

# STAIR BALUSTRADING FITTING INSTRUCTIONS

## *Straight handrail system*

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This system of stair balustrading using plain faced newel turnings is designed for fixing/jointing using traditional draw/bored mortise and tenon joints. It is not the intention of this guide to detail step by step procedures used in constructing and setting out of this type of balustrading as we assume installers are fully conversant with good trade practices.

### INSTRUCTIONS

These instructions should be used to install Richard Burbidge balustrading only.

### SAFETY REGULATIONS

The system has been designed to help you meet safety requirements laid down under current Building Regulations, achieving a minimum 900mm rake and 900mm landing handrail height (fig 1).

### HELPLINE

A professional and experienced team of technical advisers can offer assistance and help on all matters relating to Richard Burbidge stair balustrading. Call 01691 678212.

### SPINDLES

To calculate how many you need, count the number of treads between newels. Allow two spindles per tread and one per tread where there is a cut out for a newel post. Building Regulations state that the space between spindles should not allow the passage of a 100mm sphere. To calculate the number of landing spindles required, measure the horizontal distance in millimetres, then divide by 112 for 32mm spindles and 121 for 41mm spindles

eg 32mm spindles  $896 \div 112 = 8$  spindles

41mm spindles  $896 \div 121 = 7$  spindles

For the assembly of other components, for example spindles, refer to the appropriate section of Bracket Fix System.

BS585 Part 1 1989 details recommendations for the site fixing of stairs and also includes diagrams of standard balustrade assemblies using mortise and tenon joints. Testing of the straight handrail system to achieve BM TRADA Q Mark was carried out in accordance with BS6180 1995 and BS585 Part 2 1985.

We recommend minimum tenon sizes of a third the width of handrail with a length equal to a third/half the section size of newel when using Richard Burbidge LHR, HDR and OHR handrails. Use 9-12mm dowel to draw bore tenon.

We do not recommend the use of Richard Burbidge Bracket Fix cut-off points/newel base setting out heights when using straight handrail balustrading. This is because the installed system will only conform with Building Regulations if the same handrail margins are achieved as those of the Bracket Fix newels.

Newel base heights should be established as follows. When setting out the bottom newel NT160 for a pitching handrail, establish the section size of the handrail once cut to suit pitch of stairs and handrail margins desired in relation to face of newel. Mark a line to the face of newel representing top of handrail. With an adjustable bevel set to the same pitch as stairs mark a line representing the top of the pitching handrail to the inside face of the newel. Drop a vertical bisecting line to intersect the top of handrail line and reference from this point to measure length of newel excluding spigot. Subtract this measurement from desired handrail height to calculate height of newel base above pitch line.