



Get it Right!

Find the most suitable Pipetting System with the Eppendorf Liquid Handling Selection Chart

Liquid Handling Selection Chart 1.1: Small Volumes (µL up to 10 mL)

Volume range	Vessel format	Liquid type	Throughput	Complexity	Recommended liquid handling instrument
Small volumes (µL up to 10 mL)	Plate	Aqueous	High	High	epMotion®
			High	Low	Xplorer®/Xplorer® plus MC, Xplorer plus Move It®, epMotion 96®, epMotion®, VisioNize® pipette manager
			Low	High	epMotion®, Xplorer plus Move It®, Xplorer®/Xplorer® plus MC
			Low	Low	Research plus MC, Reference® 2, Research plus Move It®
		Challenging ¹	High	High	epMotion®
			High	Low	Multipette® E3/E3x, epMotion® 96, VisioNize® pipette manager
			Low	High	Multipette® E3/E3x, epMotion®
			Low	Low	Multipette® M4
	Tube & Plate	Aqueous	High	High	epMotion®
			High	Low	Xplorer plus Move It®, epMotion®, VisioNize® pipette manager
			Low	High	Xplorer plus Move It®, epMotion®
			Low	Low	Research plus Move It®
		Challenging ¹	High	High	epMotion®
			High	Low	Multipette® E3/E3x, Xplorer plus Move It®, VisioNize® pipette manager (chart 2: "associated tips")
			Low	High	Multipette® E3/E3x, Xplorer plus Move It®, epMotion®
			Low	Low	Multipette® M4, Research plus Move It® (chart 2: "associated tips")
	Tube	Aqueous	High	High	epMotion®
			High	Low	Xplorer/Xplorer plus SC, Multipette® E3/E3x, epMotion®, VisioNize® pipette manager
			Low	High	Xplorer/Xplorer plus SC, Multipette® E3/E3x
			Low	Low	Research plus SC, Reference 2 SC, Multipette® M4
		Challenging ¹	High	High	epMotion®
			High	Low	Multipette® E3/E3x, epMotion®, VisioNize® pipette manager
			Low	High	Multipette® E3/E3x, epMotion®
			Low	Low	Multipette® M4

¹Liquids with viscosity, volatility, surface tension or density other than water as well as hot, cold or hazardous liquids.

²Complexity of task, e.g. pipetting of many different liquids or volumes.

MC = multi-channel, SC = single-channel

Liquid Handling Selection Chart 1.2: Large Volumes (5 - 100 mL)

Volume range	Vessel format	Liquid type	Throughput	Complexity ¹	Recommended liquid handling instrument
Large volumes (5-100 mL)	Bottle	Aqueous	Low	Low	Varispenser® 2/2x (max 100 mL), Top Buret® (titration, endless mL), Pipet Helper® / Easypet® 3 (max 50 mL), Varipette® 4720 (max 10 mL)
		Challenging ³	Low	Low	Varispenser® 2/2x (max 100 mL), Top Buret® (titration, endless mL), Pipet Helper® / Easypet® 3 (max 50 mL), Varipette® 4720 (max 10 mL)
	Large Tube²	Aqueous	Low	Low	Multipette® M4 (max 50 mL), Pipet Helper® / Easypet® 3 (max 50 mL), Varipette® 4720 (max 10 mL)
			High	Low	Multipette® E3/E3x (max 50 mL), Easypet® 3 (max 50 mL)
		Challenging ³	Low	Low	Multipette® M4 (max 50 mL), Pipet Helper® / Easypet® 3 (max 50 mL), Varipette® 4720 (max 10 mL)
			High	Low	Multipette® E3/E3x (max 50 mL), Easypet® 3 (max 50 mL)

¹Complexity of task, e.g. pipetting of many different liquids or volumes.

²All vessels with single channel format like 50 mL conicals or cell culture vessels.

³Liquids with viscosity, volatility, surface tension or density other than water as well as hot, cold or hazardous liquids.

Liquid Handling Selection Chart 2: Associated Tips



Liquid handling device	Contamination risk	Liquid type	Recommended tip	Available purity grade
Varipette® 4720	No	Aqueous	Varitips® S + Maxitip	Eppendorf Quality™
		Volatile	Varitips® S + Maxitip with valve	Eppendorf Quality™
		Other Challenging ¹	Varitips® P	Eppendorf Quality™
	Yes	Aqueous / Challenging ¹	Varitips® P	Eppendorf Quality™
Easypet® 3, Pipet Helper®	No / Yes	Aqueous / Challenging ¹	Eppendorf serological pipets (include a filter)	Sterile
Multipette®	Avoids contamination by functional principle	Aqueous	Combitips® advanced	Eppendorf Quality™, PCR clean, Biopur®, Forensic DNA Grade
		Viscous	ViscoTip®	Eppendorf Quality™
		Other Challenging ¹	Combitips® advanced	Eppendorf Quality™, PCR clean, Biopur®, Forensic DNA Grade
Research plus, Reference 2, Xplorer, Xplorer plus	No	Aqueous	epT.I.P.S.®, epT.I.P.S.® Motion	Eppendorf Quality™, PCR clean, Biopur®
		Challenging ¹	epT.I.P.S.®, epT.I.P.S.® Motion	Eppendorf Quality™, PCR clean
VisioNize® pipette manager, Move It® epMotion® 96, epMotion®	Yes	Aqueous	epT.I.P.S.® Motion with filter, ep Dualfilter T.I.P.S.®, ep Dualfilter T.I.P.S.® SealMax®	PCR clean, PCR clean + sterile, Forensic DNA Grade
		Challenging ¹	epT.I.P.S.® Motion with filter, ep Dualfilter T.I.P.S.®, ep Dualfilter T.I.P.S.® SealMax	PCR clean, PCR clean + sterile

¹Liquids with viscosity, volatility, surface tension or density other than water as well as hot, cold or hazardous liquids.

Eppendorf®, the Eppendorf Brand Design, epMotion®, Move It®, ep Dualfilter T.I.P.S., Reference®, SealMax®, Varitips®, Xplorer®, Easypet®, Multipette®, Pipet Helper®, VisioNize®, Varipenser®, Combitips®, epT.I.P.S.®, ViscoTip® are registered trademarks of Eppendorf AG, Germany. Eppendorf Quality™, Eppendorf Top Buret® are trademarks of Eppendorf AG, Germany. U.S. Design Patents are listed on www.eppendorf.com/ip. All rights reserved, including graphics and images. Copyright © 2021 by Eppendorf AG.