

Product Catalog

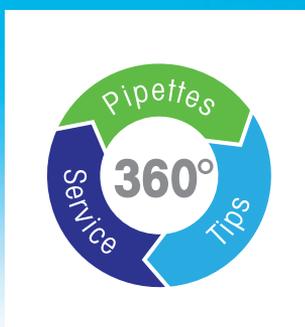


RAININ
Pipetting 360°

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.

Pipette Tips

Why Rainin?	4
Racked tips	6
Low retention tips	8
SpaceSaver™ and Green-Pak™ tips	10
TerraRack™ tips	12
StableStak,™ StableRak™ & bulk tips	14
Specialty tips	16

BioClean Ultra™	18
------------------------	----

LTS™ LiteTouch™ System	19
-------------------------------	----

Pipettes

Single channel manual and electronic XLS+™	20
Multichannel manual and electronic XLS+™	24
Adjustable Spacer XLS™	26
Rainin Classic™	28
Rainin Pos-D™, positive displacement	29
XLS+ Starter Kits with SmartStand	30
Pipette Stands	31
Pipette specifications	32

High Throughput Pipetting

BenchSmart 96™ semi-automated system	34
Liquidator 96™ manual system	38

PureSpeed™ Protein Purification	42
--	----

QuickFlow Liquid Aspiration	44
------------------------------------	----

Specialty Pipettes

Repeat dispensing with AutoRep™	46
Large volume dispensing with Disp-X™	48
Large volume pipetting with Pipet-X™	49

UV/VIS Excellence Spectrophotometers	50
---	----

SevenExcellence™	52
-------------------------	----

SevenCompact™	54
----------------------	----

Pipette Service

Trust the service experts	56
Pipette service & service plans	58

Pipette Stands	60
-----------------------	----

SmartStand	61
-------------------	----

Pipette Management

EasyDirect™ Pipette Asset Management	62
--------------------------------------	----

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 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.

Ultra

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  and universal  formats.

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



CATALOG No.

	CATALOG No.	VOL		QTY		FEATURES			
		MAX VOLUME		RACKS/CARTON	TIPS/CARTON	STERILIZED	SHAFTGUARD	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	✓					

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

Two-position lid for efficient sterilization

Format options

Standard, sterilized and filter versions available

Protective

Safe from dirt and contamination



CATALOG No.

	VOL	QTY	FEATURES						
			MAX VOLUME	RACKS/CARTON	TIPS/CARTON	STERILIZED	SHAFTGUARD	WIDE-O	FILTER
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	✓					

Hinged-Lid Racks

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  and universal  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.	VOL		QTY		FEATURES		
		MAX VOLUME	RACKS/CARTON	TIPS/CARTON	STERILIZED	WIDE-O	LOW RET	FILTER
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	✓		✓	
	30389895	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	QTY		FEATURES					
		MAX VOLUME	RACKS/CARTON	TIPS/CARTON	STERILIZED	SHAFTGUARD	WIDE-O	LOW RET	FILTER
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	✓			✓	✓	
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			✓	✓	

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



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  and universal  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!



CATALOG No.

VOL		QTY		FEATURES		
MAX VOLUME		RACKS/CARTON	TIPS/CARTON	STERILIZED	SHAFTGUARD	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 rack base not included with Green-Pak SpaceSaver

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 rack base not included with Green-Pak SpaceSaver

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  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.



LTS



UNV



CATALOG No.	VOL	QTY		FEATURES			
	MAX VOLUME	RACKS/CARTON	TIPS/CARTON	PRESTERILIZED	SHAFTGUARD	FILTER	
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	✓		✓
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	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

Double-96 Racked Tips StableStak and StableRak

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



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

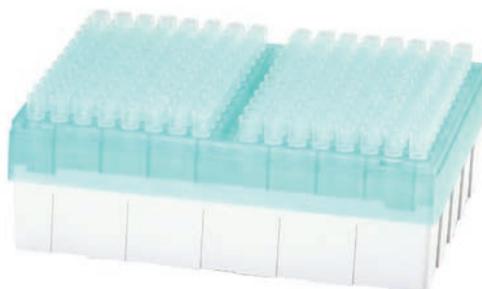
StableStak™

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

LTS



CATALOG No.	VOL		QTY		FEATURES			
	MAX VOLUME		RACKS/CARTON	TIPS/CARTON	PRESTERILIZED	FILTER	SHAFTGUARD	WIDE-O
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		✓	✓		

StableRak



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		✓			

StableStak

UNV

17005857	300 µL	4	768					
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Bulk Tips
LTS and UNV formats

LTS



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		✓			

Bulk Tips

UNV

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		✓			

Bulk Tips

*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



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.



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		QTY		FEATURES				
		MAX VOLUME	RACKS/CARTON	TIPS/CARTON	STERILIZED	WIDE-O	LOW RET	FILTER	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		QTY		FEATURES				
		MAX VOLUME	RACKS/CARTON	TIPS/CARTON	STERILIZED	GEL-WELL	SHAFTGUARD	WIDE-O	LOW RET	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	✓		✓		✓	
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.



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

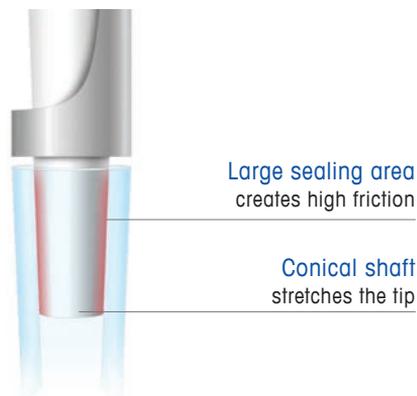


The Rainin LiteTouch System dramatically reduces the amount of force required to load and eject tips. LTS pipettes work in concert with LTS tips to deliver a perfect seal every time.

- 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



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  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 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  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.


LTS

	CATALOG No.	VOLUME RANGE
E4 XLS+	17014484	0.5–10 μ L
	17014487	2–20 μ L
	17014483	10–100 μ L
	17014486	20–200 μ L
	17014488	20–300 μ L
	17014482	100–1000 μ L
	17014485	200–2000 μ L
	17012312	500–5000 μ L
	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.

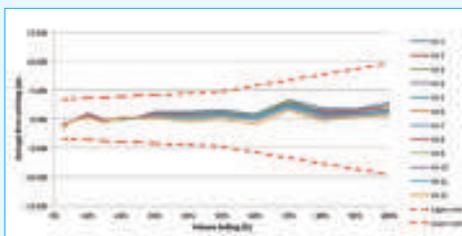
UNV

	CATALOG No.	VOLUME RANGE
E4 XLS+	17014491	0.5–10 μ L
	17014494	2–20 μ L
	17014490	10–100 μ L
	17014493	20–200 μ L
	17014495	20–300 μ L
	17014489	100–1000 μ L
	17014492	200–2000 μ L
	17012353	500–5000 μ L
	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.

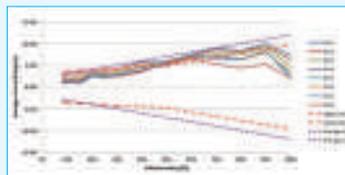
Industry-leading Channel-to-Channel Consistency

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

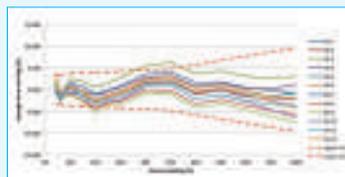


Rainin XLS+ 1200uL

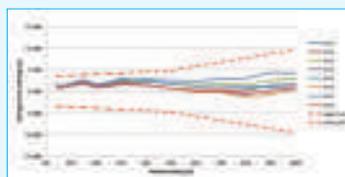
VS.



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

	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. 

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

	CATALOG No.	VOLUME RANGE
E4 XLS	6-Channel	
	17012327	20–300 μ L
	17012328	100–1200 μ L
	8-Channel	
	17012329	5–50 μ L
	17012330	20–300 μ L
17012331	100–1200 μ L	

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  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!



	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		QTY		
	MAX VOLUME		RACKS/CARTON	TIPS/CARTON	
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  and universal 

*See page 60-61 for more about SmartStand

		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
	CATALOG No.														
LTS	30386738	✓	✓	✓	✓									✓	
	30386597	✓		✓	✓	✓								✓	
	30386599			✓	✓	✓								✓	
	30386737				✓	✓	✓							✓	
	30386734			✓	✓	✓		✓						✓	
	30386733			✓	✓	✓		✓						✓	
	30386736			✓	✓	✓			✓					✓	
	30386735			✓	✓	✓				✓				✓	
	30386739							✓	✓						✓
	30386740									✓	✓				✓
	30386731											✓	✓	✓	✓
UNV	30386598	✓		✓	✓	✓								✓	
	30386730			✓	✓	✓								✓	
	30386732										✓	✓	✓	✓	
	17008708*			✓	✓	✓								✓	

* Rainin Classic



SmartStand + EasyDirect software = Easy Pipette Management

NEW!



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 (ACCURACY)		RANDOM ERROR (PRECISION)	
	VOLUME	MANUAL	ELECTRONIC	%	$(\pm) \mu\text{L}$	%	$(\leq) \mu\text{L}$	
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	%	(\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		

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.

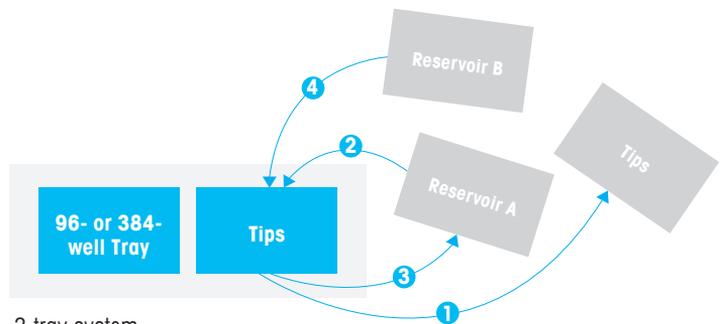


Speed your workflow

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 : \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 (Channel Precision)	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
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).



LTS

	CATALOG No.	VOL MAX VOLUME	QTY		FEATURES		
			RACKS/CARTON STACKS	TIPS/CARTON	PRESTERILIZED	FILTER	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 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 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.



Save time

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

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 : $\pm 1.0\%$	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 : $\leq 10\%$

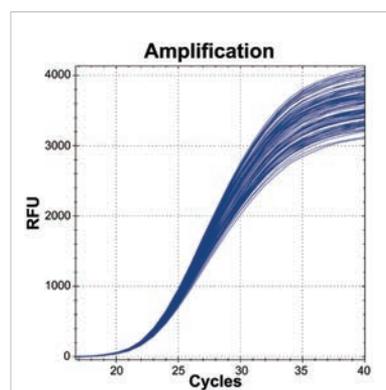
Volume range: 0.5-20 μL

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



Reduce errors

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

Liquidator 96

Liquidator 96



CATALOG No. DESCRIPTION

LIQ 96	CATALOG No.	DESCRIPTION
	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	CATALOG No.	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
	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		QTY		FEATURES			
	MAX VOLUME		RACKS/CARTON	STACKS	TIPS/CARTON	PRESTERILIZED	FILTER	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

	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	
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

Deepwell
plates, mats,
tube strips,
cap 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 μ L pipettes are used with 200 μ L tips with 5 and 20 μ L resins.

1200 μ L pipettes are used with 1200 μ L tips with 20 and 80 μ L resins.

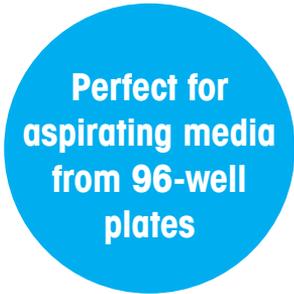
	CATALOG No.	RESIN VOLUME	DETAILS		
LTS	ProA Tips	17012561	5 μ L		12 x 200 μ L
		17012562	20 μ L		12 x 200 μ L
		17012568	20 μ L		12 x 200 μ L
		17012569	80 μ L		12 x 200 μ L
ProG Tips	17012563	5 μ L		12 x 200 μ L	
	17012564	20 μ L		12 x 200 μ L	
	17012570	20 μ L		12 x 200 μ L	
	17012571	80 μ L		12 x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

UNV

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.



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



Status Indicator

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

	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 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™ (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 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

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 -2000.0 ... 2000.0 mV 1.00E-9 ... 9.99E+9 -30.0 ... 130.0 °C	pH: 0.001/0.01/0.1; ±0.002 mV: 0.1/1; ±0.1 Ions: last signifi.digit; ±0.5% °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 -30.0 ... 130.0 °C	0.001 ... 1; ±0.5% 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 -2000.0 ... 2000.0 mV 0.001mS/cm 1000mS/cm (cond) -30.0 ... 130.0 °C	pH: 0.001/0.01/0.1 ±0.002 mV: 0.1/1 ±0.1 Cond: 0.001 ... 1 ±0.5% 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 Perfect for Academic Research R&D	When prior performance matters Pharma Biotech Clinical research labs	For complete ISO 17025 documentation 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.

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

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

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

► www.mt.com/EasyDirectPAM

Pipette Management... Simplified!

Which
pipettes need
calibration?

How many
pipettes do we
have now?

I need an
easier way
to manage
certificates!

No time? No problem!
Let Rainin help you take control
of your pipette inventory.

You're in Control with EasyDirect

Easy, automated pipette asset management

See
page 62
for details

METTLER TOLEDO

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