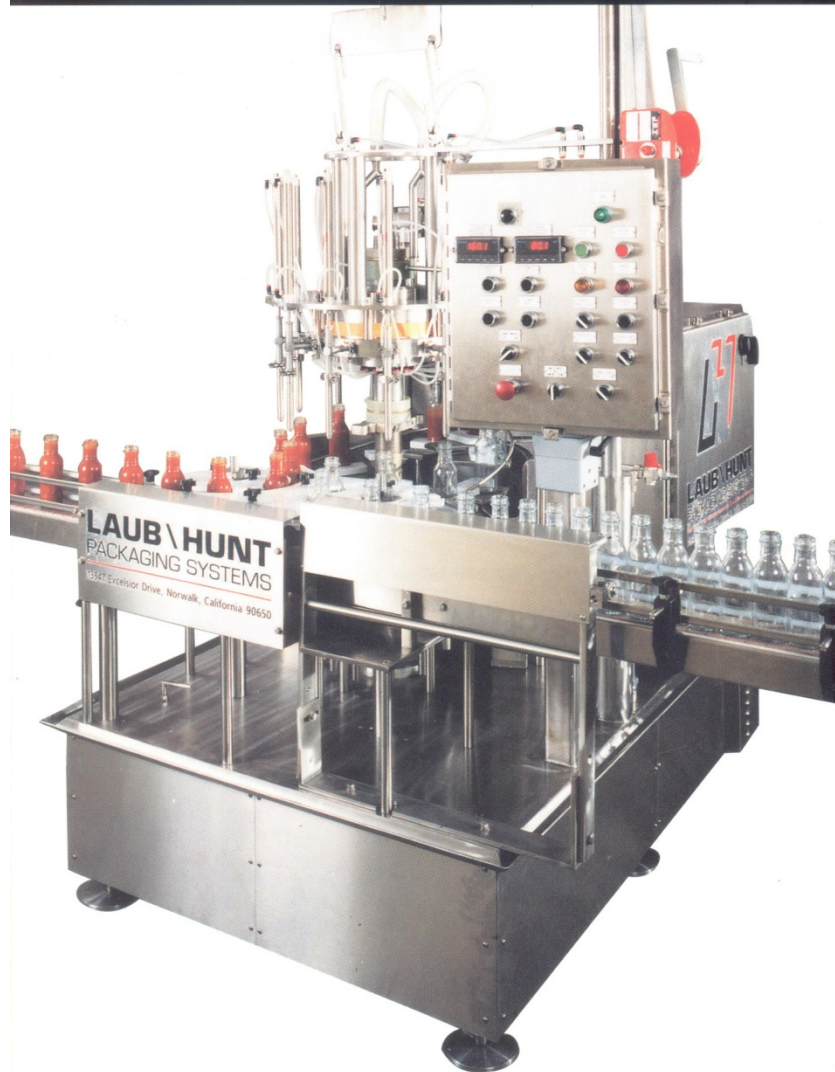


## LAUB\HUNT PRESSURE METERING FILLER



### Fill Systems For High Viscosity Food and Semi-Liquid Products

- Fill Accuracy of  $\pm .5\%$
- Versatility
- State-Of-The-Art Electronics
- Quick Product & Container Change-over
- Stainless Steel Fill Systems
- Washdown Capable Systems



**LAUB\HUNT**  
PACKAGING SYSTEMS



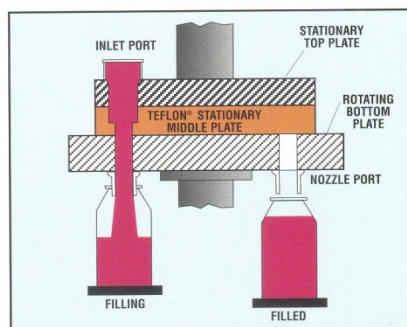


## P/M FILLER (Pressure-Metering)

### ROTATING METERING PLATES:

Laub/Hunt manufactures a full line of Pressure Metering Fillers for high viscosity foods and semi-liquid products. In a Pressure-Metering system the filling head consists of three plates sandwiched together (see diagram below). The upper two plates are stationary while the bottom plate rotates. The middle Teflon® plate provides an excellent bearing surface for the rotating bottom plate to seal against. The upper plate has one or more product inlet ports. The middle plate has channels which correspond to the ports in the upper plate. The rotating bottom plate has ports for each nozzle on the machine. When each nozzle port passes under the inlet port, product is allowed to flow into each container. The flow ceases when

the nozzle port rotates out of position.



The product is supplied under constant, uniform pressure by a positive displacement pump to the inlet port of the top plate. The fill time and product volume is controlled by two factors: the width and length of the channel in the stationary middle plate and the amount of time the nozzle port in the rotating bottom plate is exposed to the channel in the middle plate.

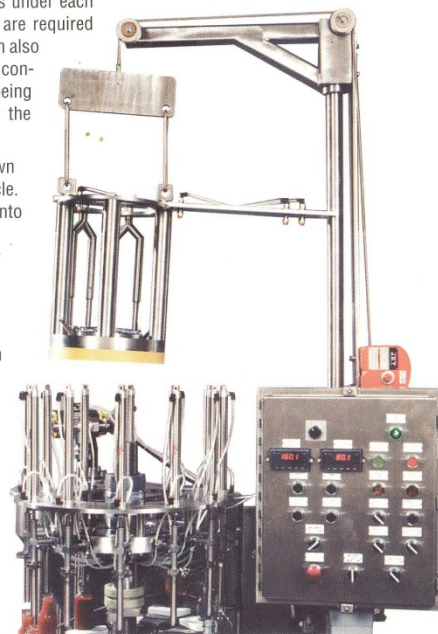
The fill volume is the result of a proper ratio between time and pressure. Fill volume adjustments are made by changing the speed of the carousel (time) and the pump (pressure). Once the proper ratio is achieved, both motors are synchronized to maintain the proper ratio as machine speed increases or decreases. The velocity of the product coming from the pump is regulated by changing orifices at the inlet port of the top plate. This orifice reduction controls the smoothness of the flow rather than the volume.

Some products and containers need to be filled in stages. Multi-stage filling is achieved by supplying the same product to multiple inlet ports in the top plate. Each bottle is filled in fractional stages as it passes under each port. Rise and fall bottle pedestals are required for this type system. This system can also handle multi-part fills by passing the containers under two or more ports being supplied by different products at the inlets in the top plate.

Optional air-operated plungers (shown at left) extend at the end of the cycle. The plunger pushes excess product into the bottle and seals the nozzle tip to prevent dripping or stringing over the bottle neck finish.

The P/M Filler using metering plates can handle a wide range of liquid and semi-liquid products such as: salad dressings, sauces, shampoos, paint, grease, lotions, creams, caulk, mayonnaise, ketchup, chunky salsa, honey, and peanut butter.

Optional hoist for easy removal of stationary metering plates.





## BENEFITS OF THE LAUBHUNT SYSTEM

### SANITARY DESIGN

All LAUBHUNT P/M/ Fillers can be built for food and other sanitary applications. Fill systems are available for high viscosity and chunky (particulates up to 5/8") products. The sanitary design includes product contact parts of all T316 S/S and FDA approved plastics which are fabricated for complete CIP. Tank, pump, metering head, and nozzles are easily disassembled for sanitation. T304 S/S framework and NEMA-4X electrics are designed for washdown. Optional hoist assists with the removal of the metering head.

### VERSATILE & FLEXIBLE

The P/M fillers are available in two frame sizes: 6, 8, or 12 heads and 12, 18, or 24 heads. Production speeds up to 300 per minute depending on product and container. Bottom-up and multi-stage filling with rise and fall pedestals, multi-part filling, anti-aeration, and foam control are features which allow you to maximize your production. Fast product change-over is achieved by simple flushing and disassembly of fill head and nozzles; no-tool, quick-change bottle handling parts reduce container set-up time.

### HIGHLY ACCURATE

The Pressure/Metering System can achieve and maintain fill accuracies of +/- .5%.

### PRECISE BOTTLE HANDLING

Precision infeed timing screws, stars and center guides assure positive bottle control. Neck stars stabilize and center the bottle under the fill nozzles. Bottles are supported by back-up pockets and an O.D. ring as they transfer on and off the rotary carousel.

### SAFETY BY DESIGN

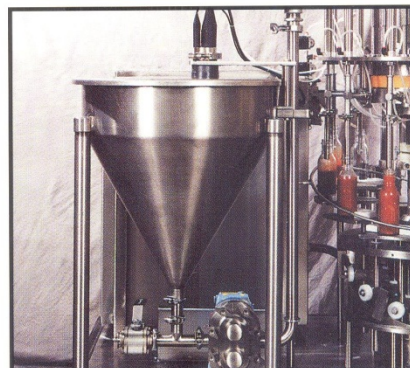
The framework is enclosed by clear polycarbonate panels (interlocks optional). Main carousel drive and both infeed and discharge stars have kick-out clutches. Product tank has low level probe to protect positive displacement pump. All faults tied to warning lights in operator control panel.

### STATE-OF-THE-ART ELECTRONICS

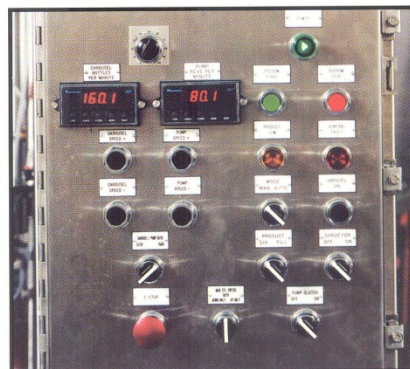
Carousel and pump motors are controlled by AC frequency drives with digital speed readouts. The PLC is programmed to allow individual adjustment of each drive to achieve the proper time and pressure ratio. Once the correct carousel and pump speeds are set, the PLC interlocks and synchronizes both drives so that they ramp up and down while maintaining the proper ratio. The operator control panel features a swivel mount for access from both sides of the conveyor and push button adjustment of digital "bottles-per-minute" carousel speed and "revs-per-minute" pump speed.



LAUBHUNT machines are designed to handle particles as large as 5/8" x 5/8" and high viscosity products like grease or peanut butter.

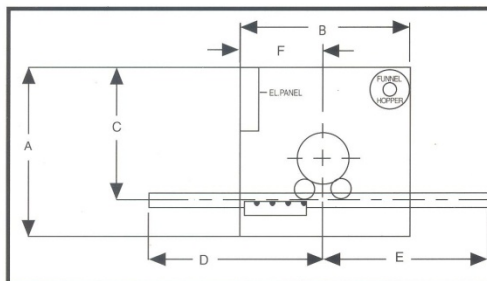


Machines constructed of stainless steel and food grade plastics are wash down capable to NEMA-4X standards



State-of-the-art electronics in this user friendly control panel swivels to either side of the conveyor.

## DIMENSIONS AND SPECIFICATIONS



MODEL	A	B	C	D	E	F
PM 6, 8, 12	60"	48"	45"	72"	48"	24"
PM 12, 18, 24	72"	60"	57"	72"	48"	30"

### Standard Features:

- Positive displacement pump.
- Stainless steel cabinet enclosure.
- Overload kick-out clutches.
- All drives enclosed and safety guarded.
- Carousel and pump drives electronically synchronized.
- Precise feedscrew, star & guide bottle handling.
- S/S conveyor channels with plastic chain and adjustable side rails.
- Digital LED readout for container speed and pump revolutions.
- State-of-the-art electronics.
- Quick product and container change-over.

### Optional Features:

- ALL stainless steel construction.
- T316 S/S product contact parts for food applications.
- Sanitary positive displacement pump.
- NEMA 4X washdown capable electrical system.
- Multi-part fill for two or more products.
- Bottom-up fill.
- C.I.P. System.
- Centralized lubrication.
- Variable-speed conveyor drive.
- Interlocks for frame enclosure panels.
- Metering head hoist.

## 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  $\pm 1/4$  of 1% or better than  $\pm 1$  gram in most cases. Machines are available from 4 to 60 heads providing speeds up to 600 cpm.

### Pressure Gravity - Inline & Rotary Fillers

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

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MEMBER

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