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USA Product Catalog 2025

Insist on

Genuine Rainin LTS Tips

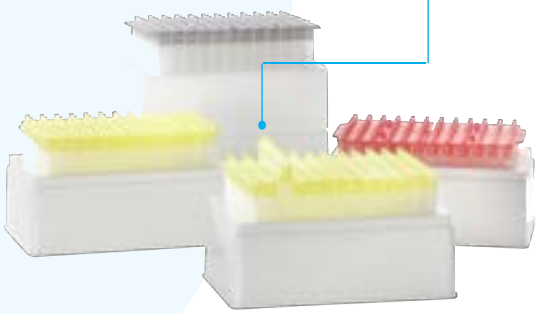
Quality, Purity and Performance

Nothing beats the comfort and reliability of the Rainin LTS® LiteTouch® System

NEW Products to Enhance Your Workflows

New
1250 µL
model

Try New MicroPro 300 µL Tips in Strips



NEW

More Depth, Breadth with MicroPro

Our new 1250 µL model greatly expands MicroPro's volume range, covering practically any 96-, 384- as well as deep-well plate protocol | See page 24

▶ **mt.com/SR-MP**

NEW

MicroPro 300 µL Tips in Strips

Ideal for serial dilution and/or partial plate filling. Racked tips are available for all models: 20, 300 and 1250 | See pages 25 and 30

NanoRep Repeater

Feature packed. No Touch Off™ dispense eliminates a source of cross contamination.
100 nL – 50 mL | See page 18

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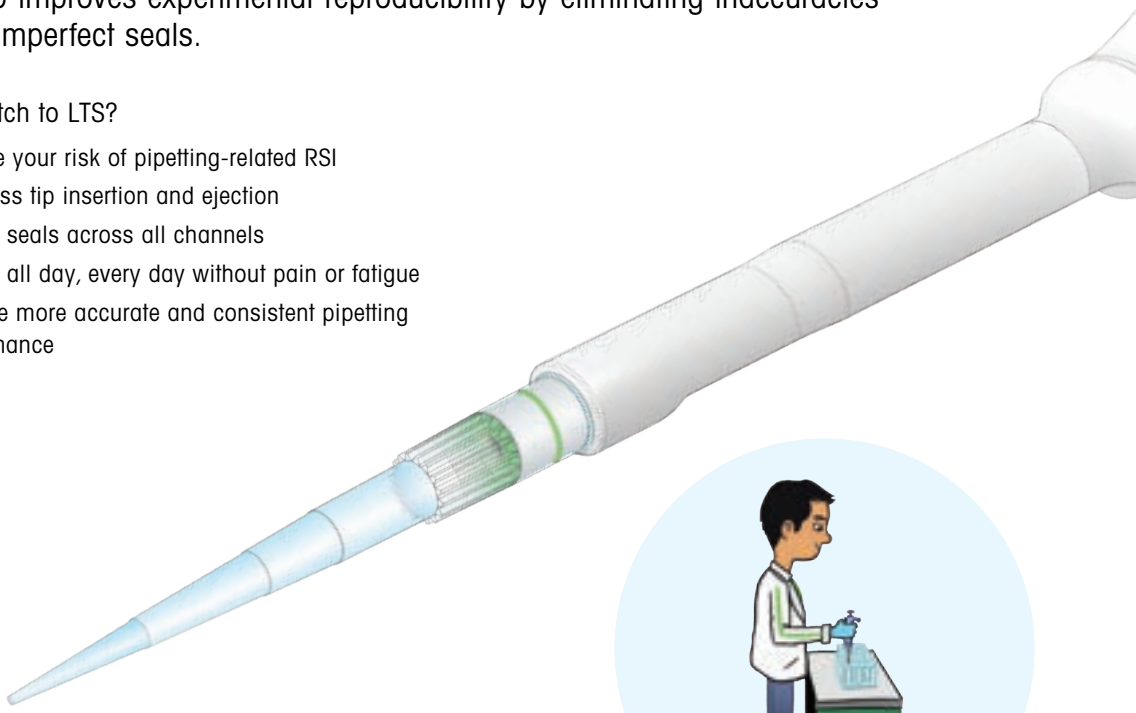
The Rainin LTS LiteTouch System

Because Pipetting Shouldn't Hurt

Rainin revolutionized pipetting with the LiteTouch® System. LTS® not only virtually eliminates the harmful forces associated with tip loading and ejection, but also improves experimental reproducibility by eliminating inaccuracies due to imperfect seals.

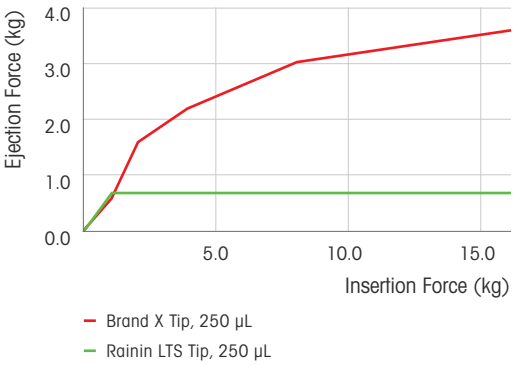
Why switch to LTS?

- Reduce your risk of pipetting-related RSI
- Effortless tip insertion and ejection
- Perfect seals across all channels
- Pipette all day, every day without pain or fatigue
- Achieve more accurate and consistent pipetting performance



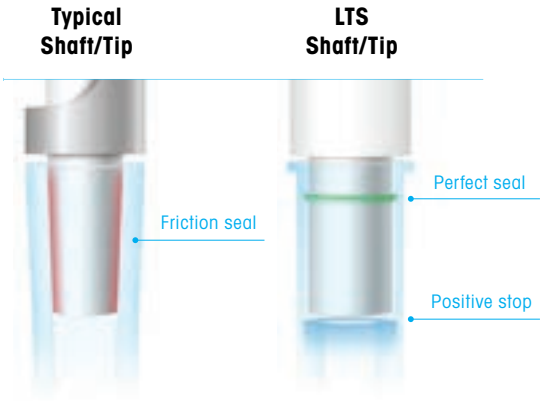
Meet LTS in 90 seconds!
▶ **mt.com/LTS-video**

Good ergonomics = better, more consistent results



Accuracy requires consistency, yet consistency is difficult to maintain when a user's hands are fatigued or in pain. Pipetting is highly repetitive and the effects of pipetting forces – jamming tips onto shafts, then struggling to eject them – are cumulative, hence the documented relationship between pipetting accuracy and the effects of pipetting forces.

At 0.6 kg, LTS all but eliminates tip loading/ejecting forces, so users face none of the debilitating issues one experiences when working with standard tips.



Effortless tip loading and ejection

Achieving a reliable seal with standard tips relies heavily on the strength (and persistence) of the user. Conventional pipette shaft-ends and tips are cone-shaped, so a tight seal relies on the strength of the user and pliability of the tip material. What's more, tip geometries vary from manufacturer to manufacturer, affecting the seal consistency and the accuracy of dispensed volumes.

LTS shafts and tips are cylindrical with a unique sealing ring inside the tip. Tips slide easily onto the shaft, stop when properly seated and make a perfect seal every time. Once seated, LTS tips won't fall off, yet slide off easily when pushed by the ejector.

Are you at risk?

- **Pipetting** is one of the most repetitive tasks in the laboratory.
- **More than 30%** of all workplace injuries are musculoskeletal disorders, including repetitive strain injuries and cumulative trauma disorders (injuries associated with repetition, excessive force and poor posture).
- Pipettes without LTS require up to **12 kg* of force** to complete a pipetting cycle.
- Forces should not exceed 30% of maximum average strength capacity:

3 kg	2.1 kg
For men	For women

- You are at risk if:
  - You pipette more than **an hour a day** or **300 hours a year.**
  - You use non-LTS pipettes that can require up to **12 kg* of force.**
- Prevention is the key to reducing musculoskeletal disorders and repetitive strain injuries.

***What is 12 kg of force equal to?**

- Driving a stake into the ground with a sledgehammer
- Turning a manual can opener to open a can of food
- Picking up a small child

Download our pipetting ergonomics white paper
▶ **mt.com/pipetting-ergo**

Rainin Pipet-Lite XLS+

Performance You Can Feel

Rainin Pipet-Lite® XLS+ raises the bar on comfort, performance and control. Many volume sizes available in both LTS LTS and universal UNV formats.

Smooth operation

The sealing system on XLS+ pipettes delivers a plunger stroke that is smooth, precise and requires less force than before. Perfect for pipetting applications that require delicate control!

Highly accurate

Built to last and manufactured with premium quality materials, XLS+ pipettes are designed to deliver superior performance, year after year.

Autoclavable

XLS+ single-channel pipettes are designed for easy autoclaving where it counts: the complete liquid end, including the seals and piston. Autoclaving won't compromise performance or feel.

Total comfort

With sure-fit handles, contoured fingerhooks, lighter springs and low-drag seals, you can comfortably use Pipet-Lite XLS+ pipettes all day.

A better tip ejector

The tip ejector is made from a high density polymer that is corrosion free, autoclavable and highly resistant to chemicals. The ejector slides off in a single easy motion for cleaning.

Need guaranteed volumes?

With fixed volume Pipet-Lite XLS+ you can set your pipette to your exact needs. Available in many volume sizes, LTS and UNV.

Contact your sales representative:
800 4 RAININ (800-472-4646) or
is@rainin.com

UNV

	CATALOG No.	VOLUME RANGE	PRICE
Pipet-Lite XLS+	**17014413**	0.1–2 µL	$ 586.00
	17014409	0.5–10 µL	586.00
	17014412	2–20 µL	586.00
	17014408	10–100 µL	586.00
	17014411	20–200 µL	586.00
	17014414	20–300 µL	586.00
	17014407	100–1000 µL	586.00
	17014410	200–2000 µL	586.00
	17011801	500–5000 µL	586.00
	17011795	1–10 mL	586.00

Universal pipettes use universal tips.
For pipette specifications, see page 16.

mt.com/SR-PL

Advanced asset management

The RFID tag on board every Rainin XLS+ pipette stores calibration data that is electronically read by the Rainin SmartStand and PipetteX software. See page 67 for details.

Secure volume lock

The snag-proof lock design on XLS+ pipettes prevents accidental volume drift while allowing for rapid volume adjustment, even while wearing gloves.

LTS

	CATALOG No.	VOLUME RANGE	PRICE
Pipet-Lite XLS+	**17014393**	0.1–2 µL	$ 586.00
	17014388	0.5–10 µL	586.00
	17014392	2–20 µL	586.00
	17014384	10–100 µL	586.00
	17014391	20–200 µL	586.00
	17014405	20–300 µL	586.00
	17014382	100–1000 µL	586.00
	17014390	200–2000 µL	586.00
	17011790	500–5000 µL	586.00
	17011783	1–10 mL	586.00
	17011788	2–20 mL	586.00

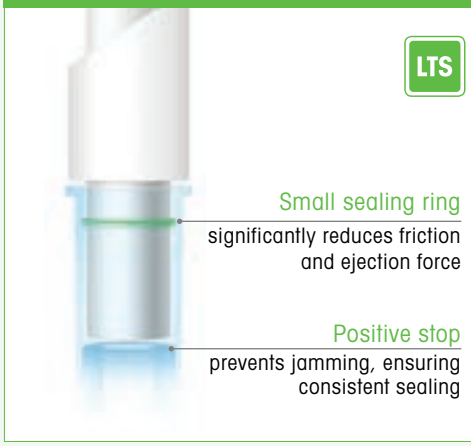
LTS pipettes use LTS tips.
For pipette specifications, see page 16.

You Deserve LTS

Happy Hands Yield Better Results!

Minimize fatigue and risk of repetitive strain injury (RSI) with the Rainin LTS® LiteTouch® tip ejection system.

The LTS difference



The Rainin LiteTouch System dramatically reduces the amount of force required to load and eject tips. LTS pipettes work in concert with LTS tips to deliver a perfect seal every time.

- LTS tips slide easily over the shaft to create a firm, airtight fit with minimal force.
- A thin sealing ring near the top of an LTS tip virtually eliminates friction between the tip and shaft, minimizing ejection force.
- Positive stop prevents over-insertion of the tip and ensures an airtight seal.

mt.com/SR-LTS

Rainin E4 XLS+

Simple, Versatile and Secure

Our easiest to use, most richly featured and secure electronic pipette.
Many volume sizes available in both LTS LTS and universal UNV formats.

The E4 XLS+ is easily configured to be as simple or elaborate as your work requires.

- The large color screen, joystick control and graphic interface make moving between functions and operating the pipette easy and effortless.
- Highly customizable functions with multiple protocols that can be stored onboard for later use.

Your data is everything – trust the E4 XLS+ to deliver!

A "smart" charging stand!

SmartStand charges up to four E4s simultaneously and offers a simple yet sophisticated way to track and manage every XLS brand pipette in your lab. See page 65.

Performance

An advanced microprocessor-guided stepper motor has 4,000 discrete steps for extremely accurate liquid dispensing.

The app master

For serial dilutions, filling plates, pipetting unusual liquids and performing complex pipetting steps, the E4's versatile range of pipetting modes offers maximum convenience.

Save your protocols

Store multiple custom protocols in the onboard memory. Simultaneously review and select your protocols with a simple movement of the joystick. No more re-entering protocols over and over again!

Highly configurable

With E4's Admin Mode, you can configure the pipette any way you want. For convenience or security, remove unwanted modes or lock in preferred settings.

GLP/GMP security

Minimize deviations from your pipetting SOPs by locking protocol settings. Onboard service data is extremely secure and quick to access. Avoid calibration compliance errors by password protecting access to service interval alarms.

mt.com/SR-E4

LTS

	CATALOG No.	VOLUME RANGE	PRICE
E4 XLS+	**17014484**	0.5–10 µL	$ 1,320.00
	17014487	2–20 µL	1,320.00
	17014483	10–100 µL	1,320.00
	17014486	20–200 µL	1,320.00
	17014488	20–300 µL	1,320.00
	17014482	100–1000 µL	1,320.00
	17014485	200–2000 µL	1,320.00
	17012312	500–5000 µL	1,320.00
	17012313	1–10 mL	1,320.00
	17012314	2–20 mL	1,320.00

LTS pipettes use LTS tips. Li-Ion battery and wall power supply are included. For more information about LTS, see page 4. For pipette specifications, see page 16.

UNV

	CATALOG No.	VOLUME RANGE	PRICE
E4 XLS+	**17014491**	0.5–10 µL	$ 1,320.00
	17014494	2–20 µL	1,320.00
	17014490	10–100 µL	1,320.00
	17014493	20–200 µL	1,320.00
	17014495	20–300 µL	1,320.00
	17014489	100–1000 µL	1,320.00
	17014492	200–2000 µL	1,320.00
	17012353	500–5000 µL	1,320.00
	17012354	1–10 mL	1,320.00

Universal pipettes use universal tips.
Li-Ion battery and wall power supply are included.
For pipette specifications, see page 16.

Rainin XLS+ Multichannels

Performance You Can Feel!

8 or 12 channels; volumes from 0.5–1200 µL.
Available only in LTS. LTS

E4 XLS+ Electronic Multichannel

Nothing compares with the functionality, speed and accuracy of E4 XLS+

- Same functionality and ease of use as single-channel models.
- E4 does the work with Multidispense and Autopace.
- Consistent sample loading across all channels with low tip ejection forces.

E4 XLS+ Electronic

Pipet-Lite XLS+ Manual

LTS

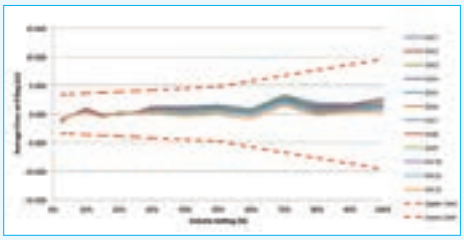
E4 XLS+ Electronic Multichannel

CATALOG No.	VOLUME RANGE	PRICE
8-Channel		
17013792	0.5–10 µL	$ 2,295.00
17013793	2–20 µL	2,295.00
17013794	5–50 µL	2,295.00
17013795	20–200 µL	2,295.00
17013796	20–300 µL	2,295.00
17014498	100–1200 µL	2,410.00
12-Channel		
17013797	0.5–10 µL	$ 2,915.00
17013798	2–20 µL	2,625.00
17013799	5–50 µL	2,625.00
17013800	20–200 µL	2,625.00
17013801	20–300 µL	2,625.00
17014499	100–1200 µL	3,525.00

LTS pipettes use LTS tips. Li-Ion battery and wall power supply are included. For more information about LTS, see page 4.
For pipette specifications, see page 17.

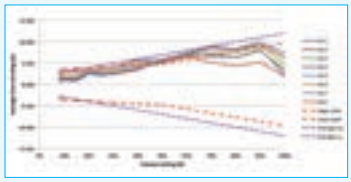
Industry-leading Channel-to-Channel Consistency

There's a reason Rainin multichannel pipettes are the market leader: ease-of-use and exceptional channel-to-channel consistency.

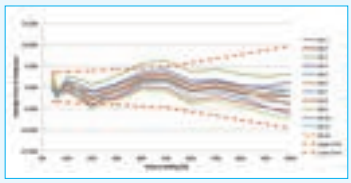


Rainin XLS+ 1200 µL

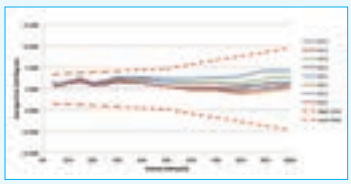
VS.



Competitor A • 1200 µL



Competitor B • 1200 µL



Competitor C • 1200 µL

Pipet-Lite XLS+ Manual Multichannel

Ergonomic design and exceptional performance

- Balanced, lightweight, reduced loading and ejection forces.
- Easy quick-lock volume setting – no drift
- Rugged and durable.

LTS

Pipet-Lite XLS+ Manual Multichannel	CATALOG No.	VOLUME RANGE	PRICE
	8-Channel		
	17013802	0.5–10 µL	$ 1,555.00
	17013803	2–20 µL	1,340.00
	17013804	5–50 µL	1,340.00
	17013805	20–200 µL	1,340.00
	17013806	20–300 µL	1,340.00
	17014496	100–1200 µL	1,770.00
	12-Channel		
	17013807	0.5–10 µL	$ 1,780.00
	17013808	2–20 µL	1,675.00
	17013809	5–50 µL	1,675.00
	17013810	20–200 µL	1,675.00
	17013811	20–300 µL	1,675.00
	17014497	100–1200 µL	2,515.00

LTS pipettes use LTS tips.
For more information about LTS, see page 4.
For pipette specifications, see page 17.

Rainin Adjustable Spacer Pipettes

Tubes to Plates with Just a Twist!

Adjust from standard 9 mm spacing to 14 mm or 19 mm; manual or electronic 6- and 8-channel versions. Available only in LTS. LTS

Pipet-Lite XLS Adjustable Manual Multichannel

One-hand adjustable spacing.

Fast, convenient

Quickly change from format to format in a single step

Nozzle spacing ranges

6-channel: 9–19 mm
8-channel: 9–14 mm

Multiple formats

Use with 24-, 48- and 96-well plates and a variety of tube formats

Applications

Ideal for genomic, proteomic and cellular assay applications

LTS

	CATALOG No.	VOLUME RANGE	PRICE
Pipet-Lite XLS Adjustable	**6-Channel**		
	17011841	20–300 µL	$ 2,220.00
	17011840	100–1200 µL	2,220.00
	8-Channel		
	17011844	5–50 µL	$ 2,220.00
	17011843	20–300 µL	2,220.00
	17011842	100–1200 µL	2,220.00

LTS pipettes use LTS tips.
For more information about LTS, see page 4.
For pipette specifications, see page 17.

mt.com/SR-AS

E4 XLS Adjustable Electronic Multichannel

Different formats? No problem!

Easy, accurate and repeatable spacing

Just set the limiter dial and quickly move between formats by twisting the spacing control. Marks on the liquid end give fast visual confirmation of nozzle spacing. Ideal for routine micro-well work when you need to change formats quickly.

LTS

	CATALOG No.	VOLUME RANGE	PRICE
E4 XLS Adjustable	**6-Channel**		
	17012327	20–300 µL	$ 3,755.00
	17012328	100–1200 µL	3,755.00
	8-Channel		
	17012329	5–50 µL	$ 3,750.00
	17012330	20–300 µL	3,755.00
	17012331	100–1200 µL	3,750.00

LTS pipettes use LTS tips. Li-Ion battery and wall power supply are included. For more information about LTS, see page 4.
For pipette specifications, see page 17.

Reservoirs for Multichannel Pipettes

- Capacity 75 mL
- Available with and without lid
- Great addition for repeat dispensing

	CATALOG No.		QUANTITY	PRICE
	30852500	Reservoir with lid, non-sterilized	25/pack	$ 128.20
	30852501	Reservoir without lid, non-sterilized	50/pack	148.80

Rainin Classic

Timeless Design, Exceptional Performance

An economical pipette with advanced ergonomic features not found on other pipettes in its class. Available in universal UNV formats.

An economical pipette with decades of expertise built in, Rainin Classic™ will deliver years of reproducible performance. Lighter spring forces, low-drag seals and a shock absorber make it easy on your hands.

Durable

Stainless steel and high-quality PVDF materials ensure durability, fewer out-of-tolerance failures and low cost of ownership.

Lower plunger force

The Rainin Classic's plunger force is 25% less than similar pipettes.

Comfort

The fingerhook allows a lighter grip during pipetting cycles, for improved ergonomics.

Great value – lower prices!

UNV

	CATALOG No.	VOLUME RANGE	PRICE
Rainin Classic	**17008648**	0.1–2 µL	$ 407.00
	17008649	0.5–10 µL	407.00
	17008650	2–20 µL	407.00
	17008651	10–100 µL	407.00
	17008652	20–200 µL	407.00
	17008653	100–1000 µL	407.00
	17008654	500–5000 µL	407.00
	17008655	1–10 mL	407.00
Starter Kit	**17008708**	Starter kit: PR-20, PR-200, PR-1000 and accessories	$ 1,022.00

Universal pipettes use universal tips.
For pipette specifications, see page 16.

Pipette Starter Kits

Upgrade Your Lab with New Rainin XLS+ Pipettes!

Available with SmartStand or Hang-Ups

Starter Kits with SmartStand include PipetteX software for easy pipette management

- Manage calibration and service for all of your pipettes
- View pipette calibration status right at your bench
- Charge your E4 XLS+ electronic pipettes

		Single Channel Manual						Multichannel Manual				Single Channel Electronic					
LTS / UNV	CATALOG No.	2 µL	10 µL	20 µL	200 µL	1000 µL	5000 µL	20 µL 8-channel	200 µL 8-channel	20 µL 12-channel	200 µL 12-channel	20 µL	200 µL	1000 µL	SmartStand w/ PipetteX software	Hang-Ups	PRICE
LTS	30386738	✓	✓	✓	✓										✓		$ 2,000.00
LTS	30579469	✓	✓	✓	✓											✓	1,725.00
LTS	30386597	✓		✓	✓	✓									✓		1,855.00
LTS	30579367	✓		✓	✓	✓										✓	1,725.00
LTS	30386599			✓	✓	✓									✓		1,720.00
LTS	30386737				✓	✓	✓								✓		2,000.00
LTS	30386734			✓	✓	✓		✓							✓		2,570.00
LTS	30386733			✓	✓	✓			✓						✓		2,570.00
LTS	30386736			✓	✓	✓				✓					✓		2,855.00
LTS	30386735			✓	✓	✓					✓				✓		2,855.00
LTS	30386739							✓	✓						✓		2,280.00
LTS	30456871			✓	✓	✓										✓	1,355.00
LTS	30579472							✓	✓							✓	2,120.00
LTS	30386740									✓	✓				✓		2,280.00
LTS	30579471									✓	✓					✓	2,120.00
LTS	30386731											✓	✓	✓	✓		3,850.00
UNV	30386598	✓		✓	✓	✓									✓		$ 1,855.00
UNV	30386730			✓	✓	✓									✓		1,720.00
UNV	30456872			✓	✓	✓										✓	1,355.00
UNV	30386732											✓	✓	✓	✓		3,850.00
UNV	17008708*			✓	✓	✓										✓	1,022.00

* Rainin Classic

Pipette Performance Specifications

Specifications at 10%, 50% and 100% volume

All Rainin single-channel models, including:

Manual pipettes

- Pipet-Lite XLS/XLS+
- Rainin Classic

Electronic pipettes

- E4 XLS/XLS+

	PIPETTE VOLUME	VOL	INCREMENT µL		SYSTEMATIC ERROR		RANDOM ERROR	
		VOLUME	MANUAL	ELECTRONIC	%	(±) µL	%	(≤) µL
Single-Channel Pipettes	**2 µL**	0.2 µL	0.002	n/a	12	0.024	6.0	0.012
		1 µL			2.7	0.027	1.3	0.013
		2 µL			1.5	0.030	0.70	0.014
	10 µL	1.0 µL	0.02	0.01	2.5	0.025	1.2	0.012
		5.0 µL			1.5	0.075	0.60	0.030
		10.0 µL			1.0	0.10	0.40	0.040
	20 µL	2 µL	0.02	0.02	7.5	0.15	2.0	0.040
		10 µL			1.5	0.15	0.50	0.050
		20 µL			1.0	0.20	0.30	0.060
	100 µL	10 µL	0.2	0.1	3.5	0.35	1.0	0.10
		50 µL			0.80	0.40	0.24	0.12
		100 µL			0.80	0.80	0.15	0.15
	200 µL	20 µL	0.2	0.2	2.5	0.50	1.0	0.20
		100 µL			0.80	0.80	0.25	0.25
		200 µL			0.80	1.6	0.15	0.30
	300 µL	30 µL	0.5	0.2	2.5	0.75	1.0	0.30
		150 µL			0.80	1.2	0.25	0.375
		300 µL			0.80	2.4	0.15	0.45
	1000 µL	100 µL	2	1	3.0	3.0	0.60	0.60
		500 µL			0.80	4.0	0.20	1.0
		1000 µL			0.80	8.0	0.15	1.5
	2000 µL	200 µL	2	2	3.0	6.0	0.60	1.2
		1000 µL			0.80	8.0	0.20	2.0
		2000 µL			0.80	16	0.12	2.4
	5000 µL	500 µL	5	5	2.4	12	0.60	3.0
		2500 µL			0.60	15	0.20	5.0
		5000 µL			0.60	30	0.16	8.0
	10 mL	1 mL	20	10	5.0	50	0.60	6.0
		5 mL			1.0	50	0.20	10
		10 mL			0.60	60	0.16	16
	20 mL	2 mL	20	20	5.0	100	0.60	12
		10 mL			1.0	100	0.20	20
		20 mL			0.60	120	0.16	32

All Rainin multichannel models, including:

Manual pipettes

- Pipet-Lite XLS/XLS+
- Pipet-Lite XLS Adjustable Spacer

Electronic pipettes

- E4 XLS/XLS+
- E4 XLS Adjustable Spacer

	PIPETTE VOLUME	VOL	INCREMENT µL	SYSTEMATIC ERROR		RANDOM ERROR – MANUAL		RANDOM ERROR – ELECTRONIC	
		VOLUME	MANUAL / ELECTRONIC	%	(±) µL	%	(≤) µL	%	(≤) µL
Multichannel Pipettes	**10 µL**	1.0 µL	0.02/0.01	4.0	0.040	5.0	0.050	3.0	0.030
		5.0 µL		1.5	0.075	1.5	0.075	0.80	0.040
		10.0 µL		1.0	0.10	0.50	0.050	0.50	0.050
	20 µL	2 µL	0.02	7.5	0.15	4.0	0.080	3.0	0.060
		10 µL		1.5	0.15	1.5	0.15	1.0	0.10
		20 µL		1.0	0.20	0.50	0.10	0.30	0.060
	50 µL	5 µL	0.05	3.5	0.175	2.0	0.10	1.5	0.075
		25 µL		1.2	0.30	0.50	0.125	0.40	0.10
		50 µL		0.80	0.40	0.40	0.20	0.30	0.15
	200 µL	20 µL	0.2	2.5	0.50	1.2	0.24	1.0	0.20
		100 µL		0.80	0.80	0.25	0.25	0.25	0.25
		200 µL		0.80	1.6	0.30	0.60	0.20	0.40
	300 µL	30 µL	0.5/0.2	2.5	0.75	1.5	0.45	1.0	0.30
		150 µL		0.80	1.2	0.30	0.45	0.25	0.375
		300 µL		0.80	2.4	0.25	0.75	0.20	0.60
	1200 µL	100 µL	2/1	3.6	3.6	1.0	1.0	0.60	0.60
		600 µL		0.80	4.8	0.30	1.8	0.20	1.2
		1200 µL		0.80	9.6	0.20	2.4	0.15	1.8

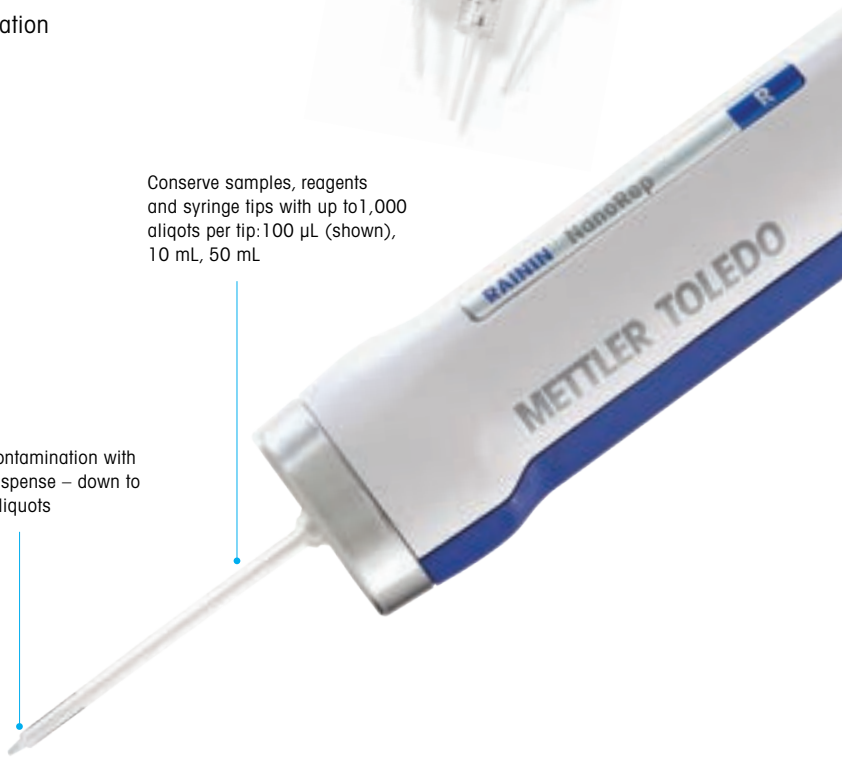
Specifications subject to change without notice.

Rainin NanoRep

Electronic Repeater Pipette

Automatically dispense up to 1,000 aliquots
– with no contact necessary from vessel to vessel.

- Lightweight, comfortable grip
- Transfer volatile, viscous and dense liquids
- No Touch Off™ dispense
- Aliquots as low as 100 nL, with increments as low as 10 nL – down to 1/10,000th the nominal volume of any syringe tip
- Up to 1,000 aliquots from one aspiration



	CATALOG No.	DESCRIPTION	PRICE
NanoRep	**30568171**	Electronic NanoRep repeater pipette (includes: charging cable, Hang-Up and 10 mL syringe tip)	$ 1,825.00
	17012878	Wall power supply	79.40
	30584027	Hang-Ups (for pipettes with fingerhook)	95.65
	30575784	NanoRep stand	124.40

Comfortable manual dispensing with left or right side buttons, or joystick. NanoRep also dispenses automatically at adjustable timed intervals

NanoRep syringe tips | Specifications

Tip Vol. mL	Systematic Error 1%	10%	50%	100%
0.1	1 µL ± 8% (0.080 µL)	10 µL ± 1.6% (0.16 µL)	50 µL ± 0.90% (0.45 µL)	100 µL ± 0.90% (0.90 µL)
10	100 µL ± 2% (2.0 µL)	1 mL ± 0.40% (4.0 µL)	5 mL ± 0.40% (20 µL)	10 mL ± 0.30% (30 µL)
50	500 µL ± 2% (10 µL)	5 mL ± 0.25% (12.5 µL)	25 mL ± 0.25% (62.5 µL)	50 mL ± 0.25% (125 µL)

Tip Vol. mL	Random Error 1%	10%	50%	100%
0.1	1 µL ≤ 12% (0.12 µL)	10 µL ≤ 2.5% (0.25 µL)	50 µL ≤ 0.80% (0.40 µL)	100 µL ≤ 0.50% (0.50 µL)
10	100 µL ≤ 3% (3.0 µL)	1 mL ≤ 0.35% (3.5 µL)	5 mL ≤ 0.20% (10 µL)	10 mL ≤ 0.15% (15 µL)
50	500 µL ≤ 3.5% (17.5 µL)	5 mL ≤ 0.45% (22.5 µL)	25 mL ≤ 0.20% (50 µL)	50 mL ≤ 0.10% (50 µL)

Tip Volume

mL	Min. Aliquot* µL	Min. Incr.** µL
0.1	0.1	0.01
10	10	1
50	50	5

*Min. Aliquot = Smallest dispensable volume/tip.
**Min. Increment = Lowest incremental adjustment/tip.

	CATALOG No.	MAX. VOLUME	QUANTITY		PRICE
NanoRep Syringe Tips	**30575705**	0.1 mL	100 per pkg		$ 180.20
	30575777	0.1 mL	25 per pkg	Sterilized	57.00
	30575707	10 mL	100 per pkg		180.20
	30575779	10 mL	25 per pkg	Sterilized	57.00
	30575789	50 mL	25 per pkg		78.20
	30575781	50 mL	25 per pkg	Sterilized	89.80

mt.com/SR-NR

Rainin Pos-D

Positive Displacement Pipetting

The right solution for liquids with high densities, viscosities or vapor pressures.

Rainin Pos-D™ positive displacement pipettes are ideal when pipetting liquids with high densities, viscosities or vapor pressures.

Relax!

The ergonomically designed Pos-D rests in your hand while you work.

Easy to load

Pre-assembled, sterilized disposable syringe tips are packed in convenient racks.

No cross contamination

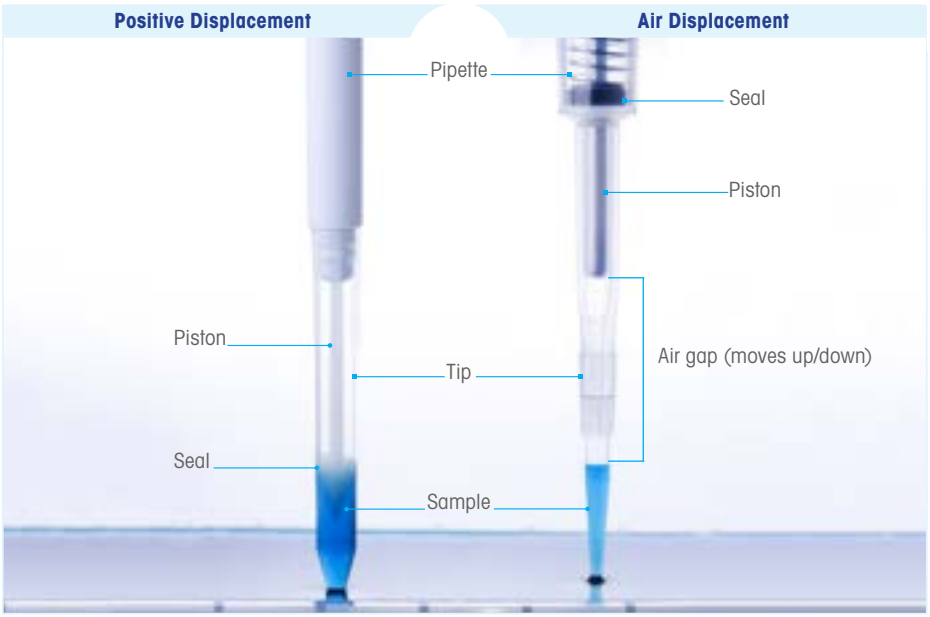
Positive displacement prevents aerosol formation and protects samples from contamination.

	CATALOG No.	VOL: VOLUME RANGE	QTY: RACKS/CARTON	QTY: TIPS/CARTON	STERILIZED	PRICE
Pos-D Pipettes	**17008575**	0.5–10 µL				$ 560.00
	17008576	3–25 µL				560.00
	17008577	20–50 µL				560.00
	17008578	10–100 µL				560.00
	17008579	50–250 µL				560.00
	17008580	100–1000 µL				560.00
Capillaries and Pistons	**17008604**	10 µL	3	180	✓	$ 114.00
	17008605	25 µL	3	180	✓	114.00
	17008606	50 µL	3	180	✓	114.00
	17008607	100 µL	3	180	✓	114.00
	17008608	250 µL	3	180	✓	114.00
	17008609	1000 µL	3	180	✓	114.00
	17012264	10 µL	3	180		103.40
	17012265	25 µL	3	180		103.40
	17012266	50 µL	3	180		103.40
	17012267	100 µL	3	180		103.40
	17012268	250 µL	3	180		103.40
	17012135	1000 µL	3	180		103.40

Why Consider Positive Displacement?
A Quick Roundup

Ideal for wide range of liguids
Positive displacement outperforms air displacement in the handling of viscous and volatile liquids. Because they can be slow and difficult to move in and out of a pipette tip, viscous liquids can stretch and compress the air column inside an air displacement pipette, leading to measurement inaccuracies. Volatile liquids constantly emit vapor, so when aspirated into an air displacement pipette tip, air pressure builds up inside the pipette and can push liquid out of the tip without any dispense action initiated by the user. This can also lead to measurement inaccuracies.

Extreme accuracy
Positive displacement pipettes use syringe tips that contain an inner plastic piston extending the full length of the tip. At zero volume, the end of the inner piston is fully extended, closing off the opening of the tip. As a user aspirates liquid, the end of the piston rises, pulling liquid into the tip. With zero air between the piston and the liquid in a positive displacement system, the pressures that viscous and volatile liquids exert on air do not come into play, and extreme accuracy is preserved.



96-Channel Pipetting

Faster, More Accurate Workflows

By making it possible to perform experiments more efficiently, accurately and reliably, 96-channel pipettors have become indispensable tools in many life science laboratories. They can significantly reduce the time and effort required to perform experiments, while providing higher accuracy and reproducibility. They are particularly useful in applications that involve large-scale screenings, such as drug discovery, ELISAs, proteomics and cell-based assays.

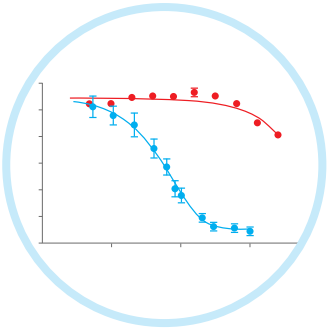
Unlike single- and multichannel pipettes, which are more dependent on user's technique, manual and semi-automated 96-channel pipettors are ideal for research and scale-up, and can often provide more reliable and reproducible results. They also dispense small volumes of liquid with high accuracy, which is important in many applications that require precise measurements.

Rainin offers 96-channel pipettors to meet your exact need.

- **MicroPro** – our most compact, affordable and advanced semi-automated 96-channel pipettor.
- **BenchSmart 96** – with four plate-trays, ideal for labs that do a lot of multi-plate work.
- **Liquidator 96** – perfect for researchers who want to manually control every aspect of their workflow.

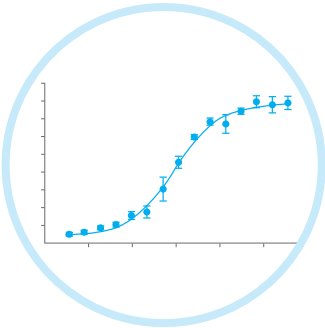
	MicroPro	BenchSmart 96	Liquidator 96
96/384-Well Plate Applications	●	●	●
Interchangeable Heads	●	●	●
Suitable for BSL/PCR Cabinets	●	●	●
Small Footprint	●	●	●
Low Cost	●	●	●
Volume Range	0.5-20 µL 5-300 µL 50-1250 µL	0.5-20 µL 5-200 µL 100-1000 µL	0.5-20 µL 5-200 µL

How can a 96-channel pipettor speed your workflow?



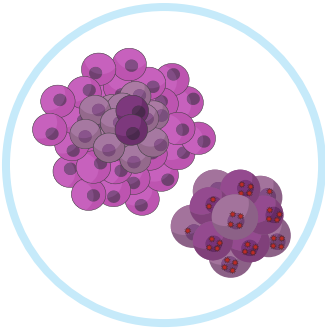
High-Throughput Screening

A 96-channel pipettor enables you to significantly increase your screening capacity and streamline workflows. You can quickly and accurately screen large numbers of samples for various applications, such as genomic, drug screening or proteomics research.



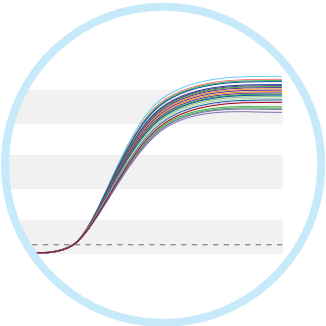
ELISA Assays

Enzyme-Linked Immunosorbent Assays (ELISA) are a common method for detecting and quantifying proteins or small molecules in biological samples. Using a 96-channel pipettor, you can simultaneously transfer the reagents to multiple wells or wash wells, significantly reducing the time and effort needed to perform an ELISA assay.



Cell-Based Assays

Cell-based assays are used to study the behavior of cells in response to various stimuli. Using a 96-channel pipettor, you can quickly and accurately transfer cells, reagents and other components to multiple wells, enabling you to perform high-throughput cell-based assays.



PCR/qPCR Amplification

Polymerase Chain Reaction (PCR) is a method used to amplify DNA and RNA sequences. Using a 96-channel pipettor, you can quickly and accurately transfer the reagents needed for PCR amplification, streamlining the process and increasing the throughput.

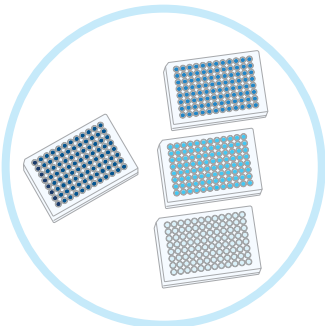


Plate Replication

Plate replication is commonly used in life science research to create multiple copies of a plate for analysis. Using a 96-channel pipettor, you can quickly and accurately transfer the contents of a mother plate to multiple daughter plates, increasing efficiency and reducing the chance of errors.

DNA Sequencing

DNA sequencing is a critical technique used in genomics research. Using a 96-channel pipettor, researchers can quickly and accurately accomplish the many sample preparation steps often involved prior to DNA sequencing.

Rainin MicroPro

Affordable, Portable 96-Channel Pipetting

NEW
1250 µL
model

MicroPro simplifies and streamlines 96- and 384-well microplate work, from filling plates to complex, multi-step workflows.

Compact, highly affordable and easy to use, the MicroPro wirelessly connects to a high resolution touchscreen for an intuitive and user-friendly experience.

- 20 µL, 300 µL and 1250 µL models
- Weighs just around 13 pounds!
- Save/retrieve complex workflows
- Intuitive touchscreen interface
- 10x speed control

Simplify your workflows

From the touchless tip ejection and programmable Pipetting Depth Recall™ to saving complex, multistep protocols, the MicroPro boosts productivity and improves reproducibility.

Your research assistant

MicroPro goes beyond simply adding and mixing reagents by offering convenient features such as aliquot dispensing, sample dilution with mixing and multi-aspirate with mixing.

Custom protocols

Custom protocols are easy to create and allow you to build and save a tailored sequence of instruction and liquid handling steps that exactly match the needs of your protocols.

mt.com/SR-MP

MicroPro Tips

The innovative and proprietary design of the MicroPro pipette tips and tip cartridges requires minimal force for loading all 96 tips. This significant force reduction allows MicroPro to be small and lightweight – currently the smallest benchtop on the market! MicroPro tips work with the Rainin MicroPro instrument only. They are available as low-retention tips in 20, 300 and 1250 µL volume sizes, sterilized and sterilized with filter.

Tips in Strips – NEW 300 µL Serial Dilution Tips

With our new MicroPro 300 µL "Tips in Strips" you can perform serial dilutions (a series of dilutions related to each other by setting a constant dilution) and protocols involving partial plate filling (replicates within the same plate) with greater ease, speed and reproducibility.

MicroPro

	CATALOG No.	MAX VOL	DESCRIPTION	PRICE
MicroPro	**30835029**	20 µL	0.5-20 µL MicroPro 20	$ 13,205.00
	30835028	300 µL	5-300 µL MicroPro 300	13,205.00
	30932001	1250 µL	50-1250 µL MicroPro 1250	13,205.00
	30835030		Two-Tray Dual Nest, MPR 96/96	1,585.00

See page 30 for high-throughput MicroPro tips.

Rainin BenchSmart 96

Semi-Automated 96- and 384-Well Pipetting

The precision and reproducibility of automated liquid handling with the speed and flexibility of a manual system.

The semi-automated BenchSmart™ 96 improves reproducibility by eliminating user variability when aspirating and dispensing.

- Semi-automated high-throughput 96- and 384-well plate processing for genomics, proteomics, and cellular-based assays.
- BenchSmart gives users complete and precise control over the position of the pipetting head with 96 channels.
- The four tray positions save time and reduce your risk of error by minimizing the need to swap out trays and reservoirs.

Smart high-throughput

With its large touchpad, BenchSmart makes it easy to design, save and retrieve any protocol, from simple one-step procedures to complex, multi-step experiments.

Three pipetting heads

Get the precision you demand with the 0.5-20 µL head, the lab workhorse you need with the 5-200 µL head, and the multi-dispensing capability of the 100-1000 µL head.

Save time and money

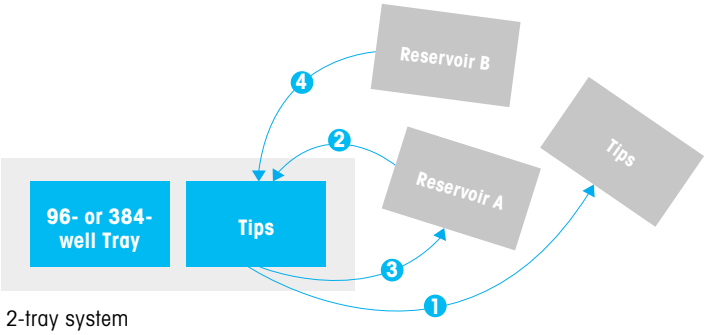
BenchSmart 96 simplifies and speeds workflows by significantly reducing, if not eliminating, the need to swap out tips and reservoirs.

mt.com/SR-BST96

Speed your workflow

Compared to a two-tray system where reservoirs and trays need to be swapped out, a two solution protocol needs fewer liquid handling steps with BenchSmart.

4-tray BenchSmart 96



2-tray system

BenchSmart 96

LTS

	CATALOG No.	MAX VOL	DESCRIPTION	PRICE
BST 96	**30296705**	20 µL	0.5-20 µL BenchSmart 96, complete	$ 26,410.00
	30296706	200 µL	5-200 µL BenchSmart 96, complete	26,410.00
	30296707	1000 µL	100-1000 µL BenchSmart 96, complete	26,410.00
	30296708	20 µL	Pipetting head 0.5-20 µL, BenchSmart 96	10,635.00
	30296709	200 µL	Pipetting head 5-200 µL, BenchSmart 96	10,635.00
	30296780	1000 µL	Pipetting head 100-1000 µL, BenchSmart 96	10,635.00
Accs.	**17010394**	–	384-well adapter plate stage, white	$ 462.00
	17010791	–	384-well adapter plate stage, black	462.00
	30321288	–	Terminal Conversion Kit	519.00

See page 30 for high-throughput LTS tips. For reservoirs, plates, mats and strips, see page 29.

Rainin Liquidator 96

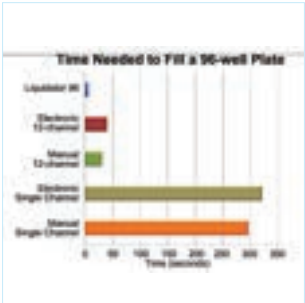
Manual High-Throughput Pipetting

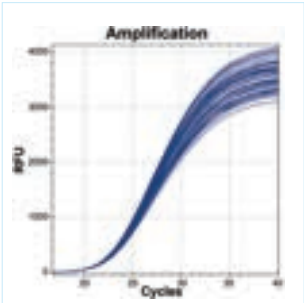
Fully manual processing of 96- and 384-well plates for genomics, proteomics and cell-based assays.

Liquidator™ 96 streamlines application workflows for genomics, proteomics and cellular applications, simplifies plate replication, runs serial dilutions, performs plate washes or quickly moves samples between 96- and 384-well formats.

Count on Liquidator 96 to deliver the highest accuracy for PCR, qPCR, DNA sequencing and genotyping experiments. Generate precise 96-well ELISA, functional, cell viability or chemotaxis assays, all on one platform.

- Two volume ranges: 0.5-20 µL and 5-200 µL
- No power or programming: simply set the volume and pipette
- Four-position platform: process up to 3 plates at a time without stacking





Easy to use

Because Liquidator doesn't require programming or significant training, anyone can be an expert in no time.

Save time

Liquidator processes 96-well plates in as few as six seconds each, without sacrificing data quality.

Reduce errors

By pipetting all 96 wells simultaneously, Liquidator eliminates the risk of skipping or repeating wells or rows.

mt.com/SR-LIQ96

Liquidator 96

LTS

	CATALOG No.	MAX VOL	DESCRIPTION	PRICE
LIQ 96	**17014207**	20 µL	0.5-20 µL Benchtop Pipetting System	$ 25,620.00
	17010335	200 µL	5-200 µL Benchtop Pipetting System	25,620.00

Liquidator 96 is supplied with height adjustment posts, a 384-well adapter plate stage and three racks of tips to get you started.

LIQ 96 Accs.	**17014270**	–	Height adjustment posts, 0.5-20 µL Liquidator	$ 86.80
	17010396	–	Height adjustment posts, 5-200 µL Liquidator	85.60
	17010394	–	384-well adapter plate stage, white	462.00
	17010791	–	384-well adapter plate stage, black	462.00
	17011118	–	20 µL tip tray adapter, white	400.00

Reservoirs, plates, mats and strips

Reusable SBS footprint polypropylene reservoirs

	CATALOG No.	DESCRIPTION			PRICE
Reservoirs	**17012602**	Non-sterile	Low-profile 96 pyramidal bottoms	5-pack	$ 73.60
	17012603	Sterile	Low-profile 96 pyramidal bottoms	5-pack, ind. wrap	106.80
	17012604	Non-sterile	Standard profile 96 pyramidal bottoms	5-pack	85.80
	17012605	Sterile	Standard profile 96 pyramidal bottoms	5-pack, ind. wrap	119.20
	17012608	Non-sterile	Low-profile 8-channel V-bottom	5-pack	73.60
	17012609	Sterile	Low-profile 8-channel V-bottom	5-pack	106.80
	17012606	Non-sterile	Standard profile 8-channel V-bottom	5-pack	85.80
	17012607	Sterile	Standard profile 8-channel V-bottom	5-pack, ind. wrap	119.20
	17012612	Non-sterile	Low-profile 12-channel V-bottom	5-pack	73.60
	17012613	Sterile	Low-profile 12-channel V-bottom	5-pack, ind. wrap	106.20
	17012610	Non-sterile	Standard profile 12-channel V-bottom	5-pack	85.20
	17012611	Sterile	Standard profile 12-channel V-bottom	5-pack, ind. wrap	119.20

Deepwell plates, mats, tube strips, cap strips

Accessories	**17012623**	Non-sterile	2.2 mL 96-deepwell plate	5-pack	$ 43.00
	17012624	Sterile	2.2 mL 96-deepwell plate	5-pack, ind. wrap	73.60
	17012625	Non-sterile	Polymer sealing mat fits 96-deepwell plate	5-pack	43.00
	17012626	Sterile	Polymer sealing mat fits 96-deepwell plate	5-pack, ind. wrap	73.60
	17012630	Sterile	1.2 mL racked microtube strips (8x12)	box of 300	69.00

Tips for 96-Channel Platforms

High-Throughput LTS Tips

For use with BenchSmart 96 and Liquidator 96 benchtop pipettors only (1000 µL for BenchSmart only).

LTS	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: FILTER	FEATURES: LOW RET	PRICE
Tips in Racks	**17011185**	LQR LTS 20µL 960/10	20 µL	10	960				$ 117.80
	17011186	LQR LTS 20µL S 960/10	20 µL	10	960	✓			136.80
	17011117	LQR LTS 20µL F 960/10	20 µL	10	960	✓	✓		196.40
	17010645	LQR LTS 200µL 960/10	200 µL	10	960				117.80
	17010647	LQR LTS 200µL S 960/10	200 µL	10	960	✓			136.80
	17010646	LQR LTS 200µL F 960/10	200 µL	10	960	✓	✓		196.40
	30281704	LQR LTS 1000µL 960/10	1000 µL	10	960				144.40
	30296781	LQR LTS 1000µL S 960/10	1000 µL	10	960	✓			165.40
	30296782	LQR LTS 1000µL F 960/10	1000 µL	10	960	✓	✓		234.00
	17014399	LQR LTS 20µL LS 960/10	20 µL	10	960	✓		✓	165.40
	17014400	LQR LTS 20µL FL 960/10	20 µL	10	960	✓	✓	✓	242.00
	17014401	LQR LTS 200µL LS 960/10	200 µL	10	960	✓		✓	165.40
	17014402	LQR LTS 200µL FL 960/10	200 µL	10	960	✓	✓	✓	242.00
	30296783	LQR LTS 1000µL LS 960/10	1000 µL	10	960	✓		✓	165.40
	30296784	LQR LTS 1000µL FL 960/10	1000 µL	10	960	✓	✓	✓	242.00
Tips in Stacks	**17011187**	LQS LTS 20µL 960/10	20 µL	10	960				$ 117.80
	17011287	LQS LTS 20µL S 960/10	20 µL	10	960	✓			136.80
	17010648	LQS LTS 200µL 960/10	200 µL	10	960				117.80
	17010649	LQS LTS 200µL S 960/10	200 µL	10	960	✓			136.80
	17014403	LQS LTS 20µL LS 960/10	20 µL	10	960	✓		✓	165.40
	17014404	LQS LTS 200µL LS 960/10	200 µL	10	960	✓		✓	165.40

MicroPro Tips in Racks

MicroPro Tips	**63305398**	MPR 20µL LS 4800/50	20 µL	50	4800	✓		✓	$ 511.00
	63305397	MPR 20µL LF 4800/50	20 µL	50	4800	✓	✓	✓	704.00
	63305400	MPR 300µL LS 4800/50	300 µL	50	4800	✓		✓	475.00
	63305399	MPR 300µL LF 4800/50	300 µL	50	4800	✓	✓	✓	684.00
	63305538	MPR 1250µL LS 960/10	1250 µL	10	960	✓		✓	TBD
	63305537	MPR 1250µL LF 960/10	1250 µL	10	960	✓	✓	✓	TBD
	Tips in Strips								
	63305551	MPR 300µL LS strips 960/10	300 µL	10	960	✓		✓	TBD
		MPR 300µL LF strips 960/10	300 µL	10	960	✓	✓	✓	TBD

Specifications for 96-Channel Platforms

	MODEL/MAX. VOLUME	20 µL	200 µL	1000 µL
BenchSmart 96	HEAD SIZE	LOW VOLUME 0.5 – 20 µL	MID VOLUME 5 – 200 µL	HIGH VOLUME 100 – 1000 µL
	Systematic Error (per channel)	20 µL: ± 1.0% (0.20 µL) 10 µL: ± 1.2% (0.12 µL) 2 µL: ± 6.0% (0.12 µL) 1 µL: ± 12% (0.12 µL)	200 µL: ± 1.0% (2.0 µL) 100 µL: ± 1.0% (1.0 µL) 20 µL: ± 2.0% (0.40 µL) 5 µL: ± 5.0% (0.25 µL)	1000 µL: ± 1.0% (10 µL) 500 µL: ± 1.0% (5.0 µL) 100 µL: ± 2.5% (2.5 µL)
	Random Error (per channel)	20 µL: ≤ 0.80% (0.16 µL) 10 µL: ≤ 1.0% (0.10 µL) 2 µL: ≤ 5.0% (0.10 µL) 1 µL: ≤ 10% (0.10 µL)	200 µL: ≤ 0.40% (0.80 µL) 100 µL: ≤ 0.80% (0.80 µL) 20 µL: ≤ 1.5% (0.30 µL) 5 µL: ≤ 3.5% (0.175 µL)	1000 µL: ≤ 0.40% (4.0 µL) 500 µL: ≤ 0.40% (2.0 µL) 100 µL: ≤ 1.25% (1.25 µL)
	Volume Increments	0.02 µL	0.2 µL	1 µL

	MODEL/MAX. VOLUME	20 µL	200 µL
Liquidator 96	VOLUME RANGE	2 – 20 µL	5 – 200 µL
	Systematic Error (per channel)	20 µL: ± 1.0% (0.20 µL) 10 µL: ± 1.2% (0.12 µL) 2 µL: ± 6.0% (0.12 µL) 1 µL: ± 12% (0.12 µL)	200 µL: ± 1.0% (2.0 µL) 100 µL: ± 1.0% (1.0 µL) 20 µL: ± 2.0% (0.40 µL) 5 µL: ± 5.0% (0.25 µL)
	Random Error (per channel)	20 µL: ≤ 0.80% (0.16 µL) 10 µL: ≤ 1.0% (0.10 µL) 2 µL: ≤ 5.0% (0.10 µL) 1 µL: ≤ 10% (0.12 µL)	200 µL: ≤ 0.50% (1.00 µL) 100 µL: ≤ 0.80% (0.80 µL) 20 µL: ≤ 1.5% (0.30 µL) 5 µL: ≤ 3.5% (0.175 µL)
	Volume Increments	0.02 µL	0.2 µL

	MODEL/MAX. VOLUME	20 µL	300 µL	1250 µL
MicroPro	VOLUME RANGE	2 – 20 µL	5 – 300 µL	50 – 1250 µL
	Systematic Error (per channel)	20 µL: ± 1.0% (0.20 µL) 10 µL: ± 1.5% (0.15 µL) 2 µL: ± 5.0% (0.10 µL)	300 µL: ± 1.0% (3.0 µL) 150 µL: ± 1.5% (2.25 µL) 30 µL: ± 1.5% (0.45 µL) 15 µL: ± 2.0% (0.30 µL)	1250 µL: ± 1.8% (22.5 µL) 625 µL: ± 2.0% (12.5 µL) 125 µL: ± 2.5% (3.13 µL)
	Random Error (per channel)	20 µL: ≤ 0.5% (0.10 µL) 10 µL: ≤ 1.0% (0.10 µL) 2 µL: ≤ 3.0% (0.060 µL)	300 µL: ≤ 1.0% (3.0 µL) 150 µL: ≤ 1.0% (1.50 µL) 30 µL: ≤ 1.0% (0.30 µL) 15 µL: ≤ 2.0% (0.30 µL)	1250 µL: ≤ 0.8% (10.0 µL) 625 µL: ≤ 1.0% (6.25 µL) 125 µL: ≤ 1.5% (1.88 µL)
	Volume Increments	0.01 µL	0.1 µL	1 µL

Rainin QuickFlow

Portable Easy-to-Use Aspirator

This compact benchtop aspirator delivers reliable performance while combining exceptional ergonomics with a broad range of features and conveniences.

Smart features

- Variable speed settings
- Non-contact liquid level sensor
- 4 L waste reservoir with carry handle
- Quick-snap connectors and tubing
- Autoclavable bottle and cap
- Fits in most hoods
- Single channel, 8-channel and serological adapters

Guaranteed safety

The robust, non-contact liquid level sensor prevents overflows with auto-stop, a flashing light and audible alarm when the reservoir is full. Simple, self-sealing snap connectors keep the contents and any contamination inside the bottle.

Is your liquid aspiration due for an upgrade?

It's easy! Rainin QuickFlow Handle Kit with three adapters attaches easily to your central vacuum system.

Continuous flow option
Switch suction on to reduce finger strain.

	CATALOG No.	DESCRIPTION	PRICE
QuickFlow	**30519826**	QuickFlow System – UNV	$ 2,985.00
	30551530	QuickFlow System – LTS	2,985.00
	30519824	QuickFlow Handle Kit – UNV	580.00
	30551534	QuickFlow Handle Kit – LTS	592.00

Rainin SP+ Pipette Controller

Easy Control at Your Fingertips

Superior ergonomics, state-of-the-art technology and a unique, extendable head to conquer your larger volume liquid handling needs with speed and ease.

Extendable head

Telescoping head for added comfort, particularly when operating in a laminar flow hood.

Variable speed, low force

Easily adjustable aspiration/dispense speeds offer greater flexibility with various solutions and media, and protection for sensitive cells.

Lightweight, easy to use

The ergonomic and well-balanced design makes the instrument easy to hold and operate.

Powerful battery

Delivers 15 hours of operation on single charge and up to one hour after just 10 minutes.

Wide range of consumables

Rainin SP+ works with all types of 1 mL to 100 mL serological and micro pipettes and can transfer liquid from 0.1 mL to 100 mL.

	CATALOG No.	DESCRIPTION	PRICE
Rainin SP+	**30671415**	Rainin SP+ pipette controller, 0.1–100 mL	$ 680.00
	17011745	Rainin SP+ spare filter	17.20
	30671310	Magnetic Hang-Up	61.20
	30621247	Pipette adapter	36.80

	CATALOG No.	SIZE	MAX. VOL.	QUANTITY		PRICE
Serological Pipettes	**30749261**	1 mL	1.3 mL	200 per pack	Sterilized	$ 45.00
	30749262	2 mL	2.8 mL	200 per pack	Sterilized	52.80
	30749263	5 mL	8 mL	100 per pack	Sterilized	31.60
	30749264	10 mL	13 mL	100 per pack	Sterilized	37.00
	30749265	25 mL	33 mL	50 per pack	Sterilized	37.00
	30749266	50 mL	60 mL	50 per pack	Sterilized	79.20

Serological pipettes
Color coded with easy to read graduation marks.

mt.com/SR-SPplus

Rainin AutoRep S

Manual Repeater Pipette

Flexible volume ranges and a wide selection of syringes ensure precise performance.

The ergonomic AutoRep™ S manual repeater pipette is simple to operate, lightweight and easy on the hands.

Useful when working in the aliquot range from 2 µL to 5 mL, AutoRep S is an economical choice for repeat dispensing up to 49 aliquots without refilling.

The wide selection of Encode™ syringes in sizes from 0.1 mL to 50 mL is available in sterile and non-sterile.

	CATALOG No.	DESCRIPTION	PRICE
AutoRep S	**17013008**	Manual repeater pipette volume range: 2 µL to 5 mL	$ 602.00
	17013009	Shelf mount	46.60
	17013010	Volume table	40.00

	CATALOG No.	MAX. VOLUME	QUANTITY		
Encode Syringes	**17007399**	0.1 mL	100 per pkg		$ 144.40
	17007400	0.1 mL	100 per pkg	Sterile	203.20
	17001871	0.5 mL	100 per pkg		144.40
	17001872	0.5 mL	100 per pkg	Sterile	203.20
	17013004	1 mL	100 per pkg		144.40
	17013002	1 mL	100 per pkg	Sterile	206.00
	17001873	1.25 mL	100 per pkg		144.40
	17001874	1.25 mL	100 per pkg	Sterile	203.20
	17001877	2.5 mL	100 per pkg		144.40
	17001878	2.5 mL	100 per pkg	Sterile	203.20
	17001883	5 mL	100 per pkg		144.40
	17001884	5 mL	100 per pkg	Sterile	203.20
	17013005	10 mL	100 per pkg		153.20
	17013003	10 mL	100 per pkg	Sterile	206.00
	17001875	12.5 mL	100 per pkg		144.40
	17001876	12.5 mL	100 per pkg	Sterile	203.20
	17001879	25 mL*	50 per pkg		165.40
	17001880	25 mL*	25 per pkg	Sterile	322.00
	17001881	50 mL*	25 per pkg		164.00
	17001882	50 mL*	25 per pkg	Sterile	322.00

* Includes one adapter. For complete syringe offering, please visit mt.com/rainin

mt.com/SR-AR

Rainin Disp-X

Large Volume Bottle Top Dispensing

Built-in safety features prevent spills and ensure smooth, trouble-free operation.

Superior chemical compatibility

High-grade inert materials ensure the purity of your reagents from the first aliquot to the last.

Safety first!

Discharge tube and closure cap prevent accidental dispensing or spilling of corrosive liquids.

Clear and easy control

Adjustable control knob facilitates volume setting.

Flexible options

Telescoping filling tubes accommodate different size bottles.

	CATALOG No.	DESCRIPTION			PRICE
Disp-X	**30373527**	Disp-X 0.5–5 mL bottle-top dispenser			$ 512.00
	30373528	Disp-X 1–10 mL bottle-top dispenser			512.00
	30373529	Disp-X 2.5–25 mL bottle-top dispenser			700.00
	30373750	Disp-X 5–50 mL bottle-top dispenser			700.00
Accessories	**30373751**	Disp-X discharge tube	5 or 10 mL		$ 84.80
	30373752	Disp-X discharge tube	25 or 50 mL		84.80
	30373753	Disp-X filling tube	5 or 10 mL	125–240 mm length	34.00
	30373754	Disp-X filling tube	5 or 10 mL	250–480 mm length	34.00
	30373755	Disp-X filling tube	25 or 50 mL	170–330 mm length	34.00
	30373756	Disp-X filling tube	25 or 50 mL	250–480 mm length	34.00
	30373757	Disp-X filling valve	5 or 10 mL		84.80
	30373758	Disp-X filling valve	25 or 50 mL		84.20
	30373759	Disp-X discharge valve	5 or 10 mL		84.80
	30373760	Disp-X discharge valve	25 or 50 mL		85.20

RaininService

Our Lab or Yours – You Choose.

Mail-in

- Service when you need it – no waiting to schedule!
- Fast turnaround
- ISO 17025 accredited by A2LA
- Tightly-controlled environment
- 6- and 7-place METTLER TOLEDO balances
- METTLER TOLEDO MCP multichannel balances – all channels tested
- Free inbound shipping
- Free return kits (4+ pipettes)

Onsite

- We come to you!
- Perfect for labs with chain-of-custody concerns
- ISO 17025 accredited by A2LA
- METTLER TOLEDO balances
- Minimal downtime
- Pipettes are calibrated in the environment where they are used
- Experienced Rainin onsite technicians available nationwide

Mail-in calibration services now available on the ShopRainin e-store. Everything you need to manage mail-in pipette calibrations now in one convenient location.

ShopRainin.com/service

Why choose Rainin Service?
Flexibility, convenience and highly trained technicians!

Choice

Our service offering includes onsite or mail-in calibration service and a wide range of plans to choose from.

Trust

Our highly trained service experts have years of experience repairing and calibrating many different brands of pipettes. We only use Rainin parts on Rainin pipettes.

Confidence

Rainin pipette service has the knowledge, tools and certifications to deliver expert performance every time.

Every calibration includes meticulous cleaning of each component, part replacement as needed, and preventive maintenance.

Can't decide? Try our Service Finder to see which plans fit your lab's needs.

ShopRainin.com/service-finder

Mail-in Pipette Calibration on ShopRainin.com

Your One Stop Shop for Mail-in Calibration Services

As the world's largest pipette service provider, Rainin makes it easy to get fast reliable service and calibration, guaranteed!

- Quick turnaround, with **four ISO 17025-accredited service labs** across North America
- We service all brands of pipettes – most with manufacturers' original parts (Rainin®, Eppendorf®, Gilson®, Integra®, Thermo Fisher®, Sartorius®)
- We service all pipettes – single channels, multichannels and all Rainin benchtop pipettors
- Free inbound shipping
  - 4 or more, request a **free return kit**
  - 3 or fewer, or in a rush, pack them yourself and print a **complimentary inbound shipping** label

Order Mail-in calibration service online:
▶ **ShopRainin.com/service**

Service Plans

All plans include:
- Full preventive maintenance (PM) with seal replacement or restoration
- Liquid leak test on all nozzles
- Adjustment to manufacturer's tolerances
- Calibration certificate with detailed results
- Calibration label

	Standard Plan	Advanced Plan	Accredited Plan	Accredited+ Plan
	Labs with basic service needs Perfect for Academic R&D Research Labs	When prior performance matters Pharma Biotech Clinical Research Labs	For complete ISO 17025 documentation GLP/GMP, Regulated Labs	ISO 8655 and 17025 compliance GLP/GMP, Regulated Labs
As Found	N/A	4 Test weighings @ 10, 100%	4 Test weighings @ 10, 50, 100%	10 Test weighings @ 10, 50, 100%
As Returned	4 Test weighings @ 10, 100%	4 Test weighings @ 10, 100%	10 Test weighings @ 10, 50, 100%	10 Test weighings @ 10, 50, 100%
Preventive Maintenance	Yes	Yes	Yes	Yes
Calibration Certificate	Non-accredited	Non-accredited	Accredited	Accredited
Compliance	ISO 8655-7 Annex A	ISO 8655-7 Annex A	ISO 8655-7:2022	ISO 8655-6:2022

Mail-in Ordering Information

Standard Plan

As Found	N/A
As Returned	4 Test weighings @ 10, 100%

- Full preventive maintenance (PM) with leak test and seal replacement or restoration
- Adjustment to manufacturer's tolerances
- Calibration certificate with detailed results and historical trending

CATALOG No.	DESCRIPTION	PRICE
17800031	Single channel	$ 53.40
17800096	Multichannel All – 8 channels	143.00
17800131	Multichannel All – 12 channels	171.20
17800153	Liquidator 96	2,475.00
30451098	BenchSmart 96 Head	2,475.00
30848615	MicroPro	2,475.00

Advanced Plan

As Found	4 Test weighings @ 10, 100%
As Returned	4 Test weighings @ 10, 100%

This plan includes all services provided under the Standard Plan.

PLUS:

- As found calibration results, including failure confirmation

CATALOG No.	DESCRIPTION	PRICE
17800040	Single channel	$ 64.00
17800105	Multichannel All – 8 channels	197.20
17800140	Multichannel All – 12 channels	241.00
17800154	Liquidator 96	2,920.00
30451099	BenchSmart 96 Head	2,920.00
30848616	MicroPro	2,920.00

Accredited Plan

As Found	4 Test weighings @ 10, 50, 100%
As Returned	10 Test weighings @ 10, 50, 100%

This plan includes all services provided under the Advanced Plan. **PLUS:**

- As found A2LA calibration results and failure confirmation
- A2LA calibration certificate incl. uncertainty of measurement (ISO 17025 compliant), historical trending and calibration label

CATALOG No.	DESCRIPTION	PRICE
17800048	Single channel	$ 124.60
17800113	Multichannel All – 8 channels	378.00
17800148	Multichannel All – 12 channels	423.00
30415512	Liquidator 96	3,885.00
30451100	BenchSmart 96 Head	3,885.00
30848617	MicroPro	3,885.00

Accredited+ Plan

As Found	10 Test weighings @ 10, 50, 100%
As Returned	10 Test weighings @ 10, 50, 100%

This plan includes all services provided under the Accredited Plan.

PLUS:

- Full compliance to ISO 8655:2022 part 6 and meets all quality standards

CATALOG No.	DESCRIPTION	PRICE
30829339	Single channel	$ 179.20
30829341	Multichannel All – 8 channels	571.00
30829342	Multichannel All – 12 channels	679.00

Optional Services

DNA/RNase decontamination

CATALOG No.	DESCRIPTION	PRICE
17800171	Single channel	$ 30.80
17800401	Multichannel	61.40
30932020	96-Channel	184.00

Onsite Pipette Calibration

Expert Calibration in Your Lab

Rainin makes it easy to receive state-of-the-art ISO 17025-accredited pipette service right in your lab. We service all brands.

Regardless of plan, all pipettes we service receive:

- Full preventive maintenance (PM) with seal replacement or restoration
- Liquid leak test on all nozzles
- Calibrated to ISO 8655:2022 tolerances
- Calibration certificates with detailed results (except Basic Plan)
- Calibration label

Service Plans

Service Plan	Calibration Plans →			
	Basic Plan	**Standard Plan**	**Advanced Plan**	**Accredited Plan**
	When measurement data is not required Perfect for University Science Labs	Labs with basic service needs Academic R&D Research Labs	When prior performance matters Pharma Biotech Clinical Research Labs	For complete ISO 17025 documentation GLP/GMP, Regulated Labs
As Found	N/A	N/A	4 Test weighings @ 10% and 100%	4 Test weighings @ 10%, 50% and 100%
As Returned	4 Test weighings @ 10% and 100%	4 Test weighings @ 10% and 100%	4 Test weighings @ 10% and 100%	4 Test weighings @ 10%, 50% and 100%
Preventive Maintenance	Yes	Yes	Yes	Yes
Calibration Certificate	N/A	Non-accredited	Non-accredited	Accredited
Compliance	N/A	ISO 8655-7 Annex A	ISO 8655-7 Annex A	ISO 8655-7 Annex A

To schedule onsite service, call 800.472.4646 (choose option "2" or Sales).

Onsite Ordering Information

Basic Plan

As Found	N/A
As Returned	4 Test weighings @ 10, 100%

- Full preventive maintenance (PM) with leak test and seal replacement or restoration

CATALOG No.	DESCRIPTION	PRICE*
30445525	Single channel	$ 39.80
30445526	Multichannel All – 8 channels	75.40
30445527	Multichannel All – 12 channels	93.60

Standard Plan

As Found	N/A
As Returned	4 Test weighings @ 10, 100%

- Full preventive maintenance (PM) with leak test and seal replacement or restoration
- Calibration certificate with detailed measurement data

CATALOG No.	DESCRIPTION	PRICE*
17800347	Single channel	$ 53.40
17800292	Multichannel All – 8 channels	146.60
17800256	Multichannel All – 12 channels	175.20

Advanced Plan

As Found	4 Test weighings @ 10, 100%
As Returned	4 Test weighings @ 10, 100%

This plan includes all services provided under the Standard Plan.

PLUS:

- As found calibration results – including failure confirmation

CATALOG No.	DESCRIPTION	PRICE*
17800320	Single channel	$ 65.20
17800272	Multichannel All – 8 channels	201.20
17800236	Multichannel All – 12 channels	246.00

Accredited Plan

As Found	4 Test weighings @ 10, 50, 100%
As Returned	4 Test weighings @ 10, 50, 100%

This plan includes all services provided under the Advanced Plan.

PLUS:

- ISO 17025 calibration certificate, including uncertainty of measurement (certified by A2LA), historical trending and calibration label

CATALOG No.	DESCRIPTION	PRICE*
30451900	Single channel	$ 114.80
30451876	Multichannel All – 8 channels	317.00
30451852	Multichannel All – 12 channels	399.00

* Travel fees may apply. Contact your sales representative.

Expert Calibration and Repair

Buy Vouchers Now, Use Them When You Need Them

Purchase service vouchers when you buy your pipettes or when you have funding. Use them later – whenever you're ready for calibration!

- Valid for two years
- Use with any brand of pipette
- Eliminate separate purchase orders
- Purchase with your pipettes and tips
- Valid for **mail-in service only**

	CATALOG No.	DESCRIPTION	PRICE
Service Vouchers	**17014448**	Standard Single channel service voucher	$ 53.40
	17014453	Standard Multichannel All 8-channel service voucher	143.00
	17014456	Standard Multichannel All 12-channel service voucher	171.20
	30415513	Standard Liquidator 96 – 96 channels, includes box & round-trip UPS Ground shipping	2,475.00
	30456199	Standard BenchSmart 96 Head – 96 channels, includes round-trip UPS Ground shipping	2,475.00
	17014449	Advanced Single channel service voucher	64.00
	17014454	Advanced Multichannel All 8-channel service voucher	197.20
	17014457	Advanced Multichannel All 12-channel service voucher	241.00
	30415514	Advanced Liquidator 96 – 96 channels, includes box & round-trip UPS Ground shipping	2,920.00
	30456200	Advanced BenchSmart 96 Head – 96 channels, includes round-trip UPS Ground shipping	2,920.00
	17014450	Accredited Single channel service voucher	124.60
	17014455	Accredited Multichannel All 8-channel service voucher	378.00
	17014458	Accredited Multichannel All 12-channel service voucher	423.00
	30415517	Accredited Liquidator 96 – 96 channels, includes box & round-trip UPS Ground shipping	3,885.00
	30456201	Accredited BenchSmart 96 Head – 96 channels, includes round-trip UPS Ground shipping	3,885.00

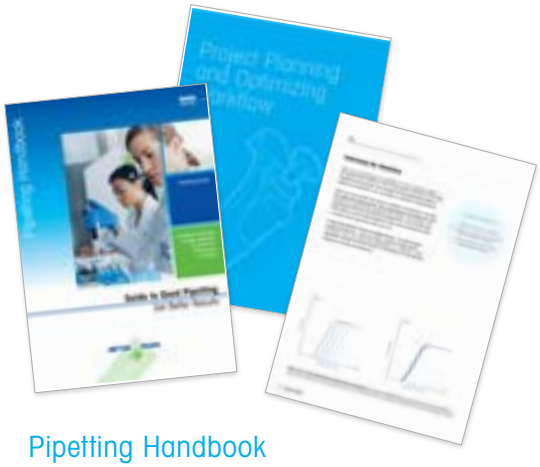
At Your Service!

We're Here to Help

Pipette Inventory Assessment

Time for a pipette review? Contact your local Rainin representative to request an inventory assessment. You'll receive a complimentary summary report that includes quantity, age and ergonomic evaluation. Optimize your pipette inventory to your current laboratory workflow, eliminate redundancy and minimize your risk of using out-of-calibration pipettes.

www.mt.com/pipette-inventory



Pipetting Handbook

This guide provides an in-depth overview of pipettes, tips, pipetting techniques and pipetting accuracy for both new and experienced users.

Pipetting is probably the most frequently practiced activity in life science labs today. Understanding the basics of good pipetting practice is important to the success and reproducibility of any experiment. No matter how precise a pipette is, the skill and knowledge of the user ultimately determines the accuracy and reliability of their results.

www.mt.com/pipetting-handbook

- **Contact Your Sales Representative**
  800 4 RAININ (800-472-4646) or
  is@rainin.com
- **Contact Technical Support or Service**
  Reach our technical support team at 800 4 Rainin (800-472-4646, choose option "3") or by email at
  tech.support@rainin.com

Good Pipetting Practice

Better Results Through Better Understanding

The performance of any instrument is improved in the hands of a skilled operator. Through GPP™, labs can reduce errors and improve the reliability and repeatability of their results. The key: better understanding the factors that affect experiments and learning application-specific techniques.

You can improve data quality with Good Pipetting Practice™ – METTLER TOLEDO's comprehensive, systematic approach to maximizing pipetting accuracy and repeatability.

Routine operation

Learn how to care for pipettes every day and how to set up the right schedule for calibration and routine testing to ensure optimal pipette performance.

Evaluation

Evaluate the variables, tolerances and other requirements of your pipettes.

Calibration

Recognize the risks associated with out-of-calibration pipettes and know how preventive maintenance ensures pipetting performance over time.

Selection

Maximize your potential to produce accurate and reproducible data by selecting the right tools for a specific application.

Training

Optimize workflows and improve outcomes with application-specific pipetting techniques. Also, learn how to minimize pipetting discomfort and injury through better ergonomics.

GPP Toolbox

A Wide Range of Tools

GPP Seminars

We offer liquid handling-related seminars to meet the needs of every stakeholder in your organization, from bench scientists and lab managers to quality control, health and safety. We hold short and long format trainings online or in in your lab and can even measure each user's pipetting proficiency before and after training.

www.mt.com/gpp

Technique Posters

From good techniques to pipette cleaning to good ergonomics, our free technique posters reinforce pipetting practices that will help ensure more consistent and accurate results.

www.mt.com/rainin-posters

Scan the QR code to discover what GPP can do for your lab!

Reduce Plastic Waste with Rainin

Greener Tip Rack Solutions

Rainin offers a number of waste-saving pipette tip rack options to help meet your sustainability objectives. We've taken a three-pronged approach to reducing plastic rack waste:

- Reducing the amount of plastic – particularly #5 polypropylene that, when recycled, downcycles into lower-quality products (e.g., doormats, crates, etc.).
- Replacing polypropylene with PET, which is more widely recycled. Recycled #1 PET can be made into the same or similar products (water bottles, TerraRacks, etc.).
- Avoiding plastic components, instead using natural, compostable materials like plant fiber.

Plastic savings shown below are calculated using our current standard 1000 µL polypropylene tip rack as the baseline. Components used for the calculation include the rack base, lid, tip deck, sleeve (refills) and any plastic wrapping – tips are not included. Actual plastic savings percentages vary slightly by rack size (10 µL racks are smaller than 1000 µL racks). Our current standard rack, which we introduced in 2018, uses 20% less polypropylene than the rack it replaced, so the amount of plastic saved shown below is on top of the already-reduced plastic rack.

Bulk Tips

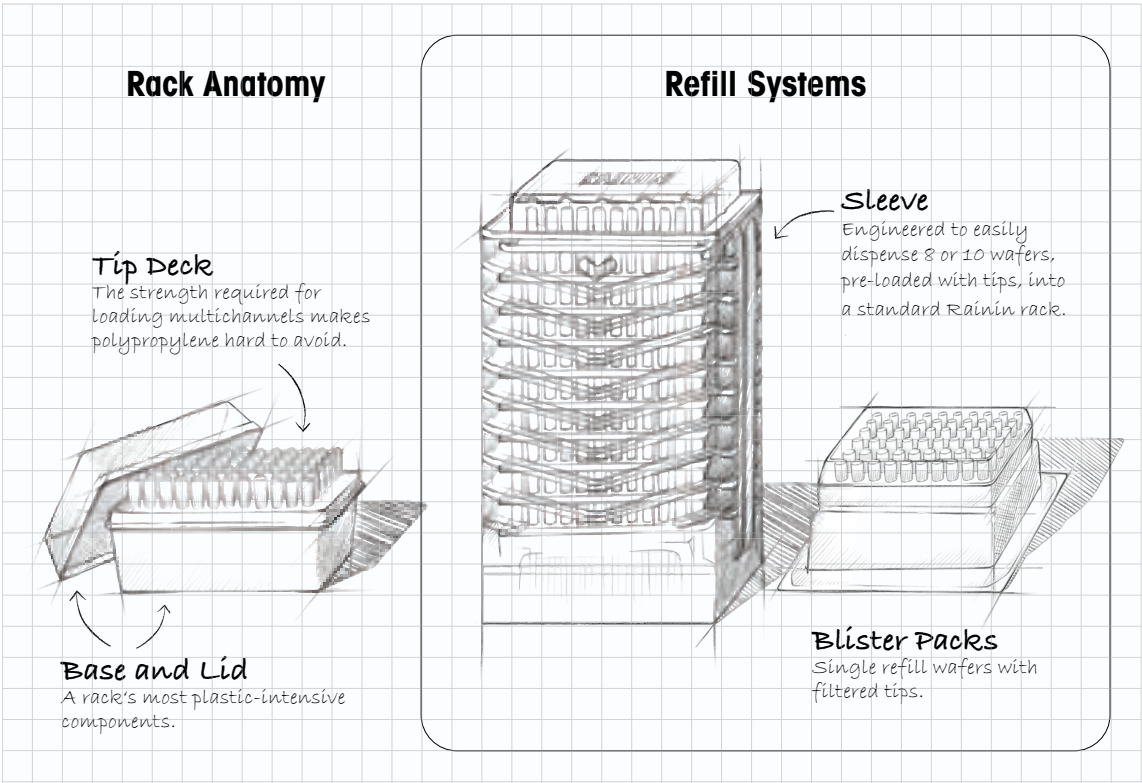
The most sustainable rack is the rack you don't use, which makes manually refilling spent racks and wafers with BioClean Ultra tips in bulk a reasonable option for some labs. See page 55.

EarthRack

EarthRack eliminates plastic waste almost entirely. Other than the thin polypropylene tip deck, EarthRack is made entirely from compostable, rapidly renewable plant fiber. EarthRack uses up to 82% less plastic than the Rainin standard rack. See page 48.

Green-Pak

Green-Pak and Green-Pak SpaceSaver refill systems for Rainin standard racks reduce plastic waste by up to 80%. Green-Pak's SpaceSaver sleeve and Green-Pak sealed refill packs are both made from highly recyclable PET. See page 52.



StableStak

Rainin StableStak multilayer system is designed for high-production multichannel work. With five layers mounted on a sturdy base and 192 tips per layer, each StableStak is equivalent to 10 96-tip racks. See page 54.

TerraRack

Not only composed of 50% less plastic than the Rainin standard rack, TerraRack is made almost entirely from PET – the same plastic as in water bottles and the most commonly recycled plastic worldwide. Easy to disassemble and compress, TerraRacks take up considerably less volume as waste. See page 50.

Rainin Standard Rack

Like most pipette tip racks, Rainin standard racks are 100% polypropylene (#5), which is prized for strength and durability. This rack was reengineered in 2018 to reduce the amount of polypropylene it contains by 20%. See page 56.

Rainin EarthRack

Compostable, Biodegradable Tip Rack

EarthRack is made primarily from refined cellulose that is easy to compost and is biodegradable. Because the small, recyclable polypropylene tip deck is the only plastic component, EarthRack significantly reduces plastic use and waste.

Available in 20 µL, 200 µL and 1000 µL.

Rainin LTS LiteTouch System only. LTS

Scan the QR code for a timelapse video of EarthRack biodegrading.

Earth friendly

EarthRack's lid and base are composed of a biodegradable bamboo and sugar cane cellulose material that can be composted at municipal facilities. If deposited in a landfill, they will biodegrade.

Reduces plastic waste

With up to 75% less plastic than conventional racks, adopting EarthRack can help organizations meet their sustainability objectives.

Less carbon

When composted, incinerated or deposited into a landfill, EarthRack's cellulose components contribute no net increase in atmospheric CO_2. Carbon absorbed during initial plant growth is simply returned to the atmosphere.

Specifications

BioClean Green Test Limits of Detection (LODs)	
Human DNA	<0.32 pg
Bacterial DNA	<0.032 pg
Plant (chloroplast) DNA	<0.032 pg
DNase (three tests)	
• Gel electrophoresis	$\leq 10^{-7}$ KU/µL
• Kunitz Assay	$\leq 10^{-4}$ KU/µL
• qPCR	$\leq 10^{-5}$ KU/µL
RNase (three tests)	
• Gel electrophoresis	$\leq 10^{-5}$ KU/µL
• Kunitz Assay	$\leq 10^{-5}$ KU/µL
• RT-qPCR	$\leq 10^{-5}$ KU/µL
Endotoxin (LPS)	≤0.01 EU/mL
Protein	<2 ng/tip
Protease	<500 ng/mL
PCR inhibitors	None detected

EarthRack is BioClean Green™

Rainin EarthRack products are certified to be BioClean Green – a comprehensive testing process and specifications developed specifically for cellulose-based tip racks.

Because EarthRack is derived from natural, plant-based materials, BioClean Green employs a broader, more intrusive quality testing procedure to ensure the absence of biological contaminants. For example, the use of cellulose requires an additional test for chloroplast DNA. Testing for DNase and RNase has been expanded to include three separate tests for each nuclease for complete assurance of tip performance.

			VOL	QTY		FEATURES		
	CATALOG No.	DESCRIPTION	MAX VOLUME	RACKS/CARTON	TIPS/CARTON	STERILIZED	FILTER	PRICE
LTS EarthRack	**30807966**	ER LTS 20µL F 960G/10	20 µL	10	960	✓	✓	$ 176.80
	30807967	ER LTS 200µL F 960G/10	200 µL	10	960	✓	✓	176.80
	30808038	ER LTS 1000µL F 768G/8	1000 µL	8	768	✓	✓	176.80

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TerraRack

The Most Eco-Friendly Rack Around

Less weight, less waste, 100% recyclable

TerraRack™ is a revolutionary concept in tip racks. Sturdy as conventional racks, yet made with less than half the plastic of standard racks and completely recyclable. In fact, the hinged TerraRack shell is made from PET, which is easily recycled.

For convenience and complete cleanliness, TerraRacks with BioClean Ultra tips come sterilized (they are not autoclavable).

Many volume sizes available in both LTS and universal UNV formats.

Less waste

With 50% less plastic than conventional racks, TerraRacks are also extremely compressible, so racks occupy significantly less space in a waste or storage container.

100% recyclable

In addition to being completely recyclable, much of each TerraRack is composed of PET, which is easily recycled and aggressively recovered from the plastic waste stream.

Non slip accessory

Each TerraBase provides secure footing on slippery bench surfaces for an enhanced pipetting experience. Durable construction provides high-impact resistance.

mt.com/SR-BCU

ACT. Certified

	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: SHAFTGARD	FEATURES: FILTER	PRICE
LTS / TerraRack	**17014960**	TR LTS 20µL S 960A/10	20 µL[1]	10	960	✓			$ 103.80
	17014961	TR LTS 20µL F 960A/10	20 µL[1]	10	960	✓		✓	160.80
	17014962	TR LTS 250µL S 960A/10	200 µL[2]	10	960	✓			103.80
	17014963	TR LTS 200µL F 960A/10	200 µL[2]	10	960	✓		✓	160.80
	17014964	TR LTS 300µL S 768A/8	300 µL	8	768	✓			103.80
	17014965	TR LTS 300µL F 768A/8	300 µL	8	768	✓		✓	160.80
	17014966	TR LTS 1000µL S 768A/8	1000 µL	8	768	✓			103.80
	17014967	TR LTS 1000µL F 768A/8	1000 µL	8	768	✓		✓	160.80
	17014968	TR LTS 1200µL S 768A/8	1200 µL	8	768	✓			103.80
	17014969	TR LTS 1200µL F 768A/8	1200 µL	8	768	✓		✓	160.80
UNV / TerraRack	**17014970**	TR UNV 10µL S 960A/10	10 µL	10	960	✓			$ 103.80
	17014971	TR UNV 10µL F 960A/10	10 µL	10	960	✓		✓	160.80
	17014972	TR UNV 10µL GS 960A/10	10 µL	10	960	✓	✓		103.80
	17014973	TR UNV 10µL GF 960A/10	10 µL	10	960	✓	✓	✓	160.80
	17014974	TR UNV 20µL F 960A/10	20 µL	10	960	✓		✓	160.80
	17014975	TR UNV 100µL F 960A/10	100 µL	10	960	✓		✓	160.80
	17014977	TR UNV 200µL F 960A/10	200 µL	10	960	✓		✓	160.80
	17014976	TR UNV 250µL S 960A/10	250 µL	10	960	✓			103.80
	17014978	TR UNV 300µL S 768A/8	300 µL	8	768	✓			103.80
	17014979	TR UNV 300µL F 768A/8	300 µL	8	768	✓		✓	160.80
	17014980	TR UNV 1000µL S 768A/8	1000 µL	8	768	✓			103.80
	17014981	TR UNV 1000µL F 768A/8	1000 µL	8	768	✓		✓	160.80

TerraBase	TerraBase Accessory for TerraRack	
	17014982	TerraRack Base - short; 1 base to fit 10 - 300 µL TerraRack racks	$ 25.60
	17014983	TerraRack Base - tall; 1 base to fit 1000/1200 µL TerraRack racks	28.40

[1] Fits 2, 10 and 20 µL pipettes [2] Fits 50, 100 and 200 µL pipettes

Eco-Friendly Refills

Less Waste, More Space

Space-saving rack refill options enhance your workflow and minimize plastic waste. Order empty racks if you don't already have them. Many volume sizes available in both LTS LTS and universal UNV formats.

Green-Pak®

Individually sealed refills – ideal for filter tip users

	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: SHAFTGARD	FEATURES: FILTER	PRICE
LTS Green-Pak	30389270	GP LTS 20µL 960A/10	20 µL[1]	10	960				$ 80.00
	30389275	GP LTS 20µL S 960A/10	20 µL[1]	10	960	✓			103.80
	30389274	GP LTS 20µL F 960A/10	20 µL[1]	10	960	✓		✓	159.60
	30389277	GP LTS 250µL 960A/10	200 µL[2]	10	960				80.00
	30389278	GP LTS 250µL S 960A/10	200 µL[2]	10	960	✓			103.80
	30389276	GP LTS 200µL F 960A/10	200 µL[2]	10	960	✓		✓	159.60
	30389271	GP LTS 1000µL 768A/8	1000 µL	8	768				80.00
	30389273	GP LTS 1000µL S 768A/8	1000 µL	8	768	✓			103.80
	30389272	GP LTS 1000µL F 768A/8	1000 µL	8	768	✓		✓	159.60
UNV Green-Pak	30389258	GP UNV 10µL 960A/10	10 µL	10	960				$ 80.00
	30389265	GP UNV 10µL S 960A/10	10 µL	10	960	✓			103.80
	30389263	GP UNV 10µL F 960A/10	10 µL	10	960	✓		✓	159.60
	30389264	GP UNV 10µL FG 960A/10	10 µL	10	960	✓	✓	✓	159.60
	30389267	GP UNV 20µL F 960A/10	20 µL	10	960	✓		✓	159.60
	30389262	GP UNV 100µL F 960A/10	100 µL	10	960	✓		✓	159.60
	30389266	GP UNV 200µL F 960A/10	200 µL	10	960	✓		✓	159.60
	30389268	GP UNV 250µL 960A/10	250 µL	10	960				80.00
	30389269	GP UNV 250µL S 960A/10	250 µL	10	960	✓			103.80
	30389259	GP UNV 1000µL 768A/8	1000 µL	8	768				80.00
	30389261	GP UNV 1000µL S 768A/8	1000 µL	8	768	✓			103.80
	30389260	GP UNV 1000µL F 768A/8	1000 µL	8	768	✓		✓	159.60

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ACT. Certified

Fast
Refill a rack in seconds

Clean
Protects tips from contamination

Convenient
Dispensing sleeve is easy to use

Green-Pak SpaceSaver®
Each sleeve contains 8 or 10 refills

		CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: SHAFTGARD	FEATURES: FILTER	PRICE
LTS	SpaceSaver	30389291	GPS LTS 20µL 960A/10	20 µL[1]	10	960				$ 80.00
		30389297	GPS LTS 20µL S 960A/10	20 µL[1]	10	960	✓			103.80
		30389299	GPS LTS 250µL 960A/10	200 µL[2]	10	960				80.00
		30389301	GPS LTS 250µL S 960A/10	200 µL[2]	10	960	✓			103.80
		30389303	GPS LTS 300µL 768A/8	300 µL	8	768				80.00
		30389304	GPS LTS 300µL S 768A/8	300 µL	8	768	✓			103.80
		30389292	GPS LTS 1000µL 768A/8	1000 µL	8	768				80.00
		30389294	GPS-LTS 1000µL S 768A/8	1000 µL	8	768	✓			103.80
	Empty Racks	30389354	Tip Racks GPR LTS 20µL 0/10	20 µL	10					$ 40.80
		30389353	Tip Racks GPR XXX 250µL 0/10	200 µL	10					40.80
		30397667	Tip Racks GPR XXX 300µL 0/8	300 µL	8					40.80
		30389351	Tip Racks GPR XXX 1000µL 0/8	1000 µL	8					40.80
UNV	SpaceSaver	30389283	GPS UNV 10µL G 960A/10	10 µL	10	960		✓		$ 80.00
		30389285	GPS UNV 10µL GS 960A/10	10 µL	10	960	✓	✓		103.80
		30389287	GPS UNV 250µL 960A/10	250 µL	10	960				80.00
		30389289	GPS UNV 250µL S 960A/10	250 µL	10	960	✓			103.80
		30397665	GPS UNV 300µL 768A/8	300 µL	8	768				80.00
		30397666	GPS UNV 300µL S 768A/8	300 µL	8	768	✓			103.80
		30389279	GPS UNV 1000µL 768A/8	1000 µL	8	768				80.00
		30389281	GPS UNV 1000µL S 768A/8	1000 µL	8	768	✓			103.80
	Empty Racks	30389350	Tip Racks GPR UNV 10µL 0/10	10 µL	10					$ 40.80
		30389353	Tip Racks GPR XXX 250µL 0/10	250 µL	10					40.80
		30397667	Tip Racks GPR XXX 300µL 0/8	300 µL	8					40.80
		30389351	Tip Racks GPR XXX 1000µL 0/8	1000 µL	8					40.80

[1] Fits 2, 10 and 20 µL pipettes [2] Fits 50, 100 and 200 µL pipettes

Double-96 Racked Tips

StableStak and StableRak

Ideal for high production environments. Perfect for multichannel pipetting! Available in both LTS and universal formats.

StableStak and StableRak are available in standard, sterilized and filter (StableRak only) formats. They keep the tips safe from debris, dust and contamination. Their sturdy construction using non-slip racks allows fast and easy loading.

StableRak™

Individual double-96 racks with 192 tips per layer.

StableStak™

Stacked double-96 racks with 192 tips per layer.

		CATALOG No.	DESCRIPTION	VOL: MAX. VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: FILTER	FEATURES: SHAFTGARD	FEATURES: WIDE-O	PRICE
LTS	StableRak	17005862	SR LTS 20µL 960A/5	20 µL[1]	5	960					$ 79.80
		17005861	SR LTS 20µL S 960A/5	20 µL[1]	5	960	✓				103.80
		17005860	SR LTS 20µL F 960A/5	20 µL[1]	5	960	✓	✓			159.60
		17005864	SR LTS 250µL 960A/5	200 µL[2]	5	960					79.80
		17005863	SR LTS 250µL S 960A/5	200 µL[2]	5	960	✓				103.80
		17005859	SR LTS 200µL F 960A/5	200 µL[2]	5	960	✓	✓			159.60
		17005867	SR LTS 300µL 768A/4	300 µL	4	768					79.80
		17005866	SR LTS 300µL S 768A/4	300 µL	4	768	✓				103.80
		17005865	SR LTS 300µL F 768A/4	300 µL	4	768	✓	✓			159.60
		17007083	SR LTS 1000µL 768A/4	1000 µL	4	768					79.80
		17007082	SR LTS 1000µL S 768A/4	1000 µL	4	768	✓				103.80
		17007081	SR LTS 1000µL F 768A/4	1000 µL	4	768	✓	✓			159.60
		17007086	SR LTS 1200µL 768A/4	1200 µL	4	768					79.80
		17007085	SR LTS 1200µL S 768A/4	1200 µL	4	768	✓				103.80
		17007084	SR LTS 1200µL F 768A/4	1200 µL	4	768	✓	✓			159.60
	StableStak	17005873	SS LTS 20µL 960A/5	20 µL[1]	5	960					$ 79.80
		17005872	SS LTS 20µL S 960A/5	20 µL[1]	5	960	✓				103.80
		17005875	SS LTS 250µL 960A/5	200 µL[2]	5	960					79.80
		17005874	SS LTS 250µL S 960A/5	200 µL[2]	5	960	✓				103.80
		17005877	SS LTS 300µL 768A/4	300 µL	4	768					79.80
		17005876	SS LTS 300µL S 768A/4	300 µL	4	768	✓				103.80
		17007090	SS LTS 1000µL 768A/4	1000 µL	4	768					79.80
		17007089	SS LTS 1000µL S 768A/4	1000 µL	4	768	✓				103.80
UNV		17005857	SR UNV 300µL 768/4	300 µL	4	768					$ 79.80

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Bulk Tips

The Economic Solution

Ideal for academia and other research laboratories.
Available in both LTS LTS and universal UNV formats.

			VOL	QTY	FEATURES				
			MAX VOLUME	RACKS/CARTON	TIPS/CARTON	STERILIZED	FILTER	SHAFTGARD	WIDE-O	PRICE
LTS Bulk Tips	**17001128**	RC LTS 20µL 1000A/1	20 µL[1]		1000					$ 61.40
	17001118	RC LTS 250µL 1000A/1	200 µL[2]		1000					61.40
	17001132	RC LTS 300µL 1000A/1	300 µL		1000					61.40
	17001129	RC LTS 1000µL 1000A/1	1000 µL		1000					61.40
	17006324	RC LTS 1200µL 1000A/1	1200 µL		1000					61.40
	17001130	RC LTS 2000µL 1000A/1	2000 µL		1000					124.60
	17001133	RC LTS 5000µL 1000A/1	5000 µL		1000					139.20
	17001119	RC LTS 10mL 200A/1	10 mL		200					80.80
	17005940*	RC LTS 10mL S 75A/*	10 mL		75	✓				130.80
	17001131	RC LTS 20mL 100A/1	20 mL		100					80.80
	17005941*	RC LTS 20mL S 50A/*	20 mL		50	✓				96.60
UNV Bulk Tips	**17001124**	RC UNV 10µL 1000A/10	10 µL		1000					$ 61.40
	17001123	RC UNV 10µL G 1000A/10	10 µL		1000			✓		61.40
	17001116	RC UNV 250µL 1000A/1	250 µL		1000					61.40
	17001127	RC UNV 250µL W 1000A/1	250 µL		1000				✓	61.40
	17001121	RC UNV 1000µL 1000A/1	1000 µL		1000					61.40
	17001125	RC UNV 2000µL 1000A/1	2000 µL		1000					124.60
	17001126	RC UNV 2500µL 1000A/1	2500 µL		1000					124.60
	17001117	RC UNV 5000µL 1000A/1	5000 µL		1000					140.40
	17001122	RC UNV 10mL 200A/1	10 mL		200					80.80
	17005939*	RC UNV 10mL S 75A/*	10 mL		75	✓				132.40

*individually wrapped Wide-O = Wide Orifice [1] Fits 2, 10 and 20 µL pipettes [2] Fits 50, 100 and 200 µL pipettes

Racked Tips

SBS Standard Tip Packaging

Removable-cover Racks

Removable-cover racks – easy, practical, convenient packaging. Many volume sizes available in both LTS LTS and universal UNV formats.

- 20% less plastic than the original RT rack!
- Locking latch
- Removable hinged lid
- BioClean Ultra-certified
- Use with Green-Pak and SpaceSaver refills
- Available with Low Retention tips (see page 58)

LTS	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: SHAFTGARD	FEATURES: WIDE-O	FEATURES: FILTER	PRICE
Racked Tips	**30389200**	RT LTS 20µL 960A/10	20 µL[1]	10	960					$ 79.80
	30389228	RT LTS 20µL S 960A/10	20 µL[1]	10	960	✓				103.80
	30389225	RT LTS 20µL F 960A/10	20 µL[1]	10	960	✓			✓	159.60
	30389243	RT LTS 250µL 960A/10	200 µL[2]	10	960					79.80
	30389247	RT LTS 250µL W 960A/10	200 µL[2]	10	960			✓		95.80
	30389245	RT LTS 250µL S 960A/10	200 µL[2]	10	960	✓				103.80
	30389249	RT LTS 250µL SW 960A/10	200 µL[2]	10	960	✓		✓		113.20
	30389239	RT LTS 200µL F 960A/10	200 µL[2]	10	960	✓			✓	159.60
	30389253	RT LTS 300µL 768A/8	300 µL	10	768					79.80
	30389255	RT LTS 300µL S 768A/8	300 µL	8	768	✓				103.80
	30389254	RT LTS 300µL F 768A/8	300 µL	8	768	✓			✓	159.60
	30389211	RT LTS 1000µL 768A/8	1000 µL	8	768					79.80
	30389217	RT LTS 1000µL W 768A/8	1000 µL	8	768			✓		95.80
	30389215	RT LTS 1000µL S 768A/8	1000 µL	8	768	✓				103.80
	30389220	RT LTS 1000µL SW 768A/8	1000 µL	8	768	✓		✓		113.20
	30389212	RT LTS 1000µL F 768A/8	1000 µL	8	768	✓			✓	159.60
	30389230	RT LTS 1200µL 768A/8	1200 µL	8	768					79.80
	30389234	RT LTS 1200µL S 768A/8	1200 µL	8	768	✓				103.80
	30389231	RT LTS 1200µL F 768A/8	1200 µL	8	768	✓			✓	159.60
	30389236	RT LTS 2000µL 480A/8	2000 µL	8	480					95.80
	30389238	RT LTS 2000µL S 480A/8	2000 µL	8	480	✓				103.80
	30389237	RT LTS 2000µL F 480A/8	2000 µL	8	480	✓			✓	159.60
	30389256	RT LTS 5000µL 192A/8	5000 µL	8	192					79.80
	30389257	RT LTS 5000µL S 192A/8	5000 µL	8	192	✓				103.80

[1] Fits 2, 10 and 20 µL pipettes

[2] Fits 50, 100 and 200 µL pipettes

Fast loading

Robust secure racks make tip loading easy

Autoclavable

15 psi, 121°C, 20 minutes

Format options

Standard, sterilized and filter versions available

Protective

Safe from dirt and contamination

▶ **mt.com/SR-BCU**

UNV — **Racked Tips**

CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: SHAFTGARD	FEATURES: WIDE-O	FEATURES: FILTER	PRICE
30389163	RT UNV 10µL 960A/10	10 µL	10	960					$ 79.80
30389174	RT UNV 10µL G 960A/10	10 µL	10	960		✓			79.80
30389178	RT UNV 10µL GS 960A/10	10 µL	10	960	✓	✓			103.80
30389181	RT UNV 10µL S 960A/10	10 µL	10	960	✓				103.80
30389172	RT UNV 10µL F 960A/10	10 µL	10	960	✓			✓	159.60
30389175	RT UNV 10µL FG 960A/10	10 µL	10	960	✓	✓		✓	159.60
30389189	RT UNV 20µL F 960A/10	20 µL	10	960	✓			✓	159.60
30389170	RT UNV 100µL F 960A/10	100 µL	10	960	✓			✓	159.60
30389186	RT UNV 200µL F 960A/10	200 µL	10	960	✓			✓	159.60
30389191	RT UNV 250µL 960A/10	250 µL	10	960					79.80
30389195	RT UNV 250µL W 960A/10	250 µL	10	960			✓		87.60
30389193	RT UNV 250µL S 960A/10	250 µL	10	960	✓				103.80
30389058	RT UNV 300µL 768A/8	300 µL	10	768					79.80
30389059	RT UNV 300µL S 768A/8	300 µL	10	768	✓				103.80
30389136	RT UNV 300µL F 768A/8	300 µL	8	768	✓			✓	159.60
30389164	RT UNV 1000µL 768A/8	1000 µL	8	768					79.80
30389168	RT UNV 1000µL S 768A/8	1000 µL	8	768	✓				103.80
30389165	RT UNV 1000µL F 768A/8	1000 µL	8	768	✓			✓	159.60
30389183	RT UNV 2000µL 480A/8	2000 µL	8	480					95.80
30389185	RT UNV 2000µL S 480A/8	2000 µL	8	480	✓				103.80
30389184	RT UNV 2000µL F 480A/8	2000 µL	8	480	✓			✓	159.60
30389198	RT UNV 5000µL 192A/8	5000 µL	8	192					79.80
30389199	RT UNV 5000µL S 192A/8	5000 µL	8	192	✓				103.80

Wide-O = Wide Orifice

Low Retention Tips

Stop Wasting Valuable Sample!

Superhydrophobic Rainin LR low retention tips minimize residual volume, particularly when transferring viscous samples and liquids with low surface tension. A great option for pipetting valuable molecular biology reagents and expensive samples.

Available in both LTS LTS and universal UNV formats.

[1] Fits 2, 10 and 20 µL pipettes

[2] Fits 50, 100 and 200 µL pipettes

Rack base not included with SpaceSaver. See page 53 for empty racks.

LTS	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: WIDE-O	FEATURES: LOW RET	FEATURES: FILTER	PRICE
Racked Tips	**30389227**	RT LTS 20µL L 960A/10	20 µL[1]	10	960			✓		$ 103.80
	30389229	RT LTS 20µL LS 960A/10	20 µL[1]	10	960	✓		✓		113.20
	30389226	RT LTS 20µL FL 960A/10	20 µL[1]	10	960	✓		✓	✓	173.60
	30389244	RT LTS 250µL L 960A/10	200 µL[2]	10	960			✓		103.80
	30389248	RT LTS 250µL LW 960A/10	200 µL[2]	10	960		✓	✓		103.80
	30389246	RT LTS 250µL LS 960A/10	200 µL[2]	10	960	✓		✓		113.20
	30389250	RT LTS 250µL LSW 960A/10	200 µL[2]	10	960	✓	✓	✓		139.20
	30389240	RT LTS 200µL FL 960A/10	200 µL[2]	10	960	✓		✓	✓	173.60
	30389241	RT LTS 200µL FLW 960A/10	200 µL[2]	10	960	✓	✓	✓	✓	173.60
	30389160	RT LTS 300µL L 768A/8	300 µL	8	768			✓		103.80
	30389161	RT LTS 300µL LS 768A/8	300 µL	8	768	✓		✓		113.20
	30389162	RT LTS 300µL FL 768A/8	300 µL	8	768	✓		✓	✓	173.60
	30389214	RT LTS 1000µL L 768A/8	1000 µL	8	768			✓		103.80
	30389216	RT LTS 1000µL LS 768A/8	1000 µL	8	768	✓		✓		113.20
	30389213	RT LTS 1000µL FL 768A/8	1000 µL	8	768	✓		✓	✓	173.60
	30389219	RT LTS 1000µL LW 768A/8	1000 µL	8	768		✓	✓		103.80
	30389221	RT LTS 1000µL LSW 768A/8	1000 µL	8	768	✓	✓	✓		139.20
	30389218	RT LTS 1000µL FLW 768A/8	1000 µL	8	768	✓	✓	✓	✓	173.60
	30389233	RT LTS 1200µL L 768A/8	1200 µL	8	768			✓		103.80
	30389235	RT LTS 1200µL LS 768A/8	1200 µL	8	768	✓		✓		113.20
	30389232	RT LTS 1200µL FL 768A/8	1200 µL	8	768	✓		✓	✓	173.60
SpaceSaver	**30389296**	GPS LTS 20µL L 960A/10	20 µL[1]	10	960			✓		$ 103.80
	30389298	GPS LTS 20µL LS 960A/10	20 µL[1]	10	960	✓		✓		113.00
	30389300	GPS LTS 250µL L 960A/10	200 µL[2]	10	960			✓		103.80
	30389302	GPS LTS 250µL LS 960A/10	200 µL[2]	10	960	✓		✓		113.00
	30398985	GPS LTS 300µL LS 768A/8	300 µL	8	768	✓		✓		103.80
	30389293	GPS LTS 1000µL L 768A/8	1000 µL	8	768			✓		103.80
	30389295	GPS LTS 1000µL LS 768A/8	1000 µL	8	768	✓		✓		113.00
Bulk	**17014340**	RC LTS 20µL L 1000A/1	20 µL		1000			✓		$ 77.20
	17014341	RC LTS 250µL L 1000A/1	200 µL		1000			✓		77.20
	17014342	RC LTS 1000µL L 1000A/1	1000 µL		1000			✓		77.20

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Rack base not included with SpaceSaver. See page 53 for empty racks.

UNV	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: SHAFTGARD	FEATURES: WIDE-O	FEATURES: LOW RET	FEATURES: FILTER	PRICE
Racked Tips	30389180	RT UNV 10µL L 960A/10	10 µL	10	960				✓		$ 103.80
	30389182	RT UNV 10µL LS 960A/10	10 µL	10	960	✓			✓		113.20
	30389173	RT UNV 10µL FL 960A/10	10 µL	10	960	✓			✓	✓	173.60
	30389177	RT UNV 10µL GL 960A/10	10 µL	10	960		✓		✓		103.80
	30389179	RT UNV 10µL GLS 960A/10	10 µL	10	960	✓	✓		✓		112.40
	30389176	RT UNV 10µL FGL 960A/10	10 µL	10	960	✓	✓		✓	✓	173.60
	30389190	RT UNV 20µL FL 960A/10	20 µL	10	960	✓			✓	✓	173.60
	30389171	RT UNV 100µL FL 960A/10	100 µL	10	960	✓			✓	✓	173.60
	30389187	RT UNV 200µL FL 960A/10	200 µL	10	960	✓			✓	✓	173.60
	30389188	RT UNV 200µL FLW 960A/10	200 µL	10	960	✓		✓	✓	✓	173.60
	30389192	RT UNV 250µL L 960A/10	250 µL	10	960				✓		103.80
	30389196	RT UNV 250µL LW 960A/10	250 µL	10	960			✓	✓		103.80
	30389194	RT UNV 250µL LS 960A/10	250 µL	10	960	✓			✓		113.20
	30389197	RT UNV 250µL LSW 960A/10	250 µL	10	960	✓		✓	✓		139.20
	30389137	RT UNV 300µL L 768A/8	300 µL	8	768				✓		103.80
	30389138	RT UNV 300µL LS 768A/8	300 µL	8	768	✓			✓		113.20
	30389139	RT UNV 300µL FL 768A/8	300 µL	8	768	✓			✓	✓	173.60
	30389167	RT UNV 1000µL L 768A/8	1000 µL	8	768				✓		103.80
	30389169	RT UNV 1000µL LS 768A/8	1000 µL	8	768	✓			✓		113.20
	30389166	RT UNV 1000µL FL 768A/8	1000 µL	8	768	✓			✓	✓	173.60
SpaceSaver	30389284	GPS UNV 10µL GL 960A/10	10 µL	10	960		✓		✓		$ 103.80
	30389286	GPS UNV 10µL GLS 960A/10	10 µL	10	960	✓	✓		✓		113.00
	30389288	GPS UNV 250µL L 960A/10	250 µL	10	960				✓		103.80
	30389290	GPS UNV 250µL LS 960A/10	250 µL	10	960	✓			✓		113.00
	30389280	GPS UNV 1000µL L 768A/8	1000 µL	8	768				✓		103.80
	30389282	GPS UNV 1000µL LS 768A/8	1000 µL	8	768	✓			✓		112.40
Bulk	17014395	RC UNV 10µL L 1000A/1	10 µL		1000				✓		$ 77.20
	17014396	RC UNV 10µL GL 1000A/1	10 µL		1000		✓		✓		77.20
	17014397	RC UNV 250µL L 1000A/1	250 µL		1000				✓		77.20
	17014398	RC UNV 1000µL L 1000A/1	1000 µL		1000				✓		77.20
	17015068	RC UNV 1000µL LW 1000A/1	1000 µL		1000			✓	✓		77.20

Wide-O = Wide Orifice, Low Ret = Low Retention

Specialty Tips

Unique Tips for Special Applications

LTS

Extended-length tips
For tall, narrow tube work.
BioClean Ultra.

102 mm long
Rainin extended-length LTS tips reach to the bottom of blocks, tall vials, flasks, 100 mm tubes, etc.

Narrow diameter
These tips will pass through 8 mm ID penetrable septa, such as on specimen collection kits.

LTS

UNV

Wide-orifice tips
Ideal for delicate samples.
BioClean Ultra.

For samples with mammalian cells or high-molecular-weight DNA. 1.5 mm wide orifice minimizes shear forces on delicate samples and flow resistance for viscous samples. 200 and 1000 µL.

UNV

ShaftGard™ 10 µL tips
Avoid cross-contamination.
BioClean Ultra.

Tip protects shaft, tip ejector
Shaft and tip ejector are protected from contamination, reducing the need to decontaminate or sterilize the shaft and tip ejector when working with biological, radioactive or other critical samples.

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LTS

	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: WIDE-O	FEATURES: LOW RET	FEATURES: FILTER	FEATURES: X-LENGTH	PRICE
Racked Tips	**30389251**	RT LTS 250µL X 768A/8	200 µL[2]	8	768					✓	$ 130.80
	30389252	RT LTS 250µL SX 768A/8	200 µL[2]	8	768	✓				✓	140.40
	30389242	RT LTS 200µL FX 768A/8	200 µL[2]	8	768	✓			✓	✓	219.00
	30389222	RT LTS 1000µL X 768A/8	1000 µL	8	768					✓	130.80
	30389224	RT LTS 1000µL SX 768A/8	1000 µL	8	768	✓				✓	140.40
	30389223	RT LTS 1000µL FX 768A/8	1000 µL	8	768	✓			✓	✓	219.00
	30389247	RT LTS 250µL W 960A/10	200 µL[2]	10	960		✓				$ 95.80
	30389248	RT LTS 250µL LW 960A/10	200 µL[2]	10	960		✓	✓			103.80
	30389249	RT LTS 250µL SW 960A/10	200 µL[2]	10	960	✓	✓				113.20
	30389250	RT LTS 250µL LSW 960A/10	200 µL[2]	10	960	✓	✓	✓			139.20
	30389241	RT LTS 200µL FLW 960A/10	200 µL	10	960	✓	✓	✓	✓		173.60
	30389217	RT LTS 1000µL W 768A/8	1000 µL	8	768		✓				95.80
	30389219	RT LTS 1000µL LW 768A/8	1000 µL	8	768		✓	✓			103.80
	30389220	RT LTS 1000µL SW 768A/8	1000 µL	8	768	✓	✓				113.20
	30389221	RT LTS 1000µL LSW 768A/8	1000 µL	8	768	✓	✓	✓			139.20
	30389218	RT LTS 1000µL FLW 768A/8	1000 µL	8	768	✓	✓	✓	✓		173.60

[2] Fits 50, 100 and 200 µL pipettes

UNV

	CATALOG No.	DESCRIPTION	VOL: MAX VOLUME	QTY: RACKS/CARTON	QTY: TIPS/CARTON	FEATURES: STERILIZED	FEATURES: SHAFTGARD	FEATURES: WIDE-O	FEATURES: LOW RET	FEATURES: FILTER	PRICE
Racked Tips	**30389174**	RT UNV 10µL G 960A/10	10 µL	10	960		✓				$ 79.80
	30389178	RT UNV 10µL GS 960A/10	10 µL	10	960	✓	✓				103.80
	30389175	RT UNV 10µL FG 960A/10	10 µL	10	960	✓	✓			✓	159.60
	30389195	RT UNV 250µL W 960A/10	250 µL	10	960			✓			87.60
	30389196	RT UNV 250µL LW 960A/10	250 µL	10	960			✓	✓		103.80
	30389197	RT UNV 250µL LSW 960A/10	250 µL	10	960	✓		✓	✓		139.20
	30389188	RT UNV 200µL FLW 960A/10	250 µL	10	960	✓		✓	✓	✓	173.60
Bulk	**17001127**	RC UNV 250µL W 1000A/1	250 µL		1000			✓			$ 61.40
	17015068	RC UNV 1000µL LW 1000A/1	1000 µL		1000			✓	✓		77.20
Refills	**30389283***	GPS UNV 10µL G 960A/10	10 µL	10	960		✓				$ 80.00
	30389285*	GPS UNV 10µL GS 960A/10	10 µL	10	960	✓	✓				103.80
	30389264	GP UNV 10µL FG 960A/10	10 µL	10	960	✓	✓			✓	159.60

Wide-O = Wide Orifice, Low Ret = Low Retention *Green-Pak SpaceSaver

BioClean Ultra™

The Highest Standard for Tip Purity and Performance

Rainin continuously tests and certifies its BioClean Ultra™ pipette tip products. Researchers can have absolute confidence in the integrity of their experiments and the fidelity of their data.

CERTIFICATE
OF QUALITY

Why BioClean Ultra?

This table shows the thoroughness and completeness of Rainin BioClean Ultra quality testing, compared to other major tip brands. Rainin maintains the industry's most comprehensive testing procedures.

	HUMAN DNA	BACTERIAL DNA	DNASE
BioClean Ultra™	< 0.32 pg	< 1 pg	≤ 10^{-7} KU/µL
Brand – A	"Free of"	–	10^{-5} KU/µL
Brand – B	< 0.40 fg	–	–
Brand – C	< 2 pg	< 50 fg	10^{-4} KU
Brand – D	None detected	–	None detected
Brand – E	< 1 pg	–	"Free of"
Brand – F	"Free of"	"Free of"	"Free of"
Brand – G	–	–	< 6.25 x 10^{-5} U/µL
Brand – H	< 30 pg	–	<10x^{-7} KU/µL
Brand – I	< 30 pg	–	<10^{-7} KU/µL
Brand – J	"Free of"	"Free of"	"Free of"

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Tested and Certified Purity

- The industry's most comprehensive testing procedures.
- The only tips certified to be both protein- and protease-free.
- Virgin polypropylene – completely inert, with no bioactive components.

Clean Manufacturing and Packaging

- Manufactured under Class 100,000 clean room conditions.
- Fully automated material handling – zero human contact.
- Strict conformance to ISO 9001 eliminates all external sources of contamination.

RNASE	ENDOTOXIN	PROTEIN	PROTEASE	ATP	PCR INHIBITORS
≤ 10^{-9} KU/µL	≤ 0.001 EU/mL	< 2 ng/sample	≤ 500 ng/mL	< 2 x 10^{-12} mg/µL	None detected
10^{-9} KU/µL	≤ 0.05 EU/mL	–	–	–	–
< 8.6 fg	< 1 pg	–	–	< 1 fg	–
10^{-9} KU	< 0.001 EU/mL	<1ng/µL	–	< 5.5 x 10^{-12} mg	< 10 targets amplifiable
None detected	< 0.06 EU/mL	–	–	–	None detected
"Free of"	< 0.05 EU/mL	–	"Free of"	"ATP-free"	–
"Free of"	"Free of"	–	"Free of"	"ATP-free"	"Free of"
< 3.125 x 10^{-9} U/µL	< 0.03 EU/mL	–	–	–	–
< 10^{-9} KU/µL	< 0.06 EU/mL	–	–	–	–
< 10^{-9} KU/µL	≤ 0.06 EU/mL	–	–	< 10^{-13} mg/µL	None detected
"Free of"	"Free of"	–	–	–	–

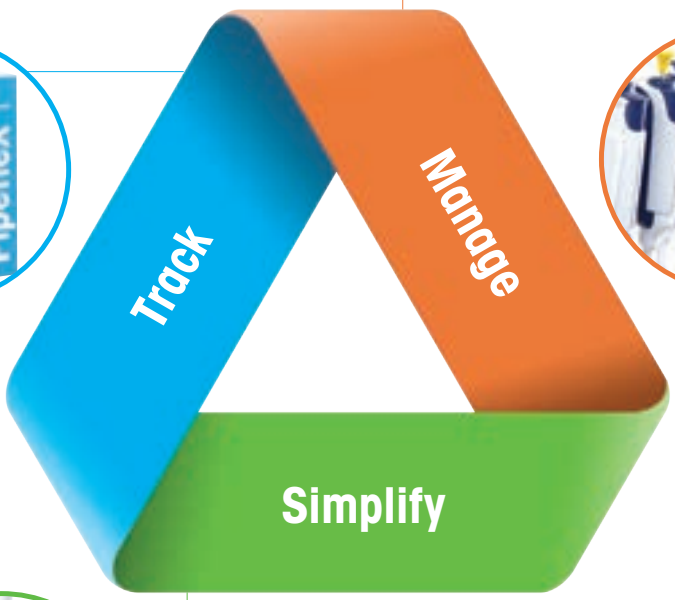
KU Kunitz Units **EU** Endotoxin Units **ng** nanogram (Factor: 10^{-9}) **pg** picogram (Factor: 10^{-12}) **fg** femtogram (Factor: 10^{-15})
"Non detected", "Free of" and **"... Free"** designations apparently indicate no observed contamination. No specifications or test methodology provided.
"–" no data available.

Flexible, Integrated and Easy to Implement

Pipette Management Simplified

- Assign locations, users and groups.
- Search and filter custom reports and schedules.
- Know everything about your pipettes.

- See all calibration data.
- Schedule calibrations.
- All critical pipette data located in one single database.



- The Bluetooth® wireless technology-enabled SmartStand electronically transmits pipette serial numbers, calibration and other relevant data to PipetteX.
- Rainin calibration certificates are electronically transmitted and linked to your pipette.
- Eliminate time-consuming reading of serial numbers, barcodes or stickers.

	CATALOG No.	DESCRIPTION	PRICE
PipetteX Software	**30475913**	PipetteX - Site	$ 1,670.00
	30475915	PipetteX - Unlimited	6,260.00
	30478260	PipetteX - Site, Renewal	1,670.00
	30478262	PipetteX - Unlimited, Renewal	6,260.00

Rainin SmartStand

The Intelligent Pipette Stand

By reading the RFID chip that's in every Rainin XLS and XLS+ pipette, SmartStand instantly displays the compliance status for up to four pipettes – manual or electronic. Pick up a pipette and SmartStand's color LCD screen switches to a detailed view of that pipette's service and calibration status. Works seamlessly with PipetteX!

	CATALOG No.	DESCRIPTION	PRICE
Pipette Stands	**30312897**	SmartStand stand with PipetteX basic software	$ 853.00
	17001255	Universal Carousel Stand for seven pipettes	170.20
	17003024	Hang-Ups, magnetic, for three pipettes	92.60
	17004992	Shelf Hang-Ups for three pipettes	92.60
	17006638	Adapters for E4XLS with Hang-Ups, carousel	46.20

Check out our **Starter Kits with SmartStand** on page 15!

Rainin SmartCheck

Verify the Accuracy of Any Pipette

Reduce experimental errors, between-calibration compliance failures and improve pipetting technique.

Trust your pipettes! SmartCheck is a quick and easy way to verify that your pipettes are working properly. It takes very little space on the benchtop so you can use it every day.

Avoid expensive rework

Reduce out-of-tolerance challenges such as having to re-do expensive experiments or incur costly downstream process waste.

60 seconds or less!

Pipette verification in less than a minute: SmartCheck provides a clear Pass/Fail indication following a simple process with just four gravimetric measurements.

Verify any brand of pipette

Verify the performance of any brand of pipette dispensing volumes between 10 – 1000 µL. You can verify individual channels of multichannel pipettes too.

Ideal for regulated environments

SmartCheck is the only verification tool that can operate within a 21 CFR Part 11 compliant process (requires PipetteX software).

	CATALOG No.	DESCRIPTION	PRICE
SmartCheck	**30564095**	SmartCheck SLS1010S	$ 1,625.00
	30448961	Function Test Kit	531.00
	30448967	EasyScan RFID LAN set	1,505.00

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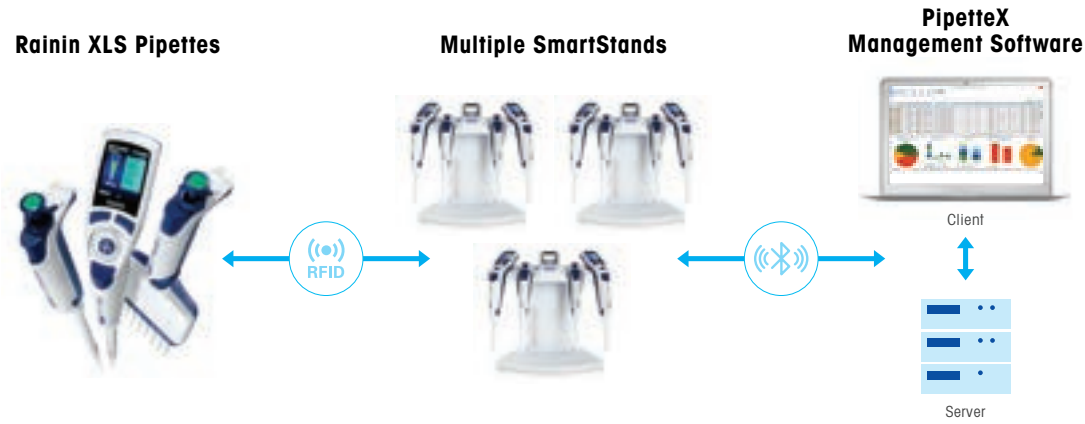
Rainin PipetteX

Software to Simplify Pipette Management

PipetteX™ uses the RFID tag embedded in every Rainin XLS pipette to automatically track and manage calibration data, pipette usage and location. Our simple software solution integrates with SmartStand, SmartCheck and Rainin Service to create a powerful, easy-to-use pipette tracking and calibration management system.

- Automatic transfer of calibration documentation from service center to software
- Controls all elements of calibration tracking and movement
- 21 CFR Part 11 compliant management system
- Integrated in-line pipette validations
- Manage all brands of pipettes



A simple, unified system for tracking and managing pipettes (all manufacturers)

Place any Rainin XLS-brand pipette on a SmartStand to instantly see the pipette's calibration status and service details right at the bench. PipetteX connects to SmartStand via Bluetooth or USB to automatically transfer serial numbers, service and other data to the PipetteX database.

PipetteX maintains a complete history of your entire pipette inventory including calibration certificates and verification reports. This makes it easy to track the status, location, calibration and service schedule for any pipette.

That's pipette management...simplified!

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Rainin MicroPro

Portable 96-Channel Pipetting

New!
1250 µL model

- Small footprint; light in weight
- 20, 300 and 1250 µL models
- Easy to use
- Affordable

Streamline your 96-, 384-, and deep-well microplate work!

For more information on the new MicroPro, see page 24.

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