



## Designation: **E1044 – 96 (Reapproved 2011) E1044 – 96 (Reapproved 2018)**

# Standard Specification for Glass Serological Pipets (General Purpose and Kahn)<sup>1</sup>

This standard is issued under the fixed designation E1044; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification covers glass serological pipets, used in measuring volumes of liquids.

1.2 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

## 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

[E438 Specification for Glasses in Laboratory Apparatus](#)

[E542 Practice for Calibration of Laboratory Volumetric Apparatus](#)

[E671 Specification for Maximum Permissible Thermal Residual Stress in Annealed Glass Laboratory Apparatus](#)

[E694 Specification for Laboratory Glass Volumetric Apparatus](#)

[E920 Specification for Commercially Packaged Laboratory Apparatus](#)

[E921 Specification for Export Packaged Laboratory Apparatus](#)

[E1133 Practice for Performance Testing of Packaged Laboratory Apparatus for United States Government Procurements](#)

[E1157 Specification for Sampling and Testing of Reusable Laboratory Glassware](#)

## 3. Classification

3.1 *Style and Capacity*—Pipets covered by this specification shall be of the following styles and capacities:

3.1.1 *Style I*—General purpose top end.

3.1.2 *Style II*—Cotton plugging top end.

3.1.3 *Style III*—Cotton plugging top end, large tip opening.

3.1.4 *Capacities (mL)*—0.1; 0.1 (Kahn); 0.2; 0.2 (Kahn); 0.25 (Kahn); 0.5; 0.60 (Kahn); 1.0; 2.0; 5.0; 10.0; and 25.0.

## 4. General Requirements

4.1 *Borosilicate Glass*—Borosilicate glass for pipets shall conform to the glass requirements of Type 1, Class A or B of Specification [E438](#).

4.2 *Calibration*—Pipets shall be calibrated in accordance with Practice [E542](#) to deliver (*TD*) the intended capacity of distilled water at 20°C when the last drop is blown out, except the 0.25 mL Kahn pipet; this Kahn pipet shall have a clear ungraduated space of not less than 63 mm between the lowermost graduation mark and the tip of the pipet. The pipet shall be filled about 10 mm above the capacity line. Remove any water on the outside of the tip by a downward wipe with filter paper. Next, place the tip in contact with the wetted wall of a beaker and slowly lower the meniscus to the capacity line. Do not remove any water remaining on the tip at this time. Delivery of the contents into a receiving vessel is made with the tip in contact with the wall of the vessel. When the water has ceased to flow, the water remaining in the tip is then blown out with one firm puff with the tip in contact with the wall of the vessel, if possible. No after-drainage period is allowed. Capacity tolerances shall be within the limits given in [Table 1](#).

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee [E41](#) on Laboratory Apparatus and is the direct responsibility of Subcommittee [E41.01](#) on Apparatus Laboratory Ware and Supplies.

Current edition approved Dec. 1, 2011; Jan. 1, 2018. Published December 2011/January 2018. Originally approved in 1985. Last previous edition approved in 2006/2011 as E1044 – 96 (2006) (2011). DOI: 10.1520/E1044-96R11-10.1520/E1044-96R18.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.