

Pipetting Systems

2006



Ergonomics...

Gilson Pipetman® pipettes led with innovative digital volume adjustment, contoured handles, and pushbutton no-touch tip ejection. They created a standard for microliter pipetting ease, comfort, versatility, and convenience that has endured for over 30 years.

Pipetman Ultra pipettes, a more recent introduction, maintain the economy, simplicity, and versatility of manual operation, but incorporate technological improvements to speed volume setting, reduce hand forces for operation, and reduce forces for mounting and ejecting disposable tips. Such improvements are believed to help prevent repetitive stress problems, and evidence is gradually emerging to support that contention. Pipetman Ultra pipettes make numerous daily microliter liquid measurement tasks significantly easier and more tolerable.

Our new **Pipetman Concept™ motorized pipettes**, introduced in this catalog, go one step further. They replace manual pipetting forces with computerized electronic operation and improve accuracy and reproducibility in real laboratory situations by removing the operator dependence of pipette piston movements.

Leading the way in ergonomic pipette design for over 30 years, we welcome your suggestions and feedback regarding our products.

...and Quality at GILSON®

Our policy is to promote a **total commitment to quality** by each individual throughout the Gilson organization worldwide.

Our goal is that this commitment to quality will result in **complete customer satisfaction** with both our products and services.

ISO9001 Certified

According to ISO 9001:2000, our company's organization is based on processes addressing customers' needs.

OUR PIPETTES CONFORM TO ISO8655

Our pipettes are designed, manufactured and calibrated in compliance with the specifications and methods of the ISO 8655 standard.

CE [IVD]

All our pipettes comply with the IVD Directive (98/79/EC) for In Vitro Diagnostics Medical Devices.

ISO17025 Accredited

Our independent pipette calibration laboratory is accredited by a national accreditation organization:

- For its ability to calibrate pipettes in accordance with the ISO 8655.
- For its capacity to reproduce reliable results.
- For the reliability of its quality system.



Products...

	ADJUSTABLE-VOLUME PIPETTES	
	PIPETMAN® Pipettes	4-5
	PIPETMAN® Ultra Pipettes (single and multichannel)	6-9
NEW	ELECTRONIC MOTORIZED PIPETTES	
	PIPETMAN Concept® Pipettes (single and multichannel)	10-13
	SINGLE-VOLUME PIPETTES	
	PIPETMAN® F Pipettes	14
	ACCESSORIES	
	Carrousel™ Pipette Stand	15
	Trio™ Pipette Stand	15
	Single™ Pipette Stand	15
	Coloris™ Identification Clips	15
	Pipetman® Ultra Name Tags	15
	PIPETTE TIPS	
	Diamond® Tips:	16-21
	Standard tips, Filter tips, Sterilized tips	
	Packaging: Tipack™, Tower Pack™, SterilPack™, EcoPack™, EasyPack™, Empty Racks	
	PIPETTE KITS	
NEW	PIPETMAN® Ultra Starter Kit	22
	PIPETMAN® Micro-Volume Kit	22
	PIPETMAN® Starter Kit	22
	PIPETMAN® Large-Volume Kit	22
	REPEATING PIPETTES	
	DISTRIMAN® Pipette and DistriTips® Syringes	23
NEW	POSITIVE DISPLACEMENT PIPETTES	
	MICROMAN® Pipettes and Capillary/Pistons	24-25
	PIPETTE REPLACEMENT PARTS	26-27
	ELECTRONIC MULTI-FUNCTION DILUTOR DISPENSERS	
	402 DILUTOR-DISPENSER	28
	BENCH-TOP SOLUTIONS	
NEW	LABSTIR™ Solid-State Laboratory Mixer	29
	MINIPULS™ 3 Peristaltic Pump and Accessories	30-32
	CHEMICAL COMPATIBILITY TABLE	33
NEW	PIPETTE SERVICE, CALIBRATION, & CERTIFICATION	34
	ROBOTIC WORKSTATIONS	35



PIPETMAN®

Continuously Adjustable Digital Pipettes

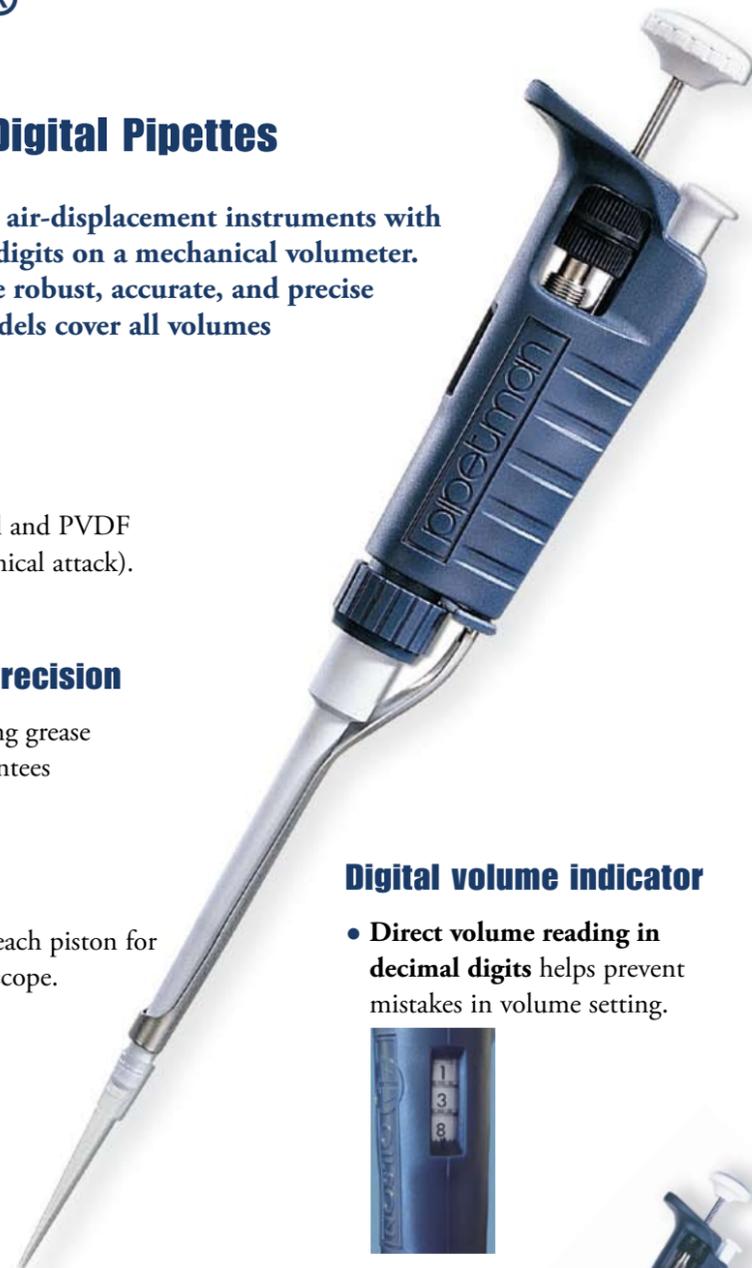
Pipetman® pipettes are fully adjustable air-displacement instruments with the selected volume shown in decimal digits on a mechanical volumeter. Designed and manufactured to provide robust, accurate, and precise liquid sample measurements, eight models cover all volumes from 0.2 µL to 10 mL.

The standard for robustness

- **Built to last.** Constructed of stainless-steel and PVDF (a plastic with very high-resistance to chemical attack).

The standard for accuracy and precision

- **Unique “dry seal” technology** avoids using grease to obtain adequate air-tightness and guarantees long-term performances.
- **Thick body (handle)** in PVDF minimizes the hand-warming effect during pipetting.
- **Rigorous quality control.** Gilson checks each piston for smoothness and uniformity using a microscope.



Digital volume indicator

- **Direct volume reading in decimal digits** helps prevent mistakes in volume setting.



Easy maintenance

- **Routine cleaning** is all that is required to keep Pipetman pipettes 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.**



“The Pipetting Standard”

- **Models P2 and P10 both incorporate dual position tip ejectors,** allowing the use of Diamond® D10 (short) and DL10 (long) tips: a plus for protection and precision when using microtubes.
- **Models P5000 and P10ml are safer and more accurate than glass pipettes.** They include a polyethylene filter that prolongs piston life and prevents contamination.



Pipetman Pipettes

Model	Diamond Tips*	Reference Number	Volume (µL)	Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
				Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
P2	• D10 • DL10	F144801	Min. 0.2	± 0.024	≤ 0.012	± 0.08	≤ 0.04
			0.5	± 0.025	≤ 0.012	± 0.08	≤ 0.04
			Max. 2	± 0.030	≤ 0.014	± 0.08	≤ 0.04
P10	• D10 • DL10	F144802	Min. 1	± 0.025	≤ 0.012	± 0.12	≤ 0.08
			5	± 0.075	≤ 0.030	± 0.12	≤ 0.08
			Max. 10	± 0.100	≤ 0.040	± 0.12	≤ 0.08
P20	• D200	F123600	Min. 2	± 0.10	≤ 0.03	± 0.20	≤ 0.10
			5	± 0.10	≤ 0.04	± 0.20	≤ 0.10
			Max. 20	± 0.20	≤ 0.06	± 0.20	≤ 0.10
P100	• D200	F123615	Min. 20	± 0.35	≤ 0.10	± 0.80	≤ 0.30
			50	± 0.40	≤ 0.12	± 0.80	≤ 0.30
			Max. 100	± 0.80	≤ 0.15	± 0.80	≤ 0.30
P200	• D200	F123601	Min. 50	± 0.50	≤ 0.20	± 1.60	≤ 0.60
			100	± 0.80	≤ 0.25	± 1.60	≤ 0.60
			Max. 200	± 1.60	≤ 0.30	± 1.60	≤ 0.60
P1000	• D1000	F123602	Min. 200	± 3	≤ 0.6	± 8	≤ 3
			500	± 4	≤ 1	± 8	≤ 3
			Max. 1000	± 8	≤ 1.5	± 8	≤ 3
P5000	• D5000	F123603	Min. 1000	± 12	≤ 3	± 40	≤ 15
			2000	± 12	≤ 5	± 40	≤ 15
			Max. 5000	± 30	≤ 8	± 40	≤ 15
P10ml	• D10ml	F161201	Min. 1mL	± 30	≤ 6	± 60	≤ 30
			2mL	± 30	≤ 6	± 60	≤ 30
			5mL	± 40	≤ 10	± 60	≤ 30
			Max. 10mL	± 60	≤ 16	± 60	≤ 30

* Gilson maximum permissible errors are guaranteed only when Pipetman pipettes are used with the proper Gilson Diamond™ tips.

SAVE: See also Pipetman Starter Kits on page 22.

PIPETMAN® Ultra

Advanced-Design Digital Pipettes

Pipetman Ultra pipettes are fully adjustable air-displacement instruments with a patented multifunctional electronic display in place of the mechanical volumeter. While offering the same robustness and precision as the original Pipetman instruments, Pipetman Ultra pipettes feature several exclusive improvements and innovations.

Ultra comfort in daily use



- **Ergonomic design** fits naturally in your hand and requires less effort to use.
- **Less force is needed** to set the volume, operate the plunger, and eject the tip for easier pipetting on a daily basis.



- **Quick volume setting.** Only ten turns of the volumeter move the pipette from the minimum to the nominal maximum volume.



- **Improved comfort when fitting and ejecting tips** with the patented adjustable-stroke tip ejector and exclusive G-FIT System™.



- **Single-channel, eight-channel, and twelve-channel models available.**



Learn more about Gilson's exclusive G-FIT System on page 8.

- **Natural movement.** The unique patented tip-ejector button adjusts for left- or right-handed users and provides mechanical advantage, requiring less force to eject tips.



For those who require an 8 or 12 channel pipette, just two Pipetman Ultra multichannel models cover the entire volume range from 1 µL to 300 µL.



“Ultra Ergonomic and GLP Features in a Manual Pipette”

Ultra accuracy and precision



- **The patented multifunctional electronic display** provides greater readability and eliminates risk of parallax errors.

Ultra GLP and security features



- **Lockable volume setting** with on-screen display prevents accidental volume changes during pipetting.
- **Cycle counters** in each Pipetman Ultra instrument record piston strokes for quality control and servicing records.



- **Color-coded thumbwheels and push buttons** identify different models by volume range and simplify choosing the correct Diamond® tips.



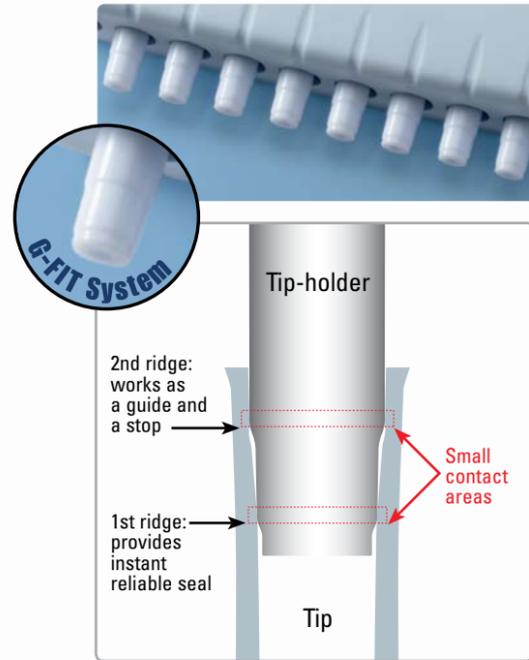
- **Color-coded stickers** protected by plastic windows allow you to personalize each Pipetman Ultra pipette with the user's name or the application.

- **Channel numbers embossed on multichannel heads** reduce the chance of accidentally reversing sample order or cross-contaminating samples in plates.

PIPETMAN® Ultra

Advanced-Design Digital Pipettes

Gilson Forceless Integrated Tip-ejection system



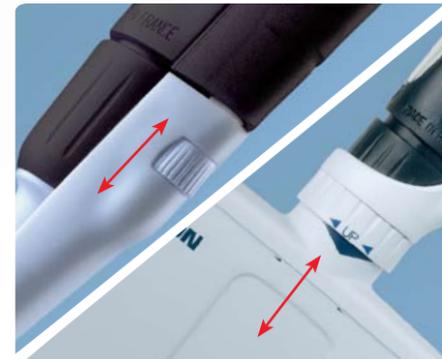
Small contact areas
= instant reliable seals
+ low ejection forces

- Gilson's exclusive **G-FIT System™** provides **fast reliable seals** and **low tip-ejection forces** for Pipetman Ultra and Pipetman Concept multichannel models.

The **G-FIT System** is compatible with most standard tips.

- **Patented adjustable tip-ejector stroke** for maximum compatibility with different tips. (Except U10mL model.)

Single-channel pipettes



Multichannel pipettes

Ultra easy maintenance

- **Electronic adjustment** is simple. Just one tool is needed.



- **Two-part tip holder** permits easy maintenance and cleaning.



- **Removable tip ejector** provides easy access to user-serviceable parts. The tip ejector is made of PVDF to prevent corrosion.



Pipetman Ultra Single-channel Models

Model	Diamond Tips*	Reference Number	Volume (µL)	Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
				Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
U2 0.2-2 µL	• D10 • DL10	F21021	Min. 0.2	± 0.024	≤ 0.012	± 0.08	≤ 0.04
			0.5	± 0.025	≤ 0.012	± 0.08	≤ 0.04
			Max. 2	± 0.030	≤ 0.014	± 0.08	≤ 0.04
U10 1-10 µL	• D10 • DL10	F21022	Min. 1	± 0.025	≤ 0.012	± 0.12	≤ 0.08
			5	± 0.075	≤ 0.030	± 0.12	≤ 0.08
			Max. 10	± 0.100	≤ 0.040	± 0.12	≤ 0.08
U20 2-20 µL	• D200	F21023	Min. 2	± 0.10	≤ 0.03	± 0.20	≤ 0.10
			5	± 0.10	≤ 0.04	± 0.20	≤ 0.10
			Max. 20	± 0.20	≤ 0.06	± 0.20	≤ 0.10
U100 20-100 µL	• D200	F21024	Min. 20	± 0.35	≤ 0.10	± 0.80	≤ 0.30
			50	± 0.40	≤ 0.12	± 0.80	≤ 0.30
			Max. 100	± 0.80	≤ 0.15	± 0.80	≤ 0.30
U200 20-200 µL	• D200	F21025	Min. 20	± 0.50	≤ 0.20	± 1.60	≤ 0.60
			50	± 0.50	≤ 0.20	± 1.60	≤ 0.60
			Max. 200	± 1.60	≤ 0.30	± 1.60	≤ 0.60
U1000 200-1000 µL	• D1000	F21026	Min. 200	± 3	≤ 0.6	± 8	≤ 3
			500	± 4	≤ 1	± 8	≤ 3
			Max. 1000	± 8	≤ 1.5	± 8	≤ 3
U5000 1-5 mL	• D5000	F21027	Min. 1000	± 12	≤ 3	± 40	≤ 15
			2000	± 12	≤ 5	± 40	≤ 15
			Max. 5000	± 30	≤ 8	± 40	≤ 15
U10ml 1-10 mL	• D10ml	F21028	Min. 1mL	± 30	≤ 6	± 60	≤ 30
			2mL	± 30	≤ 6	± 60	≤ 30
			5mL	± 40	≤ 10	± 60	≤ 30
			Max. 10mL	± 60	≤ 16	± 60	≤ 30

* Gilson maximum permissible errors are guaranteed only when Pipetman Ultra pipettes are used with the proper Gilson Diamond™ tips.

Pipetman Ultra Multichannel Models

Model	Diamond Tips*	Reference Number	Volume (µL)	Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
				Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
8x20 12x20 1-20 µL	• D200	F21040 F21041	Min. 1	± 0.10	≤ 0.08	± 0.40	≤ 0.20
			2	± 0.10	≤ 0.08	± 0.40	≤ 0.20
			Max. 20	± 0.40	≤ 0.20	± 0.40	≤ 0.20
8x300 12x300 20-300 µL	• D300	F21042 F21043	Min. 20	± 1.00	≤ 0.35	± 8.00	≤ 3.00
			30	± 1.00	≤ 0.45	± 8.00	≤ 3.00
			Max. 300	± 3.00	≤ 3.00	± 8.00	≤ 3.00

* Gilson maximum permissible errors are guaranteed only when Pipetman Ultra pipettes are used with the proper Gilson Diamond™ tips.

SAVE: See also Starter Kit on page 22.

NEW

PIPETMAN® Concept™

Comfortable Electronic Motorized Pipettes

The innovative Pipetman® Concept™ motorized pipette builds on Gilson's expertise in liquid handling robotics, offering multiple operational modes in a unique motorized instrument:

- **AUTO** Normal pipetting with blowout. Cycle counter (0-999).
- **AUTO + MIX** Normal pipetting plus mixing.
- **MANUAL** For applying samples to gels or measuring volumes.
- **REPETITIVE** For dispensing multiple samples.
- **REVERSE** Reverse-mode pipetting for moderately viscous samples.

Plus a novel combination of special features, including

- **HOOK** Adjustable for comfort in different hands.
- **TIP EJECTOR** Low-force, mechanical advantage. Adjustable left/right.
- **USB INTERFACE** PC connection for custom modes and GLP functions.



Adjustable tip-ejector button



Adjustable tip-ejector stroke



Adjustable hook

Fast, reliable mounting of standard tips



- Gilson's exclusive **G-FIT System™** (Forceless Integrated Tip-ejection) provides **fast, reliable seals** and **low ejection force**. The **G-FIT System** is compatible with most standard tips.

Learn more about Gilson's exclusive G-FIT System on page 8.

Unique thumbwheel-based volume setting



Click to release.
Turn to set.
Click to lock.

- **Simple "one-step" command buttons.**

Just click on either Mode button to access five pipetting modes. Click and scroll with the thumbwheel to set the volume, navigate, or select a menu option. Change aspirate or dispense speeds (1 to 5) with the +/- buttons.



Unique PC connection via USB interface

- **Create your own pipetting modes.** PC-based utility software lets you create additional modes and transfer them to your Pipetman Concept pipette.
- **Control your maintenance program.** Store and organize maintenance reports, read data from, export data to Pipetman Concept pipettes. The PC connection helps satisfy GLP requirements.



Operator-independent piston movements for enhanced accuracy

- **Driven by a stepper motor controlled by an on-board computer**, piston movements, when measuring samples with the Pipetman Concept pipette, are independent of the operator's ability to move the plunger at consistent speed and properly sense end stops. This contributes to increased accuracy and precision under real laboratory conditions.

Easy, continuous operation

- **Intuitive user functions.** User-friendly display shows battery charge state, piston position, and settings. Selectable menus and straightforward navigation. Pipettes are color-coded to volume range and correct Diamond® tips.
- **Easy-change battery block.** Optional rapid-charge stand charges Pipetman Concept pipette 80% in one hour, fully in two. Optional second battery block is kept charged and available for continuous operation.



Your Pipetman Concept pipette is always ready-to-use...



Rapid charge stand



Standard power supply



Additional Li-ion battery block

"Our Concept of Ergonomic Perfection"

PIPETMAN[®] Concept[™]

Comfortable Electronic Motorized Pipettes

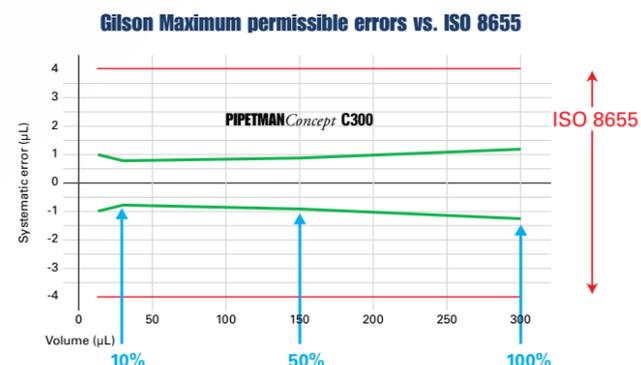
Advanced maintenance and GLP features

- **Pipette internal software** allows you to set a maintenance interval (weeks or cycles) and set an alarm that prompts you when it is time to service your pipette.
- **Optional PC-based utility software** assists with your maintenance program. Store and organize maintenance reports, read data from, and export data to your Pipetman Concept pipette.



Easy calibration, adaptable to your needs

- **Exceeds ISO 8655 Specifications.**
Pipetman Concept pipette specifications are more stringent than required for ISO 8655 compliance.
- **Easy user calibration.**
Custom adjustment can be performed at the three points of calibration recommended by ISO 8655. A fourth calibration point permits you to maximize performance at a specific volume.
- **Return to factory settings.**
Default calibration settings are retained at all times and can be restored on demand.



Keeping track: the Pipetman Concept pipette does it for you

- **Settings, calibration data, and other useful information** are stored in the internal pipette memory and can be accessed at any time.
- **An on-screen indicator** shows the number of times the pipette has been readjusted.



NEW



Pipetman Concept Pipettes

Model w/o AC-adapter	Diamond Tips*	Reference Number	Volume (µL)	Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
				Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
C10 0.5 - 10 µL	• D10 • DL10	F31012	0.5	± 0.040	≤ 0.017	± 0.120	≤ 0.080
			1	± 0.025	≤ 0.012	± 0.120	≤ 0.080
			5	± 0.070	≤ 0.025	± 0.120	≤ 0.080
			10	± 0.080	≤ 0.030	± 0.120	≤ 0.080
C100 5 - 100 µL	• D200	F31013	5	± 0.40	≤ 0.18	± 0.8	≤ 0.30
			10	± 0.30	≤ 0.15	± 0.8	≤ 0.30
			50	± 0.38	≤ 0.15	± 0.8	≤ 0.30
			100	± 0.40	≤ 0.20	± 0.8	≤ 0.30
C300 20 - 300 µL	• D300	F31014	20	± 0.90	≤ 0.16	± 4.00	≤ 1.50
			30	± 0.75	≤ 0.20	± 4.00	≤ 1.50
			150	± 0.90	≤ 0.23	± 4.00	≤ 1.50
			300	± 1.05	≤ 0.30	± 4.00	≤ 1.50
C1200 100 - 1200 µL	• D1000 • D1200	F31015	100	± 2.5	≤ 0.4	± 16.0	≤ 6.0
			120	± 2.4	≤ 0.4	± 16.0	≤ 6.0
			600	± 3.6	≤ 0.9	± 16.0	≤ 6.0
			1200	± 7.0	≤ 1.5	± 16.0	≤ 6.0
C5000 500 - 5000 µL	• D5000	F31016	500	± 12	≤ 2	± 40	≤ 15
			2500	± 18	≤ 5	± 40	≤ 15
			5000	± 30	≤ 8	± 40	≤ 15
C10ml 1 - 10 mL	• D10ml	F31017	1 mL	± 30	≤ 6	± 60	≤ 30
			5 mL	± 40	≤ 10	± 60	≤ 30
			10 mL	± 60	≤ 16	± 60	≤ 30



Pipetman Concept Multichannel Pipettes

Model w/o AC-adapter	Diamond Tips*	Reference Number	Volume (µL)	Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
				Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
8x100 5 - 100 µL	• D200	F31033	10	± 0.25	≤ 0.14	± 1.60	≤ 0.60
			50	± 0.50	≤ 0.20	± 1.60	≤ 0.60
			100	± 0.80	≤ 0.25	± 1.60	≤ 0.60
8x300 20 - 300 µL	• D300	F31034	30	± 1.00	≤ 0.18	± 8.00	≤ 3.00
			150	± 1.50	≤ 0.38	± 8.00	≤ 3.00
			300	± 2.40	≤ 0.60	± 8.00	≤ 3.00
12x100 5 - 100 µL	• D200	F31043	10	± 0.25	≤ 0.14	± 1.60	≤ 0.60
			50	± 0.50	≤ 0.20	± 1.60	≤ 0.60
			100	± 0.80	≤ 0.25	± 1.60	≤ 0.60
12x300 20 - 300 µL	• D300	F31044	30	± 1.00	≤ 0.18	± 8.00	≤ 3.00
			150	± 1.50	≤ 0.38	± 8.00	≤ 3.00
			300	± 2.40	≤ 0.60	± 8.00	≤ 3.00

* Gilson maximum permissible errors are guaranteed only when Pipetman Concept pipettes are used with the proper Gilson Diamond™ tips.

Important: Required for Use

Each Pipetman Concept instrument listed above is supplied with one rechargeable battery block included. However, in order to charge the battery and use your pipette, you must purchase in addition the AC Adapter (F30702) listed below. Please note: the AC Adapter is also required for use of the Rapid Charge Stand.

Accessories

	Ref. Number
AC Adapter, 110-120 V, 50-60 Hz	F30702
Battery block	F3071165
Rapid Charge Stand	F30750
PC connection Kit (including Utility Software)	F30755
Pipetman Concept Utility Software	F3075502
Name Tags	F3071107

PIPETMAN® F

Single-Volume Pipettes

Pipetman F pipettes are single-volume air-displacement instruments. Thirteen models cover the volume range from 2 µL to 1000 µL.

The right pipette

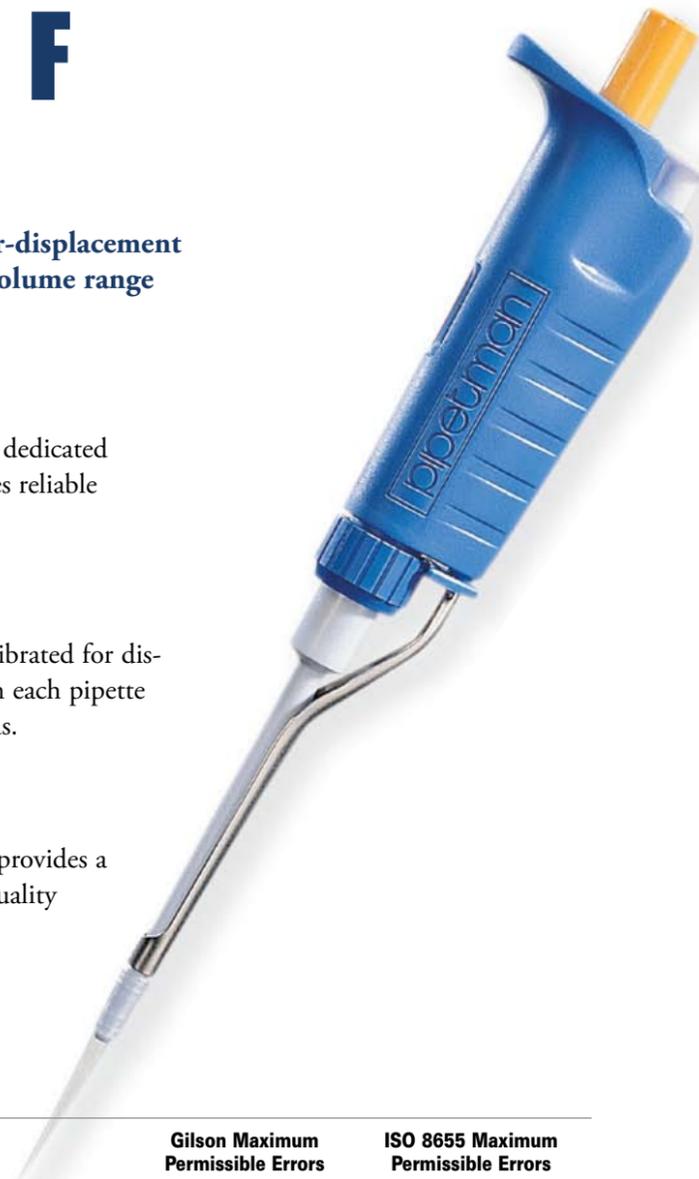
- **No risk of volume-selection errors.** Using a dedicated single-volume pipette for a specific test assures reliable and consistent results.

The right volume

- **Adjustable calibration.** Although factory calibrated for distilled water, the calibration tool supplied with each pipette allows readjustment for specific sample liquids.

The right price

- **Economical.** The single-volume mechanism provides a low-cost alternative for clinical diagnostics, quality control, and routine testing.



Pipetman F Models

Model	Diamond Tips*	Reference Number	Volume (µL)	Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
				Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
F2	• D200	F123770	2	± 0.08	≤ 0.03	± 0.08	≤ 0.04
F5	• D200	F123771	5	± 0.10	≤ 0.04	± 0.125	≤ 0.075
F10	• D200	F123772	10	± 0.10	≤ 0.05	± 0.12	≤ 0.08
F20	• D200	F123604	20	± 0.20	≤ 0.06	± 0.20	≤ 0.10
F25	• D200	F123775	25	± 0.25	≤ 0.07	± 0.50	≤ 0.20
F50	• D200	F123778	50	± 0.40	≤ 0.15	± 0.50	≤ 0.20
F100	• D200	F123784	100	± 0.80	≤ 0.25	± 0.80	≤ 0.30
F200	• D200	F123605	200	± 1.60	≤ 0.30	± 1.60	≤ 0.60
F250	• D1000	F123787	250	± 3.00	≤ 0.75	± 4.00	≤ 1.50
F300	• D1000	F123788	300	± 3.50	≤ 0.75	± 4.00	≤ 1.50
F400	• D1000	F123789	400	± 3.60	≤ 0.80	± 4.00	≤ 1.50
F500	• D1000	F123790	500	± 4.00	≤ 1.00	± 4.00	≤ 1.50
F1000	• D1000	F123606	1000	± 8.00	≤ 1.30	± 8.00	≤ 3.00

* Gilson maximum permissible errors are guaranteed only when Pipetman F pipettes are used with the proper Gilson Diamond™ tips.

Accessories

Quality Accessories for Quality Pipettes

Gilson accessories are of the same high quality as Gilson pipettes. Gilson considers accessories as a part of the pipetting system. All pipettes should be stored vertically to avoid the possibility of liquid running back into, and contaminating or corroding, the interior of the pipette.

Carrousel™ pipette stand

- A convenient rotating stand that holds up to seven Gilson pipettes (except Pipetman® Concept™ pipettes) with exceptional stability. Protects valuable pipettes from damage and contamination.



Carrousel

Trio™ pipette Stand

- The Trio™ stand keeps three Gilson pipettes within easy reach. Ideal for use where space is limited, for example in a laboratory hood.



Trio

Single™ pipette holder

- The Single™ holder excels where space is limited. Stuck to any smooth, dry surface with adhesive (supplied) or fastened with screws, it keeps any Gilson pipette (except Pipetman Concept) within easy reach.



Single

Coloris™ identification clips

- Brightly colored Coloris™ clips identify and personalize Pipetman pipettes. Coloris clips accept permanent ink and snap into place.



Coloris

Pipetman® Ultra name tags

- Your name or application written on one of these colored stickers (protected by the plastic window) identifies a Pipetman Ultra pipette.



Pipetman Ultra Name Tags

Description	Reference Number
Carrousel pipette stand, for 7 Gilson pipettes	F161401
Trio pipette stand, for 3 Gilson pipettes	F161405
Single pipette holder	F161406
Coloris Clips, bag of 10 (mixed colors)	F161301
Coloris Clips, bag of 10 (red color)	F161302
Coloris Clips, bag of 10 (yellow color)	F161303
Coloris Clips, bag of 10 (green color)	F161304
Coloris Clips, bag of 10 (blue color)	F161305
Coloris Clips, bag of 10 (white color)	F161306
Pipetman Ultra Name Tags (set of 5 colors)	F2070901

DIAMOND® Tips

Quality Tips for Quality Pipettes

The only way to ensure accuracy and reproducibility across the full volume range of your Pipetman® pipette is to use Diamond® precision tips.

“The maximum permissible errors always apply to the total system of piston pipette and tip. When using pipette tips not delivered by the supplier, the supplier’s declaration or certificate of conformity does not apply.” (ISO 8655-2 piston pipettes)

Gilson’s declaration of conformity and certificate of calibration provided with each Pipetman pipette are valid only if the pipette is used with Diamond tips.

Quality tips

- **Traceability.**

From the mold to the bench, the batch number is traceable.



- **Totally autoclavable.**

All Diamond tips can be autoclaved (121 °C, 0.1 MPa, 20 min), even filter tips.

- **Pure polypropylene.**

No dyes. No additives. Smooth hydrophobic surface prevents liquid retention.

- **Fine point and flexibility.**

The last droplet is easier to dispense.

- **Gilson Logo.**

Guarantees quality according to ISO 8655 requirements. Diamond tips and Pipetman pipettes are the complete pipetting system.

- **Level marks.**

A quick glance at the tip is all that is needed to check the approximate volume.
For DL10: 2 µL and 10 µL.
For D200: 20 µL and 100 µL.
For D1000: 300 µL..

Why choose Gilson Diamond tips?

Accuracy and precision of your pipetting system

- Pipetman pipette specifications are guaranteed only if used with Diamond tips.
- Tips contribute up to 50% to the performance of your pipetting system (ISO 8655-2).
- Diamond tips ensure a perfect seal, as the tip and the tip holder have been engineered together.
- Consistent tip-to-tip and lot-to-lot performance proved by a study carried out at our Accredited Laboratory.

Increased comfort

- Diamond tips and Pipetman pipettes work together seamlessly.
- Low tip-mounting force means lower ejection force.
- Perfect seal for multichannel pipettes: Diamond tips never fall off with our patented G-FIT System™.



Just a light vertical force for a perfect seal on all eight or twelve channels.

Learn more about Gilson's exclusive G-FIT System on page 8.

Preserve the integrity of your sample

- Constructed of 100% virgin polypropylene, an inert plastic characterized by low binding and hydrophobic properties.
- Contamination-free, additive-free plastic. No dyes. No silicone. No antistatic agents.
- Technical specifications guaranteed for autoclavable and sterilized tips & packaging.
- Smooth surfaces and fine points prevent droplet retention.



Diamond® tips: a major step in quality requirements

Pipetting systems, as for all laboratory instruments, should be part of your quality management system.



Fully traceable all the way from the mold to your laboratory bench

- **Gilson logo** means genuine Diamond tips.
- **Identification number** guarantees the manufacturing quality of the tips.
- **Batch number** on every pack.
- **Tip model and tip volume identification** on each pack and rack.

Quality certificate in every box

- States that **each batch** of tips has been **sampled and inspected**.
- **Batch number** recorded on each certificate.
- **Typical trace metal release values supplied** with each Diamond tip package.
- States that all tips comply with the **CE IVD directive**.



Color-coded packaging

- **Volume recognition** at a glance.
- **Helps prevent errors** in the stock room and in the laboratory.

Contamination-free

From design to packaging, Gilson Diamond tips offer you maximum security to prevent contamination of your tip and pipette.

Filter tips

- **High efficiency filter** stops particles down to 1 µm.
- **Made of pure polypropylene** with no additives such as “blocking filter”.
- **Sterilized** (DFxxxST) and autoclavable (DFxxxA) tips available.
- **Autoclavable** to ensure perfect sterility once the rack has been opened.



Large choice of packaging

A comprehensive range of packaging solutions for your laboratory. All packaging is 100% recyclable.

Bulk tips:

An economical solution

- Sealed bags to protect tips from contamination.
- Bags are resealable.



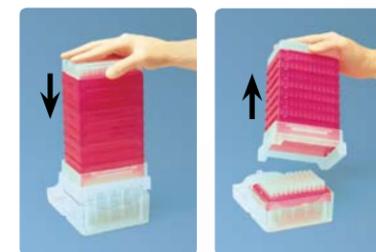
Tipack™ racked tips

- High-quality, robust rack.
- Excellent resistance to autoclaving.
- Easy to open with one hand.
- Color-coded.
- 100% recyclable.



Tower Pack™ innovative refill system: now fully autoclavable

- Racked tips at an economical price.
- 74% less plastic.
- 60% less space.
- 100% recyclable.
- Easy-to-use one-hand system.
- One universal reload box for all types of tips.
- Contamination-free refill system.
- Color-coded for easy identification.
- Available sterile.



Just place the Tower Pack rack over the empty box and press down. Remove the tower and put it back in the protective base.

NOTE: Boxes for reloading must be purchased separately.

Sterilized tips

- **Sterility assurance level SAL 10⁻⁶ guaranteed.** Sterilized by gamma irradiation.
- Each rack is labeled with a **gamma irradiation detection sticker** that turns red when exposed.
- **Free of detectable RNases, DNases, DNA, RNA and Proteases.**
 - Regular analysis carried out by an independent laboratory.
 - Certificate of compliance with detailed protocols and detection levels for each batch.
- All packs are wrapped in medical device quality plastic that provides a complete shield against contamination.



Date of sterilization and red sticker guarantee sterilization

DIAMOND® Tips

A variety of packaging to suit your application

Diamond certified tips assure optimal performance of Pipetman pipettes.

Tip model	Pipette models U = Pipetman Ultra, C = Pipetman Concept	Volume range	Tipack Diamond Tips:		Tower Pack: refill system for Diamond Tips		SterilPack:	EcoPack:	EasyPack:	Empty Racks
			10 Tipacks of	96 racked tips	10 racks of 96 tips	10 racks of 96 tips	400 tips individually wrapped	box of 10,000 tips (10 bags of 1,000)	box of 1,000 tips (5 bags of 200)	(set of 2) For manual loading only. Not compatible with Tower Pack refill system.
			Autoclavable	γ-Ray sterilized	Autoclavable	γ-Ray sterilized				
 D10	P2, P10, U2, U10, C10	0.2 - 10 µL	F161632	F161905	F167101	F167201	F161310	F161630	F161631	F161791
 DL10	P2, P10, U2, U10, U8x20, U12x20, C10	0.2 - 20 µL	F161452	F161455	F167102	F167202	F161320	F161450	F161451	F161393
 D200	P20 to P200, P8x200, F2 to F200, U20 to U200, U8x20, U12x20, U8x300, U12x300, C100, C300, C8x100, C12x100, C8x300, C12x300	2 - 200 µL	F161932	F161937	F167103	F167203	F161330	F161930	F161931	F161391
 D300	P200, U200, U8x300, U12x300, C300, C8x300, C12x300	20 - 300 µL	F161732	F161735	F167105	F167205	-	F161730	F161731	F161737
 D1000	P1000, F250 to F1000, U1000, C1200	200 - 1000 µL	F161672	F161975	F167104 (7 racks of 96 tips)	F167204 (7 racks of 96 tips)	F161340	F161670	F161671	F161793
 D1200	P1000, F250 to F1000, U1000, C1200	100 - 1200 µL	F161102	F161103	<div data-bbox="1787 907 2160 1179" style="border: 1px solid black; padding: 5px;"> <p>Item Reference Number</p> <p>Universal Reload Box F167100</p> <p>Required for use of Tower Pack tips. Must be purchased separately.</p> </div>		-	F161100	F161101	F161104
 D5000	P5000, U5000, C5000	1 - 5 mL	F161370 (12 Tipacks of 50 tips)	-			-	-	F161571 (3 bags of 334)	F161360 (1 rack)
 D10ml	P10ml, U10ml, C10ml	1 - 10 mL	F161230 (8 Tipacks of 30 tips)	-			-	-	F161210 (200 tips)	F161220 (1 rack)

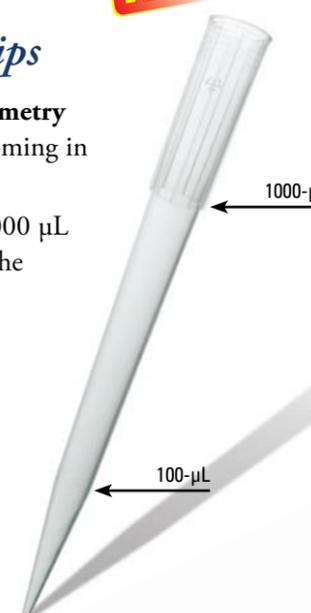
NEW

Work safely and prevent sample contamination with Diamond filter tips:

 DF10	P2, P10, U2, U10	0.2 - 10 µL	F161710	F161633
 DFL10	P2, P10, U2, U10, U8x20, U12x20, C10	0.2 - 10 µL	F161454	F161453
 DF30	P20, F2 to F25, U20, U8x20, U12x20	2 - 30 µL	F161935	F161933
 DF100	P100, F50 to F100, U100, C100, C8x100, C12x100	20 - 100 µL	F161939	F161938
 DF200	P200, P8x200, F200, U200, U8x300, U12x300, C300, C8x300, C12x300	20 - 200 µL	F161936	F161934
 DF300	P200, U200, U8x300, U12x300, C300, C8x300, C12x300	20 - 300 µL	F161734	F161733
 DF1000	P1000, F250 to F1000, U1000, C1200	200 - 1000 µL	F161770	F161673

D1200 Diamond Tips

- **New long and slender tip geometry** prevents the tip holder from coming in contact with wells and tubes.
- **Graduations** at 100 µL and 1000 µL make it easy to visually check the volume pipetted.



Specially designed for Pipetman Concept C1200, .
Compatible with Pipetman P1000 and Pipetman Ultra U1000.

Pipette Kits

All You Need to Get Started, in a Single Box!

Gilson pipette kits now include both Pipetman® and Pipetman Ultra instruments for all your pipetting needs.

All in One

- Each kit contains two or three classic Pipetman or Pipetman Ultra pipettes plus samples of certified-quality Diamond® Tips and useful accessories, such as Single Pipette Holders (except Large Volume Kit).

Economical

- Save money when compared to pipettes and accessories bought separately.



Pipetman Kits contents

Model	Reference Number	Pipetman models	Diamond Tips (racks of 96 tips)	Accessories
Pipetman Ultra Starter Kit	F267630	U20 U200 U1000	D200 and D1000	<ul style="list-style-type: none"> • 3 Single Pipette Holders • 3 x 5 colored Name Tags • 1 Calibration key • 3 Lubricant tubes
Pipetman Micro-Volume Kit	F167500	P2 P10 P100	Sterile FilterTips DFL10ST and DF100ST	<ul style="list-style-type: none"> • 3 Single Pipette Holders • 10 Coloris identification clips • 1 Gilson Guide to Pipetting
Pipetman Starter Kit	F167300	P20 P200 P1000	D200 and D1000	<ul style="list-style-type: none"> • 3 Single Pipette Holders • 10 Coloris identification clips • 1 Gilson Guide to Pipetting
Pipetman Large-Volume Kit	F167400	P5000 P10ml	5 x D5000 tips 2 x D10ml tips (no racks)	<ul style="list-style-type: none"> • 2 x 10 protection filters for P5000 and P10ml



DISTRIMAN®

Continuously Adjustable Repetitive Pipette

Gilson's unique Distriman® positive-displacement repetitive pipette simplifies dispensing of multiple samples. It is designed for use with Gilson's pure polypropylene DistriTips® syringes.



Direct volume readout

- Dispense volume reads directly in microliters, eliminating troublesome calculations.

Continuously adjustable

- You can set any volume in the adjustment range, not just discrete volume steps.

Only three syringes are needed

- Micro 125 µL, Mini 1250 µL and Maxi 12.5 mL syringes cover the entire volume range (from 1 µL to 1.25 mL). DistriTips syringes are the only syringes capable of dispensing at least 100 aliquots.

Selection of packaging

- Each DistriTips syringe model is available in standard or sterilized (ST) form, in boxes of 50. Sterilized DistriTips are **individually wrapped** and certified **free of RNase, DNase, DNA, RNA and protease**.



Distriman Repetitive Pipette

Reference Number		F164001					
DistriTips Syringes (box of 50)				Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
Model	Aliquot Range	Reference Number	Volume (µL)	Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
125 µL Micro Micro ST*	1 µL to 12.5 µL	F164100 F164130	Min. 2	± 0.100	≤ 0.080	±0.20	≤ 0.10
			5	±0.125	≤ 0.075	±0.20	≤ 0.10
			Max. 10	±0.200	≤ 0.100	±0.20	≤ 0.10
1250 µL Mini Mini ST	10 µL to 125 µL	F164110 F164140	Min. 20	±0.80	≤ 0.20	±1.50	≤ 0.60
			50	±1.00	≤ 0.40	±1.50	≤ 0.60
			Max. 100	±1.00	≤ 0.60	±1.50	≤ 0.60
12.5 mL Maxi Maxi ST	100 µL to 1.25 mL	F164120 F164150	Min. 200	±6.00	≤ 1.00	±12.00	≤ 4.00
			500	±7.50	≤ 1.50	±12.00	≤ 4.00
			Max. 1000	±10.0	≤ 2.50	±12.00	≤ 4.00

*ST means sterilized syringes (individually wrapped).

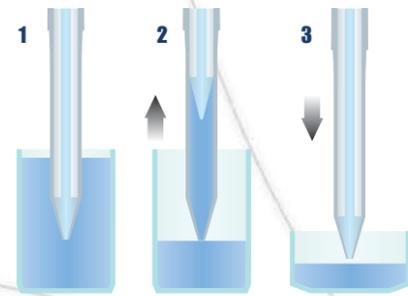


NEW

MICROMAN®

NEW
Color
NEW
Color-Coded Packaging

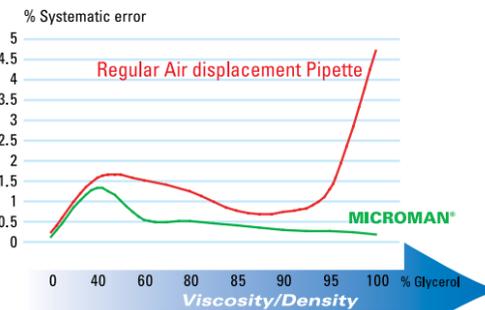
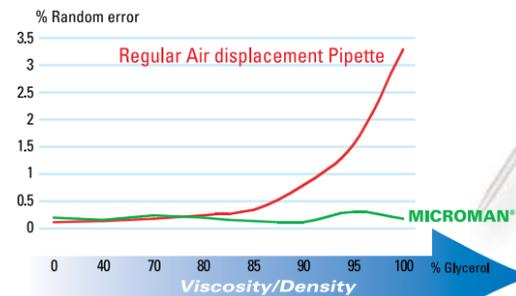
Digital Positive-Displacement Pipettes



1. No air-to-liquid interface.
2. The desired volume is aspirated rapidly and completely.
3. The positive wiping action of the piston against the capillary wall assures accurate dispensing of even the most viscous sample and avoids carry-over.

Accurate and reproducible measurements with problem liquids

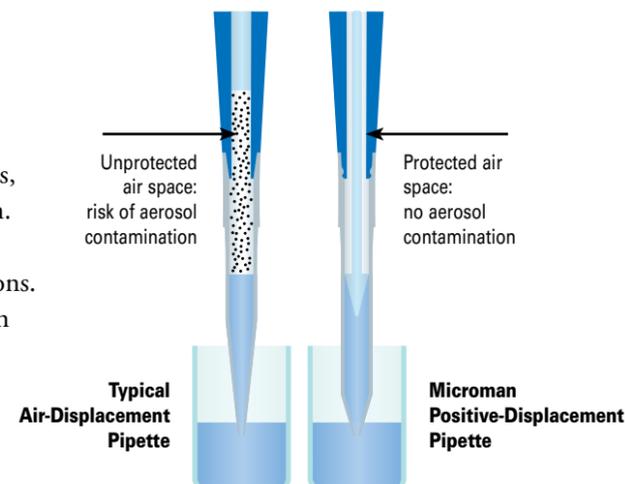
- The perfect solution for complete and rapid pipetting of viscous and dense liquids such as **oil, syrup, cosmetic cream, liquefied food, paint, glycerol, CsCl solutions.**
- Accurately measure high-vapor-pressure liquids such as **acetone, chloroform, alcohol, hexane, and other volatile solvents** without leakage or dribbling.



Reference: Gilson S.A.S. Further details available at www.gilson.com

100% protection against contamination

- **Disposable capillaries and pistons** isolate the pipetting instrument from samples and aerosols, thereby preventing sample cross-contamination.
- **Built-in pushbutton tip ejector** prevents user contact with contaminated capillaries and pistons.
- **Contamination-free pipetting** with Microman pipettes **helps prevent false results in PCR analysis.**



Digital volume adjustment

- Microman® pipettes have continuous volume adjustment and a direct digital display, similar to Pipetman® pipettes, that helps prevent mistakes in volume setting.

Microman capillaries & pistons (CP)

- **Volume range** from 1 µL to 1000 µL with six different models.
- **Color-coded packaging** identifies correct pipette model.
- **No need for recalibration** when you change the CP.
- **Disposable. Safe.** Capillaries made of pure, unbreakable polypropylene.
- **Dye free.** No risk of chemical contamination.
- **Slender profile.** Microman CPs fit even the narrowest and deepest tubes.

Microman Pipettes

Model	Capillary Piston	Reference Number	Volume (µL)	Gilson Maximum Permissible Errors		ISO 8655 Maximum Permissible Errors	
				Systematic error (µL)	Random error (µL)	Systematic error (µL)	Random error (µL)
M10	CP10	F148501	Min. 1	±0.09	≤ 0.03	±0.20	≤ 0.10
			5	±0.10	≤ 0.03	±0.20	≤ 0.10
			Max. 10	±0.15	≤ 0.06	±0.20	≤ 0.10
M25	CP25	F148502	Min. 3	±0.25	≤ 0.08	±0.70	≤ 0.30
			10	±0.27	≤ 0.08	±0.70	≤ 0.30
			Max. 25	±0.30	≤ 0.10	±0.70	≤ 0.30
M50	CP50	F148503	Min. 20	±0.34	≤ 0.20	±0.70	≤ 0.30
			Max. 50	±0.70	≤ 0.30	±0.70	≤ 0.30
M100	CP100	F148504	Min. 10	±0.50	≤ 0.20	±1.50	≤ 0.60
			50	±0.75	≤ 0.30	±1.50	≤ 0.60
			Max. 100	±1.00	≤ 0.40	±1.50	≤ 0.60
M250	CP250	F148505	Min. 50	±1.50	≤ 0.30	±6.00	≤ 2.00
			100	±1.70	≤ 0.30	±6.00	≤ 2.00
			Max. 250	±2.50	≤ 0.50	±6.00	≤ 2.00
M1000	CP1000	F148506	Min. 100	±3.00	≤ 1.60	±12.00	≤ 4.00
			500	±5.00	≤ 2.50	±12.00	≤ 4.00
			Max. 1000	±8.00	≤ 4.00	±12.00	≤ 4.00

Microman Capillary Pistons

Capillary Piston	Microman Model	Reference number	Quantity/Box	Sterilized	Assembled	Racked in Tipack
CP10	M10	F148412	192	No	Yes	Yes
CP10	M10	F148312	960	No	Yes	Yes
CP10ST	M10	F148413	192	Yes	Yes	Yes
CP10ST	M10	F148313	960	Yes	Yes	Yes
CP25	M25	F148112	200	No	No	No
CP50	M50	F148113	200	No	No	No
CP100	M100	F148414	192	No	Yes	Yes
CP100	M100	F148314	960	No	Yes	Yes
CP100ST	M100	F148415	192	Yes	Yes	Yes
CP100ST	M100	F148315	960	Yes	Yes	Yes
CP250	M250	F148114	200	No	No	No
CP1000	M1000	F148560	182	No	Yes	Yes
CP1000ST	M1000	F148180	182	Yes	Yes	Yes

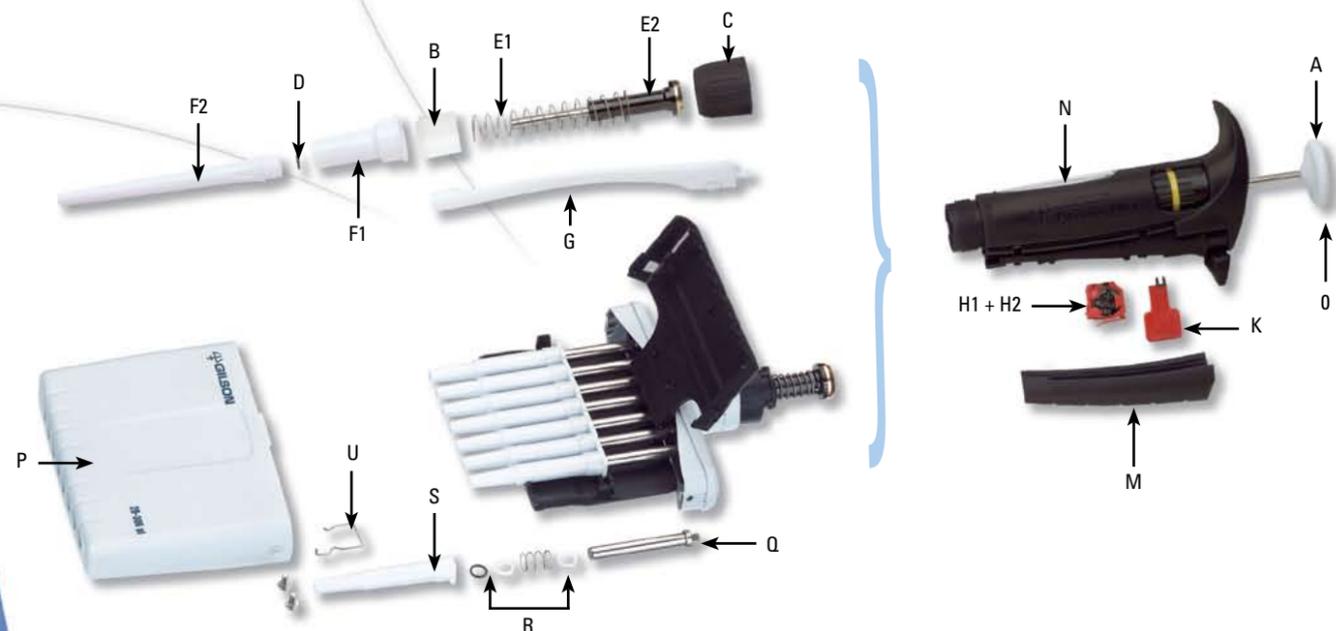


Replacement Parts



Gilson replacement parts are validated according to a strict quality control program. They are engraved with the Gilson logo to provide assurance that your pipette is repaired with genuine Gilson parts, ensuring top-level performance and trouble-free pipetting. Gilson spare parts are available from Gilson and Gilson-authorized service organizations.

For single-channel and multichannel Pipetman® Ultra pipettes:



Pipetman Ultra Replacement parts		Reference Number								
Item	key	U2	U10	U20	U100	U200	U1000	U5000	U10ml	
Push-Button Assembly	A	F2070152	F2070252	F2070352	F2070452	F2070552	F2070652	F2070752	F2070852	
Spring guide	B + E1	F2070161	F2070161	F2070161	F2070161	F2070161	*	*	*	
Seal for U2 & U10 (or O-ring for other models)	D	F161901	F161902	F161903	F2070401	F2070501	F2070601	F2070701	F2070801	
Piston	E2	F2070160	F2070260	F2070360	F2070460	F2070560	F2070664	F2070760	F2070860	
Tip Holder, upper part	F1	F2070117	F2070117	F2070117	F2070417	F2070517	F2070617	*	*	
Tip Holder, lower part	F2	F2070118	F2070218	F2070318	F2070418	F2070518	F2070618	F2070718	F2070818	
Tip Ejector Assembly	G	F2070159	F2070159	F2070359	F2070459	F2070559	F2070659	F2070759	F2070859	
Tip Ejector extension for U2 & U10	**	F2070903	F2070903	*	*	*	*	*	*	
Connecting Nut***	C	F2072111	F2072111	F2072111	F2072111	F2072111	F2072111	*	*	
Battery Holder***	H1	F2070158	F2070158	F2070158	F2070158	F2070158	F2070158	F2070158	F2070158	
Battery, flat 1.5 V***	H2	F20710	F20710	F20710	F20710	F20710	F20710	F20710	F20710	
Recalibration tool***	K	F20751	F20751	F20751	F20751	F20751	F20751	F20751	F20751	
Battery Compartment Cover***	M	F2072107	F2072107	F2072107	F2072107	F2072107	F2072107	F2072107	F2072107	
Plastic window***	N	F2072102	F2072102	F2072102	F2072102	F2072102	F2072102	F2072102	F2072102	
Lubricant Tube 2.5g***	**	*	*	F2070902	F2070902	F2070902	F2070902	F2070902	F2070902	

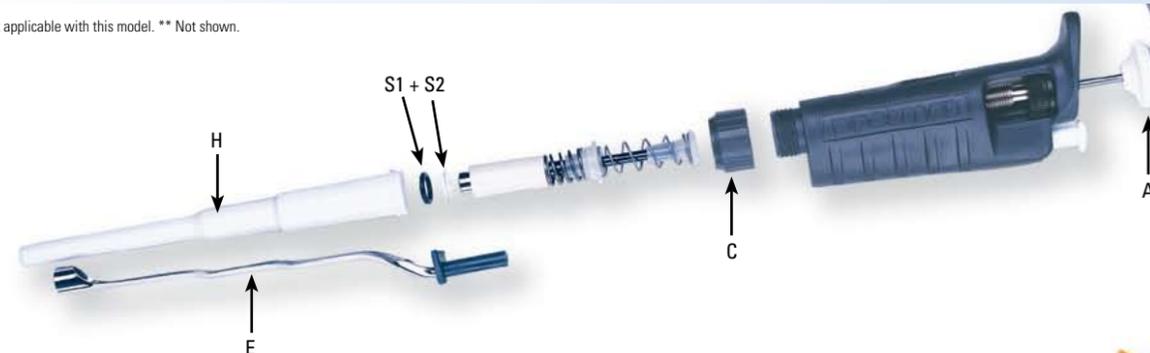
Pipetman Ultra Multichannel Replacement parts		Reference Number			
Item	key	8X20	12X20	8X300	12X300
Push-Button Assembly	O	F2073052	F2073152	F2073252	F2073352
Cover Ejector	P	F2073059	F2073159	F2073259	F2073359
Piston Assembly	Q	F2073060	F2073060	F2073260	F2073260
Air-tightness Kit	R	F2073065	F2073065	F2073265	F2073265
Tip-Holder Assembly	S	F207306306	F207306306	F207326306	F207326306
Reassembly tool	**	F2073001	F2073001	F2073201	F2073201
Wire clip	U	F207306407	F207306407	F207306407	F207306407

* Not applicable with this model.
 ** Not shown
 *** Suitable for Pipetman Ultra Multichannel Pipettes

Replacement parts for Pipetman® pipettes:

Pipetman Replacement parts	Item	key	Reference Number							
			P2	P10	P20	P100	P200	P1000	P5000	P10ml
Push-Button Assembly, volume setting	A		F144781	F144782	F144783	F144784	F144785	F144786	F144787	F161281
Seal & O-ring (set of 5)	S1 + S2		F144861	F144862	F144863	F144864	F144865	F144866	F144867	F161829
Tip Holder	H		F144816	F144819	F123353	F144602	F123305	F123371	F123608	F161263
Connecting Nut	C		F123654	F123654	F123654	F123654	F123654	F123654	*	*
Adapter for Dual-position Tip Ejector (plastic part only, set of 5)	**		F144879	F144879	*	*	*	*	*	*
Tip Ejector Assembly for P2 & P10	**		F144876	F144876	*	*	*	*	*	*
Tip Ejector Assembly	E		*	*	F123657	F144605	F123658	F123659	*	*

* Not applicable with this model. ** Not shown.



Replacement parts for Pipetman F, Distriman® and Pipetman 8X200 pipettes:

Pipetman F Replacement parts	Reference Number			
	F2 to F20	F25 to F100	F200	F250 to F1000
Piston Assembly	F123845	F144611	F123846	F123847
Seal & O-ring (set of 5)	F144863	F144864	F144865	F144866
Connecting Nut	F144723	F144723	F144723	F144723
Tip Ejector	F144766	F144767	F144768	F144769
Tip Holder	F123353	F144602	F123305	F123371
Calibration key	F123674	F123674	F123674	F123674

Refer to the User's Guide (LT801118) for details

Distriman Replacement parts		Reference Number
Push-Button Assembly		F164040
Piston Retaining Assembly		F164070
Red flag (set of 5)		F164042
Retaining Spring		F1864052

Refer to the User's Guide (LT801285) for details

Pipetman 8X200 Replacement parts		Reference Number
Push-Button Assembly		F1861081
Nozzle/Piston Assembly		F161067
Silicon Grease		F1485012
Spring (internal)		F1861072
Cover (plus screws)		F1861073

Refer to the User's Guide (LT801236) for details

Maintenance kits for Pipetman and Pipetman F pipettes:

These include: piston seals, O-rings, and one tip-holder.

Maintenance Kits	P2	P10	P20	P100	P200	P1000	P5000	P10ml
Model	P2	P10	F2 to F20	F25 to F100	F200	F250 to F1000	P5000	P10ml
Reference Number	F144501	F144502	F144495	F144496	F144497	F144498	F144499	F144503

For replacement part prices, please consult www.pipetman.com.



402 Dilutor-Dispenser

Liquid Handling at the Touch of a Button

High performance

- **Nine pre-stored tasks** that can be linked: **dilute, dilute serially, dispense aliquots or variable volumes, pipette, rinse, mix, titrate, measure volume and prime.**
- **High volume range** from 1 µL to 99 mL.
- Provides the **same high precision and accuracy** as Gilson pipettes.
- Adjustable flow rate.
- Minimal cross-contamination with the adapter kit for tips.

Improve productivity

- **Faster than any other pipettor** for repetitive liquid transfer.
- Fully programmable: ability to save and recall up to 99 methods.
- No need for calculation of dilution ratios.
- Single instrument to perform all liquid transfer tasks.

Increase reliability - GLP

- **Eliminates** technician to technician variability.
- Coded protection of methods.
- Calibration certificate, IQ/OQ procedure.
- **LED indicator** for error-free manipulation.



No contamination : the probe can be fitted with **Diamond Tips.**



Minimize costs

- **Maintenance-free** - permanently calibrated.
- **Reduces preparation time** and consumption of expensive reagents.
- **Highly versatile** with upgrade possibilities and the tip-adapter kit.

Comfort

- **Lightweight probe** (48g) and low activation forces make the 402DD even more comfortable than electronic motorized pipettes.
- **Menu-driven** software.

Model (without syringes, which are sold separately)	Reference Number
402 Dilutor-Dispenser, single-syringe, 110-220V	F410514
402 Dilutor-Dispenser, dual-syringe, 110-220V	F410515
Accessories	
Adapter Kit for disposable tips	F4015015
Syringe, 100 µL	25025341
Syringe, 250 µL	25025342
Syringe, 500 µL	25025347
Syringe, 1 mL	25025343
Syringe, 5 mL	25025344
Syringe, 10 mL	25025345
Syringe, 25 mL	25025346

LABSTIR™

NEW

Solid-State Laboratory Stirrer

Ultra-flat design

- **Ultra flat:** only 12 mm thick. Use is limited only by the container height. Small footprint.
- **Ultra light** (0.3 Kg). Easy to use and store where space is limited.

High performance

- **Better mixing quality** with the alternating stirring mode (forward / reverse every 30 sec).
- **Friction-free drive technology** avoids heat transfer to the solution.
- **Accommodates containers up to 800 mL** and 9 cm (3.54 in.) in diameter.
- **Variable speed control** (15 - 1500 rpm) for efficient mixing, even for solutions of medium viscosity.



Quality

- **Compact** design with no moving parts inside for a robust and reliable module.
- **Maintenance-free.**
- **Three-year warranty**

Safe to use

- Impervious to dust and splashes.
- Safe in Class II explosive environments.
- CE certified, cULus certified.

LabStir Solid-State Stirrer

Model	Reference Number
LabStir (100 to 240V / 50-60Hz), US plug	F110712

MINIPULS™ 3 Peristaltic Pump

Gilson's Reliable Solution for Laboratories

High performance and versatile

- **Pulse-free flow** (10 stainless steel rollers!).
- Excellent flow-rate **accuracy and reproducibility**.
- **Wide flow-rate range** from 0.3 µL/min to 220 mL/min.
- Wide tubing-size range from 0.25 mm to 8 mm.
- Operates at **higher pressures** than competitor products (up to 0.5 MPa).
- **Low noise** operation.

Reliable and robust

- **High chemical resistance** material (drive module and pump heads).
- Motor speed stability (high torque stepper motor).
- **High-quality tubing** for better reproducibility and longer life.
- Built-in **overflow system**, in case of tubing leakage.

Easy to use

- **Ready to use**, can be installed within minutes.
- Digital keypad.
- **Quick change** of pump head.
- Easy to integrate into your system.

Comprehensive information on tubing materials is available at www.gilson.com.



The key to a successful peristaltic-pump application is to optimize the selection of the pump-head, tubing and drive. In addition to an outstanding peristaltic pump, Gilson supplies high quality tubing and connectors.



Adjustable cams allow fine flow-rate adjustment to minimize tubing wear.



Two-stop calibrated tubing makes it easy to install tubing on the pump head.

Tubing Material	PVC	Silicone	Pharmed®	Isoversinic (Viton)
Composition	Polyvinyl chloride	Silicone elastomer	Polypropylene-based material	Fluorinated elastomer
Physical characteristics	Transparent clear	Translucent beige	Opaque beige	Opaque black
Temperature range	Up to 94°C	Up to 230°C	-60 to 135°C	-20 to 200°C
Standards			FDA food quality (FDA 21CFR 177.26000) USP class VI	
Gas permeability	Low	High	Low	Impermeable to most gases
Sterilization	Autoclaving	Autoclaving or irradiation	Autoclaving	Autoclaving
Range of internal diameter	0.25 to 8 mm	0.6 to 7 mm	0.5 to 6.4 mm	0.5 to 6.0 mm
Other features	Low cost	Excellent biocompatibility	Long tubing life	Excellent resistance to strong acids, oxidizing agents
Applications	General use	Biological	Pharmaceutical and food	Where high chemical resistance is required

Pharmed is a registered trademark of Norton Performance Plastics Corp., Akron, OH, USA.

Maximum flow rate depending on the pump head and tubing (complete table available on Gilson web site). Approx. values: determined with water (grade 3 ISO 3696) at 21.5°C, no differential pressure.

The information in the table related to tubing materials has been supplied to Gilson by the manufacturers and is for guidance only - Gilson recommends that you test the tubing before use

Item	Max Flow Rate	Number of channels	Reference Number
Pump Module Minipuls 3			F155001
R1 Pump Head	up to 30 mL/min	1	F117604
R2 Pump Head	up to 30 mL/min	2	F117800
R4 Pump Head	up to 30 mL/min	4	F117606
R8 Pump Head	up to 30 mL/min	8	F117608
R2/HF Pump Head (High Flow)	up to 220 mL/min	2	F117830
R4/HF Pump Head (High Flow)	up to 220 mL/min	4	F117831

• A large choice of suitable tubing is available (see page 32)

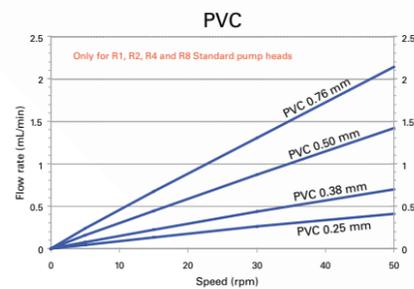


MINIPULS 3 Accessories

How to select the right tubing

On-line tables and charts are available for help in selecting the appropriate tubing.

- **Most suitable material** according to your sample's chemical compatibility.
- **Large variety of internal diameters** to reach desired flow rates.
- **Appropriate connectors** and extension tubing.



Further information available at www.gilson.com.



Tubing for R1, R2, R4 and R8 standard pump heads

Material	Internal diameter (mm)	Reference tubing (calibrated tubing)	Color* coding	Extension tubing	Connectors	Maximum Flow rate (mL/min)
PVC	0.25	F117932	●●	F117952	F117985	0.407
	0.38	F117933	●●	F117953	F117985	0.695
	0.51	F117934	●●	F117954	F117985	1.415
	0.76	F117936	●●	F117956	F117986	2.1
	1.02	F117938	○●	F117958	F117986	4.1
	1.30	F117940	○●	F117960	F1179941	6.2
	1.52	F117942	●●	F117962	F1179941	9
	1.65	F117943	●●	F117963	F1179941	10
	2.06	F117945	●●	F117965	F1179941	16
ISOVERSINIC	0.5	F1817741	●●	F117740	F117986	1.8
	1.0	F1817743	●●	F117742	F117986	4
	2.0	F1817745	●●	F117744	F1179941	13
	3.0	F117747	●●	F117746	F1179951	27
	4.0	F117749	●●	F117748	-	33
SILICONE	0.6	F1825111	○●	F1825131	F117986	1.5
	1.0	F1825112	○●	F1825132	F117986	4
	2.0	F1825113	○●	F1825133	F1179951	15
	2.8	F1825114	○●	F117975	F1179951	23
PHARMED	0.5	F1825101	●●	F1825121	F117986	1.4
	1.0	F1825102	○●	F1825122	F117986	5
	2.0	F1825103	○●	F1825123	F1179941	15

*Color-coded retaining stops for easy set up and identification

Tubing for R2 and R4 high-flow pump heads

Material	Internal diameter (mm)	Reference tubing (calibrated tubing)	Maximum Flow rate (mL/min)
PVC	2.06	F117965	24
	2.29	F117966	29
	2.79	F117968	41
	3.16	F117969	49
	4.0	F117970	75
	5.0	F117980	113
	6.0	F117981	163
	8.0	F117982	213
ISOVERSINIC	2.0	F117744	23
	3.0	F117746	48
	4.0	F117748	86
	6.0	F117750	181
SILICONE	2.0	F1825133	25
	3.0	F117975	44
	4.0	F117976	71
	5.0	F117977	115
	6.0	F117978	150
	7.0	F117979	220
PHARMED	2.0	F1825123	26
	3.2	F1825124	57
	6.4	F1825125	171

Chemical Compatibility

Product	Steel	PET	Nitril	EPDM	LCP	PA	PBT	PC	PE	PVDF	TPX	POM	PP
Acetamide	++	N/A	++	++	N/A	++	N/A	N/A	++	N/A	N/A	++	++
Ethyl acetate	++	+	-	++	++	++	++	++	++	++	+	N/A	++
Acetone	++	+	-	++	++	++	++	-	++	++	+	+	++
Acetonitrile	++	N/A	+	++	+	N/A	N/A	-	++	+	N/A	N/A	++
Acetic acid	20%	++	++	+	++	++	N/A	++	++	++	++	++	++
	50%	++	++	+	++	++	-	N/A	+	++	++	++	++
	100%	++	++	-	++	+	-	N/A	-	++	++	+	++
Hydrochloric acid	10%	-	++	++	++	++	-	++	++	++	++	++	++
	20%	-	+	+	++	++	-	+	++	++	++	+	++
	37%	-	-	-	++	++	-	-	+	++	++	++	++
Hydrofluoric acid	20%	+	+	-	++	+	-	+	++	++	++	+	++
	40%	-	+	-	++	-	-	+	++	++	++	+	++
Formic acid	100%	++	N/A	-	++	++	-	+	-	++	++	N/A	+
Nitric acid	10%	++	++	+	++	++	-	++	++	++	++	++	+
	30%	++	+	-	+	++	-	+	++	++	++	++	-
	65%	++	-	-	-	+	-	-	+	+	++	-	-
Phosphoric acid	20%	++	N/A	+	++	N/A	-	++	++	++	++	++	+
	85%	++	N/A	-	++	N/A	-	++	++	++	++	++	-
Propionic acid	50%	++	-	+	N/A	N/A	++	++	+	++	++	N/A	-
	100%	++	-	-	N/A	N/A	+	++	-	++	++	N/A	-
Sulfuric acid	20%	++	++	+	+	++	+	++	++	++	++	+	++
	50%	++	++	-	+	++	-	+	++	++	++	-	++
	95%	++	+	-	-	-	-	-	+	+	+	++	-
Trifluoroacetic acid	20%	++	N/A	-	N/A	N/A	+	N/A	++	++	++	N/A	++
	80%	++	N/A	-	N/A	N/A	-	N/A	+	++	++	N/A	+
100%	++	N/A	-	N/A	N/A	-	N/A	-	++	++	N/A	-	
Benzyl alcohol	++	++	-	N/A	N/A	+	N/A	-	++	++	++	-	++
Aniline	++	-	+	++	N/A	++	N/A	-	+	++	N/A	+	++
Butanol / Butyl alcohol	++	++	++	++	N/A	++	++	++	++	++	N/A	++	++
Chloroform	++	-	-	-	N/A	+	-	-	+	++	+	+	-
Cyclohexane	++	++	++	-	N/A	++	N/A	++	++	-	+	++	+
Diacetone alcohol	++	++	+	N/A	N/A	N/A	N/A	N/A	N/A	+	N/A	N/A	++
Methylene chloride	++	+	-	-	N/A	-	-	-	+	++	++	++	+
Diethylene glycol	++	N/A	++	++	++	N/A	N/A	N/A	++	++	++	++	++
Dimethylformamide (DMF)	++	++	-	+	++	++	++	-	++	-	++	++	++
Dimethylsulfoxide (DMSO)	++	N/A	-	N/A	N/A	+	N/A	-	++	N/A	N/A	N/A	N/A
Dioxane (1,4)	++	++	-	+	N/A	++	++	-	++	+	N/A	++	+
Ethanol	++	++	++	++	++	++	++	++	++	++	++	++	++
Ether	++	++	++	+	N/A	++	++	++	+	++	+	++	++
Formaldehyde	++	++	++	++	N/A	++	N/A	++	++	++	++	++	++
Hexane	++	N/A	++	-	+	++	++	++	+	++	+	++	++
Hydrogen peroxide 50%	++	N/A	+	++	N/A	++	++	++	++	++	++	++	++
Ammonium hydroxide 20%	++	++	++	++	N/A	N/A	+	-	++	N/A	++	++	++
Sodium hydroxide	10%	++	+	++	++	++	+	-	++	++	++	++	++
	40%	++	-	+	++	++	++	+	-	++	++	++	++
Sodium hypochlorite 15% Cl	+	N/A	+	++	++	++	++	++	++	++	++	-	+
Methanol	++	++	++	++	+	++	++	+	++	++	++	++	++
Methyl ethyl ketone	++	++	-	+	++	++	++	-	++	-	+	+	++
Pentane	++	N/A	++	-	N/A	N/A	N/A	++	++	++	+	++	N/A
Tetrahydrofuran (TH-)	++	++	+	+	+	++	+	-	-	+	+	N/A	+
Urea	++	++	N/A	N/A	-	++	++	N/A	++	++	N/A	++	++

PET = Polyethylene Terephthalate
 Nitril = Nitril
 EPDM = Ethylene Propylene
 LCP = Liquid Cristal Polymer
 PA = Polyamide
 PBT = Polybutylene Terephthalate

PC = Polycarbonate
 PE = Polyethylene
 PVDF = Polyvinylidene fluoride
 TPX = Polymethylpentene
 POM = Polyoxymethylene
 PP = Polypropylene

++ No chemical degradation
 + Medium resistance to chemical agents
 - Low resistance to chemical agents
 N/A No data available

Service

NEW

At Gilson, we believe that the quality of our pipettes must be matched by the quality of our service. That is why we have a network of authorized service centers in more than 50 countries around the world. These repair and calibration centers offer a comprehensive range of services to ensure that your Gilson pipettes perform as a high-performance precision instrument.

Gilson service centers offer a **comprehensive range of services to extend pipette life and assure the highest level of continued accuracy and precision at minimum cost.** Our goal is that all Gilson pipettes perform to the same high specifications as new ones. To support your standard operating procedures, Gilson service centers offer a range of technical documentation covering performance checks and calibration of Gilson pipettes.

Service centers of excellence

Our service centers are regularly tested by Gilson to verify their servicing skills. Qualified technicians at these centers, having completed extensive training by Gilson, are specialists in the repair, calibration, and operation of our products according to ISO 8655 standard and Good Laboratory Practice (GLP) requirements.

To ensure the highest quality of service, Gilson awards a label of excellence to the best Gilson service centers. This label identifies the Centers of Excellence and guarantees that they perform according to Gilson's requirements:

- Respect Gilson's servicing procedures.
- Monitor of environmental conditions.
- Use correct balances (including 6-digit balance).
- Repair Gilson pipettes with genuine spare parts.
- Gilson-trained technicians.
- Periodic audits of technicians' abilities.
- Compliance with local standards and regulations.
- Service in accordance with customer needs.



CENTER OF EXCELLENCE



Partnership with Calibrate, Inc.

In the United States, Gilson is proud to announce its partnership with Calibrate, Inc. for the purpose of providing repair, calibration, and performance certification services for Pipetman® pipettes and other Gilson liquid measurement instruments. Calibrate, Inc., is accredited to the ISO 17025 standard and also by the American Association for Laboratory Accreditation (A2LA). Calibrate, Inc., offers four levels of preventive maintenance, calibration, and performance certifications, depending on your requirements, with on-site service in key locations as well as mail-in service at regional service centers.

On-site service

Calibrate field technicians are available in key geographic areas to visit your facility for any of the following:

- **Diagnosis:** Check that your Gilson pipettes function correctly and are mechanically sound.
- **Repairs:** Replacement of pipette components.
- **Updating:** Systematic replacement of key components with upgraded parts.
- **Pipette Clinics:** Servicing of all Gilson pipettes. Servicing may include cleaning, decontamination, repair, (adjustment if needed) and calibration.

Contact

For service contact Calibrate, Inc., via the link on Gilson's website, www.pipetman.com, directly at www.pipetpeople.com or by calling 1-800-253-7064.

Gilson Robotics

In addition to the basic pipetting systems included in this catalog, Gilson's expertise in liquid handling includes versatile X/Y/Z robotic workstations that are designed to efficiently perform a variety of applications. Gilson workstations are available in two sizes to suit virtually any liquid handling and sampling protocol, from lower-throughput to high-throughput applications requiring more than 400 microplates – and everything in between.

925 and 940 Workstations

The 925 and 940 Workstations are engineered to increase throughput while decreasing the complexity that is normally associated with laboratory automation. The workstation head can be configured with up to five tools, including single- and 96-channel pipettors with grippers to move tubes, plates, tip boxes and other devices around the deck. In addition to pipetting, plate gripping and moving capabilities, the workstations can easily integrate other laboratory equipment such as balances, mixers, vortexers and vacuum blocks. This gives you the ability to automate a full range of liquid handling and sample preparation steps on a single workstation. The workstations have large, flexible deck layouts: the 925 workstation holds up to 236 microplates and the 940 workstation holds up to 416 microplates.

More information

For more information on Gilson robotics, consult the Gilson website at www.gilson.com or call 1-800-445-7661.



925 Workstation



940 Workstation



X/Y/Z carriage configured with four independently moving tools



96-channel pipettor accessing a 384-well microplate



8-channel pipettor accessing a 96-well microplate



Order Online at:

www.pipetman.com

Or Contact Gilson at:

1-800-GILSON1

Gilson, Inc. World Headquarters

P.O. Box 628098, Middleton, WI 53562-8098 USA

Telephone: (800) 445-7661 or (608) 836-1551 Fax: (608) 831-4451

303135-01 Copyright © 2005 Gilson, Inc. All rights reserved. Printed in the USA.

Prices and specifications subject to change without notice.

Gilson, Inc., is ISO 9001 certified. **ISO9001Certified**

"Gilson", "Pipetman", "Microman", "Distriman", "Distritips", and "Diamond" are registered trademarks and "G-FIT System", "Concept", "Carrousel", "Trio", "Single", "Coloris", "Tipack", "Tower Pack", "EcoPack", "EasyPack", "LabStir", and "Minipuls" are trademarks of Gilson, Inc.

The following US patents apply to Gilson products listed in this catalog. Pipetman: 5,413,006. Pipetman Ultra: D438,630. Pipetman Ultra and Pipetman Concept: 6,779,412. Tower Pack: 6,534,015 and 6,419,086. Distriman: 5,770,159. Other US and international patents pending.

