

# FRAMING BRACKET

## FEATURES AND BENEFITS

**EASY:** Can be installed without needing to create special housings or high skill timber joints.

**FAST:** Can be fastened with Pryda TCS12-35mm screws.

**STRONG:** 1.0mm thick galvanised steel engineered to resist gravity loads and wind uplift loads as well as lateral rotation.

## SPECIFICATIONS

<b>STEEL</b>	G300
<b>THICKNESS</b>	1.0mm
<b>CORROSION RESISTANCE</b>	Z275 (all)
<b>FASTENERS REQUIRED</b>	35 x 3.15mm Pryda Timber Connector Nail OR 12G x 35mm Pryda Timber Connector Screw OR 12G x 65mm Pryda Timber Connector Screw Ensure the corrosion resistance of the fastener matches the product i.e. galvanised nails for a galvanised bracket
<b>HEIGHTS</b>	60 - 220mm
<b>WIDTHS</b>	35 - 94mm

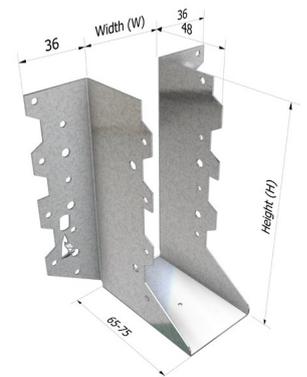
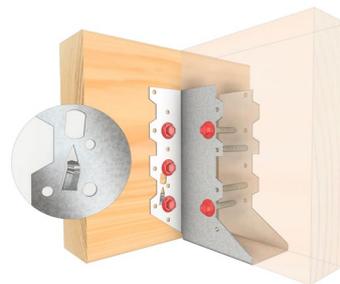
Simple means of connecting two members at 90° that provides resistance to gravity and uplift loads.



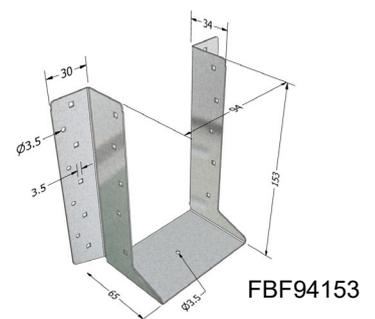
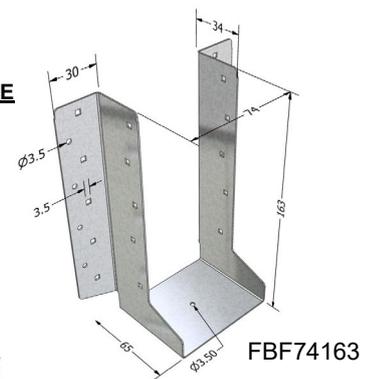
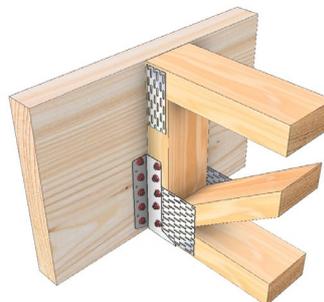
### AS1684 & AS1720 COMPLIANT

- Minimum Z275 galvanised steel
- G300 min. Steel grade
- Design values tested in accordance with the relevant standard

### STANDARD RANGE PROFILE



### FLOOR TRUSS RANGE PROFILE



## DURABILITY

Z275 to be used in weather protected internal applications.

## TYPICAL APPLICATIONS

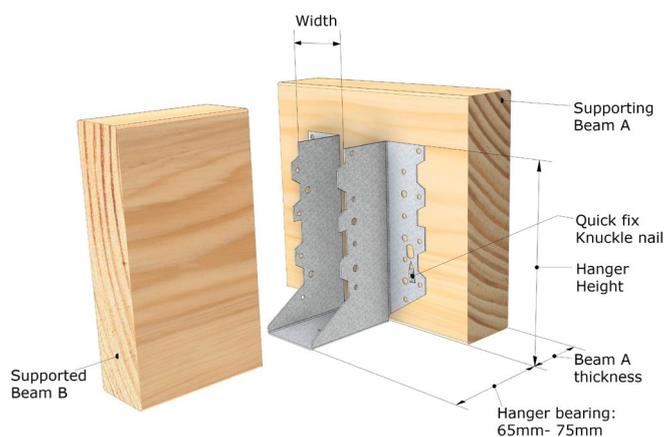
Pryda Framing Brackets are suitable for many joints including:

- joist to beam, jack to TG truss, ceiling joist to hanger, floor truss to beam, pergola rafters to fascia, and beams to masonry.

## FRAMING BRACKETS – STANDARD RANGE

PRODUCT CODE	MATERIAL	WIDTH	HEIGHT	SUITABLE APPLICATION	BOX QUANTITY
MPFBK3590	G300 Z275 Galvanised Steel	36	82	Solid Beams	45
MPFBK35120		36	116		45
MPFBK35140		36	140		40
FBK35180		36	182		30
MPFBK3860*		39	60		45
MPFBK3890		39	80		45
MPFBK38120		39	115		45
MPFBK38140		39	138		40
MPFBK38180		39	181		30
MPFBK4590		46	77		45
MPFBK45120		46	110		45
MPFBK45140		46	134		40
MPFBK45180		46	176		30
MPFBK45220		46	216		15
MPFBK5060*		50	54		45
MPFBK5090		50	75		45
MPFBK50120		50	109		45
MPFBK50140		50	133		40
MPFBK50180		50	175		30
MPFBK50220		50	215		15
FB62120*		62	120		25
FB62170*		62	170		25
FB62220		62	200		25
FB65170		65	167		25
FB70200		71	194		25
FB84200*		85	197		25
FB90200		91	194		25
FB72163*		72	163	Floor Trusses	25
FB94152*		94	152	Floor Trusses	25

Note: The product marked with \* is no longer available. For floor truss support, refer to new profile range.



## DESIGN CAPACITIES - STANDARD

PRODUCT CODE	FIXING TO SUPPORTING BEAM (A)	DEAD + FLOOR LIVE LOAD 1.2G+1.5Qf			FIXING TO SUPPORTED BEAM (B)	WIND UPLIFT $k_1 = 1.14$			MAX.
		JOINT GROUP				JOINT GROUP			
		JD5	JD4	JD3		JD5	JD4	JD3	
MPFBK3860*	6 nails	2.9	3.4	4.8	3 nails	2.4	2.8	3.9	4.5
MPFBK5060*	2 screws	2.1	3	4.3	2 screws	3.5	5	5	5
MPFBK3590	8 nails	3.8	4.6	6.4	4 nails	3.2	3.7	5.3	6
MPFBK3890	4 screws	4.3	6.1	8.5	2 screws	3.5	5	5	5
MPFBK4590									
MPFBK5090									
MPFBK35120	12 nails	5.3	6.4	8.9	6 nails	4.7	5.7	7.9	10
MPFBK38120	6 screws	6.4	9.1	12.8	4 screws	7.1	10	10	
MPFBK45120									
MPFBK50120	FB62120*								
MPFBK35140	16 nails	7	8.4	11.7	8 nails	6.1	7.3		15
MPFBK38140	6 screws	6.4	9.1	12.8	4 screws	7.1	10		
FBK35180	20 nails	8.6	10.3	14.4	10 nails	7.4	8.9	12.4	15
MPFBK38180	8 screws	8.6	12.1	15	6 Screws	10.6	15	15	
MPFBK45180									
MPFBK50180									
MPFBK45220	26 nails	10.8	12.9	15	12 nails	8.6	10.7	14.5	15
	10 screws	10.1	14.2		8 screws	14.2	15	15	
FB62170*	18 nails	7.8	9.3	13.1	6 nails	4.7	5.7	7.9	9
FB65170	6 screws	6.4	9.1	12.8	11 nails	8.1	9.8	13.6	
					6 screws	10.6	15	15	
FB62220	24 nails	10	11.9	15	12 nails	8.6	10.7	14.5	15
FB70200	10 screws	10.1	14.2		7 screws	12.3	15	15	
FB84200*	22 nails	9.2	11	15	12 nails	8.6	10.7	14.5	15
	8 screws	8.6	12.1		8 screws	14.2	15	15	
FB90200	26 nails	10.8	12.9	15	13 nails	9.6	11.6	15	15
	10 screws	10.1	14.2		8 screws	14.2	15	15	
<b>FLOOR TRUSS FRAMING BRACKETS</b>									
FB72163*	18 nails	7.8	9.4	13	3 nails	2.4	2.8	3.9	4.5
	6 screws	6.4	9.1	12.8	10 nails	7.4	8.9	12.4	15
					6 screws	10.6	15	15	
FB94152*	18 nails	7.8	9.3	13.1	3 nails	2.4	2.8	3.9	4.5
	6 screws	6.4	9.1	12.8	10 nails	7.4	8.9	12.4	15
					6 screws	10.6	15	15	

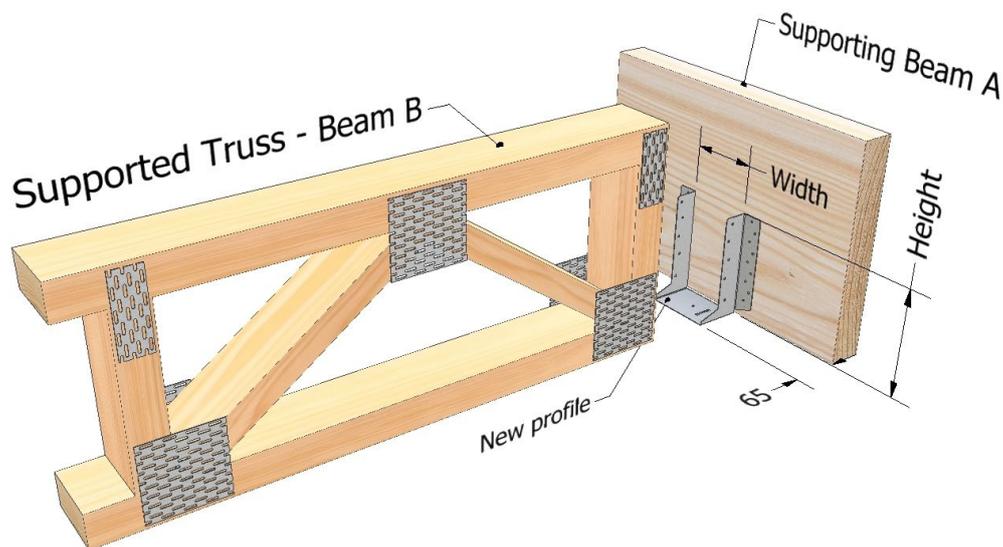
Update: The product marked with \* is no longer available. For floor truss support, refer to new profile range.

### NOTES:

- The above tabulated capacities are for a minimum supporting beam thickness of 35 mm.
- The values in the table apply directly for Category 1 joints. For Category 2 multiply these values by 0.94 and Category 3 joints multiply by 0.88.
- For FB65170, FB72163 and 95142 brackets, wind uplift values have been reduced due to a shorter end distance on the supported beam compared to the other brackets.
- For FB72163 to FB94152, the wind uplift 3 nails fixing option allows for fixing to the chords only of I-beams or trusses.
- Unless the top of the supported beam is provided with additional lateral restraints, the bracket must cover at least 60% of the depth of the supported beam.
- Multiple Laminated Supporting Beams: Fasteners with longer lengths are required when Joist Hangers are fixed into a multiple laminated supporting beam. For double laminates, use 65 long nails or screws. Alternatively, for double or triple laminated supporting beams, additional fixings may be provided at hanger locations to laminate plies. Seek advice from the Engineer.
- Gap between Supported and Supporting Beams: A maximum gap of 3mm is permitted without impeding the design capacities. A larger gap would result in a rotation of the supported beam under downward loads and could compromise on end distance requirements of nails resulting in reduced uplift capacities. Seek advice from a Pryda Engineer regarding treatment of large gaps.
- The framing bracket shall not hang more than 10mm below the underside of Beam A, if the above table values are to be maintained. Seek advice from a Pryda engineer.
- In general, the framing bracket selected should extend min 2/3 the depth of the supporting beam and supported beam (whichever is greater). If not then additional rotational restraint/fixing may be required at the top of the beam

## FRAMING BRACKETS – FLOOR TRUSS RANGE, NEW PROFILE

PRODUCT CODE	MATERIAL	WIDTH	HEIGHT	SUITABLE APPLICATION
FBF74163	G300 Z275 Galvanised	74	163	Floor Trusses
FBF94153	Steel	94	153	



## DESIGN CAPACITIES – FLOOR TRUSS RANGE, NEW PROFILE

PRODUCT CODE	FIXING TO SUPPORTING BEAM (A)	DEAD + FLOOR LIVE LOAD 1.2G+1.5QF			FIXING TO SUPPORTED BEAM (B)	WIND UPLIFT K1 = 1.14		
		JOINT GROUP				JOINT GROUP		
		JD5	JD4	JD3		JD5	JD4	JD3
<b>NEW FLOOR TRUSS FRAMING BRACKETS</b>								
FBF74163 FBF94153	18 nails	7.8	9.3	13	10 nails	7.4	8.8	12.4
					6 nails	4.7	5.6	7.9
	10 screws	10.2	14.5	20.5	10 screws	17	20	20
	6 screws	6.5	9.2	13.1	6 screws	10.8	15.3	20

### NOTES:

- The above tabulated capacities are for a minimum supporting beam thickness of 35 mm.
- Adopt 65mm long screws when fixing to multi-laminates of Supporting Beam A. Note: Supporting beam should be sufficiently laminated to adequately transfer loads between beams. The lamination detail should be done in conjunction with AS1684 or beam suppliers' detail.
- The values in the table apply directly for Category 1 joints. For Category 2 multiply these values by 0.94 and Category 3 joints multiply by 0.88.
- Gap between Supported and Supporting Beams: A maximum gap of 3mm is permitted without impeding the design capacities. A larger gap would result in a rotation of the supported beam under downward loads and could compromise on end distance requirements of nails resulting in reduced uplift capacities. Seek advice from a Pryda Engineer regarding treatment of large gaps.
- If the bottom flange of the bracket is more than 10mm below the bottom edge of the beam, then seek advice from a Pryda Engineer.
- Determination of joint group (JD): The JD group should be taken to be the lesser of the Supporting Beam JD group and the floor truss web and chord JD group. If unsure use JD5 values for both to be conservative.
- In general, the floor truss bracket depth selected should extend min 2/3 the depth of the supporting beam and/or the supported floor truss (whichever is greater). If this is not practical then additional rotational restraint/fixing may be required at the top of the beam/floor truss. This could be done by nail or screw fixing the floor truss in the top 1/3 of its depth through the timber vertical into the support beam as noted in installation procedure

**Fastener Selection Guide.**

When selecting for nail fix, use both **round** and **square** holes.

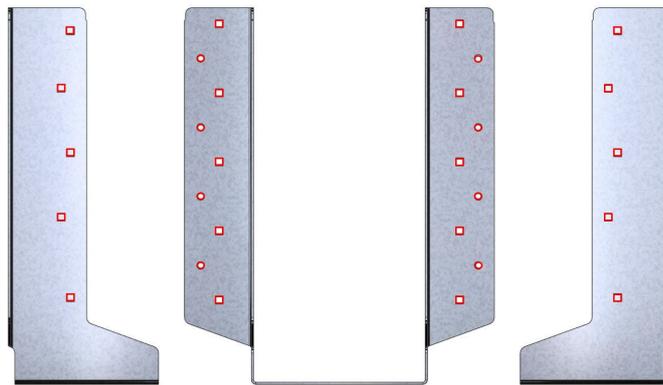
NAILS 35x3.15	<input type="checkbox"/>
PRYDA SCREWS	<input type="checkbox"/>

pryda

When selecting for screw fix, use only the **square** holes.

**NAIL FIX OPTIONS**

When selecting for nail fix, use both **round** and **square** holes.



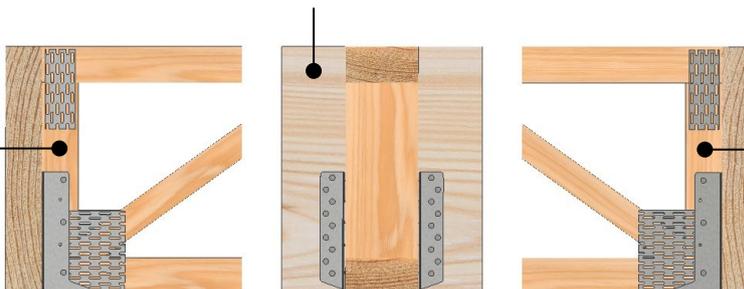
Supporting Beam A  
18 nails.  
9 nails each flange

Supported Beam B  
10 nails.  
5 nails each side



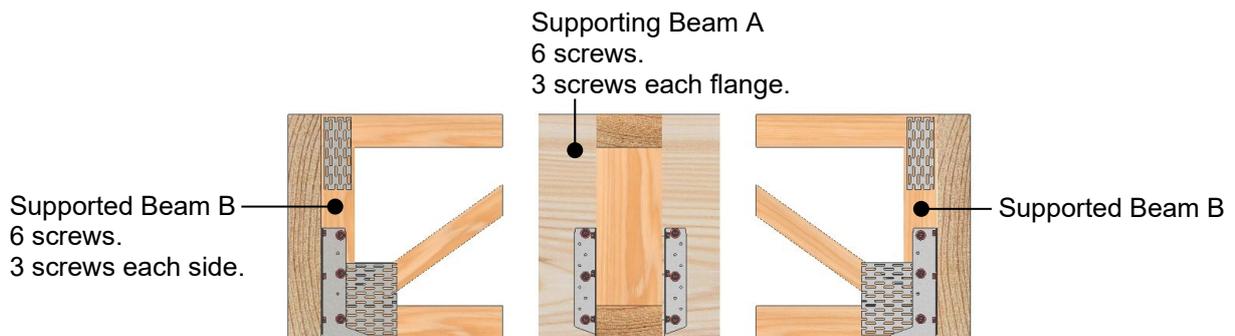
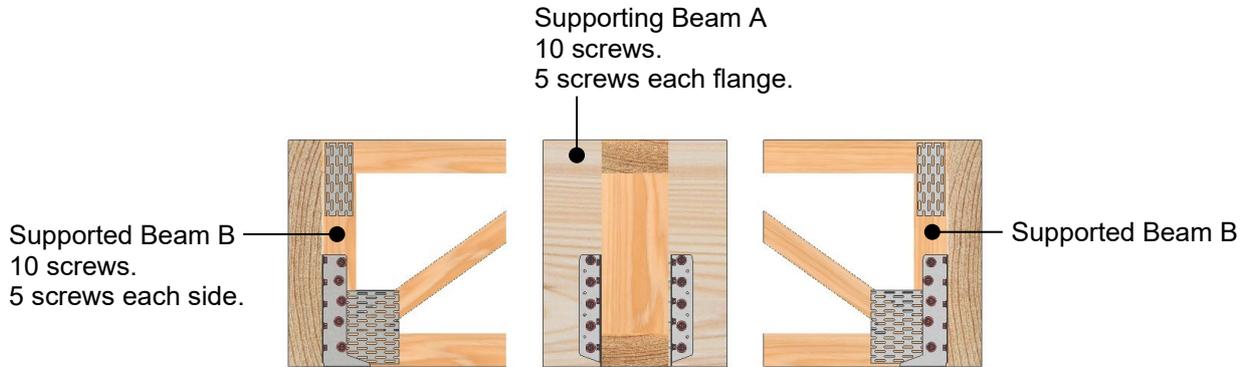
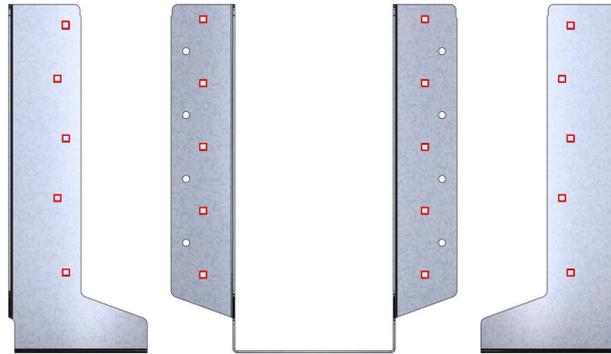
Supporting Beam A  
18 nails.  
9 nails each flange

Supported Beam B  
6 nails.  
3 nails each side



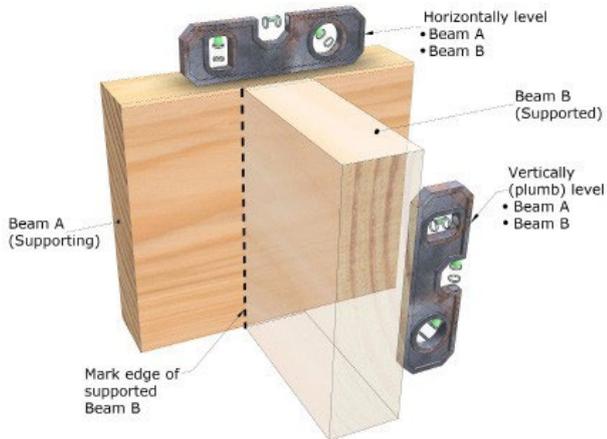
**SCREW FIX OPTIONS**

When selecting for screw fix, use only the **square** holes.



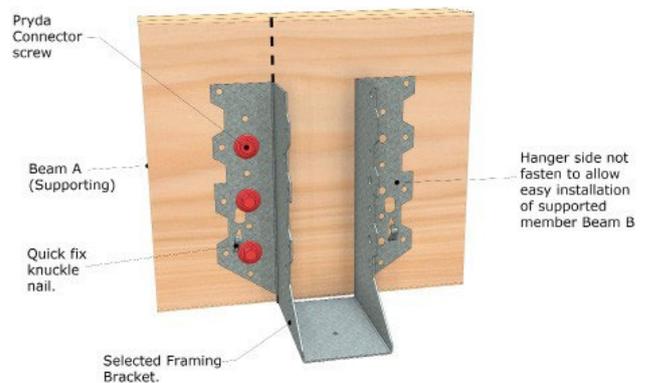
## INSTALLATION – STANDARD RANGE

### STEP 1



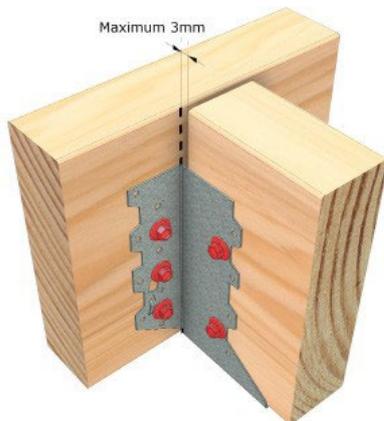
- Ensure both Beam A and B are level and plumb.
- Measure and mark location of connection on supporting beam.

### STEP 2



- Line up Framing racket on the supporting beam and fasten only one side initially. Quick fix hanger in to position to supporting Beam A with knuckle nail:
  - For Hand nails, fill each small hole
  - For Screws, fill each larger screw hole (shown in diagram above)
  - For machine nails use 20% more nails and do not fire through holes, see tips below.

### STEP 1

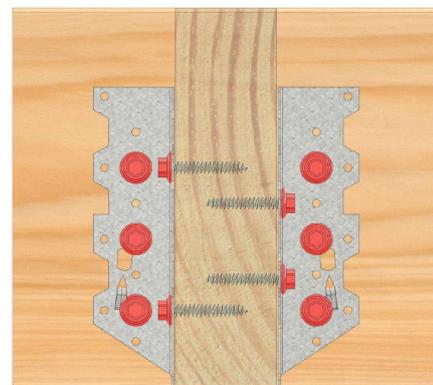


- Place the supported beam into the Framing Bracket ensuring it is right up against supporting beam
- Any gap greater then 3mm will reduce capacity

### CAUTION

- If both sides are fastened before the supported beam is slotted in, the final connection to the supported beam could be:
  - Too loose, leading to squeaking and reduced design values
  - Too tight, meaning the beam will not fit

### STEP 2



- Cup the Framing Bracket snug with the supported beam and fasten the remaining supporting beam side as well as both sides of the supported beam.

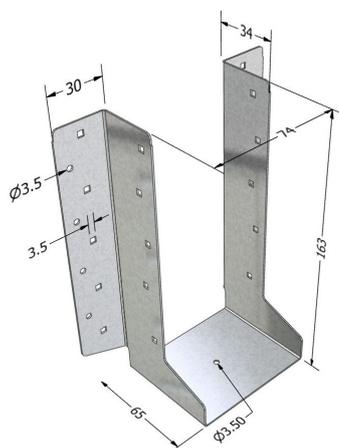
## INSTALLATION -FRAMING BRACKET FOR FLOOR TRUSSES

### STEP 1 Check for vertical and horizontal level

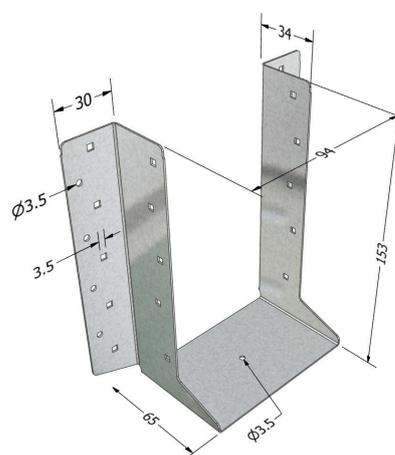


- Ensure both Beam A and B are level and plumb.
- Measure and mark location of connection on supporting beam.

### STEP 2 Select the correct bracket 70mm or 90mm



**FBF74163**



**FBF94153**

- 70mm wide floor trusses, select FBF74163
- 90mm wide floor trusses, select FBF94153

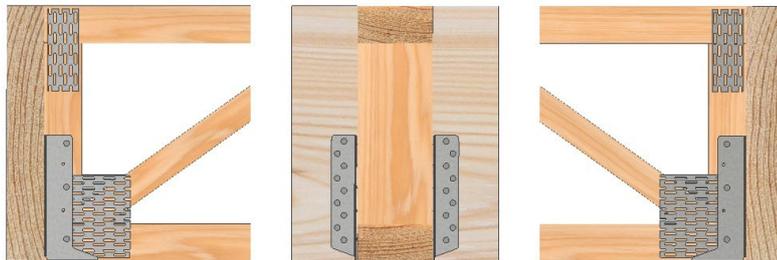
**STEP 3** Select the fastener type fixing method: Nails or Screws

**NAIL FIXING OPTIONS**
**Full fixing:**

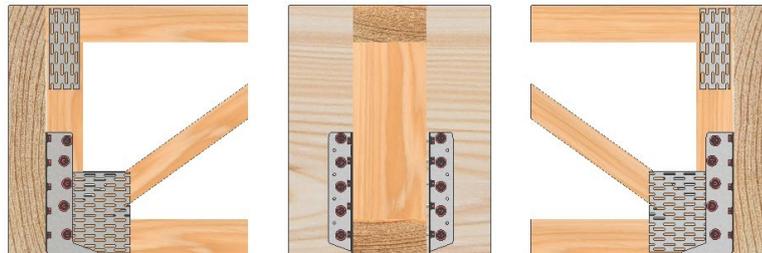
- All holes filled to Supporting and Supported member.


**Partial fixing:**

- All holes filled to Supporting member.
- 6 nails (3 per flange) fixed to supported member.


**SCREW FIXING OPTIONS**
**Full fixing:**

- All holes filled to Supporting and Supported member.


**Partial fixing:**

- 6 screws (3 per flange) fixed to Supporting member.
- 6 screws (3 per flange) fixed to supported member.



**It is important to refer to Product Data Sheet Design Capacities table for each fixing option. Only used either screw fix or nail fix, never combine fastener types.**

## STEP 4 Understanding bracket hole types

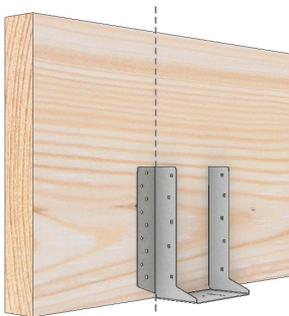
When selecting for nail fix, use both **round** and **square** holes.



When selecting for screw fix, use only the **square** holes.

## STEP 5 Install Framing Bracket

### OPTION A: BRACKET FIRST

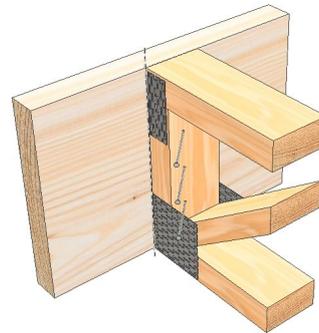


- Position bracket to marked location.

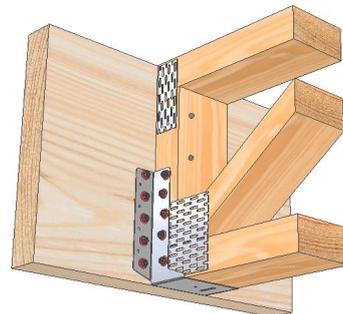


- Screw fix both flange to Supporting Beam.

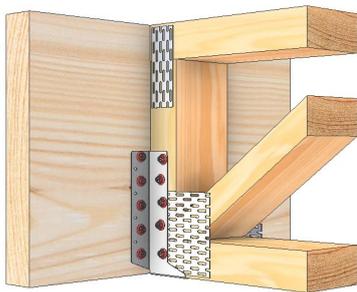
### OPTION B: FLOOR TRUSS FIRST



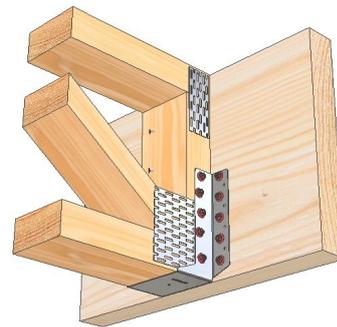
- Position floor truss to marked location and ensure bottom of truss is flush with beam bottom edge.
- Fix Truss to supporting beam with 3 x 3.15 x 90mm skew nails. Nails shall be fixed 30mm in from web edge and 60mm from web cut end. Stagger as required.



- Install Framing Bracket, ensuring the bracket is seated directly under floor truss and firmly against the supporting beam.
- Screw fix bracket to Supporting Beam and supported truss end vertical.

**STEP 5** Install Framing Bracket continue

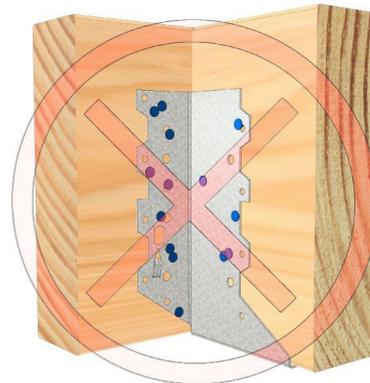
- Install floor truss on to bracket.
- Install screws to through side flange into truss vertical web, both face.



- Repeat of fixing on opposing side. Screw fix bracket to Supporting Beam and supported truss end vertical.

## MACHINE NAILING STANDARD RANGE ONLY

Where appropriate, Paslode Machine Driven Nails listed below may be used instead of the specified 35 x 3.15 mm Pryda.



Timber Connector Nails to fix Pryda connectors provided that:

- 20% More machine nails are used
- Machine driven nails are driven at nail spacings and edge distances similar to the hole pattern, ensuring that these nails are:
  - Driven into the blank metal between the pre-punched holes
  - not located closer than 5mm from the edge of a hole
  - not tightly clustered together
  - not within 15 mm from the edge of the supported beam or 10mm from the edge of the supporting beam
- Screw hardened, electro galvanised Paslode nails that are appropriate include:
  - Duo-Fast C SHEG 32 x 2.3 (D40810)
  - Paslode 32 x 2.5 mm (B25110)
  - Duo-Fast 32 x 2.5 mm (D41060)
  - Pas Coil 32 x 2.5 SHEG 2 Pack (B25250)
  - Impulse 32 x 2.5 SHEG (B40020)

## MACHINE NAILING FBF74163 AND FBF94153

Paslode's PPN-Master positive placement nailer replicates the accuracy of hand nailing by using a probing tip to fire nails through holes in the connector. Pryda supports the use of the PPN-Master for these products. Unlike traditional nailing tools, no design capacity reduction is required when using the PPN-Master.

It is important to adopt the fastener holes only for fixing FBF\* brackets. Fixing through steel is not recommended.



**LOOKING FOR MORE DETAILS OR OTHER HANGERS & TRUSS BOOTS IN OUR RANGE?**

SEE OUR HANGERS & TRUSS BOOTS DESIGN GUIDE AVAILABLE AT [PRYDA.COM.AU](https://www.pryda.com.au)