

# Eppendorf Research® plus

[www.eppendorf.com/research-plus](http://www.eppendorf.com/research-plus)



PhysioCare  
concept

NEW!



reddot design award  
winner 2009

## Raise the limits

Eppendorf Research® plus

**eppendorf**  
*In touch with life*

Your local distributor: [www.eppendorf.com/worldwide](http://www.eppendorf.com/worldwide)

Eppendorf AG · 22331 Hamburg · Germany · Tel: +49 40 538 01-0 · Fax: +49 40 538 01-556 · E-mail: [eppendorf@eppendorf.com](mailto:eppendorf@eppendorf.com)

Eppendorf North America, Inc. · 102 Motor Parkway, Suite 410 · Hauppauge, N.Y. 11788-5178 · USA

Tel: +1 516 334 7500 · Toll free phone: +1 800 645 3050 · Fax: +1 516 334 7506 · E-mail: [info@eppendorf.com](mailto:info@eppendorf.com)

Application Support Europe, International: Tel: +49 1803 666 789 · E-mail: [support@eppendorf.com](mailto:support@eppendorf.com)

North America: Tel: +1 800 645 3050 ext. 2258 · E-mail: [support\\_na@eppendorf.com](mailto:support_na@eppendorf.com)

Asia Pacific: Tel: +60 3 8023 6869 · E-mail: [support\\_asiapacific@eppendorf.com](mailto:support_asiapacific@eppendorf.com)

eppendorf® is a registered trademark of Eppendorf AG. All rights reserved, including graphics and pictures. Copyright © 2009 by Eppendorf AG.  
Order no. A312012 020/GB4/10T/1109/FEEL/PRINT64 · Printed in Germany

**eppendorf**

# A completely new experience

## Eppendorf Research® plus

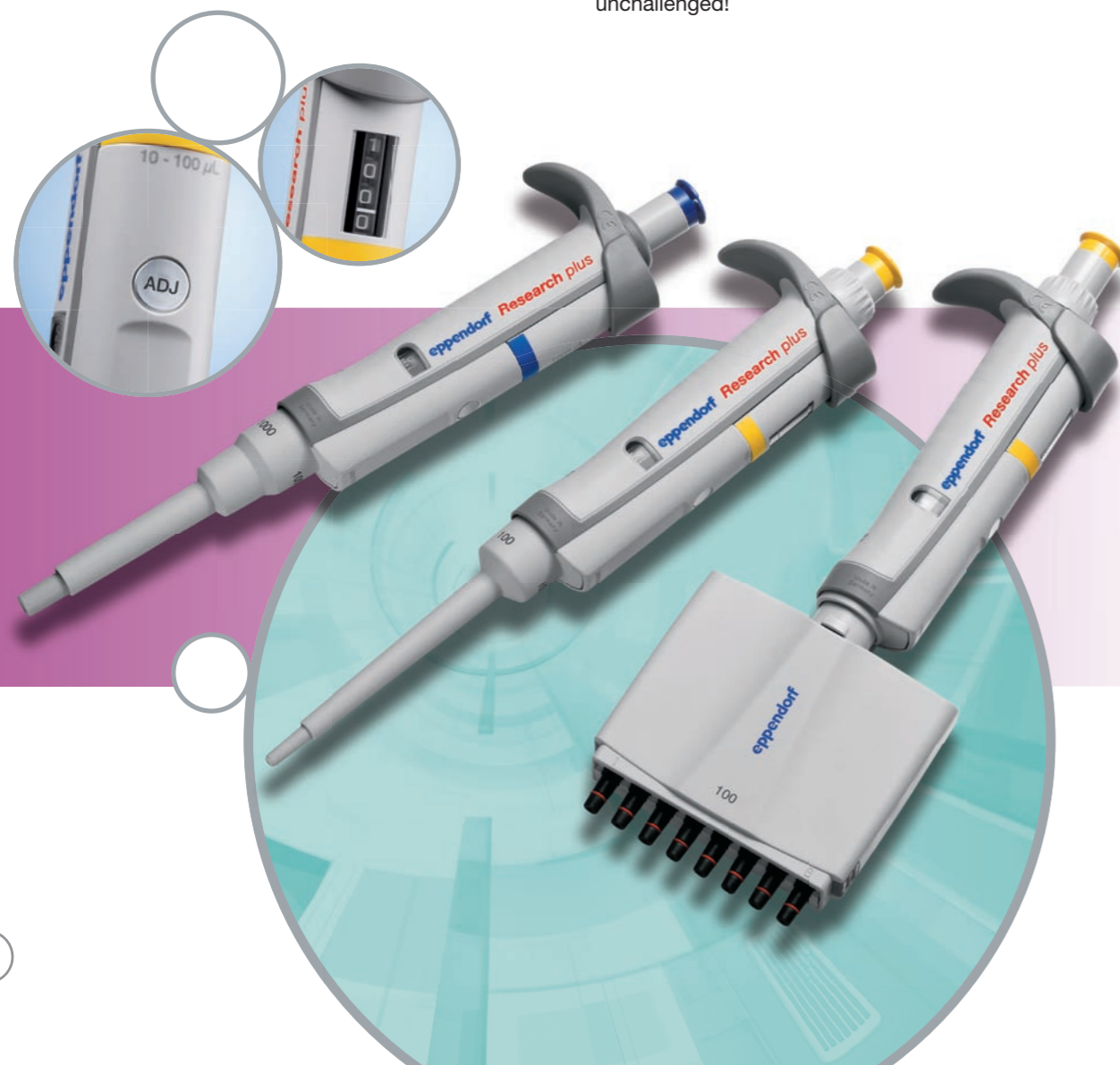
Eppendorf sets a new standard in pipetting. The ultra light Eppendorf Research plus pipette meets the highest needs in precision and accuracy – combined with ultimate ergonomics and increased flexibility.

It is a good feeling to know you are doing the right thing – to know you are working with one of the most advanced pipettes in the world. A spring loaded tip cone, a secondary adjustment option, an improved volume display – and all that in an ultra light, fully autoclavable pipette: That is the new Eppendorf Research plus pipette.

**Ergonomics:** Feel the difference in weight, pipetting forces and the spring loaded tip cone.

**Flexibility:** Your next experiment will need new pipetting schemes. Your new laboratory might have different sources of contamination. Your new pipette should offer all the flexibility you need. Adjust your Research plus to your needs, autoclave the entire pipette or only the lower part. Choose among single channel, multi channel and fix-volume pipettes in different sizes.

**Robustness:** Durability was tested thoroughly and has met our highest quality requirements. Resistance to chemical, thermal and mechanical stress is now unchallenged!



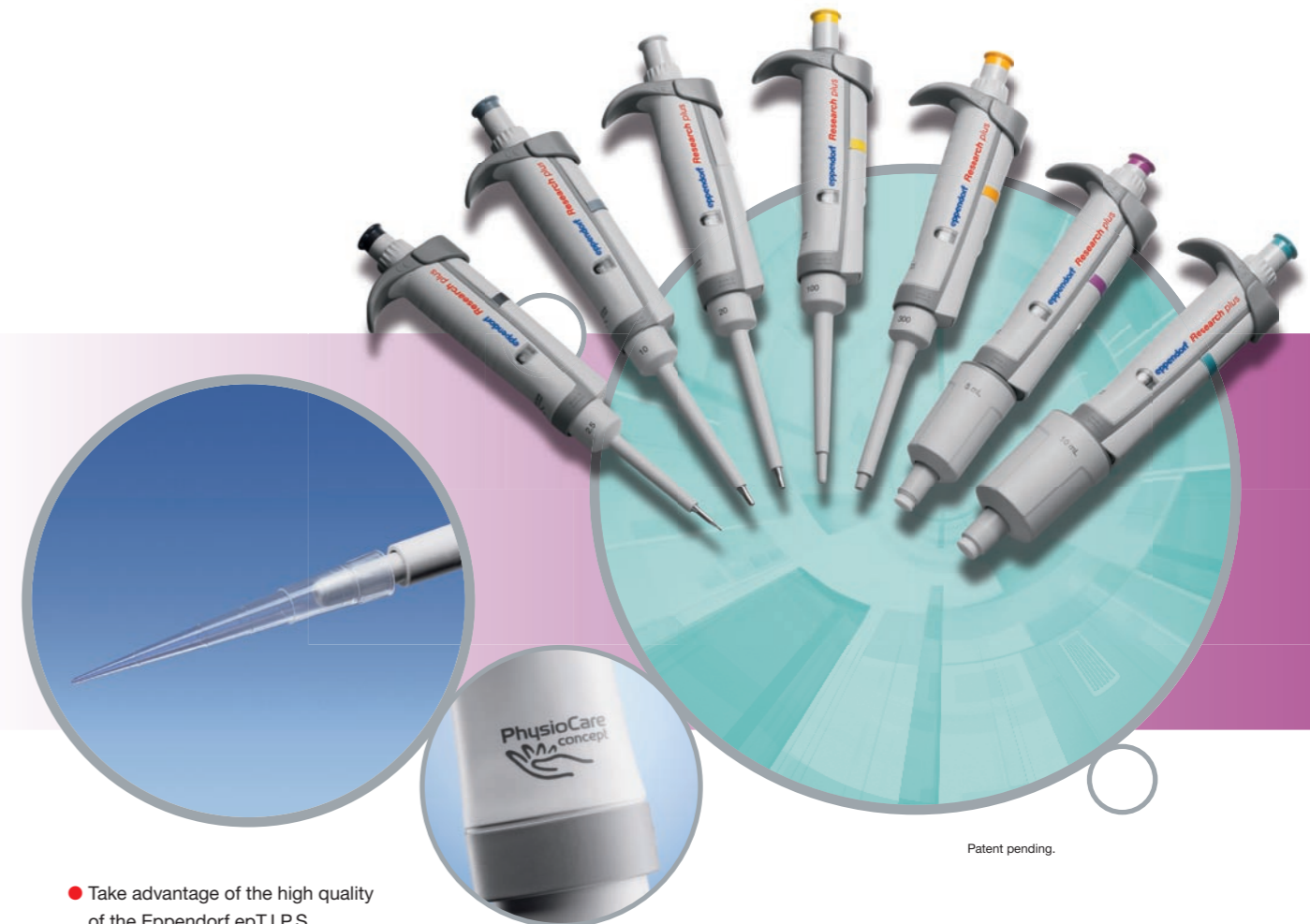
# Outstanding ergonomic concept

## PhysioCare Concept®

The Eppendorf PhysioCare Concept® stands for ultimate durability, perfect balance, intuitive operation and minimal user exertion. All this has been further optimized in the Eppendorf Research plus pipette.

Check out [www.physiocare-concept.info](http://www.physiocare-concept.info) or try the new Eppendorf Research plus pipette!

The more strain you experience, the less energy you have. And because energy is a very precious and exhaustible resource, we try to use it as efficiently as possible. Thus, we have reduced the operating forces and the weight considerably.



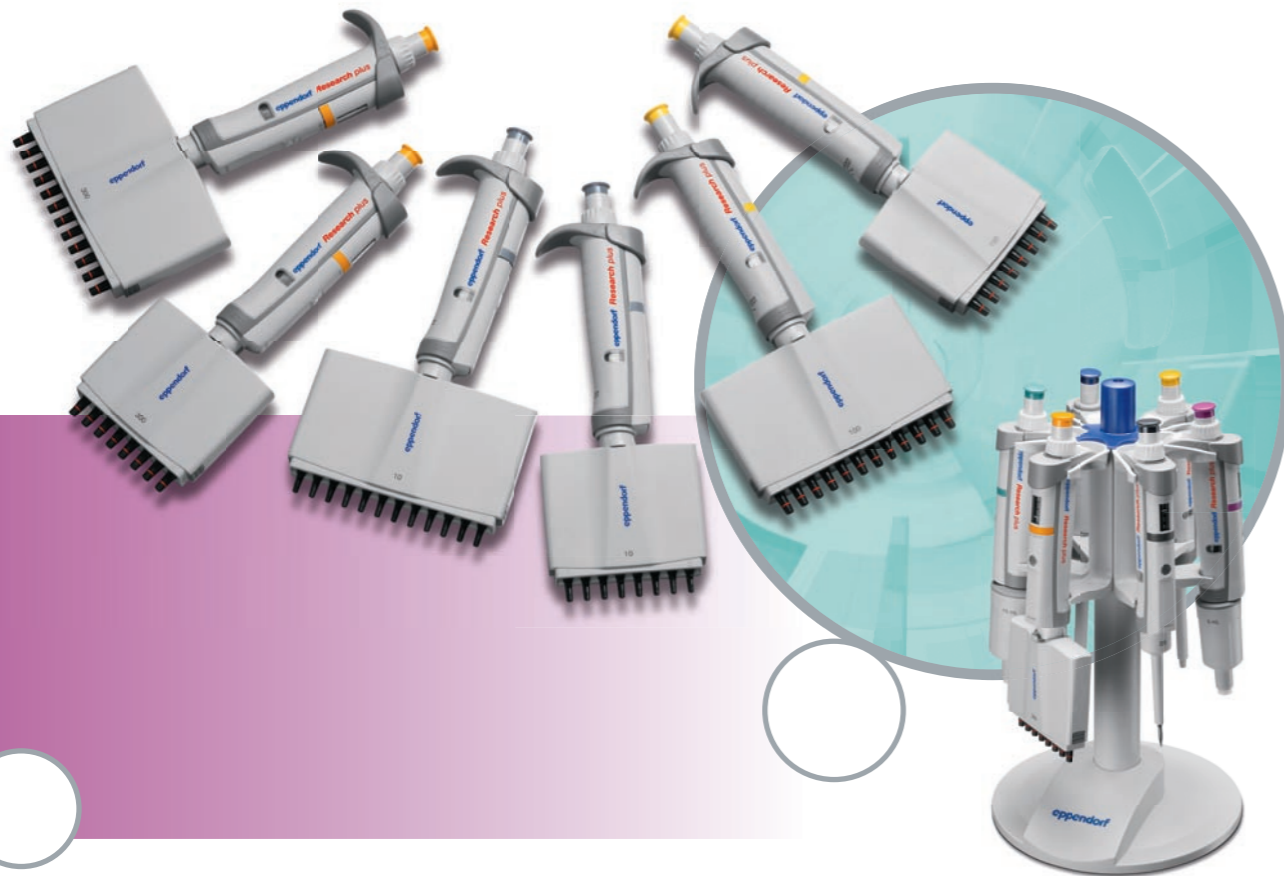
Patent pending.

● Take advantage of the high quality of the Eppendorf epT.I.P.S. (see page 10–11)



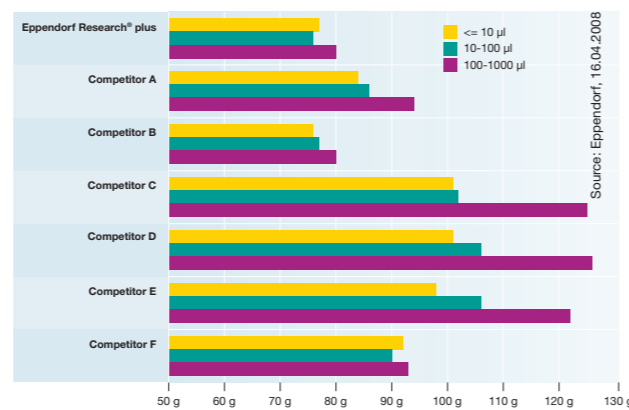
# Outstanding light weight design

Lighter than you would think!



## An Eppendorf Research plus pipette is of extremely low weight!

This can only be achieved by using the most advanced materials and production processes, including the new Eppendorf PerfectPiston™ system, made of Fortron®. Fortron is an organic polymer with impressive characteristics. It is highly resistant to heat, acids and alkalies, mildew, bleaches, aging, sunlight and abrasion. It absorbs only small amounts of solvents and resists dyeing. This means your pipette is safe, robust and ultra light.



● See the low weight of the Research plus – no matter which size.

# Outstanding ease of use

Don't waste energy!

## Attachment force

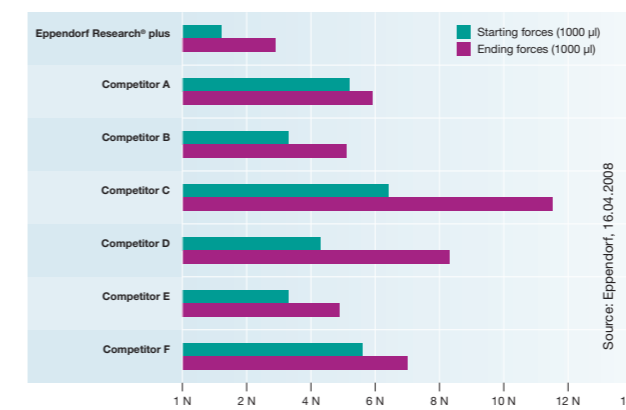
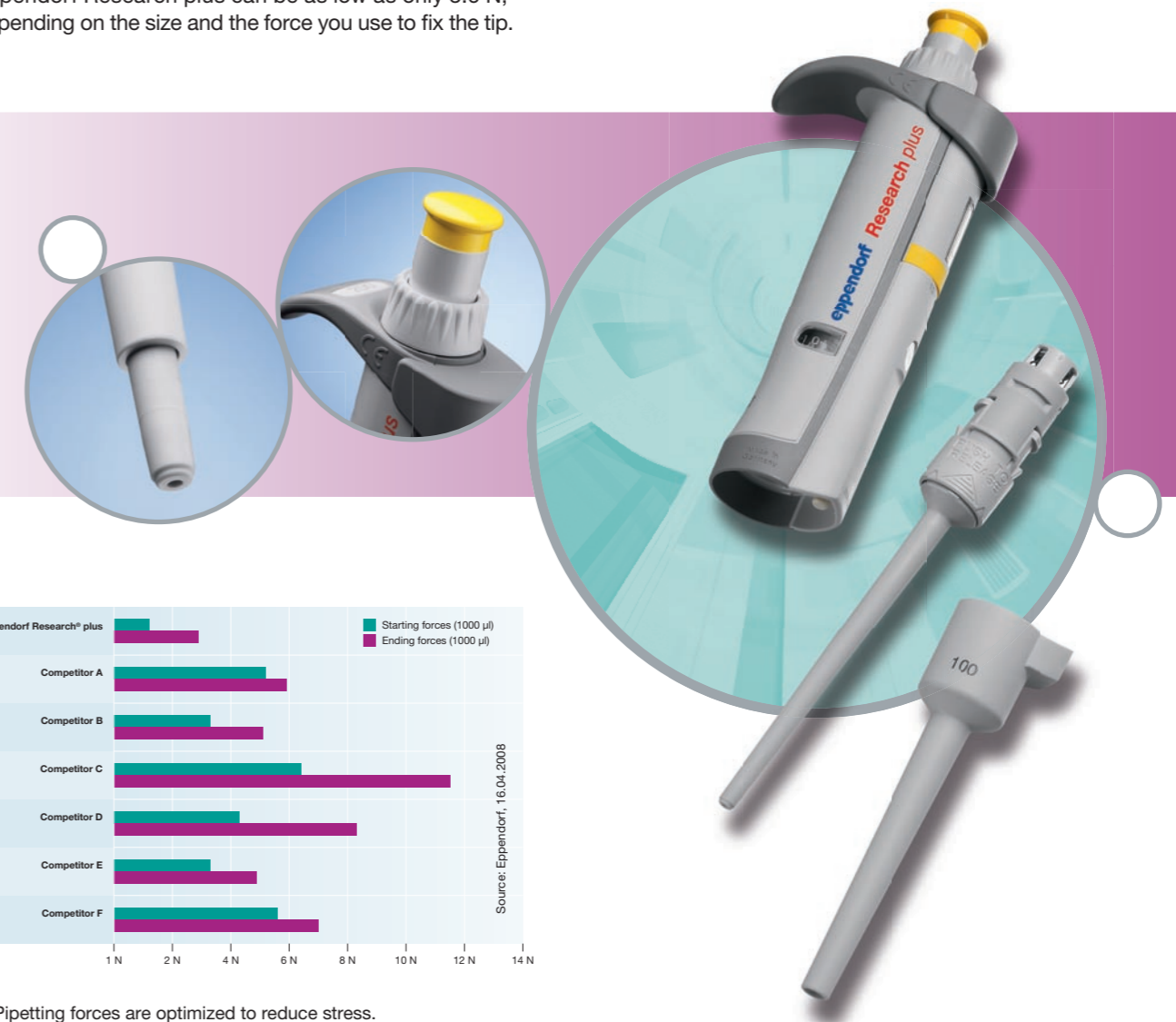
Achieve optimal tightness with minimal attachment forces with the Eppendorf Research plus. The spring loaded tip cone helps to reduce stress without sacrificing tightness. Just give it a try – you will love it!

## Tip ejection forces

How many tips do you use per day? Even small differences in the tip ejection forces make a big change if you do it day by day. The tip ejection forces of the Eppendorf Research plus can be as low as only 3.6 N, depending on the size and the force you use to fix the tip.

## Positioning of control elements

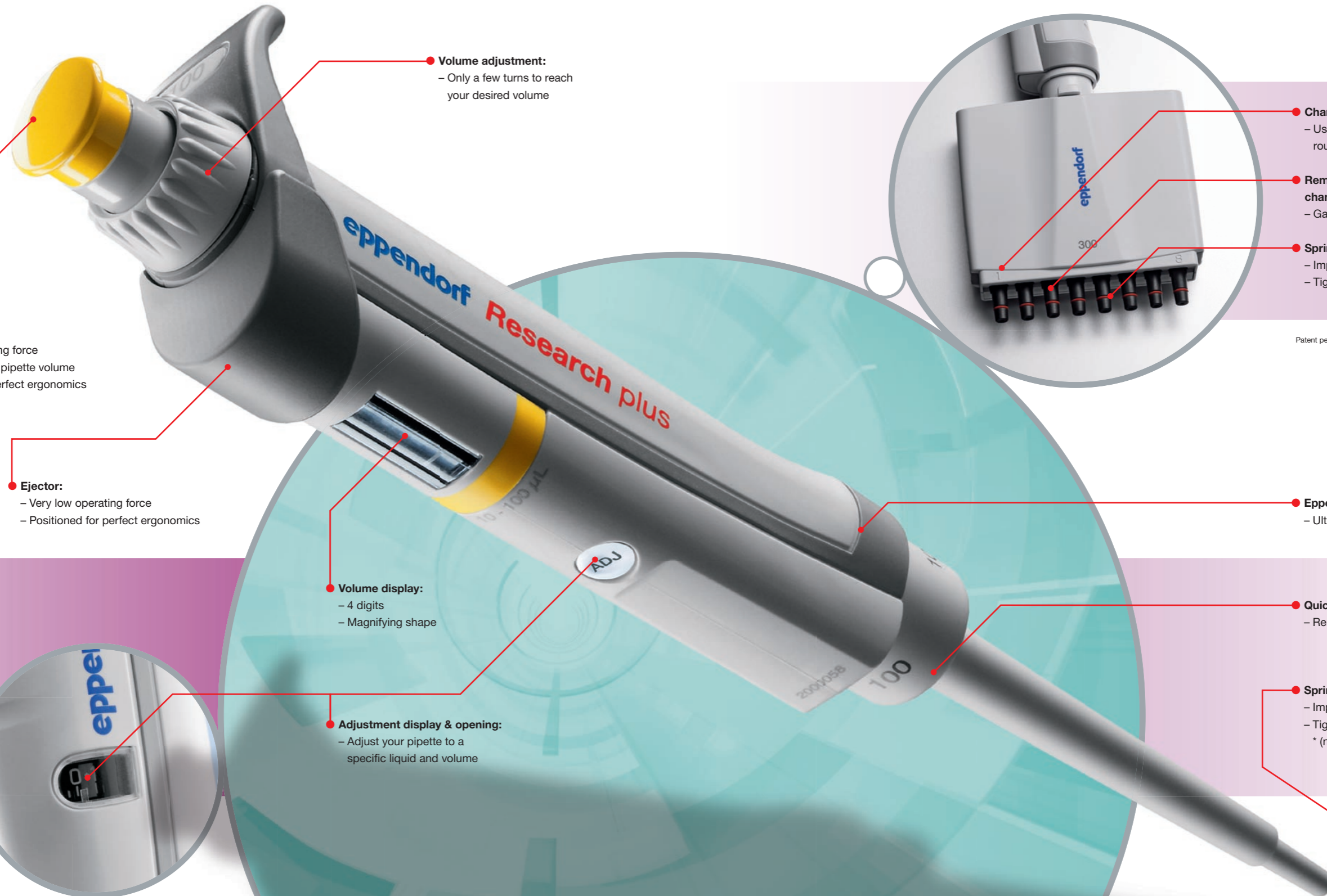
The positions and shapes of all control buttons and displays have been optimized again to ensure stress-free workflow and intuitive usage. The volume adjustment wheel needs only a few turnarounds from maximum volume to minimum volume.



● Pipetting forces are optimized to reduce stress.

## The perfect pipette

## High Quality in every detail



- **Control button:**
  - Very low operating force
  - Colour indicates pipette volume
  - Positioned for perfect ergonomics

- **Ejector:**
  - Very low operating force
  - Positioned for perfect ergonomics

- **Volume display:**
  - 4 digits
  - Magnifying shape

- **Adjustment display & opening:**
  - Adjust your pipette to a specific liquid and volume

- **Volume adjustment:**
  - Only a few turns to reach your desired volume

- **Channel indicator:**
  - Use the pipette the same way round – all the time
- **Remove any of the independent channels:**
  - Gain flexibility for individual needs
- **Spring loaded tip cone:**
  - Improved ergonomics
  - Tight fit to the tip

Patent pending.

- **Eppendorf PerfectPiston™ system:**
  - Ultra light system made of Fortron®

- **Quick connection clip:**
  - Remove lower part easily

- **Spring loaded tip cone\*:**
  - Improved ergonomics
  - Tight fit to the tip
  - \* (not in 5 ml and 10 ml pipettes)

Fortron® is a trademark of Ticona



## Eppendorf Research® plus

### Eppendorf Research® plus (adjustable)

Volume range	Volume	Systematic error	Random error	Order no.
<b>Control button anthrazite for pipette tips 10 µl</b>				
0.1–2.5 µl	0.1 µl	±48.0%	±0.048 µl	3120 000.011
	0.25 µl	±12.0%	±0.03 µl	
	1.25 µl	±2.5%	±0.031 µl	
	2.5 µl	±1.4%	±0.035 µl	
<b>Control button grey for pipette tips 20 µl</b>				
0.5–10 µl	0.5 µl	±8.0%	±0.04 µl	3120 000.020
	1 µl	±2.5%	±0.025 µl	
	5 µl	±1.5%	±0.075 µl	
	10 µl	±1.0%	±0.1 µl	
<b>Control button light grey for pipette tips 20 µl L</b>				
2–20 µl	2 µl	±5.0%	±0.1 µl	3120 000.097
	10 µl	±1.2%	±0.12 µl	
	20 µl	±1.0%	±0.2 µl	
<b>Control button yellow for pipette tips 200 µl</b>				
2–20 µl	2 µl	±5.0%	±0.1 µl	3120 000.038
	10 µl	±1.2%	±0.12 µl	
	20 µl	±1.0%	±0.2 µl	
10–100 µl	10 µl	±3.0%	±0.3 µl	3120 000.046
	50 µl	±1.0%	±0.5 µl	
	100 µl	±0.8%	±0.8 µl	
20–200 µl	20 µl	±2.5%	±0.5 µl	3120 000.054
	100 µl	±1.0%	±1.0 µl	
	200 µl	±0.6%	±1.2 µl	
<b>Control button orange for pipette tips 300 µl</b>				
30–300 µl	30 µl	±2.5%	±0.75 µl	3120 000.100
	150 µl	±1.0%	±1.5 µl	
	300 µl	±0.6%	±1.8 µl	
<b>Control button blue for pipette tips 1000 µl</b>				
100–1,000 µl	100 µl	±3.0%	±3.0 µl	3120 000.062
	500 µl	±1.0%	±5.0 µl	
	1,000 µl	±0.6%	±6.0 µl	
<b>Control button violet for pipette tips 5 ml</b>				
0.5–5 ml	0.5 ml	±2.4%	±0.012 ml	3120 000.070
	2.5 ml	±1.2%	±0.03 ml	
	5 ml	±0.6%	±0.03 ml	
<b>Control button turquoise for pipette tips 10 ml</b>				
1–10 ml	1 ml	±3.0%	±0.03 ml	3120 000.089
	5 ml	±0.8%	±0.04 ml	
	10 ml	±0.6%	±0.06 ml	

## Eppendorf Research® plus

### Eppendorf Research® plus (adjustable, multichannel)

Volume range	Volume	Systematic error	Random error	Order no. 8-channel	12-channel
<b>Control button grey for pipette tips 20 µl</b>					
0.5–10 µl	0.5 µl	±12.0%	±0.06 µl	3122 000.019	3122 000.027
	1 µl	±8.0%	±0.08 µl		
	5 µl	±4.0%	±0.2 µl		
	10 µl	±2.0%	±0.2 µl		
<b>Control button yellow for pipette tips 200 µl</b>					
10–100 µl	10 µl	±3.0%	±0.3 µl	3122 000.035	3122 000.043
	50 µl	±1.0%	±0.5 µl		
	100 µl	±0.8%	±0.8 µl		
<b>Control button orange for pipette tips 300 µl</b>					
30–300 µl	30 µl	±3.0%	±0.9 µl	3122 000.051	3122 000.060
	150 µl	±1.0%	±1.5 µl		
	300 µl	±0.6%	±1.8 µl		

### Eppendorf Research® plus (fixed volume)

Volume	Systematic error	Random error	Order no.
<b>Control button grey for pipette tips 20 µl</b>			
10 µl	±1.2%	±0.12 µl	3121 000.015
<b>Control button light grey for pipette tips 20 µl L</b>			
20 µl	±0.8%	±0.16 µl	3121 000.031
<b>Control button yellow for pipette tips 200 µl</b>			
10 µl	±1.2%	±0.12 µl	3121 000.023
20 µl	±1.0%	±0.2 µl	3121 000.040
25 µl	±1.0%	±0.25 µl	3121 000.058
50 µl	±0.7%	±0.35 µl	3121 000.066
100 µl	±0.6%	±0.6 µl	3121 000.074
200 µl	±0.6%	±1.2 µl	3121 000.082
<b>Control button blue for pipette tips 1000 µl</b>			
200 µl	±0.6%	±1.2 µl	3121 000.090
250 µl	±0.6%	±1.5 µl	3121 000.104
500 µl	±0.6%	±3.0 µl	3121 000.112
1,000 µl	±0.6%	±6.0 µl	3121 000.120

# The perfect match

## ep Dualfilter T.I.P.S.<sup>®</sup> – Stop aerosols!

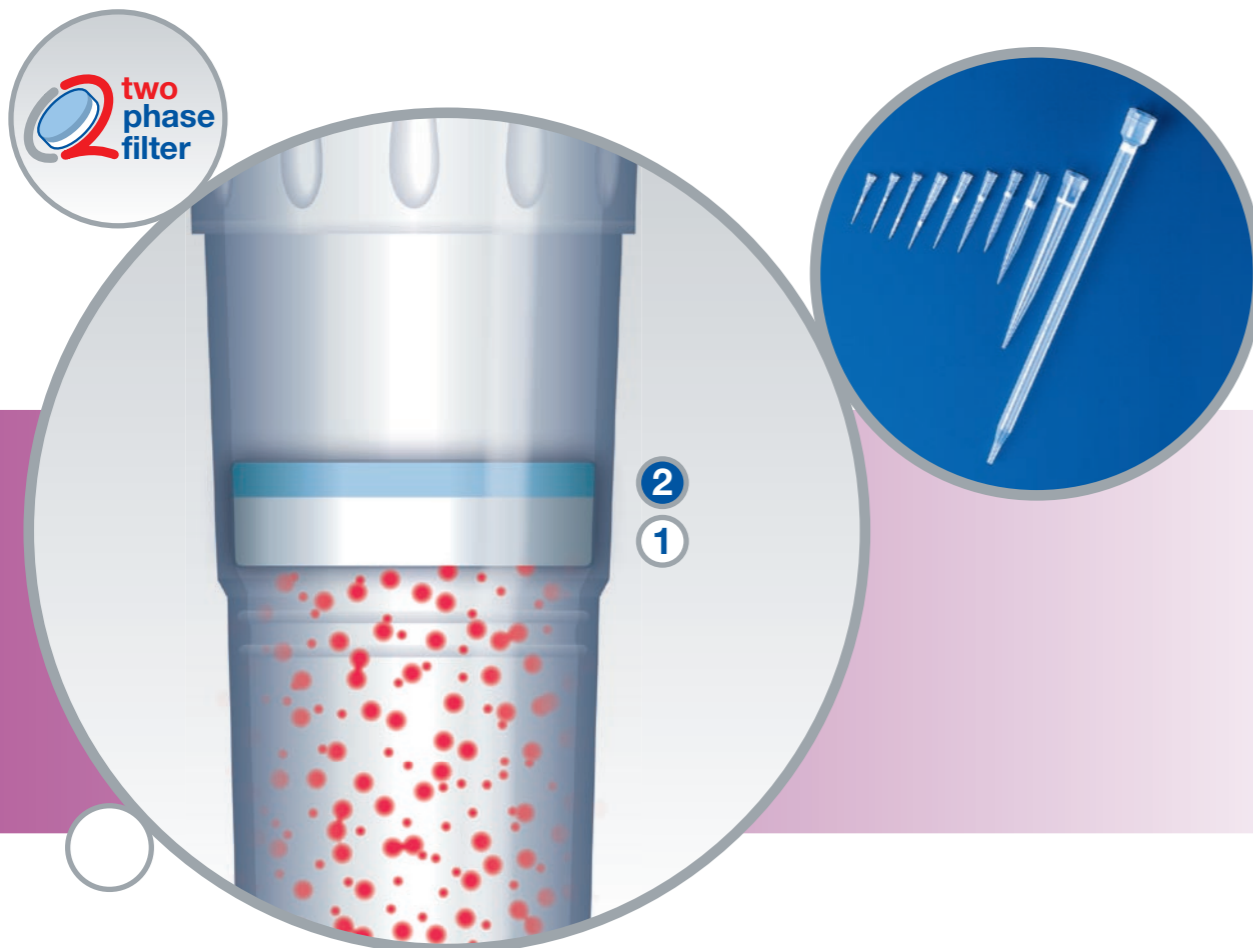
### Product features:

- Double protection provided by the two phase filter
- Provides maximum protection for both pipette and sample
- Ultimate absorption of aerosols and biomolecules
- Free from PCR inhibiting additives and particles from the filter material itself
- Supplied sterile and Eppendorf PCR clean

The high quality, flexible plastic material ensures a leak-proof seal and minimum attachment and ejection forces – when used in combination with Eppendorf pipettes, they form the perfect system for contamination-free sample dispensing.

For more information, detailed certificates and important facts concerning accredited labs, visit [www.eppendorf.com](http://www.eppendorf.com)

- ep Dualfilter T.I.P.S. are available in 10 different sizes from 0.1 µl to 10 ml

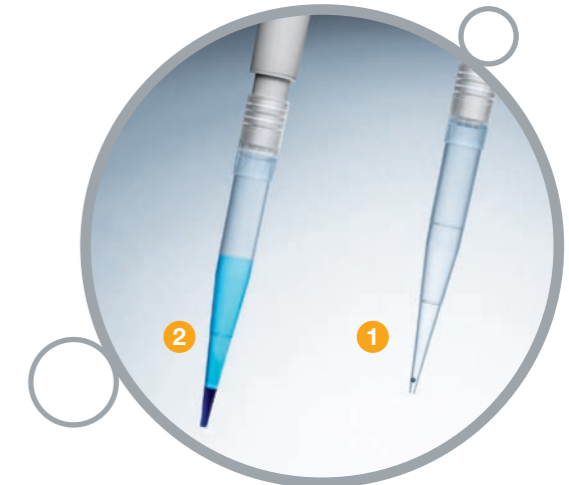


Patent pending.

## NEW! Also available as epT.I.P.S.<sup>®</sup> LoRetention

The new epT.I.P.S. LoRetention ensures best results while pipetting solutions containing detergents. Detergents leave an adhesive layer of liquid inside standard pipette tips. The ultrahydrophobic surface of epT.I.P.S. LoRetention creates the “Pearl Effect” – the maximum amount of sample can be recovered thus providing an unbeaten reproducibility.

- The “Pearl Effect” – a comparison of the amount of residual liquid when pipetting solutions that contain detergents: ① Maximum recovery with epT.I.P.S. LoRetention ② Significant loss of sample using standard tips.



### Ordering information

ep Dualfilter T.I.P.S. pipette tip	International Order no.	North America Order no.
0.1–10 µl S	0030 077.504	022491202
0.1–10 µl M	0030 077.512	022491211
0.5–20 µl L	0030 077.520	022491229
2–20 µl	0030 077.539	022491270
2–100 µl	0030 077.547	022491237
2–200 µl	0030 077.555	022491296
20–300 µl	0030 077.563	022491245
50–1,000 µl	0030 077.571	022491253
100–5,000 µl	0030 077.580	022491261
1–10 ml L	0030 077.598	022491288

### Ordering information

Description	Quantity	Purity	International Order No.	North America Order No.
<b>epT.I.P.S. LoRetention Dualfilter, Racks</b>				
0.1–10 µl S	10 × 96 tips	PCR clean/sterile/pyrogen-free	0030 077.610	022493000
0.5–20 µl L	10 × 96 tips	PCR clean/sterile/pyrogen-free	0030 077.628	022493002
2–100 µl	10 × 96 tips	PCR clean/sterile/pyrogen-free	0030 077.644	022493006
20–300 µl	10 × 96 tips	PCR clean/sterile/pyrogen-free	0030 077.636	022493004
50–1,000 µl	10 × 96 tips	PCR clean/sterile/pyrogen-free	0030 077.652	022493008
<b>epT.I.P.S. LoRetention, Reloads</b>				
0.1–10 µl S	10 × 96 tips	PCR clean	0030 072.006	022493010
0.5–20 µl L	10 × 96 tips	PCR clean	0030 072.014	022493012
2–200 µl	10 × 96 tips	PCR clean	0030 072.022	022493014
50–1,000 µl	10 × 96 tips	PCR clean	0030 072.030	022493016
<b>epT.I.P.S. LoRetention, Reloads</b>				
0.1–10 µl S	10 × 96 tips	Eppendorf Quality	0030 072.049	022493018
0.5–20 µl L	10 × 96 tips	Eppendorf Quality	0030 072.057	022493020
2–200 µl	10 × 96 tips	Eppendorf Quality	0030 072.065	022493022
50–1,000 µl	10 × 96 tips	Eppendorf Quality	0030 072.073	022493024
<b>epT.I.P.S. LoRetention, Racks*</b>				
0.1–10 µl S	10 × 96 tips	PCR clean		022493026
0.5–20 µl L	10 × 96 tips	PCR clean		022493028
2–200 µl	10 × 96 tips	PCR clean		022493030
50–1,000 µl	10 × 96 tips	PCR clean		022493032

\*available in North America only