

Australian Standard[®]

**Ductwork for air-handling systems
in buildings**

This Australian Standard was prepared by Committee ME/62, Mechanical Ventilation and Air Conditioning. It was approved on behalf of the Council of Standards Australia on 21 September 1994 and published on 5 January 1995.

The following interests are represented on Committee ME/62:

Association of Consulting Engineers Australia
Australian Assembly of Fire Authorities
Australian Construction Services
Australian Institute of Refrigeration Air Conditioning and Heating
Australian Uniform Building Regulations Coordinating Council
Building Owners and Managers Association of Australia
Council of Air Conditioning and Mechanical Contractors Associations of Australia
Department of Health, New South Wales
Fire Protection Industry Associations of Australia
Insurance Council of Australia
Metal Trades Industry Association of Australia
State Projects, New South Wales

Additional interests participating in preparation of Standard:

Council of the City of Sydney

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/62 on Mechanical Ventilation and Air Conditioning. In the preparation of this Standard, consideration was given to a number of publications and relevant Standards. This Standard follows a number of requirements set out in the Sheet Metal and Air Conditioning Contractors National Association's (SMACNA) HVAC Duct Construction Standards for metal and flexible ducts, but with the requirements adapted to the products of local Australian industries.

The objective of this Standard is to provide guidance to designers, manufacturers and installers of air-handling systems for buildings.

The approach to using SMACNA as the basis for an Australian Standard was strongly influenced by—

- (a) the extensive long-term background of SMACNA, which led this document to be regarded as well developed; and
- (b) the use of SMACNA in Australia over a considerable period as the basis for duct construction.

Assistance gained from SMACNA is hereby acknowledged.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

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STANDARDS AUSTRALIA

Australian Standard

Ductwork for air-handling systems in buildings

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies the performance, materials, construction and installation of ductwork for air-handling systems in buildings.

1.2 NEW DESIGNS AND INNOVATIONS Any alternative materials, designs, methods of assembly, and procedures that do not comply with specific requirements of this Standard, or are not mentioned in it, but give equivalent results to those specified, are not necessarily prohibited. (See Appendix A).

1.3 APPLICATION This Standard applies to ductwork for air-handling systems designed in accordance with the requirements of AS 1668.1 and AS 1668.2.

1.4 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

- | | |
|--------|---|
| 1397 | Steel sheet and strip—Hot-dipped zinc-coated or aluminium/zinc coated |
| 1449 | Wrought alloy steels—Stainless and heat-resisting steel plate, sheet and strip |
| 1530 | Methods for fire tests on building materials, components and structures |
| 1530.1 | Part 1: Combustibility test for materials |
| 1530.2 | Part 2: Test for flammability of materials |
| 1530.3 | Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release |
| 1530.4 | Fire-resistance tests of elements of building construction |
| 1599 | Pressure sensitive adhesive packaging tapes |
| 1668 | The use of mechanical ventilation and air conditioning in buildings |
| 1668.1 | Part 1: Fire and smoke control |
| 1668.2 | Part 2: Mechanical ventilation for acceptable indoor-air quality |
| 1682 | Fire dampers |
| 1682.2 | Part 2: Installation |
| 1734 | Aluminium and aluminium alloys—Flat sheet, coiled sheet and plate |
| 1866 | Aluminium and aluminium alloys—Extruded rod, bar, solid and hollow shapes |
| 1903 | Reflective foil laminate |
| 2338 | Preferred dimensions of wrought metal products |
| 3666 | Air handling and water systems of buildings—Microbial control |
| 3679 | Structural steel |
| 3679.1 | Part 1: Hot-rolled bars and sections |
| UL 181 | Factory made air ducts and air connectors |



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