

AMT™ MicroLiter Dispenser



One unit works with 96, 384, and 1536 wells

From 0.1 µL (100 nL) to 500 µL

Sterile Non-contact filling

Digitally compensated servo peristaltic pump

Cell culture friendly

Disposable & autoclavable tubing cartridges

Aspiration with reversible flow and diving nozzles

Microplates filled from 2 to 6 seconds

SmartView vision verification



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The AMT™ Microliter Servo Peristaltic Dispenser utilizes EqualFlow™ - innovative digital compensation (US Patent Number 6,393,338) allowing unmatched fill precision at higher flow rates. Long-term tubing wear is also digitally compensated.

One unit is capable of filling all standard microplates and microtubes in semi and fully automated productions. The 96 plates are filled in 2 seconds, 384 plates are filled in 3 seconds and 1536 plates are filled in 6 seconds. AMT™ MicroLiter Dispenser is ideal for high throughput tasks such as the dispensing of bacterial growth media and cell culture media. With a small footprint, the unit can be sited in a laminar flow hood and can be used with microtubes and microplates of differing depths, including deep-well blocks.

Non-Contact filling from 0.1 µL (100 nL) to 500 µL is performed with unmatched precision due to the digital compensation and precisely controlled coherent jet. Only one continuous tubing per channel contacts the product. There are no fittings or seals, thus the system is ideal for sterile operations. Easily detachable tubing cartridges are autoclavable or disposable. AMT™ MicroLiter can dispense up to 16 different liquids simultaneously.

With a smooth stainless steel enclosure, AMT™ MicroLiter Dispenser is the most robust in its class. The unit is compact in size, easy to use and maintain, with features that prevent cross contamination and save on reagents. For higher throughput needs dispenser can be easily integrated to robotic setups.

Reversible flow and diving nozzles are provided for aspiration.

A Calibrated Verification Vision System provides Real-Time Quality Control during production.

| Microplate: | 96-well | 384-well | 1536-well |
|-------------------------|--------------------|--------------------|--------------------|
| Tubing ID: | 1.59 mm | 0.79 mm | 0.38 mm or 0.20 mm |
| Number of Channels: | 8 or 12 | 12 or 16 | 12 or 16 |
| Fill Volume Range: | 5µL-500µL | 0.5µL-50µL | 0.1µL-10µL |
| Fill Volume Resolution: | 0.1µL | 0.1µL | 0.1µL |
| Fill Volume Tolerance: | 1% | 1.5% | 2% |
| Fill Time per Plate: | 2sec @ 64µL | 3sec @ 16µL | 6sec @ 1µL |
| Changeover Time: | Less than 1 minute | Less Than 1 minute | Less than 1 minute |

DISPOSABLE & AUTOCLAVABLE PRODUCT CONTACT PARTS
Tubing and nozzles are the only product contact parts. Sets of 4, 8, 12, or 16 linked tubing come as complete cartridges with attached nozzles, eliminating the need to have them serviced and calibrated. Fixed alignment assures highest nozzle-to-nozzle precision. The complete tubing set snaps into the dispensing apparatus. Changeover to new production takes only a few seconds. Cartridges come pre-sterilized and individually packaged; they are disposable or can be autoclaved multiple times.



VERIFICATION

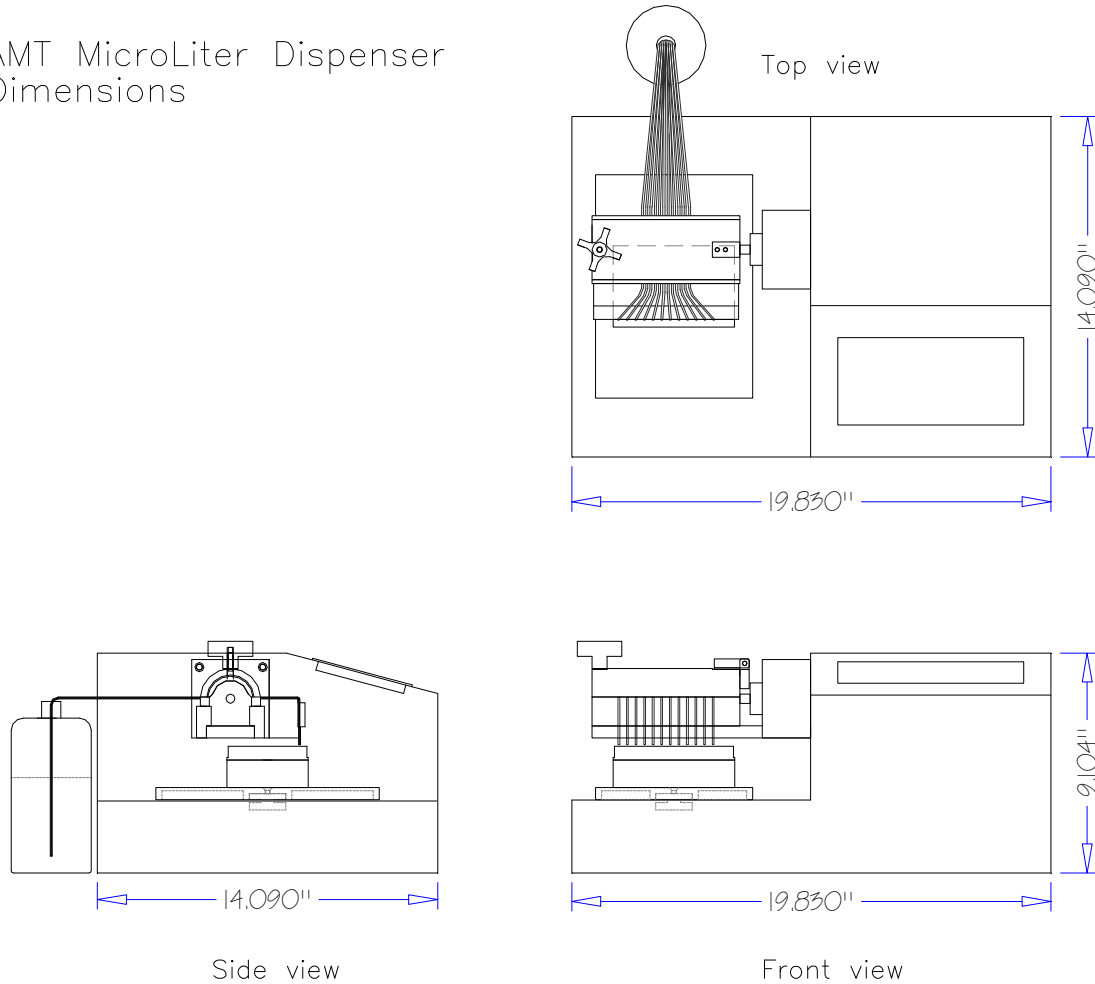
A Calibrated Verification System provides Real-Time Quality Control during production. A SmartView Vision Camera precisely assesses the amount of dispensed fluid in the microplate wells via evaluation of the drop image.



AUTOMATED PRODUCTION

The AMT™ MicroLiter Dispenser can work in semi-automatic mode with manual plate handling, or can be configured for fully automatic production with an optional robot, plate stacker and unstacker via a PLC compatible control port. PC interface is provided and can be used for central control and report generating. Please visit our website: www.AMTLiquidFilling.com

AMT MicroLiter Dispenser Dimensions



Width=500 mm, Depth=360 mm, Height=230 mm, Weight: 100 Newtons

Power: 110V/60Hz/3A

As part of our policy of continuous product development we reserve the right to alter specifications without notice.

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