

Australian/New Zealand Standard™

**Furniture — School and educational**

**Part 1: Tables — Strength, durability  
and stability**



AS/NZS 4610.1:2020

This Joint Australian/New Zealand Standard® was prepared by Joint Technical Committee CS-088, Furniture — Domestic & Commercial. It was approved on behalf of the Council of Standards Australia on 10 March 2020 and by the New Zealand Standards Approval Board on 4 March 2020.

This Standard was published on 20 March 2020.

The following are represented on Committee CS-088:

- Australasian Furnishing Association
- Australian Chamber of Commerce and Industry
- Furniture and Cabinetmaking Association of New Zealand
- Furntech — Australasian Furnishing Research & Development Institute
- Human Factors and Ergonomics Society of New Zealand
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This Standard was issued in draft form for comment as DR AS/NZS 4610.1:2019.

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ISBN 978 1 76072 780 2

Australian/New Zealand Standard™

## **Furniture — School and educational**

### **Part 1: Tables — Strength, durability and stability**

Originated as AS/NZS 4610.3:1999.  
Revised and redesignated as AS/NZS 4610.1:2020.

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## Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-088, Furniture — Domestic and Commercial, to supersede in part AS/NZS 4610.3:1999, *Furniture — School and educational, Part 3: Tables and storage furniture — Strength, durability and stability*.

The objective of this Standard is to provide educational authorities, purchasers, specifiers, users, manufacturers and consumers with requirements for school and educational tables/desks with and without storage features that specify sizing, safety, strength, durability, stability and marking requirements to assist in selection and evaluation.

This Standard is Part 1 of the AS/NZS 4610 series consisting of the following:

AS/NZS 4610.1, *Furniture — School and educational, Part 1: Tables — Strength, durability and stability* (this Standard)

AS/NZS 4610.2, *Furniture — School and educational, Part 2: Chairs — Strength, durability and stability*

AS/NZS 4610.3, *Furniture — School and educational, Part 3: Storage furniture — Strength, durability and stability*

The major changes in this revision are as follows:

- (a) A more comprehensive scope has been included.
- (b) A section relating to general safety has been included, see [Clause 5.1](#).
- (c) Test level and dimensional size marks have increased from seven categories to eight and have changed from numerical to alphabetical designation.
- (d) Legroom requirements have been included, see [Section 4](#).
- (e) A formaldehyde emissions requirement has been added for materials used in construction, see [Clause 5.3](#).
- (f) A durability test for tables with castors has been included, see [Appendix N](#).
- (g) A durability test for the adjustment mechanism of continuously height adjustable tables has been added, see [Appendix O](#).
- (h) Wherever possible, test methods have been simplified and/or clarified for ease of use.

The terms “normative” and “informative” are used in Standards to define the application of the appendix to which they apply. A “normative” appendix is an integral and mandatory part of a Standard, whereas an “informative” appendix is only for information and guidance.

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# Australian/New Zealand Standard

## Furniture — School and educational

### Part 1: Tables — Strength, durability and stability

#### Section 1 Scope and general

##### 1.1 Scope

This Standard specifies the dimensional requirements (size mark), general safety, strength, durability, stability and marking requirements for freestanding tables with and without additional storage features used in educational environments as places of study.

Tables covered by this Standard may be of —

- (a) fixed height or height adjustable;
- (b) stacking or non-stacking;
- (c) flip top;
- (d) cantilevered;
- (e) pedestal;
- (f) sitting;
- (g) standing;
- (h) sit-to-stand; or
- (i) tables of similar nature and purpose other than those specifically excluded from this Standard.

The work surface may be horizontal, inclined or inclinable to a maximum of 20° towards the user. The work surface may be height adjustable. Tables may also —

- (i) be fitted with glides, castors or wheels on some or all of the legs or supports;
- (ii) contain additional storage such as drawers or shelves; and
- (iii) be fully assembled or require full or partial assembly.

The following are not covered by this Standard:

- (A) Work benches used in manual arts areas, such as woodwork, metalwork, welding and small engine services.
- (B) Laboratory work benches.
- (C) Glass forming any part of the table.  
NOTE Testing of glass is not covered in this Standard.
- (D) Clerical tables for teachers, administration staff or management.
- (E) General purposes tables for other than places of work by users.
- (F) Tables used in commercial environments.
- (G) Electrical conformance, power and communication cable management.

## 1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS/NZS 4610.3, *Furniture — School and educational, Part 3: Storage furniture — Strength, durability and stability*

AS ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

ISO 48-4, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 4: Indentation hardness by durometer method (Shore hardness)*

ISO 48-5, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 5: Indentation hardness by IRHD pocket meter method*

## 1.3 Terms and definitions

For the purpose of this Standard, the following terms and definitions apply.

### 1.3.1

#### **accuracy**

degree of closeness to the true value or the specified value of whatever dimension is being measured, or force applied

### 1.3.2

#### **clear space**

internal height of a drawer defined by the maximum height of a box that allows the drawer to be closed

### 1.3.3

#### **deflection**

maximum displacement of the tabletop measured under load at the time specified in the test

Note 1 to entry: The residual or permanent effect of the load or forces applied is deformation.

### 1.3.4

#### **deformation**

permanent change in shape or size due to the application of loads or forces

### 1.3.5

#### **drawer**

box like storage compartment without a lid and made to slide horizontally in and out of a unit with the aid of a runner and fitted with an out-stop

Note 1 to entry: See *pencil drawer* ([1.3.14](#)) and *tote* ([1.3.24](#)).

### 1.3.6

#### **extendible member**

flat or near flat shelf-like component that slides in and out of a unit with the aid of a runner and fitted with an out-stop

### 1.3.7

#### **flap**

door hinged at either the top or bottom that is opened by pulling up from the bottom or down from the top

### 1.3.8

#### **flip top table**

table with a top (usually pivoted about the horizontal centre-line) that allows the top to be rotated from an approximately horizontal working position to a vertical or near vertical storage position

**1.3.9****inclinalable table**

table with a top that can be inclined and locked in two or more positions anywhere within the range of 0° to 20° towards the user

**1.3.10****internal volume**

volume of a drawer defined by the size of a box that touches both sides, both ends and a height that just allows the drawer to be closed

**1.3.11****legroom**

clear space under the worktop that is provided for the placement of the user's legs, including knees and feet while working at the table

**1.3.12****may**

indicates the existence of an option

**1.3.13****out-stop**

physical stop that prevents a drawer or extendible member from being fully removed from its track accidentally

**1.3.14****pencil drawer**

drawer with a clear space height of between 20 mm and 50 mm and an internal volume of less than 13.33 dm<sup>3</sup>

Note 1 to entry: Unless otherwise stated, test pencil drawers as drawers.

Note 2 to entry: See also *drawer* ([1.3.5](#)) and *tote* ([1.3.24](#)).

**1.3.15****precision**

degree to which repeated measurements show the same results

Note 1 to entry: It is usually expressed as a ± % about the true value or the specified value of whatever dimension is being measured, or force applied.

**1.3.16****shall**

indicates that a statement is mandatory

**1.3.17****should**

indicates a recommendation

**1.3.18****size mark**

marks have dual purposes and represent both —

- (a) alphabetic designation given to tables and chairs for the purpose of matching their heights to groups of users based upon ranges of user statures; and
- (b) level of strength, durability and stability testing appropriate to the user group

**1.3.19****span**

on regular shaped tables the span is the longitudinal length or diameter of the tabletop and on irregular shaped tables it is the longest length joining any two points on the circumference of the tabletop

**1.3.20  
storage**

dedicated or miscellaneous place where items may be kept, other than on the tabletop

Note 1 to entry: For example, storage is usually in the form of a drawer, enclosure or shelf and includes doors, flaps and similar.

**1.3.21  
table**

piece of furniture with a flat top usually supported by legs, at which a user works

Note 1 to entry: Tables are sometimes fitted with storage areas such as a drawer or shelf.

Note 2 to entry: Tables are also known as desks.

**1.3.22  
tabletop**

primary working surface of a table at which most activity occurs

**1.3.23  
tolerance**

allowable difference from a specified value

Note 1 to entry: They may be expressed as values or percentages.

**1.3.24  
tote**

tub or tray similar to a drawer in which goods are intended to be stored and transported from place to place

Note 1 to entry: For example, the tub or tray is often made from plastic.

Note 2 to entry: See also *drawer* ([1.3.5](#)).

**1.3.25  
user**

pupil or student (or occasionally teachers) in an educational environment

**1.4 Accuracy and precision**

Unless otherwise stated, all forces shall have an accuracy of  $\pm 2\%$  and a precision of  $\pm 5\%$ . Therefore, all force application devices shall be initially set to apply  $\pm 2\%$  of the specified value. All subsequent applications of force shall fall within  $\pm 5\%$  of the specified value. All masses shall have an accuracy of  $\pm 2.0\%$ . All dimensional measuring instruments shall have an accuracy of  $\pm 1\text{ mm}$ . All angular measuring instruments shall have an accuracy of  $\pm 1^\circ$ .

**1.5 Loads and forces**

In static load tests, unless otherwise stated, the loads or forces shall be applied for between 10 s and 15 s per application. There shall be negligible impact force.

In durability loading the rate of loading shall not exceed 20 cycles per minute. Forces shall be maintained for  $2 \pm 1\text{ s}$ . The forces shall be applied sufficiently slowly to ensure that kinetic heating does not occur.

All loads and forces shall be applied using equipment that does not inhibit the natural deformation of the table under the action of those loads and forces.

With the exception of the horizontal durability test (see [Appendix I](#)) and the vertical impact test (see [Appendix L](#)), all loading pads shall be capable of pivoting in relation to the direction of the applied force. The pivot point shall be as close as practically possible to the load surface.

Loading pads for the horizontal durability test (see [Appendix I](#)), shall not pivot.

## 1.6 Testing laboratories

Other than for the requirements of measurement uncertainty laboratories that perform the tests outlined in this Standard shall meet the requirements of AS ISO/IEC 17025.

NOTE For example, accreditation bodies which are signatories to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for testing laboratories are able to offer accreditation against the requirements of AS ISO/IEC 17025. A listing of ILAC signatories is available from the ILAC website (<https://ilac.org>). In Australia and New Zealand, the National Association of Testing Authorities (NATA) and International Accreditation New Zealand (IANZ) are signatories to the ILAC MRA.

## 1.7 General

Tables shall be tested as supplied. Where tables are supplied other than fully assembled, clear and comprehensive assembly instructions shall be provided. The table shall be assembled according to those instructions in a competent manner. Where instructions allow the furniture to be assembled in different ways, the method determined most adverse shall be used. Fastenings shall not be retightened once testing has commenced.

Tables with a seat attached shall be tested to the relevant sections of both AS/NZS 4610.1 and AS/NZS 4610.2.

Size marks referenced in this Standard shall provide the following two functions:

- (a) *Dimensional size mark* — Dimensional guidance for matching table and chair heights for groups of users based upon the stature of the user.
- (b) *Test level size mark* — Appropriate levels of strength, durability and stability testing applicable to the dimensional size mark of the user group.

Size marks shall be designated by an alphabetical letter between A to H, where A is for the shortest group of users and H is for the tallest group of users, see [Clause 3.8](#).

NOTE 1 For guidance on matching table and chair heights, see [Appendix P](#).

The taller size mark groups of E, F, G and H have the following two performance levels:

- (i) *Normal* — Tables used in everyday supervised environments.
- (ii) *Severe* — Tables where an increased level of strength, durability and stability may be required or in unsupervised environments where a level of misuse may occur.

For the purpose of testing strength, durability and stability, unless otherwise stated, the minimum test level size mark shall be determined by the height of the table. The table shall, as a minimum, be tested for strength, durability and stability to the test level size mark indicated by the table height or the nearest higher dimensional size mark. Tables of dimensional size marks E, F, G or H shall be tested at either normal or severe performance level as requested and the applicable designation appended to the test level size mark, e.g. “F Normal” or “F Severe”.

NOTE 2 Strength and durability may be tested to a greater test level size mark where requested.

## Section 2 General inspection, failure criteria and test report

### 2.1 Pretest inspection

#### 2.1.1 General

The table is described and measured for reference and inspected for defects prior to commencing testing. A means of measuring in millimetres is required for this inspection.

#### 2.1.2 Procedure

The table shall be inspected thoroughly for any defects specified in [Clause 2.2](#). At a minimum the following shall be noted:

- (a) Name of the table.
- (b) Category of table (e.g. standing table, sitting fixed height table, sit-to-stand table, flip top table or similar).
- (c) Height or height adjustment range of the table.
- (d) Method of height adjustment.
- (e) Structural form (e.g. four legged, cantilevered, pedestal or similar).
- (f) Tabletop shape (e.g. square, circular, rectangular, irregular or similar).
- (g) Support points (e.g. slides, glides, castors or similar).
- (h) Storage features (where applicable).
- (i) Any defect identified in the inspection.

### 2.2 Post-test inspection

After each test in [Sections 6](#), [7](#) and [8](#) the table shall be reinspected. The following attributes shall be reported:

- (a) Significant fractures or cracks.
- (b) Significant deformation that adversely affects the appearance or function of the table.
- (c) Significant impairment of the operation of any mechanical part.
- (d) Loose joints intended to be tight.
- (e) Significantly loose or dislodged screws.
- (f) Latching mechanisms of flip top tables that allow movement of the tabletop when latched.

### 2.3 Failure criteria

#### 2.3.1 Sections 3, 4 and 5

Tables shall meet the requirements as specified in [Sections 3](#), [4](#) and [5](#).

#### 2.3.2 Sections 6 and 7

After each test any table that fails to meet the specific requirements of that test (see [Sections 6](#) and [7](#)), or exhibits any of the attributes listed in [Clause 2.2](#), shall be determined to have failed that test.

### 2.3.3 Section 8

Storage features in tables shall meet the requirements specified in AS/NZS 4610.3. The table shall not show any of the attributes listed in [Clause 2.2](#).

## 2.4 Test report

The test report for each of the tests in this Standard shall include, at a minimum, the following:

- (a) Name and address of the test facility.
- (b) Date of test completion.
- (c) Reference to this Standard, e.g. AS/NZS 4610.1.
- (d) Details of the pretest inspection (see [Clause 2.1](#)) and at a minimum, one image.
- (e) Dimensional and test level size mark.

NOTE For test levels E, F, G and H, include the performance level of normal or severe as applicable, see [Clause 1.7](#).

- (f) Details of any deviations from this Standard.
- (g) Results of the tests conducted.

## Section 3 Table categories and assessment

### 3.1 Sitting table (Category A)

This category covers tables primarily suited to users working in the seated position. Tables in this category are suitable for chairs with sloped seats between 5° rearward and 7° forward.

### 3.2 Standing table (Category B)

This category covers tables of a height that allows the user to work in a standing position.

### 3.3 Sit-to-stand table (Category C)

This category covers tables that can be continuously adjusted in height from, at a minimum, the height of a sitting table dimensional size mark in Category A to, as a minimum the height of the same dimensional size mark of a standing table in Category B.

### 3.4 High sitting table (Category D)

This category covers tables higher than a sitting table primarily for use with high chairs or stools.

#### 3.4.1 Dimensional size mark of high sitting tables

High sitting tables in this Category shall not be assessed for tall chair suitability unless supplied with a matching tall chair. Tables without matching chairs cannot be size marked as suitability is defined by the distance between the top of the table and the seat height of the chair. See [Table 3.4.2](#) for relativity.

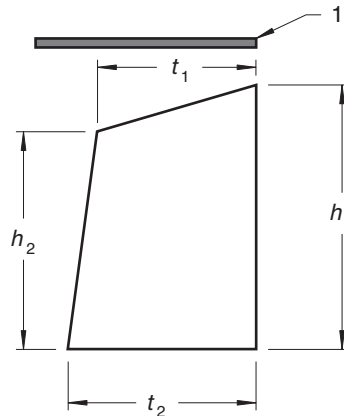
#### 3.4.2 Strength and durability of high sitting tables

High sitting tables shall be assessed for strength and durability to the greatest size mark for a sitting table. Where the applicable size mark is E, F, G or H the table shall be tested at either normal or severe levels. High sitting tables shall be assessed for legroom by placing the legroom template, (see [Figure 3.4.2](#)) for a sitting table of the same dimensional size mark with its highest point set under the tabletop by the amount shown in [Table 3.4.2](#).

**Table 3.4.2 — Relativity of high sitting tables and tall chairs**

Dimensions in millimetres

| Size mark                                                                                                  | Distance between height of the seat and top of table |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| A                                                                                                          | 140 ± 10                                             |
| B                                                                                                          | 145 ± 10                                             |
| C                                                                                                          | 160 ± 10                                             |
| D                                                                                                          | 175 ± 10                                             |
| E                                                                                                          | 195 ± 10                                             |
| F                                                                                                          | 215 ± 10                                             |
| G                                                                                                          | 240 ± 10                                             |
| H                                                                                                          | 250 ± 10                                             |
| NOTE Where tables have an underdrawer at the seated position up to 60 mm may be added to these dimensions. |                                                      |



#### Key

- 1 Front of table
- $h_1$  Legroom height at front of tabletop
- $h_2$  Height of legroom at  $t_1$  depth
- $t_1$  Depth at top of legroom (knees)
- $t_2$  Depth at bottom of legroom (feet)

**Figure 3.4.2 — Legroom template and dimensions**

### 3.5 Assessment categories

Tables will generally be assessed to one category only. However, tables can conform to the dimensional requirements of a different size mark in another category of table and may be tested to both where requested. For example, a sitting table of a higher size mark may also suit the standing table height of a smaller size mark. Where table assessment in more than one category is required the applicable dimensional and legroom requirements of each category shall conform.

The strength and durability test level size mark shall be determined by the greatest dimensional size mark of the categories assessed.

### 3.6 Height adjustable tables

For tables to be classified as height adjustable they shall be able to adjust the tabletop height and cover a minimum of two adjacent dimensional size marks.

NOTE 1 This requirement does not apply to sit-to-stand tables.

Tables with fixed position adjustments shall meet the applicable height requirements at the fixed adjustment positions. Tables with continuous adjustment shall be able to be set at the applicable dimensional size mark heights.

Height adjustable tables shall conform with all dimensional size marks covered by the adjustment.

NOTE 2 For convenience, where possible, the applicable dimensional size mark or actual table height should be shown adjacent to each fixed adjustment position.

### 3.7 Tables with castors or wheels

If castors or wheels are fitted to all legs or supports, as a minimum, any two shall be lockable. The locking castors or wheels should be on the long side of the table. Where only some of the legs or supports are fitted with castors or wheels and have to be lifted from the floor on one side of the table to allow it to move, non-locking castors may be used.

### 3.8 Functional dimensions and size marks for tables

Dimensional size marks provide guidance on matching table and chair heights to give users of all ages, and most heights, a combination that will provide an ergonomically comfortable seating position.

Other than tables purpose built to match tall chairs, all tables shall conform with the applicable dimensional size mark requirements in [Table 3.8\(A\)](#), [Table 3.8\(B\)](#) or [Table 3.8\(C\)](#).

**Table 3.8(A) — Table heights for use with chairs (with sloped seats between 5° rearward and 7° forward)**

Dimensions in millimetres

| Size mark                   | A   | B   | C   | D   | E   | F   | G   | H   |
|-----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Height of tabletop $\pm 15$ | 400 | 465 | 525 | 585 | 635 | 705 | 755 | 815 |

**Table 3.8(B) — Table heights for standing tables**

Dimensions in millimetres

| Size mark                   | A   | B   | C   | D   | E   | F    | G    | H    |
|-----------------------------|-----|-----|-----|-----|-----|------|------|------|
| Height of tabletop $\pm 15$ | 530 | 595 | 665 | 755 | 875 | 1005 | 1055 | 1195 |

**Table 3.8(C) — Table heights for sit-to-stand tables**

Dimensions in millimetres

| Size mark                           | A                | B                | C                | D                | E                | F                 | G                 | H                 |
|-------------------------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|
| Height adjustment range of tabletop | 400<br>to<br>530 | 465<br>to<br>595 | 525<br>to<br>665 | 585<br>to<br>755 | 635<br>to<br>875 | 705<br>to<br>1005 | 755<br>to<br>1055 | 815<br>to<br>1195 |
| Upper limit: plus infinity – 15     |                  |                  |                  |                  |                  |                   |                   |                   |
| Lower limit: minus infinity + 15    |                  |                  |                  |                  |                  |                   |                   |                   |

## Section 4 Table legroom

### 4.1 General

This section specifies the minimum legroom required under a table for a single user but may be used for multiple users as follows.

Where a sitting table is designed for multiple users, except those tables with convex working edges (i.e. the edge of the table at which the user is intended to sit), each user shall have the minimum legroom specified for a single user.

For sitting tables with convex working edges, the overlap in adjacent undertable legroom width shall be no greater than 5 %. For example, the minimum width at maximum knee space depth  $t_1$  and maximum foot depth  $t_2$  legroom shall be 450 mm for size marks A to D (5 % of 500 mm, see [Clause 4.2\(b\)](#), overlapping 25 mm for each adjacent space). The requirement for 500 mm width at the height of the tabletop ( $h_1$ ) for those size marks shall remain unaffected.

For any standing table designed for multiple users, each user shall have the minimum legroom specified for a single user. In addition, the tabletop depth at each standing position shall be at a minimum  $t_2 - 25$  mm for size marks A to D, and  $t_2 - 50$  mm for size marks E to H.

The width of all tabletops shall be at a minimum equivalent to the width of the legroom required.

This Standard does not require that there be a determination of how many users should or could be accommodated at a table. However, tables that are claimed to be suitable for a given number of users shall meet the dimensional requirements specified in this section for that number of users, at the appropriate size mark.

### 4.2 Sitting tables

The legroom requirements for a sitting table shall be as follows:

- (a) Legroom under tabletops shall be provided for each size mark covered in accordance with the minimum dimensions shown in [Table 4.2](#) and [Figure 3.4.2](#).  
  
NOTE For ease of measurement a template should be made from any rigid material, (e.g. MDF or aluminium), between 3 mm and 30 mm thick and be in accordance with the shape of [Figure 3.4.2](#) and the dimensions of [Table 4.2](#).
- (b) Legroom shall be measured by placing the template on the floor with its higher end in line with the front edge of the table, where users sit, traversing between the legs of the table. The minimum width of legroom shall be —
  - (i) 500 mm for size marks A to D;
  - (ii) 600 mm for size marks E to G; and
  - (iii) 650 mm for size mark H.
- (c) Dimension  $t_2$  may extend beyond the depth of the tabletop by 25 mm for size marks A to D and 50 mm for size marks E to H.

**Table 4.2 — Minimum legroom dimensions for tables using chairs with sloped seats between 5° rearward and 7° forward**

Dimensions in millimetres

| Size marks |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|
| Dimension  | A   | B   | C   | D   | E   | F   | G   | H   |
| $h_1$      | 325 | 380 | 440 | 495 | 545 | 610 | 665 | 725 |
| $h_2$      | 275 | 325 | 375 | 420 | 465 | 520 | 565 | 620 |
| $t_1$      | 300 | 325 | 350 | 375 | 400 | 425 | 450 | 475 |
| $t_2$      | 400 | 425 | 450 | 475 | 500 | 525 | 550 | 575 |

### 4.3 Standing tables

The legroom requirements for standing tables shall be as follows:

- (a) Legroom under tabletops shall be provided for each size mark covered in accordance with the box dimensions shown in [Table 4.3](#) and [Figure 4.3](#).

NOTE For convenience, building test boxes with the applicable dimensions may make assessment easier.

- (b) There shall be no intrusion into the area under the table that would prevent a box of the applicable size in [Table 4.3](#) being placed under the table with the long edge of the base aligned with the working/standing edge of the table and centred on the standing position.
- (c) The tabletop depth at the standing position shall be at a minimum  $t_2 - 25$  mm for size marks A to D, and  $t_2 - 50$  mm for size marks E to H.

**Table 4.3 — Minimum legroom dimensions for standing height tables**

Dimensions in millimetres

| Size marks |     |     |     |     |     |     |     |      |
|------------|-----|-----|-----|-----|-----|-----|-----|------|
| Dimension  | A   | B   | C   | D   | E   | F   | G   | H    |
| $a$        | 500 | 500 | 500 | 500 | 650 | 650 | 650 | 650  |
| $b$        | 150 | 150 | 175 | 175 | 200 | 200 | 225 | 250  |
| $c$        | 430 | 490 | 570 | 660 | 730 | 850 | 910 | 1050 |

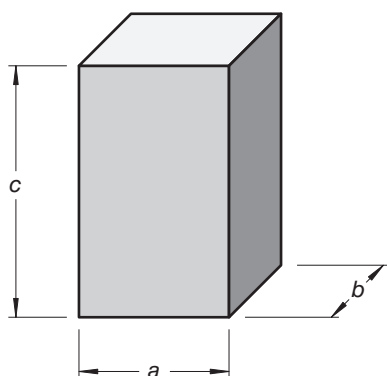


**Figure 4.3 — Legroom dimensions for standing height tables**

#### **4.4 Sit-to-stand tables**

A sit-to-stand table shall meet both the sitting and standing legroom requirements, and tabletop dimensional requirements, for its size mark.

## Section 5 Table safety

### 5.1 General

All parts of the table with which the user is likely to come into contact during conventional use, shall be designed to avoid physical injury or soiling as follows:

- (a) Edges of tabletops are rounded, chamfered or otherwise make a smooth transition between tabletop and table edge.
- (b) All other edges likely to come into contact with the user during normal use shall be free from burrs and/or sharp edges, e.g. hand-actuated mechanisms such as adjustment winders and flip top release bars.

NOTE The tabletop radius, chamfer or transition should be  $\geq 2$  mm.

- (c) Tubular products shall be capped or closed and finished smoothly.
- (d) All table parts which are lubricated shall be designed to protect users from lubricant stains when in conventional use

### 5.2 Flip top latching mechanisms

All flip top tables shall have a latching mechanism (or be otherwise fixed) in, as a minimum, the working position.

Tables without a latch in the storage position shall not allow the tabletop to continue to rotate towards the working position when tilted  $20^\circ$  from the storage position. This requirement is not applicable to flip top tables with soft close mechanisms.

### 5.3 Formaldehyde emissions

Composite or engineered wood products, used in the construction of the table, shall have a formaldehyde emission Class equal to, or better than, E1 (or equivalent from an alternative standard).

NOTE Examples of composite or engineered wood products are, but not limited to, plywood, particle board, MDF or compact laminate. [Table 5.3](#) includes example procedures and requirements but is not an exhaustive list of applicable standards.

**Table 5.3 — Formaldehyde emissions from composite or engineered wood products**

| Composite wood product                                                                                                                                                                                                                               | Standard for testing procedure | Standard for formaldehyde emission requirement |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------|
| Plywood, laminate and veneer products                                                                                                                                                                                                                | AS/NZS 2098.11                 | E1 Class in accordance with AS/NZS 2269.0      |
| Particleboard and other board products                                                                                                                                                                                                               | AS/NZS 4266.1 <sup>a</sup>     | E1 Class in accordance with AS/NZS 1859.1      |
| Dry processed fibreboard products                                                                                                                                                                                                                    | AS/NZS 4266.1 <sup>a</sup>     | E1 Class in accordance with AS/NZS 1859.2      |
| <sup>a</sup> Refer to Section 17, Formaldehyde emission — Desiccator method.<br>NOTE E1 Class formaldehyde emissions are less than those emitted by a material classed as E2, but higher than those emitted by a material classed as E0 or Super E0. |                                |                                                |

## Section 6 Table stability

### 6.1 General

Table testing shall be performed in clause number sequence and on the same table.

All tables shall be tested in accordance with [Clauses 6.2\(a\)](#) and [6.2\(b\)](#).

In addition, for tables with storage components, the tests in [Clauses 6.2\(c\)](#) and [6.2\(d\)](#) shall also be performed.

NOTE Examples of storage components are features such as shelves, drawers, totes, trays, flaps, or doors.

### 6.2 Table stability tests

The table shall not overturn when tested. Tables shall be tested in accordance with the following appendices:

- (a) Table stability under vertical static load, see [Appendix A](#).
- (b) Horizontal impact stability test, see [Appendix B](#).
- (c) Overturning test for an unloaded table with additional storage, see [Appendix C](#).
- (d) Overturning test for a loaded table with additional storage, see [Appendix D](#).

## Section 7 Table strength

### 7.1 General

#### 7.1.1 Test samples

Tables shall have been manufactured at a minimum 4 weeks prior to commencement of testing.

#### 7.1.2 Test conditions

Testing shall be performed indoors with ambient conditions between 15 °C and 30 °C, unless otherwise specified.

#### 7.1.3 Height adjustable tables — Test configuration

Height adjustable tables shall be tested at the highest adjustment position, unless otherwise specified.

#### 7.1.4 Order of testing

The relevant tests in [Clause 7.2](#) shall be performed in clause number sequence and on the same table.

In addition, for tables with storage such as shelves, drawers, totes, trays, flaps, or pivoted doors, the tests in [Section 8](#) shall also be performed.

### 7.2 Table strength and durability tests and test specific requirements

Tables shall be tested in accordance with the following relevant appendices:

- (a) Concentrated static load test, see [Appendix E](#).
- (b) Distributed static load test, see [Appendix F](#).
- (c) Overturning damage test, see [Appendix G](#).
- (d) Horizontal static load and stiffness test, see [Appendix H](#).

In this test the following requirements shall apply:

- (i) During the stiffness test, and for each of the following directions tested:
  - (A) *Fixed height tables* — When the maximum possible horizontal force is applied, the displacement of the tabletop, when measured from the initial reference point, shall not exceed 1.25 mm for every 25 N of horizontal force applied.
  - (B) *Height adjustable tables* — When the maximum possible horizontal force is applied, the displacement of the tabletop, when measured from the 50 N pre-force reference point, shall not exceed 1.25 mm for every 25 N of horizontal force applied.
- (ii) At the conclusion of the horizontal static load test, with the tabletop mass still in place, and for each direction tested:
  - (A) *Fixed height tables* — The horizontal displacement of the tabletop, measured from the initial reference point, shall not be greater than the height of the tabletop (in mm) divided by 100.