STEEL frame SOLUTIONS

BLUERISE SOLUTIONS

BLUERISE FLOORING

INSTALLATION METHODS

HOW TO ASSEMBLE A BLUERISE *FLOORING SYSTEM*

If your floor has been designed by Steel Frame Solutions a Floor System Layout will have been provided. The first step is to study the layout, to understand the layout a few simple facts must first be known:

- Joists are all labelled with the letter J and a number. Joists have a C section which means the edge has a lip.
- Joists that are in the same floor section and are identical will have the same number. This means they are identical and interchangeable.
- The joist thickness will vary with floor width being spanned and with load conditions, it is vital that the correct thickness joist or bearer be placed according to the layout.
- On the actual joist the joist number will be printed, this is printed on the top of the joist, this label must face upwards when fitted to ensure floor features and centre spacing's are maintained.
- Along the side of the layout the orientation of the open face of the joist is shown, joists need to be facing the direction shown.
- The Perimeter bearers are marked with the letter H and a number. Bearers have a U section meaning they are un-lipped.
- The Layout will show joist centre distances, this is for reference only as the perimeter bearers will have the connection point pre punched.
- Blocking pieces are short sections that connect multiple joists together, these are usually located at specific points to support higher than normal loads.
- Ceiling battens are part of the intermediate floor system, they are fixed to the bottom of joists at 450mm centres, they have 2 functions; to make fixing of ceiling plasterboard easier as the joists are too thick for plaster screws to penetrate and they prevent the floor joist from "rolling". It is important to straighten the joists as you fix the ceiling battens, the joists will roll under their own weight but once fixed in place are extremely strong.
- The layout will have letters with arrows pointing to connections that are special, these will have an attached detail drawing to make it clear how the connection has been designed.
- The layout will show the starting point for sheeting the floor, if you start where indicated there will always be a joist in the right spot for joining sheets and offcuts will be minimised.
- The Layout has broken lines through the joists to show the location of service holes
- When fixing floor sheets use glue and screws as per the floor sheet manufacturer's instructions. We recommend the use of floor bond adhesive especially where joists are subject to being heated by the sun as other adhesives can cure prior to the sheet being laid in sunny conditions. Where joists have become wet we recommend wiping off excess water prior to applying glue.

Start Assembling the floor

- When assembling the floor system start at a convenient external corner. Place the required perimeter bearers on top of the wall on either side of the floor section against the outer edge of the wall frame. Make sure the perimeter bearer is facing the right way or the joist centres won't match up. Either clamp or screw the bearers down in a few spots along the bearer , do not fix it down at this stage as per the hold down requirements as the bearer may need adjustment. Just hold it down enough that it doesn't fall off during assembly.
- Insert the first joist by leaning the joist forward , slide it into the bearer, push it back against the tab or angle connection and then rotate the joist to stand it vertically then simply align the holes and insert screws. There is a gap built into the floor system between connections of 10mm this needs to be maintained. The pre-punched holes are designed for a 12 gauge Tek screw, to ensure correct fitting make sure when the screws are fixed so there is no gap between the parts being fixed together.
- Tab connections require 4 off 12G x 20 Tek screws (2 per tab), Angle connections require 5 off 12G x 20 Tek screws unless otherwise stated. Blocking requires 3 off 12G x 20 Tek screws unless stated otherwise. Avoid stripping screws and if this occurs fix an additional screw as a replacement.
- The majority of connections are either "Tab" connections that require being folded out of the perimeter bearers web using the tool provided or an angle bracket that will be fitted off to either the end of the joist or the perimeter bearer. Where an angle bracket is the connection method there will be a matching row of 9 holes pre-punched into the mating part, only 5 of these holes are required for fitting off the angle bracket.
- Continue inserting joists and screwing them off as described, it is recommended that you screw off all of the connections as you go and insert the joists in sequence as it can be impossible to add a joist between joists if it is forgotten and if all screws are not in place the gap may not be big enough to get the screw in later.
- Where necessary the bearers can be moved in or out up to 15mm each side to account for errors in construction of the walls below.
- If things are not working out STOP! The system is designed and manufactured to be accurate to less than 0.1mm so if its not going together you need to find out where the problem is and fix it or the problems will compound.
- It pays to look up from below every now and again, does it look right, are the joists straight, is everything fitting easily, are the service holes lining up, you should not be able to see any of the joist numbers from below they should be on top.
- When the floor system assembly has been completed and prior to sheeting fix off the perimeter bearers to the lower storey walls as specified. It is also best to affix ceiling battens and straighten the joist roll prior to sheeting.

A few safety tips:

- **Wear hearing protection**
- **Wear eye protection**
- **Wear gloves**
- **Wear appropriate footwear**
- **Ensure ladders or work platforms are stable prior to ascending**
- **This is a team effort, communicate with your partner in assembly.**
- **Assess the manual handling risks**
- **Don't reach on ladders**
- **Don't walk the joists until they are fixed off and have ceiling battens connected**
- **Don't walk on wet steel its slippery**
- **Beware of swarf (steel particles) stuck in clothing, hats or hair it may fall into your eyes a long time after you have removed your eye protection**

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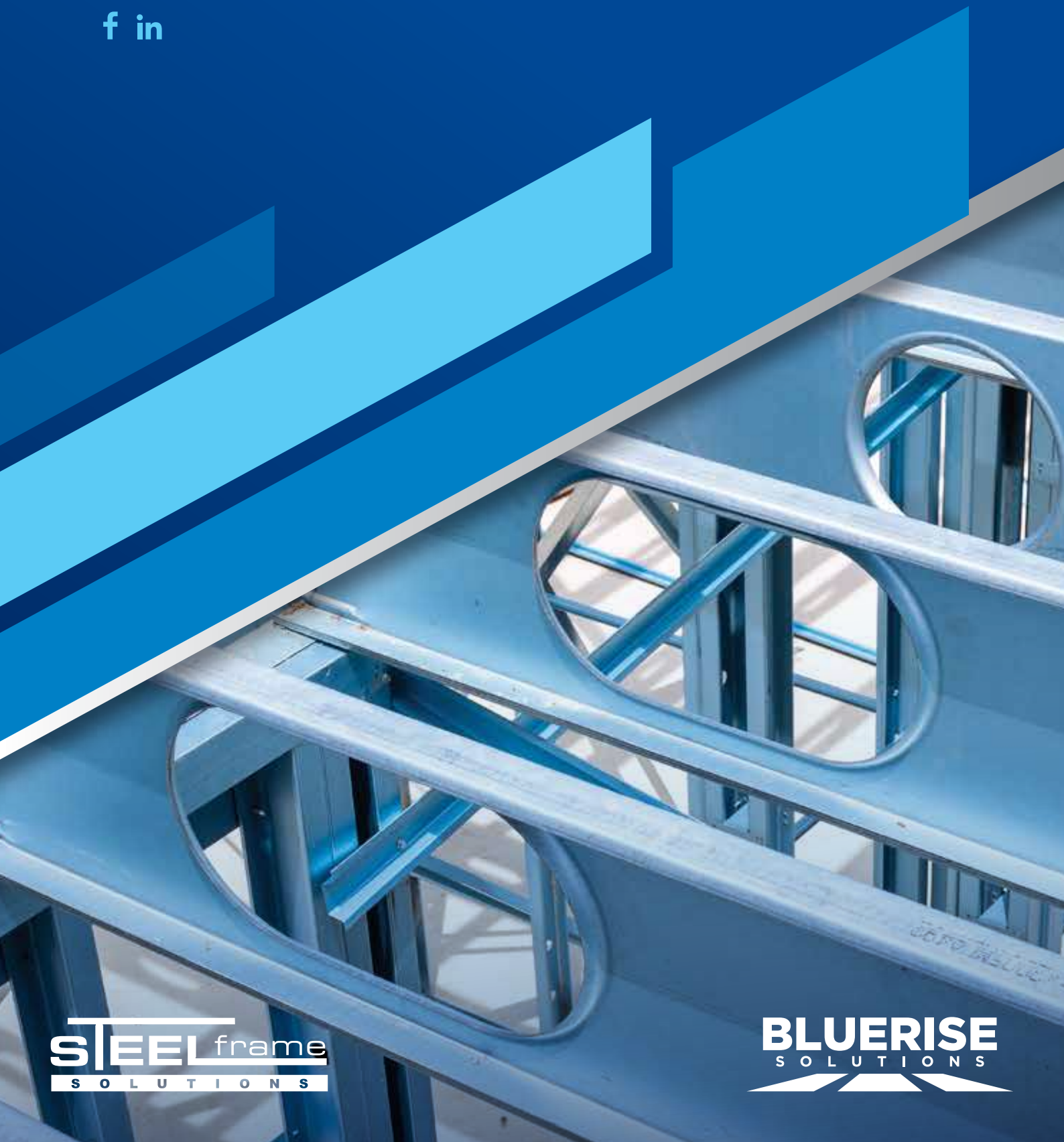

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