



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® (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

epMotion® includes the models epMotion® 5070, 5073 and 5075

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® E3/E3x (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® ² |
| | | 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 ² |
| | | 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.

²epT.I.P.S.® Motion only available in Eppendorf Quality™, PCR clean, Sterile, and PCR clean + sterile