

Table 1 Recommended sizes for straight stairs and winders

Stair category	Rise, <i>r</i> mm		Going, <i>g</i> mm		Stair clear width (see Note 2) mm	Handrail height mm	
	Min.	Max.	Min.	Max.	Min.	Min.	Max.
Private stair	150	200	250	400	800 ^{A)}	900	1 000
Normal-use stair	150	180	300	450	1 000 ^{B)}	900	1 000

^{A)} For regular two-way traffic, the minimum stair clear width is 1 000 mm

^{B)} For hospitals, the minimum stair clear width is 1 200 mm.

NOTE 1 Requirements for means of escape in case of fire can necessitate an increase on the minimum values given for stair clear width. Where means of escape is a factor, the relevant regulations apply.

NOTE 2 The minimum stair clear widths could be insufficient for escape stairs, depending upon the building use and number of occupants.

NOTE 3 For spatial provision for stairlifts see DD 266:2007, 7.5.

NOTE 4 The stair clear width is measured between handrails.

NOTE 2 If designing for general building populations with a wide range of ability, the use of lower rises is preferred.

The design rise for every tread should remain constant in consecutive steps and in consecutive flights between storeys. Ideally, all successive flights in a stair over more than two storeys should have the same design rise, but this might not be possible if the floor-to-floor height is different. Generally, there should be no fewer than 3, and no more than 20, rises in any one flight.

NOTE 3 Some users prefer the security offered by a larger level area such as a landing midway through a transition between storey levels, but this might make it more difficult for blind and partially sighted people. An intermediate landing can be provided in a flight between storeys so long as the going is not reduced to an unsuitable size because of space limitation.

NOTE 4 There may be a flight of fewer than 3 rises only between the external door of a building and the ground or an access balcony, or at the foot of a private stair in a dwelling.

If a single flight, not connected to another flight by a landing or winders, has 3 steps or fewer the rise should be a minimum of 100 mm; a step with a shallow rise can cause people to trip in ascent.

No normal-use stair should have more than 40 rises in consecutive flights without at least one change of direction of a minimum of 30° between flights or an intermediate landing of 2 000 mm or more in length.

A normal-use stair should have closed rather than open rises (see Figure 5).

NOTE 5 A closed riser removes the possibility of a fall caused by the front of a foot or a walking aid being caught underneath a tread during ascent and also avoids feelings of insecurity many people experience when looking through open rises on a stair.

In situations where open rises are used, such as on a private stair, the size of any apertures should be limited to prevent small children climbing or falling between the treads. In stairs likely to be used regularly by children under 5 years old, no opening between adjacent treads should be large enough to permit a sphere of 100 mm diameter to pass through it.