

**PFAUDLER®**

**ROTARY PISTON FILLERS**



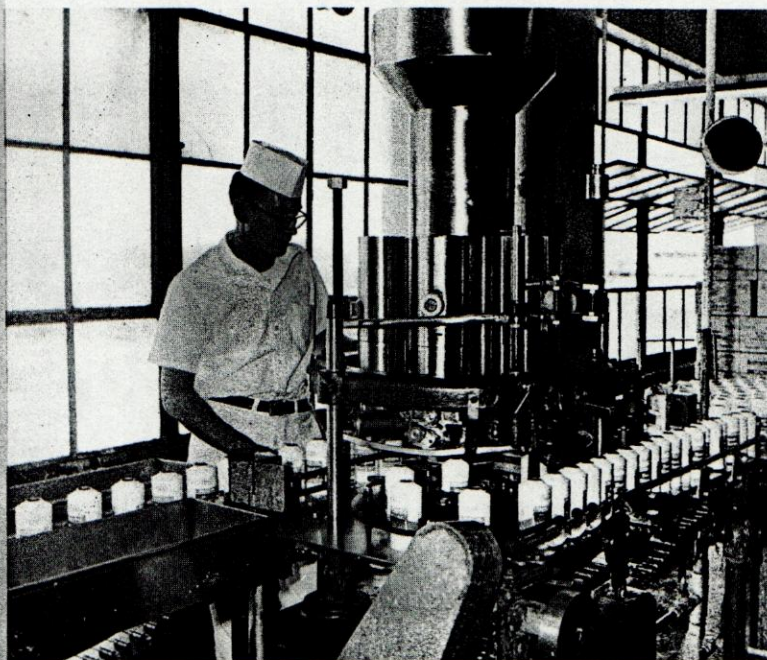
**PACKAGE LIQUID, VISCOUS OR SEMI-SOLID PRODUCTS    FILL GLASS, METAL, PLASTIC OR FOIL-FIBER CONTAINER**



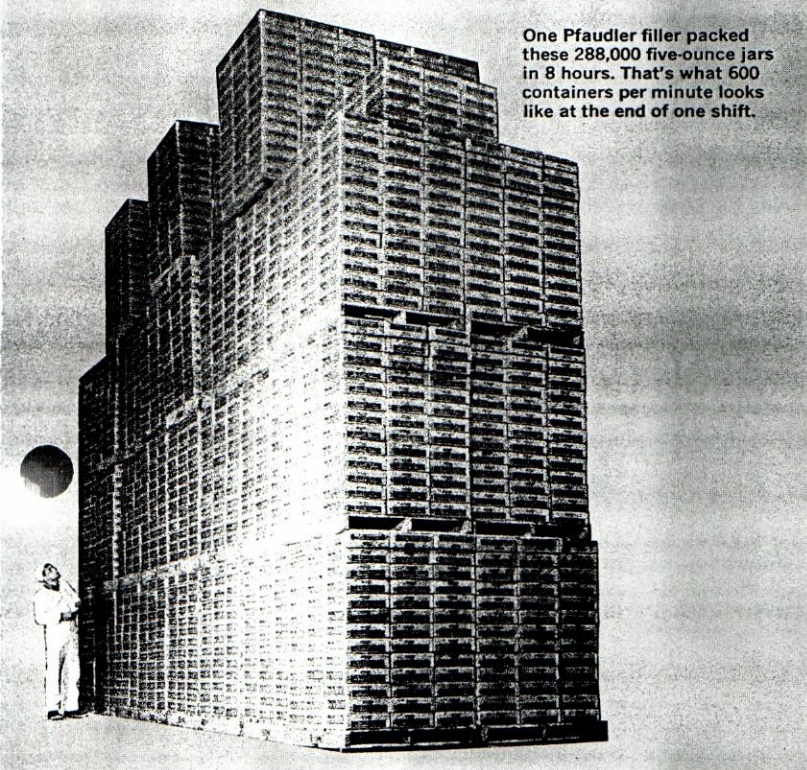
From the squatty tin of deviled ham to the 404 can of fruit punch, including the narrow-neck salad oil bottle and aerosol dessert topping, about the only container a Pfaudler filler can't fill is the shopper's cart.



Some thirty different aerosol products are packaged by this 6-station Pfaudler filler at Rexall Drug and Chemical Corporation, St. Louis, Mo.



One Pfaudler filler packed these 288,000 five-ounce jars in 8 hours. That's what 600 containers per minute looks like at the end of one shift.



## FROM SOUP TO FUDGE, BIG CANS OR SMALL...

... fill them all with Pfaudler fillers. Pfaudler Rotary Piston Fillers will accommodate food products generally handled by gear or piston pumps, from light or viscous liquids to semi-solids.

A complete range of models is available—from 6 to 36 stations per machine with filling speed range of 40 to 1000 containers per minute. Fill as little as one or two ounces at a time, or as much as five quarts, in large-neck or open-mouth containers of metal, glass, plastic or foil-fiber.

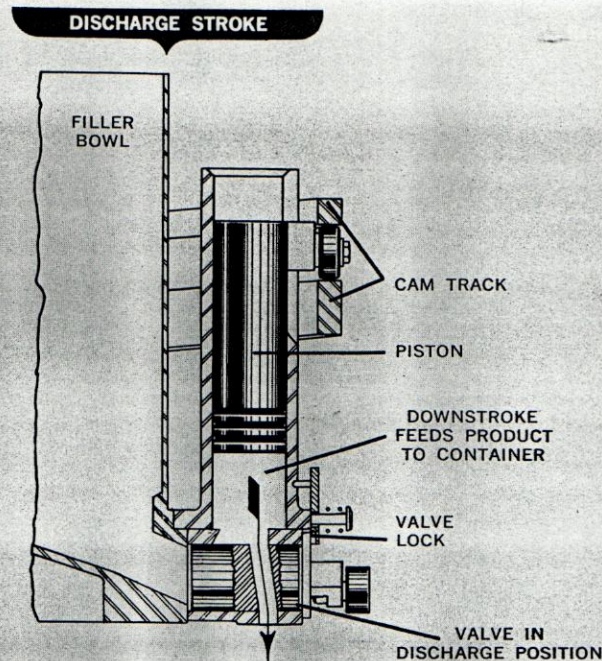
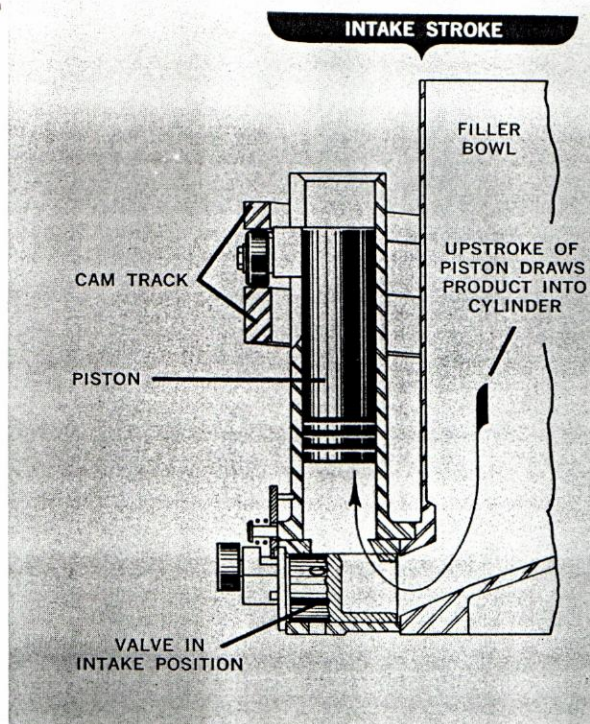
### A few of the products handled by Pfaudler Rotary Piston Fillers

Aerosols  
Applesauce  
Baby Food  
Barbecue Sauce  
Berries, Sliced Frozen  
Cherry Pie Mix  
Chili  
Citrus Juice Concentrate  
Cranberry Sauce  
Cream Style Corn  
Cream Whip Products  
Dietary Beverages

Dog Food  
Hash  
Hot Fudge  
Jam, Jelly, Preserves  
Macaroni Dinner  
Mayonnaise  
Meat Paste and Pâté  
Meat Sauces  
Milk Products  
Mushroom Sauce  
Mustard

Oil and Anti-Freeze  
Petroleum Jelly  
Pineapple, Crushed  
Potted Meat  
Pumpkin  
Salad Dressing  
Soups  
Spanish Rice  
Stews  
Syrups  
Tomato Paste





## HOW PFAUDLER FILLERS OPERATE

Simplicity of design, a basic characteristic of Pfaudler Rotary Piston Fillers, is exemplified in the operating sequence of the machine.

The machine itself consists essentially of a bowl, body, pistons, cylinders, valves and actuating mechanism. Filling and discharge actions of the filler are shown above. The piston roller, operating in the cam track, first raises the piston and draws the product from the filler bowl through the valve intake port into the cylinder. Action of the valve roller on the valve cam rotates the valve so that the intake port closes and the discharge port opens.

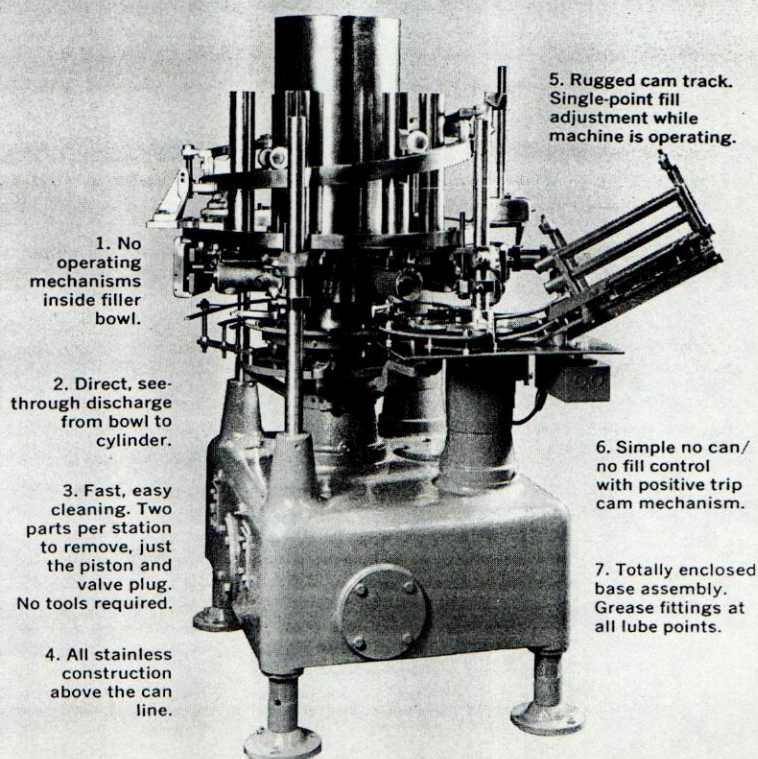
The downstroke of the piston forces the product out of the cylinder through the discharge port into the container. A second valve cam then returns the valve to the intake position as the piston begins to travel upward on its intake stroke.

Empty containers are fed from a can chute or conveyor to a screw which is synchronized with a star wheel. This positions the cans in micarta chucks which carry them around stainless steel rails under the filling stations. Containers are discharged to a conveyor with a straight line take-off.

**Fill Adjustment** — Amount of container fill is governed precisely by the length of piston stroke, which in turn is controlled by the slope of the cam track. A fine-thread adjustment screw tilts the cam track either upward or downward to compensate for variations in rate of product flow or changes in

container size. The amount of fill is proportionally adjusted at all stations simultaneously and can be so regulated while the machine is operating.

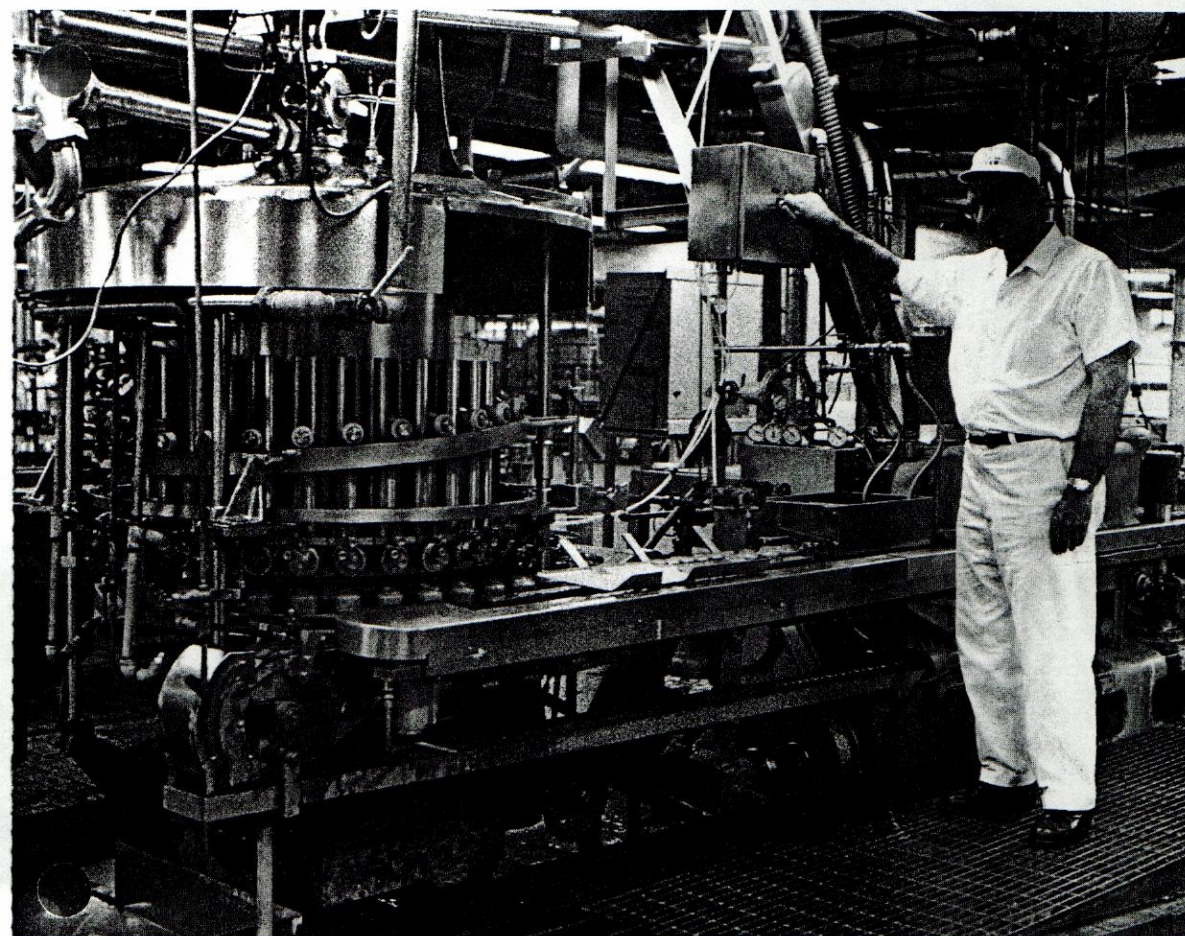
**No Can, No Fill** — Should there be no container under the filling station, a trip device moves the valve-opening cam out of engagement-position so that the valve remains closed during the remainder of that one revolution of the filling machine. Unpackaged product is returned to the bowl.



1. No operating mechanisms inside filler bowl.
2. Direct, see-through discharge from bowl to cylinder.
3. Fast, easy cleaning. Two parts per station to remove, just the piston and valve plug. No tools required.
4. All stainless construction above the can line.
5. Rugged cam track. Single-point fill adjustment while machine is operating.
6. Simple no can/no fill control with positive trip cam mechanism.
7. Totally enclosed base assembly. Grease fittings at all lube points.

These seven operating features are found only on a Pfaudler Rotary Piston Filler.





TODDLER Food, a new line of some ten different baby food preparations, is packed in 6½-ounce jars at 30,000 per hour with this 28-station Pfaudler filler at Gerber Products Company, Fremont, Michigan.

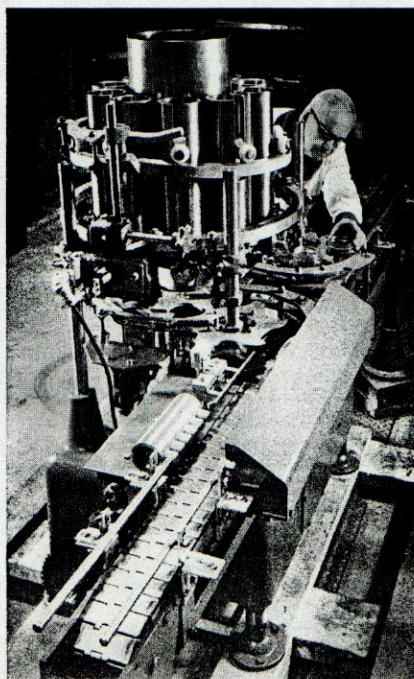
## FAST, ACCURATE FILL... WITHOUT PRODUCT SPILL

Pfaudler fillers are designed to assure proper balance of smooth piston fit and small product cushion. No surge. No leakage. No splashing.

Operation of the fillers is independent of gravity flow. Hydraulic action of the piston assures a precise quantity of product delivered to the container even with viscous or mixed-solids products. Fill is measured by the controlled stroke of the piston operating within an accurately-machined cylinder. A rigid, non-flexing cam track assures maximum accuracy. As a result, accuracy can be held to  $\pm 1/10$  fluid ounce for many products.

To eliminate spillage, containers are discharged to the closing machine in a straight line and filling machine and closer are synchronized for smooth transfer of containers. Containers flow in a continuous line, with no stop and go. Pfaudler fillers also have a can-tilt adjustment to allow higher speeds with low viscosity products.

Smooth handling of containers through synchronization of infeed, filler and closer also assures that even lithographed cans and jars can be filled without marring. There is no contact with the top of the container and the machine. Micarta parts are used to guide and position containers.



Continuous through-feed conveyor is driven from the base of this 10-station filler as is the feed screw that times containers into the machine.



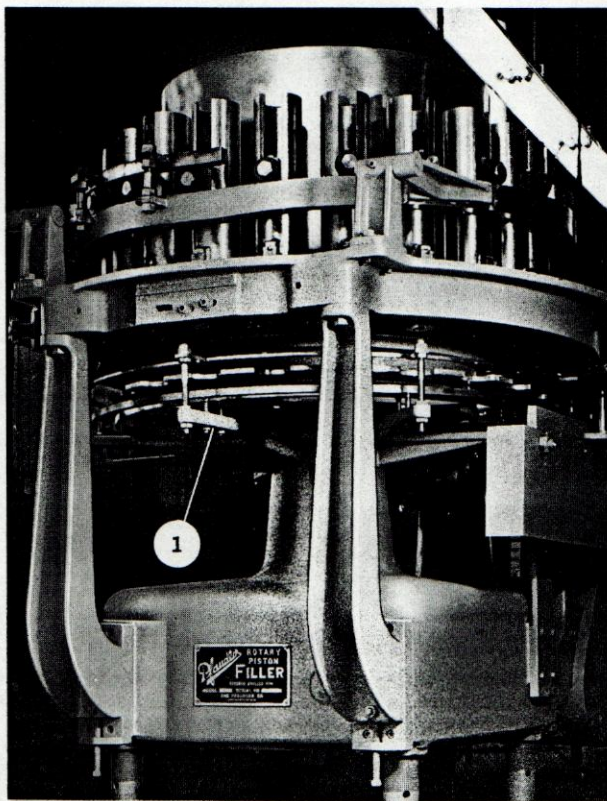
## CLEAN-UP IN 30 MINUTES

Most operators clean a Pfaudler filler thoroughly in just one-half hour. No tools or hoist required. Remove only two parts per station—piston and plug.

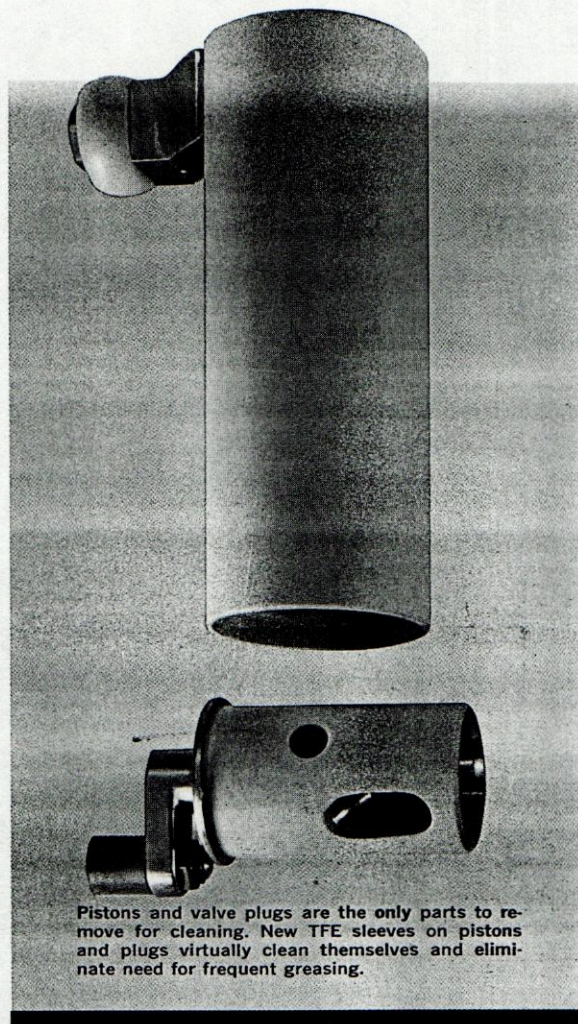
Just twist the valve locks and slide the plugs out of the valve body. Pistons are lifted out of the cylinders in the intake position. With pistons and plugs removed, all product contact surfaces are easily accessible to cleaning and quick visual inspection.

Drainage is fast and complete because the bottom of the filler bowl is sloped to the valve housing. Cleaning agents flow through quickly and are easily rinsed away. No adjustments to the machine are required after cleaning.

**Materials of construction**—The materials used in a Pfaudler filler are selected on the basis of their long-term corrosion resistance to foods and normally used cleaning agents. Those parts in direct contact with the product are either type 316 stainless steel, TFE polymer, or high-nickel alloy. Above the can line, only stainless and non-ferrous alloys are used. Base and legs plus other exposed metal parts below the can line are painted as required. Over-all use of materials is in accordance with established sanitary requirements for the food industry. Substitute materials can be supplied when requested.

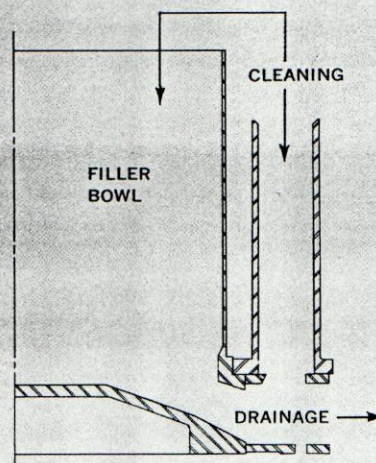


Back view of Pfaudler filler shows accessibility of can path adjustment (1). Container tilt is controlled to compensate for centrifugal force and prevent product throw-out.



Pistons and valve plugs are the only parts to remove for cleaning. New TFE sleeves on pistons and plugs virtually clean themselves and eliminate need for frequent greasing.

Cone-shaped bottom of filler bowl assures quick, complete drainage for fast cleaning. All product contact surfaces are open to mechanical cleaning and visual inspection.





## A MINIMUM OF MAINTENANCE

Pfaunder fillers have only four primary wearing parts—piston roller, valve roller, valve trip cam and valve lock pad. All are inexpensive, conveniently stocked and quickly installed. There are no connecting rods, wrist pins or piston rings.

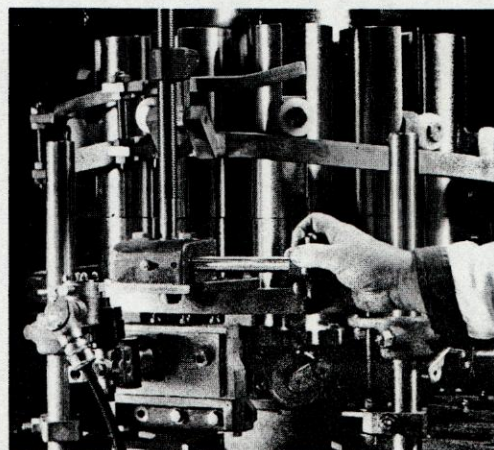
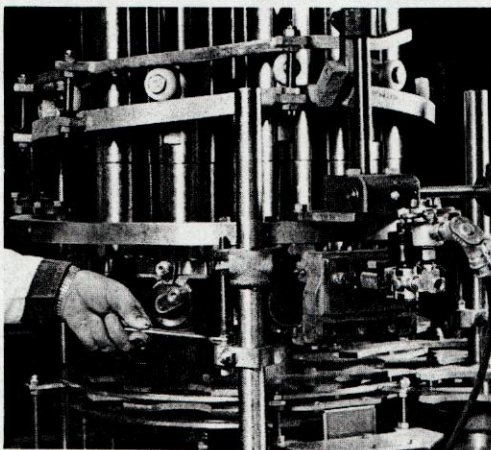
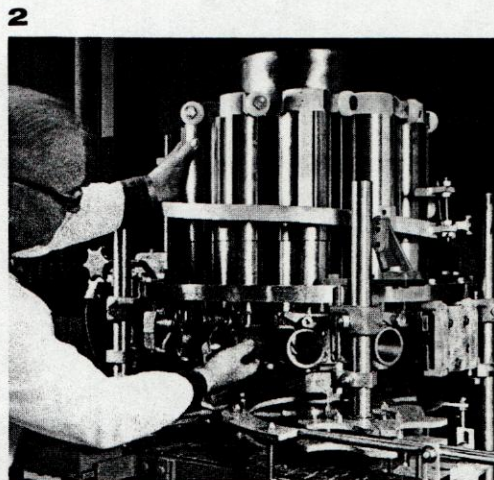
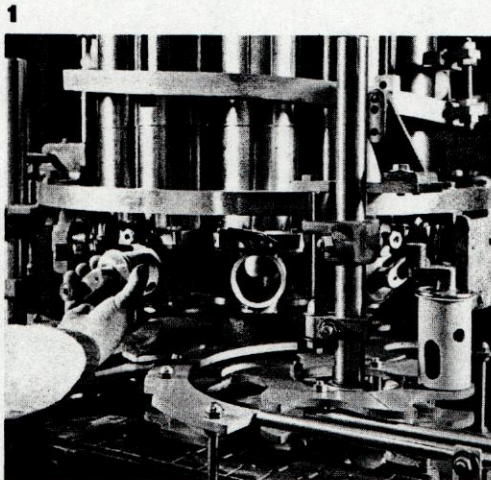
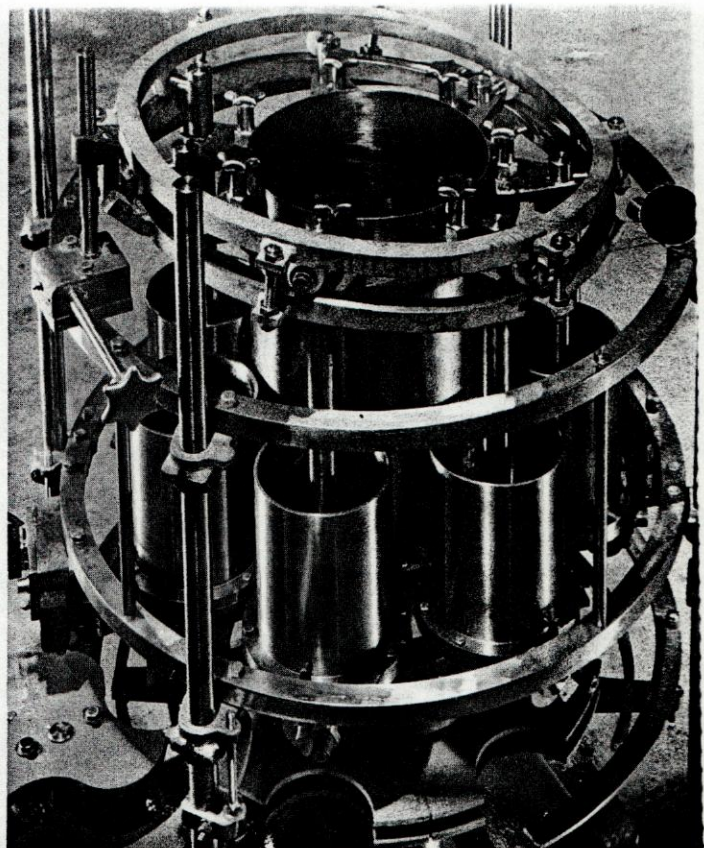
Since pistons and valve plugs are lubricated by the product handled, they are not considered wearing parts subject to periodic replacement. New TFE covered pistons and plugs are effective with non-lubricating products.

All shafts are splined for more precise alignment and longer service. Base assembly is totally enclosed with no exposed gearing.

Each unit is supplied with a complete instruction manual and spare parts list.

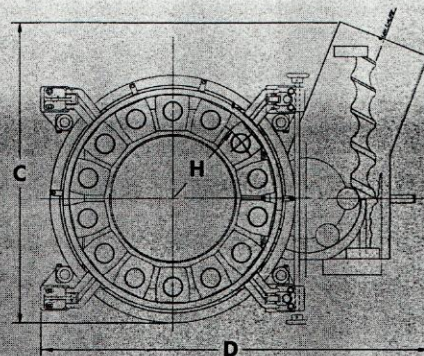
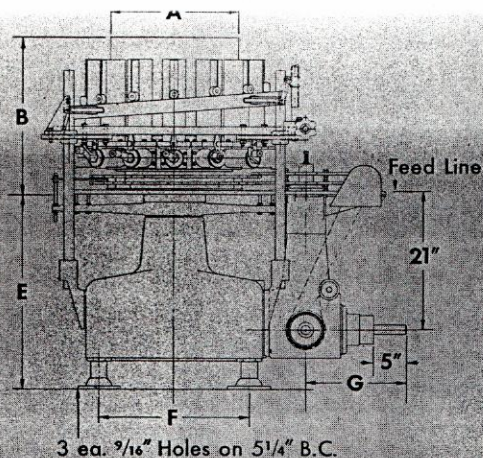
No matter where your plant is located, one of our seventeen field servicemen is but a phone call away.

The 7-station RP filler is designed especially to handle #10 tins, gallons, 5 quarts and other large volume containers at speeds of 40 to 100 a minute.



To change container height on any Pfaunder filler is quick and easy. Four simple steps are involved: (1) Operator raises pistons and removes valve plugs, (2) Filler bowl is then easily rotated to the new height, (3) Piston and valve cam ring are set by adjusting support screws, (4) Final fill adjustment is made from a single point while the machine is operating.





## SPECIFICATIONS—Pfaudler Rotary Piston Fillers

Model	RP-6	RP-7	RP-10	RP-14	RP-21	RP-28*	RP-35	RP-36
<b>Operating Data</b>								
Rated speed** (c.p.m.)	60 to 175	40 to 100	100 to 300	150 to 400	225 to 600	300 to 800	375 to 1000	375 to 100
Number of stations	6	7	10	14	21	28	35	36
Container diameter	202 to 404	401 to 700	202 to 404	202 to 404	202 to 404	202 to 404	202 to 303	202 to 404
Capacity of fill*** (fluid oz.)	50	160	50	50	50	50	24	50
Capacity of filler bowl (gal.)	9	15	9	25	41	88	88	153
Horsepower required	1	1 1/2	1	1 1/2	1 1/2	1 1/2	3	3
Floor area (sq. ft.), approx.	15	21	15	21	25	30	30	45
<b>Dimensions (inches)</b>								
A Filler bowl dia.	11 3/4	13 1/2	11 3/4	19	26	37	37	50
B Height above feed line (less container)	22	27	22	22	22	22	22	22
C Width, approx.	39	52	39	52	55	55	55	71
D Length, approx.	54	56	54	56	65	78	78	91
E Feed line height**** (adjustable)	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34
F Centerline of legs	23 5/8	23	23 5/8	23	23	23	23	48
G Feed star centerline	17 7/8	15 1/4	17 7/8	15 1/4	15 1/4	15 1/4	15 1/4	15 1/4
H Can path radius	10	14	10	14	17 1/2	22 7/8	22 7/8	29 3/8
<b>Shipping Information</b>								
Net weight (lb.), approx.	2000	2600	2350	2875	3800	4150	4400	8950
Crated weight (lb.), approx.	2300	3075	2550	3190	4150	4485	4850	9450
Boxed for export (lb.), approx.	2525	3475	2800	3575	4400	4900	5250	9900
Displacement of export box (cu. ft.), approx.	140	140	140	140	140	140	140	240

\*28 stations also offered on RP-21 frame to handle 300 to 800 c.p.m., 303 dia. can maximum size, 24 oz. fill. Dimensions for RP-21 apply.

\*\*Filling speeds depend on product, temperature and container size.

\*\*\*Subject to size of cylinders furnished.

\*\*\*\*Longer base legs can be provided.

### INFORMATION NEEDED TO PREPARE YOUR QUOTATION:

1. CONTAINER—Supply a sample of each container or the following data:

Material (Metal, Glass, Other)

Height

Diameter

Size of Opening

2. PRODUCT—Forward samples in the as-filled condition, if possible, and indicate filling temperature, viscosity and specific gravity.

3. CONTAINERS PER MINUTE to be filled.

4. TYPE OF SEAMER OR CAPPER (make and model).

5. ACCESSORIES NEEDED and any special plant conditions.

**Change Parts**—Your Pfaudler filler is equipped to fill a given container of specified diameter and height.

Change parts are available to handle other containers.

**Patents**—Pfaudler Rotary Piston Fillers are covered by one or more of the following U.S. Patents—2,759,649; 2,725,169; 2,666,564.



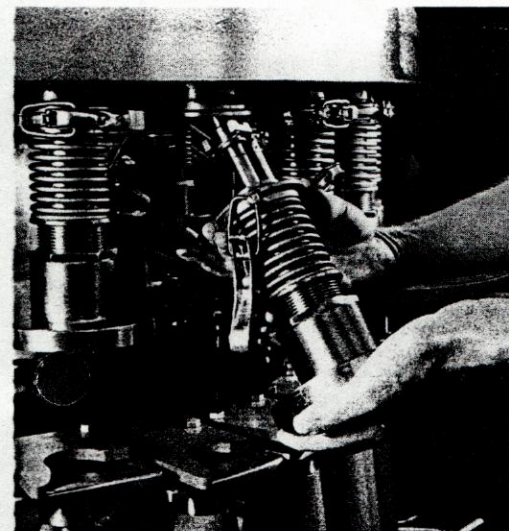
## A COMPLETE LINE OF FILLERS

Pfaunder fillers are used throughout the world packaging a host of products ranging from food preparations and lube oils to anti-freeze and cosmetics, in both conventional and aerosol containers. Rugged design, coupled with simplified operation; quick, thorough cleaning; and the ability to handle almost any viscosity and container shape, are just a few of the many reasons why Pfaunder fillers are used more than any others.

Rounding out the extensive line of Rotary Piston Fillers is a full array of Pfaunder® Gravity, Lube Oil and Bottom-Fill machines. Each design is com-

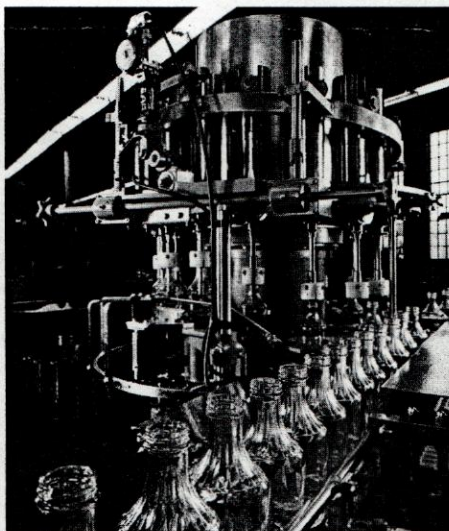
plete in terms of the range of filling speeds offered and the diversity of container sizes accommodated. There's the right kind and capacity Pfaunder filler for packaging almost anything from a light-liquid fruit juice to creamy cottage cheese to a garnished soup. One or two ounces at a time, up to five quarts per fill. Be it a wide mouth can or narrow neck bottle. All of which makes little difference to a Pfaunder filler.

Throughout the food, drug and petroleum industries Pfaunder fillers will be found "on line" delivering a fast, accurate fill, day in and day out.



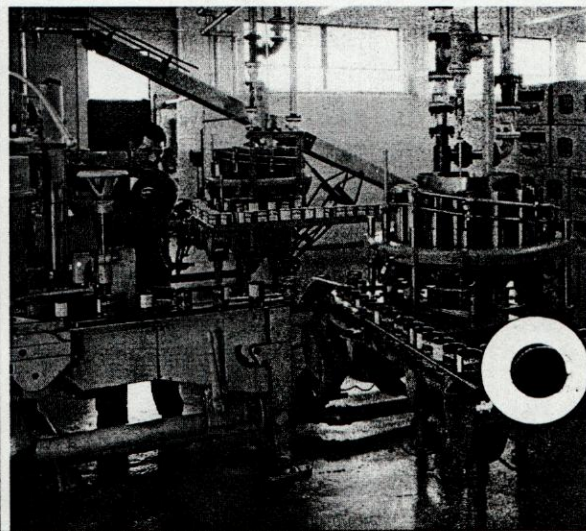
### Gravity Filler

A clean smooth fill for free-flowing liquids, hot or cold. Ideal for fruit juices, sauces and wines. Accuracy to  $\pm \frac{1}{16}$ " for most liquids. Quick detach valve assembly can be removed, cleaned and then replaced on the machine in about two minutes. All working parts are enclosed. Your product contacts only stainless steel. Five models offered from 9 to 24 stations operating from 40 c.p.m. with a #10 can, up to 465 per minute filling a 5 oz. container.



### Bottom-Fill Filler

Essentially this is a rotary piston type filler with an extended nozzle that projects into the container. This close-to-the-liquid fill means no bubbles or foaming. It delivers a void-free fill with mayonnaise and salad dressing. It is well suited to handling narrow neck bottles containing heavy viscous materials and those that tend to foam. With most products a metered accuracy of  $\pm 1/10$  fluid ounce is typical at speeds up to 560 c.p.m. Five models available offering from 7 to 28 stations.



### Lube Oil Filler

The 36-station Pfaunder lube filler delivers 600 quarts per minute without splash or spill. Seven other models answer the low to medium range speed requirements. The 7-station model, which is also available as a Bottom-Fill machine, handles gallon size and 4-liter cans in both round and "F" styles. To prevent spills at high filling speeds, a special tilt adjustment of the can rail compensates for centrifugal force. A single point fill control that is standard on all models gives precise adjustment at full operating speeds.

# PFAUDLER

DIVISION OF RITTER PFAUDLER CORPORATION

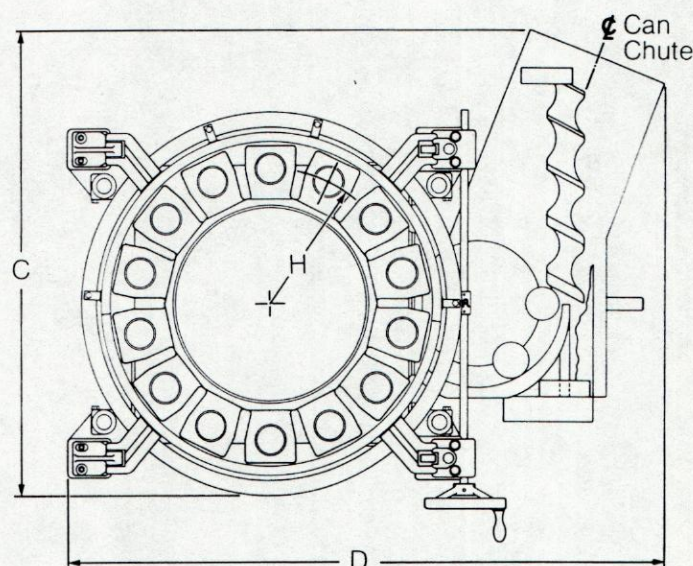
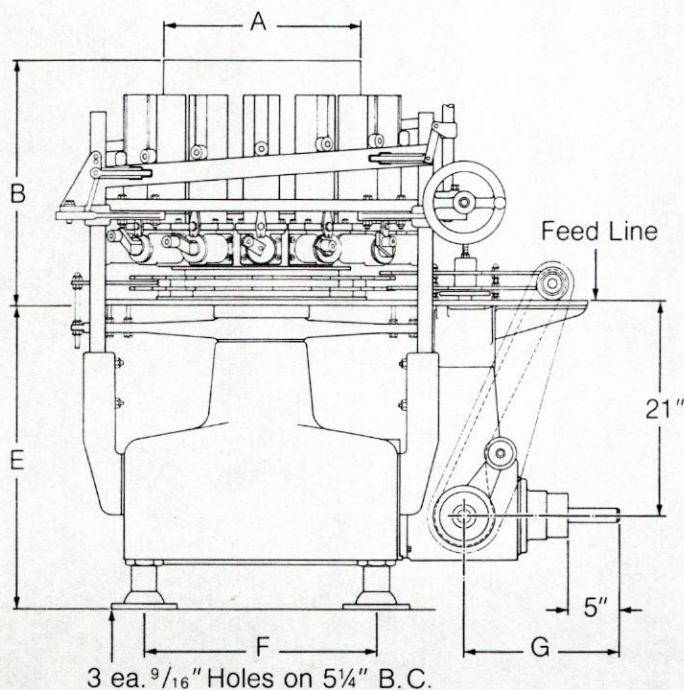
1000 WEST AVENUE  
ROCHESTER, NEW YORK 14603



Also:

Ritter Pfaunder Canada Ltd., Toronto;  
Pfaunder International G.m.b.H., Basel, Switzerland;  
Ritter Pfaunder Asia Limited, Hong Kong;  
Pfaunder Permutit S.A. de C.V., Mexico City.





### Specifications: Pfaudler Rotary Piston Fillers

Model Number	RP-6	RP-10	RP-14	RP-21	RP-28*	RP-35	RP-36	RP-54	RP-7G	RP-14G
<b>Operating Data</b>										
Rated speed (cpm)**	60 to 175	100 to 300	150 to 400	225 to 600	300 to 800	375 to 1000	375 to 1000	500 to 1500	40 to 100	80 to 200
Number of stations	6	10	14	21	28	35	36	54	7	14
Container diameter	202 to 404	202 to 404	202 to 404	202 to 404	202 to 404	202 to 303	202 to 404	202 to 303	401 to 700	401 to 700
Capacity of fill (fluid oz.)†	52	52	52	52	52	28	52	52	160	160
Capacity of filler bowl (gal.)	9	9	25	41	88	88	153	250	15	82
Horsepower required	1	1	1½	1½	2	2	3	5	1½	2
Floor area (sq. ft.), approx.	15	15	21	25	30	30	45	50	21	30
<b>Dimensions (inches)</b>										
A Filler bowl diameter	11¾	11¾	19¼	26¼	37	38½	50	59¼	14	31¼
B Height above feed line (less container)	22	22	22	22	22	21¾	25½	25½	27	27
C Width, approx.	39	39	52	55	55	55	71	71	52	55
D Length, approx.	54	54	56	65	78	78	91	102	56	78
E Feed line height (adjustable) ‡	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34	30 to 34
F Centerline of legs	23¾	23¾	23	23	23	23	48	48	23	23
G Feed star centerline	17¾	17¾	15¼	15¼	16¾	16¾	17¼	17¼	15¼	15¼
H Can path radius	10	10	14	17½	22¾	22¾	29¾	33¾	14	22¾
<b>Shipping information</b>										
Net weight (lb.), approx.	2000	2350	2875	3800	4150	4400	8950	9150	2600	3600
Crated weight (lb.), approx.	2300	2550	3190	4150	4485	4850	9450	9700	3075	4250
Boxed for export (lb.), approx.	2525	2800	3575	4400	4900	5250	9900	10,300	3475	4700
Displacement of export box (cu. ft.), approx.	140	140	140	140	140	140	240	460	140	140

\*28 stations also offered on RP-21 frame to handle 300 to 800 cpm, 303 dia. can maximum size, 24 oz. -fill. Dimensions for RP-21 apply.

\*\*Filling speeds depend on product, temperature and container size. †Subject to size of cylinders furnished. ‡Longer base legs can be provided.

### U.S./Metric Conversion Table

To Convert	To	Multiply by	To Convert	To	Multiply by
Ounces (U.S. fl.)	Cu. Centiliters	29.574	Inches	Centimeters	2.540
Gallons (U.S. fl.)	Liters	3.785	Pounds (avoir.)	Kilograms	.454
Sq. Feet	Sq. Meters	.093	Cubic Feet	Cubic Meters	.028

**Change Parts:** Your Pfaudler filler is equipped to fill a given container of specified diameter and height.

Change parts are available to handle other containers.

**Patents:** Pfaudler Rotary Piston Fillers are covered by one or more of the following U.S. Patents—2,759,649; 2,725,169; 3,489,186.