



## BUILDING REGULATIONS

A complete guide based on the standards and requirements of Swedish National Board of Housing, Building and Planning (Boverket).





## BUILDING REGULATIONS - IN A NUTSHELL

What requirements, standards, and regulations are imposed on spiral staircases, straight flight staircases, wheelchair ramps, and railings? You will find the answers to these questions in the building regulations of the Swedish National Board of Housing, Building and Planning. But to make things easier for you, we have brought all the relevant ones together in this guide. We describe, step by step, which one you need to follow and how. We help you make the right decisions from the outset so that you can feel confident that your products are compliant with applicable regulations and requirements.

# Who, what, how, and why?

When choosing a staircase solution, ramp, or railing, you are faced with a number of different choices - some simple, some a little more difficult. A lot is contingent on who might use the staircase or ramp and where they are to be located.

For example, in a public environment, accessibility for people with impaired movement is an important consideration. If the staircase is going to be sited in an industrial premises, you should ensure the safety of your employees using sturdy railings and good anti-slip protection. Of course, if you intend siting the staircase outdoors, you should choose one made from corrosion-resistant material that can handle our harsh Nordic climate.

But in addition to your own needs, expectations, and requirements, you also need to comply with building codes and regulations so that the risk of accidents is minimised. You can find a summary of these here.

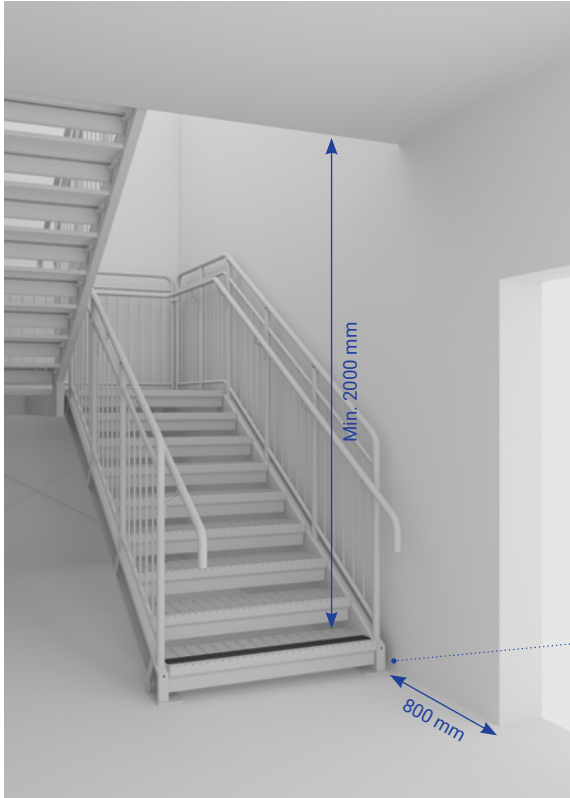
We know that navigating the sea of building codes and regulations can be a complicated business. Many times, you need extensive experience in order to make the right choice. Are you managing a specific project that requires more detailed responses in respect of requirements and codes? Contact us and we'll guide you through the process.

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# Straight flight staircases



## Basic rules

Staircase free height must be at least 2000 mm.

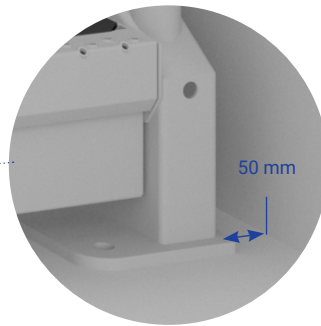
*BBR 8:34*

A gap of at least 50 mm should be left between walls and the sides of the staircase in order to allow installation. However, this gap may not exceed 50 mm if the staircase does not have railings.

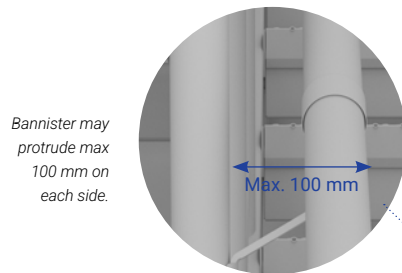
*BBR 8:2321*

The free area from the start of the staircase to a wall or door must be at least 800 mm.

*BBR 8:2321*



A gap of at least 50 mm should be left between walls and the sides of the staircase in order to simplify installation.



Bannister may protrude max 100 mm on each side.

## Staircase width

When evacuating less than 150 people, the free width must be at least 900 mm.

*BBR 5:334*

When evacuating more than 150 people, the free width must be at least 1200 mm.

*BBR 5:334*

If safe transport of a stretcher is required, the free width must be at least 1200 mm.

*BBR 8:232*



## Staircase railings

If floor height exceeds three metres and openings around the staircase are greater than 400 mm in both directions, railing height should be at least 1100 mm and bannisters sited at a height of 900 mm.

*BBR 8:2321*

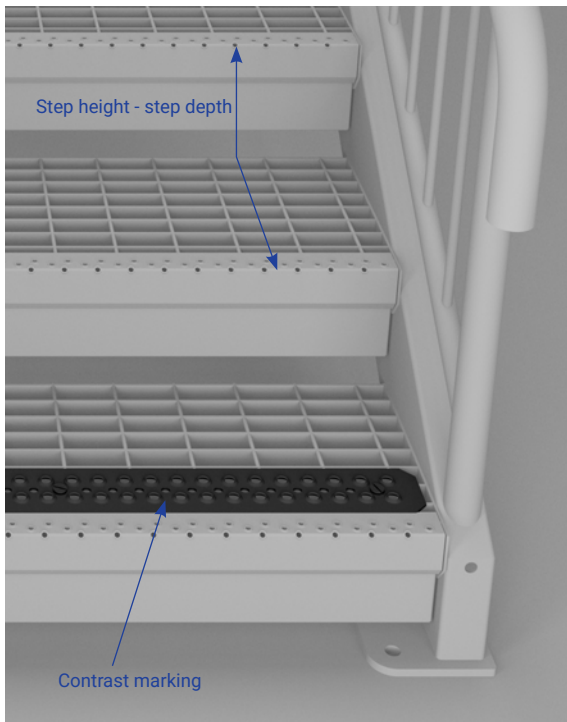
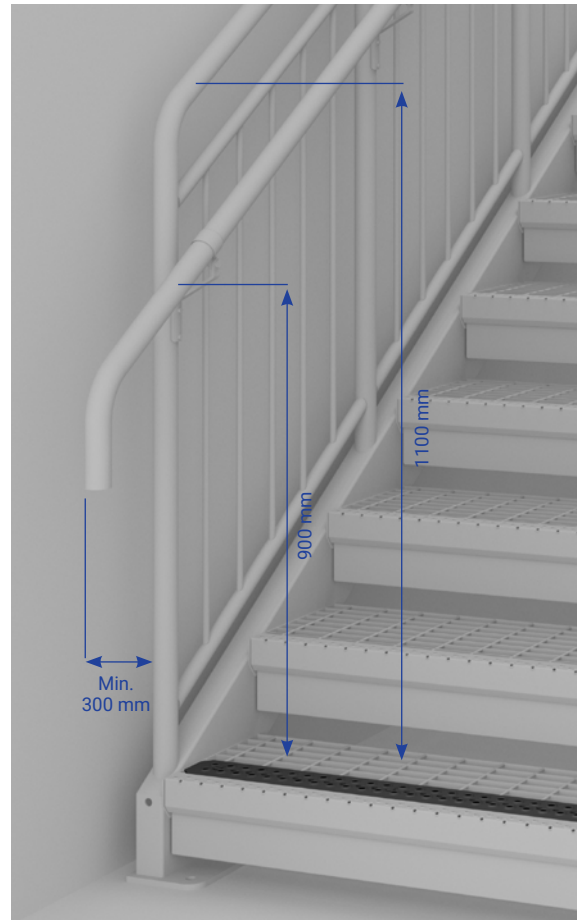
## Bannisters

Staircases with more than 3 steps and staircases in public environments should be equipped with bannisters on both sides that must be easy to grip.

*BBR 8:2322*

Bannisters should extend past steps by at least 300 mm at the start and end of the staircase in each staircase section.

*BBR 8:2322*



## Walkways and steps

Surfaces that are intended to be walked on must be covered with material that reduces the risk of slipping or tripping.

*BBR 8:22*

Contrast marking must be used on the first and last riser in each staircase section.

*BBR 8:232*

Step height and tread depth must not deviate within the same flight of stairs. Step depth in the path should be at least 250 mm.

*BBR 8:232*

## Intermediate landing

Intermediate landings should be as deep as the staircase is wide.

*BBR 8:232*

In multi-occupancy dwellings with at least 3 residences, the intermediate landing should be at least 1500 mm deep.

*BBR 8:232*

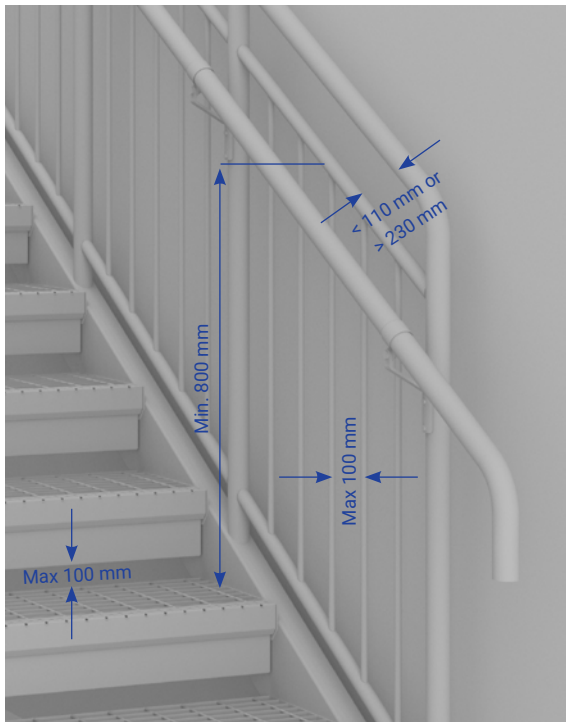
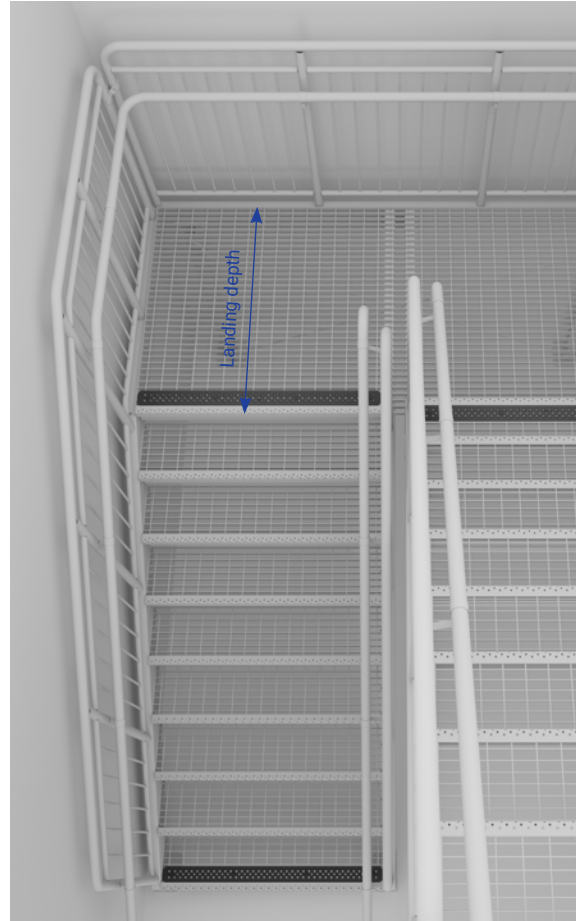
In individual residential apartments, intermediate landings should be at least 1300 mm deep.

*BBR 8:232*

### **Note!**

Angled or curved staircases may require a larger turn radius in order to ensure a good step depth.

*BBR 8:232*



## Child safety

In staircases where children may be present, railings up to at least 800 mm should be designed to prevent climbing.

*BBR 8:232*

In staircases where children are present, no openings should be larger than 100 mm up to a height of 800 mm.

*BBR 8:2321*

Horizontal openings from heights 800 mm and up to the top rail may not fall within the range 110-230 mm as there is a risk that a child may get their head trapped.

*BBR 8:2321*



# Spiral staircases



## Basic rules

Staircase free height must be at least 2000 mm.

*BBR 8:34*

A gap of at least 50 mm should be left between walls and the sides of the staircase.

*BBR 8:2321*

## Staircase width

When evacuating more than 150 people, the free width must be at least 900 mm.

*BBR 5:334*

When evacuating more than 150 people, the free width should be at least 1200 mm.

*BBR 5:334*

## Walkways and steps

Surfaces that are intended to be walked on must be covered with material that reduces the risk of slipping or tripping.

*BBR 8:22*

Contrast marking should be used on the first and last riser in each staircase section.

*BBR 8:232*

Step height and tread depth must be consistent in each individual flight of stairs.

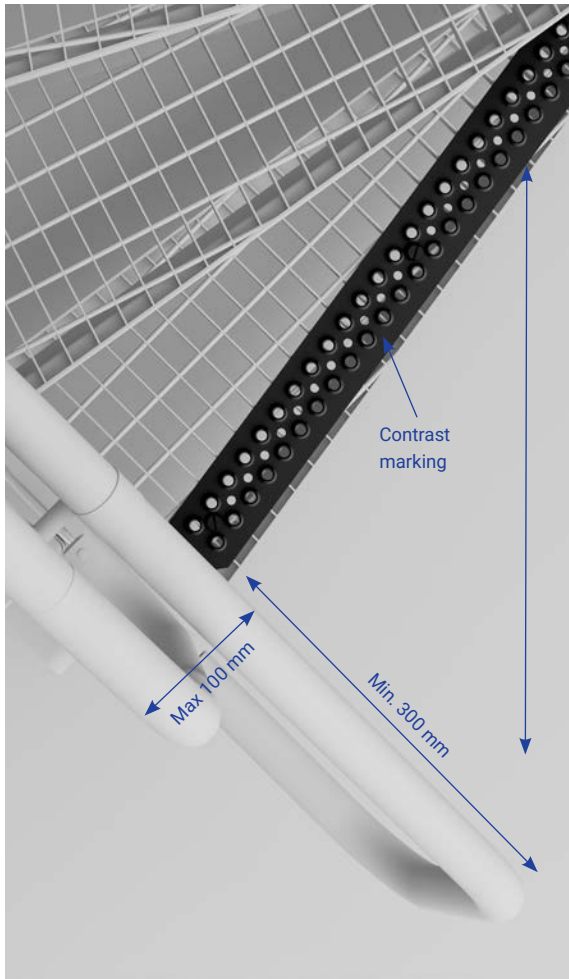
*BBR 8:232*

Tread depth along path should be at least 250 mm. The path is to be measured 250 mm in from the outside of the step.

*BBR 8:232*







## Staircase railings

Railing height must be at least 1100 mm. Within residential apartment, a railing height of 900 mm may be allowed in those cases floor height not exceeding 3 m.

*BBR 8:2321*

## Bannisters

In public environments, there should be bannisters on both sides and these must be easy to grip. They may protrude no further than 100 mm from the inside of the railing.

*BBR 8:2322*

Bannisters should extend past steps by at least 300 mm at the start and end of the staircase in each flight.

*BBR 8:2322*

Bannisters must be 30-50 mm in diameter and should site at a height of 900 mm.

*BBR 8:2322*

## Child safety

In staircases where children may be present, railings up to at least 800 mm should be designed to prevent climbing.

*BBR 8:2321*

In staircases where children are present, no openings should be larger than 100 mm up to a height of 800 mm.

*BBR 8:232*

Horizontal openings from heights 800 mm and up to the top rail may not fall within the range 110-230 mm as there is a risk that someone may get their head trapped.

*BBR 8:2321*

## Evacuation safety

Steps and intermediate landings made from grating should not be used for staircases extending beyond three floors.

*BBR 5:334*

# Wheelchair ramps



## Basic rules

In order to minimise the risk of falling, a ramp may have a maximum inclination of 1:12.

*BBR 3:1422*

## Ramp width

Free width should be at least 1300 mm.

*BBR 3:1422*

## Ramp height

The total height of a ramp must not exceed 1000 mm.

*BBR 3:1422*

## Safety

Contrast marking must be used at the beginning of each ramp and on the front edge of landings.

*BBR 3:1423*

A ramp should be clear of obstacles and be equipped with a safety edge of at least 40 mm in instances

where there are level differences with the surrounding floors.

*BBR 3:1422*

## Bannisters

Bannisters must be sited at heights of 900 mm and 600 mm.

*BBR 8:232*

## Intermediate landing

Intermediate landings are to be at least 2000 mm deep. Ramps are to be implemented with a height difference of max 500 mm between intermediate landings.

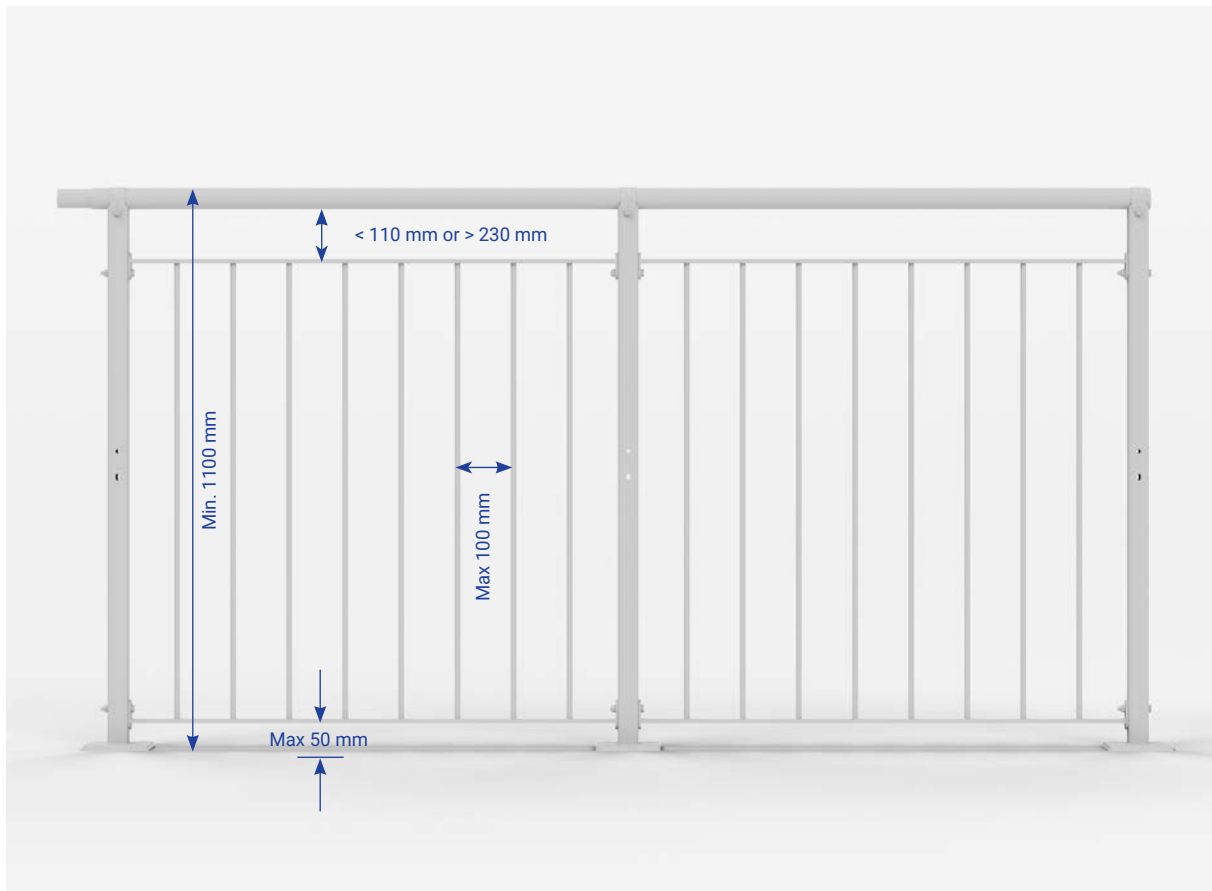
*BBR 3:1422*

## Child safety

Where children may be present, no openings should be larger than 100 mm.

*BBR 8:232*

# Railings



## Basic rules

Railing height must be at least 1100 mm. Within residential apartment, a railing height of 900 mm may be allowed in those cases floor height not exceeding 3 m.

*BBR 8:2321*

## Child safety

In areas where children may be present, railings up to at least 800 mm should be designed to prevent climbing.

*BBR 8:2321*

In areas where children may be present, no openings should be larger than 100 mm up to a height of 800 mm.

*BBR 8:2321*

Horizontal openings from heights 800 mm and up to the top rail may not fall within the range 110-230 mm as there is a risk that someone may get their head trapped.

*BBR 8:2321*

Free dimension between the bottom edge of the balcony railing and the balcony floor, or between the bottom edge of the staircase railing and the staircase step nose should not exceed 50 mm.

Free dimension in height between bottom edge of railing and a staircase landing or floor should not exceed 100 mm.

*BBR 8:2322*



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