



Versafill Dispensing System

This system is designed to perform filling and coating of microplates, tubes, vials, membranes, test strips, glass slides, and other receptacles. The gentle sinusoidal pumping motion is ideal for dispensing biological products such as protein solutions, latex solutions, or delicate cell suspensions. It has proven to be:

PRECISE

- Precision of better than $\pm 1\%$
- No time-dependent drift
- No hanging drops

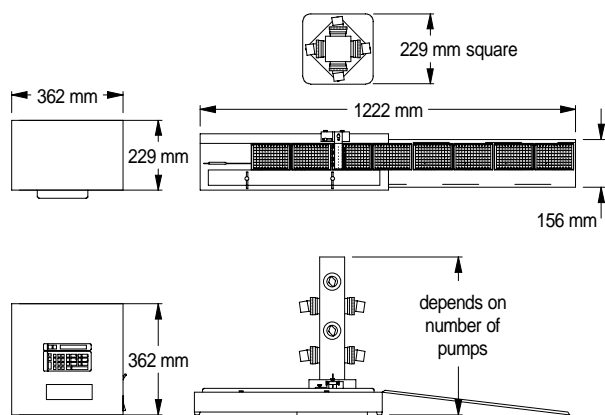
FAST

- Thousands of dispenses per hour per pump channel
- 300 to over 2000 microplates per hour depending on number of pump channels

VERSATILE

- Configure for various container shapes and well patterns
- Dose volumes ranging from 3 microliters to full container
- Dispense complex patterns of different solutions
- Operate in clean rooms or under hoods

The Versafill Dispensing System utilizes state-of-the-art technology. The proven accuracy and dependability of positive displacement metering pumps are combined with solid-state controls and stepping motors for cost effectiveness and high reliability. A microprocessor controls all functions—plate sensing, conveyor indexing and speed, and pump motion and speed. Minimal operator skill is required to achieve high-quality results.



Electrical:
115/220 volts, 60/50 Hz, 1.5/.75 A

Approx. weight:
88 lb/40 kg (with 8-channel pump tower)

Controls

The system is easily programmed. Set-Up parameters include: pump strokes, pump speed, conveyor speed, distance between fills, and fills per tray. Operating Modes include: auto run, forward prime, reverse prime, and check dose. The microprocessor controls microplate or product indexing as well as pump speed and dose volumes.



Conveyor

The stepping motor drive results in very high product positioning accuracy. The gently ramped acceleration maximizes throughput without splashing. Various conveyor designs are available for filling different products. Automatic stack feeders and accumulators are also available.

Pumps



Pumps can be arranged to deliver the same or different solutions as well as the same or different doses. Volumes can range from 3 microliters and up, with precision of better than $\pm 1\%$. The valveless positive displacement pumps utilize ceramic and fluorocarbon materials for virtually inert fluid paths. Completely nonmetal fluid paths can be provided. The pumping function is accomplished by the synchronous rotation and reciprocation of a ceramic piston in a precision-mated ceramic liner. The piston always bottoms for maximum fluid and bubble clearance. The sapphire-hard ceramic piston and cylinder are **highly wear and corrosion resistant**, delivering millions of cycles without loss of precision. The pumps can be steam or chemically sterilized.

Dispense Heads

A variety of interchangeable dispense heads for microplates, tubes, vials, slides, strips, cards, and membranes are available. Dispense tip material choices include stainless steel, plastic, and ceramic. An up/down motion can be added for bottom-up filling or touching off of small drops.



OBPW designs and manufactures a wide variety of systems for automating liquid handling processes. Our liquid dispensers are designed for both stand-alone manual use and for easy integration into automated systems. Since 1979, OBPW has been successfully solving problems and supplying reliable and cost-effective equipment for liquid handling.