combine high production with accuracy and versatility to assure packaging at LOWEST COST PER BOTTLE!

Merrill
tablet-capsule counters

PENNSALT CHEMICALS CORPORATION
INTERNATIONAL DIVISION (STOKES)
5500 Tabor Road
Philadelphia, PA 19120
lowest cost per bottle... is the result when you use Merrill Tablet-Capsule Counters

Here's why:

1. **High accuracy of count**—product pick-up by cleaned, gently vibrating, precision-machined slats assures accurate count. Excellent visibility permits "quick scan" visual inspection; holds operator's tasks to a minimum.

2. **Greater versatility**—any Merrill counter can be used for both coated and uncoated tablets, soft gelatin capsules, as well as hard-shell two-piece capsules. These machines handle *special or unusual shaped tablets*. Reduce capital investment.

3. **Higher capacity**—continuous-fill operation of all Merrill counters results in faster filling . . . up to 20% faster than conventional machines.

4. **Flexibility**—slats are designed to optimum dimensions to permit multiple usage. In most instances, one set of slats will package tablets that vary up to $\frac{1}{8}$" in diameter and $\frac{1}{16}$" in thickness.

5. **Gentler handling**—tablets are cradled in slat pockets, not subjected to sliding and abrasion. Result? Monograms or embossing are *not* blurred or broken.

. . . but that's not all Merrill offers:
- Complete line of optional equipment and accessories.
- Complete engineering services.

How Merrill Tablet Counters Work

These machines operate on the most practical, accurate principle known—continuous-fill.

Gently vibrating slats move up through the tablets or capsules in the hopper. Product slides into precision-machined slats, and is conveyed over the top of the machine, down the inspection area to the lower manifold. While one row of bottles is being filled, filled bottles in the other row are conveyed out of the filling area, and replaced by a row of empties. Gating time averages about 1/10th of a second (nearly 30 times faster than conventional machines).

Empty slats are automatically and thoroughly air-jet cleaned and brushed during each cycle to prevent product build-up and possible error in count.
The Merrill line includes a counter for every packaging production need from the semi-automatic or fully automatic Sampler to the high-speed fully automatic 72-39. Design features of these machines include:

- The upper manifold is furnished with a flipper gate which automatically indexes from the front to back row of bottles as directed by the slat movement.
- A roll back brush at top of incline prevents extra tablets from falling into the filling area.
- An automatic level control in the feeding area insures the proper amount of tablets are on hand at all times—enough for accurate filling and elimination of scuffing or breaking.
- Safety switches on the conveyor automatically stop the machine when there are no bottles at the filling stations or when filled bottles cannot be discharged.
- Automatic bottle positioners accurately locate the bottles under the manifold tubes regardless of tolerance in the bottle.

The Merrill Line is comprised of four machines that cover every need.

- MODEL 30-6
- MODEL 56-10A
- MODEL 72-16A
- MODEL 72-39A
Merrill Services

Merrill services have been expanded to include custom design, and comprehensive lab assistance. Merrill's own services have been augmented by the well-known Stokes Advisory Service that has been serving the production end of the pharmaceutical industry for more than 65 years. Skilled and experienced engineers and technicians are ready to help you improve your packaging equipment, plant layout, provide production and engineering data...and help train your personnel.

To be sure you get exactly the equipment you need to package your product most economically, just send sample tablets, bottles and count per bottle. Product name or code designation is helpful. We must have representative sample to determine product variation in size. Also give us the production you would like to attain—then we can recommend the proper machine.

Other Merrill Equipment and Accessories:

Model 15-10 Huma-Cap Feeder for depositing desiccant capsules into bottles before and after they are filled with tablets or capsules. Inserts 145 single capsules or 80 double capsules per minute.

Model CP-47 Capsule polisher/inspection unit. Cleans and polishes up to 1,500 capsules per minute. Full visibility assures immediate inspection.

Feeder-Hoppers—Stationary and hydraulic types. 3 1/2 to 11 cubic feet capacity. Arranged for DC battery operation.

Other Accessories:

CAMBRIDGE ABSOLUTE* FILTER—Removes 99% of all particles as small as .3 microns. Available on all models. Permits exhausting of air directly into packaging room.

SLAT and MANIFOLD STORAGE CABINETS—for convenient storage of change parts.

STATIC ELIMINATORS—to eliminate static build-up providing for accurate count under varying humidity conditions.

*Registered trade name—Cambridge Filter Corp.

BRANCH OFFICES

CHICAGO
5875 N. Lincoln Avenue
Chicago, Ill. 60645
312-271-9620

CLEVELAND
142 Shaker Building
Cleveland, Ohio 44122
216 SKyline 2-6260

NEW ENGLAND
125 La Salle Road
West Hartford, Conn. 06107
203-521-4291

NEW JERSEY
385 Chestnut St.
Union, N.J. 07083
201-688-2345

Pennsylvania
Wynnewood House, Office #109
300 E. Lancaster Ave.
Wynnewood, Pa. 19096
215-MF 9-6700

SOUTHEAST
J. D. Robertson, Inc.
3110 Maple Drive, N.E.
Atlanta, Ga. 30305
404-237-1506

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5115 Westheimer Road
Houston, Texas 77027
713 National 2-2777

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205 N. Puente Avenue
City of Industry, Calif. 91746
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For further information or detailed specifications, write or call any of the offices listed below.

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Machinery Company
Subsidiary of Pennsalt Chemicals Corporation
Box 100
Warminster, Pa. 18974
215-672-7700

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1072 Kipling Avenue, North
RPxdale (Toronto), Ontario, Canada
416-247-6251

EUROPE
Pennsalt Limited
Tower Works
Doman Road
Camberley, Surrey, England
Camberley 4151

LATIN AMERICA
Industrial Quimica Pennsalt S.A. de C.V.
Melchor Ocampo 445
Mexico 5, D.F. Mexico
25-02-90

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Merrill tablet counters

combine high production with accuracy and versatility to assure packaging at lowest cost per bottle!

Model 30-6

Ideal for packaging physicians samples or short runs of stock items. Especially well suited for filling into lightweight vials and other small bottles that are difficult to convey.

Available as table model, mounted on portable base, or with 8-ft. conveyor and control panel for automatic operation.

Packages odd or unusual shapes and soft gelatins as well as conventional tablets or capsules.

Specifications:

<table>
<thead>
<tr>
<th>Filling rate</th>
<th>DRIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fills 2 to 1000 tablets per bottle—for bulk filling. Up to 70 bottles per minute where count is 25 or less per bottle. Up to 20 bottles per minute of 100 count. Fills into 3, 4 or 6 bottles at a time.</td>
<td>Counter: 1/8 HP vari-speed drive.</td>
</tr>
<tr>
<td>Power</td>
<td>Floor space</td>
</tr>
<tr>
<td>115 volts, 60 cycle or 220 volts, 60 cycle; single phase.</td>
<td>30&quot; x 32&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>265 to 375 lbs., depending on model.</td>
</tr>
</tbody>
</table>

Merrill Machinery Company, Subsidiary of Pennsalt Chemicals Corporation, Equipment Division, Box 100, Warminster, Pa. 18974 • 215-672-7700
MERRILL MODEL 30-6: This counter is ideal for packaging physician's samples or short runs of stock items. Especially well suited for filling into light weight vials and other small bottles that are difficult to convey. Available as table model, mounted on portable base or with eight foot conveyor and control panel for automatic operation. Above photo shows a model 30-6 T, table model.
MERRILL MODEL 30-6.T: Top view photo shows tablets in hopper, roll back brush, tablets in slats and upper manifold.
MERRILL MODEL 30-6 T: Above photo shows a special adaptation using two model 30-6 T counters mounted over two candy wrapping machines. Each 30-6 T counter was synchronized with its companion wrapping machine so that exact amounts of candy pieces could be filled into plastic bags.
MERRILL MODEL 30-6 P: This unit is mounted on a portable base cabinet. The counting machine is mounted to the base cabinet by means of Saginaw screws. The bottle tray is removable and the Saginaw screws enable you to set the machine over most existing conveyors.
THE SAMPLER, MERRILL MODEL 30-6 PH: Equipped with an auxiliary hopper that has a capacity of approximately 1 1/2 cubic feet. There are dust collecting nozzles over the top rollback brush and underneath the stainless steel plate of the upper manifold. These nozzles may be connected to a portable vacuum cleaner or to the plant dust collecting system.
MERRILL MODEL 30-6 AHC: Equipped with its own eight foot conveyor and will automatically index bottles to the filling station. The conveyor handles bottles that are up to three inches in diameter or width and six inches in height. Photo illustrates automatic model with conveyor control console and auxiliary hopper.
Merrill tablet counters

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Model 56-10A

Just right for medium to medium-low production. Complete with control panel, foot switch, upper manifold, conveyor, and built-in provision for dust collecting system. Packages odd or unusual shapes and soft gelatins as well as conventional tablets or capsules.

Specifications:

| Filling rate | Up to 65 bottles per minute of 100-count. |
| Conveyor | STD. 9 ft. long; height adjustable from 33' to 38". Special conveyors available to meet individual requirements. |
| Power | 220-440 volts, 60 cycle, 3 phase. |
| DRIVE Counter | 1/2 HP vari-speed drive. |
| Dust collector | 1 HP 1800 RPM motor |
| Conveyor | 1/3 HP 1800 RPM motor with Absolute Filter |
| Power | 1/3 to 1 HP, 1800 RPM motor depending on length. |
| Control circuits | 80 to 100 psi. |
| Air pressure | 115 volts, 60 cycle, single phase. |
| Floor space | 4' x 12'. |
| Weight | 500# |

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MERRILL MODEL 56-10 A: This medium-low production model comes complete with control panel foot switch, upper manifold conveyor and built in provision for dust collecting system. Above photo shows front view of this machine with control panel console on the right.
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Model 72-16A

Designed for medium production needs. Complete with control panel, foot switch, upper manifold, adjustable conveyor and provisions for built-in dust collecting system.

Packages odd or unusual shapes and soft gelatinas as well as conventional tablets or capsules.

Specifications:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filling rate</td>
<td>Up to 90 bottles per minute of 100-count.</td>
</tr>
<tr>
<td>Conveyor</td>
<td>STD. 10 ft. long; height adjustable from 33&quot; to 39&quot;</td>
</tr>
<tr>
<td>Special conveyors</td>
<td>Available to meet individual requirements</td>
</tr>
<tr>
<td>Power</td>
<td>220-440 volts, 60 cycle, 3 phase.</td>
</tr>
<tr>
<td>DRIVE</td>
<td>1/2 HP vari-speed drive.</td>
</tr>
<tr>
<td>Dust collector</td>
<td>1/2 HP 1800 RPM motor</td>
</tr>
<tr>
<td></td>
<td>2 HP 1800 RPM motor with Absolute Filter</td>
</tr>
<tr>
<td>Conveyor</td>
<td>1/2 to 1 HP 1800 RPM motor depending on length.</td>
</tr>
<tr>
<td>Control circuits</td>
<td>115 volts, 60 cycle, single phase.</td>
</tr>
<tr>
<td>Air pressure</td>
<td>80 to 100 psi</td>
</tr>
<tr>
<td>Floor space</td>
<td>5' x 14'</td>
</tr>
<tr>
<td>Weight</td>
<td>875# with Dust Collector</td>
</tr>
</tbody>
</table>

Merrill Machinery Company, Subsidiary of Pennsalt Chemicals Corporation, Equipment Division, Box 100, Warminster, Pa. 18974 - 215-672-7700
MERRILL MODEL 72-16 A: This machine is designed for medium production needs, complete with control panel, foot switch, upper manifold, adjustable conveyor and provisions for built-in dust collecting system. Above photo shows a model 72-16 AD, complete with Cambridge Absolute Filter on left side of machine and the consolidated control panel on the right side.
MERRILL MODEL 72-16 AD: Above photo shows the rear of a model 72-16AD (with dust collector) machine revealing dust filter elements and exhaust stack on right of photo.
MERRILL MODEL 72-16 AD: Above photo shows a better view of the Cambridge Absolute Filter and the control panel on console.
MERRILL MODEL 72-16 AD: Photo above shows lengthwise view of conveyor to reveal the double row section bottle positioner for relocating bottles under lower manifold.
MERRILL MODEL 72-39A: This counter is designed for high production needs. Complete with control panel, foot switch, upper manifold, adjustable conveyor, and provisions for built in dust collecting system. Above photo shows close-up of front of machine with details of slats, upper and lower manifolds, bottle positioning unit and conveyor. Forty bottles are shown before the bottle positioner has been activated.
MERRILL MODEL 72-39 A: A new design counting unit, custom made for the high-speed operations and stringent Federal regulation of today's food and drug packaging -- has been introduced by Merrill Machinery Company, a subsidiary of Pennsalt Chemicals Corporation. The unit, a new version of Model 72-39, largest of Merrill counters, permits disassembly in 20 minutes or less -- 300 percent faster than with earlier models.
MERRILL MODEL 72-39 A: The new Model 72-39 permits disassembly in 20 minutes or less.... 300 percent faster than with earlier models. Vital components like rollback brushes, electrical connections and dust nozzle can be removed for more frequent and intensive cleaning of equipment.
MERRILL MODEL 72-39 AD: Photo shows a model 72-39 counter with Cambridge absolute filter exhaust at the left and new automatic bottle positioner. Four groups of bottles are positioned under the filling stations. This method of grouping helps overcome variations in the wall thickness of the bottles.
MERRILL MODEL 72-39ADH: This photo shows a model 72-39 counter complete with Cambridge absolute filter and hydraulic lift type feeder hopper. Also shown on left is a huma-cap feeder, model 15-10 in position over the conveyor. Consolidised control panel is shown on the right side.
MERRILL MODEL NO. 72-39 S -- Empty capsule counter. Manifold designed to fill two containers at a time.
MERRILL MODEL 15-10 - HUMA CAP FEEDER: Above photo shows the Huma Cap feeder set over an existing conveyor with indexing air cylinders. The Huma-Cap feeder will drop dessicant capsules into bottles at the rate of 145 single capsules or 80 double capsules per minute. These feeders will set over most existing conveyors.
MERRILL FEEDER HOPPER - Photo shows the bottom of a stationary type feeder hopper and cabinet. Feeder hoppers are available for all machines. Two types are available, stationary type, as shown above, and the hydraulic lift type.
MERRILL FEEDER HOPPERS: Feeder hoppers are available for all machines, in two models, the stationary type and the hydraulic lift type as illustrated on the right side of the photo above. Photo shows a flat top hydraulic lift type feeder hopper on the floor.
MERRILL FEEDER HOPPER: Above photo shows a flat top hydraulic lift type feeder hopper in operating position. These hoppers feed a steady flow of product into the hopper of the counter. The product passes over a vibrating screen which removes considerable tablet dust and small chips, especially when packaging uncoated tablets that are inclined to be soft. Capacity of these feeder hoppers ranges from $3\frac{1}{2}$ to 10 cubic feet, depending on the model.
MERRILL FEEDER HOPPER: Above photo shows two dome top hydraulic lift type feeder hoppers complete with dust collecting nozzles.
MERRILL CAPSULE POLISHER CP-47: This capsule polisher will clean, polish and enable the operators to inspect hard shell, two piece capsules, at the rate of 70,000 to 100,000 per hour, depending on the size. By using a slight vibration, the capsules are positioned in the pockets of the plates. As the capsule plates travel down the inspection panel, they pass under the two soft, unbleached muslin polishing wheels, which clean the entire surfact of the capsules, including the ends, by spinning the capsules in the pockets of the plates.
MERRILL CAPSULE POLISHER - CP-47: Above photo shows side view of a model CP-47 Capsule Polisher. The capsules are fed into the hopper of the machine from the auxiliary hopper shown on the top left of the above machine. Equipped with static eliminator attachment, roll-bar arrangement for full 360° inspection of capsules, vacuum hoses and receiver for removing defective capsules and adjustable end closing plate for maintaining capsule size.
In the time it takes you to read this headline, a Merrill® Tablet Counter can accurately fill twenty 100-count bottles... automatically.

Up to 300 100-count bottles every minute... or 20 bottles every 4 seconds, the time it took you to read the above headline... that's how fast a Merrill Counter can handle your packaging requirements... automatically.

In addition, every Merrill Tablet Counter features:

- **High accuracy of count**—because the product is picked up from the hopper by gently vibrating, precision-machined slats operating on the principle of continuous fill.
- **Gentle handling**—because tablets and capsules are cradled in slat pockets... not subjected to sliding and abrasion... so trademarks and monograms are not broken or blurred.
- **Versatility**—one set of slats handles tablets varying in size up to 1/16" in diameter and 3/16" in thickness.
- **Faster gating time**—averaging about 1/10 of a second nearly 30 times faster than conventional machines.
- **Dust-free operation**—because an automatic dust-collection system built into the cabinet forces air through filter cloths.

The Merrill line consists of four basic models... capable of handling 2- to 1000-count bottles at rates from 20 to 300 bottles per minute... each with full accessories. Whether you're packaging physician's samples or operating a full-scale production line, there's a Merrill Counter just right for your application. Our engineers can help improve your packaging equipment, plan a plant layout, provide production and engineering data... even help train your personnel. For further information, write for Merrill Tablet-Capsule Counter bulletins, or call us for a consultation with our specialists.

Merrill Machinery Company
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P.O. Box 100, Warminster, Pa. 18974