

§ 30.24

as nearly simultaneously as possible. In reading the hydrometer, a sighting should be made slightly below the plane of the surface of the liquid and the line of sight should then be raised slowly, being kept perpendicular to the hydrometer stem, until the appearance of the surface changes from an ellipse to a straight line. The point where this line intersects the hydrometer scale is the correct reading of the hydrometer. When the correct readings of the hydrometer and the thermometer have been determined, the true percent of proof shall be ascertained from Table 1. Another sample of the spirits should then be taken and be tested in the same manner so as to verify the proof originally ascertained. Hydrometer readings should be made to the nearest 0.05 degree and thermometer readings should be made to the nearest 0.1 degree, and instrument correction factors, if any, should be applied. It is necessary to interpolate in Table 1 for fractional hydrometer and thermometer readings.

Example. A hydrometer reads 192.85° at 72.10 °F. The correction factors for the hydrometer and the thermometer, respectively are minus 0.03° and plus 0.05°. The corrected reading, then, is 192.82° at 72.15 °F.

From Table 1:		
193.0° at 72.0 °F.	=	190.2°
192.0° at 72.0 °F.	=	189.1°
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Difference	=	1.1°
192.0° at 72.0 °F.	=	189.1°
192.0° at 73.0 °F.	=	188.9°
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Difference	=	0.2°

The hydrometer difference (1.1°) multiplied by the fractional degree of the hydrometer reading (0.82°)=0.902.

The temperature difference (0.2°) multiplied by the fractional degree of the temperature reading (0.15°)=0.03°.

Proof at 60° F.=189.1+0.902-0.03=189.972°=190.0°.

As shown, the final proof is rounded to the nearest tenth of a degree of proof. In such cases, if the hundredths decimal is less than five, it will be dropped; if it is five or over, a unit will be added.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended (26 U.S.C. 5204))

[T.D. ATF-198, 50 FR 8535, Mar. 1, 1985, as amended by T.D. ATF-381, 61 FR 37004, July 16, 1996]

§ 30.24 Specific gravity hydrometers.

(a) The specific gravity hydrometers furnished by proprietors to appropriate ATF officers shall conform to the standard specifications of the American Society for Testing and Materials (ASTM) for such instruments. Such specific gravity hydrometers shall be of a precision grade, standardization temperature 60 °/60 °F., and provided in the following ranges and subdivisions:

Range	Subdivision
1.0000 to 1.0500	0.0005
1.0500 to 1.1000	0.0005
1.1000 to 1.1500	0.0005
1.1500 to 1.2000	0.0005
1.2000 to 1.2500	0.0005

No instrument shall be in error by more than 0.0005 specific gravity.

(b) A certificate of accuracy prepared by the instrument manufacturer for the instrument shall be furnished to the appropriate ATF officer.

(c) *Incorporation by reference.* The "Standard Specification for ASTM Hydrometers," (E 100-72 (1978)), published in the "1980 Annual Book of ASTM Standards" (STP 25 1062 (1980)), is incorporated by reference in this part. This incorporation by reference was approved by the Director of the Federal Register on March 23, 1981. This publication may be inspected at the Office of Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC, and is available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

(Sec. 201, Pub. L. 85-859, 72 Stat. 1358, as amended (26 U.S.C. 5204); 80 Stat. 383, as amended (5 U.S.C. 552(a)))

[T.D. ATF-198, 50 FR 8535, Mar. 1, 1985, as amended by T.D. ATF-381, 61 FR 37004, July 16, 1996]

§ 30.25 Use of precision specific gravity hydrometers.

The provisions of § 30.23 respecting the care, handling, and use of precision instruments shall be followed with respect to the care, handling, and use of