2010

Notes on Building regulations and British Standards for Spiral and Space Saver Stairs

Building Regulations and British Standards

The Following is an advisory document only – for more information see the relevant Building Regulations and British Standards Documents

The Standards

There are 2 main standards that cover Spiral Staircases and Space Saver Staircases for domestic use – K1 building regulations and BS5395. These cover most of the end uses pertaining to the Spiral and Space Saver Staircases you will find on our and other websites.

Why do I need to comply?

If you are replacing or adding a staircase then current building regulations need to be applied, unless your building control office deems your installation to be an exception to the regulations (exceptions do exist but they are rare!!) This document is meant to give you some basic information about Spiral and Space Saver staircases, and enable you to establish if the staircase you buy will comply with the regulations. Failure to comply can result in you having to remove and replace a staircase at considerable cost, so it's worth checking some basic facts before proceeding.

What should I look for in a Spiral Staircase?

There are certain areas which I recommend you check before purchase. The reason is that some European manufacturers do not design their stairs to meet the UK regulations, but still sell them in the UK.

Spindles Spacings – in the UK these must be less than 100mm apart – this applies to all domestic staircases and balustrading. Stairs and balustrade with more than 100mm spacings are not permitted under building regulations or BS5395, so check this carefully with your supplier.

Tread Height – or tread rise to give it its official title. This must be no greater than 220mm for a Spiral Staircase, measured from the top of one tread to the top of the next tread. More than 220mm rise per tread will breach the building regulations and British Standard BS5395, so check with your supplier that you will be able to achieve the floor to floor height you want within the maximum permitted tread height.

Tread spacing – The treads in any staircase must all be of uniform height. For safety reasons, under Building Regulations you cannot have different tread riser heights within one flight of stairs. Again, check with your supplier that ALL the treads within the flight will be the same height. Staircases which use a stack of spacers to adjust tread heights very often do not comply with this requirement – staircases such as the Gamia range use a threaded adaptor between the treads which allows continuous adjustment so all treads can be the same height, at EVERY height in the adjustment range.

Clear Tread width – for Spiral Stairs accessing a single habitable room, for example in a loft conversion, the clear tread width between the inside of the handrail and the centre post must be a minimum of 600mm. Generally this means the smallest Spiral Staircase of 1400mm in the Gamia range, and 1500mm minimum diameter for most other continental imports, depending on

manufacturer. There are provisions in the regulations for the Building Control office to be flexible on this point – clearly in some cases such as conversion work a smaller staircase such as a 1200mm diameter could be used if there wasn't room for a larger staircase - however you should discuss this with your building control office before proceeding.

Climbability – Balustrade must not be climbable (by young children) as this is considered dangerous as a child could fall from a balustrade having climbed up it. In the UK this usually means using vertical spindles for the balustrade on staircases and landings. The type of balustrade which uses horizontal wire cables, horizontal plastic or wooden infills or rails etc. whilst very attractive to look at, should only be used with the prior consent of the building control office.

What should I look for in a modular Space Saver Staircase?

Space Saver staircases should be used only for loft conversions where a conventional or Spiral staircase can't be used.

Spindle Spacings – in the UK stair spindles must be less than 100mm apart – this applies to all domestic staircases and balustrading. Domestic balustrade on stairs and landings with more than 100mm spacings are not permitted under building regulations or BS5395, so check this carefully with your supplier. Even if you are not consulting building control for your project, you should definitely still consider this safety issue, don't be fobbed off by suppliers who say it doesn't matter!

Tread Height – or tread rise to give it its official title. This must be no greater than 220mm per tread for a Space Saver Staircase, measured from the top of one tread to the top of the next tread. More than 220mm rise per tread will breach the building regulations and the British Standard, so check with your supplier that you will be able to achieve the floor to floor height you want within the maximum permitted tread height.

Straight Flights – Space Saver staircases, for safety reasons, must consist of one or more straight flights. They cannot curve or deviate from straight. The regulations do permit the use of a landing platform to change the direction of the staircase, so L or U shaped staircases are OK.

Tread goings – measured from the front to back of the tread including any nosings, should be a minimum of 220mm. Many of the continental imports are well short of this measurement – again it is a safety issue so check when buying that your staircase complies.

What are Riser Bars and where should they be used?

In England, Wales and Northern Ireland the regulations state that where open tread staircases are used, if children under 5 yrs of age are likely to use the staircase then the steps should be constructed so that a 100mm sphere cannot pass through the open risers. Riser bars simply provide a horizontal barrier between the treads whilst maintaining the open aspect of the staircase. Scottish regulations vary in that open tread staircases must always use riser bars, irrespective of the age of the users.