

JOINTS IN STRINGERS

Depending on the overall length of the stair, stringers may need to be produced in two or more sections - to be joined on site. Joint stringers are precut in the factory, with holes drilled to house the metal joiners (supplied with the stair).

Glue the joining edges of the stringers with construction adhesive. Insert the metal joiner and then tighten using a 10mm spanner. Cut an MDF stiffening plate from excess material to sit inside the stringers, positioned below the tread and behind the riser. Glue and screw the gusset into place (Refer Figure 1)

***Important:** Joints in stringers cannot be left unsupported. Either prop temporarily until the supporting wall has been built. If the stair is to be left open, refer to Sub-Stringers for method of support.*

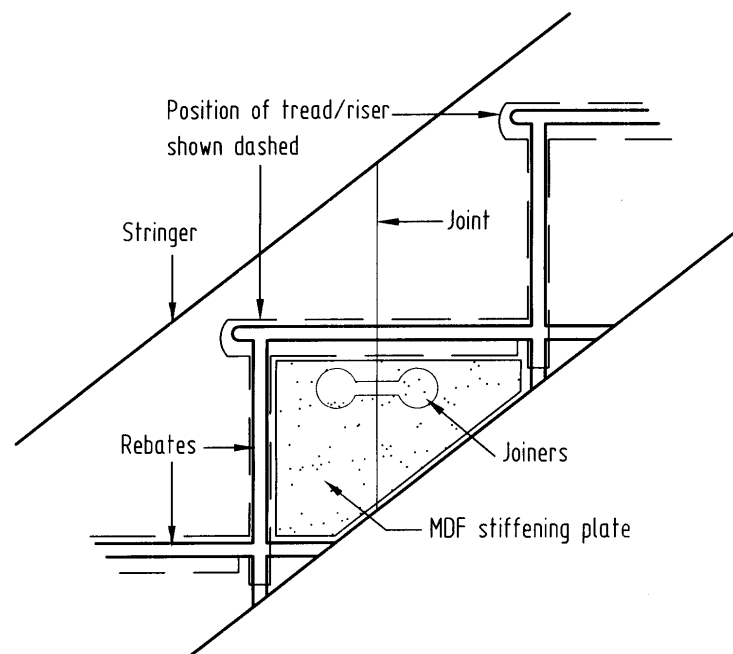


Figure 1
Joint Stringer Detail

FLIGHT ASSEMBLY

- **Method 1: Assembled In Place**

This is the preferred method of installation when the flights are either long, or if there is insufficient room to maneuver the assembled flight into position.

- 1) Place the stringers on the floor with the leading edge down and the dovetail rebates facing each other — ensure parallel.
- 2) Insert the top nosing, top tread and top riser into their respective rebates.
- 3) Screw through the back of the top riser into the stringer, at a slight angle.

- 4) Screw down through the top of the nosing into the riser, to stop the nosing from sliding forward.
- 5) Insert the lowest tread of the flight and push this all the way forward. This will prevent the riser from locating in the rebate in the underside of the tread.
- 6) Place the bottom riser into dovetail rebates and push up to the under side of the tread.
- 7) Lift the flight into position (with assistance if necessary) and screw through the top riser into the floor joist to hold the flight in place.
- 8) Apply a thick bead of construction adhesive within the rebate of each tread.
- 9) Insert all treads into the stringers making sure that they are pushed in parallel, careful not to damage the dovetails. Using a rubber mallet, tap into position. Ensure that the treads are pushed all the way forward or the risers will not locate into their respective rebates.
- 10) Apply a thick bead of construction adhesive within the rebate and along the top edge of each riser (where it will recess into the corresponding tread rebate above).
- 11) Insert the risers into the stringers starting from the top, working down. Make sure riser #1 is installed in the correct position.
- 12) Using a rubber mallet tap the riser into the rebate of the tread above, then tap the lower tread into the rebate on the face of the riser.
- 13) Continue down the flight until complete.
- 14) Before tapping tread #1 back into place ensure that riser #1 does not locate into the rebate until a bead of glue has been applied to the top edge of the riser.
- 15) Before fixing the stringers to the wall, sight up the top edge of the stringers to ensure that they have not sagged. If they have, cut in a temporary prop under the flight to remove the sag. Finally, fix the stringers to each stud using 100mm batten screws

- **Method 2: Assembled On The Floor**

Method of installation used for either small flights, or if there is sufficient room to maneuver the flight into position once assembled.

- 1) Place the stringers on the floor with the leading edge down and the dovetail rebates facing each other — ensure parallel.
- 2) Insert all of the treads between the stringers ensuring parallel. Using a rubber mallet tap each tread all the way forward.
- 3) Apply a thick bead of construction adhesive to both rebates within the risers and the treads.
- 4) Insert the risers into the stringers starting from the top, working down. Make sure that riser #1 is installed in the correct position.
- 5) Turn the flight onto one stringer face, preferably the wall side. Proceed to tap the treads and risers together as previously mentioned in steps 8-14 **Assembled In Place**
- 6) Now install the top riser and nosing as described in steps 2-4 **Assembled In Place**
- 7) Lift the flight into position (with assistance if necessary).

Note: When a flight runs down from either a mid-landing or set of winders, then

- The top nosing will not be required. The landing or first winder platform will form the nosing.
- The top riser has been reduced by 9mm in height, as the landings and/or winder platforms do not have rebates.

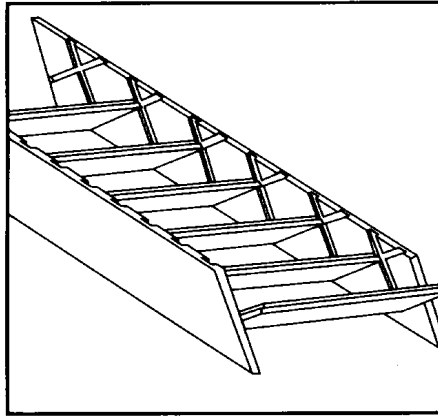


Figure 2
Flight upside down, ready for the risers to be inserted

TOP NOSINGS (OUTSTEPS)

- 43mm Standard in most cases, positions the back of the top riser hard against the upper floor joist. This will also leave 15mm for carpet wrap when a post is fitted.
- 133mm May be used to make up extra length in the stairwell.

When installing a flight using a 133mm nosing, fix to the timber joist as follows (Refer Figure 3)

- 1) Remove any plaster or plasterboard from the face of the floor joist.
- 2) Cut two lengths of 90x45mm (F5) Pine, slightly shorter than the inside measurement between stringers. Fix the first trimmer to the floor joist using 100x14g batten screws (Ensure that this is 32mm down from floor level so that the top of nosing will finish flush with the floor). Screw the second trimmer into the first.
- 3) Once the flight is in position, screw through the nosing into the trimmers.

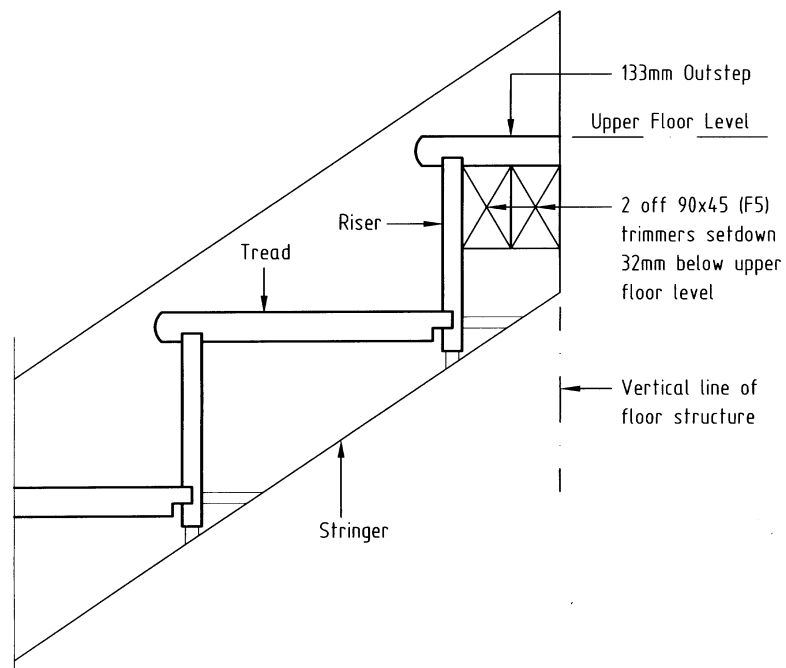


Figure 3
Stringer Detail — 133mm Nosing