



# Top Performance

Uncompromising from the bottom to the top –  
Eppendorf Varispenser® 2 and Varispenser® 2x

# Eppendorf Varispenser® 2/2x

For laboratory tasks with aliquots of aggressive solutions like lyes, acids, bases or solvents taken from large supply and reagent bottles, bottle top dispensers need to be universally applicable and of uncompromising quality.

The new Varispenser 2 and Varispenser 2x bottle top dispensers offer high chemical resistance and robustness in the range of volumes up to 100 mL. Varispenser 2x is additionally equipped with a recirculation valve for priming the dispensing system without loss of reagent.

The trusted PFA sealing lip technology prevents crystal building from media residue by wiping off the inner cylinder wall during dispensing. This technology combined with the high chemical resistance allows the use with nearly all kinds of liquids. The extra air vent cap with Luer-cone for the assembly of a microfilter prevents possible contamination from the supply bottle.

Varispenser 2 and Varispenser 2x are completely autoclavable. The 360° rotating valve block offers safe and easy access in all positions. Because of the GL 45 thread on all sizes, Varispenser 2 and Varispenser 2x can be used on most common bottle threads in the laboratory.

## Product features

- New!** The discharge valve with safety ball closes and avoids fluid leakage when discharge tube is not mounted.
- New!** The standard GL 45 thread on all sizes fits most common bottle threads.
- New!** The screwable air vent cap allows easy assembly of optional drying tube to protect sensitive reagent against humidity or CO<sub>2</sub>.
- New!** The oval shaped dispenser housing allows safe gripping for transportation and adjustment.



New! Ergonomically designed slide for smooth volume adjustment and fixation



New! Perfected recirculation valve lever for easy setting of recirculation or dispensing position



New! Optimized volume scale for clear visibility and precise volume adjustment



### How to overcome special challenges when dispensing aggressive liquids

Using the right accessory with bottle top dispensers offers several possibilities beyond simple single stroke dispensing. Special adapters made from ETFE increase the chemical stability. Accessories like a drying tube protect fuming acids from dilution or alkaline solutions from formation of carbonates.

The usage of a sterile filter retains sterility of the medium in the bottle and filling of small, narrow vessels in a rack can be executed precisely with a spiral tube which can easily be attached in the place of the discharge tube.

#### Technical Information

<b>Recommended for use with</b>	Aggressive reagents like concentrated acids (e.g. $H_3PO_4$ ), bases (e.g. NaOH, KOH), many organic solvents, distilled water, saline solutions (Please consider our instructions for use)
<b>Operating limits on media properties</b>	Temperature: +15 °C to +40 °C Steam pressure: max. 600 mbar Viscosity: max. 500 mm <sup>2</sup> /s Density: max 2.2 g/cm <sup>3</sup>
<b>Autoclaving</b>	Varispenser 2 and Varispenser 2x are completely autoclavable at 121 °C (2 bar)
<b>Calibration</b>	Varispenser 2 and Varispenser 2x can be calibrated and adjusted in order to support compliance with ISO 9001 and GLP requirements.
<b>Safety</b>	The valve block can be rotated 360°. The bottle can be placed in different positions so that the label always faces the user for safety.
<b>Chemical resistance</b>	Varispenser 2 and Varispenser 2x can be used with a variety of liquids including corrosive and inflammable liquids.



> Read more about the varispenser and find different interesting applications on:  
[www.eppendorf.com/top-performance](http://www.eppendorf.com/top-performance)

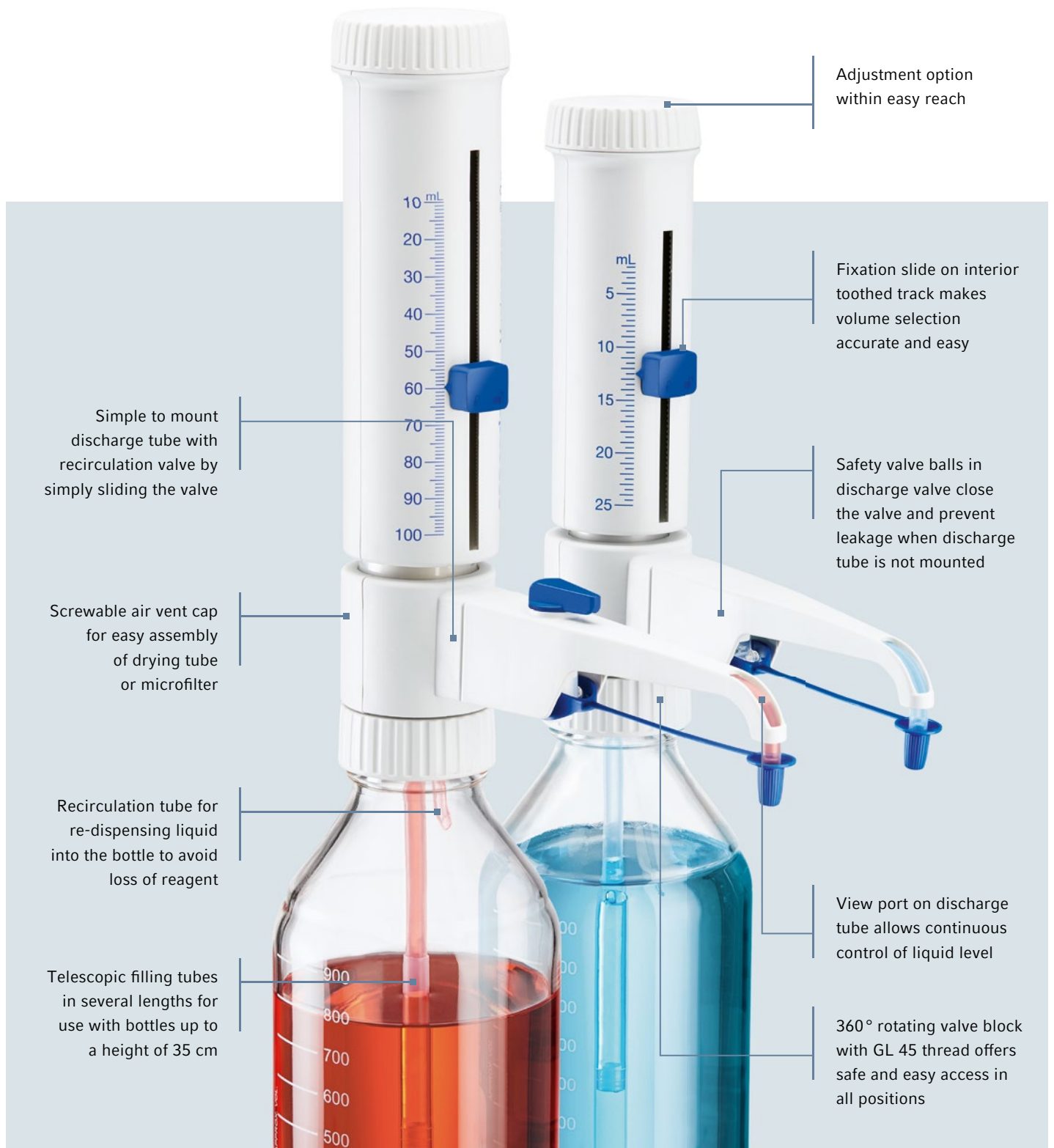


The flexible discharge tube gives you safe and direct access to your small and narrow test tubes and allows for fast and precise serial dispensing.



E.g. fuming acids often used in chemical industry need to be kept free from moisture. The drying tube – filled with moisture absorber protects the liquid.

# Eppendorf Varispenser® 2/2x



Adjustment option within easy reach

Fixation slide on interior toothed track makes volume selection accurate and easy

Simple to mount discharge tube with recirculation valve by simply sliding the valve

Safety valve balls in discharge valve close the valve and prevent leakage when discharge tube is not mounted

Screwable air vent cap for easy assembly of drying tube or microfilter

Recirculation tube for re-dispensing liquid into the bottle to avoid loss of reagent

View port on discharge tube allows continuous control of liquid level

Telescopic filling tubes in several lengths for use with bottles up to a height of 35 cm

360° rotating valve block with GL 45 thread offers safe and easy access in all positions

**Ordering information**

Volume range	Volume	Dispensing step	Rel. systematic error <sup>1</sup> %	Abs. systematic error <sup>1</sup> µL	Rel. random error <sup>1</sup> %	Abs. random error <sup>1</sup> µL	Thread	Bottle thread adapter incl.	International Order no.
<b>Varispenser® 2</b>									
0.2–2 mL	0.2 mL	0.05 mL	± 5 %	± 10 µL	± 1 %	± 2 µL	GL 45	GL 25, GL 28, GL 32, GL 38, S <sup>2</sup> 40	4966 000.010
	1 mL	0.05 mL	± 1 %	± 10 µL	± 0.2 %	± 2 µL			
	2 mL	0.05 mL	± 0.5 %	± 10 µL	± 0.1 %	± 2 µL			
0.5–5 mL	0.5 mL	0.1 mL	± 5 %	± 25 µL	± 1 %	± 5 µL	GL 45	GL 25, GL 28, GL 32, GL 38, S <sup>2</sup> 40	4966 000.029
	2.5 mL	0.1 mL	± 1 %	± 25 µL	± 0.2 %	± 5 µL			
	5 mL	0.1 mL	± 0.5 %	± 25 µL	± 0.1 %	± 5 µL			
1–10 mL	1 mL	0.2 mL	± 5 %	± 50 µL	± 1 %	± 10 µL	GL 45	GL 25, GL 28, GL 32, GL 38, S <sup>2</sup> 40	4966 000.037
	5 mL	0.2 mL	± 1 %	± 50 µL	± 0.2 %	± 10 µL			
	10 mL	0.2 mL	± 0.5 %	± 50 µL	± 0.1 %	± 10 µL			
2.5–25 mL	2.5 mL	0.5 mL	± 5 %	± 120 µL	± 1 %	± 25 µL	GL 45	GL 32, GL 38, S <sup>2</sup> 40	4966 000.045
	12.5 mL	0.5 mL	± 1 %	± 120 µL	± 0.2 %	± 25 µL			
	25 mL	0.5 mL	± 0.5 %	± 120 µL	± 0.1 %	± 25 µL			
5–50 mL	5 mL	1 mL	± 5 %	± 250 µL	± 1 %	± 50 µL	GL 45	GL 32, GL 38, S <sup>2</sup> 40	4966 000.053
	25 mL	1 mL	± 1 %	± 250 µL	± 0.2 %	± 50 µL			
	50 mL	1 mL	± 0.5 %	± 250 µL	± 0.1 %	± 50 µL			
10–100 mL	10 mL	1 mL	± 5 %	± 500 µL	± 1 %	± 100 µL	GL 45	GL 32, GL 38, S <sup>2</sup> 40	4966 000.061
	50 mL	1 mL	± 1 %	± 500 µL	± 0.2 %	± 100 µL			
	100 mL	1 mL	± 0.5 %	± 500 µL	± 0.1 %	± 100 µL			
<b>Varispenser® 2x</b>									
0.2–2 mL	0.2 mL	0.05 mL	± 5 %	± 10 µL	± 1 %	± 2 µL	GL 45	GL 25, GL 28, GL 32, GL 38, S <sup>2</sup> 40	4967 000.014
	1 mL	0.05 mL	± 1 %	± 10 µL	± 0.2 %	± 2 µL			
	2 mL	0.05 mL	± 0.5 %	± 10 µL	± 0.1 %	± 2 µL			
0.5–5 mL	0.5 mL	0.1 mL	± 5 %	± 25 µL	± 1 %	± 5 µL	GL 45	GL 25, GL 28, GL 32, GL 38, S <sup>2</sup> 40	4967 000.022
	2.5 mL	0.1 mL	± 1 %	± 25 µL	± 0.2 %	± 5 µL			
	5 mL	0.1 mL	± 0.5 %	± 25 µL	± 0.1 %	± 5 µL			
1–10 mL	1 mL	0.2 mL	± 5 %	± 50 µL	± 1 %	± 10 µL	GL 45	GL 25, GL 28, GL 32, GL 38, S <sup>2</sup> 40	4967 000.030
	5 mL	0.2 mL	± 1 %	± 50 µL	± 0.2 %	± 10 µL			
	10 mL	0.2 mL	± 0.5 %	± 50 µL	± 0.1 %	± 10 µL			
2.5–25 mL	2.5 mL	0.5 mL	± 5 %	± 120 µL	± 1 %	± 25 µL	GL 45	GL 32, GL 38, S <sup>2</sup> 40	4967 000.049
	12.5 mL	0.5 mL	± 1 %	± 120 µL	± 0.2 %	± 25 µL			
	25 mL	0.5 mL	± 0.5 %	± 120 µL	± 0.1 %	± 25 µL			
5–50 mL	5 mL	1 mL	± 5 %	± 250 µL	± 1 %	± 50 µL	GL 45	GL 32, GL 38, S <sup>2</sup> 40	4967 000.057
	25 mL	1 mL	± 1 %	± 250 µL	± 0.2 %	± 50 µL			
	50 mL	1 mL	± 0.5 %	± 250 µL	± 0.1 %	± 50 µL			
10–100 mL	10 mL	1 mL	± 5 %	± 500 µL	± 1 %	± 100 µL	GL 45	GL 32, GL 38, S <sup>2</sup> 40	4967 000.065
	50 mL	1 mL	± 1 %	± 500 µL	± 0.2 %	± 100 µL			
	100 mL	1 mL	± 0.5 %	± 500 µL	± 0.1 %	± 100 µL			

<sup>1</sup> The data for systematic error and random error are given according to EN ISO 8655. Technical specifications are subject to change. Errors and omissions excepted.

The Varispenser® 2 (2x) is not a substitution for a bottle closure. Volatile liquids can disappear.

<sup>2</sup> buttress thread

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