Designation: E205 – 96 (Reapproved 2016)

Standard Specification for Glass and Oxygen Combustion Flask[1]

This standard is issued under the fixed designation E205; 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 (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers the flask and closure, with a fixed platinum sample holder, used in the original oxygen-flask combustion procedures (**1**, **2**).[2]

NOTE 1—This specification was originally developed by the Committee on Microchemical Apparatus, Division of Analytical Chemistry, American Chemical Society (**3**). Specifications for types of apparatus that utilize electric (**2**, **4-7**) or infrared (**8**) ignition are not included because of lack of experience with these.

1.2 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

2. Referenced Documents

2.1 *ASTM Standards:*[3]

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. Combustion Flasks

3.1 Combustion flasks shall be of borosilicate glass and shall conform to the requirements shown in Fig. 1 for the 300 and 500-ml sizes, respectively.

NOTE 2—Larger flasks (1000 and 2000-ml sizes) have been used, particularly when analyses are done on tissue.

4. Flask Closure

4.1 The flask closure, that is used with either size flask, shall be of borosilicate glass and shall be provided with a fixed platinum sample holder and shall conform to the requirements shown in Fig. 1. **Warning—**Although broad usage has shown oxygen flask combustion to be generally safe, precautions, such as use of gloves, goggles, shields, and so forth, should be taken when using these flasks for this purpose.

5. Sampling and Testing

5.1 Refer to Specification E1157.

6. Packaging

6.1 Select from one of Specification E920, Specification E921, or Practice E1133.

7. Keywords

7.1 combustion; flask; glass; oxygen

[1] This specification is under the jurisdiction of ASTM Committee E41 on Laboratory Apparatus and is the direct responsibility of Subcommittee E41.01 on Laboratory Ware and Supplies.

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[2] The boldface numbers in parentheses refer to the list of references appended to this specification.

[3] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

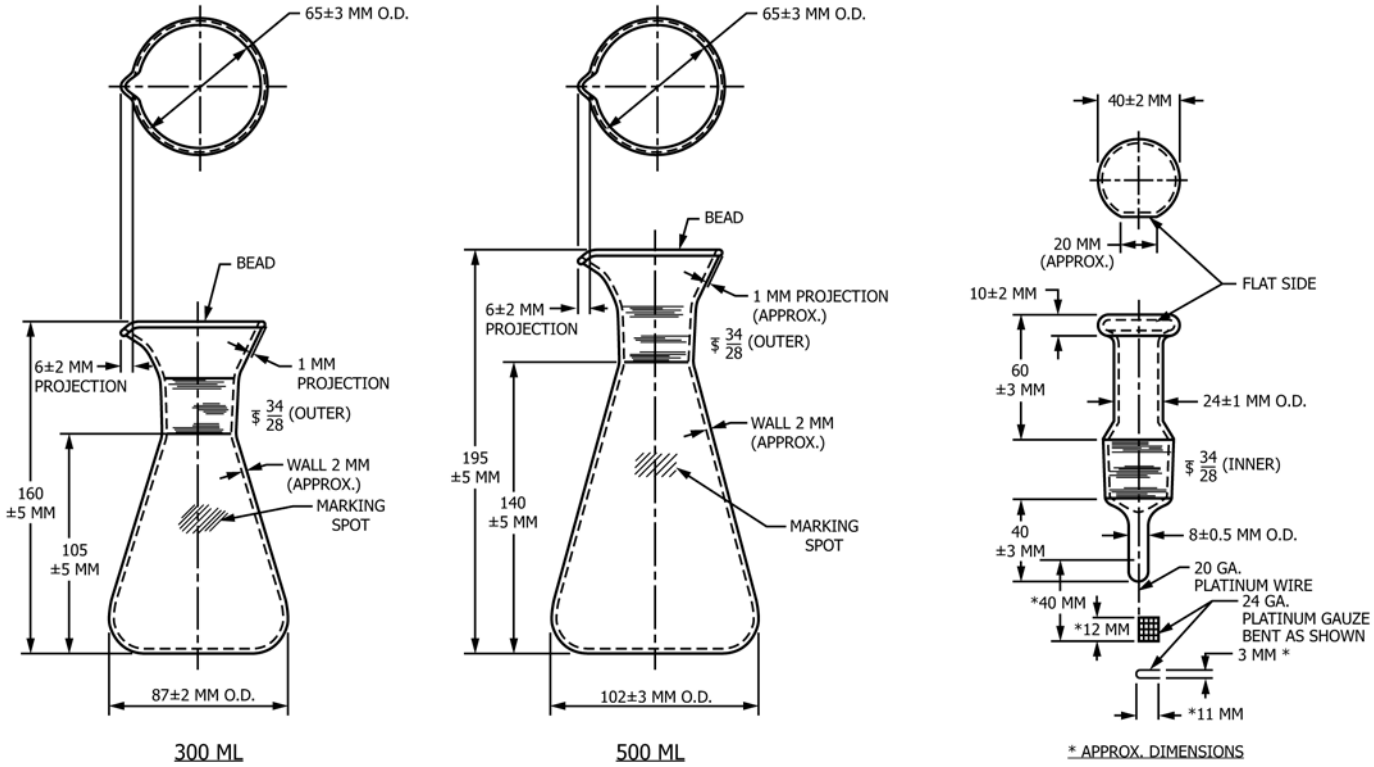

FIG. 1 Oxygen-Combustion Flasks and Closure

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(2) Steyermark, Al, *Quantitative Organic Microanalysis*, 2nd Ed., Academic Press, New York, NY, 1961, p. 292.

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