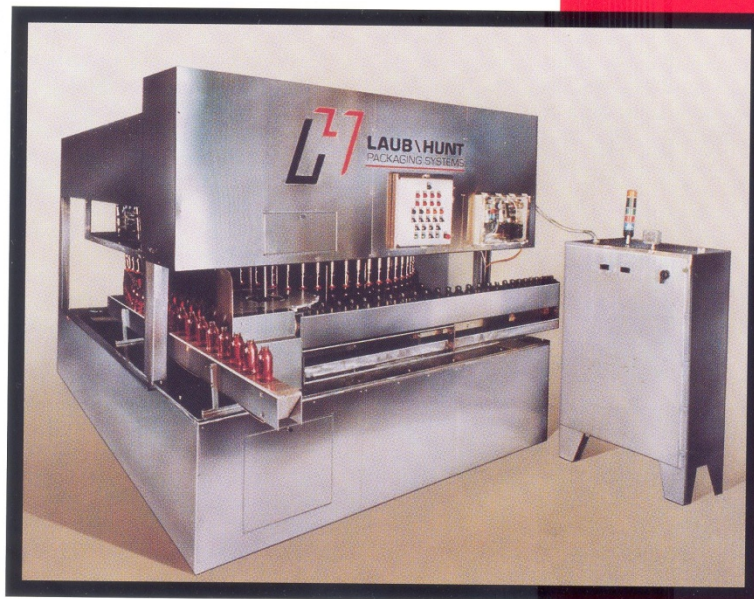


LAUB\HUNT ROTARY LIQUID FILLER

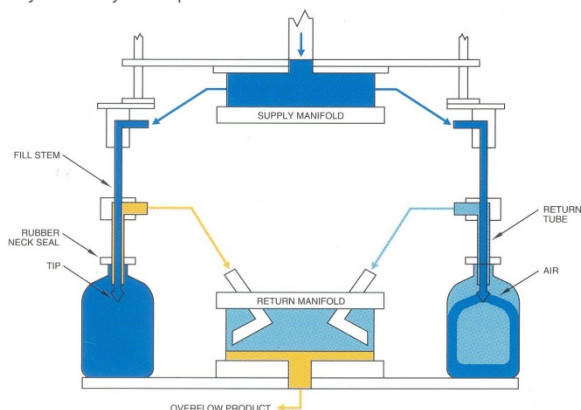


- Unique Dual Stage "Poppet" Nozzle
- Stainless Steel Fill System
- CIP (Clean-In-Place) Product Flush System
- Fill Accuracy of +/- 1/32" (less than 1 mm)
- Washdown Capable System
- Speeds up to 1000/cpm
- Versatility



THEORY OF OPERATION OF THE ROTARY LIQUID FILLER

There are numerous choices offered for filling to a "level": **Gravity, Gravity/Vacuum, Pressure, Balanced Vacuum, Pressure/Gravity or Balanced Pressure.** The Gravity fill system is the simplest, most trouble-free method of filling water-thin products. Constant, consistent head pressure produces uniform fill levels. Heavier viscosity products run well on a Balanced Pressure system. Precisely controlling higher pressures leads to accurate fills and increased production. The balanced Vacuum system remains a good choice for glass containers. Thorough evaluation and testing of your products and containers ensures the right fill system for your requirements.



In each fill system the product is distributed to the nozzles from a centralized supply manifold. The fill cycle begins when the nozzle is crammed open by the presence of a bottle. The neck of the bottle is positively sealed by a rubber gasket to maintain pressure control while filling. The rubber neck seal is positioned on the return tube assembly of the nozzle at a specific setting which determines how far the end of the return penetrates into the bottle. The dimension from the bottom of the neck seal to the end of the return tube establishes the fill level in the bottle. This setting is adjustable for the neck seal can be positioned any where on the return tube. The greater the penetration into the bottle, the fill level is lower, the lesser the penetration, the fill level is higher

As the fill cycle begins and product flows into the bottle, the air, trapped inside by the neck seal, is forced out through the nozzle into the return manifold. It is important for the air to escape quickly so that product can occupy its space. When the product level rises to the end of the return tube the bottle is full. Excess, or overflow, product is naturally siphoned out of the bottle up through the return tube and into the return manifold. This overflow product is directed to the inside wall of the return manifold to create a laminar flow to reduce the chance of sudsing or aeration.

Unique and innovative fill system and nozzle design give our customers the accuracy, flexibility, and versatility they need. Heavy-duty construction, attention to detail, and prompt support assures our customers years of efficient, trouble-free production. That's why L/H liquid fillers are the choice for our customers.

INFEED AND DISCHARGE

Conventional Discharge

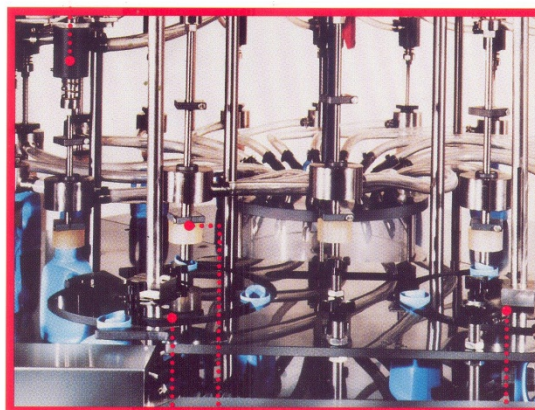
Exclusive L/H neck star and guide provides precision positioning of the containers, eliminating the need for centering "bells". The nozzle enters the container while still under the control of the infeed starwheel and similarly the container discharge starwheel controls the bottle prior to the complete withdrawal of the tip of the nozzle.

Tangential Discharge

For even gentler transfer where high, hot fills are required L/H offers tangential discharge. Here the filled containers are transferred directly to the capper conveyor without sloshing.

Monoblock Construction

L/H offers monoblock construction utilizing most major brands of capping turrets. Container transfer from the filler to the capper is accomplished by dual starwheels and both machines utilize a single drive for synchronous operation.



Infeed Star

Nozzle

Discharge Star

CONVENTIONAL DISCHARGE

.....BENEFITS OF THE LAUBHUNT SYSTEM

LAUBHUNT Packaging Systems offers:
Gravity, Vacuum, Pressure or combination filling such as Pressure/Gravity or Gravity/Vacuum in adjustable or balanced systems.

No tools are required to change starwheels, center guides and guide rails. Minimum tools are only necessary for a complete size changeover including container height and feed screws.

Customized construction to accommodate special requirements for each application providing maximum versatility for our customers.

Direct carousel drive with on top of filler.

Fixed rotary table design, (a system better suited for high speed bottle handling than the rising platform designs).

Positive container handling.

Specially designed nozzles are supplied for each application to handle foamy or other hard to handle products.

Nine frame sizes, from 4x6 ft. to 10x12 ft. with up to 120 nozzles. Heavy duty square steel tube frame construction, on food or pharmaceutical machines all welds are ground to sanitary design standards.

Fill Accuracy of +/- 1/32" (+/- 0.79 mm) (on round containers)

Precision cams and nozzle components assure accurate and repeatable nozzle positioning. Laminar flow design reduces turbulence and foaming inside the bottle. The nozzles discharge the product under pressure deep inside the container; they do not squirt in from above allowing fluid droplets to be blown out by escaping air as the fluid goes down in the neck.

Stainless Steel Fill System

Basic Machines for product such as detergents utilize epoxy painted mild steel frame with plastic and stainless steel components in the product delivery system. Where greater levels of sanitation are required or when corrosive products have to be handled T304 stainless steel frames are quoted. For food grade sanitary application T316L stainless steel components are used exclusively. For bleaches and other highly corrosive products titanium nozzles and PVC lined system is employed.

Washdown Capable System

By having all drive motors on top, the machines are inherently washdown capable. The standard NEMA-12 electrical system can also be upgraded to NEMA-4X, or NEMA-7 if explosion-proofing is required.

Versatility

Fillers are designed to accommodate a wide range of containers sizes from 1/2 oz. to 5 gallon. They can handle products from water-thin to syrups.

Size Range: Container diameters (or lengths) up to 6.5" by 12" height on standard machines, with up to 11" diameter by 19" high on special.

Container types: Glass, plastic, metal or fiber containers.

CIP (Clean-In-Place) Internal Product Flush System

A manual CIP system is standard and an automatic CIP system is available as an option. Inserting a simple horseshoe spacer under each Poppet Stem, the nozzle circulates internally; eliminating the need of inserting a bottle under each nozzle.

Speeds up to 1000/cpm

Machines are built both as In-Line and Rotary Fillers. They start at a minimum of 4 heads for the In-Line version and 8 for the Rotary version. Machines as large as a 12 head In-Line and 120 heads Rotary can be produced.

Dual Stage Poppet Nozzle

The Poppet Nozzle incorporates an upper stem with an orifice through which the product flows. With no bottles present, this orifice is closed and does not allow incoming pressurized product flow into the nozzle. As the nozzles finish the fill the Poppet Stem is cammed closed while the Product Return Sleeve is left open, allowing the product pressure and overflow product to escape, relieving stress on the container before the neck seal is broken and eliminating product splashing and surging at the end of the fill.

Nozzle/Valve design

LH offers over 100 valve/nozzle types, special designed nozzles for sudsy liquids, for bleaches (titanium), for top and bottom fill, nozzles which

create laminar flow to prevent air pockets, nozzles which drain themselves, and even nozzles for our competitor's machines where they perform better than the original supplied.



DIMENSIONS AND SPECIFICATIONS

PITCH DIAMETER		FRONT TO CENTER A		LENGTH B		WIDTH C		TABLE DIAMETER D		STATIONS AVAILABLE
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
48	1219	47	1194	77	1956	60	1524	54	1372	6 to 20
60	1524	53	1346	89	2261	72	1829	66	1676	12 to 25
72	1829	59	1499	101	2565	84	2134	78	1981	15 to 30
84	2134	65	1651	113	2870	96	2438	90	2286	20 to 35
96*	2438	71	1803	125	3175	108	2743	102	2591	24 to 48
108*	2743	77	1956	137	3480	120	3048	114	2896	24 to 54
120*	3048	83	2108	149	3785	132	3353	126	3200	30 to 60
132*	3353	89	2261	161	4089	144	3658	138	3505	40 to 100
144*	3658	95	2413	173	4394	156	3962	150	3810	50 to 100

* Frames over 8 ft. are subject to special dimensions based on design

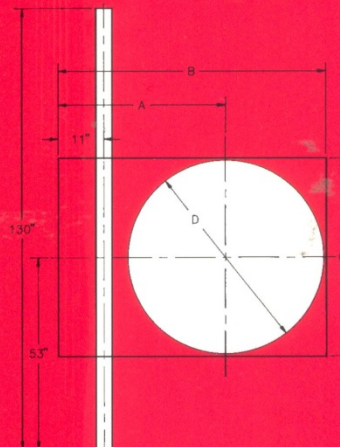
Standard Features

- Steel frame construction
- T304 stainless and plastic fill system
- No container/no fill system
- Individually adjustable nozzles
- Prewired NEMA-12 electrical system
- Product return system
- DC Drive with safety clutch
- Safety guarding with clear polycarbonate
- 10 ft. SS conveyor channel with 4.5" delrin chain and half round guide rails with plastic adjusting knob
- Manual Clean-In-Place system
- One-year warranty

Monoblock or synchronized capping systems available with most standard cappers.

Optional Features

- All stainless steel construction
- T316L stainless and JIC teflon hose assemblies
- Titanium nozzles for bleach, frame painted with DuPont "Omron" epoxy
- NEMA-4X washdown capable electrics
- NEMA-7 explosion proof electrics
- Bottom fill nozzles for foamy products
- AC inverter drive with PLC
- Infeed/discharge safety clutches
- Magnetic safety interlocks
- Clustered lubrication
- Automatic central lubrication system
- Independent conveyor drive
- Synchronized discharge conveyor
- Infeed diaphragm pump
- CIP-Automatic Clean-In-Place system
- Tangential discharge
- Alert light tower with sound alarm
- Down stream photoeye



LAUBHUNT OFFERS A COMPLETE LINE

Packaging Systems: Full "turnkey" service. Complete packaging lines designed, engineered, built and installed. Filling lines from bottle unscramblers to case packers with central control systems. Customer training, videos and full function trial runs prior to on-site installation.

Piston Fillers: Rotary and In-Line Fillers, volumetric positive displacement piston fillers with accuracies of +/- 1/4 of 1% or better than +/-1 gram in most cases. Machines are available from 4 to 60 heads providing speeds up to 600 cpm.

Pressure Metering: Systems for viscous products.

Accessories: In-Line unscramblers for bottles received in re-shippers, "No-Drop" case packers. Rotary Chuck and In-Line Screw Cappers, Fitment Inserters, Pluggers and Overcappers.



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Changes in machine design or specifications are a result of continual machine improvement. LaubHunt reserves the right to change specifications without prior notice.

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