

# Intuitive operation

## Eppendorf Reference (fix), Reference (adjustable-volume)

### What's new?

- TÜV approved user-friendliness
- Optimized pipetting force
- Now delivered as System Pack (Reference and epTIPS Box inclusive)
- IvD conformity
- Calibration-seal for optimal GLP requirements



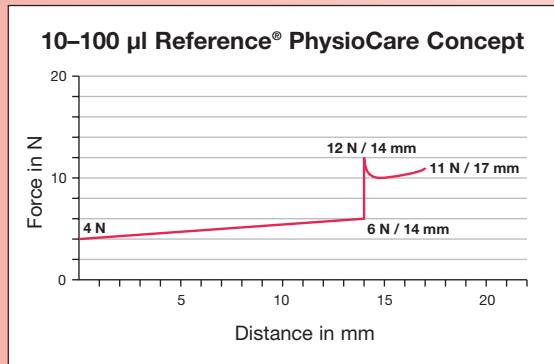
### User-tested and user-friendliness approved.

Not only the PhysioCare Concept™ criteria are fulfilled. Also the well known independent TÜV organization approved the outstanding user-friendliness of the new PhysioCare Concept™ Reference pipette. Only with this certificate, a pipette is approved as user-tested and user-friendly.

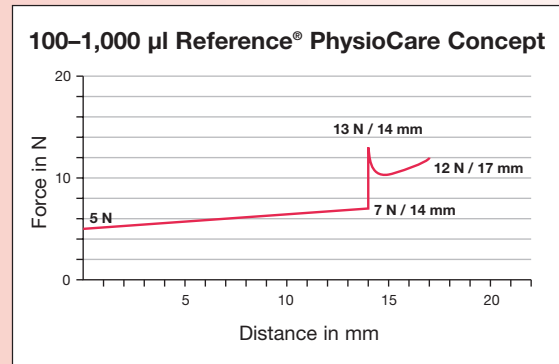


- User-friendly
- User-tested

# Minimal user exertion – perfectly balanced



Optimized operating forces are important for the daily work routine in the lab. The low weight of the Eppendorf Reference® of 89 g resp. 99 g and our



patented magnetic force reduction enable us to satisfy this maxim.



Only with perfectly produced pipette tips can the precision of modern pipettes be ideally exploited. This is possible with original Eppendorf tips.

# Integrated systems

The pipette models cover the range from 0.1  $\mu\text{l}$  to 2,500  $\mu\text{l}$ . In combination with Original Eppendorf epTIPS, the Eppendorf Reference is unbeatable as far as accuracy and precision are concerned. Tips can be easily attached both from trays or by hand, and fit reliably and securely.

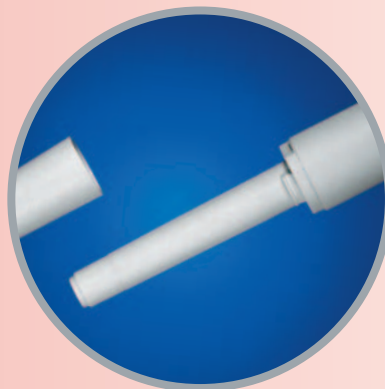


- Only this logo stands for Original Eppendorf tip quality



- Now as system pack

Its compact design eases work at the sterile bench. If narrow tubes are used, its tip ejector can be removed. The piston is corrosion-free and resistant against chemicals. The Push-button operation is extremely gentle and smooth, which not only ensures uniform filling and emptying, but is really essential for pipetting critical samples.



- Ejector sleeve can be removed as required, thereby ensuring compatibility even with narrow tubes



# Simple maintenance – exceptional durability



- With the Eppendorf Reference, you have your personal safety well under control. First of all, because the pipette lies comfortably in your hand thanks to its ribbed barrel. And secondly, because it is easy to clean. This is all possible because of a newly developed material which not only ensures a secure grip – but also makes the pipette so robust.

- Furthermore, it is UV-resistant and can be autoclaved completely\* in daily routine – without any impairment of accuracy or precision, of course.

\* (150 times 121°C, 20 min)



- We give you the key to user-maintenance. With the universal wrench provided with the pipette, you can carry out small service tasks yourself.



- Suitable for all pipette models, the rotatable pipette carousel keeps your lab bench tidy.

# Optimized form and function



- The lateral catch of the variable models ensures that the setting is locked in place and prevents accidental resetting during use. By the way, the volume can be adjusted with just one hand. The CE symbol shows, that the Reference fulfills the requirements of IvD (In Vitro Diagnostic).



- The decisive button for all Eppendorf Reference pipettes controls measuring stroke, blow-out and tip ejection. It is easy and smooth to operate and permits gentle, uniform filling and emptying. The 1 button operation is very well appreciated.



- It can be readjusted when tested according GLP and calibrated for liquids with a different density than water. According to EN ISO 8655 the readjustment for more safety and transparency is sealed.



- Individual identification possible

## Reference (adjustable-volume)

### Ordering information

Article	Order no.
<b>Anthracite control button for 10 µl pipette tips</b>	
0.1–2.5 µl	4910 000.085
<b>Gray control button for 20 µl pipette tips</b>	
0.5–10 µl	4910 000.018
2–20 µl	4910 000.026
<b>Yellow control button for 200 µl and 300 µl pipette tips</b>	
2–20 µl	4910 000.034
10–100 µl	4910 000.042
50–200 µl	4910 000.093
<b>Blue control button for 1,000 µl pipette tips</b>	
100–1,000 µl	4910 000.069
<b>Red control button for 2.5 ml pipette tips</b>	
500–2,500 µl	4910 000.077

### Technical specifications\*

Volume	Inaccuracy	Imprecision
<b>0.1–2.5 µl, anthracite</b>		
0.25 µl	± 12.0%	≤ 6.0%
1.25 µl	± 2.5%	≤ 1.5%
2.5 µl	± 1.4%	≤ 0.7%
<b>0.5–10 µl, gray</b>		
0.5 µl	± 5.0%	≤ 2.8%
1 µl	± 2.5%	≤ 1.8%
5 µl	± 1.5%	≤ 0.8%
10 µl	± 1.0%	≤ 0.4%
<b>2–20 µl, gray</b>		
2 µl	± 3.0%	≤ 2.0%
10 µl	± 1.0%	≤ 0.5%
20 µl	± 0.8%	≤ 0.3%
<b>2–20 µl, yellow</b>		
2 µl	± 5.0%	≤ 1.5%
10 µl	± 1.2%	≤ 0.6%
20 µl	± 1.0%	≤ 0.3%
<b>10–100 µl, yellow</b>		
10 µl	± 3.0%	≤ 0.7%
50 µl	± 1.0%	≤ 0.3%
100 µl	± 0.8%	≤ 0.15%
<b>50–200 µl, yellow</b>		
50 µl	± 1.0%	≤ 0.3%
100 µl	± 0.9%	≤ 0.3%
200 µl	± 0.6%	≤ 0.2%
<b>100–1,000 µl, blue</b>		
100 µl	± 3.0%	≤ 0.3%
500 µl	± 1.0%	≤ 0.2%
1,000 µl	± 0.6%	≤ 0.2%
<b>500–2,500 µl, red</b>		
500 µl	± 1.5%	≤ 0.3%
1,000 µl	± 0.8%	≤ 0.2%
2,500 µl	± 0.6%	≤ 0.2%

## Reference (fixed-volume)

### Ordering information

Article	Order no.
<b>Gray control button for 20 µl pipette tips or GELOADER® Tip</b>	
1 µl	4900 000.010
2 µl	4900 000.028
5 µl	4900 000.036
10 µl	4900 000.044
<b>Yellow control button for 200 µl pipette tips</b>	
10 µl	4900 000.109
20 µl	4900 000.117
25 µl	4900 000.150
50 µl	4900 000.125
100 µl	4900 000.133
<b>Blue control button for 1,000 µl pipette tips</b>	
200 µl	4900 000.508
250 µl	4900 000.540
500 µl	4900 000.516
1,000 µl	4900 000.524
<b>Red control button for 2.5 ml pipette tips</b>	
1,500 µl	4900 000.923
2,000 µl	4900 000.907
2,500 µl	4900 000.915

### Technical specifications\*

Volume	Inaccuracy	Imprecision
1 µl	± 2.5%	≤ 1.8%
2 µl	± 2.0%	≤ 1.2%
5 µl	± 1.5%	≤ 0.8%
10 µl	± 1.0%	≤ 0.5%
20 µl / 25 µl	± 0.8%	≤ 0.3%
50 µl	± 0.7%	≤ 0.3%
100 µl–2,500 µl	± 0.6%	≤ 0.2%

### Accessories

Article	Order no.
<b>Pipette Carousel,</b> holds 6 pipettes	3115 000.003
<b>Pipette holder,</b> for wall mounting	3115 000.020

### Info:

Each variable Reference contains, in addition to a service kit, an epTIPS Box with the appropriate tips. Only the optimal coordination of pipette and pipette tip enables the highest degree of precision and accuracy in every volume range.

\* Liquid: Bidistilled water  
 Temperature: 20–25 °C, constant to ±0.5 °C  
 No. of measurements: 10, in accordance with EN ISO 8655  
 using Original Eppendorf Pipette Tips