

ANSI/ASHRAE Standard 32.2-2003 (RA 2011)
(Reaffirmation of ANSI/ASHRAE Standard 32.2-2003)



ASHRAE STANDARD

Methods of Testing for Rating Pre-Mix and Post-Mix Beverage Dispensing Equipment

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NOTE

Approved addenda, errata, or interpretations for this standard can be downloaded free of charge from the ASHRAE Web site at www.ashrae.org/technology.

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FOREWORD

This is a reaffirmation of ANSI/ASHRAE Standard 32.2-2003. This standard was prepared under the auspices of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). It may be used, in whole or in part, by an association or government agency with due credit to ASHRAE. Adherence is strictly on a voluntary basis and merely in the interests of obtaining uniform standards throughout the industry.

No changes were made for the 2011 reaffirmation aside from minor editorial corrections.

1. PURPOSE

The purpose of this standard is to specify uniform methods of testing for rating the capacity and efficiency of pre-mix and post-mix beverage dispensing equipment.

2. SCOPE

This standard

- a. establishes uniform methods of testing for determining laboratory performance of pre-mix and post-mix nonfrozen beverage dispensers that are self-contained, counter-mounted, electrically powered, and mechanically refrigerated and that incorporate a water-bath or dry-block reservoir;
- b. defines the terms used in the methods of testing; and
- c. establishes test conditions for rating.

3. DEFINITIONS

beverage: as defined in this standard, a carbonated or noncarbonated beverage.

casual drink temperature: temperature of a single drink drawn at different times over an extended time interval.

draw rate: number of standard drinks per minute drawn from the equipment at equal time intervals.

dry-type equipment: mechanical refrigerated equipment using metal or plastic as a direct heat-transfer medium and for reserve cooling capacity.

flow rate: volume of beverage drawn from the equipment per unit of time.

ice-cooled equipment: equipment that uses metal or plastic as a direct heat-transfer medium and that uses ice as a primary source of refrigeration.

integral-type equipment: equipment with the refrigeration system and dispensing valves contained in one cabinet.

peak draw capacity: the maximum number of standard drinks drawn under standard test conditions without the beverage exceeding 40°F (4.4°C) at a draw rate defined by the manufacturer within a given time limit.

post-mix beverage: a beverage that is blended in the equipment by mixing syrup with plain or carbonated water and that, for the purpose of this standard, has a ratio of one part syrup to five parts water.

pre-mix: a beverage substance, normally packed in a 5 gal (18.9 L) container, that has been mixed and supplied by a beverage manufacturer.

recirculating unit: a remote unit with cooling that is provided at the dispensing valve and accomplished by circulating cold water or cold carbonated water through one of the lines and returning the same to a refrigeration unit.

remote dispensing unit: a pre-mix or post-mix dispenser having the dispensing valves removed from the refrigerating and/or carbonating unit but connected to the main unit by means of food-quality product lines.

standard draw capacity: number of standard drinks drawn without the liquid exceeding 40°F (4.4°C) at a standard draw rate of four standard drinks per minute at test conditions.

standard drink: a pre-mix or post-mix beverage of 12 oz (354.9 mL) liquid volume that is drawn in a slightly larger cup, has a maximum beverage temperature of 40°F (4.4°C), and has acceptable quality factors.

standard performance: performance of the equipment when tested according to the standard at standard test conditions (Table 1).

standby: equipment operation without beverage draws.

water-bath equipment: mechanically refrigerated equipment that uses water as a heat-transfer medium and that normally freezes and stores ice for reserve cooling capacity.

4. CLASSIFICATION

For the purpose of this standard, self-contained, counter-mounted, electrically powered, mechanically refrigerated equipment for pre-mix and post-mix nonfrozen beverages are classified as follows:

- a. Integral types: integral dry type, integral water-bath type, or integral liquid-bath (eutectic solution) type
- b. Remote types: remote dry type or remote water-bath type

5. MEASUREMENTS

5.1 Temperature Measurement. Temperature shall be measured with a calibrated instrument accurate to $\pm 1^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$), traceable to NIST, within one year of calibration.