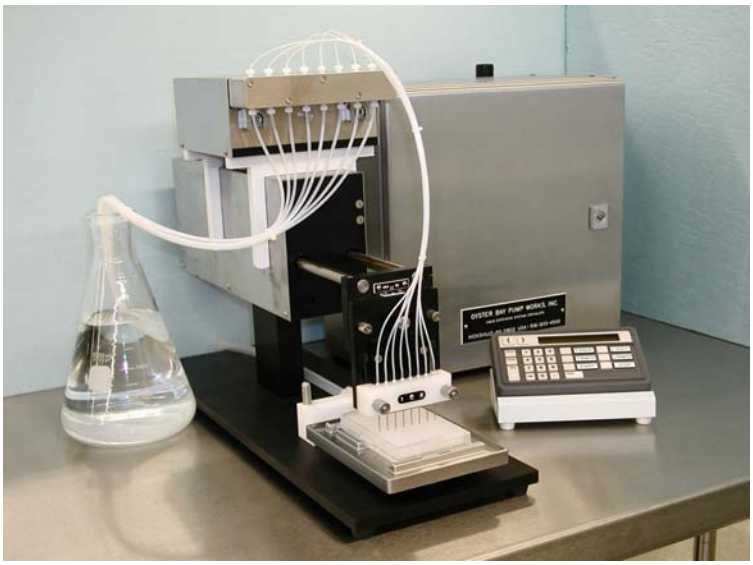
OYSTER BAY PUMP WORKS, INC.
Liquid Dispensing Systems Specialists

Microplate Reagent Addition System



Each system has 4 component modules:

- nozzle indexing module
- pump module
- control interface
- control cabinet

The **nozzle indexing module** is the unit on which a plate is placed to be filled. It includes the automated mechanism to position the nozzles over the wells or priming tray. It is optionally available with an extra "nozzle shift" motion to enable filling 384 well plates with the same grouping of 8 nozzles used to fill 96 well plates.

The **pump module** contains a grouping of pumps with tubing and fill nozzles. Nozzles are attached to a holder that mounts onto the nozzle indexing module. For most solutions, dispense volume CV's of 1% or below can be expected down to 10 µl doses and 10% or below down to 1 µl doses. Various pump module designs are available to suit different fill pattern and volume range requirements. They are designed for quick changeover allowing for multiple uses of the same basic system. Pumps can be arranged to fill all wells with the same reagent or to put different reagents into specific wells. System speed depends on how many pumps are used.

The **control interface** can be your choice of:

- manual keypad interface module (most commonly used)
- manual PC interface (via RS232 com cable to PC serial port) (requires optional software and PC)
- automated remote PC interface (via RS232 com cable to PC serial port) (requires optional software)

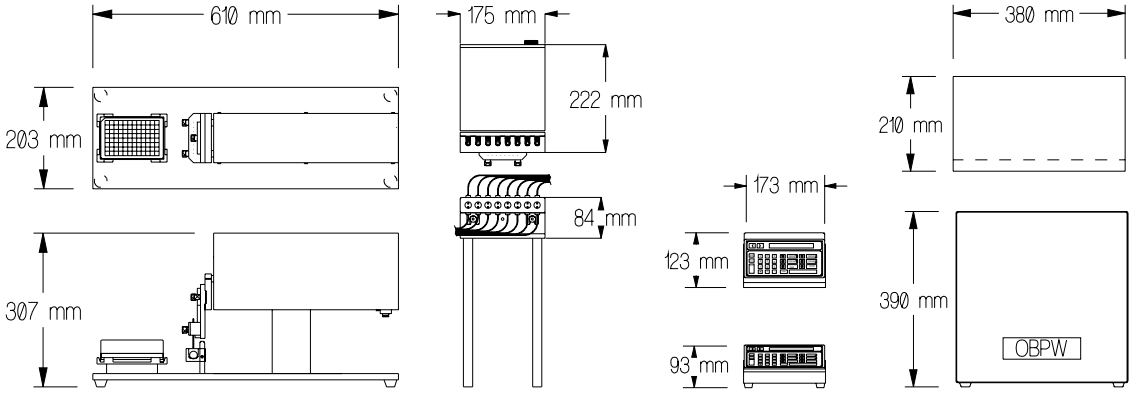
The **control cabinet** is a stainless steel cabinet 380mm wide by 390mm high by 210mm deep. It can be placed or mounted various ways within 2 meters (6 feet) of the nozzle indexing module. There are three signal cables and one power cable coming from this box. One signal cable is for the pump module another is for the nozzle indexing module and the third is for the control interface.

OYSTER BAY PUMP WORKS, INC.
Liquid Dispensing Systems Specialists

Microplate Reagent Addition System

Technical Illustrations:

(Note: These are generic drawings representing general size and shape of key component modules but not accounting for every detail.)



NOZZLE INDEXING MODULE | **PUMP MODULE** | **CONTROL INTERFACE** | **CONTROLS CABINET**

Proposal Request Form:

Please provide us with the following information and we will prepare a quotation. Attach additional relevant information

- The desired control interface is _____
- Batch sizes are expected to vary between _____ and _____ plates.
- Desired filling speed is _____ seconds per plate.
- Liquid volumes to be dispensed per well are to range between _____ µl and _____ µl (±___ % CV) per well.
- The following liquids are to be dispensed. They are assumed to behave like water unless otherwise noted.

NAME OF SOLUTION	SPECIAL CHARACTERISTICS	VISCOSITY	pH

- Plate types to be used are as follows:

SUPPLIER	PART NO.	PRODUCT NAME	# of Wells	*Well Depth	**Well Shape

*(Well Depth = Shallow, Standard, or Deep) **(Well Shape = “Flat”, “C”, “U”, or “V” bottoms)