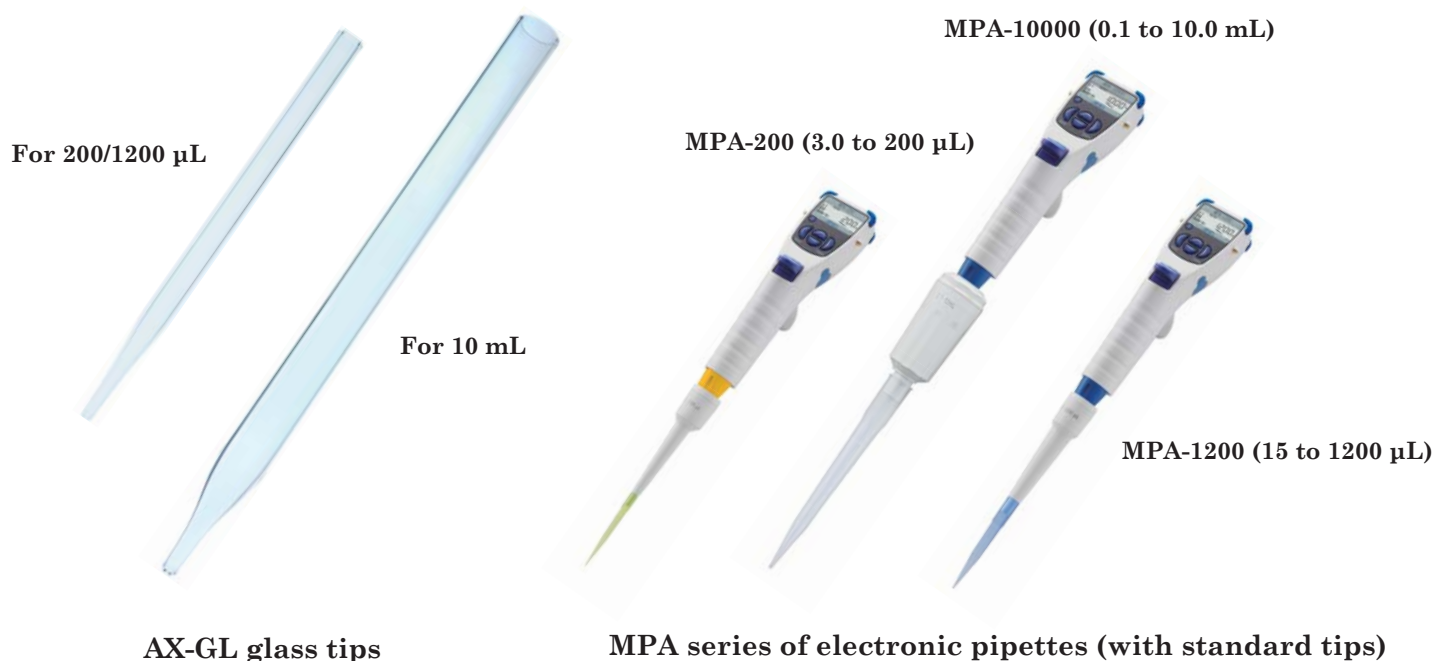


Four Common Hassles With Volumetric/Graduated Pipettes — And How A&D Can Solve Them

1. Accuracy and reproducibility depend on the visual judgment of researchers/workers.
2. It is time-consuming and tiring to aspirate precisely using a safety pipette filler or mouth.
3. Novices often have to work extra hours failing and retrying many times (and increasing labor cost).
4. The long tubes have to be washed and dried thoroughly after use, which is troublesome.

The first-ever glass tips to be used with electronic pipettes



It may be obvious that the problems described above are easily solved by electronic pipettes, but there are kinds of research (such as the analysis of endocrine disruptors) for which standard pipette tips, typically made of polypropylene, are inappropriate as chemical substances may be eluted from them. This is why A&D recommends...

(Continued)

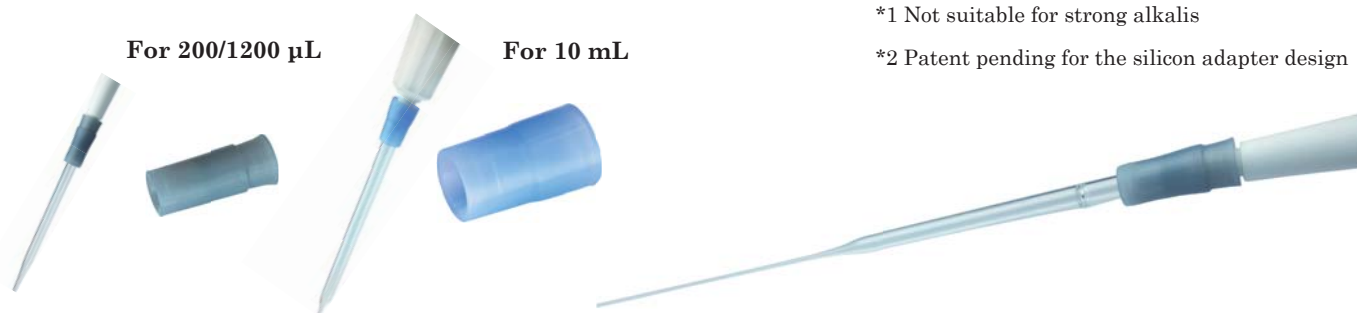


AX-GL glass tips with the MPA series of electronic pipettes

- ✓ The tips are made of borosilicate glass type 1 (as with normal volumetric/graduated pipettes) and resistant to organic solvents and acidic liquids.*¹
- ✓ With automatic plunger control, dispensed quantities will be consistently accurate regardless of who uses the pipette.
- ✓ Time and labors required for pipetting will be dramatically reduced.
- ✓ Even the inexperienced can perform accurate pipetting right away. No mistakes or do-overs.
- ✓ Reverse operation is possible to dispense viscous samples accurately.
- ✓ The tips are easily washable and can also be put in an ultrasonic bath in bulk if you want.
- ✓ Both the tips and the silicon adapters that connect the tips to the pipettes*² can be autoclaved (121°C, 2 atm, 20 minutes).
- ✓ The silicon adapter for 200/1200 µL can also hold off-the-shelf Pasteur pipettes (of Ø7 mm outer diameter) to aspirate samples in test tubes or bottles with narrow mouths such as Ampoule pots.

*1 Not suitable for strong alkalis

*2 Patent pending for the silicon adapter design



AX-ADP silicon adapters

Silicon adapter holding a Pasteur pipette

Available sets

AX-GL-200/1200	10 glass tips + 2 silicon adapters (gray) for the MPA-200/1200
AX-GL-10M	10 glass tips + 2 silicon adapters (blue) for the MPA-10000
AX-ADP-200/1200	10 silicon adapters (gray) for the MPA-200/1200
AX-ADP-10ML	10 silicon adapters (blue) for the MPA-10000

Glass tip		AX-GL-200/1200				AX-GL-10ML		
Pipette		MPA-200		MPA-1200		MPA-10000		
Performance	Volume	50 µL	200 µL	100 µL	1200 µL	1 mL	5 mL	10 mL
	Accuracy	±5.0%	±3.0%	±5.0%	±1.0%	±5.0%	±2.0%	±1.0%
	Repeatability (CV)	2.0%	0.3%	3.0%	0.3%	3.0%	1.5%	0.3%
Dimensions	Glass tip	Length: 112 mm / Outer diameter 7 mm				Length: 168 mm / Outer diameter 13 mm		
	Silicon adapter	Length: 30 mm				Length: 36 mm		

A&D ...Clearly a Better Value

A&D Company, Limited

3-23-14 Higashi-Ikebukuro, Toshima-ku, Tokyo 170-0013 JAPAN
Telephone:[81](3) 5391-6132 Fax:[81](3) 5391-6148
http://www.aandd.jp

A&D ENGINEERING, INC.

1756 Automation Parkway, San Jose, CA 95131 U.S.A.
Telephone:[1](408) 263-5333 Fax:[1](408) 263-0119

A&D Australasia Pty Ltd.

32 Dew Street, Thebarton, South Australia 5031 AUSTRALIA
Telephone:[61](8) 8301-8100 Fax:[61](8) 8352-7409

A&D INSTRUMENTS LTD.

Unit 24/26 Blacklands Way Abingdon Business Park,
Abingdon, Oxon OX14 1DY UNITED KINGDOM
Telephone:[44](1235) 550420 Fax:[44](1235) 550485

<German Sales Office>

Hamburger Straße 30 D-22926 Ahrensburg GERMANY
Telephone:[49](0) 4102 459230 Fax:[49](0) 4102 459231

A&D KOREA Limited

817, Manhattan Bldg., 33, Gukjegeumyung-ro 6-gil,
Yeongdeungpo-gu, Seoul, 07331, KOREA
Telephone:[82](2) 780-4101 Fax:[82](2) 782-4280

A&D RUS CO., LTD.

Vereyskaya str.17, Moscow, 121357 RUSSIA
Telephone: [7] (495) 937-33-44 Fax: [7] (495) 937-55-66

A&D Instruments India Private Limited

509 Udyog Vihar Phase V
Gurgaon-122 016, Haryana, INDIA
Telephone: [91](124) 471-5555 Fax: [91](124) 471-5599