ADDENDA

ANSI/ASHRAE Addendum u to
ANSI/ASHRAE Standard 62.2-2016

Ventilation and Acceptable Indoor Air Quality in Residential Buildings

Approved by the ASHRAE Standards Committee on January 12, 2019; by the ASHRAE Board of Directors on January 16, 2019; and by the American National Standards Institute on February 13, 2019.

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 u expands the prescriptive duct sizing table (Table 5.3) to account for the larger flows sometimes encountered with kitchen exhaust. It also reworks the table to show minimum diameter instead of maximum length.

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 u to Standard 62.2-2016

Revise Section 5.4 and replace the current Table 5.3 as shown.

5.4 Airflow Measurement. The airflow required by this section is the quantity of indoor air exhausted by the ventilation system as installed and shall be measured according to the ventilation equipment manufacturer's instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation fan's inlet terminals, outlet terminals, or in the connected ventilation ducts.

Exception to Section 5.4: ~~The airflow rating, according to Section 7.1, at a pressure of 0.25 in. wc (62.5 Pa) may be used, provided the duct sizing meets the prescriptive requirements of Table 5.3 or manufacturer's design criteria.~~ Manufacturers' design criteria or the prescriptive requirements of Table 5.3 shall be permitted in place of a measurement. When using Table 5.3, the airflow rating according to Section 7.1 shall meet or exceed a static pressure of 0.25 in. of water (62.5 Pa). Use of Table 5.3 is limited to duct systems not exceeding 25 ft (8 m) in length, duct systems with no more than 3 elbows, and duct systems with exterior termination fittings having a hydraulic diameter greater than or equal to the minimum duct diameter and not less than the hydraulic diameter of the fan outlet.

~~TABLE 5.3 Prescriptive Duct Sizing~~

~~Duct Type~~	~~Flex Duct~~								~~Smooth Duct~~							
~~Fan Airflow Rating, cfm @ 0.25 in. of water (L/s @ 62.5 Pa)~~	~~50 (25)~~	~~80 (40)~~	~~100 (50)~~	~~125 (65)~~	~~150 (75)~~	~~200 (100)~~	~~250 (125)~~	~~300 (150)~~	~~50 (25)~~	~~80 (40)~~	~~100 (50)~~	~~125 (65)~~	~~150 (75)~~	~~200 (100)~~	~~250 (125)~~	~~300 (150)~~
~~Diameter [a], in. (mm)~~	~~Maximum Length [b,c,d], ft (m)~~															
~~3 (75)~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~5 (2)~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~
~~4 (100)~~	~~56 (17)~~	~~4 (1)~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~114 (35)~~	~~31 (9)~~	~~10 (3)~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~
~~5 (125)~~	~~NL~~	~~81 (25)~~	~~42 (9)~~	~~16 (5)~~	~~2 (0.6)~~	~~X~~	~~X~~	~~X~~	~~NL~~	~~152 (46)~~	~~91 (28)~~	~~51 (16)~~	~~28 (9)~~	~~4 (1)~~	~~X~~	~~X~~
~~6 (150)~~	~~NL~~	~~NL~~	~~158 (48)~~	~~91 (28)~~	~~55 (17)~~	~~18 (5)~~	~~1 (0.3)~~	~~X~~	~~NL~~	~~NL~~	~~NL~~	~~168 (51)~~	~~112 (34)~~	~~53 (16)~~	~~25 (8)~~	~~9 (3)~~
~~7 (175)~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~161 (49)~~	~~78 (24)~~	~~40 (12)~~	~~19 (6)~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~148 (45)~~	~~88 (27)~~	~~54 (16)~~
~~8 (200) and above~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~189 (58)~~	~~111 (34)~~	~~69 (21)~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~NL~~	~~198 (60)~~	~~133 (41)~~

~~a. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.~~
~~b. This table assumes no elbows. Deduct 15 ft (5 m) of allowable duct length for each elbow.~~
~~c. NL = no limit on duct length of this size.~~
~~d. X = not allowed; any length of duct of this size with assumed turns and fitting will exceed the rated pressure drop.~~

TABLE 5.3 Prescriptive Duct Sizing

Fan Airflow Rating, CFM at minimum static pressure of 0.25 in. of water (L/s at minimum 62.5 Pa)	≤50 (25)	≤80 (40)	≤100 (50)	≤125 (60)	≤150 (70)	≤175 (85)	≤200 (95)	≤250 (120)	≤350 (165)	≤400 (190)	≤450 (210)	≤700 (330)	≤800 (380)
Duct Type	**Minimum Duct Diameter, in. (mm)[a,b]**												
Rigid duct	4[e] (100)	5 (125)	5 (125)	6 (150)	6 (150)	7 (180)	7 (180)	8 (205)	9 (230)	10 (255)	10 (255)	12 (305)	12[d] (305)
Flex duct[c]	4 (100)	5 (125)	6 (150)	6 (150)	7 (150)	7 (180)	8 (205)	8 (205)	9 (230)	10 (255)	X	X	X

a. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.
b. X = application of the prescriptive table is not permitted for this scenario.
c. Use of this table for verification of flex duct systems requires flex duct to be fully extended and any flex duct elbows to have a minimum bend radius to duct diameter ratio of 1.0.
d. For this scenario, use of elbows is not permitted.
e. For this scenario, 4 in. (100 mm) oval duct shall be permitted, provided the minor axis of the oval is greater than or equal to 3 in. (75 mm).

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.

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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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