

Stairs Pre-Start Site Guide

Site Manager:	Date Issued: Site Name & Address:	
Customer Name:		
Staircraft Sales Office & Contact Name:		
Email:	Tel:	
Staircraft Area Sales Manager:	Email:	





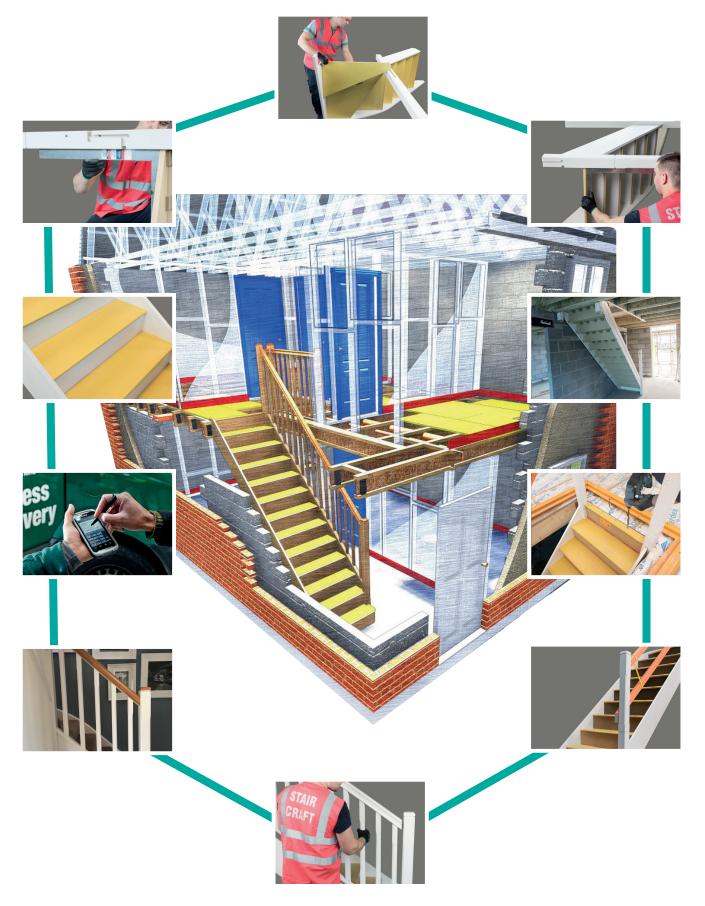














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Who we are & what we do

Founded in 1984 Staircraft are now:

- Worlds largest manufacturer of staircases, with a capacity to supply 1400 new build homes every week.
- Europe's only stair, i-Joist and floor-kit manufacturer.

The Staircraft Group consists of two Divisions

National Builder Division

Regional Builder Division

Our portfolio of products has expanded, resulting in Staircraft becoming the UK's first manufacturer of fully integrated staircases and I-Joist floor-kits, including metalwork, decking systems and door kits.

We operate from 9 Manufacturing Facilities, across 4 Sites in the Midlands, covering over 200,000 sq. ft. Our team are passionate about manufacturing products which improve site safety and provide hassle-free installation.

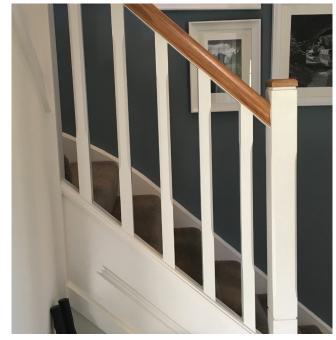
Our investment in CNC technology is market leading, specifically designed to create innovative, time saving and safety solutions for tradespeople.

Site Safety

We are fully aware of the safety risks faced every day on building sites. Improvements have been made but our industry continues to see an unacceptable number of incidents.

We all have a part to play and we believe the most important information in this document is around the safest way to handle our products. Please Stay Safe.



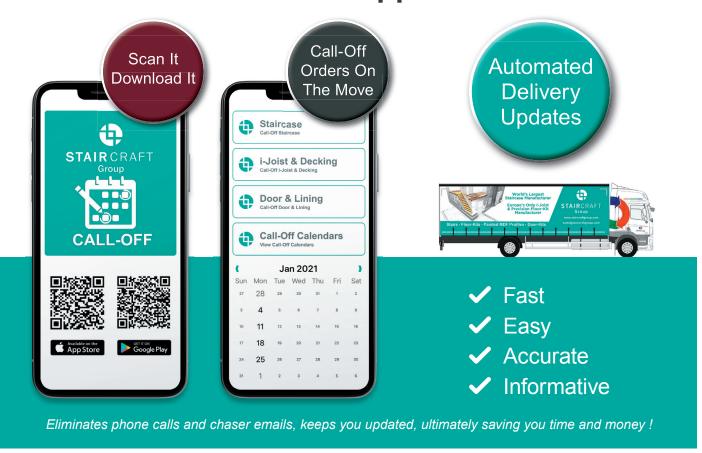




Important: How to Call-Off our Products

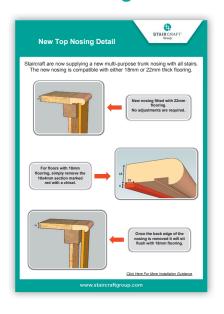
Download the Staircraft Call-Off App to get preferential delivery. It eliminates the chaser calls and emails with automated delivery updates.

Download our Call-Off App. Available now...

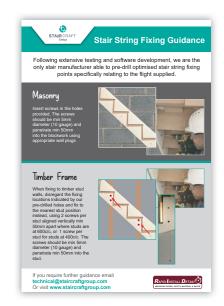


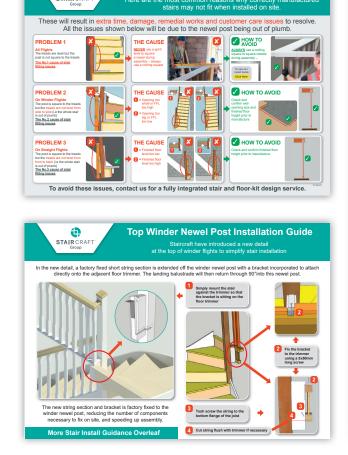


We create guides to keep sites safe, reduce customer callbacks and avoid the resulting CQRs. Visit our Resource Centre https://staircraftgroup.com/resource-centre/ for more stair installation guidance.

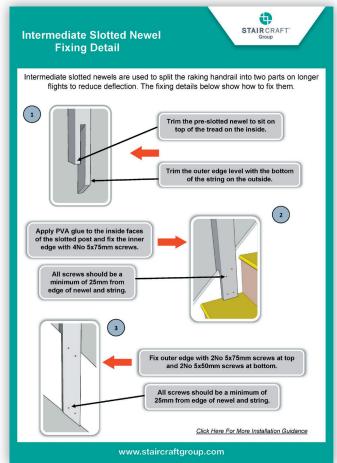








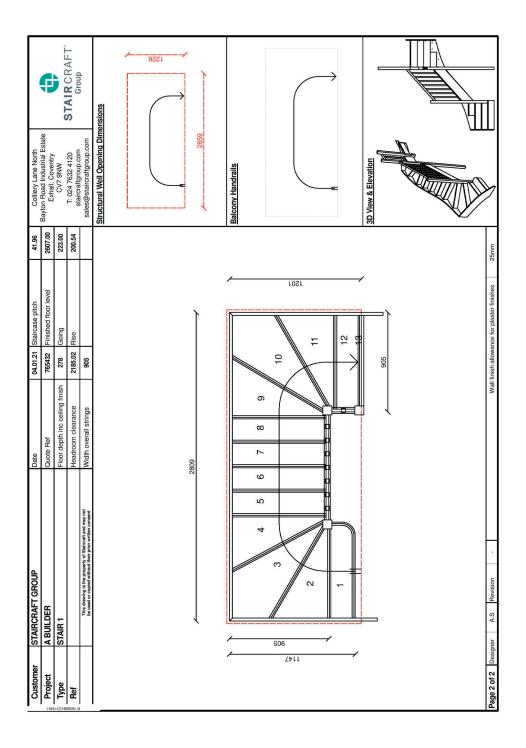
Stair Fitting Issues - The Major Causes





Typical Stair Graph

Here's a typical stair graph; a specific version for each house-type is emailed to customers at call-off and can be updated onto your phone from a QR code on the label attached to each stair.





Delivery information, acceptance & storage



We understand the challenges of product storage and traceability on building sites, which is why we invested in a delivery app to enable the Staircraft Team to provide you with:

- Real-time site delivery information
- Full traceability of goods delivered
- More detailed Proof Of Delivery (POD)
- GPS for exact point of delivery
- Automated invoicing with full POD, saving you £££'s in administration costs





Acceptance

Itemised delivery notes will accompany all deliveries and are detailed to include product types, references, dwelling types and plot numbers.

A more comprehensive schedule for each dwelling type will have already been emailed to your site office, providing detailed drawings, dimensions, handings, specifications and compliance notices.

Storage

Staircases and stair parts should be stored on a dry base and under cover. They should be fully supported on a flat level surface with ample ventilation to reduce the risk of absorbing moisture.

Conditioning

It is recommended that the staircase and parts thereof are allowed to remain in the fixing environment for approximately 24 hours before use. Staircases should not be fixed to damp surfaces and contact with other damp materials should be minimised.

Decoration

Staircraft products are finished to an exceptionally high standard in preparation for site decoration. Due to the high quality nature of our priming and sealant to Oak products, a 240 grit sandpaper, or finer, should be used to provide a 'key' onto the surface. Professional advice should be sought to confirm the most suitable finishing substrate.

Important - Staircraft will only consider claims for damage if notified at the time of delivery and contact is made with our office before our delivery vehicle has left site, or our delivery notes are noted accordingly.

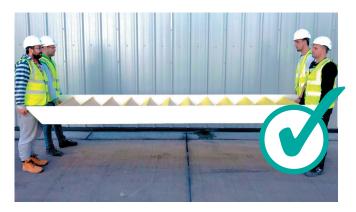
Shortages or incorrect deliveries must be notified to us within three working days of receipt of the products and any verbal notification must be confirmed by email. A request for additional items must be supported by an authorisation in the style of the originating order.





Manual handling

Here are some tips for handling Stairs and Balustrades, for full guidance visit http://www.hse.gov.uk/msd/manualhandling.htm



Should it not be possible to position a staircase mechanically, it is recommended that a staircase is carried as shown above. The weight and size of the staircase needs to be taken into account in determining the number of operatives required to carry out the task.





It may be necessary to turn the staircase upright to enter a property with limited access. Under these circumstances it is recommended the staircase is placed on bearers with the unexposed side of the staircase facing the bearer. The staircase can then be eased through the opening.



IMPORTANT

Under no circumstances should a staircase be lifted or carried by the staircase string as shown above.



Balustrades are generally less heavy than the flight, and it is recommended that those are carried in an upright position with one hand under the baserail as shown above. The length of the balustrade needs to be taken into account when determining the number of operatives required to carry out the task.



Product labels

The following labels are displayed on our products:

Handling and Installation



Heavy products carry this label. For handling advice view http:// hse.gov.uk/pubns/indg143.pdf

Important Notice to Carpet fitter



Important - label should not be removed. Information label should be read prior to fitting carpet.

Traceability Label



This label gives full traceability along with the site/plot details. It also highlights the stair handing and dimensions.

COSHH (Control of Substances Hazardous To Health)

Staircraft's high standards of product preparation reduces the need to cut and/or machine wood and wood-based materials. However, there will be circumstances where cutting is unavoidable, potentially exposing the operative to limited wood dust emissions.

The evidence that softwood dust can cause cancer is less conclusive. It is not classified as a carcinogen in the UK. However, all wood dust can cause irritation and we draw your attention to the guidance given in the HSE Woodworking Sheet No 30 Toxic Woods.

Under COSHH regulations, softwood dust has a maximum exposure limit (MEL) OF 5mg/m³ (8hour TWA). Exposure must be reduced as far as reasonably practical below this limit. When using portable or handheld tools, extraction equipment is often not practical, in which case a suitable dust mask must be worn.

- Wood dust can cause skin disorders and asthma.
- Hardwood dust in particular can very rarely cause nasal cancer and, as such, is classified as a carcinogen in Control of Substances Hazardous to Health (COSHH) Regulations.
- MDF dust: When MDF is machined, very fine dust is produced. This is a potentially hazardous substance and must be controlled.



Product features

Our drive to create innovative, time-saving and safety solutions for tradespeople has resulted in multiple product features which no other manufacturer supplies as standard.

Our staircases feature:

- Market-leading innovation saving our customers time and labour
- Fully automated CNC machine production
- Newel-posts and strings are factory prepared to fit openings, as standard, saving labour on site
- Strings supplied pilot drilled for optimum fixing
- Newel-posts, strings, spindles/balusters and handrail, 3 part primed as standard
- FIRA tested quick-fit, demountable pre-assembled balustrade for ease of installation
- All spindles/balusters tenoned into handrail for increased strength
- FSC & PEFC certified



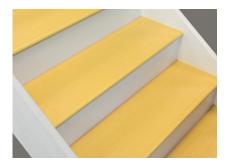






Quick-Fit Staircases

- All bullnose/curtail steps are factory prepared
- Wall strings are cut to fit over trimmers
- All Wall strings are factory cut to specific floor levels



Slip-Resistant Stair Protection

- Removable peel clean film for protection during build
- Provided as standard, improving site safety



Temporary Guardrail

EN13374:2004 Compliant, Temporary Guardrail System available as an optional extra



Winder Support Bracket

- · Removes the need for intermediate structural newelposts
- Creates space to allow large items of furniture to be passed between floors
- CE marked
- Supplied as an optional extra, contact Staircraft with your requirements



Factory Prepared Staircase Bulkhead

- Factory prepared, reducing site costs of material and labour
- Factory fitted internal and external corner blocks as standard
- Bulkhead provides increased headroom
- Stair strings mitred, even and swept for improved appearance, reducing need to box-in underside of strings



Important: Installation recommendations

Site fixing of stairs should be in accordance with Building Regulations, NHBC Standards and any referenced documents, (see appendix for useful links) with particular attention to the BWF Installation Guide and the following:

Strings All wall strings are to be fixed through the pre-drilled holes using appropriate fixings. Wall strings may need to be cut at each end vertically, to suit skirting height and/or cut to not project into a passageway causing a trip hazard. Refer to the above mentioned BWF Fixing Guide for guidance and the string fitting guidance on our resource centre.

Tread and Winder Treads should be fixed by gluing with PVA and driving home supplied wedges.

Risers are to be fixed by gluing with PVA and driving home supplied wedges. The lower edge of risers should be glued and fixed to treads using an appropriate fixing at centres not exceeding 230mm. The fixing should penetrate each tread by at least 23mm or 1.5 times the thickness of the risers, whichever is greater

Newel-posts are mortised to receive a string tenon and should be fixed using dowels and a suitable adhesive.

Important: Newel-posts must be fixed square to the tread. DPC to be fitted under newel-posts/stringer on ground floor to avoid moisture intake.

Flight and Landing Nosings should be fixed to the wall string, newel-post and trimmer. Landing nosings should be fixed to the trimmer and not project more than 15mm from the finished face of the trimmer.







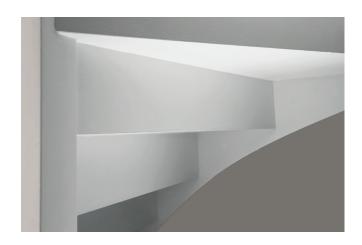


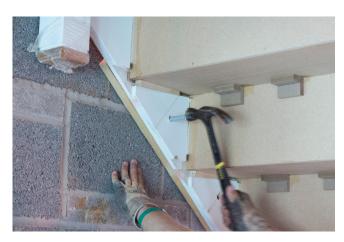
Corner Glue Blocks are to be glued every 150mm.

Bulkhead All winder staircases are supplied with a factory prepared, under-stair, soffit detail which also allows for suitable dry lining to be fixed to the angled glue blocks, creating a stepped soffit detail. String trenchings are 'stopped' to provide a neat finish and this solution increases available headroom. This system is optional and allows for staircases to be finished via traditional methods. Please see Step By Step Guide to installing Bulkhead on page 24.

Adhesives The decorated finish of the product may determine the type of adhesive to be used. With a painted finish, Polyvinyl Acetate (PVA) will be suitable for joints. However, with a clear finish it may be necessary to use an alternative such as Cascamite. In all cases the adhesive supplier should be consulted for recommendations.

Fixings The material, packing distances, wall and well opening construction and load bearing requirements are to be taken into account when deciding on an appropriate fixing. In all cases the fixing supplier should be consulted for recommendations, taking into account the materials to be fixed.





IMPORTANT: Before attempting to install any staircase or staircase part, the following checks must be undertaken:

- The specification and standard of the product complies with the order
- The house type, handing, dwelling reference and floor level correspond accordingly
- The overall staircase finished floor to finished floor dimension must match the structural dimension to which the staircase is to be fitted
- All parts are present and correct to enable a full installation
- The overall width of the staircase provides for required flight and balustrade clearances
- All intermediate landings are installed correctly



Assembly instructions for staircases

Winder Flights

Before starting your winder flight assembly please check all parts are in the supplied pack and they are all in good condition.

Fix Newel-post



Glue mortice with PVA and fit onto string.



Knock dowels into pre-drilled holes.



Check for square in both directions against tread.

Fix Winder Treads



Support end of newel-post to ensure it remains square during assembly.



Slide treads into pre-routed housing on string.



Apply PVA glue to wedges and fix in place ensuring a tight fit.



Fit treads into corresponding machined slots in newel-post.



Fix firmly in place by screwing to newel-post.



Fix Return String



Glue entire surface of mitre joint on return string with PVA and fit to main string using locating dowels provided.



Begin fitting treads, checking that the return string is square throughout the process.



Screw through mitre joint to fix strings in corner.



Follow Steps 5 to 8 for fitting remaining winder treads.



For 4 tread winder boxes screw tread to newel-post.



Finally fix the treads to the string by screwing through the back of the return string.

Fix Small String to Newel-post



Glue mortice and fit small string to newel-post.



Finish by knocking dowels into pre-drilled holes.



Fix Newel-post to Small String



Glue mortice and fit newel-post to small string.



Finish by knocking dowels into pre-drilled holes.

Fit Top Nosing



Offer nosing into position and fix to newel-post and string.

Fix Risers



Glue back of tread with PVA and routed housing in tread above.



Fit riser.



Glue wedge housing in string and knock wedge tightly in place.



Mechanically fix risers to newelpost.



Mechanically fix risers to back edge of tread.

Fitting Glue Blocks



For glue blocks on inside angle, apply PVA glue to outside of block.





Postion blocks and secure with mechanical fixings.



For glue blocks on outside angle, apply glue to inside of block.



Position block and secure with mechanical fixings.

Bullnose Treads

Fix Newel-post



Glue machined mortice in bottom newel-post with PVA.



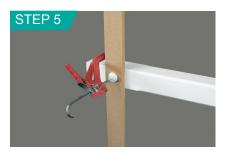
Fit newel-post onto string.



Knock dowels into pre-drilled holes.



Check for square in both directions.



Support end of newel-post to ensure it remains square during assembly.



Fix Bullnose Tread



Fit bullnose tread into position.



Apply PVA glue to housings in string and knock in wedges tight.



Screw riser and tread into newelpost.

Fix Risers & Glue Blocks



Glue back of tread and routed housing in tread above with PVA.



Fit Riser.



Apply PVA glue to housings in string and knock in wedges tight.



Screw riser to back edge of tread.



Apply PVA glue to inner corner where tread and riser meet and attach glue block.



For soffit detail glue blocks need to be fitted to outer joint between tread and riser.



Fitting Stair



Ensure newel posts are fixed square to the tread.

Important - Staircases must not be temporary fixed. The stair must not be used as access between floors until all fixings are in place.

The birds mouth detail at the top of the trunk is non-structural and will not support the staircase.

A fixing specialist should be consulted with regard to specifying a suitable fixing taking into account the substrate.





Position stair ensuring the treads are level.



Ensure a packer is fixed to the outer strings to create a gap against the structural wall for plaster finishes.



Use pre-drilled holes as a guide and drill for fixings.



Fix stairs to wall using fixings specified by the housebuilder (not supplied).



Fix nosing to trimmer.



Fix Newel-post to trimmer.

Straight flights between walls

If structural walls are not built when the stair is installed temporary supports are required.

Install temporary supports to the underside of the stair.

After structural walls are built fix the string to the wall through the pre-drilled holes in the string.



The temporary supports may now be removed.



Important - A Principal Rake Guardrail alone is not a fully compliant system and additional components must be correctly installed to enable BS EN 13374:2004 compliance.

Contact Staircraft for details of our Component Pack.

Temporary Guard Rail – Optional Extra



When Principal rake rails are supplied they are cut to length with clip connectors attached.



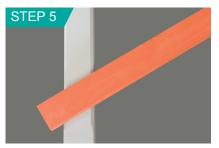
Insert principal rake rail into correct position locating the clips at top and bottom.



Using batten strike down until rail is fully locked in position.



Position suspending steel brackets 250mm from each newel post and fix through pre-drilled holes using 4x40mm screws.



Cut intermediate rail to length leaving a minimum of 80mm overlap of the newel at both ends.



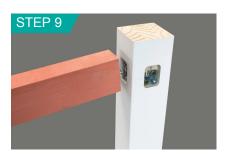
Fix intermediate rail into brackets using 4x40mm screws. Important - please ensure the minimum 80mm overlap of the newel is positioned on the side shown above.



Fix balcony post into universal post bracket and fix at each end of opening.



Cut Principal balcony rail to length and re-affix locking clip.

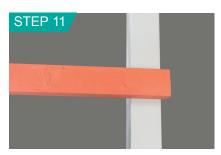


Insert balcony rail between posts on locking clips ensuring it is locked in place.





Position suspending steel brackets 250mm from each newel post and fix through pre-drilled holes using 4x40mm screws.



Cut intermediate rail to length leaving a minimum of 80mm overlap of the newel at both ends.



Fix intermediate rail into brackets using 4x40mm screws. Important please ensure the minimum 80mm overlap of the newel is positioned on the side shown above

- To dismantle simply reverse the installation process ensuring suitable fall arrest safety measures are in place.
- Principal rake guardrails are supplied pre-cut to angle and length and are plot specific.
- Do not re-use rake guardrails for rake guarding, these may however be utilised for intermediate guardrails provided an 80mm overlap is achieved.
- All guardrails, screws, brackets and balcony posts must be inspected and be defect free before re-use.
- After a fall of a person or an object towards or into the edge protection system, the system shall only be re-used after having been inspected by a competent person.

WellSafe™

Staircraft WellSafe[™] is a fall protection system that avoids the need for installing temporary (sacrificial) joists, hangers and decking which prevent operatives from falling through stairwell openings on floors during construction.

Key Benefits:

- · Removes the need for sacrificial joists
- · Reusable and saves time
- Reduces waste by up to 100kg per plot

For a safer install, use WellSafe™. Contact Staircraft to discuss your needs.





Bulkhead Solution

Fitting Soffit



Cut plasterboard to required shape and fix to glue blocks on the underside of the tread.



Cut plasterboard to required shape and fix to glue blocks on the back of the riser.



Caulk and fill all joints and prepare for final decoration.

Quick Fit Balustrade

Fitting Pre Assembled Balustrade



To ensure you have the correct Balustrade, check Plot Sticker.



Insert raking balustrade using clip connectors on both handrail and newel-post. Important - insert bottom end first.



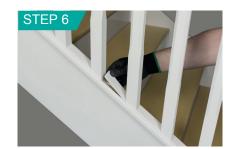
Strike down until rail is fully locked in position.



Fix through base rail into stair string in the spaces where infill pieces have been left out.



After fixing, apply PVA glue to infill locations.

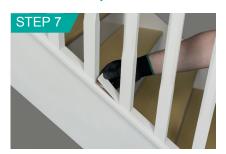


Insert infills into glued spaces do not mechanically fix to preserve finish.



Demountable Balustrade Option

Follow steps 1, 2 & 3 as above and then go to step 7



Fit infill with PVA glue.



Fix through infill using a screw and cup and leave exposed.

Final Checks Once Staircase Installed

IMPORTANT: Subsequent and final checks must conclude that:

- There is a minimum 2000mm headroom clearance
- The staircase is level
- All newel-posts are plumb
- All joints are correctly fitted and fixed
- All supports and blocks are glued and correctly fixed
- The wall strings are firmly fixed
- The staircase does not flex or squeak

Site fixing of stairs should be in accordance with Building Regulations, NHBC Standards and any referenced documents, (See Appendix for links to useful documents) with particular attention to the BWF Installation Guide.



NOTES

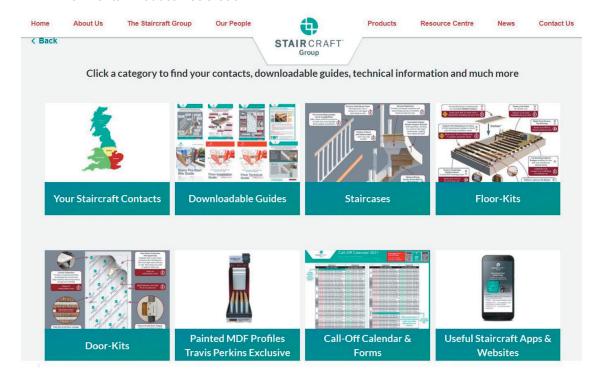


APPENDIX

Please follow the links below for Staircraft's Certifications and other useful building documentation:

1. Staircraft's documentation on www.staircraftgroup.com/resource-centre

- PEFC Certificate Of Registration
- FSC Certificate Of Registration
- ISO 9001 Certificate
- Environmental Product Declaration



2. BWF British Woodworking Federation Documentation www.bwf.org.uk/publications

- Installation Guide for Timber Stairs
- http://www.bwf.org.uk/publications/httpwwwbwforgukadminpublicationcategorystairs

3. NHBC Documentation can be found at NHBC Standards Chapter 6.6 Staircases

http://www.nhbc.co.uk/builders/productsandservices/techzone

4. Links below to the HM Government Part K and Part M building regulations

If you are not viewing this document on line you can view these documents on the www.gov.uk website.

- https://www.gov.uk/government/collections/approved-documents
- http://gov.wales/building-regulations-approved-documents



Unique Pre-Assembled Staircases

Saves up to 3 Hours Labour - Only Available from Staircraft

Here are a few of our unique features, for a fast, safe, high quality installation.

