flow stops. Type DTV/A is actuated by air pressure.

**TYPE DNV AND DNV/C**
Built-in check valve prevents dripping when filling low surface tension liquids.

**NOZZLE BRACKETS**
**TYPE TNB HAND OPERATED NOZZLE BRACKET**
Complete with push button actuator switch mounted on handle. Less nozzles.

**UNIVERSAL TYPE, NB-520 ADJUSTABLE NOZZLE HOLDER**
Provides a fixed support for 2, 4, 6 or 8 nozzles. Attaches to bench top. Height and center distance of nozzles easily adjusted. Less nozzles.
AUTOMATIC FILLERS, SYNCHROMAT
Modular design enables you to automate your semi-automatic Filamatic filler with building-block simplicity. The number of filling stations can be added as required for increased production. Add optional modules as needed.

VERTICAL NOZZLE CENTERING
An inverted cone centers the container opening under the apex, permitting "dead center" nozzle entry.

NOZZLE SAFETY SYSTEM
U.S. PATENT PENDING
Filler stops automatically should one or more nozzles fail to enter container openings prior to filling.

HORIZONTAL NOZZLE CENTERING
A comb type locator grasps the container below the neck. Recommended for sterile applications.

ADJUSTABLE BOTTOM-UP FILL SYSTEM
Bottom-up fill mechanism lowers the nozzles into the containers prior to the fill cycle and raises the nozzles as filling proceeds. Cam or hydraulically operated mechanism maintains the nozzle discharge at precisely the liquid level, to eliminate foaming and splashing. Nozzle movement adjustable from 0 to 12', at the turn of a knob.

ADJUSTABLE NOZZLE INSERTER
For use with products and containers which can be filled more efficiently from a fixed position within the container. Nozzles are automatically lowered to a preset position within the container prior to filling, and remain in this position during the filling cycle. The nozzles are then withdrawn after the containers are filled.

NO-BOTTLE, NO-FILL
The filler can operate only when the conveyor infeed is fully stocked with empty containers.

CONVEYOR BASE CABINETS
Install on your own, in-plant conveyor or, add a factory made Synchromat conveyor complete with drive and base cabinet.

CONTAINER INDEXING SYSTEMS

STAR TRACK INDEXING SYSTEM
U.S. PAT NO. 4082389
FOREIGN PATS. PENDING
Rotary indexer increases production and reduces changeover time. For use with stable or "pucked" containers.

GATING INDEXING SYSTEM
U.S. PAT. REISSUED 29482
Air operated fingers, index the containers. Easily adjusted for different size containers.

TIMING SCREW INDEXING SYSTEM
An improved method for transporting and indexing unstable or hard-to-handle containers.

Packaging - Processing
1-847-683-7720
www.bid-on-equipment.com
CONVERT-A-KIT NOZZLE MULTIPLIER
Permits additional filling stations to be added for increased production.

TYPICAL SYNCHROMAT INSTALLATIONS

6-NOZZLE SYNCHROMAT MODEL SYN-32-6
Equipped with FUS-1000 Filling Units, gating type indexing, horizontal nozzle centering, and a bottom-fill system. Filling 32 ounce glass bottles with an oral drug product at a speed of 30 per minute.

4-NOZZLE SYNCHROMAT MODEL SYN-5-4
Combined with an automatic capping machine, automatic bottle feeder and accumulator. Control panel positioned below the conveyor, as specified by the user.

ANTI-BACK-UP SYSTEM
Automatically stops the filler if filled containers back up into the filling stations. If filler output exceeds that of capper or labeller, filler will stop, wait for auxiliary equipment to catch up and then start again automatically.

FILAMATIC SERIES GF GALLON FILLER
Filamatic Series GF Gallon Fillers provide a simple means of filling gallon containers with free-flowing or semi-viscous liquid products. Available with 1, 2, 3, 4 or 5 nozzles, for production rates of 5, 10, 15, 20 or more gallons per minute. A simple changeover adapts a Series GF Filler for dispensing volumes from 4 ounces to 32 ounces. Ideal for short runs — takes only minutes to set-up, changeover and clean. Filling accuracy of plus/minus 1/2% (based on water) eliminates product giveaway. Available in automatic or semi-automatic versions.

Write for detailed literature or information on the equipment listed above.
SERIES AL AUTOMATIC FILLERS

Series AL Filamatic Automatic Filling Machines provide a low-cost, no-frills means of filling a wide range of free-flowing or viscous liquids with or without particulates, into glass, metal or plastic containers. Incorporates all the basic features of the higher-priced models, yet is significantly lower in cost — the result of a totally new, simplified design.

Compare these exclusive features:
- Production rates up to 600 containers per minute.
- Expandable filling system. Simply add filling stations as production requirements increase.
- Heavy-duty construction. Plenty of power for filling any flowable liquid, with or without particulates.
- Compact size. Occupy a minimum amount of floor space.
- Bottom-up filling. Facilitates filling of foaming products. Choice of cam operated or air/hydraulic bottom-fill systems. Nozzle travel adjustable from 0 up to a maximum of 6", 9" or 12".
- No-Bottle-No-Fill.
- Easy to clean and changeover.
- Master volume adjustment, plus individual trimming adjustments for each nozzle.
- Choice of Star-Track, Gating or Timing Screw container indexing systems. Even unstable containers are handled with ease.
- Optional reciprocating nozzle system.
- Optional dual lane filling system provides rotary speeds with straight line simplicity.
- Centralized lubrication system.
- Optional stainless steel construction.
- Optional explosion-proof construction. Air or electrically operated.
- Optional Anti-Back-Up and Nozzle Safety systems.
- Optional Final Filter Adapters for use with Pall, Gelman or Millipore filters. Protect against the accidental discharge of particulate into containers. Particulate retention down to 0.2 microns.
- Vertical or Horizontal Nozzle Centering Systems.
- Optional stainless steel panels, or stainless steel panels and frame.

Construction
Filamatic Automatic Filling Machines are built around an electro-welded, rectangular tubular steel frame for extra rigidity. Unlike bolted construction, the frame cannot loosen under vibration or mechanical stress. Moving and rotating parts in AL Series Filamatic Filling Machines remain properly aligned for the life of the machine. All metal parts contacted by the liquid are fabricated of type 316 stainless steel. Delrin, Lexan, low-friction acetal or stainless steel Flat-top chain belt conveyor provides a uniform surface that permits even narrow, unstable vials to be handled without tipping. Equipped with separate SCR drives for filler and conveyor.

The production capacity of any Series AL Filamatic Filler can be increased by simply adding filling stations up to the maximum number, as indicated in the above chart.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>3 TO 30cc</th>
<th>60cc</th>
<th>130cc</th>
<th>260cc</th>
<th>520cc</th>
<th>950cc</th>
<th>1300cc</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL-200</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL-300</td>
<td>16</td>
<td>14</td>
<td>12</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AL-500</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL-700</td>
<td>12</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AL-800</td>
<td>32</td>
<td>28</td>
<td>24</td>
<td>20</td>
<td>12</td>
<td>8</td>
<td>12</td>
</tr>
</tbody>
</table>

Model AL-200
A light duty, economical machine for filling containers up to 260cc in size. Available in standard or high-speed models. Standard models provide speeds up to 20 fills/minute/nozzle. High speed models for speeds up to 40 fills/minute/nozzle. Choice of cam operated or air/hydraulic type bottom-fill systems. Nozzle travel adjustable from 0 to a maximum of 6", 9" or 12".

Model AL-300
Heavy duty machine for filling containers up to 1300cc. Provides speeds up to 24 fills/minute/nozzle. Choice of cam operated or air/hydraulic type bottom-fill systems. Nozzle travel adjustable from 0 to 6", 9" or 12".

Model AL-500
A light duty, economical machine for filling containers up to 260cc. Identical to the Model AL-200, except Filling Units are located on the conveyor side of the machine, for improved visibility. Standard model provides speeds up to 20 fills/minute/nozzle. High speed model for speeds up to 40 fills/minute/nozzle. Choice of cam operated or air/hydraulic type bottom-fill systems.

Model AL-700
Molten Products Filler. Totally enclosed filling system is equipped with sliding polycarbonate access panels. Enclosed chamber can be electrically or steam heated up to 200 degrees F for filling molten products such as petrolatum, wax, lip pomade or stick deodorants. Chamber can also be cooled, flooded with sterile air or a neutral gas. Filling Units up to 260cc can be used. Capable of up to 20 fills/minute/nozzle.

Model AL-800
A heavy duty machine for filling up to twelve 1000cc or 32 30cc containers simultaneously. Filling Units are positioned on two sides of the machine. Provides twice the capacity of our other models. Speeds to 24 fills/minute/nozzle. Choice of cam operated or air/hydraulic bottom-fill systems.
SIZE FILLING UNIT (cc) MAXIMUM PRODUCTION RATE (BPM)

Based on filling water into Boston round containers. Actual filling speeds will depend upon flow properties of product, volume of fill, and container configuration.

<table>
<thead>
<tr>
<th>SIZE FILLING UNIT (cc)</th>
<th>AL-200</th>
<th>AL-200-HS</th>
<th>AL-300</th>
<th>AL-500</th>
<th>AL-700</th>
<th>AL-800*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TO 30</td>
<td>180</td>
<td>350</td>
<td>300</td>
<td>180</td>
<td>180</td>
<td>600</td>
</tr>
<tr>
<td>60</td>
<td>150</td>
<td>220</td>
<td>240</td>
<td>150</td>
<td>150</td>
<td>480</td>
</tr>
<tr>
<td>130</td>
<td>120</td>
<td>180</td>
<td>180</td>
<td>120</td>
<td>120</td>
<td>360</td>
</tr>
<tr>
<td>260</td>
<td>90</td>
<td>100</td>
<td>120</td>
<td>90</td>
<td>90</td>
<td>240</td>
</tr>
<tr>
<td>520</td>
<td>60</td>
<td></td>
<td>120</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>650</td>
<td>40</td>
<td></td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>40</td>
<td></td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td>40</td>
<td></td>
<td>40</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*May require a dual track conveyor to achieve these speeds.

MODEL AL-50 SEMI-AUTOMATIC/AUTOMATIC CONVERTIBLE FILLING MACHINE

The Filamatic Model AL-50 Filling machine provides an efficient, low cost means of filling any type of container with free-flowing or viscous liquids, with or without particulates. Operates as a semi-automatic filler on any convenient bench top. Converts from a 2-nozzle to a 3, 5, 6 or 8 nozzle filler. For automatic operation, use your own conveyor or an optional factory built conveyor. A wide variety of optional automation accessories convert the Model AL-50 into a completely integrated, automatic filling machine. Easy to set up and operate. Provides years of trouble-free service.

Features
- Low Cost.
- Production rates to 120 cpm (based on water).
- Fills from 0.5cc to 520cc.
- Expandable from 2 to 8 filling stations.
- Optional Final Filter Adaptors for use with Pall, Gelman or Millipore filters. Protect against the accidental discharge of particulate contaminants into the containers. Particulate retention to 0.2 micron.
- Use with your own conveyor or a factory built conveyor.
- Electronic variable speed drive.
- Optional single Master Volume Adjustment.
- Optional Dial-A-Fill "fine tune" volume adjustment.
- Bottom-Up Fill Mechanism minimizes foaming and splashing.
- Welded steel construction.
- Choice of epoxy finish, stainless steel exterior panels, or stainless steel frame and panels.
- Compact Size — Cabinet measures only 27"x29"x29".

Optional Automation Accessories
- Stainless steel conveyor with electronically controlled variable speed drive.
- No-Bottle-No-Fill
- Nozzle Safety System. Filler cannot discharge product until each nozzle has entered the container opening.
- Anti-Back-Up System. Filler stops automatically if filled containers back up into filling area.
- Nozzle centering system. Centers the nozzle over the openings, prior to insertion into the containers.
- Star-Wheel, Gating or Timing Screw Indexing Systems.
- Nitrogen purging prior, during or after filling.

MODEL AL-50 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Filling Unit Sizes (cc)</th>
<th>0-15</th>
<th>30</th>
<th>60</th>
<th>130</th>
<th>260</th>
<th>520</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Number of Fillings Units</td>
<td>8</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Estimated Maximum Fill Rates (based on water)</td>
<td>160</td>
<td>160</td>
<td>90</td>
<td>62</td>
<td>25</td>
<td>16</td>
</tr>
</tbody>
</table>
SERIES CVK AUTOMATIC FILLERS

The finest in heavy duty, high speed automatic, in-line liquid filling machines, CVK fillers can be readily adapted to meet your GMP requirements.

For use with free-flowing, semi-viscous or viscous liquids. Interchangeable Filling Units provide an amazing range from 0.10cc to 1300cc. Exclusive expandable design provides up to 28 filling stations.

Features include:
- Production rates to 600 containers per minute.
- Fills containers up to 1300cc
- Heavy duty construction.
- Expandable filling system. Add nozzles as production requirements increase.
- Choice of four indexing systems—Star-Track, Gating, Timing Screw, or High Speed Star-Track.
- Bottom-Up Filling with vertical nozzle travel adjustable from 0 to 9”.
- Single master fill volume adjustment plus individual trimming adjustments for each nozzle.
- Optional reciprocating nozzle system or dual lane filling provide rotary speeds with straight-line simplicity.
- Choice of stainless steel panels with epoxy finished frame or all stainless steel construction.
- Optional explosion-proof construction. Air or electrically operated.
- All metal parts contacted by the liquid are fabricated of type 316 stainless steel.

CVK-700 and CVK-700-1
U.S. & FOREIGN PATS. PENDING
Molten Products Filler. Totally enclosed filling system is equipped with sliding polycarbonate access panels. Enclosed chamber can be electrically or steam heated up to 200 degrees F. for filling molten materials.

CVK-800 and CVK-800-1
Patented reciprocating nozzles and star-wheel indexing provides the ability to accurately fill up to 560 containers per minute without tipping or spillage.

SERIES CVK AUTOMATIC HIGH SPEED FILLING MACHINE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Location of Filling Units</th>
<th>Maximum Number of Each Size Filling Unit (cc)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Front</td>
<td>Back</td>
</tr>
<tr>
<td>CVK-300</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-300-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-500</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-500-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-500-2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-700</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-700-1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-800</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CVK-800-1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

MAXIMUM FILLS PER MINUTE
Based on filling water into Boston round containers. Actual filling speeds will depend upon flow properties of product, volume of fill, and container configuration.

<table>
<thead>
<tr>
<th>Filling Unit Capacity (cc)</th>
<th>CVK-300</th>
<th>CVK-300-1</th>
<th>CVK-500</th>
<th>CVK-500-1</th>
<th>CVK-500-2</th>
<th>CVK-600</th>
<th>CVK-600-1</th>
<th>CVK-700</th>
<th>CVK-700-1</th>
<th>CVK-800</th>
<th>CVK-800-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 30</td>
<td>200</td>
<td>200</td>
<td>280</td>
<td>280</td>
<td>320</td>
<td>320</td>
<td>280</td>
<td>280</td>
<td>560</td>
<td>560</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>128</td>
<td>128</td>
<td>192</td>
<td>192</td>
<td>224</td>
<td>224</td>
<td>192</td>
<td>192</td>
<td>384</td>
<td>384</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td>96</td>
<td>96</td>
<td>120</td>
<td>120</td>
<td>144</td>
<td>144</td>
<td>120</td>
<td>120</td>
<td>240</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>260</td>
<td>54</td>
<td>54</td>
<td>72</td>
<td>72</td>
<td>90</td>
<td>90</td>
<td>72</td>
<td>72</td>
<td>144</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>520</td>
<td>35</td>
<td>35</td>
<td>42</td>
<td>42</td>
<td>56</td>
<td>56</td>
<td>42</td>
<td>42</td>
<td>84</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>24</td>
<td>24</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>60</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>1300</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SERIES CVK AUTOMATIC HIGH SPEED FILLING MACHINE

MODEL VAC-100 HIGH SPEED VACUUM TYPE FILLER

The Model VAC-100 is a straight line vacuum filling machine, designed for filling nail polish bottles and other small containers to a preset level. Combines the speed of a rotary with the simplicity of a straight line filler.

The VAC-100 design features a dual lane conveyor with a reciprocating nozzle filling system. New type filling system eliminates solvent evaporation from the filling nozzle which prevents material dry-up at the filling nozzle tip.

The Model VAC-100 can be cleaned in place. Merely immerse intake line into the solvent supply. Solvent can also be back flushed for additional cleaning action.

Clean-up and down-time is only a fraction of that of a rotary filler with comparable production capacity.

The VAC-100 will fill bottle sizes from 0.5 to 2.0 oz. at speeds up to 240 per minute. Other system configurations are available for specific filling applications.
HOLDING TANK
Optional holding tank fabricated of type 316 stainless steel. For use with remote main reservoir. 50 gallon capacity. Float valve or electronic sensor, maintains constant level in tank by automatically actuating feed from main reservoir.

ROTARY UNSCRAMBLERS AND ACCUMULATORS
Unscramblers automatically feed round bottles onto conveyor. Optional aligning attachment for feeding square or rectangular containers. Available with 36" or 48" diameter rotary table equipped with mechanical variable speed drive. Accumulators automatically gather filled, capped bottles as they leave the conveyor. Explosion-proof operation available.

MANIFOLD
Manifold provides a single intake for Filamatic fillers equipped with multiple Filling Units.

AIR-WASH BOTTLE CLEANER
For use with glass, metal or plastic containers. Uses filtered high pressure air and vacuum to remove dirt, dust and other foreign matter from containers prior to filling. Optional air ionizing system for neutralizing static electricity on the inside of plastic containers.

AUTOMATIC CAP TIGHTENER (ACTM SERIES)
For automated production lines. Rates up to 45 per minute. Cap sizes to 148mm. Optional explosion-proof operation.

Write for detailed literature or information on the equipment listed above.
Most filling requirements can be satisfied by standard Filamatic equipment. For those applications which cannot be handled with standard Filamatic equipment, we will gladly modify an existing model or produce a new design for your specific application.

The following machines are examples of unique solutions to challenging problems:

### THE FILAMATIC ® MODEL 100 TFA-10 AUTOMATIC TRAY FILLER

The Tray Filler is designed for filling 3cc, 5cc and 10cc syringes positioned in a B-D Hypak Tray.

The Filamatic Tray Filler is comprised of a 10-nozzle Filamatic Filler coupled to an automatic tray transport mechanism. The operator merely loads the tray containing empty syringes into one end of the transport mechanism and unloads the tray with the filled syringes at the other end. The tray is indexed automatically from start to finish. Nozzles are inserted into the syringe barrels during the fill cycle. The transport system is programmed to provide rapid movement of the empty tray to the fill position, automatic indexing and filling of the syringes, then rapid discharge after filling is completed.

### THE FILAMATIC MODEL AL-200S AUTOMATIC SPONGE FILLER

The sponge filler is designed to automatically inject an accurate, pre-measured quantity of liquid soap into surgical sponges. This filler is available with 4 to 8 nozzles, to provide production rates up to 120 sponges per minute.

The sponges can be hand placed onto the Filamatic conveyor or they can be fed automatically. The sponges are transported to the injection station by the conveyor and held in place by an indexing mechanism. Each sponge is then injected by two special injection nozzles to ensure that the soap is uniformly distributed throughout the sponge. The filled sponges are then released and transported to the conveyor discharge.

### MODEL PDF-37

The Model PDF-37 Series is designed for applications where small quantities of product must be dispensed simultaneously into multiple compartments. The semi-automatic model shown is capable of filling 50 compartments at a time with up to 15cc per compartment. A single master control adjusts the volumes dispensed from each Filling Unit. Separate "fine-tune" adjustment is provided for each filling station. In the version shown, the Filling Units are enclosed in a heated chamber to maintain the temperature of the agar media being dispensed. A special valving system permits the user to introduce steam into the filling system for clean-up.

The Model PDF-37 can be equipped for automatic operation, if the container configuration permits.

### FILAMATIC MEASURED FLOW FILLERS

A new horizon in liquid filling machines

Filamatic Measured Flow Fillers provide a totally new method of volumetrically filling plastic, glass or metal containers with any flowable liquid. There are no pumps, pistons, seals or wear parts in the liquid stream. The product flows from your own pressurized source to the nozzle through a tubular path. Fill abrasive liquids, or products with a high solids content. Contact parts are fabricated of plastic and stainless steel. Fill accuracy is better than 1%. Unlike time-pressure systems, variations in infeed pressure, temperature or viscosity have no effect on the fill accuracy of Filamatic Measured Flow Fillers. Fill from an overhead reservoir, process line, pressurized supply line or pump. Clean and sterilize in place.

*Filters with pore retention as small as 0.22 microns may be installed between the supply and the nozzle.

Filamatic Measured Flow Fillers are available as single nozzle units for laboratory or limited production applications, or as multiple nozzle machines for automatic or semi-automatic operation.

### HOW IT WORKS

The fill volume desired is preset on indicator (3). Liquid flows from pressurized source (1) through flow sensor (2), pinch valve (4) and nozzle (5) into container. When the preset volume has been dispensed into container, flow sensor (2) sends a signal to indicator (3), thus actuating and closing pinch valve (4). Filters may be placed between pinch valve (4) and the nozzle. Variations in infeed pressure have no effect on the accuracy.

*Filters should be used as safety devices only, and not as the prime filter medium.

Write for detailed literature or information.
AUXILIARY PACKAGING MACHINERY

SEMI-AUTOMATIC

PASTE FILLERS
FILLER DEPOTOR MODEL AP
Ideal for short run and limited production filling of cosmetics and food products. Adjustable from 1 to 16 oz. for filling liquids and semi-liquids. Equipped with a 10-gallon stainless steel hopper.

MINI-PASTE FILLER
Air operated filler for dispensing from 0.1 to 30 grams of viscous materials with accuracies to ±1%. Filling speed variable to 25 cycles per minute. Easily automated. Less pressure pot.

TUBE CLOSERS/CRIMPERS
For short runs and small scale production packaging of collapsible metal tubes.

TUBE CLOSER MODEL: TCL
Makes an airtight double or triple fold with one turn of a handwheel. Two sizes cover a range from 1/2" to 2 1/4" diameter tubes.

TUBE CRIMPER MODEL: TCR
Designed to crimp the folded ends of tubes closed by the tube closer. Optional jaws for dating or coding.

MODEL JT TUBE CLOSER/CRIMPER
Combines a tube closer and crimper in one compact unit. Measures only 12 1/2" high x 9 1/2" wide x 4 1/2" deep. Optional coding jaws for dating or coding.

POWDER FILLERS

AUTOMATIC NET WEIGHING MACHINE
Automatically weighs and dispenses into containers any dry, free-flowing, non-liquid product. Five sizes for dispensing from 0.07 to 175 ounces with ±1% accuracy. Easily automated. An optional vibrating funnel is available for dispensing into small necked containers.

CAPSULE FILLERS

CAPSULE FILLER
Eliminates handling of individual capsules. Available in two models to provide production rates of up to 2000 capsules per hour. Handles every size capsule from No. 000 through No. 5. Occupies only 16" x 22" of floor space.

O.E.M. APPLICATIONS
Filamatic filling machines and Filling Units are widely used by Original Equipment Manufacturers (O.E.M.) of form/fill/seal machines, tray moulding machines, and other types of liquid packaging machines. The Filamatic filling system relieves the manufacturer of a major design responsibility.

BOTTLE CAPPERS FOR ALUMINUM CAPS

SEMI-AUTOMATIC ALUMINUM CAP CLOSER (SERIES H)
Three models cover a range from 13mm to 65 mm cap size. Production rates up to 24 seals per minute. Powerful motor drive and spring loaded floating crimp wheel produce uniformly perfect seals.

Write for detailed literature or information on the equipment listed above.
AUXILIARY PACKAGING MACHINERY

BOTTLE CAPPERS FOR SCREW CAPS

SERIES RB & RBA
Hand-held and bench mounted versions. Capacity up to 148 mm cap size. Finger-tip adjustment on RBA provides exact degree of tightness required. Air or electric drive.

SERIES HU
Similar to series RB and RBA except mounted on a stand. Cap tightening mechanism is lowered by pulling handle downward.

SERIES AU & AUA
Positioning bottle against stop automatically causes cap tightening mechanism to descend, tighten cap to preset torque and then raise to start position. Tightens screw caps up to 148 mm in size. Single or dual heads. Optional explosion-proof operation.

BAG CLOSERS

QUIK-SEAL THERMAL IMPULSE SEALERS
Provide an efficient, low cost means of sealing thermoplastic film. Sealing lengths from 8 to 12 inches with 0.080" wide flat seal. Optional knife or wire trim attachment. All Quik-Seal equipment includes an adjustable timer to preset welding time.

QUIK-SEAL BAG CLOSER
A single downward thrust measures, cuts, applies, and seals vinyl tape around the neck of a plastic bag.

LABEL GUMMER

LIQUID PROCESSING CONTROL EQUIPMENT

DIP-N-READ PORTABLE VISCOMETER
The National Dip-N-Read Viscometer provides a rapid, accurate means for determining the viscosity of non-Newtonian materials. Easy to use even for unskilled personnel. Simply immerse the spindle in the test material, flick the switch and read the viscosity in centipoises on a calibrated scale. Type 1 covers to 330 centipoise range; type 2 from 30 to 400,000 centipoise.

HAND REFRACTOMETERS
National Hand Refractometers provide a rapid, convenient means of determining percent sucrose, total dissolved solids in liquid products, or alcohol content of extracts, solutions, etc. Invaluable as a control instrument in the processing of beverages, jams, jellies, preserves, tomato products, and maple syrup. Ten models cover a 0 to 90% range.

FREE TESTING SERVICE
We shall be happy to test run your product to determine the Filamatic model best suited for your needs.

There is no cost or obligation. Simply send us a sample of each size container plus a working sample of your product (min. 15 times the size of the largest container) and indicate the production rate required.

Packaging — Processing

Bid on Equipment
1-847-683-7720
www.bid-on-equipment.com