

Agilent BioTek 406 FX Washer Dispenser

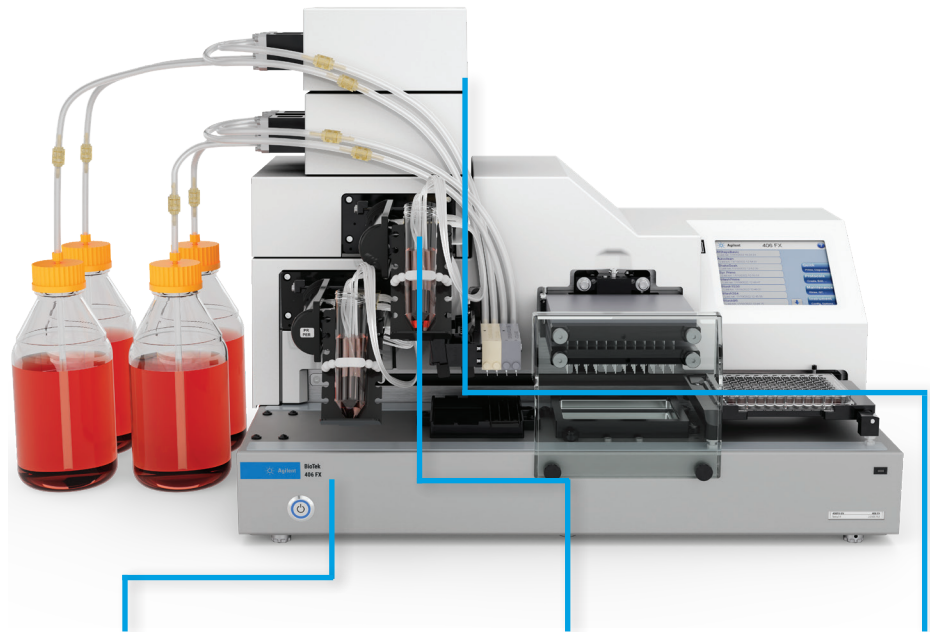
Technical details

General	
Microplate Types	96-, 384-, and 1536-well Low profile and standard height
Onboard Touch Screen	Create, edit, or run multiple protocols
Software (Computer Control)	Agilent BioTek Liquid Handling Control (LHC3) software Agilent BioTek LHC3 Secure software enables 21 CFR Part 11 compliance (option)
Separation	Biomagnetic separation (optional)
Shaking	Programmable up to 60 minutes Slow, medium, fast, or variable
Soaking	Programmable up to 60 minutes
Ultrasonic Advantage	Standard
Automation	Agilent BioTek BioStack microplate stacker and third-party automation compatible Agilent BenchCel microplate handler compatible; requires VWorks 13.1.12 or higher
Washing	
Manifold Types	96-well washing: 96-tube manifold—straight dispense tubes 96- and 384-well washing: 96-tube Dual-Action manifold—20° angled dispense tubes 384-well washing (fast): 192-tube Dual-Action manifold—7° angled dispense tubes 1536-well washing: two 32-tube dispense manifolds—7° angled dispense tubes
Volume Range	3–3,000 µL/well, in 1 µL increments
Wash Cycles	1–250
Buffer/Reagent Selection	Autoswitching module for up to four buffers
Supply Bottle	4 or 10 L (optional)
Waste Bottles	4, 10, and 20 L waste bottles available; direct-to-drain option available
Dispense accuracy	± 3%
Dispense Precision	≤ 3% CV (model dependent)
Residual Volume	≤ 2 µL/well
Wash Speed	96 wells, 300 µL/well, 96-tube manifold: 13 s 384 wells, 100 µL/well, 192-tube manifold: 17 s 1536 wells, 10 µL/wells, two 32-tube manifolds: 36 s
Flow Rates	High to low flow Optimized rates for cell assays
Sterilization	Chemical

Dispensing—Peristaltic Pump	
Manifold Types	8-tip (1 x 8) cassette with plastic tubes, 316 stainless steel (SS) tubes, or sapphire-jeweled 316 SS tubes
Fluid Delivery	Up to two peristaltic pumps
Dispense Speed	96 wells, 10 µL/well: 8 s 384 wells, 5 µL/well: 12 s 1536 wells, 1 µL/well: 27 s
Volume Range	500 nL to 3,000 µL/well, selectable in 1 µL increments
Flow Rates	User-programmable rates from high to low Optimized rates for cell assays
Dispense Performance	
Recommended Volume Range	1 µL cassette: 1–50 µL 5 µL cassette: 5–2,500 µL 10 µL cassette: 10–3,000 µL
Dispense Accuracy	1 µL cassette: ± 5% at 1 µL 5 µL cassette: ± 2.0% at 5 µL 10 µL cassette: ± 2.0% at 10 µL
Dispense Precision	1 µL cassette: ≤ 5% CV at 1 µL; ≤ 10% CV at 500 nL 5 µL cassette: ≤ 2.5% CV at 5 µL 10 µL cassette: ≤ 2.0% CV at 10 µL
Minimum Prime Volume	1 µL cassette: 1.20 mL 5 µL cassette: 4.23 mL 10 µL cassette: 7.36 mL
Recommended Cassette Replacement Interval	1 µL cassette: 1,000 384-well microplates at 5 µL/well 5 µL cassette: 1,000 96-well microplates at 50 µL/well 10 µL cassette: 1,000 96-well microplates at 100 µL/well
Sterilization	Autoclave, chemical
Dispensing—Syringe Pump	
Manifold Types	96-well dispensing: One 16-tube (2 x 8) manifold—316 SS tubes 96-/384-well dispensing: Two 16-tube (1 x 16) manifolds—316 SS tubes 1536-well dispensing: Two 32-tube (1 x 32) manifolds—316 SS tubes or sapphire-jeweled 316 SS tubes
Fluid Delivery	Two positive-displacement syringe drives per syringe pump, up to two syringe pumps per 406 FX
Dispense Speed	20 µL/well, 96 wells, 1 x 16 tubes: 5.25 s 20 µL/well, 384 wells, 1 x 16 tubes: 14 s 3 µL/well 1536 wells, 2 x 32 tubes: 7 s
Volume Range	3–3,000 µL/well, selectable in 1 µL increments Minimum prime volume: 12 mL
Flow Rates	User-programmable rates from high to low
Dispense Accuracy	± 1 µL at 5 µL ± 1 µL at 20 µL ± 1% at 100 µL
Dispense Precision	≤ 5% CV at 5 µL ≤ 2.5% CV at 20 µL ≤ 1% CV at 100 µL
Supply Bottle	1 or 2 L
Sterilization	Chemical, autoclavable option
Physical Characteristics	
Power	100–240 Volts AC at 50–60 Hz
Dimensions*	Instrument only: 25" W x 14.25" D x 12.5" H (63.5 x 36.2 x 31.8 cm) Instrument with 2x stacked syringe pump modules: 25" W x 16" D x 18.75" H (63.5 x 40.6 x 47.6 cm)
Weight	45 lb (20.4 kg)

*The dimensions shown are for the configured instrument only and do not include bottles and tubing. Overall bench space required for system installation will be greater.

Configurations



**Agilent BioTek 406 FX washer dispenser
base unit includes:**

- 96-/394-well plate washer
(1536-well option available)
- Primary peristaltic pump
- Internal four-wash buffer switching
- Ultrasonic Advantage

**Secondary peristaltic pump
(optional)**

**Dual-syringe pump
(optional, up to two)**

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