

# Richard Burbidge

## **Richard Burbidge Traditional Instructions**

### **Instructions**

The instructions should be used to install Richard Burbidge balustrading only. Please check all components carefully PRIOR to installation for any damage as Richard Burbidge cannot be held responsible for any damage once installation has commenced.

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.

### **Safety Regulations**

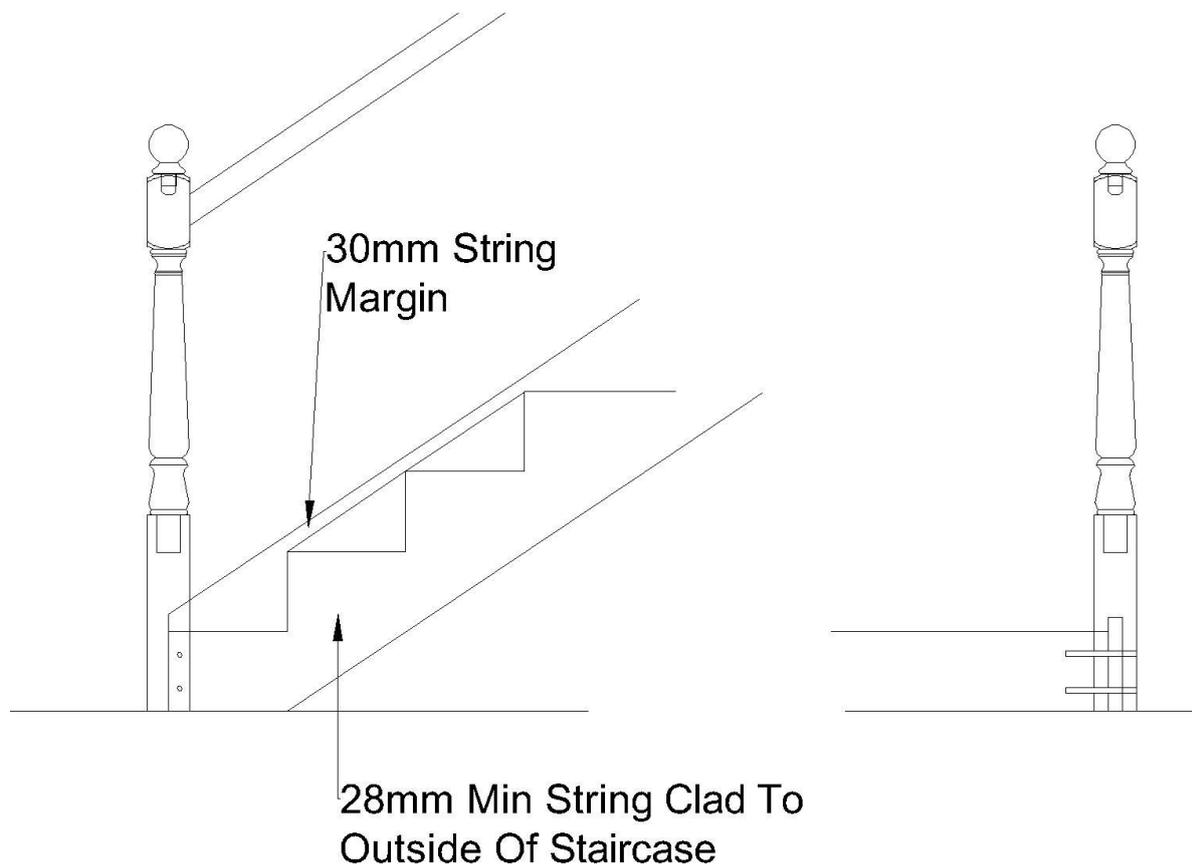
Richard Burbidge Timber Balustrade systems have been independently tested by FIRA and when installed in accordance with our instructions and recommendations. Product will conform to Part K Building Regulations for balustrades at minimum 900mm staircase and 1100mm landing handrail heights, with 0.74kN/m commercial loadings. FIRA Structural test reports and Richard Burbidge balustrades are safety approved by TRADA (BM TRADA Approved Timber Balustrade Scheme certificate number 022/001)

### **Technical Helpline**

A professional and experienced team of technical advisers can offer assistance and help on all matters relating to your project and Richard Burbidge stair balustrading. Call 01691 678212 for further information or advice.

## Concrete Flight Installation

The Richard Burbidge Traditional system is designed for installation on both timber and concrete staircases. The theory of installation is the same as a timber staircase, but first the flight/or flights need to be prepared with a timber string to accept the various balustrade components.



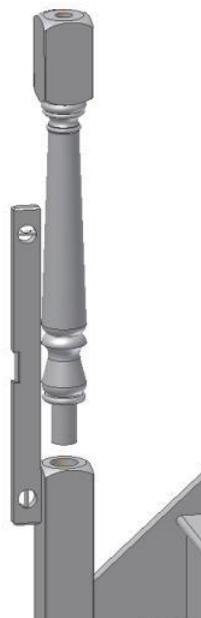
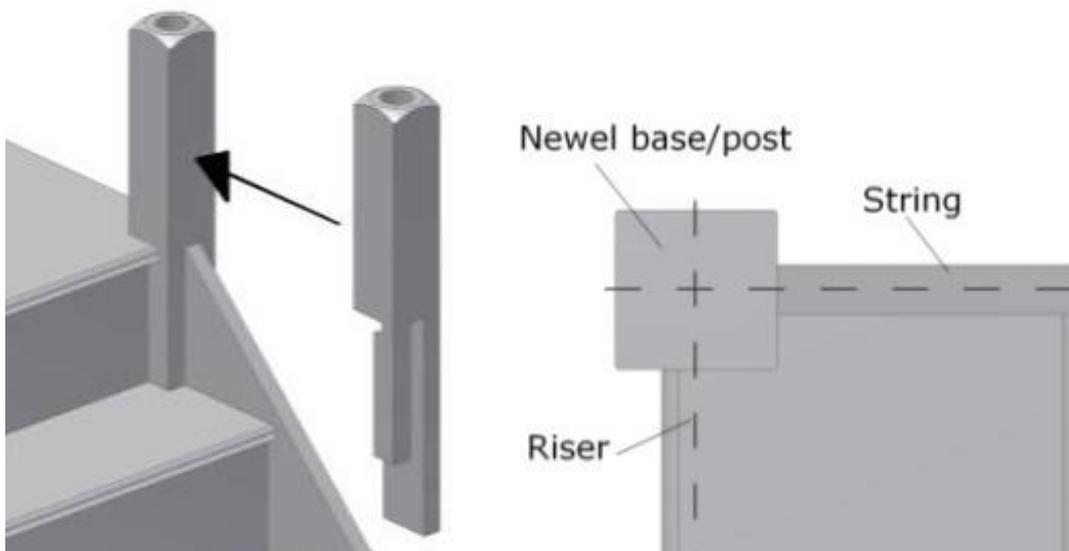
We recommend a minimum of 28mm thickness timber or MDF string material to clad the outside of the staircase. Projection above staircase nosings should achieve minimum 30mm string margin as detailed above. Section of the string taken below the concrete trunk will be dictated on site to take into account battens/plasterboard, or any other proposed finishing detail.

The timber newel can be installed to this assembly in the traditional manner, saddled centrally over the timber string ensuring the front face of the relevant riser is central to the inside face of newel. Once in position check the newel is vertical and set to the correct height, fixing in place with 2No 150mm M10 expanding bolts through the newel, string material, and concrete below. Flush pellets recommend to cover fixing holes.

## Installing Newel Bases

The Richard Burbidge Traditional system is designed for installation on both timber and concrete staircases. Please refer to specific Concrete Flight Installation section to prepare the staircase with a timber string to accept the balustrade components.

When installing a timber newel we recommend it is saddled centrally over the timber string ensuring the front face of the relevant riser is central to the inside face of newel base. Once in position check the newel is vertical and set to the correct height. To secure the newel either bolt, screw or dowel and glue. Offer newel post into newel base to check vertical.



Newel base heights should be established as follows. For example, when setting out the bottom newel turning for a raking staircase 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.

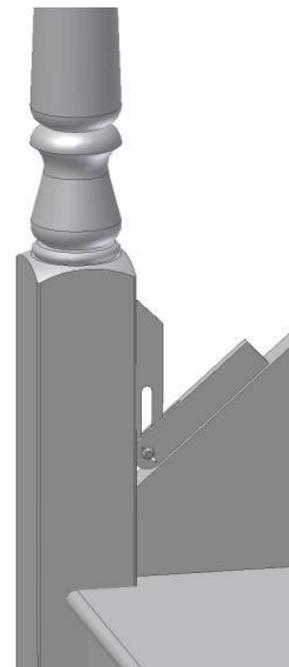
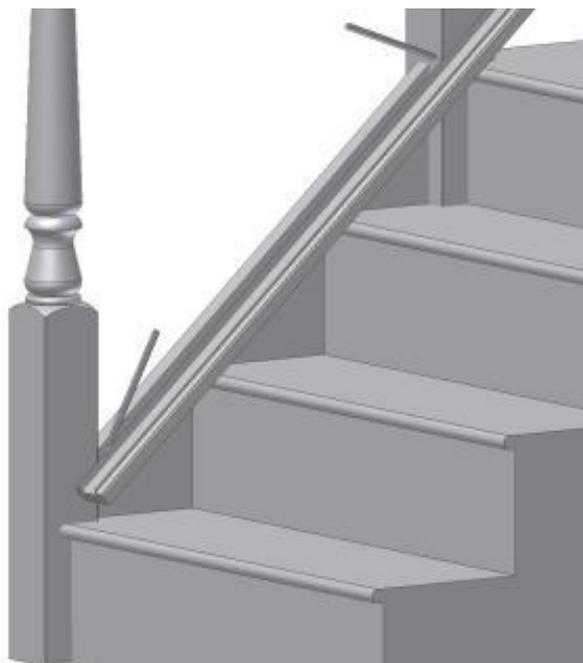
Mark a line to the face of newel representing top of handrail. With an adjustable bevel set to the same pitch as stairs mark a line representing the top of the pitching handrail to the inside face of the newel. Drop a vertical bisecting line to intersect the top of handrail line and reference from this point to measure length of newel excluding spigot. Subtract this measurement from desired handrail height to calculate height of newel base above pitch line.

### **Handrail & Baserail**

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.

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 any of the Richard Burbidge handrails available. Use 9-12mm dowel to draw bore tenon.

The baserail will need to be cut to the angle of the stairs. To find the angle of the stairs use an adjustable bevel. Lay the base rail on the stair nosing's and mark where it intersects the newel base faces, strike mark through base rail using adjustable bevel and cut to length. Drill, countersink and glue base rail to the string. Use at least 32mm x No.8 screws for fixing in position.

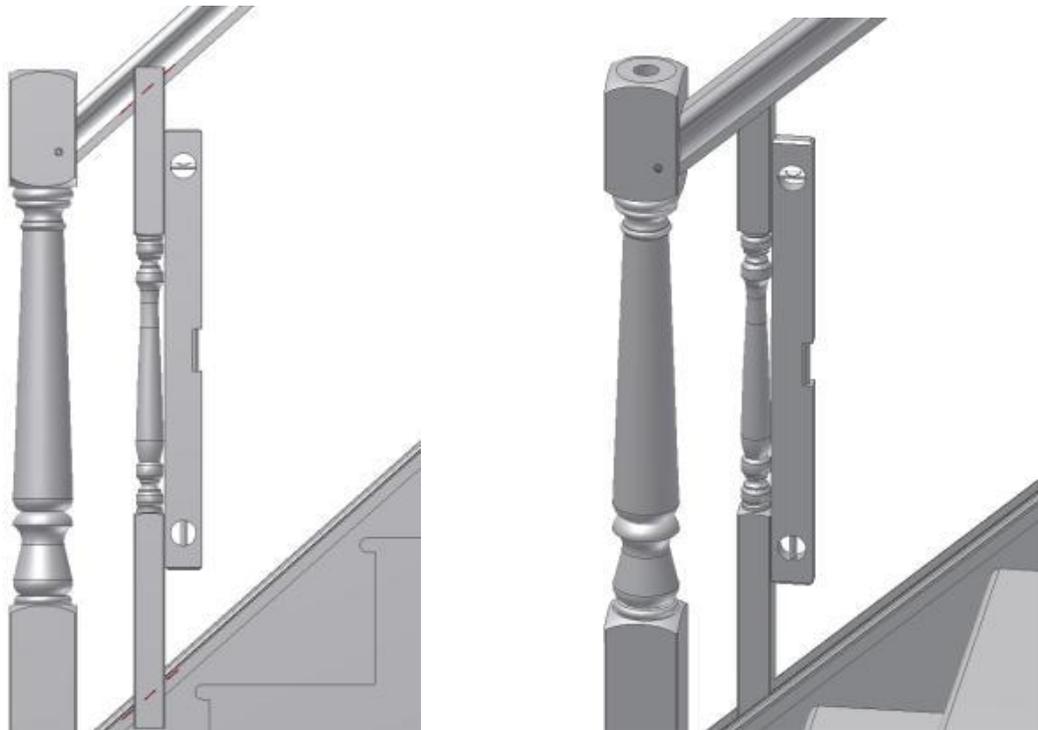


## **Stair Spindles and Fillets**

Once handrail and baserail are installed at the correct heights the spindles can now be installed. To achieve the required length and angle of cut, the first spindle should be measured by standing it against the stairs and marked accurately, remembering to allow for groove in the handrail and base rail.

Once the spindle has been cut top and bottom and checked within the rail grooves for fit at both bottom and top of the stairs, this can now be used as a template for cutting the rest of the spindles. Install spindles so that there are no gaps greater than 99mm between spindles or spindle and newel post.

Cut fillets accordingly and secure fillets and spindles within rail grooves by gluing and pinning all components.



To calculate how many spindles are required per flight, count the number of treads between newels. Standard recommendation is to allow two spindles per tread. In commercial applications where the individual going is significantly larger than domestic more than this may be required.

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 between posts, then divide by –

112 for 32mm section spindles

121 for 41mm section spindles

126 for 46mm section spindles

135 for 55mm section spindles

Example for 41mm spindles, 896mm between posts divided by 121 = 7 spindles

### **Landing Spindles and Fillets**

Cut spindles to correct length following same procedure adopted for staircase spindle. Spindles should be equally spaced between the rails so there is no gap greater than 99mm present. Cut fillets accordingly and secure fillets and spindles within rail grooves by gluing and pinning all components.



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