PIPETMAN®

The Pipetting Standard

GILSON®
SOLUTIONS AT WORK FOR YOU

Accuracy,
precision,
and robustness...

... the standard choice for all
laboratory pipetting needs.

The Pipetting Standard!

For 30 years, the legendary **PIPETMAN®** has been designed and manufactured to provide you with a range of robust, accurate, precise, fully adjustable air-displacement pipettes for use in your daily work.

PIPETMAN P

The Standard for Accuracy and Precision

All of the parts used to manufacture **PIPETMAN®** are carefully checked by Gilson's Quality Department. A stainless-steel micrometer and piston form the central mechanism of this precision instrument. Using a microscope, each piston is inspected, with zero-defect tolerance.

Individually calibrated, a performance check report is included with each **PIPETMAN®**.

A unique engraved Identification Number allows perfect traceability.

In combination with Gilson certified Diamond® Tips, **PIPETMAN®** provides a safe, reliable pipetting system.

Performance Check Report

Identification	
Model:	P200
Volume range:	50 µl to 200 µl
Serial N°:	Z10010Z
Tips:	D200

Operating Conditions	
Balance N°:	12
Sensitivity:	10^{-5}g
Correction factor Z (µl/mg):	1.0032
Correction for evaporation:	NONE
Basis of adjustment:	Ex

Control	
Date:	02 DEC 1999
Inspected by:	NG

Gravimetric Data	
Weighings:	49.83 mg
	49.94 mg
	49.81 mg
	50.00 mg
Mean:	49.90 mg

Volumetric Data	
Mean:	50.06 µl
Accuracy:	0.06 µl
E%:	0.12
Repeatability:	0.09 µl
SD%:	0.18

Gravimetric data has been converted from mg to µl for distilled water.

Results	
Low volume setting:	50 µl - PASS
High volume setting:	200 µl - PASS

The PASS status indicate that this pipette is in conformity with the specification.

The Standard for Robustness

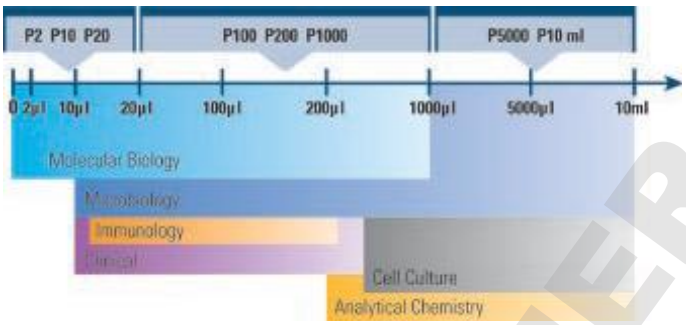
All Gilson pipettes are built to last, constructed of stainless-steel and PVDF for years of dependable use.

After 5 or even 10 years of normal use, **PIPETMAN®** will give the level of performance of a new pipette. This durability equates to a very low cost of ownership.

Routine cleaning is all that is required to keep **PIPETMAN®** in top condition. No lubrication is required. Parts that may come in contact with liquids are easy to clean or replace. The tip-holder and tip-ejector are fully autoclavable. A plastic connector makes removal and replacement of the tip-ejector very easy.

The Standard of Choice for Each Application

Eight models cover the full range of volumes from 0.2 µl to 10 ml, for most demanding tasks - clinical, research or control laboratories.



PIPETMAN P2, P10

- Ideal for molecular biology techniques (PCR*, DNA sequencing, gel loading, etc...).
- Accurate and precise down to 0.1 µl (**).
- Dual position tip ejector.
- A plastic adapter allows the use of Diamond D10 (short). or DL10 (long) tips: a plus for protection and precision with microtubes.

(*) PCR process is covered by US Patents owned by Hoffmann-La Roche, Inc.
(**) for a P2, with a good pipetting technique.

PIPETMAN P5000 & P10ml

- Ideal for large volume dispensing.
- Safer and more accurate than glass pipettes, with polyethylene filter that prolongs piston life and prevents contamination.
- P10 ml features a “damped” piston mechanism that prevents bubbles, vortexing and splashing within the tip.

PIPETMAN F

Same Family but Dedicated to Reliable Results, at Low Cost

PIPETMAN® F is a fixed volume air-displacement pipette. Thirteen robust models cover a large volume range, from 2 µl to 1000 µl, with Gilson's legendary accuracy, precision and robustness. You can dedicate one pipette to a particular test or application.

- An economical choice for clinical diagnostics, quality control and any routine testing.
- GLP compliance : no risk of volume selection errors. Using a dedicated fixed volume Gilson pipette for a specific test assures reliable and consistent results.
- Can be adjusted by users in the laboratory, to compensate for dense or viscous fluids.

PIPETMAN F Range of Models

Model (Diamond Tips)		Volume (µl)	Accuracy (systematic error)		Precision (random error)		Model	Reference Number
			Absolute µl	Relative %	Absolute S.D. µl	Relative S.D. %		
F2	(D10, DL10)	2	± 0.10	± 5.00	≤ 0.03	≤ 1.5	F2	F123770
F5	(D10, DL10)	5	± 0.10	± 2.00	≤ 0.04	≤ 0.8	F5	F123771
F10	(D10, DL10)	10	± 0.10	± 1.00	≤ 0.05	≤ 0.5	F10	F123772
F20	(D200)	20	± 0.20	± 1.00	≤ 0.06	≤ 0.3	F20	F123604
F25	(D200)	25	± 0.25	± 1.00	≤ 0.07	≤ 0.3	F25	F123775
F50	(D200)	50	± 0.40	± 0.80	≤ 0.15	≤ 0.3	F50	F123778
F100	(D200)	100	± 0.80	± 0.80	≤ 0.25	≤ 0.25	F100	F123784
F200	(D200)	200	± 1.60	± 0.80	≤ 0.30	≤ 0.15	F200	F123605
F250	(D1000)	250	± 3.00	± 1.20	≤ 0.75	≤ 0.30	F250	F123787
F300	(D1000)	300	± 3.50	± 1.70	≤ 0.75	≤ 0.25	F300	F123788
F400	(D1000)	400	± 3.60	± 0.90	≤ 0.80	≤ 0.20	F400	F123789
F500	(D1000)	500	± 4.00	± 0.80	≤ 1.00	≤ 0.20	F500	F123790
F1000	(D1000)	1000	± 8.0	± 0.80	≤ 1.30	≤ 0.13	F1000	F123606

PIPETMAN P Range of Models

Model (Diamond Tips)	Volume (µl)	Accuracy (systematic error)		Precision (random error)		Model	Reference Number
		Absolute µl	Relative %	Absolute S.D. µl	Relative S.D. %		
P2 (D10, DL10)	Min. 0.2	± 0.024	± 12	≤ 0.012	≤ 6	P2	F144801
	0.5	± 0.025	± 5	≤ 0.012	≤ 2.50		
	Max. 2	± 0.030	± 1.5	≤ 0.014	≤ 0.70		
P10 (D10, DL10)	Min. 1	± 0.025	± 2.5	≤ 0.012	≤ 1.25	P10	F144802
	5	± 0.075	± 1.5	≤ 0.030	≤ 0.60		
	Max. 10	± 0.1	± 1	≤ 0.040	≤ 0.40		
P20 (D200)	Min. 2	± 0.1	± 5.0	≤ 0.03	≤ 1.50	P20	F123600
	5	± 0.1	± 2.0	≤ 0.04	≤ 0.80		
	10	± 0.1	± 1.0	≤ 0.05	≤ 0.50		
	Max. 20	± 0.2	± 1.0	≤ 0.06	≤ 0.30		
P100 (D200)	Min. 20	± 0.35	± 1.8	≤ 0.10	≤ 0.50	P100	F123615
	50	± 0.4	± 0.8	≤ 0.12	≤ 0.24		
	Max. 100	± 0.8	± 0.8	≤ 0.15	≤ 0.15		
P200 (D200)	Min. 50	± 0.5	± 1	≤ 0.20	≤ 0.4	P200	F123601
	100	± 0.8	± 0.8	≤ 0.25	≤ 0.25		
	Max. 200	± 1.6	± 0.8	≤ 0.30	≤ 0.15		
P1000 (D1000)	Min. 200	± 3.0	± 1.5	≤ 0.6	≤ 0.30	P1000	F123602
	500	± 4.0	± 0.8	≤ 1.0	≤ 0.20		
	Max. 1000	± 8.0	± 0.8	≤ 1.5	≤ 0.15		
P5000 (D5000)	Min. 1000	± 12	± 1.2	≤ 3.0	≤ 0.30	P5000	F123603
	2000	± 12	± 0.6	≤ 5.0	≤ 0.25		
	Max. 5000	± 30	± 0.6	≤ 8.0	≤ 0.16		
P10ml (D10ml)	Min. 1 ml	± 30	± 3	≤ 6	≤ 0.6	P10ml	F161201
	2 ml	± 30	± 1.5	≤ 6	≤ 0.3		
	5 ml	± 40	± 0.8	≤ 10	≤ 0.2		
	Max. 10 ml	± 60	± 0.6	≤ 6	≤ 0.16		

Internet: www.gilson.com

E-mail: sales@gilson.com, service@gilson.com, training@gilson.com

World Headquarters
Gilson, Inc.
3000 W. Beltline Hwy, P.O. Box 620027, Middleton, WI 53562-0027, USA
Telephone: (1) 800-445-7661 or (1) 608-836-1551 • Fax: (1) 608-831-4451

Gilson S.A.S.
19, Avenue des Entrepreneurs - BP 145, 95400 VILLIERS LE BEL, France
Telephone: (33) 1-34-29-50-00 • Fax: (33) 1-34-29-50-20

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