

Latest References for Stairways

Australian Standards 1657:2013

Fixed Platforms, Walkways, Stairways and Ladders

Section 7.2 - Stairways

7.2.1 Width and angle of slope

Stairways shall be not less than 600 mm wide, measured between the inside edges of the stiles. The clear space between handrails and midrails shall be not less than 550 mm. The angle of slope between the stiles and the horizontal shall be not less than 20° and not greater than 45° (see Figure 2.1 below).

7.2.2 Flights

The number of risers in a flight shall be not less than two and not more than 18. Where there is more than one flight, adjacent flights shall be connected by a landing complying with Clause 7.2.4.

A means of preventing a person from falling more than 36 risers shall be provided, which shall include—

- a) a barrier;
- b) a landing not less than 2 m in length; or
- c) a change in direction of the stairway of not less than 90°.

7.2.3 Stairs

7.2.3.1 Treads

Flooring materials for treads shall comply with Clause 3.2.3. The surface of every tread shall extend across the full width of the stairway and the tread surface shall be slip-resistant.

7.2.3.2 Risers and goings

All risers and all goings in the same flight of stairs shall be of uniform dimensions within a tolerance of ± 5 mm.

NOTE: In some cases it may be necessary to modify the landing at the base of the stairway to achieve uniformity in the risers.

A riser (R) shall be not less than 130 mm and not greater than 225 mm.

The going (G) shall be not less than 215 mm and not greater than 355 mm.

The going shall be not greater than the tread depth (TD) plus a maximum gap of 30 mm between the rear edge of one tread and the nosing of the tread above.

NOTE: For typical terminology of stairway, see Figure 7.2.

The combination of twice the riser plus the going ($2R + G$) shall be not less than 540 mm, and not greater than 700 mm [i.e. $540 \leq (2R + G) \leq 700$].

7.2.3.4 Nosing

The nosing shall be such that the edge of the tread is clearly visible against the background, especially where the stairs could be used in a variety of lighting conditions.

Latest References for Stairways

7.2.4 Landings

Any landing at a point of access to the stairway and any intermediate landing in the stairway shall be designed and constructed in accordance with the requirements of Clauses 4.2 and 4.3 and the following:

- The length of the landing shall be not less than 600 mm.
- The width of the landing shall be not less than the width of the stairway.
- The landing shall have minimum headroom of 2000 mm.
- Every access landing shall provide standing space of not less than 600 mm clear of cross-traffic, door swing or any other structure.

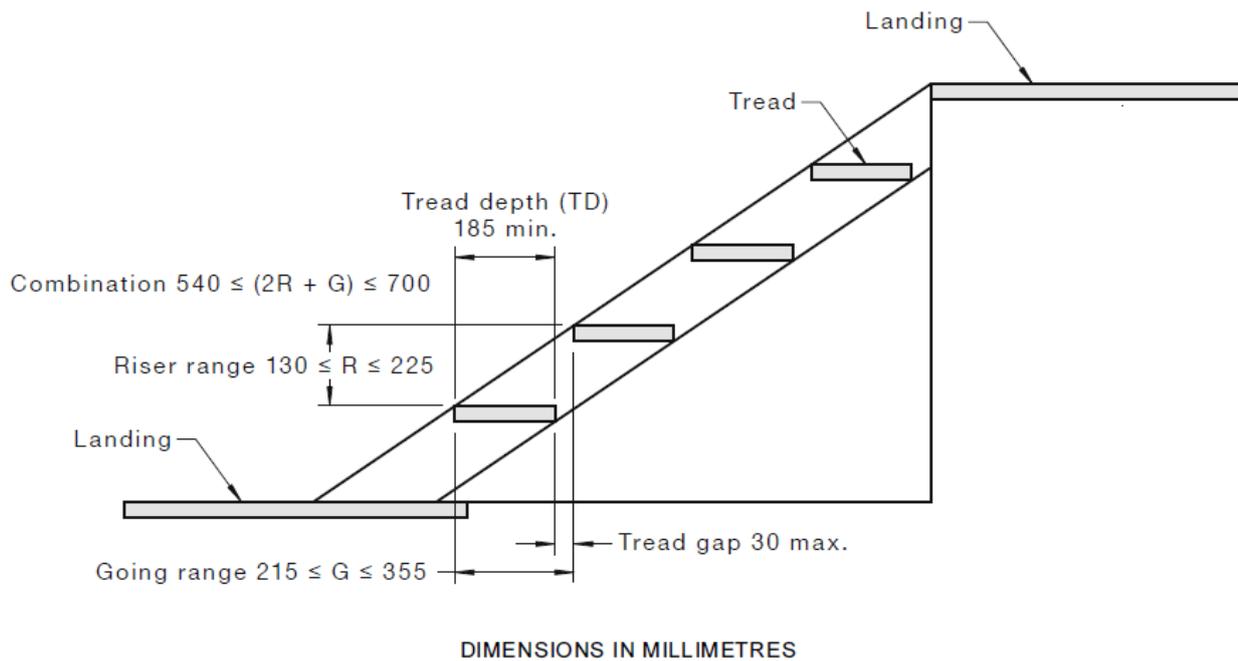


FIGURE 7.2 TYPICAL STAIRWAY TERMINOLOGY

7.2.5 Guardrailing

Except where there is a fixed structure within 100 mm of the stairway stile, stairways and stairway landings shall be provided with guardrailing on any exposed side.

Guardrailing shall comply with the requirements of Section 6. The requirement for a toeboard, given in Clause 6.1.2, shall apply only to the sides of stairway landings.

7.2.6 Handrails

Every stairway shall be provided with at least one handrail that is continuous between stair flight landings and have no obstruction on or above them that will tend to break a handhold. Where the width of the stairway exceeds 1000 mm, a handrail shall be provided on each side.

On adjacent flights of stairs, where the gap between handrails is 100 mm or greater, a continuous rail shall be provided to close the gap for both top and intermediate rails, as shown in Figure 7.3. Where the gap between the handrails is less than 100 mm, a continuous handrail or vertical closure bends shall be used.

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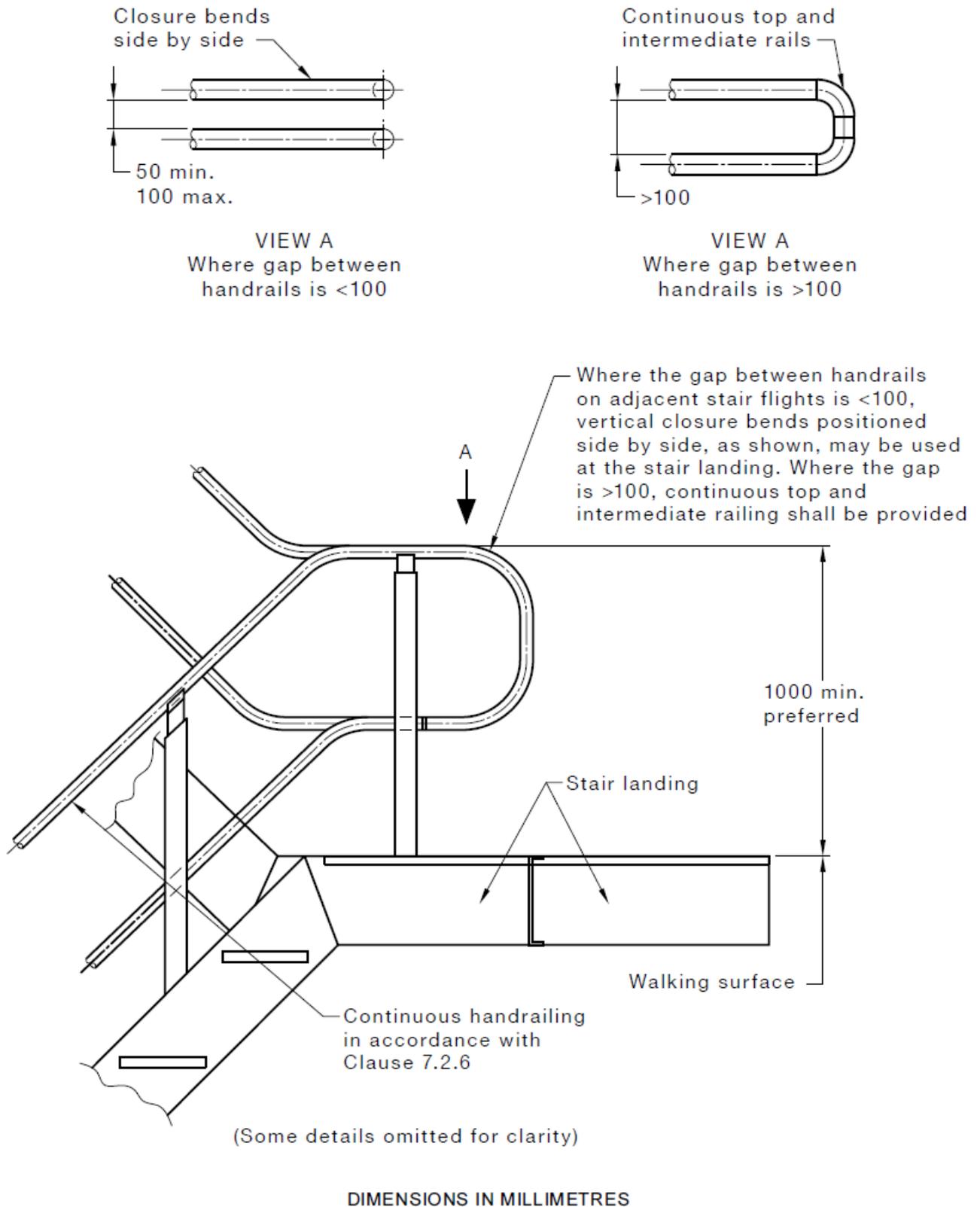


FIGURE 7.3 CRITERIA FOR HANDRAILS AT LANDINGS