

ADDENDA

**ANSI/ASHRAE/IES Addendum db to
ANSI/ASHRAE/IES Standard 90.1-2022**

Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings

Approved by ASHRAE and by the American National Standards Institute on October 31, 2025; and by the Illuminating Engineering Society on October 16, 2025.

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 (<https://www.ashrae.org/continuous-maintenance>).

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FOREWORD

Addendum db is in response to a continuous maintenance proposal. The submitter noted that the boundaries of the primary storage of a compressed air system are unclear and suggested adopting the definition from California Title 24 Part 6. The definition for "primary storage" in Title 24 has been changed to "compressed air primary storage" to add clarity. This is an editorial change that does not impact cost effectiveness.

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

Addendum db to Standard 90.1-2022

Modify Section 3.2 as shown (I-P and SI).

compressed air primary storage: compressed air storage located upstream of the distribution system and any pressure flow regulators.

Modify Section 10.4.6 as shown (I-P and SI).

10.4.6.1 Part-Load Controls and Efficiency. Compressed air *systems* where the total motor power is 25 hp or more shall be equipped with appropriately sized *trim compressor(s)* and compressed air primary storage ~~primary storage~~. The compressed air *system* shall comply with either of the following:

- The compressed air *system* shall include one or more variable-speed-drive (VSD) compressors. For *systems* with more than one compressor, the total combined capacity of the VSD compressor(s) acting as *trim compressors* must be at least 1.25 times the largest net capacity increment between combinations of compressors. The compressed air *system* shall include compressed air primary storage ~~primary storage~~ of at least 3 gal per actual cubic feet per minute (acfm) of the largest *trim compressor*.
- The total effective trim capacity of a compressor *system* is the size of the continuous operational range where the specific power of the compressor(s) ($kW/100$ acfm) is within 15% of the specific power at their most efficient operating point. The total effective trim capacity of the *system* is the sum of the effective trim capacity of the *trim compressors*.

Systems shall include compressed air primary storage ~~primary storage~~ of at least 4 gal/acfm of the largest *trim compressor* and meet (1) or (2) as follows:

- Systems* with more than one compressor, not including backup compressors, shall include a compressor or set of compressors with total effective trim capacity at least the size of the largest net capacity increment between combinations of compressors, or the size of the smallest compressor, whichever is larger.
- For *systems* with one compressor, not including backup compressors, the total effective trim capacity shall include the range from 70% to 100% of rated capacity.

Exceptions to 10.4.6.1:

- Alterations* where the total combined added or replaced compressor motor power is less than the average per-compressor power of all compressors in the *system*.
- Alterations* where all added or replaced compressors are VSD compressors and the compressed air *system* includes compressed air primary storage ~~primary storage~~ of at least 3 gal/acfm of the largest trim compressor.
- Compressed air *systems* that have been approved by the *authority having jurisdiction (AHJ)* as having demonstrated that the *system* serves loads for which typical air demand fluctuates less than 10%.
- Alterations of existing compressed air systems that include one or more centrifugal compressors.

POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

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.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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