



ADDENDA

**ANSI/ASHRAE Addendum o to
ANSI/ASHRAE Standard 62.2-2022**

Ventilation and Acceptable Indoor Air Quality in Residential Buildings

Approved by ASHRAE and the American National Standards Institute on May 31, 2024.

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 o replaces hydraulic diameter with equivalent diameter in the prescriptive duct sizing section of the standard. The purpose is to more accurately estimate the static pressure loss for rectangular (and other noncircular) ducts.

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

Addendum o to Standard 62.2-2022

Revise Section 5.4 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 instructions, or by using a flow hood, flow grid, or other airflow measuring device at the mechanical ventilation system's terminals/grilles or in the connected ventilation ducts.

Exception to 5.4: Manufacturer 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 three (3) elbows, and duct systems with exterior termination fittings having an hydraulic equivalent diameter greater than or equal to the minimum duct diameter and not less than the hydraulic equivalent diameter of the fan outlet.

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 <u>Equivalent Duct Diameter</u> , in. (mm) ^{a,b,f,g,h}												
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)	NP	NP	NP

a. For circular ducts, the equivalent diameter, D_e , is equal to the duct diameter. For noncircular ducts, calculate the diameter as four times the cross-sectional area divided by the perimeter.

For rectangular ducts with cross-sectional dimensions a and b ,

$$D_e = \sqrt{4(ab)/\pi}$$

For flat oval ducts,

$$D_e = \frac{1.55 \left[\left(\frac{\pi a^2}{4} \right) + a(A - a) \right]^{0.625}}{[\pi a + 2(A - a)]^{0.250}}$$

where A and a are the length of the major and minor axes, respectively, of the flat oval duct.

b. NP = 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. 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).

f. 3.25×10 in. (83×254 mm) rectangular duct shall be permitted as a substitute for circular duct diameters up to 6 in. (152 mm).

g. 3.25×14 in. (83×356 mm) rectangular duct shall be permitted as a substitute for circular duct diameters up to 7 in. (178 mm).

h. 4.5×18 in. (114×457 mm) rectangular duct shall be permitted as a substitute for circular duct diameters up to 10 in. (254 mm).

Add new reference to Informative Appendix D as shown.

		Section
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<u>2021 ASHRAE Handbook</u>	<u>Fundamentals</u>	<u>Table 5-3</u>
ASHRAE RP-1663	Residential Indoor Air Quality Guide: Best Practices for Acquisition, Design, Construction, Maintenance and Operation	Foreword
ANSI/ASHRAE Standard 55-2021	Thermal Environmental Conditions for Human Occupancy	2.1

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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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