



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 ²	Recommended liquid handling instrument
Small volumes (µL up to 10 mL)	Plate	Aqueous	High	High	epMotion®
			Low	Low	Xplorer/Xplorer plus MC, Xplorer plus Move It®, epMotion® 96 Flex, epMotion®
		Challenging ¹	High	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®
			Low	Low	Repeater® E3/E3x, epMotion® 96 Flex
	Tube & Plate	Aqueous	High	High	epMotion®
			Low	Low	Xplorer plus Move It®, epMotion®
		Challenging ¹	High	High	Xplorer plus Move It®, epMotion®
			Low	Low	Research plus Move It®
		Challenging ¹	High	High	epMotion®
			Low	Low	Repeater® E3/E3x, Xplorer plus Move It®
		Challenging ¹	High	High	Repeater® E3/E3x, Xplorer plus Move It®, epMotion®
			Low	Low	Repeater® M4, Research plus Move It®
	Tube	Aqueous	High	High	epMotion®
			Low	Low	Xplorer/Xplorer plus SC, Multipette® E3/E3x, epMotion®
		Challenging ¹	High	High	Xplorer/Xplorer plus SC, Multipette® E3/E3x
			Low	Low	Research 3 neo SC, Research plus SC, Reference 2 SC, Multipette® M4
		Challenging ¹	High	High	epMotion®
			Low	Low	Repeater® E3/E3x, epMotion®
		Challenging ¹	High	High	Repeater® E3/E3x, epMotion®
			Low	Low	Repeater® 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)
		Challenging ³	Low	Low	Varispenser® 2/2x (max 100 mL), Top Buret (titration, endless mL), Pipet Helper® / Easypet® 3 (max 50 mL)
	Large Tube ²	Aqueous	Low	Low	Repeater® M4 (max 50 mL), Pipet Helper® / Easypet® 3 (max 50 mL)
			High	Low	Repeater® E3/E3x (max 50 mL), Easypet® 3 (max 50 mL)
		Challenging ³	Low	Low	Repeater® M4 (max 50 mL), Pipet Helper® / Easypet® 3 (max 50 mL)
			High	Low	Repeater® 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
Research 3 neo, Research plus, Reference 2, Xplorer, Xplorer plus Move It® epMotion® 96 Flex epMotion®	No	Aqueous	epT.I.P.S.®/epT.I.P.S.® BioBased, epT.I.P.S.® 384, epT.I.P.S.® Motion	Eppendorf Quality, PCR clean, Biopur®
		Challenging ¹	epT.I.P.S.®/epT.I.P.S.® BioBased, epT.I.P.S.® 384, epT.I.P.S.® Motion	Eppendorf Quality, PCR clean
	Yes	Aqueous	epT.I.P.S.® Motion with filter, ep Dualfilter T.I.P.S.®/ ep Dualfilter T.I.P.S.® BioBased, ep Dualfilter T.I.P.S.® SealMax/ ep Dualfilter T.I.P.S.® SealMax BioBased	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.® BioBased, ep Dualfilter T.I.P.S.® SealMax/ ep Dualfilter T.I.P.S.® SealMax BioBased	PCR clean, PCR clean + sterile
Repeater®	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
Easypet® 3, Pipet Helper®	No / Yes	Aqueous / Challenging ¹	Eppendorf Serological Pipets (include a filter)	Sterile

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