

### **fixed volume pipette with precision calibration function**

Fixed volume pipettes are manual pipetting tools with a specific preset volume that cannot be adjusted. Compared to adjustable pipettes, they have a simpler structure and a more stable set volume.

#### **Fixed Volume Pipette**

##### **Main Features**

1. Air displacement principle: Delivers precise, repeatable volume via robust piston mechanism.
2. Centered, enlarged pipetting button: Ergonomic and easy for thumb operation—smooth, stable piston movement.
3. Ergonomic finger rest: Fits all hand sizes and reduces fatigue during extended use.
4. Clear capacity markings: Instantly visible—prevents mix-ups of different volume ranges.
5. Fully autoclavable: Sterilize entire pipette at 121°C for 20 min—no disassembly needed.
6. Slender rod design: Easily accesses narrow containers like centrifuge tubes and test tubes.



7. Universal cone: Compatible with tips from major brands—eliminates repeated sourcing headaches.
8. Quick calibration: Simple tool-based calibration keeps accuracy long-term.

### **Core Advantages**

1. Fixed volume, minimal error: Factory set and calibrated—error control better than  $\pm 1\%$ .
2. Simple operation: No adjustments required—ideal for repetitive same-volume tasks.
3. Durable build: High-quality plastics and ceramic piston—corrosion-resistant, long lifespan.
4. Low training cost: Easy for students/technicians to learn and use in teaching, QC environments.

### **Working Principle**

Operates via air displacement. Button press moves piston down to expel air; release generates negative pressure to aspirate liquid; press again to dispense. Volume is preset at the factory and not adjustable—ensures stable accuracy over time.

### **Typical Applications**

1. Life science: PCR, DNA extraction, ELISA, enzyme analysis—standard, repeated sample removal.
2. Biochemical/QC testing: Batch testing, SOPs for food, pharma, environmental labs.
3. Education/training: Simple for students and teaching labs—reduces operational errors.
4. Hospital/clinical diagnostics: Fast, accurate, repeated sample addition for analysis workflows.

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Model	Volume range	Accuracy		Coefficient of variation	
		%	uL	%	uL
PF05H	5 uL	±2.0%	±0.1 uL	±0.80%	±0.04 uL
PF10H	10 uL	±1.0%	±0.1 uL	±0.50%	±0.05 uL
PF20H	20 uL	±1.0%	±0.2 uL	±0.30%	±0.06 uL
PF25H	25 uL	±1.0%	±0.25 uL	±0.30%	±0.075 uL
PF50H	50 uL	±1.0%	±0.5 uL	±0.30%	±0.15 uL
PF100H	100 uL	±1.0%	±1.0 uL	±0.25%	±0.25 uL
PF200H	200 uL	±0.8%	±1.6 uL	±0.20%	±0.4 uL
PF250H	250 uL	±0.8%	±2.0 uL	±0.20%	±0.5 uL
PF500H	500 uL	±0.8%	±4.0 uL	±0.20%	±1.0 uL
PF1000H	1000 uL	±0.8%	±8.0 uL	±0.20%	±2.0 uL

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