



ADDENDA

**ASHRAE Addendum d to
ASHRAE Guideline 36-2018**

High-Performance Sequences of Operation for HVAC Systems

Approved by ASHRAE on August 16, 2019.

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FOREWORD

Changes in this addendum are as follows:

- a. Update description of the minimum heating airflow set point $V_{heat-min}$ for consistency among variables (Section 3.2.2.5).
- b. Revise damper control paragraph under Time-Averaged Ventilation (Section 5.2.2).
- c. Add missing reference to $V_{heat-min}$ (Section 5.6.3).
- d. Add missing damper control sequence to VAV Terminal Units with Reheat (Section 5.6.6).

This addendum addresses these issues:

- a. The description of the minimum heating airflow set point, $V_{heat-min}$ for VAV Terminal Units with Reheat, is inconsistent among other similar variables such as $V_{heat-max}$. The description has been updated for consistency.
- b. The damper control paragraph under Time-Averaged Ventilation (Section 5.2.2) is in an inappropriate section. This paragraph has been revised to indicate the change in airflow set point during TAV Mode and the damper control paragraph has been added to the VAV Terminal Units with Reheat (Section 5.6.6) for consistency with other VAV Terminal Unit sequences.

- c. The variable $V_{heat-min}$ is not referenced under Section 5.6.3.

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 d to Guideline 36-2018

Revise Section 3.1.2.2 as shown.

- e. ZoneThe heating minimum airflow set point ($V_{heat-min}$)

Revise Section 5.2.2.2 as shown.

5.2.2.2 ~~The VAV damper shall be modulated by a control loop to maintain the measured airflow at the active set point of V_{spt}^* when in TAV Mode, or otherwise V_{spt} . When in TAV mode, the active airflow set point, V_{spt} , shall be overridden to V_{spt}^* .~~

Revise Section 5.6.3 as shown.

5.6.3 See Section 3.1.2.2 for zone minimum airflow set points V_{min} , zone maximum cooling airflow set point $V_{cool-max}$, zone maximum heating design airflow set point $V_{heat-max}$, zone minimum heating airflow set point $V_{heat-min}$, and the maximum discharge air temperature rise above heating set point, $Max\Delta T$.

Insert Section 5.6.6 as shown and renumber the remaining sections.

5.6.6 The VAV damper shall be modulated by a control loop to maintain the measured airflow at the active set point.

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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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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.

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