AMT™ MicroLiter Dispenser



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. Depending upon fill volume, plates can be filled "on-fly" (while plate is continuously moving under the nozzles) in less than 10 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 1µL 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.

- One unit works with 96, and 384 wells
- 1536 wells optional
- From 1µL to 500 µL
- Sterile Non-contact filling
- Digitally compensated servo peristaltic pump
- Cell culture friendly
- Disposable & autoclavable tubing cartridges
- Microplates filled typically in less than 10 seconds
- OPTIONS:
  Aspiration with reversible flow and diving nozzles
- Calibrated Verification System





Microplate:	96-well	384-well	1536-well
Tubing ID:	0.79 mm	0.51 mm	0.20 mm
Number of Channels:	8 or 12	12 or 16	12 or 16
Fill Volume Range:	40µL-500µL	5µL-100µL	1µL-20µL
Fill Volume Resolution:	0.1µL	0.1µL	0.1µL
Typical Fill Tolerance:	1.75%	2.5%	4%
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.

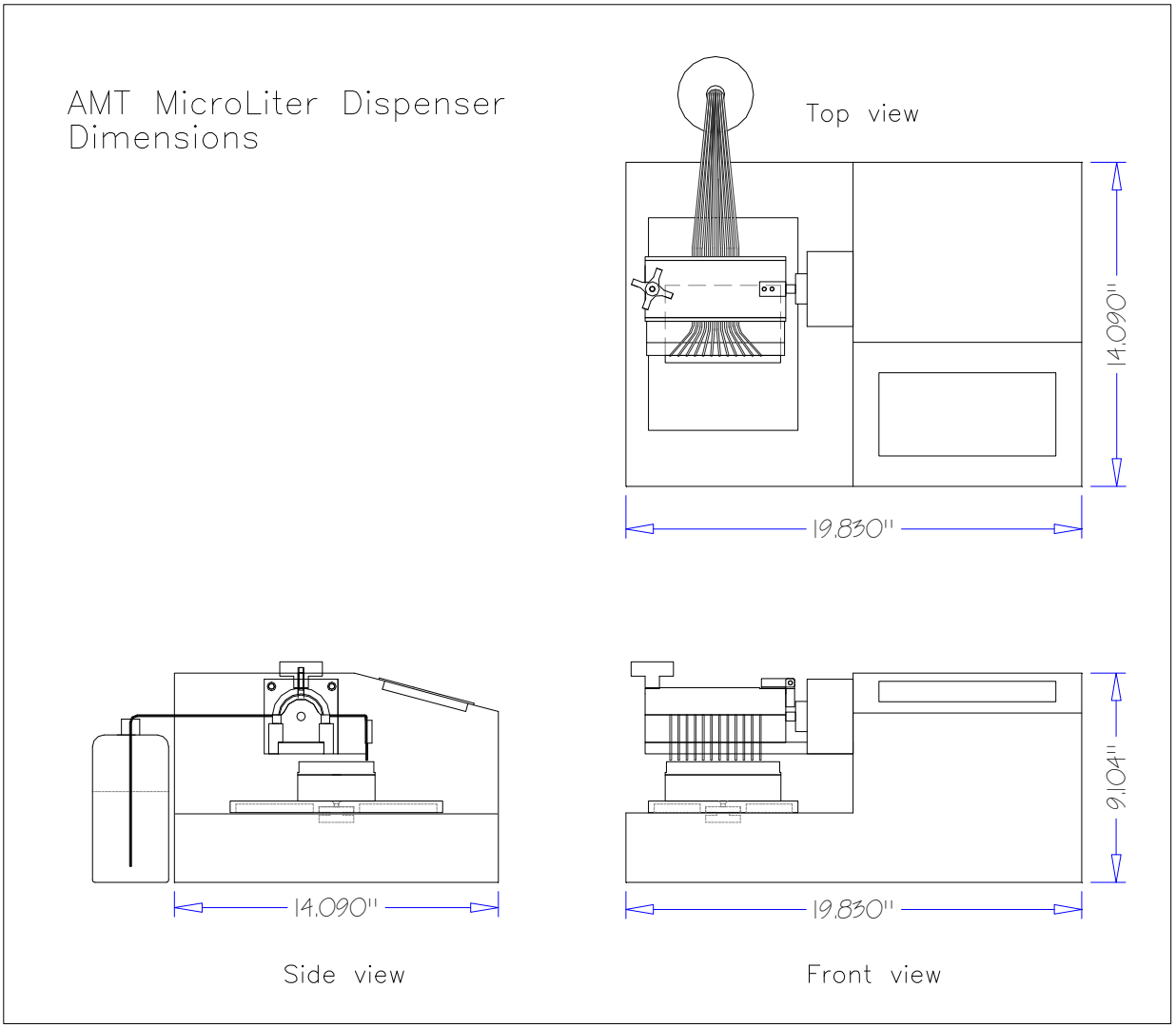


VERIFICATION
Ultrasonic Calibrated Verification System provides Real-Time Quality Control during production.

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

Automated Machine Technologies, Inc.
10404 Chapel Hill Road, Unit 100
Morrisville, NC 27560-1186

Office@AMTLiquidFilling.com
www.AMTLiquidFilling.com
Phone: (919) 361 0121
FAX: (919) 481 2120



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.

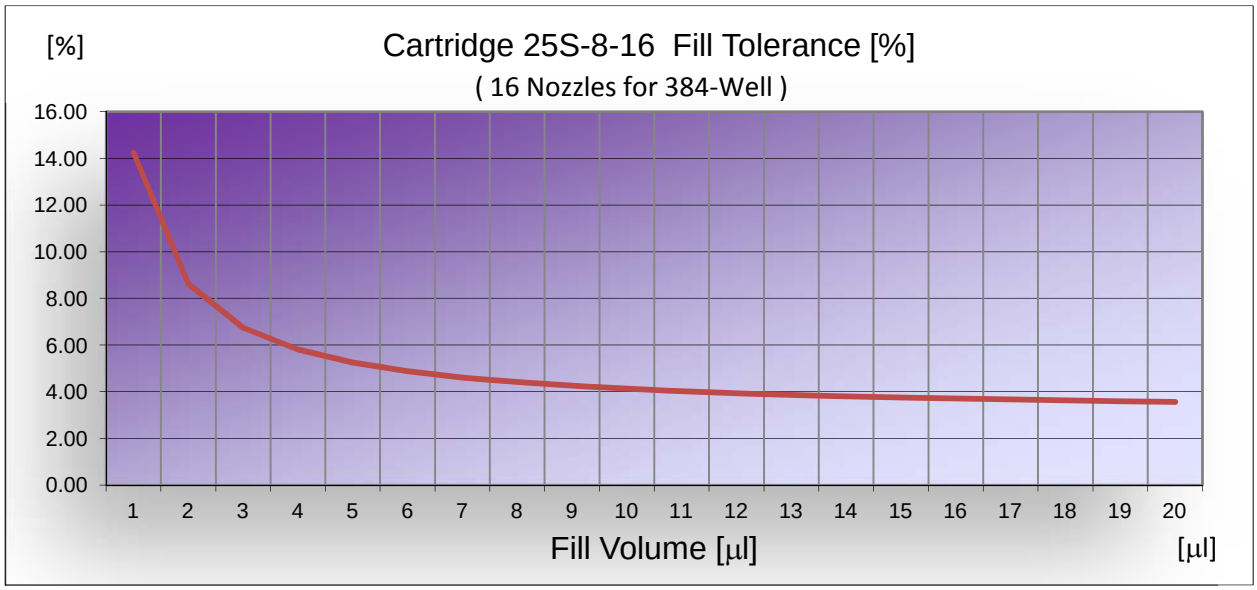
Automated Machine Technologies, Inc.
10404 Chapel Hill Road, Unit 100
Morrisville, NC 27560-1186

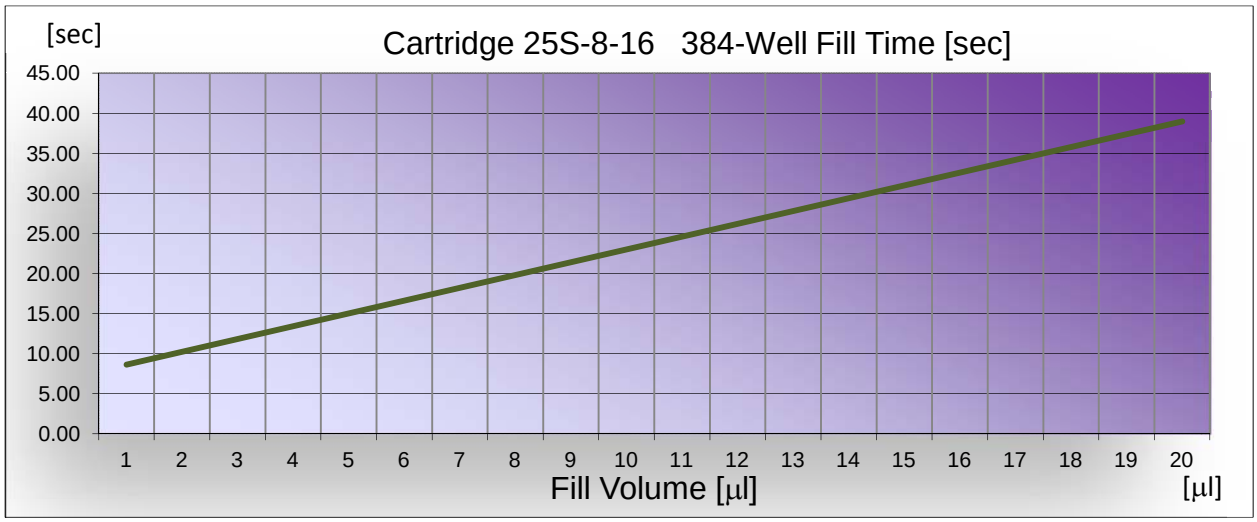
Office@AMTLiquidFilling.com
www.AMTLiquidFilling.com
Phone: (919) 361 0121
FAX: (919) 481 2120

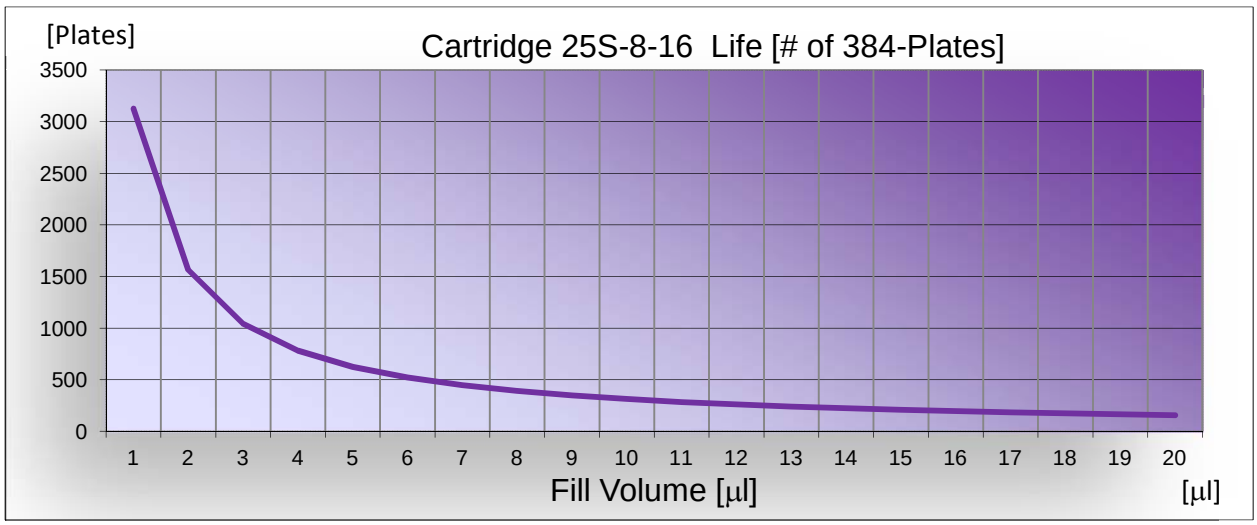
16-Nozzle Cartridge for 384-Well

25S-8-16

(Recommended for fills from 5µL to 15µL)



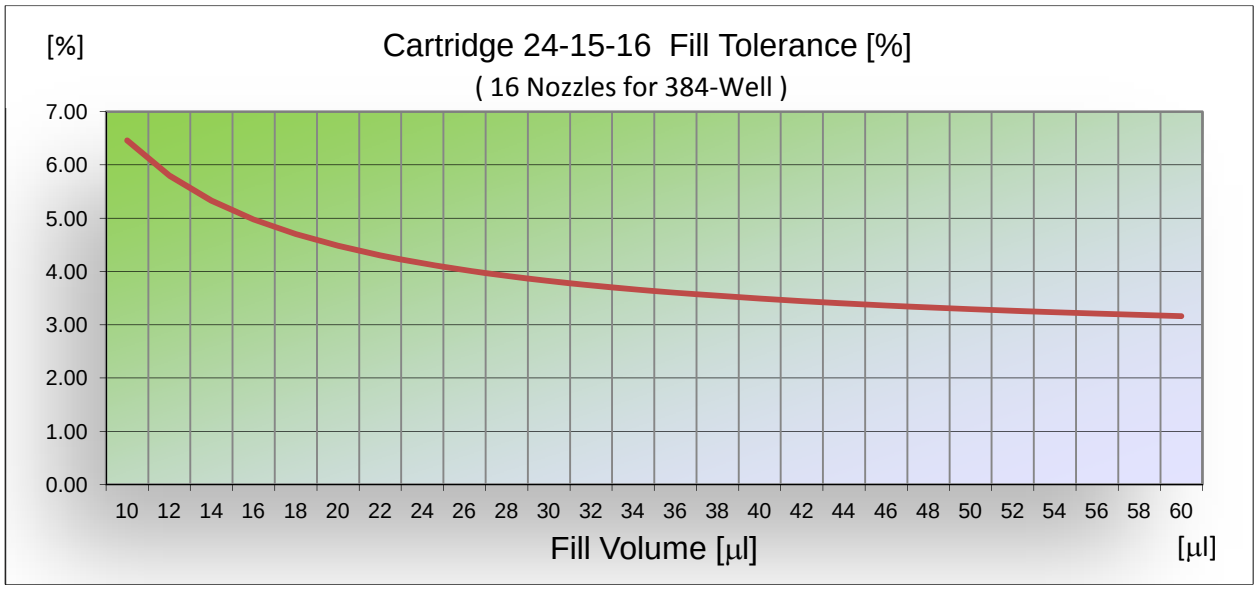


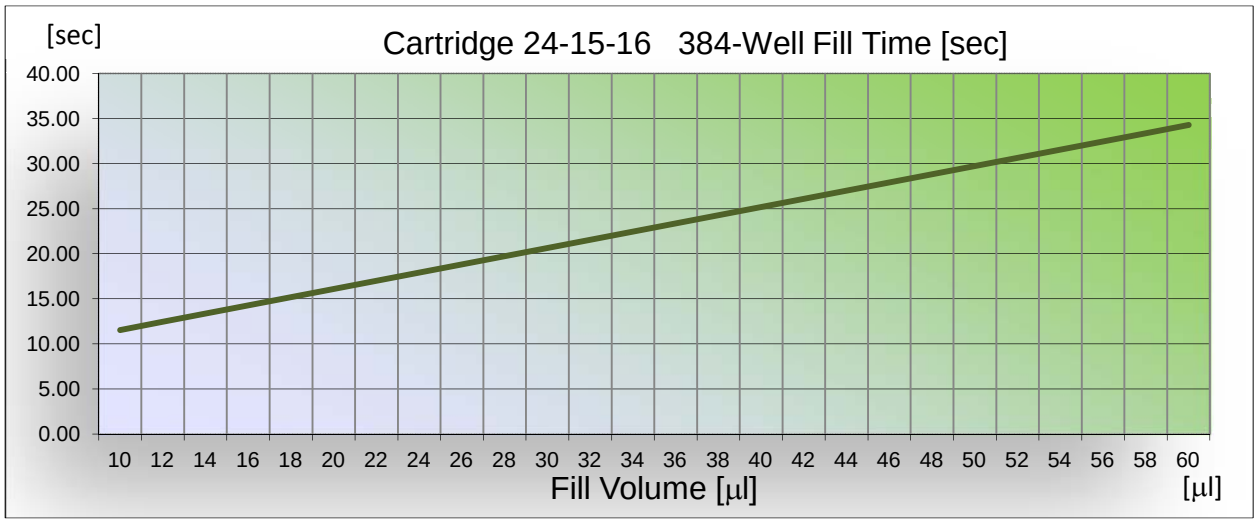


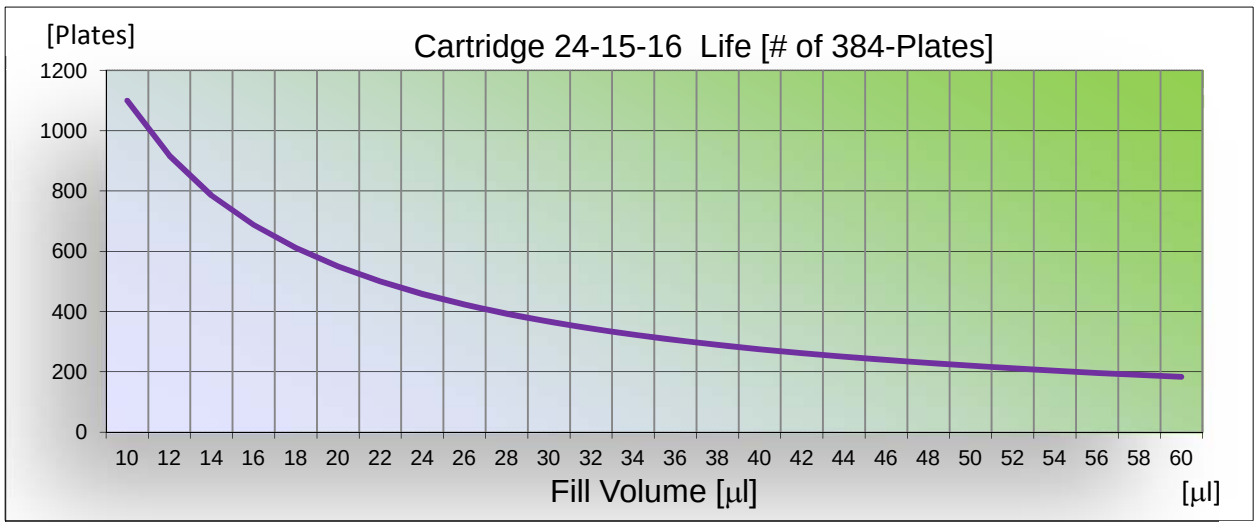
16-Nozzle Cartridge for 384-Well

24-15-16

(Recommended for fills from 15µL to 60µL)



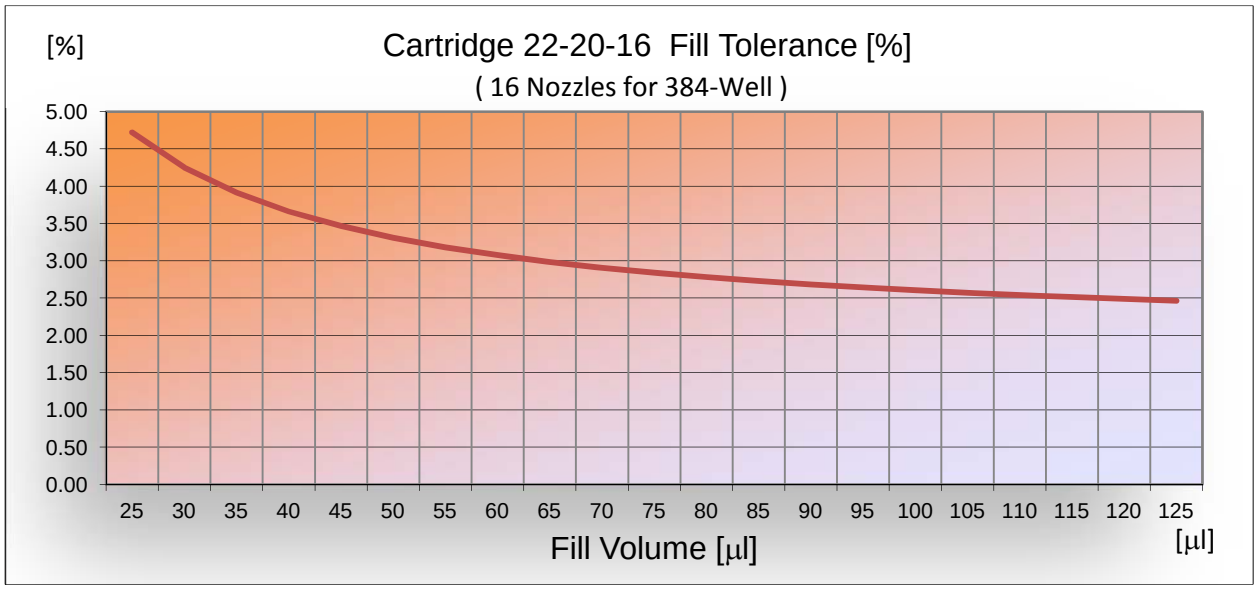


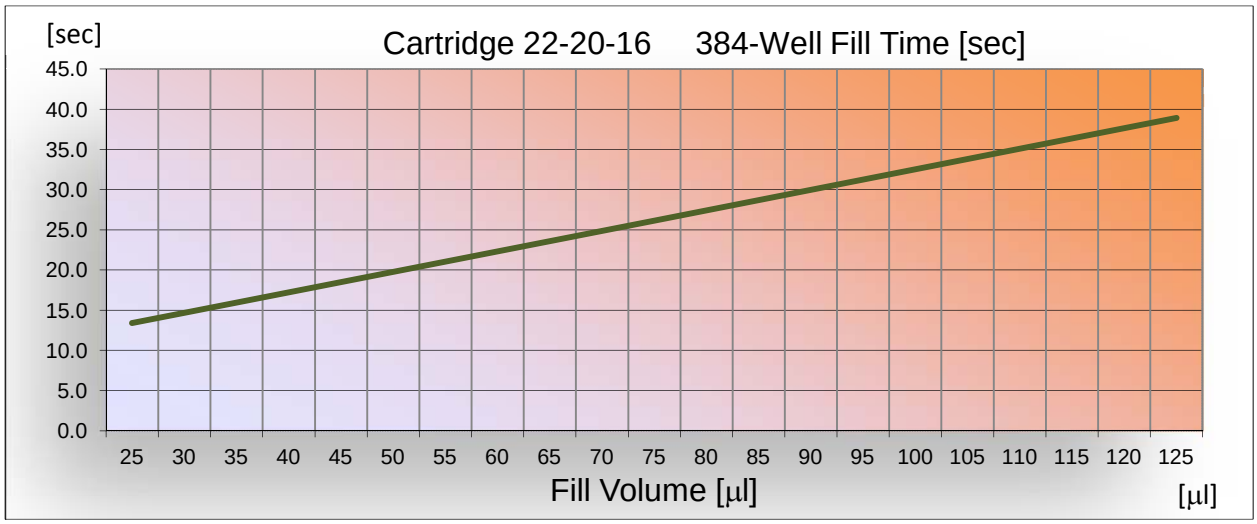


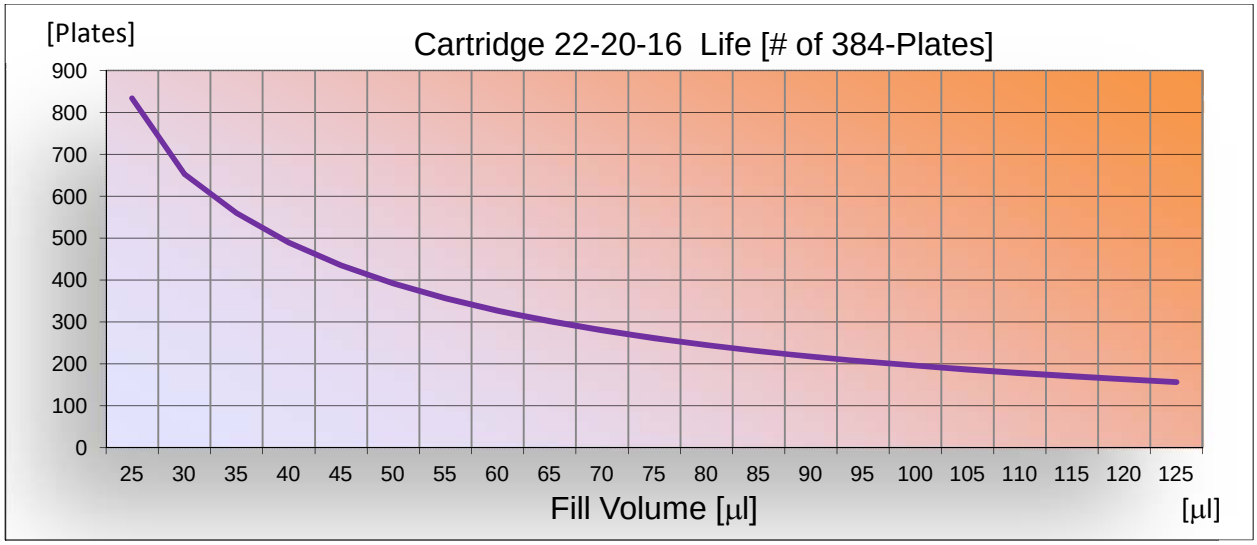
16-Nozzle Cartridge for 384-Well

22-20-16

(Recommended for fills from 40µL to 125µL)



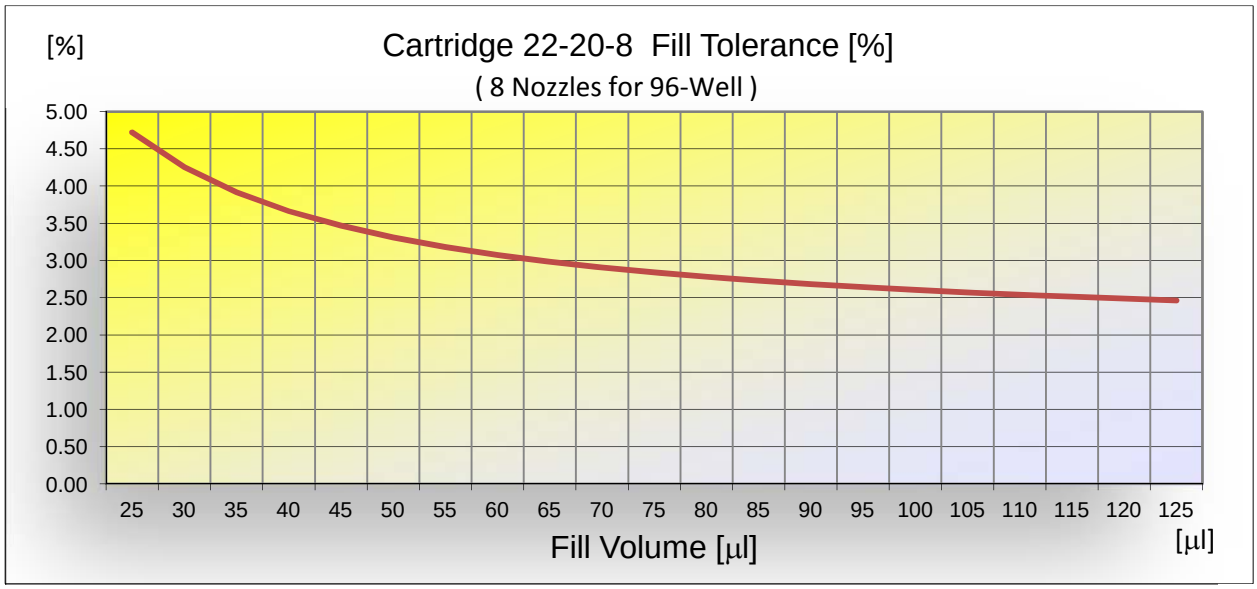


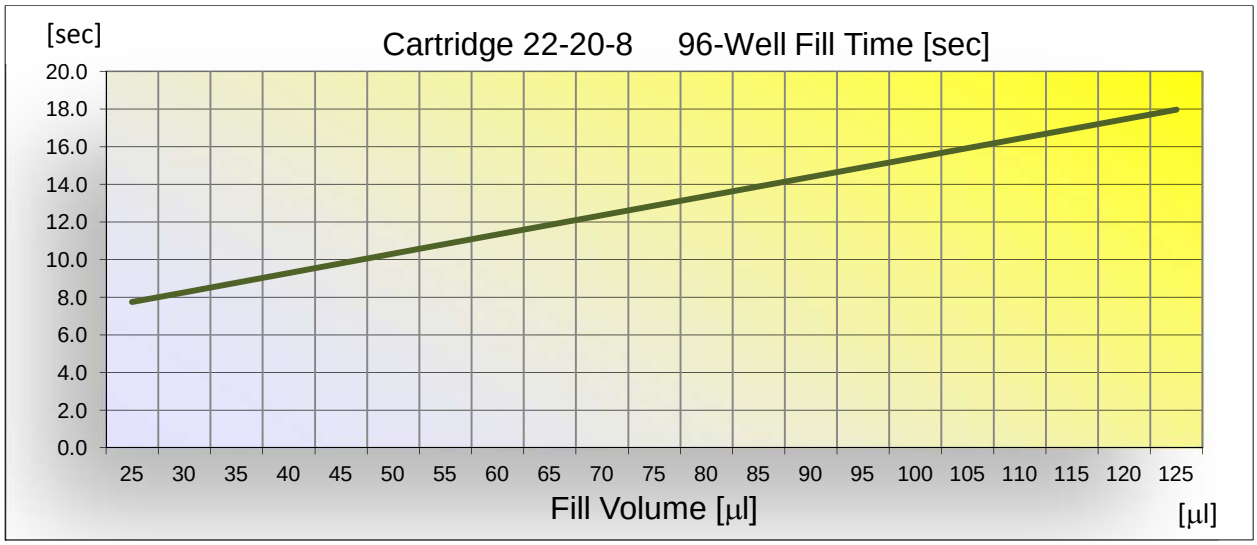


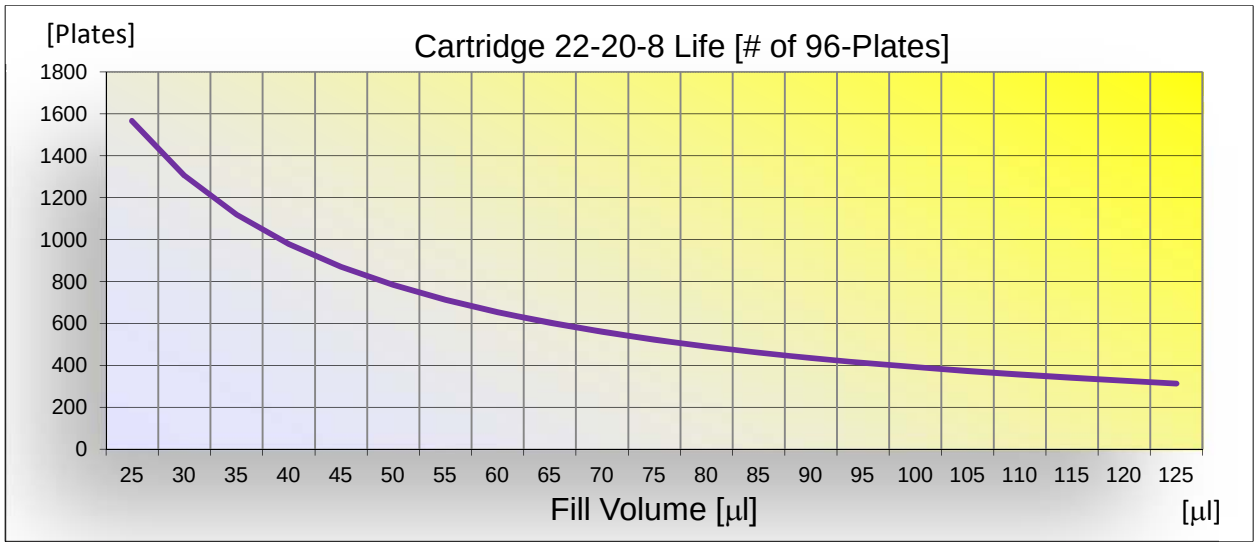
8-Nozzle Cartridge for 96-Well

22-20-8

(Recommended for fills from 40µL to 125µL)



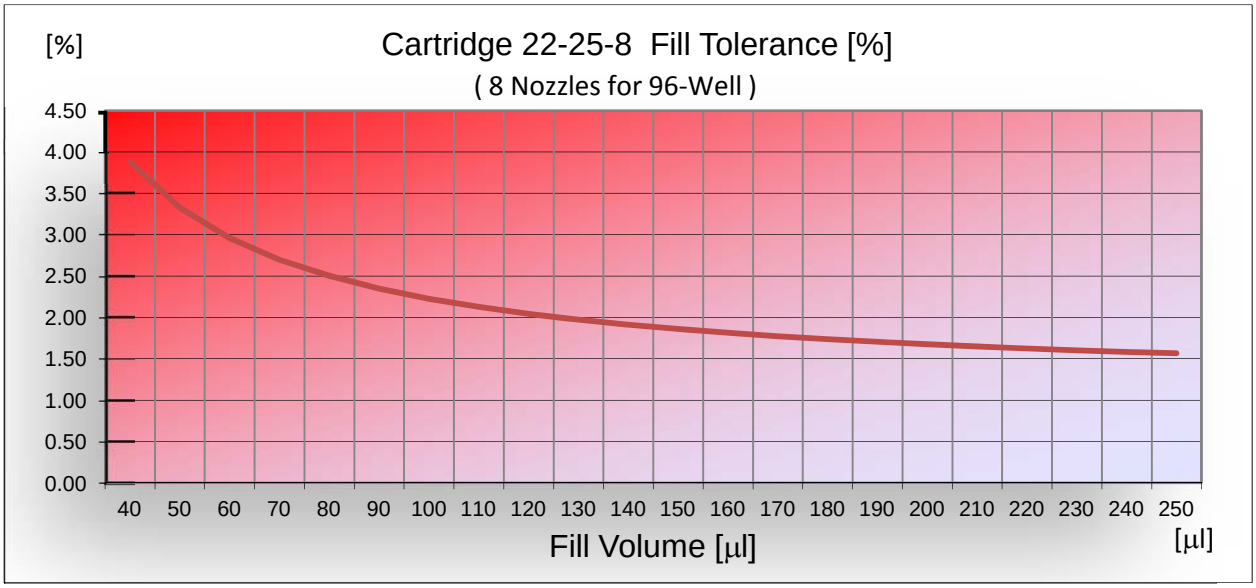


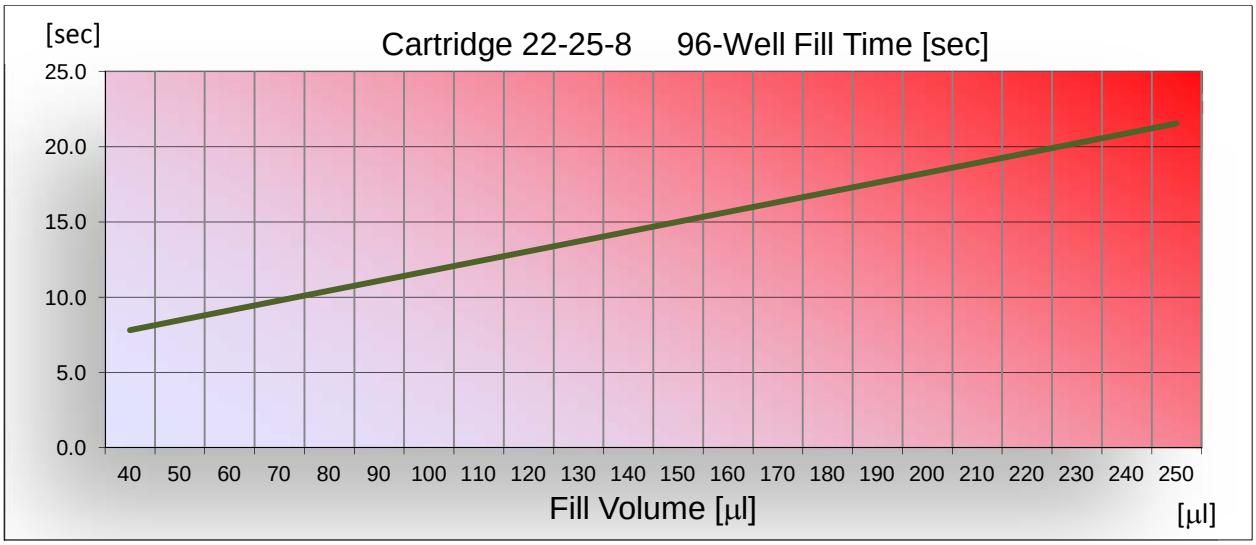


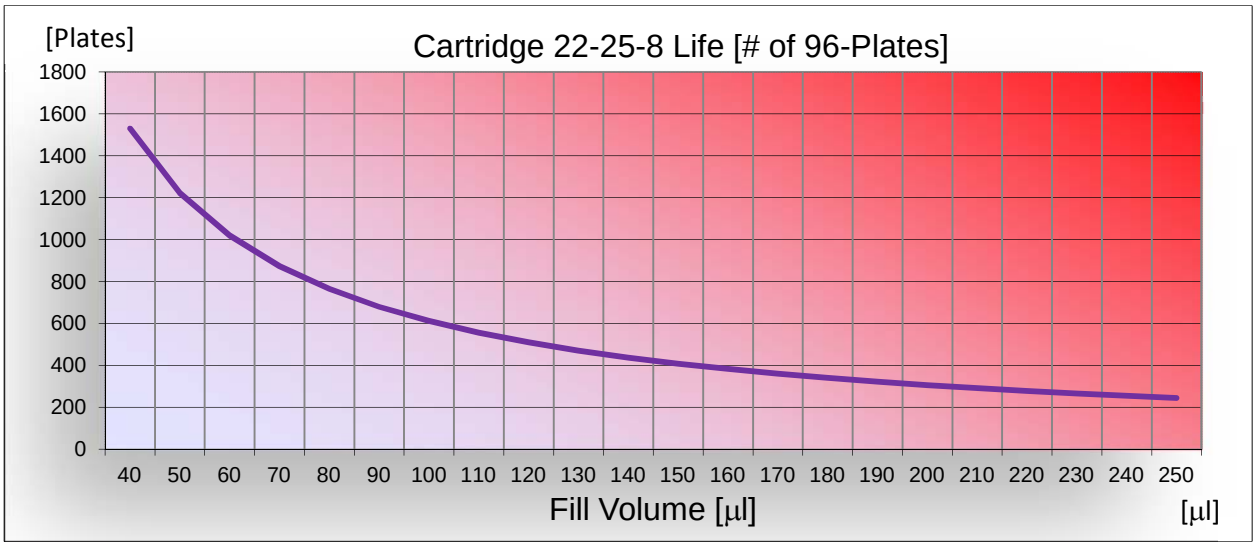
8-Nozzle Cartridge for 96-Well

22-25-8

(Recommended for fills from 60µL to 200µL)







8-Nozzle Cartridge for 96-Well

19-31-8

(Recommended for fills from 100µL to 500µL)

