

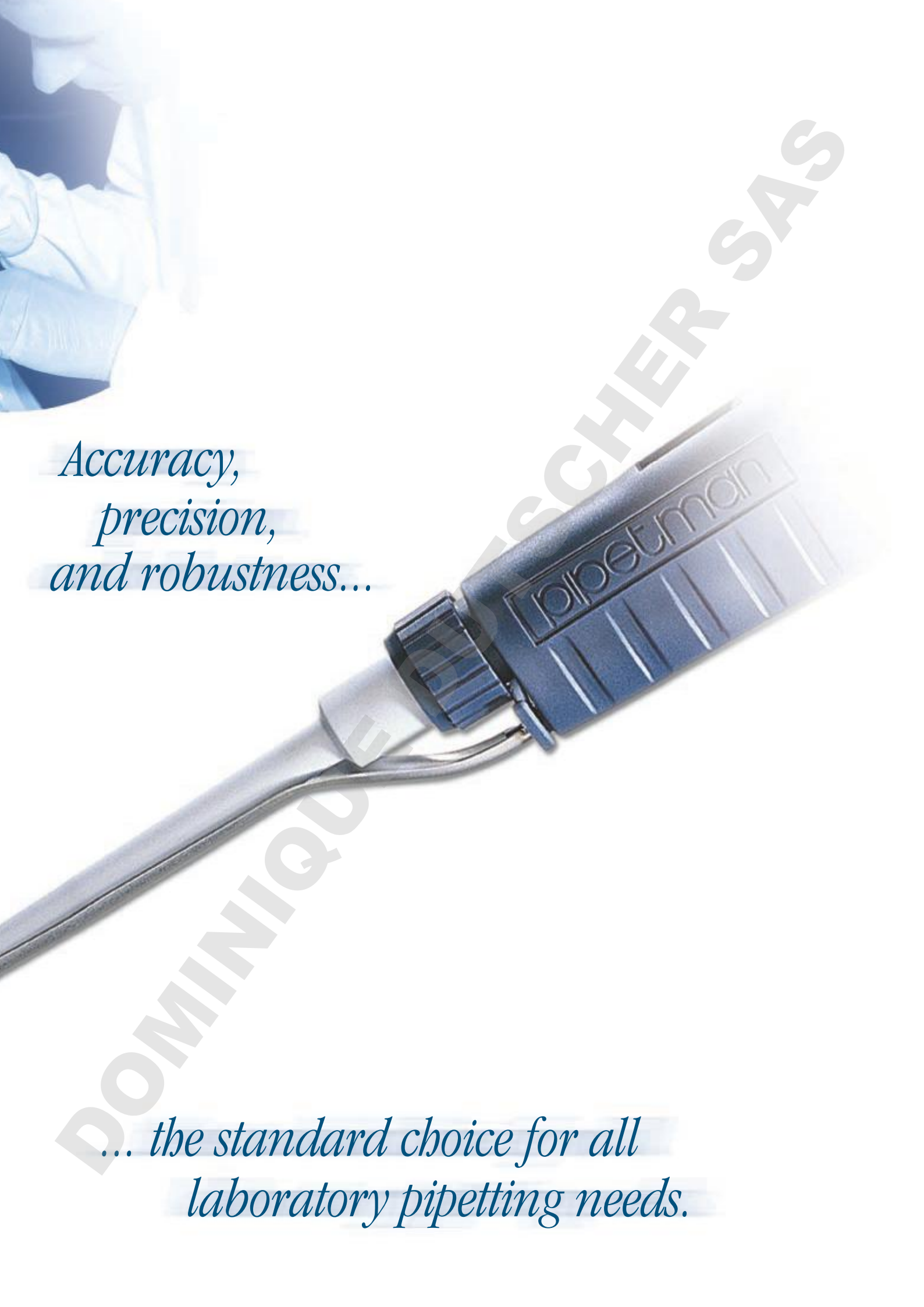
# PIPETMAN<sup>®</sup>

*The  
Pipetting  
Standard*



**GILSON<sup>®</sup>**  
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**<sup>®</sup> 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**<sup>®</sup> 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**<sup>®</sup>.

A unique engraved Identification Number allows perfect traceability.

In combination with Gilson certified Diamond<sup>®</sup> Tips, **PIPETMAN**<sup>®</sup> 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 <sup>-5</sup> 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**<sup>®</sup> will give the level of performance of a new pipette. This durability equates to a very low cost of ownership.

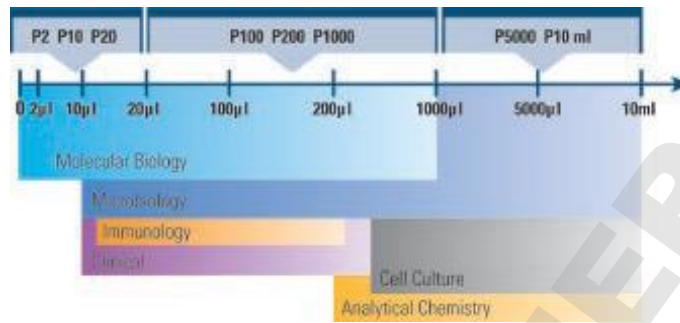
Routine cleaning is all that is required to keep **PIPETMAN**<sup>®</sup> in top condition. No lubrication is required. Parts that may come in contact with liquids are easy to clean or replace. The tip-holder and tip-ejector are fully autoclavable. A plastic connector makes removal and replacement of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





## The Standard of Choice for Each Application

Eight models cover the full range of volumes from 0.2  $\mu$ l 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  $\mu$ l (\*\*).
- 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<br>(Diamond Tips) | Volume (µl) | Accuracy<br>(systematic error) |               | Precision<br>(random error) |                    | Model | Reference<br>Number |
|-------------------------|-------------|--------------------------------|---------------|-----------------------------|--------------------|-------|---------------------|
|                         |             | Absolute<br>µl                 | Relative<br>% | Absolute<br>S.D. µl         | Relative<br>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<br>(Diamond Tips) | Volume (µl) | Accuracy<br>(systematic error) |               | Precision<br>(random error) |                    | Model | Reference<br>Number |
|-------------------------|-------------|--------------------------------|---------------|-----------------------------|--------------------|-------|---------------------|
|                         |             | Absolute<br>µl                 | Relative<br>% | Absolute<br>S.D. µl         | Relative<br>S.D. % |       |                     |
| P2<br>(D10, DL10)       | Min. 0.2    | ± 0.024                        | ± 12          | ≤ 0.012                     | ≤ 6                | P2    | F144801             |
|                         | 0.5         | ± 0.025                        | ± 5           | ≤ 0.012                     | ≤ 2.50             |       |                     |
| P10<br>(D10, DL10)      | Min. 2      | ± 0.030                        | ± 1.5         | ≤ 0.014                     | ≤ 0.70             | P10   | F144802             |
|                         | 5           | ± 0.075                        | ± 1.5         | ≤ 0.030                     | ≤ 0.60             |       |                     |
| P20<br>(D200)           | Min. 10     | ± 0.1                          | ± 1           | ≤ 0.040                     | ≤ 0.40             | P20   | F123600             |
|                         | 2           | ± 0.1                          | ± 5.0         | ≤ 0.03                      | ≤ 1.50             |       |                     |
| P100<br>(D200)          | Min. 5      | ± 0.1                          | ± 2.0         | ≤ 0.04                      | ≤ 0.80             | P100  | F123615             |
|                         | 10          | ± 0.1                          | ± 1.0         | ≤ 0.05                      | ≤ 0.50             |       |                     |
| P200<br>(D200)          | Min. 20     | ± 0.2                          | ± 1.0         | ≤ 0.06                      | ≤ 0.30             | P200  | F123601             |
|                         | 50          | ± 0.35                         | ± 1.8         | ≤ 0.10                      | ≤ 0.50             |       |                     |
| P1000<br>(D1000)        | Min. 100    | ± 0.4                          | ± 0.8         | ≤ 0.12                      | ≤ 0.24             | P1000 | F123602             |
|                         | 200         | ± 0.5                          | ± 1           | ≤ 0.20                      | ≤ 0.4              |       |                     |
| P5000<br>(D5000)        | Min. 1000   | ± 12                           | ± 1.2         | ≤ 3.0                       | ≤ 0.30             | P5000 | F123603             |
|                         | 2000        | ± 12                           | ± 0.6         | ≤ 5.0                       | ≤ 0.25             |       |                     |
| P10ml<br>(D10ml)        | Min. 5000   | ± 30                           | ± 0.6         | ≤ 8.0                       | ≤ 0.16             | P10ml | F161201             |
|                         | 1 ml        | ± 30                           | ± 3           | ≤ 6                         | ≤ 0.6              |       |                     |
|                         | 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             |       |                     |

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