ADDENDA

ANSI/ASHRAE Addendum v to
ANSI/ASHRAE Standard 15-2019

Safety Standard for Refrigeration Systems

Approved by ASHRAE and the American National Standards Institute on August 31, 2022.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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FOREWORD

Addendum v updates the definitions of "brazed joint" and "soldered joint" by addressing a gap in the current definitions that exists between 800°F (426.5°C) and 1000°F (537.7°C). This change harmonizes Standard 15 usage with both ISO 4063:2009 and ANSI/AWS A3.0MM/A3.0:2020.

Editions of Standard 15 from 1978 through 1992 used 800°F (426.5°C) in the definition of "brazed joint." As a result of a change proposal, that temperature threshold was revised for editions of Standard 15 from 1994 through 2019 to be 1000°F (537.7°C or 537°C, depending on the edition). Retired members of SSPC 15 were consulted, but no clear reason was found for the change from 800°F (426.5°C) to 1000°F (537.7°C); it was suspected that the intention was to harmonize the standard with a U.S. regional building code at the time and had no technical basis.

Other useful information on the history of the ANSI/AWS A3.0 values: A nominal value (two significant figures) was selected to be between the melting temperature of zinc and aluminum. While the U.S. initially selected 800°F (426.5°C) as that nominal value (AWS Brazing Manual, dated 1955), later efforts to harmonize internationally led the AWS to revise the nominal value to 840°F (450°C).

Significant figures (significant digits): Use of more than two significant figures is not warranted, and an exact conversion between Fahrenheit and Celsius to a precision of 0.1 is not appropriate. Compliance would be determined by reporting the liquidus temperature (melting temperature) to two significant figures and then applying the resultant value to determine whether the alloy would meet the brazed joint or the soldered joint definition.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum v to Standard 15-2019

Modify Section 3 as shown. The remainder of Section 3 remains unchanged.

3.1 Defined Terms

[. . .]

brazed joint: a gas-tight joint obtained by the joining of metal parts with metallic mixtures or alloys that melt at liquidus temperatures above ~~1000°F (537°C)~~ 840°F (450°C) but less than the melting solidus temperatures of the joined parts.

[. . .]

soldered joint: a gas-tight joint formed by joining metal parts with alloys that melt at liquidus temperatures not exceeding 840°F (450°C) ~~800°F (426.5°C)~~ and above 400°F (205°C~~204.5°C~~).

[. . .]

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ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

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