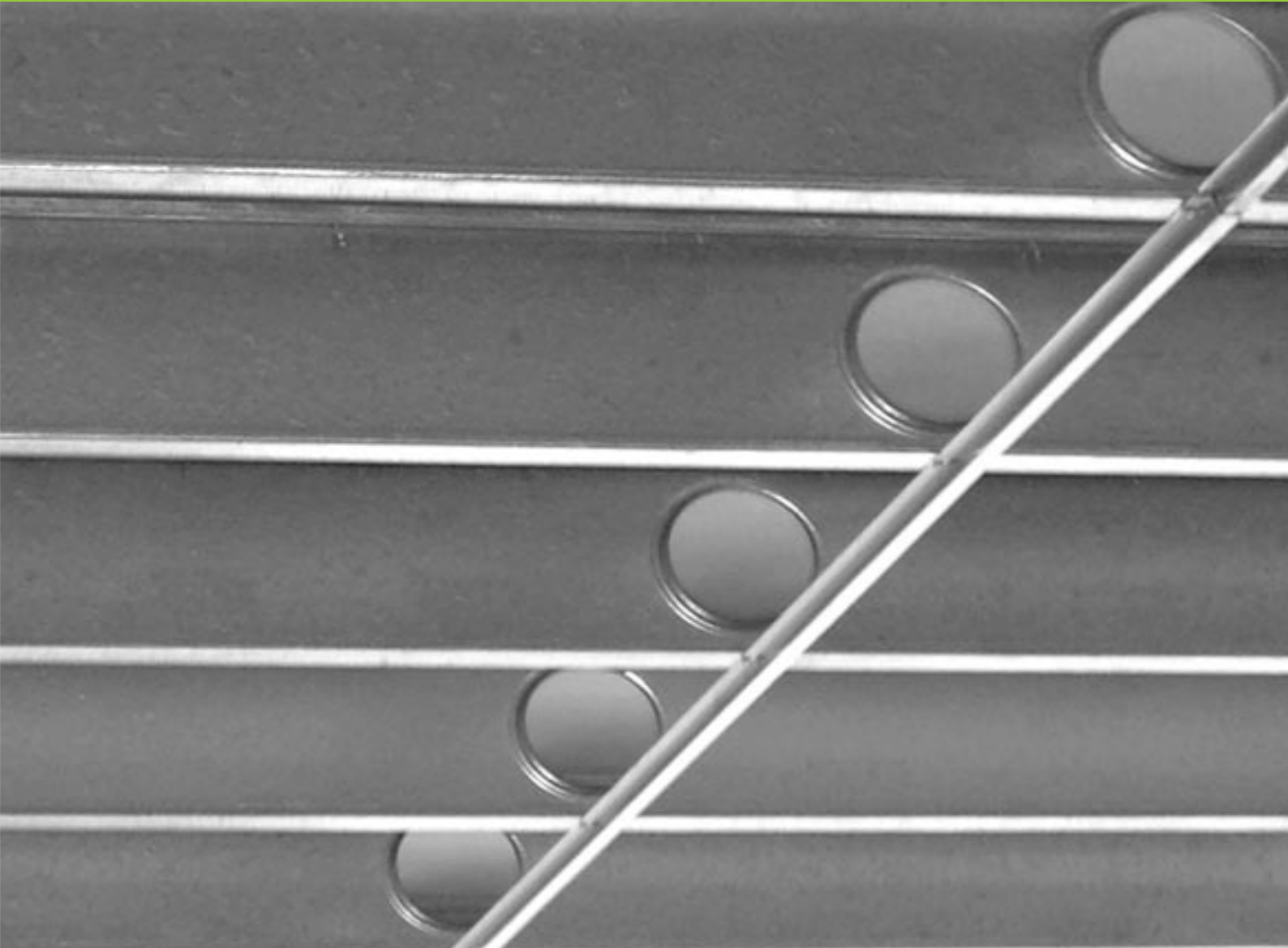


# FLOOR JOIST

SYSTEM



Globally proven. Locally made.



# FLOOR JOIST SYSTEM

RFS Floor Joist System is a pre-engineered answer to your multi level flooring requirements. Designed with ease of construction and reliability in mind, RFS Floor Joist System outperforms other systems in speed of construction and simplicity of use.

RFS Floor Joist System benefits include:

- **Pre-engineered Solution** – RFS Floor Joist System has PS1 for structure, making it easy to include into your design
- **Durable** – RFS Floor Joists are made using Galvanised Steel, which has a durability of 50 years in all environments to Coastal Moderate

- **Practical** – Screwed design means it can be disassembled and reassembled if required
- **Strong** – Spans of up to 6.9 metres for 1.5kPa live loads and 5.7 metres for 5kPa live loads
- **Fire Rated** – For Fire Resistance Ratings see Winstone Wallboards specifications
- **Noise Tested** – For Acoustic and Fire Ratings see Winstone Wallboards specifications
- **Consistent** – No issues with moisture, squeaking, growing or shrinking.

RFS Floor Joist System, the logical choice for renovations and new building when cost and design count.

RFS also offer expert design and engineering to suit your project requirements.

RFS Floor Joists - The future of flooring.

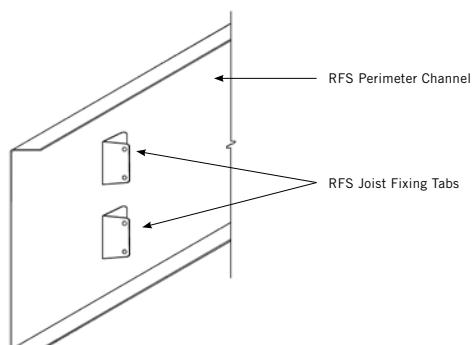


Fixing tabs angled and attached to RFS Joist with pre-moulded servicing channels

# RFS Floor Joist System - Basic Fixing Method

## 1 Fit the RFS Perimeter Channels

Fit the RFS Perimeter Channels in position then align and fix to the supporting structure as per the engineering details.



## 2 Fit the RFS Joists

From the Datum end fix the first joist in place (open side facing in) using the brackets supplied. Then fold out the first set of RFS Fixing Tabs on the RFS Perimeter Channel at the required joist spacing using the RFS Tab tool or pliers. Slide the RFS Floor Joist into position before folding out the next set and screw into place. Repeat for each following RFS Floor Joist.

Screw the RFS Joists to the tabs with 8 gauge self tapping screws working in sequence from one side to the other. The RFS Joist at the end, should have the 'open' side facing in and use angle bracket supplied.

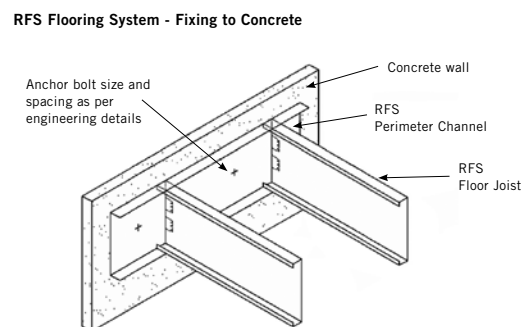
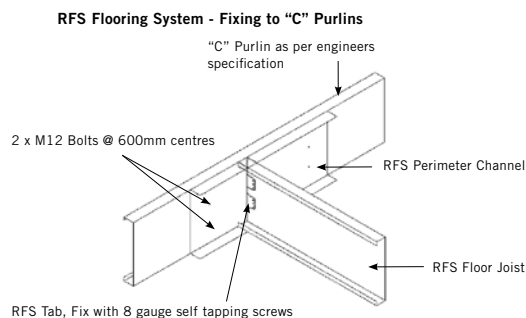
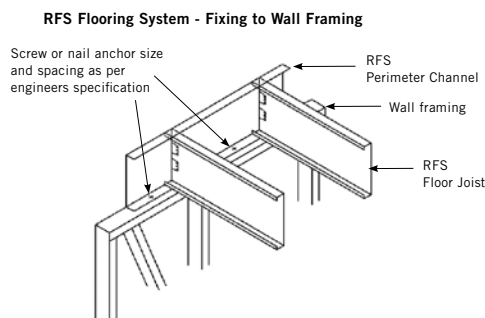
## 3 Fit the RFS Ceiling Battens<sup>†</sup>

Once all RFS Floor Joists are screwed into place, fit the RFS Ceiling Battens. Each batten fits over the lip of the floor joist and interlocks with the next batten. Battens are supplied and matched to the centres of your specific floor. Screw your ceiling linings directly to the RFS Ceiling Battens and RFS Floor Joists.

<sup>†</sup> Solid blocking to be used where required as engineer specifies or above structural walls.

## 4 Fit the flooring and line the ceiling

Once you have completed all the above steps all you need to do is fit the flooring. We recommend the flooring is glued and screwed to the manufacturers specification. Ideally use 10 gauge screws starting from the edge of the flooring sheets and spaced at approximately 200mm centres.



The RFS Batten system allows for a direct fix solution for ceiling linings giving a thinner mid floor dimension. Each batten piece is manufactured to suit the joist spacing and every join is swaged for a smooth finish (shown below)



Installation of RFS Perimeter Channel

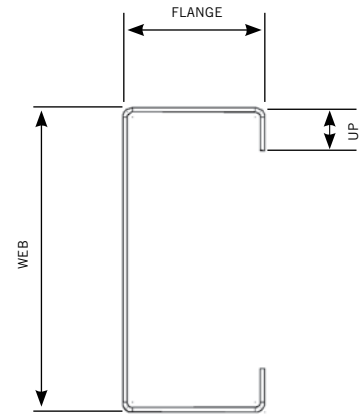
Finished mezzanine floor within a building ready for wall lining



# LIVE LOAD SPAN TABLES

## RFS Floor Joist

Profile	Web	Flange	Lip	Material	Max Span*		
					400 Centres	450 Centres	600 Centres
RFS FJ140	140	45	15	1.55	3.9	3.8	3.5
RFS FJ190	190	45	15	1.55	4.7	4.5	4.2
RFS FJ240	240	45	15	1.85	5.7	5.5	5.1
RFS FJ290	290	45	15	2.50	6.9	6.7	6.2
*Maximum Span (m) of joists at Nominated Spacing (mm) for 1.5kPa floor live load typical for Residential applications.							
RFS FJ140	140	45	15	1.55	3.5	3.4	3.1
RFS FJ190	190	45	15	1.55	4.3	4.1	3.6
RFS FJ240	240	45	15	1.85	5.1	5.0	4.5
RFS FJ290	290	45	15	2.50	6.2	6.0	5.6
**Maximum Span (m) of joists at Nominated Spacing (mm) for 3kPa floor live load typical for Commercial applications.							
RFS FJ140	140	45	15	1.55	3.0	2.8	2.4
RFS FJ190	190	45	15	1.55	3.5	3.3	2.8
RFS FJ240	240	45	15	1.85	4.4	4.1	3.6
RFS FJ290	290	45	15	2.50	5.7	5.4	4.7
***Maximum Span (m) of joists at Nominated Spacing (mm) for 5kPa floor live load typical for Industrial applications.							

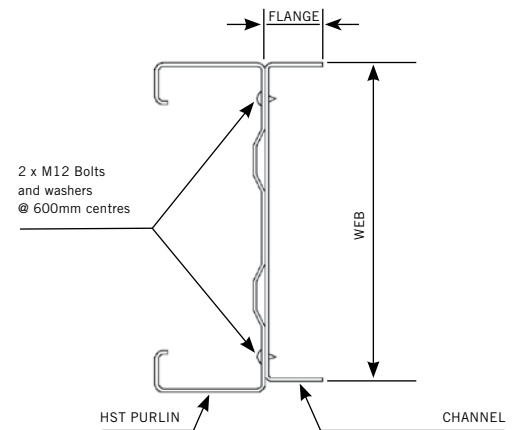


## RFS Maximum Perimeter Channel

Span when used in conjunction with HST C Purlins

RFS Joist Span up to:	Composite Section Size	1.5kPa	3kPa	5kPa
3000*	PC140 + HST200/18	4.2	3.6	2.8
	PC190 + HST200/18	4.3	3.6	2.9
	PC240 + HST250/18	5.1	4.4	3.6
	PC290 + HST300/18	6.0	5.2	4.5
4000*	PC140 + HST200/18	3.9	3.1	2.5
	PC190 + HST200/18	4.0	3.1	2.5
	PC240 + HST250/18	4.7	3.9	3.1
	PC290 + HST300/18	5.6	4.8	3.9
5000*	PC140 + HST200/18	3.7	2.8	2.2
	PC190 + HST200/18	3.8	2.8	2.2
	PC240 + HST250/18	4.5	3.5	2.8
	PC290 + HST300/18	5.3	4.4	3.5
6000*	PC140 + HST200/18	3.4	2.5	2.0
	PC190 + HST200/18	3.4	2.5	2.0
	PC240 + HST250/18	4.3	3.2	2.5
	PC290 + HST300/18	5.0	4.0	3.2

\*Tables relate to single span floors.  
Other spans available when used back to back with another floor.  
Additional tables using other HST C Purlins available.  
Perimeter Channels must be fixed every 600mm with 2 x M12 bolts and washers



## RFS Cantilever Joists

Profile	Web	Flange	Lip	Material	Max Span Overhang at Spacing		
					400 Centres	450 Centres	600 Centres
FJ140	140	45	15	1.55	0.9	0.9	0.8
FJ190	190	45	15	1.55	1.2	1.1	1.0
FJ240	240	45	15	1.85	1.5	1.5	1.3
FJ290	290	45	15	2.50	2.0	1.9	1.7

NOTE: Minimum Back Span required is 2 x Cantilever Span

