



Ergonomic Pipettes
LTS LiteTouch System
High-Throughput Systems
BioClean Ultra Tips
Pipette Management
Good Pipetting Practice
Global Service Network



Pipettes, Tips and Service Quality Products for Superior Performance

Products for the Life Sciences

NEW



MicroPro 20 and 300

Feature-packed 96-channel electronic pipettor that's both portable and highly affordable | **See page 20**

NanoRep Repeater **NEW**

Avoid contact contamination with No Touch Off™ dispense. 100 nL to 50 mL | **See page 28**

NEW PRODUCTS

Improve Your Workflows with Speed and Ease!



SP and SP+ Pipette Controllers **NEW**

For use with Rainin serological pipettes
1 mL to 100 mL | **See page 30**

Pipettes

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Why Rainin?

Quality, Performance and Purity!

Professional labs around the world rely on Rainin for their liquid-handling protocols.

Whether your goal is to be first to market or first to publish, the accuracy, precision and ergonomics of your equipment can hugely help – or hinder – your success. Choose Rainin!



Quality

From rugged construction and innovative features to exceptional comfort and ergonomic design, Rainin quality is recognized worldwide.

Performance

Rainin pipettes are renowned for precision and accuracy. Rainin multichannels offer industry-leading channel-to-channel consistency.

Purity

BioClean Ultra is the industry's most comprehensive standard for tip purity. We test every lot and guarantee every tip for purity and performance.

- ▶ There's a reason Rainin multichannel pipettes outperform all other multichannels worldwide – exceptional comfort and handling, and industry leading channel-to-channel consistency.



Innovation

For more than 40 years, Rainin has been advancing the art of liquid handling.



Pipettes

Rainin pipettes offer exceptional performance, comfort and durability.

LTS

Tips

The Rainin LiteTouch System dramatically reduces the amount of force required to load and eject tips.



Service

We offer a global network of factory-trained technicians.

GPP

Good Pipetting Practice

Free assessment tools and onsite training to build your team's pipetting skills.



Pipette Management

Our PipetteX pipette management software puts robust pipette tracking and SOP compliance at your fingertips.



Mettler Toledo

METTLER TOLEDO is the global leader in precision instruments across many industries.

Ultra

BioClean Ultra

From pure virgin polypropylene and precision engineering to meticulously-clean manufacturing, Rainin tips deliver outstanding quality and performance.

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  and universal  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.



CATALOG No. VOLUME RANGE

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

Universal pipettes use universal tips. For pipette specifications, see page 18.

Advanced asset management

The RFID tag on board every Rainin XLS+ pipette stores calibration data that is electronically read by the Rainin Smart-Stand and PipetteX software. See page 58 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

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

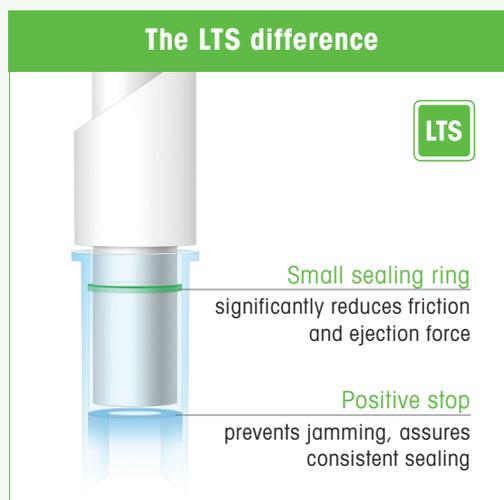
LTS pipettes use LTS tips.
For pipette specifications, see page 18.

The LTS LiteTouch System

Because Pipetting Shouldn't Hurt

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, air-tight 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 assures an airtight seal.

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  and universal  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 61.

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 offer 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 to 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.

LTS

CATALOG No. VOLUME RANGE

| | | |
|----------------|-----------------|-------------|
| E4 XLS+ | 17014484 | 0.5–10 µL |
| | 17014487 | 2–20 µL |
| | 17014483 | 10–100 µL |
| | 17014486 | 20–200 µL |
| | 17014488 | 20–300 µL |
| | 17014482 | 100–1000 µL |
| | 17014485 | 200–2000 µL |
| | 17012312 | 500–5000 µL |
| | 17012313 | 1–10 mL |
| | 17012314 | 2–20 mL |

LTS pipettes use LTS tips. Li-Ion battery and wall power supply are included. For more information about LTS, see page 7. For pipette specifications, see page 18.

UNV

CATALOG No. VOLUME RANGE

| | | |
|----------------|-----------------|-------------|
| E4 XLS+ | 17014491 | 0.5–10 µL |
| | 17014494 | 2–20 µL |
| | 17014490 | 10–100 µL |
| | 17014493 | 20–200 µL |
| | 17014495 | 20–300 µL |
| | 17014489 | 100–1000 µL |
| | 17014492 | 200–2000 µL |
| | 17012353 | 500–5000 µL |
| | 17012354 | 1–10 mL |

Universal pipettes use universal tips. Li-Ion battery and wall power supply are included. For pipette specifications, see page 18.

Rainin XLS+ Multichannels

Performance You Can Feel!

8 or 12 channels; volumes from 0.5–1200 μL .

Available only in 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

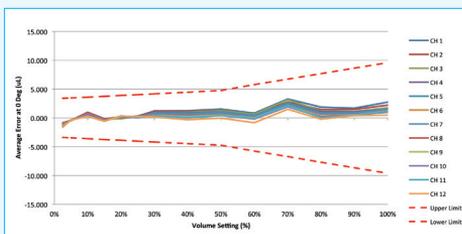
CATALOG No. VOLUME RANGE

| E4 XLS+ Electronic Multichannel | |
|---------------------------------|------------------------|
| 8-Channel | |
| 17013792 | 0.5–10 μL |
| 17013793 | 2–20 μL |
| 17013794 | 5–50 μL |
| 17013795 | 20–200 μL |
| 17013796 | 20–300 μL |
| 17014498 | 100–1200 μL |
| 12-Channel | |
| 17013797 | 0.5–10 μL |
| 17013798 | 2–20 μL |
| 17013799 | 5–50 μL |
| 17013800 | 20–200 μL |
| 17013801 | 20–300 μL |
| 17014499 | 100–1200 μL |

LTS pipettes use LTS tips. Li-Ion battery and wall power supply are included. For more information about LTS, see page 7. For pipette specifications, see page 19.

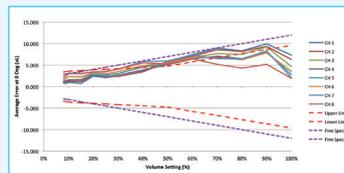
Industry-leading Channel-to-Channel Consistency

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

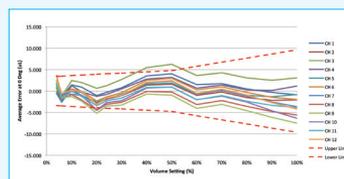


Rainin XLS+ 1200 µL

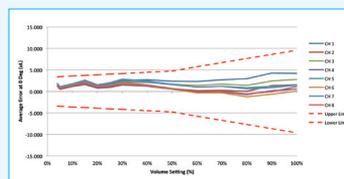
VS.



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

CATALOG No.

VOLUME RANGE

| Pipet-Lite XLS+ Manual Multichannel | 8-Channel | |
|-------------------------------------|------------|-------------|
| | 17013802 | 0.5–10 µL |
| | 17013803 | 2–20 µL |
| | 17013804 | 5–50 µL |
| | 17013805 | 20–200 µL |
| | 17013806 | 20–300 µL |
| | 17014496 | 100–1200 µL |
| | 12-Channel | |
| | 17013807 | 0.5–10 µL |
| | 17013808 | 2–20 µL |
| | 17013809 | 5–50 µL |
| | 17013810 | 20–200 µL |
| | 17013811 | 20–300 µL |
| | 17014497 | 100–1200 µL |

LTS pipettes use LTS tips.
For more information about LTS, see page 7.
For pipette specifications, see page 19.

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. 

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

| Pipet-Lite XLS Adjustable | 6-Channel | |
|---------------------------|-----------|-------------|
| | 17011841 | 20–300 µL |
| | 17011840 | 100–1200 µL |
| | 8-Channel | |
| | 17011844 | 5–50 µL |
| | 17011843 | 20–300 µL |
| | 17011842 | 100–1200 µL |

LTS pipettes use LTS tips.

For more information about LTS, see page 7.

For pipette specifications, see page 19.

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

| E4 XLS Adjustable | | |
|-------------------|--|-------------|
| 6-Channel | | |
| 17012327 | | 20–300 µL |
| 17012328 | | 100–1200 µL |
| 8-Channel | | |
| 17012329 | | 5–50 µL |
| 17012330 | | 20–300 µL |
| 17012331 | | 100–1200 µL |

LTS pipettes use LTS tips. Li-Ion battery and wall power supply are included. For more information about LTS, see page 7. For pipette specifications, see page 19.

Rainin Classic

Timeless Design, Exceptional Performance

An economical pipette with advanced ergonomic features not found on other pipettes in its class. Available in universal  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 quality PVDF materials assure 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



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

Universal pipettes use universal tips.
For pipette specifications, see page 18.

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 | QTY | | | |
|--------------------------------|-----------------|--------------|-------------|------------|---|
| | VOLUME RANGE | RACKS/CARTON | TIPS/CARTON | STERILIZED | |
| Pos-D Pipettes | 17008575 | 0.5–10 µL | | | |
| | 17008576 | 3–25 µL | | | |
| | 17008577 | 20–50 µL | | | |
| | 17008578 | 10–100 µL | | | |
| | 17008579 | 50–250 µL | | | |
| | 17008580 | 100–1000 µL | | | |
| Capillaries and Pistons | 17008604 | 10 µL | 3 | 180 | ✓ |
| | 17008605 | 25 µL | 3 | 180 | ✓ |
| | 17008606 | 50 µL | 3 | 180 | ✓ |
| | 17008607 | 100 µL | 3 | 180 | ✓ |
| | 17008608 | 250 µL | 3 | 180 | ✓ |
| | 17008609 | 1000 µL | 3 | 180 | ✓ |
| | 17012264 | 10 µL | 3 | 180 | |
| | 17012265 | 25 µL | 3 | 180 | |
| | 17012266 | 50 µL | 3 | 180 | |
| | 17012267 | 100 µL | 3 | 180 | |
| | 17012268 | 250 µL | 3 | 180 | |
| | 17012135 | 1000 µL | 3 | 180 | |

Pipette Starter Kits

Multiple Ways to Buy New Rainin XLS+ Pipettes!

Available with SmartStand or Hang-Ups™

Starter Kits with SmartStand include PipetteX software for easy pipette management (see page 60):

- Manage calibration and service for all of your pipettes
- View pipette calibration status right at your bench
- Quick charge your E4 XLS+ electronic pipettes
- Available for LTS  and universal 

| | | Single Channel Manual | | | | | | Multichannel Manual | | | | Single Channel Electronic | | | | |
|------------|-------------|-----------------------|-------|-------|--------|---------|---------|---------------------|------------------|------------------|-------------------|---------------------------|--------|---------|------------------------------------|----------|
| | | 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 |
| LTS | CATALOG No. | | | | | | | | | | | | | | | |
| | 30386738 | ✓ | ✓ | ✓ | ✓ | | | | | | | | | ✓ | | |
| | 30579469 | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | | ✓ |
| | 30386597 | ✓ | | ✓ | ✓ | ✓ | | | | | | | | ✓ | | |
| | 30579367 | ✓ | | ✓ | ✓ | ✓ | | | | | | | | | | ✓ |
| | 30386599 | | | ✓ | ✓ | ✓ | | | | | | | | ✓ | | |
| | 30386737 | | | | ✓ | ✓ | ✓ | | | | | | | ✓ | | |
| | 30386734 | | | ✓ | ✓ | ✓ | | ✓ | | | | | | ✓ | | |
| | 30386733 | | | ✓ | ✓ | ✓ | | | ✓ | | | | | ✓ | | |
| | 30386736 | | | ✓ | ✓ | ✓ | | | | ✓ | | | | ✓ | | |
| | 30386735 | | | ✓ | ✓ | ✓ | | | | | ✓ | | | ✓ | | |
| | 30386739 | | | | | | | ✓ | ✓ | | | | | ✓ | | |
| | 30456871 | | | ✓ | ✓ | ✓ | | | | | | | | | | ✓ |
| | 30579472 | | | | | | | ✓ | ✓ | | | | | | | ✓ |
| | 30386740 | | | | | | | | | ✓ | ✓ | | | ✓ | | |
| 30579471 | | | | | | | | | ✓ | ✓ | | | ✓ | | ✓ | |
| 30386731 | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | | |
| UNV | 30386598 | ✓ | | ✓ | ✓ | ✓ | | | | | | | | ✓ | | |
| | 30386730 | | | ✓ | ✓ | ✓ | | | | | | | | ✓ | | |
| | 30456872 | | | ✓ | ✓ | ✓ | | | | | | | | | | ✓ |
| | 30386732 | | | | | | | | | | ✓ | ✓ | ✓ | ✓ | | |
| | 17008708* | | | ✓ | ✓ | ✓ | | | | | | | | | | ✓ |

* Rainin Classic



SmartStand + PipetteX software = Easy Pipette Management



OR



Pipette Performance Specifications

Specifications at 10%, 50% and 100% volume

All Rainin single-channel models, including:

Manual pipettes

- Pipet-Life XLS/ XLS+
- Rainin Classic

Electronic pipettes

- E4 XLS/ XLS+



| PIPETTE VOLUME | VOL | | INCREMENT μL | | SYSTEMATIC ERROR | | RANDOM ERROR | |
|--------------------------------------|--------------------|--------|-------------------------|------|-------------------------|------|--------------------------|--|
| | VOLUME | MANUAL | ELECTRONIC | % | (\pm) μL | % | (\leq) μL | |
| 2 μL | 0.2 μL | 0.002 | n/a | 12.0 | 0.024 | 6.0 | 0.012 | |
| | 1 μL | | | 2.7 | 0.027 | 1.3 | 0.013 | |
| | 2 μL | | | 1.5 | 0.030 | 0.7 | 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 | 0.6 | 0.03 | |
| | 10.0 μL | | | 1.0 | 0.1 | 0.4 | 0.04 | |
| 20 μL | 2 μL | 0.02 | 0.02 | 7.5 | 0.15 | 2.0 | 0.04 | |
| | 10 μL | | | 1.5 | 0.15 | 0.5 | 0.05 | |
| | 20 μL | | | 1.0 | 0.2 | 0.3 | 0.06 | |
| 100 μL | 10 μL | 0.2 | 0.1 | 3.5 | 0.35 | 1.0 | 0.1 | |
| | 50 μL | | | 0.8 | 0.4 | 0.24 | 0.12 | |
| | 100 μL | | | 0.8 | 0.8 | 0.15 | 0.15 | |
| 200 μL | 20 μL | 0.2 | 0.2 | 2.5 | 0.5 | 1.0 | 0.2 | |
| | 100 μL | | | 0.8 | 0.8 | 0.25 | 0.25 | |
| | 200 μL | | | 0.8 | 1.6 | 0.15 | 0.3 | |
| 300 μL | 30 μL | 0.5 | 0.2 | 2.5 | 0.75 | 1.0 | 0.3 | |
| | 150 μL | | | 0.8 | 1.2 | 0.25 | 0.375 | |
| | 300 μL | | | 0.8 | 2.4 | 0.15 | 0.45 | |
| 1000 μL | 100 μL | 2 | 1 | 3.0 | 3.0 | 0.6 | 0.6 | |
| | 500 μL | | | 0.8 | 4.0 | 0.2 | 1.0 | |
| | 1000 μL | | | 0.8 | 8.0 | 0.15 | 1.5 | |
| 2000 μL | 200 μL | 2 | 2 | 3.0 | 6.0 | 0.6 | 1.2 | |
| | 1000 μL | | | 0.8 | 8.0 | 0.2 | 2.0 | |
| | 2000 μL | | | 0.8 | 16.0 | 0.12 | 2.4 | |
| 5000 μL | 500 μL | 5 | 5 | 2.4 | 12.0 | 0.6 | 3.0 | |
| | 2500 μL | | | 0.6 | 15.0 | 0.2 | 5.0 | |
| | 5000 μL | | | 0.6 | 30.0 | 0.16 | 8.0 | |
| 10 mL | 1 mL | 20 | 10 | 5.0 | 50.0 | 0.6 | 6.0 | |
| | 5 mL | | | 1.0 | 50.0 | 0.2 | 10.0 | |
| | 10 mL | | | 0.6 | 60.0 | 0.16 | 16.0 | |
| 20 mL | 2 mL | 20 | 20 | 5.0 | 100.0 | 0.6 | 12.0 | |
| | 10 mL | | | 1.0 | 100.0 | 0.2 | 20.0 | |
| | 20 mL | | | 0.6 | 120.0 | 0.16 | 32.0 | |

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 | % | (\pm) μL | % | (\leq) μL | % | (\leq) μL | % | (\leq) μL |
| | | | | | | | | | | |
| 10 μL | 1.0 μL | 0.02/0.01 | 4 | 0.04 | 5 | 0.05 | 3 | 0.03 | | |
| | 5.0 μL | | 1.5 | 0.075 | 1.5 | 0.075 | 0.8 | 0.04 | | |
| | 10.0 μL | | 1 | 0.1 | 0.5 | 0.05 | 0.5 | 0.05 | | |
| 20 μL | 2 μL | 0.02 | 7.5 | 0.15 | 4 | 0.08 | 3 | 0.06 | | |
| | 10 μL | | 1.5 | 0.15 | 1.5 | 0.15 | 1 | 0.1 | | |
| | 20 μL | | 1 | 0.2 | 0.5 | 0.1 | 0.3 | 0.06 | | |
| 50 μL | 5 μL | 0.05 | 3.5 | 0.18 | 2 | 0.1 | 1.5 | 0.075 | | |
| | 25 μL | | 1.2 | 0.3 | 0.5 | 0.125 | 0.4 | 0.1 | | |
| | 50 μL | | 0.8 | 0.4 | 0.4 | 0.2 | 0.3 | 0.15 | | |
| 200 μL | 20 μL | 0.2 | 2.5 | 0.5 | 1.2 | 0.24 | 1 | 0.2 | | |
| | 100 μL | | 0.8 | 0.8 | 0.25 | 0.25 | 0.25 | 0.25 | | |
| | 200 μL | | 0.8 | 1.6 | 0.3 | 0.6 | 0.2 | 0.4 | | |
| 300 μL | 30 μL | 0.5/0.2 | 2.5 | 0.75 | 1.5 | 0.45 | 1 | 0.3 | | |
| | 150 μL | | 0.8 | 1.2 | 0.3 | 0.45 | 0.25 | 0.375 | | |
| | 300 μL | | 0.8 | 2.4 | 0.25 | 0.75 | 0.2 | 0.6 | | |
| 1200 μL | 100 μL | 2/ 1 | 3.6 | 3.6 | 1 | 1 | 0.6 | 0.6 | | |
| | 600 μL | | 0.8 | 4.8 | 0.3 | 1.8 | 0.2 | 1.2 | | |
| | 1200 μL | | 0.8 | 9.6 | 0.2 | 2.4 | 0.15 | 1.8 | | |

Specifications subject to change without notice.



Rainin MicroPro

Affordable, Portable 96-Channel Pipetting

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 μ L and 300 μ L models
- Weighs just over 11 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.



| | MICROPRO-20 | MICROPRO-300 | |
|-----------------------------------|--|---|---|
| Performance Specifications | Systematic Error (per channel) | 20 μL : \pm 1.0% (0.20 μL) 10 μL : \pm 1.5% (0.15 μL) 2 μL : \pm 5.0% (0.10 μL) | 300 μL : \pm 1.0% (3.0 μL) 150 μL : \pm 1.5% (2.25 μL) 30 μL : \pm 1.5% (0.45 μL) 15 μL : \pm 2.0% (0.30 μL) |
| | Random Error (per channel) | 20 μL : \leq 0.5% (0.10 μL) 10 μL : \leq 1.0% (0.10 μL) 2 μL : \leq 3.0% (0.06 μL) | 300 μL : \leq 1.0% (3.0 μL) 150 μL : \leq 1.0% (1.50 μL) 30 μL : \leq 1.0% (0.30 μL) 15 μL : \leq 2.0% (0.30 μL) |
| | Volume Range | 2 – 20 μL | 5 – 300 μL |

MicroPro

| | CATALOG No. | MAX VOL | DESCRIPTION |
|-----------------|-----------------|-------------------|---|
| MicroPro | 30852641 | 20 μL | 0.5-20 μL MicroPro 20 – Global |
| | 30852640 | 300 μL | 5-300 μL MicroPro 300 – Global |
| | 30835030 | | Two-Tray Dual Nest, MPR 96/96 |

MicroPro Tips in Racks



| CATALOG No. | DESCRIPTION | VOL | | QTY | | FEATURES | | |
|-----------------|----------------------------------|-------------------|--------------|-------------|------------|----------|---------|--|
| | | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | FILTER | LOW RET | |
| 63305398 | MPR 20 μL LS 4800/50 | 20 μL | 50 | 4800 | ✓ | | ✓ | |
| 63305397 | MPR 20 μL LF 4800/50 | 20 μL | 50 | 4800 | ✓ | ✓ | ✓ | |
| 63305400 | MPR 300 μL LS 4800/50 | 300 μL | 50 | 4800 | ✓ | | ✓ | |
| 63305399 | MPR 300 μL LF 4800/50 | 300 μL | 50 | 4800 | ✓ | ✓ | ✓ | |

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.

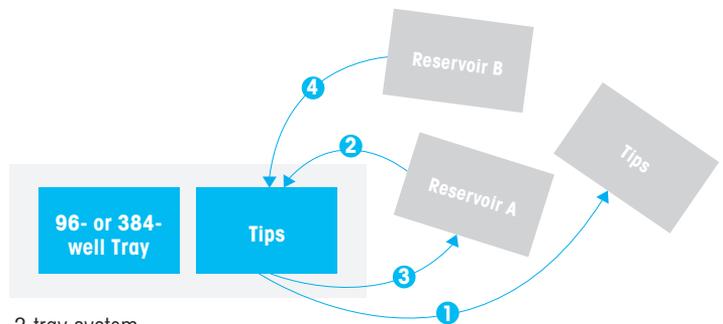


Speed your workflow

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

| | HEAD SIZE | LOW VOLUME 0.5-20 μL | MID VOLUME 5-200 μL | HIGH VOLUME 100-1000 μL |
|-----------------------------------|--|---|--|--|
| Performance Specifications | Systematic Error (per channel) | 20 μL : \pm 1% (0.2 μL) 10 μL : \pm 1.2% (0.12 μL) 2 μL : \pm 6% (0.12 μL) 1 μL : \pm 12% (0.12 μL) | 200 μL : \pm 1% (2 μL) 100 μL : \pm 1% (1 μL) 20 μL : \pm 2% (0.4 μL) 5 μL : \pm 5% (0.25 μL) | 1000 μL : \pm 1% (10 μL) 500 μL : \pm 1% (5 μL) 100 μL : \pm 2.5% (2.5 μL) |
| | Random Error (per channel) | 20 μL : \leq 0.8% (0.16 μL) 10 μL : \leq 1.0% (0.1 μL) 2 μL : \leq 5% (0.1 μL) 1 μL : \leq 10% (0.12 μL) | 200 μL : \leq 0.4% (0.8 μL) 100 μL : \leq 0.8% (0.8 μL) 20 μL : \leq 1.5% (0.3 μL) 5 μL : \leq 3.5% (0.18 μL) | 1000 μL : \leq 0.4% (4 μL) 500 μL : \leq 0.4% (2 μL) 100 μL : \leq 1.25% (1.25 μL) |
| | Volume Increments | 0.02 μL | 0.2 μL | 1 μL |

BenchSmart 96

Simplicity for Superior Performance

So intuitive, anyone in the lab can use it!

BenchSmart's wide range of application modes – from basic pipetting to advanced features like multi-dispense – make setup a snap.



BenchSmart's Application Modes Simplify Operation



Basic pipetting

Transfer individual liquid samples quickly, reproducibly and with minimal effort – everything you need for routine, everyday pipetting.



Advanced pipetting

Take greater control of your workflow by making fine adjustments – with advanced features like setting a fixed volume, volume sequencing and mixing.



Multi-dispense

Dispense multiple aliquots from a single aspirated volume – set a series of fixed volume aliquots or sequence of different volumes.



Dilute

Simplify in-tip dilution of multiple sample volumes with BenchSmart's fixed or volume sequencing features.



Reverse pipetting

Automates a procedure commonly used with viscous liquids – positioning the piston past the first stop, aspirating, then depressing only to the first stop to dispense the aliquot.

BenchSmart 96

| LTS | | CATALOG No. | MAX VOL | DESCRIPTION |
|---------------|----------|-------------|---|-------------|
| BenchSmart 96 | 30296705 | 20 µL | 0.5-20 µL BenchSmart 96, complete | |
| | 30296706 | 200 µL | 5-200 µL BenchSmart 96, complete | |
| | 30296707 | 1000 µL | 100-1000 µL BenchSmart 96, complete | |
| | 30296708 | 20 µL | Pipetting head 0.5-20 µL, BenchSmart 96 | |
| | 30296709 | 200 µL | Pipetting head 5-200 µL, BenchSmart 96 | |
| | 30296780 | 1000 µL | Pipetting head 100-1000 µL, BenchSmart 96 | |
| Accs. | 17010394 | – | 384-well adapter plate stage, white | |
| | 17010791 | – | 384-well adapter plate stage, black | |
| | 30321288 | – | Terminal Conversion Kit | |

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 | | QTY | | FEATURES | | |
|----------------|--------------------------|--------------------------|------------|-----|--------------|-------------|------------|--------|---------|
| | | | MAX VOLUME | | RACKS/CARTON | TIPS/CARTON | STERILIZED | FILTER | LOW RET |
| Tips in Racks | 17011185 | LQR LTS 20µL 960/10 | 20 µL | 10 | 960 | | | | |
| | 17011186 | LQR LTS 20µL S 960/10 | 20 µL | 10 | 960 | ✓ | | | |
| | 17011117 | LQR LTS 20µL F 960/10 | 20 µL | 10 | 960 | ✓ | ✓ | | |
| | 17010645 | LQR LTS 200µL 960/10 | 200 µL | 10 | 960 | | | | |
| | 17010647 | LQR LTS 200µL S 960/10 | 200 µL | 10 | 960 | ✓ | | | |
| | 17010646 | LQR LTS 200µL F 960/10 | 200 µL | 10 | 960 | ✓ | ✓ | | |
| | 30281704 | LQR LTS 1000µL 960/10 | 1000 µL | 10 | 960 | | | | |
| | 30296781 | LQR LTS 1000µL S 960/10 | 1000 µL | 10 | 960 | ✓ | | | |
| | 30296782 | LQR LTS 1000µL F 960/10 | 1000 µL | 10 | 960 | ✓ | ✓ | | |
| | 17014399 | LQR LTS 20µL LS 960/10 | 20 µL | 10 | 960 | ✓ | | | ✓ |
| | 17014400 | LQR LTS 20µL FL 960/10 | 20 µL | 10 | 960 | ✓ | ✓ | ✓ | |
| | 17014401 | LQR LTS 200µL LS 960/10 | 200 µL | 10 | 960 | ✓ | | | ✓ |
| | 17014402 | LQR LTS 200µL FL 960/10 | 200 µL | 10 | 960 | ✓ | ✓ | ✓ | |
| | 30296783 | LQR LTS 1000µL LS 960/10 | 1000 µL | 10 | 960 | ✓ | | | ✓ |
| 30296784 | LQR LTS 1000µL FL 960/10 | 1000 µL | 10 | 960 | ✓ | ✓ | ✓ | | |
| Tips in Stacks | 17011187 | LQS LTS 20µL 960/10 | 20 µL | 10 | 960 | | | | |
| | 17011287 | LQS LTS 20µL S 960/10 | 20 µL | 10 | 960 | ✓ | | | |
| | 17010648 | LQS LTS 200µL 960/10 | 200 µL | 10 | 960 | | | | |
| | 17010649 | LQS LTS 200µL S 960/10 | 200 µL | 10 | 960 | ✓ | | | |
| | 17014403 | LQS LTS 20µL LS 960/10 | 20 µL | 10 | 960 | ✓ | | | ✓ |
| | 17014404 | LQS LTS 200µL LS 960/10 | 200 µL | 10 | 960 | ✓ | | | ✓ |

Please visit mt.com for a complete offering of reservoirs, plates, mats and strips.

Rainin Liquidator 96

Manual High-Throughput Pipetting

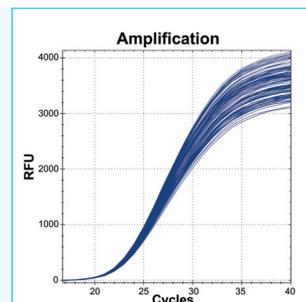
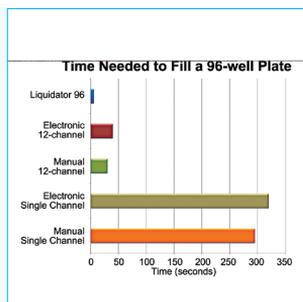
Fully manual processing of 96- and 384-well plates for genomics, proteomics and cell-based assays.

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

Liquidator™ 96 streamlines application workflows for genomics, proteomics and cellular applications, simplifies plate replication, performs serial dilutions, 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.





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.

Accurate and reproducible

Both 20 μL and 200 μL Liquidator models offer superior accuracy and precision.

Liquidator 96 specifications

| | SYSTEMATIC ERROR | RANDOM ERROR |
|-------------------|------------------------------------|--------------------------------------|
| 20 μL | 20 μL : $\pm 1.0\%$ | 20 μL : $\leq 0.8\%$ |
| | 10 μL : $\pm 1.2\%$ | 10 μL : $\leq 1.0\%$ |
| | 2 μL : $\pm 6\%$ | 2 μL : $\leq 5\%$ |
| | 1 μL : $\pm 12\%$ | 1 μL : $\leq 10\%$ |
| | Volume range: 0.5-20 μL | Volume increment: 0.02 μL |
| 200 μL | 200 μL : $\pm 1.0\%$ | 200 μL : $\leq 0.5\%$ |
| | 100 μL : $\pm 1.0\%$ | 100 μL : $\leq 0.8\%$ |
| | 20 μL : $\pm 2.0\%$ | 20 μL : $\leq 1.5\%$ |
| | 5 μL : $\pm 5.0\%$ | 5 μL : $\leq 3.5\%$ |
| | Volume range: 5-200 μL | Volume increment: 0.2 μL |

Liquidator 96

LTS

| CATALOG No. | DESCRIPTION |
|------------------------|--|
| LIQ 96 17014207 | 0.5-20 μL Benchtop Pipetting System |
| LIQ 96 17010335 | 5-200 μL Benchtop Pipetting System |

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 Accessories | DESCRIPTION |
|--------------------|--|
| 17014270 | Height adjustment posts, 0.5-20 μL Liquidator |
| 17010396 | Height adjustment posts, 5-200 μL Liquidator |
| 17010394 | 384-well adapter plate stage, white |
| 17010791 | 384-well adapter plate stage, black |
| 17011118 | 20 μL tip tray adapter, white |

See page 23 for High-throughput LTS tips.

Rainin NanoRep

Electronic Repeater Pipette



Automatically dispense of 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



Conserve samples, reagents and syringe tips with up to 1,000 aliquots per tip: 100 µL (shown), 10 mL, 50 mL

Avoid contact contamination with No Touch Off™ dispense – down to 100-nanoliter aliquots



CATALOG No. DESCRIPTION

| | CATALOG No. | DESCRIPTION |
|----------------|-----------------|---|
| NanoRep | 30568171 | Electronic NanoRep repeater pipette (includes: charging cable, Hang-Up and 10 mL syringe tip) |
| | 17012878 | Wall Power Supply |
| | 30584027 | Hang-Ups (for pipettes with fingerhook) |
| | 30575784 | NanoRep stand |

Product availability varies by region.



NanoRep syringe tips | Specifications

| Tip Volume mL | Systematic Error | | |
|------------------|--------------------------|--------------------------|---------------------------|
| | 10% | 50% | 100% |
| 0.1 | 10 μ L \pm 1.6% | 50 μ L \pm 0.9% | 100 μ L \pm 0.9% |
| 10 | 1 mL \pm 0.4% | 5 mL \pm 0.4% | 10 mL \pm 0.3% |
| 50 | 5 mL \pm 0.25% | 25 mL \pm 0.25% | 50 mL \pm 0.25% |

| Tip Volume mL | Random Error | | |
|------------------|---------------------------|---------------------------|----------------------------|
| | 10% | 50% | 100% |
| 0.1 | 10 μ L \leq 2.5% | 50 μ L \leq 0.8% | 100 μ L \leq 0.5% |
| 10 | 1 mL \leq 0.35% | 5 mL \leq 0.2% | 10 mL \leq 0.15% |
| 50 | 5 mL \leq 0.45% | 25 mL \leq 0.2% | 50 mL \leq 0.1% |

| Tip Volume mL | Min. Aliquot* μ L | Min. Incr.** μ L |
|------------------|--------------------------|-------------------------|
| 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 | |
|----------------------|-----------------|-------------|-------------|---------|
| NanoRep Syringe Tips | 30575705 | 0.1 mL | 100 per pkg | |
| | 30575777 | 0.1 mL | 25 per pkg | Sterile |
| | 30575707 | 10 mL | 100 per pkg | |
| | 30575779 | 10 mL | 25 per pkg | Sterile |
| | 30575789 | 50 mL | 25 per pkg | |
| | 30575781 | 50 mL | 25 per pkg | Sterile |

Rainin SP and SP+ Pipette Controllers

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 (SP+)

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 |
|-----|-------------|--|
| SP+ | 30671415 | Rainin SP+ pipette controller, 0.1–100 mL |
| SP | 30671413 | Rainin SP pipette controller, 0.1–100 mL (China) |
| | 30671414 | Rainin SP pipette controller, 0.1–100 mL |

Model availability varies by region.

[▶ mt.com/Rainin-SPplus](https://www.mt.com/Rainin-SPplus)

Specific Applications

- Cell culture
- Bacteria and yeast culture
- Sample prep (DNA/RNA/protein extraction)

Environment

- On the bench
- In the biosafety – and chemical-hood

Liquid Transfer

- Buffer
- Chemicals
- Media



CATALOG No. DESCRIPTION

| Accs. | CATALOG No. | DESCRIPTION |
|-------|-----------------|-------------------------|
| | 30621244 | Filter, non-sterilized |
| | 30695285 | Filter, sterilized |
| | 17011745 | Filter, sterilized (US) |
| | 30671310 | Magnetic Hang-Up |
| | 30621247 | Pipette adaptor |

Rainin QuickFlow

Portable Easy-to-Use Aspirator

Smart features

- Variable speed settings
- Non-contact liquid level sensor
- 4L 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.



| CATALOG No. | DESCRIPTION |
|-----------------|--|
| 30519826 | QuickFlow System – UNV Includes variable speed vacuum system, 4L autoclavable reservoir with inlet/outlet snap connector cap, non-contact liquid level sensor system for reservoir, inlet and outlet vacuum tubing with snap connectors and complete handle kit. |
| 30551530 | QuickFlow System – LTS Includes variable speed vacuum system, 4L autoclavable reservoir with inlet/outlet snap connector cap, non-contact liquid level sensor system for reservoir, inlet and outlet vacuum tubing with snap connectors and complete handle kit. |
| 30519824 | QuickFlow Handle Kit – UNV Standard UNV kit includes ergonomic handle with continuous and non-continuous flow control, three adaptors (8-channel/universal tip, single-channel/universal tip, single Pasteur pipette), vacuum tubing and handle hook accessory. |
| 30551534 | QuickFlow Handle Kit – LTS LTS kit includes ergonomic handle with continuous and non-continuous flow control, three adaptors (8-channel/universal tip, single-channel/universal tip, single Pasteur pipette), vacuum tubing and handle hook accessory. |

Upgrade Your Liquid Aspiration – It's Easy!

The Rainin QuickFlow Handle Kit – with three adapters – attaches easily to your central vacuum system



Single channel adapter

Wide range of Rainin universal-fit tips to suit your application.



Serological adapter

Fits standard glass or plastic Pasteur pipettes



Continuous flow option

Switch suction on to reduce finger strain



8-channel adapter

No-clog design

Unique channel design prevents blockage and delivers long-lasting performance.

Upgrade your system

QuickFlow handle and tubing attaches easily to your vacuum system.

Hand-saving ergonomic design

Convenient, low-force tip ejection with one hand.

Easy cleaning

The QuickFlow handle, adapters and tube is easy to clean and autoclavable.

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 |
|------------------|-----------------|---|
| AutoRep S | 17013008 | Manual repeater pipette volume range: 2 µL to 5 mL |
| | 17013009 | Shelf mount |
| | 17013010 | Volume table |

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

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



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 assure 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

| | | | | |
|-------------|-----------------|---------------------------------------|-------------|-------------------|
| Disp-X | 30373527 | Disp-X 0.5–5 mL bottle-top dispenser | | |
| | 30373528 | Disp-X 1–10 mL bottle-top dispenser | | |
| | 30373529 | Disp-X 2.5–25 mL bottle-top dispenser | | |
| | 30373750 | Disp-X 5–50 mL bottle-top dispenser | | |
| Accessories | 30373751 | Disp-X discharge tube | 5 or 10 mL | |
| | 30373752 | Disp-X discharge tube | 25 or 50 mL | |
| | 30373753 | Disp-X filling tube | 5 or 10 mL | 125–240 mm length |
| | 30373754 | Disp-X filling tube | 5 or 10 mL | 250–480 mm length |
| | 30373755 | Disp-X filling tube | 25 or 50 mL | 170–330 mm length |
| | 30373756 | Disp-X filling tube | 25 or 50 mL | 250–480 mm length |
| | 30373757 | Disp-X filling valve | 5 or 10 mL | |
| | 30373758 | Disp-X filling valve | 25 or 50 mL | |
| | 30373759 | Disp-X discharge valve | 5 or 10 mL | |
| | 30373760 | Disp-X discharge valve | 25 or 50 mL | |

Pipette Performance Matters

Trust METTLER TOLEDO to Deliver

Your work is too important to risk inaccurate or inconsistent data due to poor pipette performance. Pipette service by METTLER TOLEDO is rigorous and comprehensive, executed by highly trained and experienced technicians who know your pipettes. Make certain these important research tools deliver the reliability and reproducibility your work depends on – with METTLER TOLEDO Service.

Reliable pipette service is part of the Rainin 360+™ system for optimal liquid handling results. Precision pipettes, high-purity tips and expert service are all backed by innovative tools, software and training to ensure exceptional performance across your workflows. See back cover to learn more.

With secure, global measurement standards and the world’s largest service team, only METTLER TOLEDO offers the depth, breadth and level of process integrity and control your pipettes demand.



Largest Service Team

We have built the world’s largest pipette service organization – including the largest network of ISO 17025-accredited service labs and onsite service teams – to ensure consistent, reliable service performance in over 40 countries.



Factory-Trained Technicians

Every pipette calibration technician is factory trained and equipped with state-of-the-art METTLER TOLEDO balances to assure accurate gravimetric measurements and provide a thorough and reliable pipette service experience.



Global Data Governance

Our proprietary Global Pipette Service Solution – GPSS – securely records measurement data directly from the balance to eliminate any potential for recording inaccurate results. Adhering to a single, global standard, it also links directly to PipetteX for electronic calibration certificate delivery. 24 CFR Part 11 compliant.



OEM Parts & Specifications

Maintenance and repairs are performed according to every major pipette manufacturer's specifications – from OEM parts to the recommended greases – to ensure that your instruments continue to perform with precision and accuracy.



Plans to Meet Your Needs

Whether you prefer onsite or mail-in service, we offer a wide range of service plans. With fast turnaround and the capacity to meet any laboratory's need – including ISO 8655 calibration service – METTLER TOLEDO has the capacity and expertise to meet your exacting needs.



Your Pipette Service Partner

We offer an experienced team of service professionals who can help you determine which calibration intervals and interim pipette verification tests best suit your needs and workflows.

Request Rainin Service today!

▶ www.mt.com/RaininService

RaininService

Guaranteed Quality

When it comes to calibration services, one size does not fit all – so we offer a variety of service plans.

Mail-in

- Convenient mail-in service
- ISO 17025 accredited
- Tight temperature, humidity, vibration controls
- 6- and 7- place METTLER TOLEDO balances
- METTLER TOLEDO MCP multichannel balances

Onsite*

- Perfect for labs with chain-of-custody concerns
- ISO 17025 accredited
- METTLER TOLEDO balances
- Minimal downtime
- Pipettes are calibrated in the environment where they are used
- METTLER TOLEDO onsite technicians

* Not available in all countries

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  | When prior performance matters  | For complete ISO 17025 documentation  | ISO 8655 and 17025 compliance  |
| Preventive Maintenance | ✓ Yes | ✓ Yes | ✓ Yes | ✓ Yes |
| As Found Calibration | N/A | 4 Test weighings @ 10, 100 % | 10 Test weighings @ 10, 50, 100 % | 10 Test weighings @ 10, 50, 100 % |
| As Left Calibration | 4 Test weighings @ 10, 100 % | 4 Test weighings @ 10, 100 % | 10 Test weighings @ 10, 50, 100 % | 10 Test weighings @ 10, 50, 100 % |
| Certificate | Standard | Standard | ISO 17025 | ISO 17025 |
| Compliance | Rainin Method* | Rainin Method* | ISO 8655-7:2022 | ISO 8655-6:2022 |

*Rainin Method follows ISO 8655-7 Annex A

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

Care for pipettes in the lab and know when to send pipettes for service.

Calibration

Recognize the risks associated with out-of-calibration pipettes and learn how using Quick Check can help assess a pipette's accuracy between calibrations.



Evaluation

Evaluate the variables, tolerances and other aspects of your application.

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.

► See how much GPP has to offer at www.mt.com/gpp



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.



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” |



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 |
|-------------------------------------|--------------------|-------------------|------------------|-----------------------------------|----------------------------|
| $\leq 10^{-9}$ KU/ μ L | ≤ 0.001 EU/mL | < 2 ng/sample | ≤ 500 ng/mL | $< 2 \times 10^{-12}$ mg/ μ L | None detected |
| 10^{-9} KU/ μ L | ≤ 0.05 EU/mL | – | – | – | – |
| < 8.6 fg | < 1 pg | – | – | < 1 fg | – |
| 10^{-9} KU | < 0.001 EU/mL | < 1 ng/ μ L | – | $< 5.5 \times 10^{-12}$ 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" |
| $< 3.125 \times 10^{-9}$ U/ μ L | < 0.03 EU/mL | – | – | – | – |
| $< 10^{-9}$ KU/ μ L | < 0.06 EU/mL | – | – | – | – |
| $< 10^{-9}$ KU/ μ L | ≤ 0.06 EU/mL | – | – | $< 10^{-13}$ mg/ μ L | 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})

"None detected", "Free of" and "... Free" designations apparently indicate no observed contamination. No specifications or test methodology provided.

"–" no data available.

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  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 PETE, which is easily recycled and aggressively recovered from the plastic waste stream.


Recycled PET!



Sterilized

TerraRacks are sterilized so you can be certain that you're working with a fresh, clean rack every time.



LTS

| CATALOG No. | DESCRIPTION | VOL | | QTY | | FEATURES | | |
|-------------|------------------------|------------------------|---------------------|--------------|-------------|------------|------------|--------|
| | | MAX VOLUME | | RACKS/CARTON | TIPS/CARTON | STERILIZED | SHAFTGUARD | FILTER |
| TerraRack | 17014960 | TR LTS 20µL S 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | |
| | 17014961 | TR LTS 20µL F 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | ✓ |
| | 17014962 | TR LTS 250µL S 960A/10 | 200 µL ² | 10 | 960 | ✓ | | |
| | 17014963 | TR LTS 200µL F 960A/10 | 200 µL ² | 10 | 960 | ✓ | | ✓ |
| | 17014964 | TR LTS 300µL S 768A/8 | 300 µL | 8 | 768 | ✓ | | |
| | 17014965 | TR LTS 300µL F 768A/8 | 300 µL | 8 | 768 | ✓ | | ✓ |
| | 17014966 | TR LTS 1000µL S 768A/8 | 1000 µL | 8 | 768 | ✓ | | |
| | 17014967 | TR LTS 1000µL F 768A/8 | 1000 µL | 8 | 768 | ✓ | | ✓ |
| | 17014968 | TR LTS 1200µL S 768A/8 | 1200 µL | 8 | 768 | ✓ | | |
| 17014969 | TR LTS 1200µL F 768A/8 | 1200 µL | 8 | 768 | ✓ | | ✓ | |

UNV

| | | | | | | | | |
|-----------|----------|------------------------|---------|----|-----|---|---|---|
| TerraRack | 17014970 | TR UNV 10µL S 960A/10 | 10 µL | 10 | 960 | ✓ | | |
| | 17014971 | TR UNV 10µL F 960A/10 | 10 µL | 10 | 960 | ✓ | | ✓ |
| | 17014972 | TR UNV 10µL GS 960A/10 | 10 µL | 10 | 960 | ✓ | ✓ | |
| | 17014973 | TR UNV 10µL GF 960A/10 | 10 µL | 10 | 960 | ✓ | ✓ | ✓ |
| | 17014974 | TR UNV 20µL F 960A/10 | 20 µL | 10 | 960 | ✓ | | ✓ |
| | 17014975 | TR UNV 100µL F 960A/10 | 100 µL | 10 | 960 | ✓ | | ✓ |
| | 17014977 | TR UNV 200µL F 960A/10 | 200 µL | 10 | 960 | ✓ | | ✓ |
| | 17014976 | TR UNV 250µL S 960A/10 | 250 µL | 10 | 960 | ✓ | | |
| | 17014978 | TR UNV 300µL S 768A/8 | 300 µL | 8 | 768 | ✓ | | |
| | 17014979 | TR UNV 300µL F 768A/8 | 300 µL | 8 | 768 | ✓ | | ✓ |
| | 17014980 | TR UNV 1000µL S 768A/8 | 1000 µL | 8 | 768 | ✓ | | |
| | 17014981 | TR UNV 1000µL F 768A/8 | 1000 µL | 8 | 768 | ✓ | | ✓ |

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

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  and universal  formats.

Green-Pak™ SpaceSaver™ 80% less waste than conventional racks

Fast

Refill a rack in seconds

Clean

Protects tips from contamination

Convenient

Dispensing sleeve is easy to use

Save space

Each sleeve contains 8 or 10 refills



 Recycled PET!

Green-Pak Individually sealed refills

Filter tips

A great refill option for filter tip users

Clean

Each refill is completely sealed

Easy

Load refills without touching the tips

Reduce waste

75% less plastic than a regular rack





CATALOG No. DESCRIPTION

| VOL | | QTY | | FEATURES | | |
|------------|--------------|-------------|------------|------------|--------|--|
| MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | SHAFT/GARD | FILTER | |



| SpaceSaver | 30389291 | GPS LTS 20µL 960A/10 | 20 µL ¹ | 10 | 960 | | | |
|------------|----------|-------------------------|---------------------|----|-----|---|--|--|
| | 30389297 | GPS LTS 20µL S 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | |
| | 30389299 | GPS LTS 250µL 960A/10 | 200 µL ² | 10 | 960 | | | |
| | 30389301 | GPS LTS 250µL S 960A/10 | 200 µL ² | 10 | 960 | ✓ | | |
| | 30389303 | GPS LTS 300µL 768A/8 | 300 µL | 8 | 768 | | | |
| | 30389304 | GPS LTS 300µL S 768A/8 | 300 µL | 8 | 768 | ✓ | | |
| | 30389292 | GPS LTS 1000µL 768A/8 | 1000 µL | 8 | 768 | | | |
| | 30389294 | GPS-LTS 1000µL S 768A/8 | 1000 µL | 8 | 768 | ✓ | | |



| Green-Pak | 30389270 | GP LTS 20µL 960A/10 | 20 µL ¹ | 10 | 960 | | | |
|-----------|----------|------------------------|---------------------|----|-----|---|--|---|
| | 30389275 | GP LTS 20µL S 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | |
| | 30389274 | GP LTS 20µL F 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | ✓ |
| | 30389277 | GP LTS 250µL 960A/10 | 200 µL ² | 10 | 960 | | | |
| | 30389278 | GP LTS 250µL S 960A/10 | 200 µL ² | 10 | 960 | ✓ | | |
| | 30389276 | GP LTS 200µL F 960A/10 | 200 µL ² | 10 | 960 | ✓ | | ✓ |
| | 30389271 | GP LTS 1000µL 768A/8 | 1000 µL | 8 | 768 | | | |
| | 30389273 | GP LTS 1000µL S 768A/8 | 1000 µL | 8 | 768 | ✓ | | |

Rack base not included with SpaceSaver.

| Empty Racks | 30389354 | Tip Racks GPR LTS 20µL 0/10 | 20 µL | 10 | | | | |
|-------------|----------|------------------------------|---------|----|--|--|--|--|
| | 30389353 | Tip Racks GPR XXX 250µL 0/10 | 200 µL | 10 | | | | |
| | 30397667 | Tip Racks GPR XXX 300µL 0/8 | 300 µL | 8 | | | | |
| | 30389351 | Tip Racks GPR XXX 1000µL 0/8 | 1000 µL | 8 | | | | |



| SpaceSaver | 30389283 | GPS UNV 10µL G 960A/10 | 10 µL | 10 | 960 | | ✓ | |
|------------|----------|-------------------------|---------|----|-----|---|---|--|
| | 30389285 | GPS UNV 10µL GS 960A/10 | 10 µL | 10 | 960 | ✓ | ✓ | |
| | 30389287 | GPS UNV 250µL 960A/10 | 250 µL | 10 | 960 | | | |
| | 30389289 | GPS UNV 250µL S 960A/10 | 250 µL | 10 | 960 | ✓ | | |
| | 30397665 | GPS UNV 300µL 768A/8 | 300 µL | 8 | 768 | | | |
| | 30397666 | GPS UNV 300µL S 768A/8 | 300 µL | 8 | 768 | ✓ | | |
| | 30389279 | GPS UNV 1000µL 768A/8 | 1000 µL | 8 | 768 | | | |
| | 30389281 | GPS UNV 1000µL S 768A/8 | 1000 µL | 8 | 768 | ✓ | | |



| Green-Pak | 30389258 | GP UNV 10µL 960A/10 | 10 µL | 10 | 960 | | | |
|-----------|----------|------------------------|---------|----|-----|---|---|---|
| | 30389265 | GP UNV 10µL S 960A/10 | 10 µL | 10 | 960 | ✓ | | |
| | 30389263 | GP UNV 10µL F 960A/10 | 10 µL | 10 | 960 | ✓ | | ✓ |
| | 30389264 | GP UNV 10µL FG 960A/10 | 10 µL | 10 | 960 | ✓ | ✓ | ✓ |
| | 30389267 | GP UNV 20µL F 960A/10 | 20 µL | 10 | 960 | ✓ | | ✓ |
| | 30389262 | GP UNV 100µL F 960A/10 | 100 µL | 10 | 960 | ✓ | | ✓ |
| | 30389266 | GP UNV 200µL F 960A/10 | 200 µL | 10 | 960 | ✓ | | ✓ |
| | 30389268 | GP UNV 250µL 960A/10 | 250 µL | 10 | 960 | | | |
| | 30389269 | GP UNV 250µL S 960A/10 | 250 µL | 10 | 960 | ✓ | | |
| | 30389259 | GP UNV 1000µL 768A/8 | 1000 µL | 8 | 768 | | | |
| | 30389261 | GP UNV 1000µL S 768A/8 | 1000 µL | 8 | 768 | ✓ | | |
| | 30389260 | GP UNV 1000µL F 768A/8 | 1000 µL | 8 | 768 | ✓ | | ✓ |

Rack base not included with SpaceSaver.

| Empty Racks | 30389350 | Tip Racks GPR UNV 10µL 0/10 | 10 µL | 10 | | | | |
|-------------|----------|------------------------------|---------|----|--|--|---|--|
| | 30389354 | Tip Racks GPR LTS 20µL 0/10 | 10 µL | 10 | | | ✓ | |
| | 30389353 | Tip Racks GPR XXX 250µL 0/10 | 250 µL | 10 | | | | |
| | 30397667 | Tip Racks GPR XXX 300µL 0/8 | 300 µL | 8 | | | | |
| | 30389351 | Tip Racks GPR XXX 1000µL 0/8 | 1000 µL | 8 | | | | |

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™

Stacked double-96 racks
with 192 tips per layer.



StableRak™

Individual double-96 racks
with 192 tips per layer.



Formats

Standard, sterilized
and filter (StableRak only)

Protective

Keeps tips safe from debris,
dust and contamination

Fast-loading

Sturdy, non-slip racks make
tip loading easy

StableRak and StableStak



LTS

| CATALOG No. | DESCRIPTION | VOL | | QTY | | FEATURES | | | |
|-------------|------------------------|---------------------|--------------|-------------|------------|----------|------------|--------|--|
| | | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | FILTER | SHAFTGUARD | WIDE-O | |
| 17005862 | SR LTS 20µL 960A/5 | 20 µL ¹ | 5 | 960 | | | | | |
| 17005861 | SR LTS 20µL S 960A/5 | 20 µL ¹ | 5 | 960 | ✓ | | | | |
| 17005860 | SR LTS 20µL F 960A/5 | 20 µL ¹ | 5 | 960 | ✓ | ✓ | | | |
| 17005864 | SR LTS 250µL 960A/5 | 200 µL ² | 5 | 960 | | | | | |
| 17005863 | SR LTS 250µL S 960A/5 | 200 µL ² | 5 | 960 | ✓ | | | | |
| 17005859 | SR LTS 200µL F 960A/5 | 200 µL ² | 5 | 960 | ✓ | ✓ | | | |
| 17005867 | SR LTS 300µL 768A/4 | 300 µL | 4 | 768 | | | | | |
| 17005866 | SR LTS 300µL S 768A/4 | 300 µL | 4 | 768 | ✓ | | | | |
| 17005865 | SR LTS 300µL F 768A/4 | 300 µL | 4 | 768 | ✓ | ✓ | | | |
| 17007083 | SR LTS 1000µL 768A/4 | 1000 µL | 4 | 768 | | | | | |
| 17007082 | SR LTS 1000µL S 768A/4 | 1000 µL | 4 | 768 | ✓ | | | | |
| 17007081 | SR LTS 1000µL F 768A/4 | 1000 µL | 4 | 768 | ✓ | ✓ | | | |
| 17007086 | SR LTS 1200µL 768A/4 | 1200 µL | 4 | 768 | | | | | |
| 17007085 | SR LTS 1200µL S 768A/4 | 1200 µL | 4 | 768 | ✓ | | | | |
| 17007084 | SR LTS 1200µL F 768A/4 | 1200 µL | 4 | 768 | ✓ | ✓ | | | |



| | | | | | | | | | |
|----------|------------------------|---------------------|---|-----|---|--|--|--|--|
| 17005873 | SS LTS 20µL 960A/5 | 20 µL ¹ | 5 | 960 | | | | | |
| 17005872 | SS LTS 20µL S 960A/5 | 20 µL ¹ | 5 | 960 | ✓ | | | | |
| 17005875 | SS LTS 250µL 960A/5 | 200 µL ² | 5 | 960 | | | | | |
| 17005874 | SS LTS 250µL S 960A/5 | 200 µL ² | 5 | 960 | ✓ | | | | |
| 17005877 | SS LTS 300µL 768A/4 | 300 µL | 4 | 768 | | | | | |
| 17005876 | SS LTS 300µL S 768A/4 | 300 µL | 4 | 768 | ✓ | | | | |
| 17007090 | SS LTS 1000µL 768A/4 | 1000 µL | 4 | 768 | | | | | |
| 17007089 | SS LTS 1000µL S 768A/4 | 1000 µL | 4 | 768 | ✓ | | | | |

UNV

| | | | | | | | | | |
|----------|--------------------|--------|---|-----|--|--|--|--|--|
| 17005857 | SR UNV 300µL 768/4 | 300 µL | 4 | 768 | | | | | |
|----------|--------------------|--------|---|-----|--|--|--|--|--|

Bulk Tips
LTS and UNV
formats

LTS

| | | | | | | | | | |
|-----------|-----------------------|---------------------|--|------|---|--|--|--|--|
| 17001128 | RC LTS 20µL 1000A/1 | 20 µL ¹ | | 1000 | | | | | |
| 17001118 | RC LTS 250µL 1000A/1 | 200 µL ² | | 1000 | | | | | |
| 17001132 | RC LTS 300µL 1000A/1 | 300 µL | | 1000 | | | | | |
| 17001129 | RC LTS 1000µL 1000A/1 | 1000 µL | | 1000 | | | | | |
| 17006324 | RC LTS 1200µL 1000A/1 | 1200 µL | | 1000 | | | | | |
| 17001130 | RC LTS 2000µL 1000A/1 | 2000 µL | | 1000 | | | | | |
| 17001133 | RC LTS 5000µL 1000A/1 | 5000 µL | | 1000 | | | | | |
| 17001119 | RC LTS 10mL 200A/1 | 10 mL | | 200 | | | | | |
| 17005940* | RC LTS 10mL S 75A/* | 10 mL | | 75 | ✓ | | | | |
| 17001131 | RC LTS 20mL 100A/1 | 20 mL | | 100 | | | | | |
| 17005941* | RC LTS 20mL S 50A/* | 20 mL | | 50 | ✓ | | | | |

UNV



| | | | | | | | | | |
|-----------|------------------------|---------|--|------|---|--|---|--|---|
| 17001124 | RC UNV 10µL 1000A/10 | 10 µL | | 1000 | | | | | |
| 17001123 | RC UNV 10µL G 1000A/10 | 10 µL | | 1000 | | | ✓ | | |
| 17001116 | RC UNV 250µL 1000A/1 | 250 µL | | 1000 | | | | | |
| 17001127 | RC UNV 250µL W 1000A/1 | 250 µL | | 1000 | | | | | ✓ |
| 17001121 | RC UNV 1000µL 1000A/1 | 1000 µL | | 1000 | | | | | |
| 17001125 | RC UNV 2000µL 1000A/1 | 2000 µL | | 1000 | | | | | |
| 17001126 | RC UNV 2500µL 1000A/1 | 2500 µL | | 1000 | | | | | |
| 17001117 | RC UNV 5000µL 1000A/1 | 5000 µL | | 1000 | | | | | |
| 17001122 | RC UNV 10mL 200A/1 | 10 mL | | 200 | | | | | |
| 17005939* | RC UNV 10mL S 75A/* | 10 mL | | 75 | ✓ | | | | |

*individually wrapped Wide-O = Wide Orifice ¹ Fits 2, 10 and 20 µL pipettes ² Fits 50, 100 and 200 µL pipettes 47

Racked Tips

SBS Standard Tip Packaging

Removable-cover Racks

Removable-cover racks – easy, practical, convenient packaging. Many volume sizes available in both LTS and universal 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 50)



CATALOG No. DESCRIPTION

| VOL | QTY | FEATURES | | | | |
|-----|-----|------------|--------------|-------------|------------|------------|
| | | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | SHAFTGUARD |

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



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



CATALOG No. DESCRIPTION

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

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 and universal formats.

| | CATALOG No. | DESCRIPTION | VOL | | QTY | | FEATURES | | |
|--------------------|--------------------------|--------------------------|---------------------|-----|--------------|-------------|------------|--------|---------|
| | | | MAX VOLUME | | RACKS/CARTON | TIPS/CARTON | STERILIZED | WIDE-O | LOW RET |
| Racked Tips | 30389227 | RT LTS 20µL L 960A/10 | 20 µL ¹ | 10 | 960 | | | ✓ | |
| | 30389229 | RT LTS 20µL LS 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | ✓ | |
| | 30389226 | RT LTS 20µL FL 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | ✓ | ✓ |
| | 30389244 | RT LTS 250µL L 960A/10 | 200 µL ² | 10 | 960 | | | ✓ | |
| | 30389248 | RT LTS 250µL LW 960A/10 | 200 µL ² | 10 | 960 | | ✓ | ✓ | |
| | 30389246 | RT LTS 250µL LS 960A/10 | 200 µL ² | 10 | 960 | ✓ | | ✓ | |
| | 30389250 | RT LTS 250µL LSW 960A/10 | 200 µL ² | 10 | 960 | ✓ | ✓ | ✓ | |
| | 30389240 | RT LTS 200µL FL 960A/10 | 200 µL ² | 10 | 960 | ✓ | | ✓ | ✓ |
| | 30389241 | RT LTS 200µL FLW 960A/10 | 200 µL ² | 10 | 960 | ✓ | ✓ | ✓ | ✓ |
| | 30389160 | RT LTS 300µL L 768A/8 | 300 µL | 8 | 768 | | | ✓ | |
| | 30389161 | RT LTS 300µL LS 768A/8 | 300 µL | 8 | 768 | ✓ | | ✓ | |
| | 30389162 | RT LTS 300µL FL 768A/8 | 300 µL | 8 | 768 | ✓ | | ✓ | ✓ |
| | 30389214 | RT LTS 1000µL L 768A/8 | 1000 µL | 8 | 768 | | | ✓ | |
| | 30389216 | RT LTS 1000µL LS 768A/8 | 1000 µL | 8 | 768 | ✓ | | ✓ | |
| | 30389213 | RT LTS 1000µL FL 768A/8 | 1000 µL | 8 | 768 | ✓ | | ✓ | ✓ |
| | 30389219 | RT LTS 1000µL LW 768A/8 | 1000 µL | 8 | 768 | | ✓ | ✓ | |
| | 30389221 | RT LTS 1000µL LSW 768A/8 | 1000 µL | 8 | 768 | ✓ | ✓ | ✓ | |
| | 30389218 | RT LTS 1000µL FLW 768A/8 | 1000 µL | 8 | 768 | ✓ | ✓ | ✓ | ✓ |
| | 30389233 | RT LTS 1200µL L 768A/8 | 1200 µL | 8 | 768 | | | ✓ | |
| 30389235 | RT LTS 1200µL LS 768A/8 | 1200 µL | 8 | 768 | ✓ | | ✓ | | |
| 30389232 | RT LTS 1200µL FL 768A/8 | 1200 µL | 8 | 768 | ✓ | | ✓ | ✓ | |
| SpaceSaver | 30389296 | GPS LTS 20µL L 960A/10 | 20 µL ¹ | 10 | 960 | | | ✓ | |
| | 30389298 | GPS LTS 20µL LS 960A/10 | 20 µL ¹ | 10 | 960 | ✓ | | ✓ | |
| | 30389300 | GPS LTS 250µL L 960A/10 | 200 µL ² | 10 | 960 | | | ✓ | |
| | 30389302 | GPS LTS 250µL LS 960A/10 | 200 µL ² | 10 | 960 | ✓ | | ✓ | |
| | 30389885 | GPS LTS 300µL LS 768A/8 | 300 µL | 8 | 768 | ✓ | | ✓ | |
| | 30389293 | GPS LTS 1000µL L 768A/8 | 1000 µL | 8 | 768 | | | ✓ | |
| 30389295 | GPS LTS 1000µL LS 768A/8 | 1000 µL | 8 | 768 | ✓ | | ✓ | | |
| Bulk | 17014340 | RC LTS 20µL L 1000A/1 | 20 µL | | 1000 | | | ✓ | |
| | 17014341 | RC LTS 250µL L 1000A/1 | 200 µL | | 1000 | | | ✓ | |
| | 17014342 | RC LTS 1000µL L 1000A/1 | 1000 µL | | 1000 | | | ✓ | |



¹ Fits 2, 10 and 20 µL pipettes

² Fits 50, 100 and 200 µL pipettes



Rack base not included with SpaceSaver. See page 45 for empty racks.



Rainin Standard
10 µL Tip
after dispensing

Residual
liquid with...

Rainin Low Retention
10 µL Tip
after dispensing



CATALOG No. DESCRIPTION

| VOL | QTY | FEATURES | | | | | |
|-----|-----|------------|--------------|-------------|------------|------------|--------|
| | | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | SHAFT/GARD | WIDE-O |

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



Rack base not included with SpaceSaver. See page 45 for empty racks.



Specialty Tips

Unique Tips for Special Applications



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.



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 μ L.



ShaftGuard™ 10 μ L 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.

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

² Fits 50, 100 and 200 µL pipettes

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

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

UV/VIS Spectroscopy

Designed for the Life Sciences

The UV5Bio and UV5Nano Excellence instruments optimize spectroscopic workflows in life sciences. FastTrack™ technology enables speedy and reliable measurements and LockPath™ technology ensures accurate micro-volume measurements.



UV5Bio – the Life Science Expert

The UV5Bio is the ideal instrument for life science cuvette-based UV/VIS applications. Pre-programmed DNA, RNA, and protein applications are available as direct measurement routines or ready-to-use METTLER TOLEDO methods for an instant start. The OneClick™ touchscreen interface provides intuitive and efficient shortcut operation.



UV5Nano – the Micro Master

Measure μL volumes of precious DNA, RNA or protein samples in wide concentration ranges on the micro-volume platform. The additional cuvette measurement option doubles the application power. LockPath technology ensures exact and repeatable pathlength adjustment. No need for sample dilution – just pipette and measure.



CuveT Thermostat for Precise Temperature Control

Life science UV/VIS applications such as DNA analyses, kinetics or protein dynamics require reproducible and accurate temperature conditions.

CuveT controls the temperature of samples in a 10 mm cuvette within a temperature range of 4°C to 95°C in 10 mm cuvettes.

► Order our UV/VIS Excellence brochure. www.mt.com/UV-VIS



| PART No. | DESCRIPTION | UV5BIO 30254728 | UV5NANO 30254729 |
|---------------------------------------|--|--------------------|---------------------|
| FastTrack™ Technology | Pulsed Xenon flash lamp, CCD array detector | • | • |
| LockPath™ Technology | Automatic pathlength adjustment | | • |
| Optical performance | Wavelength range [nm] | 190–1,100 | 190–1,100 |
| | Wavelength resolution (toluene in hexane abs.) | >1.5 | >1.7 |
| | Wavelength accuracy (holmium oxide) [nm] | ±1.0 | ±1.0 |
| | Photometric accuracy (potassium dichromate) [A] | ±0.01 | ±0.01 |
| | Stray light at 198 nm (potassium chloride) [A] | >2 | >1.7 |
| One Click™ UV/VIS Spectroscopy | Shortcuts per user | 24 | 24 |
| Automation | Peristaltic pump FillPalMini | • | • |
| | InMotion™ sample changer | • | • |
| Applications & Methods | Direct measurement types | 4 | 3 |
| | METTLER TOLEDO methods | • | • |
| | Method editor | • | • |
| | Bio-direct measurement applications | • | • |
| | Kinetics | • | • |
| | Micro-volume direct measurement applications | | • |
| | Temperature Control | • | |
| | Colors: Tristimulus, CIE Lab, CIE Luv, Lab according to Hunter, Chromaticity, Yellowness Index, APHA, Pt-CO, Hazen, Gardner, Saybolt, Hess-Ives, EBC, ASBC | • | • |
| PC Software | LabX® UV/VIS software | • | • |
| Languages | English, German, French, Spanish, Italian, Chinese, Russian, Portuguese | | |
| Connectivity | USB memory stick storage (reports (pdf), data (csv), methods) | • | • |
| | USB devices (bar-code reader, compact printer, fingerprint reader) | • | • |
| | Ethernet (PC, network printer (HP PCL 3, Epson protocol), reports (pdf), data (csv)) | • | • |



Avoid Errors with LockPath

LockPath ensures that the available pathlengths at 0.1 mm and 1 mm are accurately defined. Thanks to the rugged design, pathlength drift is excluded to eliminate expensive re-calibration.



Compact Modularity

In the UV7, UV5 and UV5Bio, cuvette holders, CuvetteChanger, and CuveT thermostating units are positioned in the easily accessible open sample area without compromising the instrument's footprint.



Secure Measurement Quality

Good UV/VIS Practice™ (GUVPTM) provides comprehensive installation and qualification services that cover the entire lifecycle of the instrument. Quality is improved while risks and costs are reduced.

► www.mt.com/GUVP

SevenExcellence

Precise and Secure Instruments

SevenExcellence™ stands for convenient, user-friendly operation, combined with high measurement accuracy and outstanding flexibility. With its capacitive touchscreen and large 7 inch display and 10 available languages, operation is truly intuitive. The instrument can effectively cope with complex applications and stringent requirements in regulated markets, but it also provides added value for routine measurement tasks in the laboratory.



Efficient Processes

SevenExcellence has been designed with the objective of optimizing the workflow and making work in the laboratory more efficient. Just one click is needed to start a sample or a series of measurements and an optional autosampler improves productivity. Once set up, data archiving is a standard procedure that will take place automatically following each analysis.

Solid Compliance

SevenExcellence comes with security functions that support your workflow during all phases of calibration, measurement and archiving processes. It is suitable for routine tasks as well as professional measurements under stringent GLP conditions. Connected to LabX, SevenExcellence offers perfect compliance support.

Sustainable Value

SevenExcellence offers flexibility on all levels, ranging from the number of measurement parameters to the choice of a vast collection of peripheral devices. The instrument's interfaces allow you to connect peripherals simultaneously, supporting your workflow in the best possible way.

| MODEL | CHANNEL | PARAMETER | MEASURING RANGE | RESOLUTION AND ACCURACY | INLAB® SENSOR | PART No. |
|--------------------|----------|---|---|--|---|-----------------|
| S400-Basic | 1 | pH mV ISFET pH Temp. | -2.000 ... 20.000 pH; -2000.0 ... 2000.0 mV 0.000 ... 14.000 pH -30.0 ... 130.0 °C | 0.001/0.01/0.1; ± 0.002 0.1/1; ± 0.1 0.001/0.01/0.1; ± 0.05 0.1; ± 0.1 | none | 30046240 |
| S400-Kit | | | | | Expert Pro-ISM | 30046241 |
| S400-Bio | | | | | Routine Pro-ISM | 30046242 |
| S400-Micro | | | | | Ultra-Micro | 30092982 |
| S400-uMix | | | | | Expert Pro-ISM and uMix stirrer | 30092983 |
| S400-Buffer | | | | | InLab Expert Pro-ISM and Buffer Sachets | 30393276 |
| S700-Basic | | Conductivity Temp. | 0.001 µS/cm ... 2000 mS/cm -30.0 ... 130.0 °C | 0.001 ... 1; ± 0.5% 0.1; ± 0.1 | none | 30046244 |
| S700-Kit | | | | | 731-ISM | 30046245 |
| S700-Trace | | | | | Trace incl. flow cell | 30046246 |
| S500-Basic | | pH mV Ion concentration Temp. | -2.000 ... 20.000 pH; -2000.0 ... 2000.0 mV 0 ... 999 999 mg/L, ppm -30.0 ... 130.0 °C | 0.001/0.01/0.1; ± 0.002 0.1/1; ± 0.1 0.001 ... 1; ± 0.5% 0.1; ± 0.1 | none | 30046248 |
| S500-Kit | | | | | Expert Pro-ISM | 30046249 |
| S500-Bio | | | | | Routine Pro-ISM | 30046250 |
| S500-F | | | | | PerfectION Fluoride | 30046251 |
| S900-Basic | | Dissolved Oxygen | 0.000 ... 50 mg/L, ppm | 0.001 ± 0.1 mg/L from 0 ... 8 ± 0.2 mg/L from 8 ... 20 ± 10% from 20 ... 50 | none | 30092984 |
| S900-Kit | | | | | OptiOx | 30092986 |
| S900-BOD | | Temperature | -30.0 ... 130.0 °C | 0.1; ± 0.1 | OptiOx | 30092987 |
| S600-Kit | | Dissolved Oxygen Temperature | 0.000 ... 99 mg/L, ppm | 0.001; ± 0.5% 0.1; ± 0.1 | 605-ISM | 30092985 |
| S470-Basic | 2 | pH mV ISFET pH Conductivity Temp. | see S400, S700 | see S400, S700 | none | 30046252 |
| S470-Kit | | | | | Expert Pro-ISM and 731-ISM | 30046253 |
| S470-USP/EP | | | | | Pure Pro-ISM 741-ISM | 30046254 |
| S470-Bio | | | | | Routine Pro-ISM and 731-ISM | 64091338 |
| S475-Basic | 3 | see S470, S500 | see S400, S700, S500 | see S400, S700, S500 | none | 30046255 |
| S479-Kit | | see S470, S900 | see S470, S900 | see S470, S900 | Expert Pro-ISM 731-ISM OptiOx | 30092988 |
| S975-uMix | | see S900, S700, S500 | see S900, S700, S500 | see S900, S700, S500 | Expert Pro-ISM 731-ISM, OptiOx and uMix stirrer | 30092989 |

Basic Versions Include

Meter, the specified expansion units, uPlace electrode holder, semi-transparent cover, operating instructions, installation and quick guide, EasyDirect™ pH PC software, declaration of conformity and test certificate. Electrode is not included.

Kit Versions Include

As above plus appropriate electrode, buffer sachets and guides.

► www.mt.com/SevenExcellence

SevenDirect

Straight to the Point

Developed for a wide range of applications, SevenDirect™ benchtop meters combine precise electrochemical measurement technologies with flexibility and innovative design. Their ease of use, data handling options and robustness will delight discerning users.



Mastered in No Time

The intuitive user interface of the generous 7-inch touchscreen facilitates the measurement process by avoiding unnecessary steps and focusing on the most important information. On-screen instructions guide the calibration process while the integrated help system provides immediate support.



Tracks Your Records

The instruments support GLP compliance by storing time stamps as well as sample, sensor and user IDs with every measurement. Settings are protected from unwanted changes by a two level user management. Automatic data transfer to pC or printer minimizes transcriptions errors.



Tough Enough

SevenDirect meters feature a closed connector compartment to prevent corrosion and a replaceable protective cover to keep the instrument safe from dust and spills even with sensors attached (IP54 in-use).

| MODEL/PART No. | pH | mV | COND | IONS | TEMPERATURE |
|-----------------------------------|----------------------|--|---|--|---------------------|
| SD20 Meter (30671550*) | • | • | | | • |
| SD30 Meter (30671552*) | | | • | | • |
| SD50 Meter (30671551*) | • | • | | • | • |
| SD23 Meter (30671553*) | • | • | • | | • |
| Range | -2.000...20.000 | -2,000.0... 2,000.0 mV | Conductivity: 0.000 μ S/cm...2,000 mS/cm TDS: 0.00 mg/L...1,000 g/L Salinity: 0.00...80.00 psu Resistivity:0.00...100.0M Ω *cm | mmol/L, mol/L, mg/L ppm: 0...999,999 %: 0...100.000 pX:-2.000...20.000 | -30.0...130.0°C |
| Resolution | 0.1/0.01/0.001 | 1/0.1 | Auto-range, max. 0.001 | mmol/L, mg/L ppm: 0.001 mol/L, %:0.0001 pX:0.1/0.01 | 0.1°C |
| Accuracy | -0.002 | \pm 0.1 (-500.0...500.0mV) \pm 0.2 (-2,000.0...2,000.0mV) | 0.5% of measured value | mmol/L, mol/L, mg/L ppm,%: \pm 0.5% of measured value pX: \pm 0.002 | \pm 0.1 (0-100°C) |
| Calibration methods | Linear, Segmented | – | Linear, Manual cell constant | Linear, Segmented | – |
| Calibration points | 1 to 5 | – | 1 or 2 | 1 to 5 | – |

* Basic instrument. Application-specific kits are also available.



Position Your Sensor Precisely

The EasyPlace™ electrode arm makes sensor handling easy. Dedicated positions for calibration, measurement, cleaning and storage simplify daily operation.



Stirring for Reliable Results

The EasyMix™ magnetic stirrer homogenizes samples for more accurate results. Its perfect fit with the EasyPlace™ electrode arm saves bench space.



Data Management under Control

The EasyDirect™ PC software simplifies data management. Collect data, generate reports and plots, export to a PC or print on a network printer.

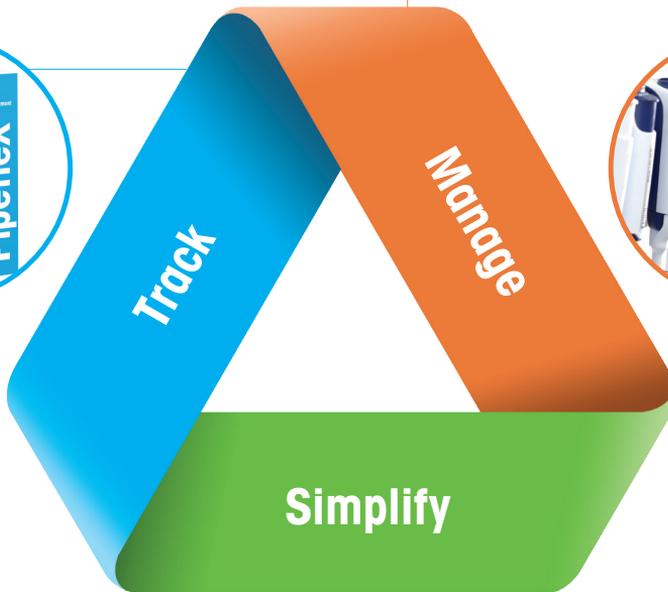
► www.mt.com/SevenDirect

Rainin PipetteX

Pipette Management Simplified

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

- See all calibration data.
- Schedule calibrations.
- All critical pipette data is now 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 |
|--------------------------|-----------------|-------------------------------|
| PipetteX Software | 30475913 | PipetteX - Site |
| | 30475915 | PipetteX - Unlimited |
| | 30478260 | PipetteX - Site, Renewal |
| | 30478262 | PipetteX - Unlimited, Renewal |

Rainin SmartStand

The Intelligent Pipette Stand

By reading the RFID chip that's in every Rainin XLS and XLS+ brand 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 too!



CATALOG No. DESCRIPTION

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

Rainin SmartCheck

Fast Pipette Accuracy Verification

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 bench-top 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 |
|------------|-------------|-----------------------|
| SmartCheck | 30564095 | SmartCheck SLS1010S |
| | 30448961 | Function Test Kit |
| | 30448967 | EasyScan RFID LAN set |

Your Integrated Pipette Management Solution

Bring Order to Your Pipette Inventory

PipetteX™ asset management software, together with SmartStand, SmartCheck and Rainin calibration services, is a unique pipette tracking and calibration management system. Using the RFID chip embedded in every Rainin XLS/XLS+ pipette, PipetteX automatically tracks and manages calibration data, pipette usage and location.

- 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



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 drive 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!

► mt.com/PipetteX

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PERFORMANCE
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 Printed Matter

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NanoRep

Electronic Repeater Pipette



Conserve samples, reagents and syringe tips with up to 1,000 aliquots per tip: 100 μ L, 10 mL and 50 mL



Avoid contamination with No Touch Off™ dispense!

For more information on the new NanoRep repeater pipette, see page 28.

