



ISO 6944-1

**Fire containment — Elements of
building construction —**

**Part 1:
Ventilation ducts**

*Endiguement du feu — Éléments de construction —
Partie 1: Conduits de ventilation*

**Second edition
2024-06**

This is a preview of ISO 6944-1:2024. [Click here to purchase the full version from the ANSI store.](#)



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This document was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 2, *Fire Resistance*.

This second edition cancels and replaces the first edition (ISO 6944-1:2008), of which it constitutes a minor revision. It also incorporates the Amendment ISO 6944-1:2008/Amd. 1:2015.

The changes are as follows:

- references to ISO 5221:1984 (withdrawn) have been replaced with references to ISO 5167-2:2022 and ISO 5167-3:2022;
- key element 2 in [Figure 2](#) and key elements 18, 19 and 20 to [Figure 4](#) have been revised.

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The purpose of this test is to measure the ability of a representative duct or duct assembly that is part of an air-distribution system to resist the spread of fire from one fire compartment to another, with fire attack from inside or outside the duct. It is applicable to vertical and horizontal ducts, with or without branches, taking into account joints and exhaust openings, as well as suspension devices and penetration points.

This document is very similar to EN 1366-1, but includes an alternative arrangement for testing elbows.

The test measures the length of time during which ducts of specified dimensions, suspended as they normally are in practice, satisfy defined criteria when exposed to fire from either inside or outside the duct.

All ducts inside the furnace are fully restrained in all directions. Outside the furnace, ducts exposed to fire from the outside are tested unrestrained, while ducts exposed to fire from the inside (horizontal only) are tested restrained.

The test takes into account the effect of fire exposure from the outside, where a 300 Pa underpressure is maintained in the duct, as well as the effect of fire entering the ducts under conditions where forced air movement is potentially (but not necessarily) present, by maintaining an air velocity of 3 m/s.

Ducts exposed to fire from the inside are supplied with air in a manner that is representative of the “fan off” and “fan on” situations that can arise in practice.