Product Catalog

RAININ
Pipetting 360°





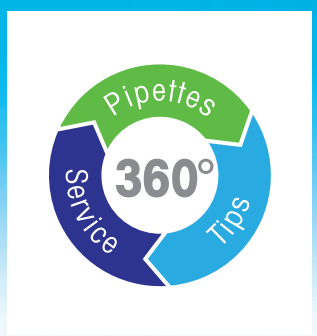
2020

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












# Pipettes, Tips and Service

## Quality Products for Superior Performance

METTLER TOLEDO

# Introducing EasyDirect 2.0

## Pipette Management Simplified!

With EasyDirect™ Pipette Asset Management software and Rainin SmartStand, you have a powerful pipette tracking and calibration management system.

**Using the RFID chip embedded in every Rainin XLS-brand pipette, EasyDirect tracks a pipette's usage, location and calibration data automatically.**

- Manage an unlimited number of pipettes – across labs and locations
- Track all pipettes automatically
- Simplify calibration management and repairs
- Receive and manage calibration certificates electronically




**See pages 62-63 for details!**




**With EasyDirect, you're always audit ready!**

**See page 61 for details.**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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.

### 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.

### Good Pipetting Practice
Free assessment tools and onsite training to build your team's pipetting skills.

### Pipette Management
Our EasyDirect 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.

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

# Racked Tips

## SBS Standard Tip Packaging

### Removable-cover Racks

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




- 50% Less Plastic
- Locking Latch
- Hinged Lid
- BioClean Ultra



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

| | | | VOL | QTY | FEATURES | | | |
|---|---|---|---|---|---|---|---|---|
| LTS | CATALOG No. | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | SHAFTGARD | WIDE-O | FILTER |
| Hinged-Lid Racks | **30389200** | 20 µL[1] | 10 | 960 | | | | |
| | **30389228** | 20 µL[1] | 10 | 960 | ✓ | | | |
| | **30389225** | 20 µL[1] | 10 | 960 | ✓ | | | ✓ |
| | **30389243** | 200 µL[2] | 10 | 960 | | | | |
| | **30389247** | 200 µL[2] | 10 | 960 | | | ✓ | |
| | **30389245** | 200 µL[2] | 10 | 960 | ✓ | | | |
| | **30389249** | 200 µL[2] | 10 | 960 | ✓ | | ✓ | |
| | **30389239** | 200 µL[2] | 10 | 960 | ✓ | | | ✓ |
| | **30389253** | 300 µL | 8 | 768 | | | | |
| | **30389255** | 300 µL | 8 | 768 | ✓ | | | |
| | **30389254** | 300 µL | 8 | 768 | ✓ | | | ✓ |
| | **30389211** | 1000 µL | 8 | 768 | | | | |
| | **30389217** | 1000 µL | 8 | 768 | | | ✓ | |
| | **30389215** | 1000 µL | 8 | 768 | ✓ | | | |
| | **30389220** | 1000 µL | 8 | 768 | ✓ | | ✓ | |
| | **30389212** | 1000 µL | 8 | 768 | ✓ | | | ✓ |
| | **30389230** | 1200 µL | 8 | 768 | | | | |
| | **30389234** | 1200 µL | 8 | 768 | ✓ | | | |
| | **30389231** | 1200 µL | 8 | 768 | ✓ | | | ✓ |
| | **30389236** | 2000 µL | 8 | 480 | | | | |
| | **30389238** | 2000 µL | 8 | 480 | ✓ | | | |
| | **30389237** | 2000 µL | 8 | 480 | ✓ | | | ✓ |
| | **30389256** | 5000 µL | 8 | 192 | | | | |
| | **30389257** | 5000 µL | 8 | 192 | ✓ | | | |




## Fast loading

Robust secure racks make tip loading easy

## Autoclavable

Two-position lid for efficient sterilization

## Format options

Standard, sterilized and filter versions available

## Protective

Safe from dirt and contamination

| | | | VOL | QTY | FEATURES | | | |
|---|---|---|---|---|---|---|---|---|
| UNV | CATALOG No. | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | SHAFTGARD | WIDE-O | FILTER |
| Hinged-Lid Racks | **30389163** | 10 µL | 10 | 960 | | | | |
| | **30389174** | 10 µL | 10 | 960 | | ✓ | | |
| | **30389178** | 10 µL | 10 | 960 | ✓ | ✓ | | |
| | **30389181** | 10 µL | 10 | 960 | ✓ | | | |
| | **30389172** | 10 µL | 10 | 960 | ✓ | | | ✓ |
| | **30389175** | 10 µL | 10 | 960 | ✓ | ✓ | | ✓ |
| | **30389189** | 20 µL | 10 | 960 | ✓ | | | ✓ |
| | **30389170** | 100 µL | 10 | 960 | ✓ | | | ✓ |
| | **30389186** | 200 µL | 10 | 960 | ✓ | | | ✓ |
| | **30389191** | 250 µL | 10 | 960 | | | | |
| | **30389195** | 250 µL | 10 | 960 | | | ✓ | |
| | **30389193** | 250 µL | 10 | 960 | ✓ | | | |
| | **30389058** | 300 µL | 8 | 768 | | | | |
| | **30389059** | 300 µL | 8 | 768 | ✓ | | | |
| | **30389136** | 300 µL | 8 | 768 | ✓ | | | ✓ |
| | **30389164** | 1000 µL | 8 | 768 | | | | |
| | **30389168** | 1000 µL | 8 | 768 | ✓ | | | |
| | **30389165** | 1000 µL | 8 | 768 | ✓ | | | ✓ |
| | **30389183** | 2000 µL | 8 | 480 | | | | |
| | **30389185** | 2000 µL | 8 | 480 | ✓ | | | |
| | **30389184** | 2000 µL | 8 | 480 | ✓ | | | ✓ |
| | **30389198** | 5000 µL | 8 | 192 | | | | |
| | **30389199** | 5000 µL | 8 | 192 | ✓ | | | |

Wide-O = Wide Orifice

# Low Retention Tips

## Stop Wasting Valuable Sample!

Rainin LR low retention tips improve pipetting accuracy by minimizing residual volume, particularly when transferring liquids such as viscous samples and those with low surface tension. A great option for pipetting valuable molecular biology reagents and expensive samples.

Available in both LTS [LTS] and universal [UNV] formats.



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

Rack base not included with Green-Pak SpaceSaver.
See page 11 for empty racks.





| LTS | CATALOG No. | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | STERILIZED | WIDE-O | LOW RET | FILTER |
|---|---|---|---|---|---|---|---|---|
| | | VOL | | QTY | | FEATURES | | |
| Hinged-Lid Racks | 30389227 | 20 µL[1] | 10 | 960 | | | ✓ | |
| | 30389229 | 20 µL[1] | 10 | 960 | ✓ | | ✓ | |
| | 30389226 | 20 µL[1] | 10 | 960 | ✓ | | ✓ | ✓ |
| | 30389244 | 200 µL[2] | 10 | 960 | | | ✓ | |
| | 30389248 | 200 µL[2] | 10 | 960 | | ✓ | ✓ | |
| | 30389246 | 200 µL[2] | 10 | 960 | ✓ | | ✓ | |
| | 30389250 | 200 µL[2] | 10 | 960 | ✓ | ✓ | ✓ | |
| | 30389240 | 200 µL[2] | 10 | 960 | ✓ | | ✓ | ✓ |
| | 30389241 | 200 µL[2] | 10 | 960 | ✓ | ✓ | ✓ | ✓ |
| | 30389160 | 300 µL | 8 | 768 | | | ✓ | |
| | 30389161 | 300 µL | 8 | 768 | ✓ | | ✓ | |
| | 30389162 | 300 µL | 8 | 768 | ✓ | | ✓ | ✓ |
| | 30389214 | 1000 µL | 8 | 768 | | | ✓ | |
| | 30389216 | 1000 µL | 8 | 768 | ✓ | | ✓ | |
| | 30389213 | 1000 µL | 8 | 768 | ✓ | | ✓ | ✓ |
| | 30389219 | 1000 µL | 8 | 768 | | ✓ | ✓ | |
| | 30389221 | 1000 µL | 8 | 768 | ✓ | ✓ | ✓ | |
| | 30389218 | 1000 µL | 8 | 768 | ✓ | ✓ | ✓ | ✓ |
| | 30389233 | 1200 µL | 8 | 768 | | | ✓ | |
| | 30389235 | 1200 µL | 8 | 768 | ✓ | | ✓ | |
| | 30389232 | 1200 µL | 8 | 768 | ✓ | | ✓ | ✓ |
| SpaceSaver | 30389296 | 20 µL[1] | 10 | 960 | | | ✓ | |
| | 30389298 | 20 µL[1] | 10 | 960 | ✓ | | ✓ | |
| | 30389300 | 200 µL[2] | 10 | 960 | | | ✓ | |
| | 30389302 | 200 µL[2] | 10 | 960 | ✓ | | ✓ | |
| | 30398985 | 300 µL | 8 | 768 | ✓ | | ✓ | |
| | 30389293 | 1000 µL | 8 | 768 | | | ✓ | |
| | 30389295 | 1000 µL | 8 | 768 | ✓ | | ✓ | |
| Bulk | 17014340 | 20 µL | | 1000 | | | ✓ | |
| | 17014341 | 200 µL | | 1000 | | | ✓ | |
| | 17014342 | 1000 µL | | 1000 | | | ✓ | |



**Residue with Rainin Standard**
10 µL tip after dispensing

**Residue with Rainin Low Retention**
10 µL tip after dispensing



| | | CATALOG No. | VOL: MAX VOLUME | QTY: RACKS/CARTON | QTY: TIPS/CARTON | FEATURES: STERILIZED | FEATURES: SHAFTGARD | FEATURES: WIDE-O | FEATURES: LOW RET | FEATURES: FILTER |
|---|---|---|---|---|---|---|---|---|---|---|
| UNV | Hinged-Lid Racks | 30389180 | 10 µL | 10 | 960 | | | | ✓ | |
| | | 30389182 | 10 µL | 10 | 960 | ✓ | | | ✓ | |
| | | 30389173 | 10 µL | 10 | 960 | ✓ | | | ✓ | ✓ |
| | | 30389177 | 10 µL | 10 | 960 | | ✓ | | ✓ | |
| | | 30389179 | 10 µL | 10 | 960 | ✓ | ✓ | | ✓ | |
| | | 30389176 | 10 µL | 10 | 960 | ✓ | ✓ | | ✓ | ✓ |
| | | 30389190 | 20 µL | 10 | 960 | ✓ | | | ✓ | ✓ |
| | | 30389171 | 100 µL | 10 | 960 | ✓ | | | ✓ | ✓ |
| | | 30389187 | 200 µL | 10 | 960 | ✓ | | | ✓ | ✓ |
| | | 30389188 | 200 µL | 10 | 960 | ✓ | | ✓ | ✓ | ✓ |
| | | 30389192 | 250 µL | 10 | 960 | | | | ✓ | |
| | | 30389196 | 250 µL | 10 | 960 | | | ✓ | ✓ | |
| | | 30389194 | 250 µL | 10 | 960 | ✓ | | | ✓ | |
| | | 30389197 | 250 µL | 10 | 960 | ✓ | | ✓ | ✓ | |
| | | 30389137 | 300 µL | 8 | 768 | | | | ✓ | |
| | | 30389138 | 300 µL | 8 | 768 | ✓ | | | ✓ | |
| | | 30389139 | 300 µL | 8 | 768 | ✓ | | | ✓ | ✓ |
| | | 30389167 | 1000 µL | 8 | 768 | | | | ✓ | |
| | | 30389169 | 1000 µL | 8 | 768 | ✓ | | | ✓ | |
| | | 30389166 | 1000 µL | 8 | 768 | ✓ | | | ✓ | ✓ |

Rack base not included with Green-Pak SpaceSaver.
See page 11 for empty racks.



| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | SpaceSaver | 30389284 | 10 µL | 10 | 960 | | ✓ | | ✓ | |
| | | 30389286 | 10 µL | 10 | 960 | ✓ | ✓ | | ✓ | |
| | | 30389288 | 250 µL | 10 | 960 | | | | ✓ | |
| | | 30389290 | 250 µL | 10 | 960 | ✓ | | | ✓ | |
| | | 30389280 | 1000 µL | 8 | 768 | | | | ✓ | |
| | | 30389282 | 1000 µL | 8 | 768 | ✓ | | | ✓ | |



| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Bulk | 17014395 | 10 µL | | 1000 | | | | ✓ | |
| | | 17014396 | 10 µL | | 1000 | | ✓ | | ✓ | |
| | | 17014397 | 250 µL | | 1000 | | | | ✓ | |
| | | 17014398 | 1000 µL | | 1000 | | | | ✓ | |
| | | 17015068 | 1000 µL | | 1000 | | | ✓ | ✓ | |

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

# Eco-Friendly Refills

## Less Waste, More Space

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

**Green-Pak™ SpaceSaver™** 85% 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




**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

**Eco-sensitive**
Protective shell made from recycled PETE



Recycled PET!





Empty rack base not included with Green-Pak SpaceSaver





Empty rack base not included with Green-Pak SpaceSaver

| | LTS | UNV | CATALOG No. | VOL: MAX VOLUME | QTY: RACKS/CARTON | QTY: TIPS/CARTON | FEATURES: STERILIZED | FEATURES: SHAFTGARD | FEATURES: FILTER |
|---|---|---|---|---|---|---|---|---|---|
| Spacesaver | | | 30389291 | 20 µL[1] | 10 | 960 | | | |
| | | | 30389297 | 20 µL[1] | 10 | 960 | ✓ | | |
| | | | 30389299 | 200 µL[2] | 10 | 960 | | | |
| | | | 30389301 | 200 µL[2] | 10 | 960 | ✓ | | |
| | | | 30389303 | 300 µL | 8 | 768 | | | |
| | | | 30389304 | 300 µL | 8 | 768 | ✓ | | |
| | | | 30389292 | 1000 µL | 8 | 768 | | | |
| | | | 30389294 | 1000 µL | 8 | 768 | ✓ | | |
| Green-Pak Refills | | | 30389270 | 20 µL[1] | 10 | 960 | | | |
| | | | 30389275 | 20 µL[1] | 10 | 960 | ✓ | | |
| | | | 30389274 | 20 µL[1] | 10 | 960 | ✓ | | ✓ |
| | | | 30389277 | 200 µL[2] | 10 | 960 | | | |
| | | | 30389278 | 200 µL[2] | 10 | 960 | ✓ | | |
| | | | 30389276 | 200 µL[2] | 10 | 960 | ✓ | | ✓ |
| | | | 30389271 | 1000 µL | 8 | 768 | | | |
| | | | 30389273 | 1000 µL | 8 | 768 | ✓ | | |
| | | | 30389272 | 1000 µL | 8 | 768 | ✓ | | ✓ |
| Empty Racks | | | 30389354 | 20 µL | 10 | | | | |
| | | | 30389353 | 200 µL | 10 | | | | |
| | | | 30397667 | 300 µL | 8 | | | | |
| | | | 30389351 | 1000 µL | 8 | | | | |
| Spacesaver | | | 30389283 | 10 µL | 10 | 960 | | ✓ | |
| | | | 30389285 | 10 µL | 10 | 960 | ✓ | ✓ | |
| | | | 30389287 | 250 µL | 10 | 960 | | | |
| | | | 30389289 | 250 µL | 10 | 960 | ✓ | | |
| | | | 30397665 | 300 µL | 8 | 768 | | | |
| | | | 30397666 | 300 µL | 8 | 768 | ✓ | | |
| | | | 30389279 | 1000 µL | 8 | 768 | | | |
| | | | 30389281 | 1000 µL | 8 | 768 | ✓ | | |
| Green-Pak Refills | | | 30389258 | 10 µL | 10 | 960 | | | |
| | | | 30389265 | 10 µL | 10 | 960 | ✓ | | |
| | | | 30389263 | 10 µL | 10 | 960 | ✓ | | ✓ |
| | | | 30389264 | 10 µL | 10 | 960 | ✓ | ✓ | ✓ |
| | | | 30389267 | 20 µL | 10 | 960 | ✓ | | ✓ |
| | | | 30389262 | 100 µL | 10 | 960 | ✓ | | ✓ |
| | | | 30389266 | 200 µL | 10 | 960 | ✓ | | ✓ |
| | | | 30389268 | 250 µL | 10 | 960 | | | |
| | | | 30389269 | 250 µL | 10 | 960 | ✓ | | |
| | | | 30389259 | 1000 µL | 8 | 768 | | | |
| | | | 30389261 | 1000 µL | 8 | 768 | ✓ | | |
| | | | 30389260 | 1000 µL | 8 | 768 | ✓ | | ✓ |
| Empty Racks | | | 30389350 | 10 µL | 10 | | | | |
| | | | 30389354 | 10 µL | 10 | | | | |
| | | | 30389353 | 250 µL | 10 | | | | |
| | | | 30397667 | 300 µL | 8 | | | | |
| | | | 30389351 | 1000 µL | 8 | | | | |

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

# TerraRack

## The Most Eco-Friendly Rack Around

Less weight, less waste, 100% recyclable



TerraRack™ is a revolutionary new 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 pre-sterilized, eliminating the need to autoclave. Many volume sizes available in both LTS and universal UNV formats.



### Less waste

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



### 100% recyclable

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




### Sterilized

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









| | | CATALOG No. | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | PRESTERILIZED | SHAFTGARD | FILTER |
|---|---|---|---|---|---|---|---|---|
| | | | VOL | QTY | | FEATURES | | |
| LTS | TerraRack | 17014960 | 20 µL[1] | 10 | 960 | ✓ | | |
| | | 17014961 | 20 µL[1] | 10 | 960 | ✓ | | ✓ |
| | | 17014962 | 200 µL[2] | 10 | 960 | ✓ | | |
| | | 17014963 | 200 µL[2] | 10 | 960 | ✓ | | ✓ |
| | | 17014964 | 300 µL | 8 | 768 | ✓ | | |
| | | 17014965 | 300 µL | 8 | 768 | ✓ | | ✓ |
| | | 17014966 | 1000 µL | 8 | 768 | ✓ | | |
| | | 17014967 | 1000 µL | 8 | 768 | ✓ | | ✓ |
| | | 17014968 | 1200 µL | 8 | 768 | ✓ | | |
| | | 17014969 | 1200 µL | 8 | 768 | ✓ | | ✓ |
| UNV | TerraRack | 17014970 | 10 µL | 10 | 960 | ✓ | | |
| | | 17014971 | 10 µL | 10 | 960 | ✓ | | ✓ |
| | | 17014972 | 10 µL | 10 | 960 | ✓ | ✓ | |
| | | 17014973 | 10 µL | 10 | 960 | ✓ | ✓ | ✓ |
| | | 17014974 | 30 µL | 10 | 960 | ✓ | | ✓ |
| | | 17014975 | 100 µL | 10 | 960 | ✓ | | ✓ |
| | | 17014977 | 200 µL | 10 | 960 | ✓ | | ✓ |
| | | 17014976 | 250 µL | 10 | 960 | ✓ | | |
| | | 17014978 | 300 µL | 8 | 768 | ✓ | | |
| | | 17014979 | 300 µL | 8 | 768 | ✓ | | ✓ |
| | | 17014980 | 1000 µL | 8 | 768 | ✓ | | |
| | | 17014981 | 1000 µL | 8 | 768 | ✓ | | ✓ |

| | TerraBase Accessory for TerraRack | |
|---|---|---|
| TerraBase | 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

# Double-96 Racked Tips

## StableStak and StableRak

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

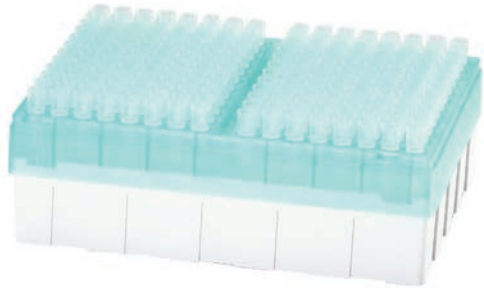
Ultra Pure
**Now**
**BioClean Ultra!**

- Higher purity standard
- Same great tip!
- Updated colors

**StableStak™**
Stacked double-96 racks with 192 tips per layer.



**StableRak™**
Individual double-96 racks with 192 tips per layer.



### Formats
Standard, presterilized and filter versions available

### Protective
Keeps tips safe from dirt and contamination

### Fast loading
Sturdy, non-slip racks make tip loading easy

## StableRak and StableStak





## Bulk Tips

LTS and UNV formats



| | CATALOG No. | MAX VOLUME | RACKS/CARTON | TIPS/CARTON | PRESTERILIZED | FILTER | SHAFTGARD | WIDE-O |
|---|---|---|---|---|---|---|---|---|
| | | VOL | | QTY | FEATURES | | | |
| LTS StableRak | 17005862 | 20 µL[1] | 5 | 960 | | | | |
| | 17005861 | 20 µL[1] | 5 | 960 | ✓ | | | |
| | 17005860 | 20 µL[1] | 5 | 960 | ✓ | ✓ | | |
| | 17005864 | 200 µL[2] | 5 | 960 | | | | |
| | 17005863 | 200 µL[2] | 5 | 960 | ✓ | | | |
| | 17005859 | 200 µL[2] | 5 | 960 | ✓ | ✓ | | |
| | 17005867 | 300 µL | 4 | 768 | | | | |
| | 17005866 | 300 µL | 4 | 768 | ✓ | | | |
| | 17005865 | 300 µL | 4 | 768 | ✓ | ✓ | | |
| | 17007083 | 1000 µL | 4 | 768 | | | | |
| | 17007082 | 1000 µL | 4 | 768 | ✓ | | | |
| | 17007081 | 1000 µL | 4 | 768 | ✓ | ✓ | | |
| | 17007086 | 1200 µL | 4 | 768 | | | | |
| | 17007085 | 1200 µL | 4 | 768 | ✓ | | | |
| | 17007084 | 1200 µL | 4 | 768 | ✓ | ✓ | | |
| LTS StableStak | 17005873 | 20 µL[1] | 5 | 960 | | | | |
| | 17005872 | 20 µL[1] | 5 | 960 | ✓ | | | |
| | 17005875 | 200 µL[2] | 5 | 960 | | | | |
| | 17005874 | 200 µL[2] | 5 | 960 | ✓ | | | |
| | 17005877 | 300 µL | 4 | 768 | | | | |
| | 17005876 | 300 µL | 4 | 768 | ✓ | | | |
| | 17007090 | 1000 µL | 4 | 768 | | | | |
| | 17007089 | 1000 µL | 4 | 768 | ✓ | | | |
| UNV | 17005857 | 300 µL | 4 | 768 | | | | |
| LTS Bulk Tips | 17001128 | 20 µL[1] | | 1000 | | | | |
| | 17001118 | 200 µL[2] | | 1000 | | | | |
| | 17001132 | 300 µL | | 1000 | | | | |
| | 17001129 | 1000 µL | | 1000 | | | | |
| | 17006324 | 1200 µL | | 1000 | | | | |
| | 17001130 | 2000 µL | | 1000 | | | | |
| | 17001133 | 5000 µL | | 1000 | | | | |
| | 17001119 | 10 mL | | 200 | | | | |
| | 17005940* | 10 mL | | 75 | ✓ | | | |
| | 17001131 | 20 mL | | 100 | | | | |
| | 17005941* | 20 mL | | 50 | ✓ | | | |
| UNV Bulk Tips | 17001124 | 10 µL | | 1000 | | | | |
| | 17001123 | 10 µL | | 1000 | | | ✓ | |
| | 17001116 | 250 µL | | 1000 | | | | |
| | 17001127 | 250 µL | | 1000 | | | | ✓ |
| | 17001121 | 1000 µL | | 1000 | | | | |
| | 17001125 | 2000 µL | | 1000 | | | | |
| | 17001126 | 2500 µL | | 1000 | | | | |
| | 17001117 | 5000 µL | | 1000 | | | | |
| | 17001122 | 10 mL | | 200 | | | | |
| | 17005939* | 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

# Specialty Tips

## Unique Tips for Special Applications

LTS



### Extended-length tips

For tall narrow tube work.
BioClean Ultra.

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

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

LTS
UNV



### Wide-orifice tips

Ideal for delicate samples.
BioClean Ultra.

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

UNV



### ShaftGard™ 10µL 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.

UNV



### Gel-Well™

Load gels in thin wells.

Dispense samples into thin wells in electrophoretic slab gel apparatus or in sample recovery. Flexible ultra-thin micro-capillary is ideal for DNA sequencing and protein separation. Autoclaving at 1 bar and 121°C up to 15 minutes is possible without significant capillary shrinkage or closure.

- **Flat or round tip ends**
- **Certified free from RNase and DNase**

**LTS**

| | CATALOG No. | VOL: MAX VOLUME | QTY: RACKS/CARTON | QTY: TIPS/CARTON | FEATURES: STERILIZED | FEATURES: WIDE-O | FEATURES: LOW RET | FEATURES: FILTER | FEATURES: X-LENGTH |
|---|---|---|---|---|---|---|---|---|---|
| Hinged-Lid Racks | 30389251 | 200 µL[2] | 8 | 768 | | | | | ✓ |
| | 30389252 | 200 µL[2] | 8 | 768 | ✓ | | | | ✓ |
| | 30389242 | 200 µL[2] | 8 | 768 | ✓ | | | ✓ | ✓ |
| | 30389222 | 1000 µL | 8 | 768 | | | | | ✓ |
| | 30389224 | 1000 µL | 8 | 768 | ✓ | | | | ✓ |
| | 30389223 | 1000 µL | 8 | 768 | ✓ | | | ✓ | ✓ |
| | 30389247 | 200 µL[2] | 10 | 960 | | ✓ | | | |
| | 30389248 | 200 µL[2] | 10 | 960 | | ✓ | ✓ | | |
| | 30389249 | 200 µL[2] | 10 | 960 | ✓ | ✓ | | | |
| | 30389250 | 200 µL[2] | 10 | 960 | ✓ | ✓ | ✓ | | |
| | 30389241 | 200 µL | 10 | 960 | ✓ | ✓ | ✓ | ✓ | |
| | 30389217 | 1000 µL | 8 | 768 | | ✓ | | | |
| | 30389219 | 1000 µL | 8 | 768 | | ✓ | ✓ | | |
| | 30389220 | 1000 µL | 8 | 768 | ✓ | ✓ | | | |
| | 30389221 | 1000 µL | 8 | 768 | ✓ | ✓ | ✓ | | |
| | 30389218 | 1000 µL | 8 | 768 | ✓ | ✓ | ✓ | ✓ | |

[2] Fits 50, 100 and 200 µL pipettes

**UNV**

| | CATALOG No. | VOL: MAX VOLUME | QTY: RACKS/CARTON | QTY: TIPS/CARTON | FEATURES: STERILIZED | FEATURES: GEL-WELL | FEATURES: SHAFTGARD | FEATURES: WIDE-O | FEATURES: LOW RET | FEATURES: FILTER |
|---|---|---|---|---|---|---|---|---|---|---|
| Racks | 30389174 | 10 µL | 10 | 960 | | | ✓ | | | |
| | 30389178 | 10 µL | 10 | 960 | ✓ | | ✓ | | | |
| | 30389175 | 10 µL | 10 | 960 | ✓ | | ✓ | | | ✓ |
| | 30389195 | 250 µL | 10 | 960 | | | | ✓ | | |
| | 30389196 | 250 µL | 10 | 960 | | | | ✓ | ✓ | |
| | 30389197 | 250 µL | 10 | 960 | ✓ | | | ✓ | ✓ | |
| | 30389188 | 250 µL | 10 | 960 | ✓ | | | ✓ | ✓ | ✓ |
| Bulk | 17001127 | 250 µL | | 1000 | | | | ✓ | | |
| | 17015068 | 1000 µL | | 1000 | | | | ✓ | ✓ | |
| Refills | 30389283* | 10 µL | 10 | 960 | | | ✓ | | | |
| | 30389285* | 10 µL | 10 | 960 | ✓ | | ✓ | | | |
| | 30389264 | 10 µL | 10 | 960 | ✓ | | ✓ | | | ✓ |

| | CATALOG No. | VOL: MAX VOLUME | QTY: RACKS/CARTON | QTY: TIPS/CARTON | FEATURES: STERILIZED | FEATURES: WIDE-O | FEATURES |
|---|---|---|---|---|---|---|---|
| Racks | 17002375 | 10 µL | 1 | 200 | | ✓ | 0.17 mm, flat |
| | 17002377 | 10 µL | 1 | 200 | | ✓ | 0.37 mm, flat |
| | 17002380 | 10 µL | 1 | 200 | | ✓ | 0.57 mm, round |
| | 17002379 | 250 µL | 1 | 200 | | ✓ | 0.57 mm, flat |
| | 17002378 | 250 µL | 1 | 200 | | ✓ | 0.37 mm, flat |
| | 17002376 | 250 µL | 1 | 200 | | ✓ | 0.17 mm, round |

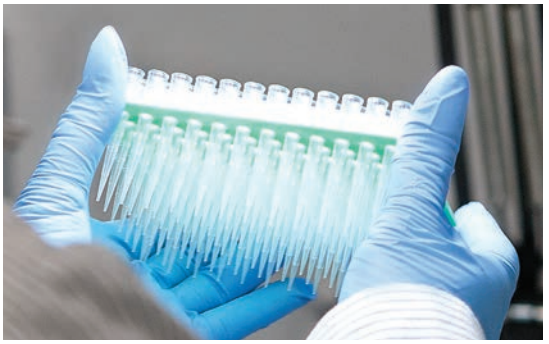
Wide-O = Wide Orifice, Low Ret = Low Retention *Green-Pak SpaceSaver

# BioClean Ultra

## The Gold Standard for Tip Purity and Performance

Rainin carefully tests and certifies each batch of BioClean Ultra™ pipette tips, so researchers can have absolute confidence in the integrity of their experiments and the fidelity of their data.

BioClean Ultra™





### Guaranteed Purity

- The industry's most comprehensive testing protocol.
- 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.

▶ Learn more about BioClean Ultra at **www.mt.com/BioCleanUltra**

# The LTS LiteTouch System

## Because Pipetting Shouldn't Hurt

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

**The Rainin LTS™ LiteTouch system is available on all Rainin XLS+ single and multichannel pipettes.**

## The LTS difference

LTS



Small sealing ring
significantly reduces friction

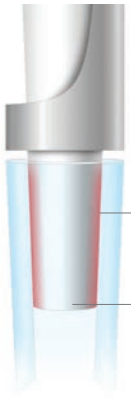
Positive stop
prevents jamming

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.

## Universal pipetting

UNV



Large sealing area
creates high friction

Conical shaft
stretches the tip

Universal pipettes have cone-shaped shafts that rely on friction to hold tips firmly.

- Universal tips stretch to fit around the shaft.
- Users typically apply force to the shaft to achieve a reliable friction seal.
- Due to the excessive force used to insert the tip, a high force is required to eject the tip.

# Pipet-Lite XLS+

## Performance You Can Feel

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

### Smooth operation

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

### Highly accurate

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

### Autoclavable

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

### Total comfort

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




### A better tip ejector

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

For pipette specifications, see page 32.




## Advanced asset management

The RFID tag on board every Rainin XLS pipette stores calibration data that is electronically read by the Rainin SmartStand and EasyDirect software. See pages 57-58 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 |
|---|---|---|
| Pipet-Lite XLS+ | **17014393** | 0.1–2 µL |
| | **17014388** | 0.5–10 µL |
| | **17014392** | 2–20 µL |
| | **17014384** | 10–100 µL |
| | **17014391** | 20–200 µL |
| | **17014405** | 20–300 µL |
| | **17014382** | 100–1000 µL |
| | **17014390** | 200–2000 µL |
| | **17011790** | 500–5000 µL |
| | **17011783** | 1–10 mL |
| | **17011788** | 2–20 mL |

Rainin LTS pipettes are designed for use with LTS tips.
For more information, see page 18.

UNV

| | 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 |

# 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 UNV formats.

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

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

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

Watch the E4 XLS demo ▶ **www.mt.com/raininE4**






### A "Smart" Charging Stand!

SmartStand charges up to four E4s simultaneously and offers a simple yet sophisticated way to track and manage every XLS pipette in your lab.
See page 61.

### Performance

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

### 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 pipetting SOP deviations 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.

GLP

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 |

Rainin LTS pipettes are designed for use with LTS tips.
Li-Ion battery and wall power supply are included.

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-Fit pipettes use universal tips.
Li-Ion battery and wall power supply are included.
For pipette specifications, see page 32.

# XLS+ Multichannels

## Performance You Can Feel!

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

### E4 XLS+ Electronic Multichannel

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

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




LTS

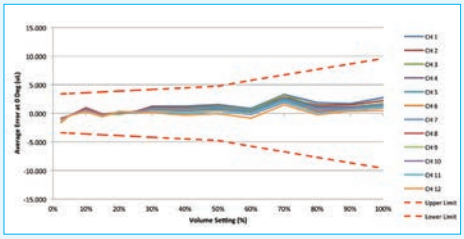
E4 XLS+ Multichannel

| CATALOG No. | VOLUME RANGE |
|---|---|
| **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 |

Li-Ion battery and wall power supply are included.
For pipette specifications, see page 32.
Rainin multichannel pipettes are only available in LTS format.

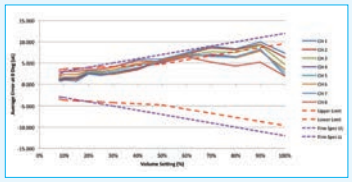
# Industry-leading Channel-to-Channel Consistency

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

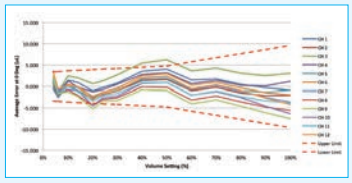


Rainin XLS+ 1200uL

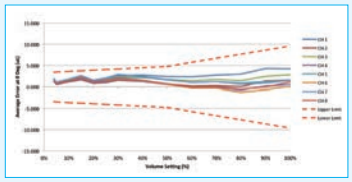
VS.



Competitor A • 1200uL



Competitor B • 1200uL



Competitor C • 1200uL

## Pipet-Lite XLS+ Manual Multichannel

### Ergonomic design and exceptional performance

- Balanced, lightweight, lower loading and ejection forces
- Easy Quick-lock volume setting – no drift
- Rugged and durable

LTS

| | CATALOG No. | VOLUME RANGE |
|---|---|---|
| Pipet-Lite XLS+ 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 |

Rainin LTS pipettes are designed for use with LTS tips.
For pipette specifications, see page 32.
Rainin multichannel pipettes are only available in LTS format.

# 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 in LTS. LTS

### Pipet-Lite XLS Adjustable Manual Multichannel

One-hand adjustable spacing.

**Fast, convenient**
Quickly change from format to format in a single step

**Nozzle spacing ranges**
6-channel: 9–19 mm
8-channel: 9–14 mm

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

**Applications**
Ideal for genomic, proteomic and cellular assay applications




LTS

| | CATALOG No. | VOLUME RANGE |
|---|---|---|
| Pipet-Lite XLS | **6-Channel** | |
| | **17011841** | 20–300 µL |
| | **17011840** | 100–1200 µL |
| | **8-Channel** | |
| | **17011844** | 5–50 µL |
| | **17011843** | 20–300 µL |
| | **17011842** | 100–1200 µL |

Rainin LTS pipettes are designed for use with LTS tips.
For pipette specifications, see page 32.
Adjustable spacer pipettes are only available in LTS format.

## 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

E4 XLS

| CATALOG No. | VOLUME RANGE |
|---|---|
| **6-Channel** | |
| **17012327** | 20–300 µL |
| **17012328** | 100–1200 µL |
| **8-Channel** | |
| **17012329** | 5–50 µL |
| **17012330** | 20–300 µL |
| **17012331** | 100–1200 µL |

Rainin LTS pipettes are designed for use with LTS tips.
For pipette specifications, see page 32.
Adjustable spacer pipettes are only available in LTS format.

Li-Ion battery and wall power supply are included.

# Rainin Classic

## Timeless Design, Exceptional Performance

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

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

### Durable

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

### Lower plunger force

Plunger force in Rainin Classic is 25% less than in similar pipettes.

### Comfort

The fingerhook allows a lighter grip during pipetting cycles.




**Great value – lower prices!**

UNV

| | CATALOG No. | VOLUME RANGE |
|---|---|---|
| Rainin Classic Universal Fit | **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 |

Rainin Classic pipettes use universal tips.
For pipette specifications, see page 32.

# 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, pre-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: MAX VOLUME | QTY: RACKS/CARTON | QTY: TIPS/CARTON | QTY: PRESTERILIZED |
|---|---|---|---|---|---|
| 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 | | | |
| Disposable Syringe Tips | **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 | |

# New Pipette Starter Kits

## 14 Easy Ways to Buy New XLS+ Pipettes

**Each Starter Kit includes a SmartStand* and EasyDirect software.**

- 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 LTS and universal UNV

*See page 60-61 for more about SmartStand

| | | Single Channel Manual | | | | | | Multichannel Manual | | | | Single Channel Electronic | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTS | UNV | | | | | | | | | | | | | | |
| | CATALOG No. | 2 µL | 10 µL | 20 µL | 200 µL | 1000 µL | 5000 µL | 20 µL 8-channel | 200 µL 8-channel | 20 µL 12-channel | 200 µL 12-channel | 20 µL | 200 µL | 1000 µL | SmartStand |
| LTS | 30386738 | ✓ | ✓ | ✓ | ✓ | | | | | | | | | | ✓ |
| LTS | 30386597 | ✓ | | ✓ | ✓ | ✓ | | | | | | | | | ✓ |
| LTS | 30386599 | | | ✓ | ✓ | ✓ | | | | | | | | | ✓ |
| LTS | 30386737 | | | | ✓ | ✓ | ✓ | | | | | | | | ✓ |
| LTS | 30386734 | | | ✓ | ✓ | ✓ | | ✓ | | | | | | | ✓ |
| LTS | 30386733 | | | ✓ | ✓ | ✓ | | | ✓ | | | | | | ✓ |
| LTS | 30386736 | | | ✓ | ✓ | ✓ | | | | ✓ | | | | | ✓ |
| LTS | 30386735 | | | ✓ | ✓ | ✓ | | | | | ✓ | | | | ✓ |
| LTS | 30386739 | | | | | | | ✓ | ✓ | | | | | | ✓ |
| LTS | 30386740 | | | | | | | | | ✓ | ✓ | | | | ✓ |
| LTS | 30386731 | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| UNV | 30386598 | ✓ | | ✓ | ✓ | ✓ | | | | | | | | | ✓ |
| UNV | 30386730 | | | ✓ | ✓ | ✓ | | | | | | | | | ✓ |
| UNV | 30386732 | | | | | | | | | | | ✓ | ✓ | ✓ | ✓ |
| UNV | 17008708* | | | ✓ | ✓ | ✓ | | | | | | | | | |

* Rainin Classic



# SmartStand + EasyDirect software = Easy Pipette Management



# Pipette Performance Specifications

## Specifications at 10%, 50% and 100% volume

**All Rainin single-channel models, including:**

**Manual pipettes**

- Pipet-Lite XLS/ XLS+
- Rainin Classic

**Electronic pipettes**

- E4 XLS/ XLS+



| | PIPETTE VOLUME | VOL VOLUME | INCREMENT µL MANUAL | INCREMENT µL ELECTRONIC | SYSTEMATIC ERROR (ACCURACY) % | SYSTEMATIC ERROR (ACCURACY) (±) µL | RANDOM ERROR (PRECISION) % | RANDOM ERROR (PRECISION) (≤) µL |
|---|---|---|---|---|---|---|---|---|
| Single-channel pipettes | **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 (ACCURACY) | | RANDOM ERROR – MANUAL (PRECISION) | | RANDOM ERROR – ELECT (PRECISION) | |
|---|---|---|---|---|---|---|---|---|---|
| | | VOLUME | MANUAL / ELECTRONIC | % | (±) µL | % | (≤) µL | % | (≤) µL |
| Multichannel pipettes | **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 |

Specification subject to change without notice.





# 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 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 costs

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

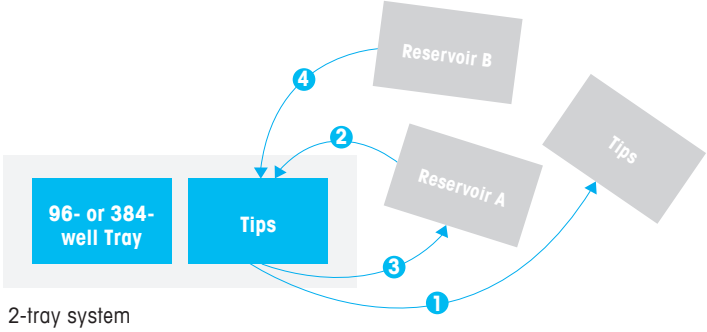



## Speed your workflow

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** (Channel Accuracy) | 20 µL: ± 1% ( 0.2 µL)<br>10 µL: ±1.2% (0.12 µL)<br>2 µL: ± 6% (0.12 µL)<br>1 µL: ± 12% (0.12 µL) | 200 µL: ± 1% ( 2 µL)<br>100 µL: ± 1% ( 1 µL)<br>20 µL: ± 2% ( 0.4 µL)<br>5 µL: ± 5% (0.25 µL) | 1000 µL: ± 1% ( 10 µL)<br>500 µL: ± 1% ( 5 µL)<br>100 µL: ± 2.5% ( 2.5 µL) |
| | **Random Error** (Channel Precision) | 20 µL: ≤0.8% (0.16 µL)<br>10 µL: ≤1.0% ( 0.1 µL)<br>2 µL: ≤ 5% ( 0.1 µL)<br>1 µL: ≤ 10% (0.12 µL) | 200 µL: ≤0.4% ( 0.8 µL)<br>100 µL: ≤0.8% ( 0.8 µL)<br>20 µL: ≤1.5% ( 0.3 µL)<br>5 µL: ≤3.5% (0.18 µL) | 1000 µL: ≤ 0.4% ( 4 µL)<br>500 µL: ≤ 0.4% ( 2 µL)<br>100 µL: ≤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

| | 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 |
| Acce | **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).





| | CATALOG No. | VOL: MAX VOLUME | QTY: RACKS/CARTON | QTY: STACKS | QTY: TIPS/CARTON | FEATURES: PRESTERILIZED | FEATURES: FILTER | FEATURES: LOW RET |
|---|---|---|---|---|---|---|---|---|
| Tips in Racks | **17011185** | 20 µL | 10 | | 960 | | | |
| | **17011186** | 20 µL | 10 | | 960 | ✓ | | |
| | **17011117** | 20 µL | 10 | | 960 | ✓ | ✓ | |
| | **17010645** | 200 µL | 10 | | 960 | | | |
| | **17010647** | 200 µL | 10 | | 960 | ✓ | | |
| | **17010646** | 200 µL | 10 | | 960 | ✓ | ✓ | |
| | **30281704** | 1000 µL | 10 | | 960 | | | |
| | **30296781** | 1000 µL | 10 | | 960 | ✓ | | |
| | **30296782** | 1000 µL | 10 | | 960 | ✓ | ✓ | |
| | **17014399** | 20 µL | 10 | | 960 | ✓ | | ✓ |
| | **17014400** | 20 µL | 10 | | 960 | ✓ | ✓ | ✓ |
| | **17014401** | 200 µL | 10 | | 960 | ✓ | | ✓ |
| | **17014402** | 200 µL | 10 | | 960 | ✓ | ✓ | ✓ |
| | **30296783** | 1000 µL | 10 | | 960 | ✓ | | ✓ |
| | **30296784** | 1000 µL | 10 | | 960 | ✓ | ✓ | ✓ |
| Tips in Stacks | **17011187** | 20 µL | | 10 | 960 | | | |
| | **17011287** | 20 µL | | 10 | 960 | ✓ | | |
| | **17010648** | 200 µL | | 10 | 960 | | | |
| | **17010649** | 200 µL | | 10 | 960 | ✓ | | |
| | **17014403** | 20 µL | | 10 | 960 | ✓ | | ✓ |
| | **17014404** | 200 µL | | 10 | 960 | ✓ | | ✓ |

**See page 41 for BenchSmart reservoirs, plates, mats and strips.**

# Liquidator 96

## Manual High-Throughput Pipetting

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

- **Two volume ranges: 0.5-20 µL and 5-200 µL**
- **No power or programming: simply set the volume and pipette**
- **Four-position platform: process up to 3 plates at a time with no stacking**

A fast and highly intuitive pipetting system. 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.





## Increase speed

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

## Accurate and reproducible

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

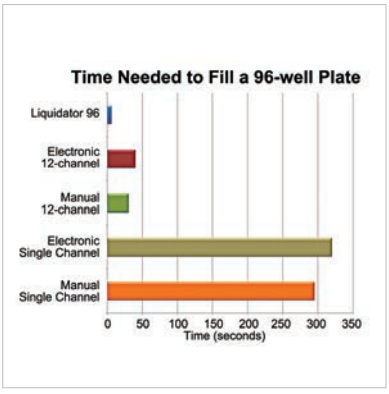
## Liquidator 96 specifications

| | ACCURACY | PRECISION |
|---|---|---|
| 20 µL | 20 µL: ± 1.0% | 20 µL: ≤ 0.8% |
| | 10 µL: ± 1.2% | 10 µL: ≤ 1.0% |
| | 2 µL: ± 6% | 2 µL: ≤ 5% |
| | 1 µL: ± 12% | 1 µL: ≤ 10% |

Volume range: 0.5-20 µL
Volume increment: 0.02 µL

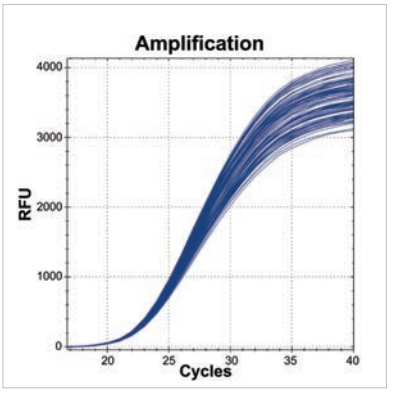
| | | |
|---|---|---|
| 200 µL | 200 µL: ± 1.0% | 200 µL: ≤ 0.5% |
| | 100 µL: ± 1.0% | 100 µL: ≤ 0.8% |
| | 20 µL: ± 2.0% | 20 µL: ≤ 1.5% |
| | 5 µL: ± 5.0% | 5 µL: ≤ 3.5% |

Volume range: 5-200 µL
Volume increment: 0.2 µL




## 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.

# Liquidator 96

## Liquidator 96

LTS

| | CATALOG No. | DESCRIPTION |
|---|---|---|
| LIQ 96 | **17014207** | 0.5-20 µL Benchtop Pipetting System |
| | **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 | **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 |
| | **17011119** | 20 µL tip tray adapter, black |

## High-throughput LTS Tips

For use with BenchSmart 96 and Liquidator 96 benchtop pipettors only





| | CATALOG No. | VOL: MAX VOLUME | QTY: RACKS/CARTON | QTY: STACKS | QTY: TIPS/CARTON | FEATURES: PRESTERILIZED | FEATURES: FILTER | FEATURES: LOW RET |
|---|---|---|---|---|---|---|---|---|
| Tips in Racks | **17011185** | 20 µL | 10 | | 960 | | | |
| | **17011186** | 20 µL | 10 | | 960 | ✓ | | |
| | **17011117** | 20 µL | 10 | | 960 | ✓ | ✓ | |
| | **17010645** | 200 µL | 10 | | 960 | | | |
| | **17010647** | 200 µL | 10 | | 960 | ✓ | | |
| | **17010646** | 200 µL | 10 | | 960 | ✓ | ✓ | |
| | **17014399** | 20 µL | 10 | | 960 | ✓ | | ✓ |
| | **17014400** | 20 µL | 10 | | 960 | ✓ | ✓ | ✓ |
| | **17014401** | 200 µL | 10 | | 960 | ✓ | | ✓ |
| | **17014402** | 200 µL | 10 | | 960 | ✓ | ✓ | ✓ |
| Tips in Stacks | **17011187** | 20 µL | | 10 | | | | |
| | **17011287** | 20 µL | | 10 | | ✓ | | |
| | **17010648** | 200 µL | | 10 | | | | |
| | **17010649** | 200 µL | | 10 | | ✓ | | |
| | **17014403** | 20 µL | | 10 | | ✓ | | ✓ |
| | **17014404** | 200 µL | | 10 | | ✓ | | ✓ |

High-throughput LTS tips are for use with Rainin BenchSmart 96 and Liquidator 96 benchtop pipetting systems only.

## Reservoirs, plates, mats and strips for BenchSmart 96 and Liquidator 96

### Reusable SBS footprint polypropylene reservoirs

| | CATALOG No. | DESCRIPTION | | |
|---|---|---|---|---|
| Reservoirs | **17012602** | Non-sterile | Low-profile 96 pyramidal bottoms | 5-pack |
| | **17012603** | Sterile | Low-profile 96 pyramidal bottoms | 5-pack, indiv. wrap |
| | **17012604** | Non-sterile | Standard profile 96 pyramidal bottoms | 5-pack |
| | **17012605** | Sterile | Standard profile 96 pyramidal bottoms | 5-pack, indiv. wrap |
| | **17012608** | Non-sterile | Low-profile 8-channel V-bottom | 5-pack |
| | **17012609** | Sterile | Low-profile 8-channel V-bottom | 5-pack |
| | **17012606** | Non-sterile | Standard profile 8-channel V-bottom | 5-pack |
| | **17012607** | Sterile | Standard profile 8-channel V-bottom | 5-pack, indiv. wrap |
| | **17012612** | Non-sterile | Low-profile 12-channel V-bottom | 5-pack |
| | **17012613** | Sterile | Low-profile 12-channel V-bottom | 5-pack, indiv. wrap |
| | **17012610** | Non-sterile | Standard profile 12-channel V-bottom | 5-pack |
| | **17012611** | Sterile | Standard profile 12-channel V-bottom | 5-pack, indiv. wrap |

### Deepwell plates, mats, tube strips, cap strips

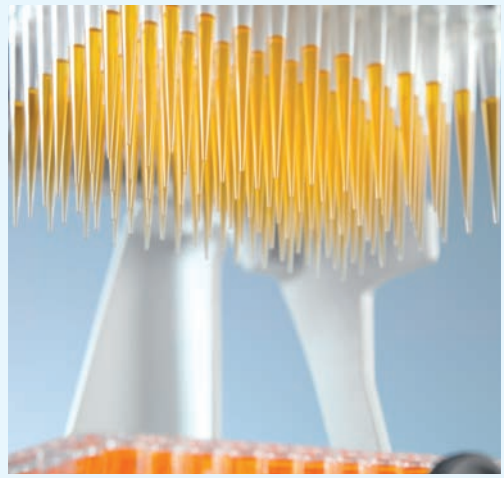
| | | | | |
|---|---|---|---|---|
| Accessories | **17012623** | Non-sterile | 2.2 mL 96-deepwell plate, | 5-pack |
| | **17012624** | Sterile | 2.2 mL 96-deepwell plate, | 5-pack, indiv. wrap |
| | **17012625** | Non-sterile | Polymer sealing mat fits 96-deepwell plate | 5-pack |
| | **17012626** | Sterile | Polymer sealing mat fits 96-deepwell plate | 5-pack, indiv. wrap |
| | **17012627** | Non-sterile | 1.2 mL racked microtube strips (8x12) | 5-pack |
| | **17012628** | Sterile | 1.2 mL racked microtube strips (8x12) | 5-pack |
| | **17012629** | Non-sterile | Microtube 8-cap strips, box of 300 | |
| | **17012630** | Sterile | Microtube 8-cap strips, box of 300 | 25 indiv. bags of 12 strips |

## Enhance ELISA Data Quality

ELISA data quality can be significantly improved if reagents are added simultaneously and process time is reduced. Our free white paper shows how Liquidator® 96 used for ELISA workflows is able to generate more linear ELISA standard curves.

Get your free white paper "Improving Quantitative ELISA Data" at:

▸ **tinyurl.com/liq96elisa**



# PureSpeed Applications

## Simplify Proteomic and Genomic Experiments

PureSpeed sample preparation tips can streamline many types of experiments. Here are some examples:




### Desalting mass spectrometry samples

PureSpeed C18 Desalting Tips offer the highest peptide capacity, 10 µg, which is critical for generating high-intensity sample spectra during mass spectrometry.

PureSpeed is an affordable, automated solution for purifying up to 12 samples at once, facilitating collection of high-quality sequence coverage data.

### Immunoprecipitation

PureSpeed ProA and ProG pre-packed tips can be used with Rainin E4 XLS pipettes to perform direct and indirect immunoprecipitation. Compared to magnetic beads and loose agarose resin, PureSpeed offers a simpler protocol and delivers more concentrated immunoprecipitated samples.

With multichannel E4 XLS pipettes, PureSpeed can process up to 12 samples simultaneously.

### Chromatin immunoprecipitation (ChIP)

Use PureSpeed to study the interactions between proteins and DNA in a cell. Unlike magnetic beads, loose agarose resin, spin columns and fixed staphylococcus cells, PureSpeed markedly reduces the hands-on time needed for ChIP.

For ChIP procedures, pre-packed ProA and ProG tips are able to produce highly concentrated samples. When used with the multichannel Rainin E4 XLS pipette, PureSpeed tips offer a truly parallel solution for ChIP experiments.

### Recombinant and native protein purification

PureSpeed can simplify your method to capture, purify, and enrich recombinant proteins and native proteins, such as antibodies. Ni-IMAC, ProA and ProG resins can be completely saturated with recombinant proteins or antibodies.

Combined with high volume wash steps and low elution buffer volumes, PureSpeed delivers the highest concentration of purified material in as little as 15 minutes.

### Ion exchange chromatography

Using the inexpensive and semi-automated PureSpeed system, it is easy to separate biomolecules based on their overall charge characteristics. Proteins, oligonucleotides, and other molecules can be resolved and purified using our pre-packed strong and weak anion- and cation-exchange tips.



## PureSpeed

200 µL pipettes are used with 200 µL tips with 5 and 20 µL resins.
1200 µL pipettes are used with 1200 µL tips with 20 and 80 µL resins.

| | CATALOG No. | RESIN VOLUME | DETAILS | |
|---|---|---|---|---|
| LTS | | | | |
| ProA Tips | 17012561 | 5 µL | | 12 x 200 µL |
| | 17012562 | 20 µL | | 12 x 200 µL |
| | 17012568 | 20 µL | | 12 x 200 µL |
| | 17012569 | 80 µL | | 12 x 200 µL |
| ProG Tips | 17012563 | 5 µL | | 12 x 200 µL |
| | 17012564 | 20 µL | | 12 x 200 µL |
| | 17012570 | 20 µL | | 12 x 200 µL |
| | 17012571 | 80 µL | | 12 x 200 µL |
| Ni-IMAC Tips | 17012566 | 5 µL | | 12 x 200 µL |
| | 17012567 | 20 µL | | 12 x 200 µL |
| | 17012572 | 20 µL | | 12 x 200 µL |
| | 17012573 | 80 µL | | 12 x 200 µL |
| Ab+ Tips | 30382178 | 20 µL | | 12 x 1000 µL |
| | 30382179 | 80 µL | | 12 x 1000 µL |
| Ion Exchange Tips | 17014190 | 20 µL | Weak Cation | 12 x 1000 µL |
| | 17014191 | 80 µL | Weak Cation | 12 x 1000 µL |
| | 17014186 | 20 µL | Weak Anion | 12 x 1000 µL |
| | 17014187 | 80 µL | Weak Anion | 12 x 1000 µL |
| | 17014188 | 20 µL | Strong Cation | 12 x 1000 µL |
| | 17014189 | 80 µL | Strong Cation | 12 x 1000 µL |
| | 17014184 | 20 µL | Strong Anion | 12 x 1000 µL |
| | 17014185 | 80 µL | Strong Anion | 12 x 1000 µL |
| C18 Desalting Tips | 17014043 | LTS tips | | 12 x 20 µL |
| | 17014045 | LTS tips | | 96 x 20 µL |
| | 17014047 | LTS tips | | 960 x 20 µL |
| UNV | | | | |
| | 17014044 | Universal tips | | 12 x 10 µL |
| | 17014046 | Universal tips | | 96 x 10 µL |
| | 17014048 | Universal tips | | 960 x 10 µL |
| PureSpeed Accessories | 17012588 | Accessory Kit: Base, 96-deepwell plate, ColorTrak Guides, Adapters | | |
| | 17012584 | PureSpeed Base | | in Acc. Kit |
| | 17012587 | E4 XLS+ Micro SD Card with PureSpeed protocol | | in Acc. Kit |
| | 17012582 | Pack of 10 adapters for 200 µL multichannel | | in Acc. Kit |
| | 17012583 | Pack of 10 adapters for 1000 µL multichannel | | in Acc. Kit |
| | 17013242 | Adapter for 200 µL single channel | | in Starter Kit |
| | 17013226 | Adapter for 1000 µL single channel | | in Starter Kit |
| | 17012623 | 96-deepwell plate, 5-pack | | in Acc. Kit |
| | 17012587 | E4 MicroSD Card PS Protocol PT-E4-SD | | |

# Rainin QuickFlow

## Convenient, Trouble-free Aspiration

The Rainin QuickFlow benchtop aspirator combines exceptional ergonomics with a broad range of features and conveniences– the ability to select continuous flow instead of maintaining pressure on the activator button, a liquid-level sensor to prevent overfilling and multiple adapters for most media types. Labs with central vacuum systems can purchase the handle and adapter kit separately.

NEW

**Features**

- Ergonomic design
- Simple and safe to use
- Small footprint
- Fits under cell culture hoods
- Interchangeable adapters
- Variable speed vacuum
- Non-contact liquid level sensor
- Snap connectors for easy assembly/disassembly
- Single- and multi-channel adapters use universal-fit tips

**Perfect for aspirating media from 96-well plates**




## Ordering Information

| | CATALOG No. | DESCRIPTION |
|---|---|---|
| QuickFlow | **30519826** | Aspirator, QuickFlow 4L |
| | **30519824** | QuickFlow Handle Kit – Standard |
| | **30519825** | QuickFlow Handle Kit – w/Splitter |



## Easy Assembly

With self-sealing quick connectors, QuickFlow is designed for easy and intuitive disassembly and reassembly. All parts that come in contact with liquids are easy to clean and autoclavable.



## Liquid Level Sensor

The QuickFlow's non-contact level sensor offers exceptional performance and reliability. The sensor stops the vacuum when the bottle reaches capacity and is proven to provide a long service life.



## Speed Control

## Continuous Flow

QuickFlow's continuous mode isn't just more efficient–it's a hand saver. Repeatedly pressing the aspiration button can contribute to repetitive strain injury. QuickFlow eliminates this problem by allowing users to select continuous flow and the amount of suction.

# Electronic and Manual Repeaters

## AutoRep E and AutoRep S

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

### AutoRep S

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

Useful when working in the range from 2 µL to 50 mL, AutoRep S is an economical choice for repeat dispensing up to 49 aliquots without refilling.

The volume reference card and central volume wheel simplify volume setting. The two-sided volume card fits in a slot on the instrument head.

### AutoRep E

AutoRep E virtually eliminates all pipetting forces – a real concern with repeat pipetting. When used with Encode syringes, AutoRep E automatically senses and displays the tip volume.

Three modes:

- **Dispensing:** step counter displays volume
- **Auto dispensing:** learns your pace, so no need to program time intervals
- **Pipetting:** positive displacement

The no-memory/no-maintenance NiMH power pack charges in just three hours.




AutoRep S

AutoRep E

| | CATALOG No. | DESCRIPTION | |
|---|---|---|---|
| AutoRep Repeater Pipettes | **17000723** | AutoRep E | Electronic repeater pipette, 1 µL – 50 mL |
| | **17000556** | AutoRep E | Charger adapter – US |
| | **17003233** | AutoRep E | NiMH battery pack |
| | **17004324** | AutoRep E | Charging base without charger adapter |
| | **17013008** | AutoRep S | Manual repeater pipette, 2 µL to 50 mL |
| | **17013009** | AutoRep S | Shelf mount |
| | **17013010** | AutoRep S | Volume table |

Encode positive displacement syringes are ideal for repetitive pipetting of all liquids.




## Encode syringes

AutoRep E displays syringe volume automatically, eliminating errors and guesswork. The wide selection of Encode™ syringes gives accurate delivery in any volume from 1 µL to 50 mL, and they are available sterile and non-sterile.

Sterile syringes are certified to be free of detectable DNA, RNase, Endotoxin and ATP. Product is sterilized with beta-radiation to obtain a SAL of $10^{-6}$. Individually wrapped.

| | CATALOG No. | DESCRIPTION | | |
|---|---|---|---|---|
| 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 |
| | **17001885** | Encode set, non-sterile, 20 each: 0.5, 1.0, 1.25, 2.5, 5, 10, 12.5 mL | | |
| | **17000546** | 25/50 mL** | 10/pkg | |
| | **17000547** | 25/50 mL** Wrapped | 5/pkg | Sterile |

* Includes one adapter. ** Adapter

# Large Volume Liquid Handling

## Disp-X – Dispense Safely and Easily

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 | |

# Precise Control at Your Fingertips

## Pipet-X – Pipette Volumes to 100 mL

Ample flexibility for a wide range of liquid transfer and measurement options.




### One tool is all you need

The Pipet-X pipet controller excels at all serological pipetting applications; uses standard plastic or glass serological pipets.

### One-handed control

The ergonomic grip and buttons are designed for comfort with large or small hands.

### Smart recharging

Pipet-X uses a rechargeable NiMH battery for up to eight hours of uninterrupted use. Can be used while recharging with power cord.

### Contamination free

Built-in check valve and 0.2 micron hydrophobic membrane filter protect the Pipet-X internal components from contamination during aspiration.

| | CATALOG No. | DESCRIPTION |
|---|---|---|
| Pipet-X | **17011743** | Pipet-X pipet controller (EU), 0.1–100 mL |
| | **17011733** | Pipet-X pipet controller (US), 0.1–100 mL |
| | **17011744** | Pipet-X silicone adapter with check valve |
| | **17011745** | Pipet-X spare membrane filter: 0.2 µm, sterile |
| | **17011746** | Pipet-X nickel-metal hydride battery |

# 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 uL 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™(GUVP™) 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 GLPconditions. 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<br>mV<br>ISFET pH<br>Temp. | –2.000 … 20.000 pH;<br>–2000.0 … 2000.0 mV<br>0.000 … 14.000 pH<br>–30.0 … 130.0 °C | 0.001/0.01/0.1; ± 0.002<br>0.1/1; ± 0.1<br>0.001/0.01/0.1; ± 0.05<br>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<br>Temp. | 0.001 µS/cm … 2000 mS/cm<br>–30.0 … 130.0 °C | 0.001 … 1; ± 0.5%<br>0.1; ± 0.1 | none | **30046244** |
| **S700-Kit** | | | | | 731-ISM | **30046245** |
| **S700-Trace** | | | | | Trace incl. flow cell | **30046246** |
| **S500-Basic** | | pH<br>mV<br>Ion conentration<br>Temp. | –2.000 … 20.000 pH;<br>–2000.0 … 2000.0 mV<br>0 … 999 999 mg/L, ppm<br>–30.0 … 130.0 °C | 0.001/0.01/0.1; ± 0.002<br>0.1/1; ± 0.1<br>0.001 … 1; ± 0.5%<br>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<br>± 0.1 mg/L from 0 … 8<br>± 0.2 mg/L from 8 … 20<br>± 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<br>Temperature | 0.000 … 99 mg/L, ppm | 0.001; ± 0.5%<br>0.1; ± 0.1 | 605-ISM | **30092985** |
| **S470-Basic** | **2** | pH<br>mV<br>ISFET pH<br>Conductivity<br>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**

# SevenCompact™

## Universal and Reliable Instruments

The SevenCompact™ series combines precise electrochemical measurement technologies with flexibility, innovative design and ease-of-use. It can be universally employed and continues the tradition of the Seven series from METTLER TOLEDO.




### Large Customizable Color Display

The 4.3 inch high-resolution color display has large digits and well arranged icons making relevant information identifiable at a glance. The color and contrast can be adapted to your preferences and light conditions.




### uFocus™ on the Essentials

The instrument gives you the choice! In the normal screen layout, all available information is visible. By switching to the uFocus™ distractions caused by less important information are eliminated.



### uPlace™ the Sensor Perfectly

The uPlace™ electrode arm can be operated with one hand, moving straight up and down bringing the electrode into the position where it works best for your sample.



### Total Flexibility with Data Processing

Upon endpointing, SevenCompact™ allows multiple archiving options: the data can be stored, printed or transferred to EasyDirect™. Any combination of these three options is possible, giving you total flexibility.



### Intelligent Sensor Management for Highest Security

Upon connection of an ISM sensor, the sensor's ID is automatically identified. The most recent sensor calibration data is transferred to the meter and is used for subsequent measurements.



### SevenCompact Duo for Truly Universal Measurements

The dual channel instrument measures conductivity and its derived values, as well as pH - either simultaneously or independently.

| MODEL | PARAMETERS | MEASURING RANGE | RESOLUTION AND ACCURACY | INLAB® SENSOR | PAART No. |
|---|---|---|---|---|---|
| **S220-Basic (Instrument)** | pH/mV*/Redox/Ion concentration**/°C*** | –2.000 … 20.000 pH<br>–2000.0 … 2000.0 mV<br>1.00E$^{-9}$ … 9.99E$^{+9}$<br>–30.0 … 130.0 °C | pH: 0.001/0.01/0.1; ±0.002<br>mV: 0.1/1; ±0.1<br>Ions: last signifi.digit; ±0.5%<br>°C: 0.1; ±0.1 | none | **30019028** |
| **S220-Kit** | | | | Expert Pro-ISM | **30019029** |
| **S220-uMix** | | | | Expert Pro-ISM, uMix stirrer | **30096986** |
| **S220-Buffers** | | | | InLab Expert Pro-ISM and Buffer Bottles | **30393277** |
| **S220-Bio** | | | | Routine Pro-ISM | **30019031** |
| **S220-Micro** | | | | Ultra-Micro-ISM | **30096985** |
| **S220-U** | | | | Versatile Pro | **30019032** |
| **S230-Basic (Instrument)** | Cond./TDS/Salinity/ Resistivity/°C | 0.001µS/cm … 1000 mS/cm<br>–30.0 … 130.0 °C | 0.001 … 1; ±0.5%<br>0.1 °C; ±0.1 °C | none | **30019033** |
| **S230-Kit** | | | | 731-ISM | **30019034** |
| **S230-USP/EP** | | | | 741-ISM | **30019035** |
| **S213-Meter** | pH/mV/Redox/ °C/Conductivity/ TDS/Salinity/ Resistivity | –2.000 … 20.000 pH<br>–2000.0 … 2000.0 mV<br>0.001mS/cm<br>1000mS/cm (cond)<br>–30.0 … 130.0 °C | pH: 0.001/0.01/0.1 ±0.002<br>mV: 0.1/1 ±0.1<br>Cond: 0.001 … 1 ±0.5%<br>0.1 °C; ±0.1 °C | none | **30339958** |
| **S213-STD** | | | | Expert Pro-ISM 731-ISM | **30339959** |
| **S213-Water** | | | | Pure Pro-ISM 741-ISM | **30339980** |

* Instrument can also measure rel. mV
** Ion concentration supports units mmol/L, mol/L, ppm, mg/L, % and pX
*** Temperature display choice between °C and °F. ATC temperature range is –5.0 … 130.0 °C

## SevenCompact™

Seven good reasons for SevenCompact™

- **Top sensors**
  fast and accurate measurements
- **Menu guidance in 12 languages**
  user-friendly operation
- **Clear, well arranged color display**
  quick to learn
- **Many printing and data storage options**
  GLP compliant
- **Professional peripheral options**
  highly efficient
- **Intelligent sensors**
  peace of mind
- **Full fledged service offering**
  high uptime and compliance

## General Accessories for SevenCompact™

| DESCRIPTION | PART No. |
|---|---|
| uPlace™: Electrode holder (included in standard delivery) | **30019823** |
| uMix™ magnetic stirrer | **30040000** |
| Protective cover (included in standard delivery) | **30019824** |
| RS-P25 printer (with RS232 cable) | **11124320** |
| Barcode reader hand scanner | **21901297** |
| USB cable for barcode reader (not included with barcode reader) | **21901309** |
| EasyDirect pH Software | **30323214** |
| USB A-B cable 1.8m for LabX direct PC software (not included with LabX direct PC software) | **51191926** |
| Guide to pH measurement (included in kit versions) | **51300058** |
| Guide to conductivity measurement (included in kit versions) | **30099121** |
| Power supply (included in standard delivery) | **11120270** |

▶ See SevenCompact in action. **www.mt.com/SevenCompact**

# Trust the Service Experts

## Minimize Risk and Maximize Reproducibility

The METTLER TOLEDO difference: controlled laboratory environments and manufacturer authorized spare parts, certified pipette technicians and specialized calibration software.



Americas



### Uptime

Our global network of factory-trained technicians and ISO/IEC 17025 certified service labs enables us to respond quickly to all repair and calibration needs.



### Performance

Environmentally controlled labs and original manufacturer spare parts ensure that instruments are always returned to the highest accuracy and precision.



### Compliance

With specialized calibration software and ISO/IEC 17025 accredited labs, METTLER TOLEDO is a partner you can trust to help maintain ISO 8655 and FDA 21 CFR part 11 standards.



### Expertise

Our certified pipette service technicians perform more than 10 million readings each year, giving us extraordinary data analytics for understanding how all brands of pipettes perform over time.

▸ Request Rainin Service today! **www.mt.com/RaininService**



Europe



Asia

Mettler Toledo Sales and Service

# METTLER TOLEDO operates the world's most extensive network of ISO/IEC 17025 accredited pipette calibration laboratories.

## Comprehensive offering

- Calibration
- Preventive maintenance
- Service repair
- Calibration certificates

## Global network

With a global network of ISO/IEC 17025 accredited laboratories and one of the largest factory-trained support and service forces, we can provide you with application support and technical assistance anytime, anywhere.

# 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 or ISO 8655 tolerances
- Calibration certificates with detailed results
- Calibration label

| | Standard Plan | Advanced Plan | Accredited Plan |
|---|---|---|---|
| | Labs with basic service needs<br>Perfect for Academic Research R&D | When prior performance matters<br>Pharma Biotech Clinical research labs | For complete ISO 17025 documentation<br>GLP/GMP, Regulated Labs |
| **Preventive Maintenance** | ✓ | ✓ | ✓ |
| **As Found** | n/a | 4 test weighings @ 10% and 100% | 4 test weighings @ 10%, 50% and 100% |
| **As Returned** | 4 test weighings @ 10% and 100% | 4 test weighings @ 10% and 100% | 10 test weighings @ 10%, 50% and 100% |
| **Calibration Certificates** | Standard Certificate | Standard Certificate | ISO 17025 Certificate |

# 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.




### Evaluation

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

### 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.

### 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**

# Pipette Stands

## Storage and Protection

Keep your pipettes charged, organized and ready to use.



### SmartStand™

Intelligent, easy-to-use, for manual and electronic XLS+ pipettes, single or multichannel. Charges up to four E4s.



### Universal Carousel Stand

Handy rotating carousel stand for up to seven manual pipettes. Weighted base – won't tip over.



### Hang-Ups™

Built-in magnets for ferrous surfaces, with adhesive disks for other surfaces.



### Shelf Hang-Ups

Three Hang-Ups on a bracket for attachment to a shelf.

| | CATALOG No. | DESCRIPTION |
|---|---|---|
| Pipette Stands | **30312897** | SmartStand stand with EasyDirect 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 |

# SmartStand

## The Intelligent Pipette Stand



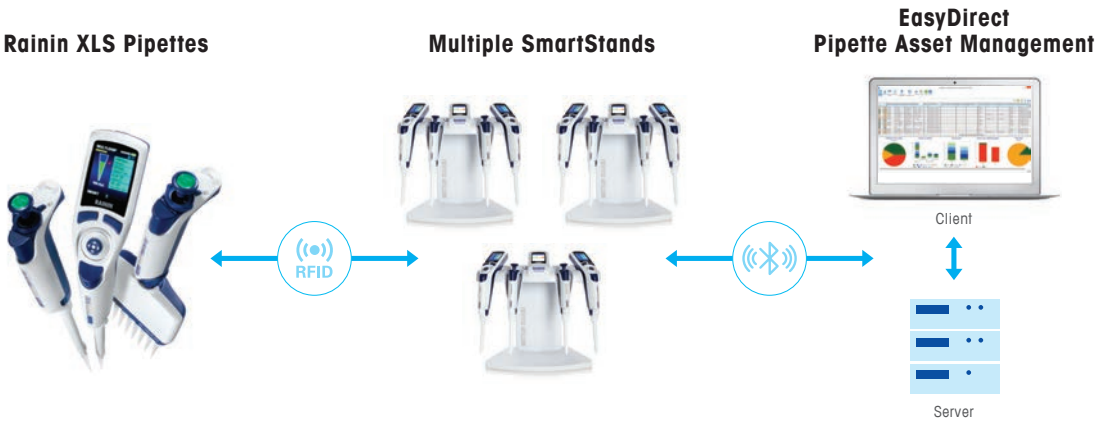

| | CATALOG No. | DESCRIPTION |
|---|---|---|
| SmartStand | **30312897** | SmartStand stand with EasyDirect basic software |
| | **30312899** | Fastening kit – magnetic |
| | **30313000** | Fastening kit – shelf |
| | **30313247** | Fastening kit – bracket |
| | **17012879** | Electronic pipette power supply |
| | **30449204** | SmartStand USB Bluetooth/Adapter |

# With EasyDirect, You're in Control

## Save Time and Simplify Pipette Management

With EasyDirect Pipette Asset Management and SmartStand, you have a powerful pipette tracking and calibration management system. Using the RFID chip embedded in every Rainin XLS-brand pipette, EasyDirect tracks every pipette's usage, location and service data automatically.

- Manage an unlimited number of pipettes
- Track all pipettes automatically
- Simplify calibration management and repairs




## 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. EasyDirect connects to SmartStand via Bluetooth or USB drive to automatically transfer serial numbers, service and other data to the EasyDirect database.

EasyDirect 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!**

Specifications in this publication are subject to change without notice.
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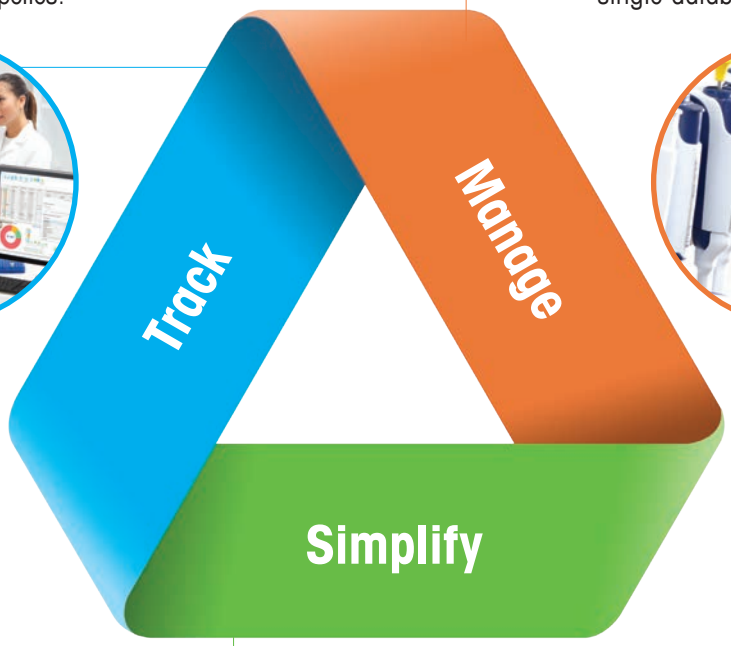
# Flexible, integrated and easy to implement

- 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 EasyDirect.
- Rainin calibration certificates are electronically transmitted and linked to your pipette.
- Eliminate time-consuming reading of serial numbers, barcodes or stickers.

| | CATALOG No. | DESCRIPTION |
|---|---|---|
| EasyDirect Software | **30475913** | EasyDirect – site |
| | **30475915** | EasyDirect – unlimited |
| | **30478260** | EasyDirect – Site, Renewal |
| | **30478262** | EasyDirect – Unlimited, Renewal |

**www.mt.com/EasyDirectPAM**




## You're in Control with EasyDirect

Easy, automated pipette asset management

See page 62 for details

METTLER TOLEDO