

NZ PRYDA FASTFIX™ STUD TO WALL PLATE AND WALL PLATE TO LINTEL TIE-DOWN DETAILS



APPLICATION AND SCOPE OF USE

Pryda FastFix™ screws are certified when used and installed in accordance with the product datasheet shown connection details. Pryda fasteners approved for the installation form an integral part of the connection and therefore should be used with all Pryda products installation unless otherwise approved by a certified structural Engineer. Only use the product for its intended applications and the selected product material type within the specified environmental condition as outlined in NZS 3604:2011 Table 4.1.

- Top and bottom plates to stud connection.
- Plate to beam connections.

DURABILITY

Pryda FastFix™ screws are only available in Yellow Zinc Chromate as per AS/NZS 1789 - 2023, therefore suitable for "Closed" environment.

GENERAL NOTES APPLICABLE TO ALL CONNECTIONS AND CAPACITY TABLES.

- 1) Design capacities apply for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets JD5 timber as defined in AS/NZS 1720.
- 2) Capacities given are for direct connection between plate(s) to stud unless stated otherwise.
- 3) Pre-drilled holes (4mm drill bit) may be required in timber components that are prone to splitting or close to timber ends (<70mm) or edges (<30mm).
If the timber is prone to splits during installation then alternate tie down fixing may be required.
- 4) Continuous tie-down capacity shall be governed by the lesser capacity value tie-down connection within the connection chain.
- 5) Tie-down connection capacity is for vertical up-lift due to Wind load only.
- 6) Compliance identification sticker, tags or stamp shall be used with each FastFix™ screw connection. This is not shown in connection details to follow for clarity purposes.

COMPLIANCE IDENTIFICATION OPTIONS FOR 90mm FRAMING

To compliment the safer, and faster installation of the FastFix™ screws, Pryda also offers a smarter and easier on-site identification system to fast track onsite inspection of framing that have been installed using the trusted and certified Pryda FastFix™ screws. Each FastFix™ connection shall be accompanied by one of the following options.

Available options are:

Sticker installed to face of stud at location of FastFix™ framing screw installation.

Product Code : LAYCT

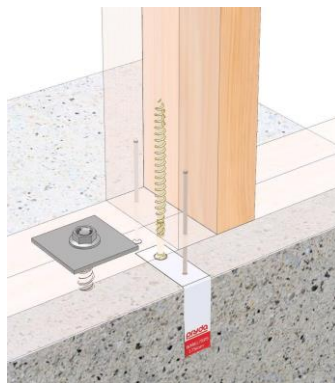
Dimensions : 102mm Length x 60mm width.



Weatherproof Tags that are made from tough and durable material and can be directly attached to the FastFix™ framing screw for direct and easy identification.

Product Code : TAG-135 & TAG-175

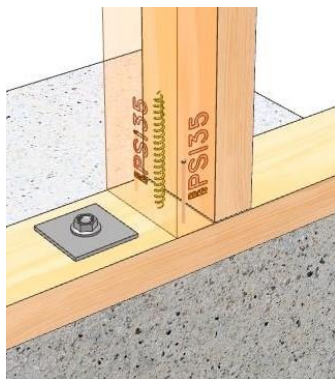
Dimensions : 120mm x 25mm



Durable and robust stamp that is fully customizable size stamping for complete FastFix™ framing screws. Screw sizes include 135mm, 175mm, and more.

Product Code : Contact Pryda for more details.

Dimensions : 90mm x 20mm



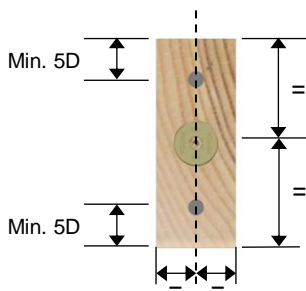
PRYDA FASTFIX™ LINTEL TIE-DOWN DETAIL A1 – DOUBLE TOP PLATES TO SINGLE JAMB STUD

Design capacities apply for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets JD5 timber as defined in AS/NZS 1720.

TOP PLATES CONNECTION

TOP PLATE TO JAMB STUD

Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.



JAMB STUD TO LINTEL

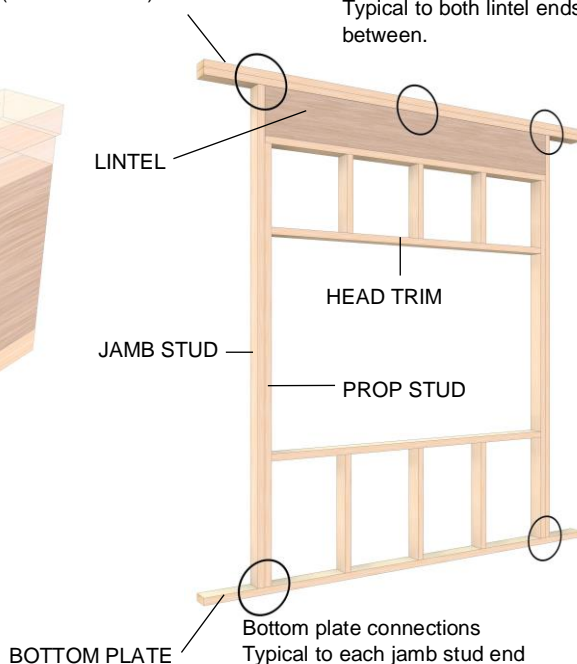
Min. 3 x 90 x 3.15mm nails to each lintel.

JAMB STUD TO HEADER

2 x 90 x 3.15mm nails.

DOUBLE TOP PLATES (2 x 90 x 45mm)

Top plate connections Typical to both lintel ends and in between.



Each FastFix™ connection shall be accompanied by one of the compliance identification options. This is omitted in shown details for clarity purposes.

All intermediate jack to top/bottom plate, jack to lintel and jack to headers to be installed to NZS 3604:2011 Table 8.19 or approved details.

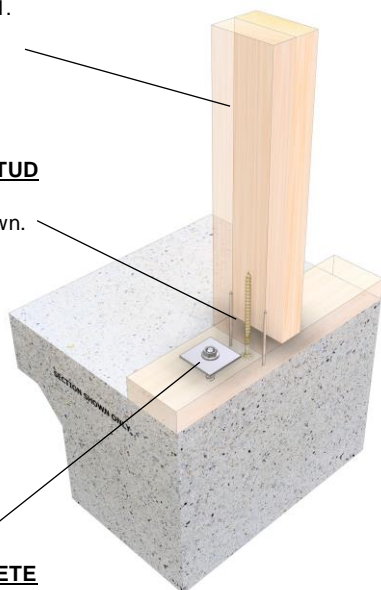
BOTTOM PLATE CONNECTION

JAMB STUD TO PROP STUD

Nail laminate to NZS 3604:2011. Table 8.19.

BOTTOM PLATE TO JAMB STUD

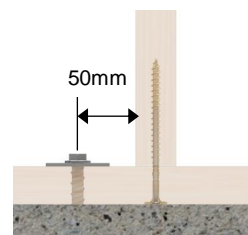
Pryda Screw WM8135 and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.



BOTTOM PLATE TO CONCRETE

50 x 50 x 3mm Washer M12 Ankascrew or approved anchor, having capacity exceeding selected Pryda Screw uplift capacity. Install central to plate and 50mm away from Jamb stud.

CONCRETE
Min. Grade 20MPa.
Min. 200mm Deep.



PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)
	2 x 45mm
WM8135PS	4
WM8175PS	7.7
PRODUCT CODE	SINGLE WALL PLATE UPLIFT (kN)
	45mm
WM8135PS	8.1
WM8175PS	9.1

Refer to 'General notes' for installation conditions.

PRYDA FASTFIX™ LINTEL TIE-DOWN DETAIL A2 – DOUBLE TOP PLATES TO DOUBLE JAMB STUDS

Design capacities apply for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets JD5 timber as defined in AS/NZS 1720.

TOP PLATES CONNECTION

TOP PLATE TO EACH JAMB STUDS

Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

CRITICAL JACK STUD TO JAMB STUD

90 x 3.15mm nails to suit stud length.

JAMB STUD TO LINTEL

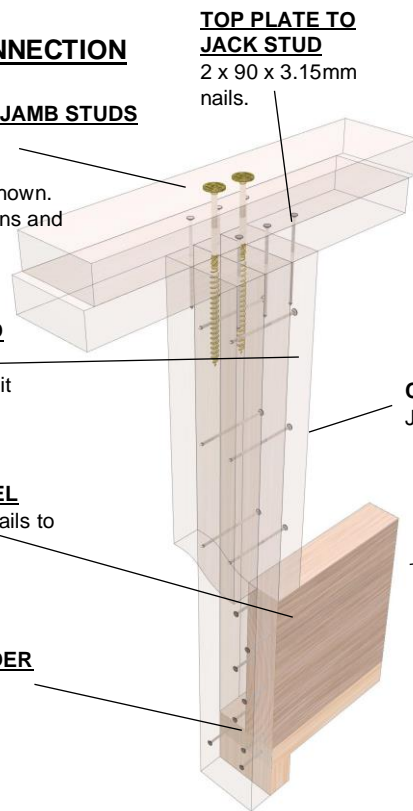
Min. 3 x 90 x 3.15mm nails to each lintel.

JAMB STUD TO HEADER

2 x 90 x 3.15mm nails.

TOP PLATE TO JACK STUD

2 x 90 x 3.15mm nails.



TOP PLATES (90 x 45mm)

Top plate connections Typical to both ends

CRITICAL JACK STUDS

LINTEL

HEAD TRIM

CRITICAL JACK STUD

CRITICAL JACK STUD

2 x JAMB STUDS

PROP STUD

LINTEL

BOTTOM PLATE

Bottom plate connections Typical to each Jamb stud end

BOTTOM PLATE CONNECTION

JAMB STUD TO JAMB STUD

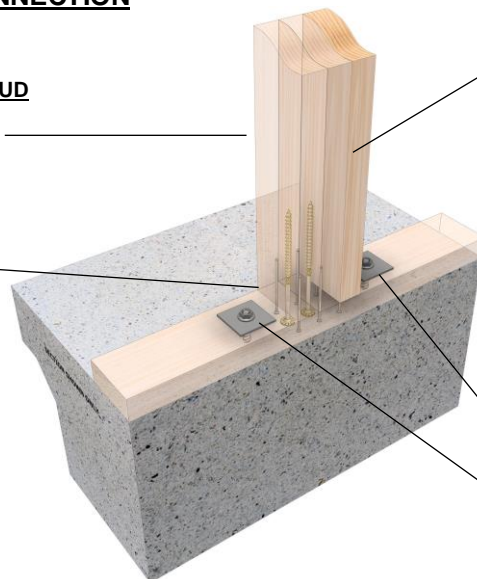
Nail laminate to NZS 3604:2011. Table 8.19.

BOTTOM PLATE TO EACH JAMB STUDS

Pryda Screw WM8135PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

CONCRETE

Min. Grade 20MPa.
Min. 200mm Deep.



PROP STUD TO JAMB STUD

Nail laminate to NZS 3604:2011. Table 8.19.

Each FastFix™ connection shall be accompanied by one of the compliance identification options. This is omitted in shown details for clarity purpose.

All intermediate jack to top/bottom plate, jack to lintel and jack to headers to be installed to NZS 3604:2011 Table 8.19 or approved details.

BOTTOM PLATE TO CONCRETE

Locate anchors on each side of Jamb stud assembly. Each anchor should consist of 50 x 50 x 3mm Washer M12 Ankascrew (Refer to Ramset™ Tech. Data Sheet) or approved anchor, having capacity exceeding selected Pryda Screws uplift capacity. Install central to plate and within 50mm of the Jamb stud and prop stud.

PRODUCT CODE	WALL PLATE UPLIFT (kN)	
	45mm	2 x 45mm
2 X WM8135PS	14	8
2 X WM8175PS	14	14

Refer to 'General notes' for installation conditions.

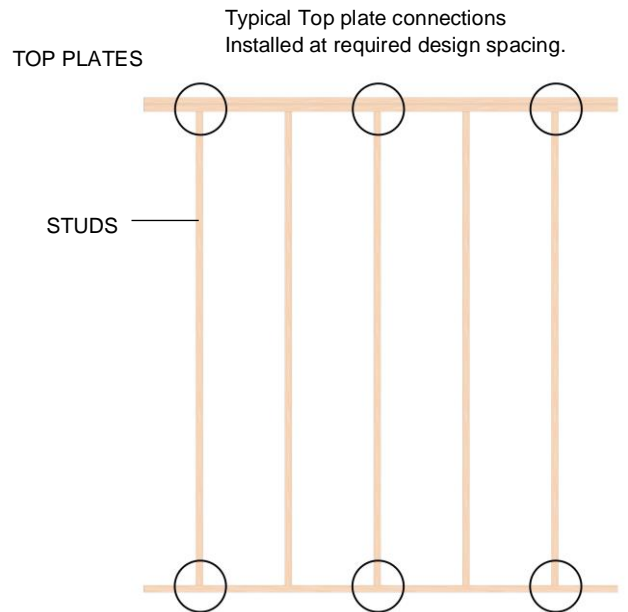
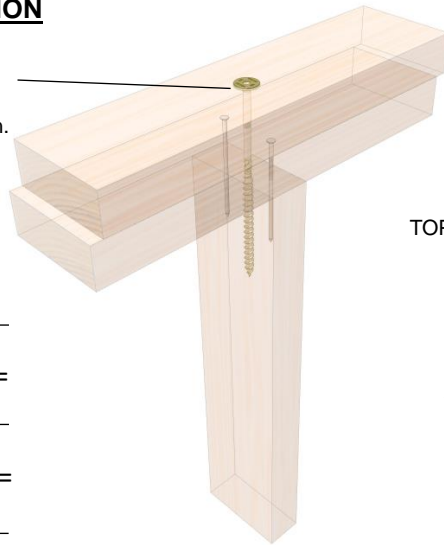
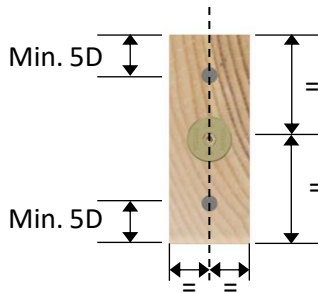
PRYDA FASTFIX™ TOP PLATE TIE-DOWN DETAIL B – TYPICAL DOUBLE TOP PLATES TO SINGLE STUD CONNECTION

Design capacities apply for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets JD5 timber as defined in AS/NZS 1720.

TOP PLATES CONNECTION

TOP PLATES TO EACH STUD

Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

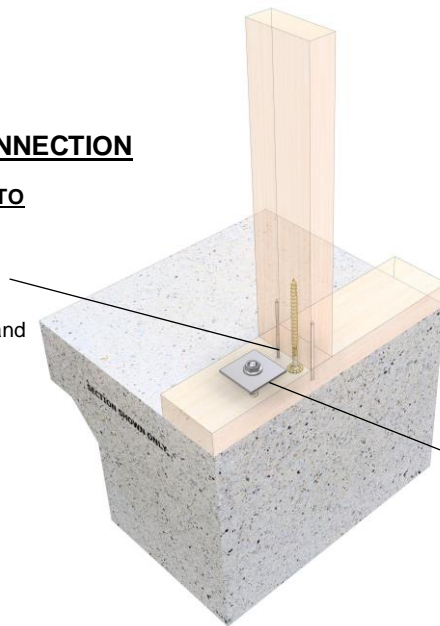


BOTTOM PLATE CONNECTION

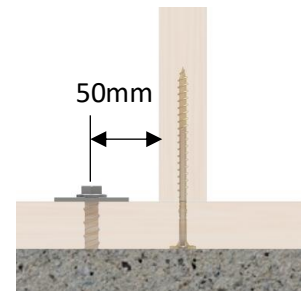
SINGLE BOTTOM PLATE TO STUD

Pryda Screw WM8135PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

CONCRETE
Min. Grade 20MPa.
Min. 200mm Deep.



Typical Bottom plate connections at required design spacing



Each FastFix™ connection shall be accompanied by one of the compliance identification options. This is omitted in shown details for clarity purpose.

PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)
WM8135PS	4
WM8175PS	7.7
PRODUCT CODE	SINGLE WALL PLATE UPLIFT (kN)
WM8135PS	8.1
WM8175PS	9.1

BOTTOM PLATE TO CONCRETE MATCHING PLATE TO STUD TIE-DOWN CONNECTION

50 x 50 x 3mm Washer M12 Ankascrew (Refer to Ramset™ Tech. Data Sheet) or approved anchor, having capacity exceeding selected Pryda Screw uplift capacity. Install central to plate and within 50mm of the Jam stud.

Refer to 'General notes' for installation conditions.

PRYDA FASTFIX™ TIE-DOWN DETAIL C – UPPER FLOOR

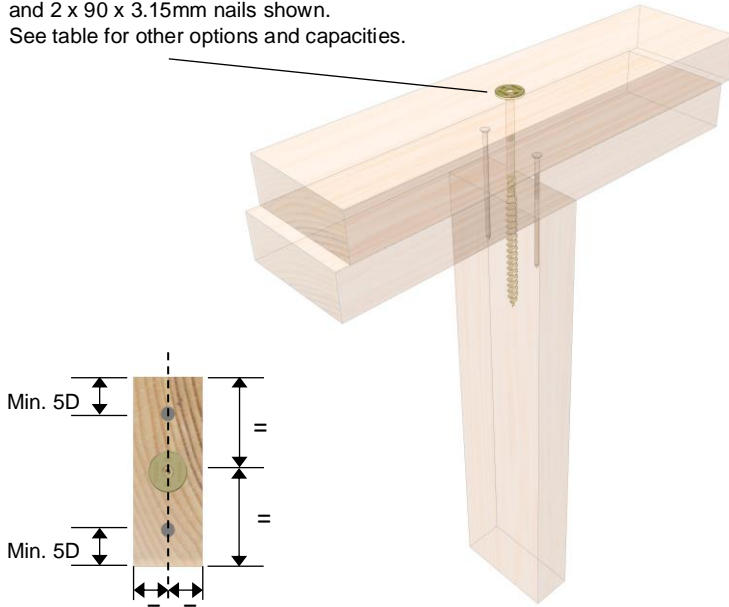
TIE-DOWN TO GROUND FLOOR CONNECTION CHAIN

Design capacities apply for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets JD5 timber as defined in AS/NZS 1720.

TOP PLATES CONNECTION

TOP PLATES TO EACH STUD

Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.



Typical screw centrally located to stud, end web or block end.

Each FastFix™ connection shall be accompanied by one of the compliance identification options. This is omitted in shown details for clarity purpose.

BOTTOM PLATE CONNECTION

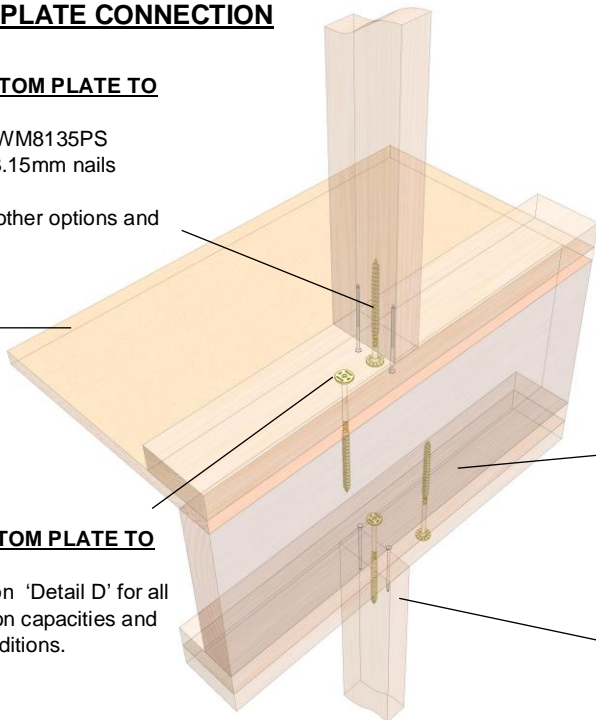
SINGLE BOTTOM PLATE TO STUD

Pryda Screw WM8135PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

19mm flooring

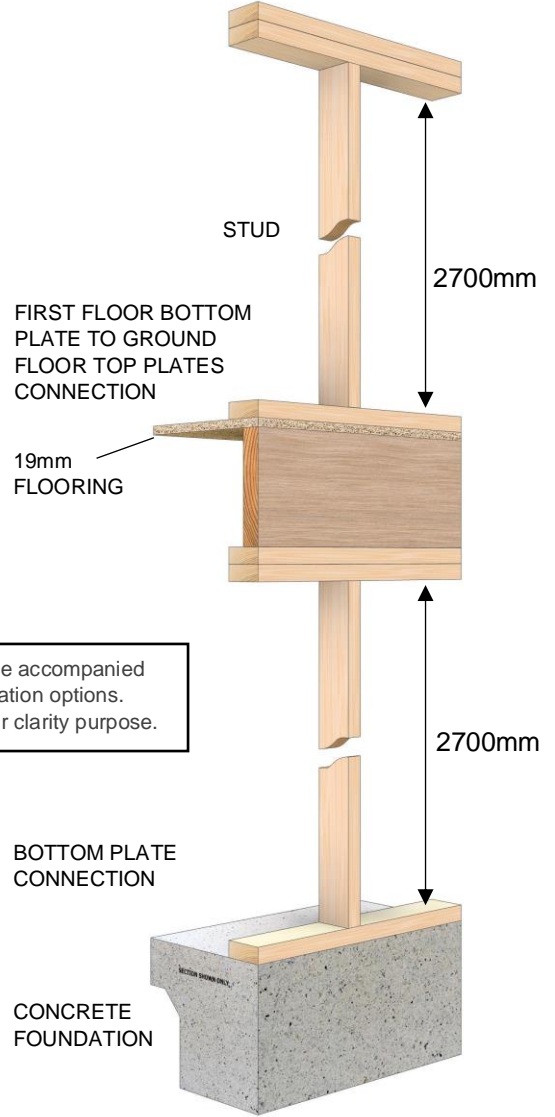
SINGLE BOTTOM PLATE TO EDGE BEAM

Refer to section 'Detail D' for all floor connection capacities and governing conditions.



SECOND FLOOR TOP PLATE CONNECTION CHAIN

DOUBLE TOP PLATES



BOTTOM PLATE CONNECTION

CONCRETE FOUNDATION

GROUND FLOOR DOUBLE TOP PLATES TO EDGE BEAM.

Refer to section 'Detail D' for all floor connection capacities and governing conditions.

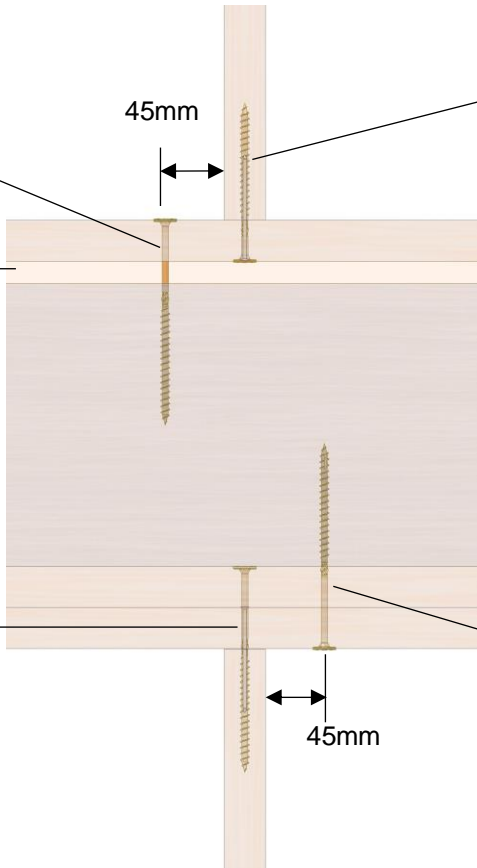
GROUND FLOOR DOUBLE TOP PLATES TO STUD

Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

SINGLE BOTTOM PLATE TO EDGE BEAM

Refer to section 'Detail D' for all floor connection capacities and governing conditions.

19mm flooring



SINGLE BOTTOM PLATE TO STUD

Pryda Screw WM8135PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

GROUND FLOOR DOUBLE TOP PLATES TO STUD

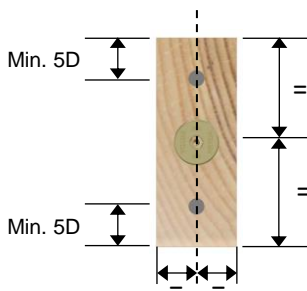
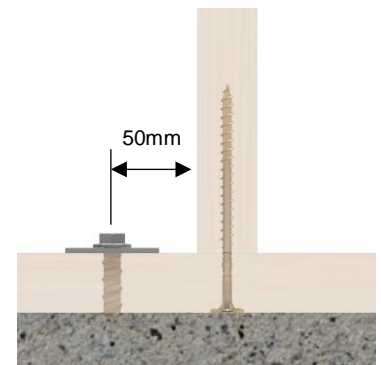
Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

GROUND FLOOR DOUBLE TOP PLATES TO EDGE BEAM.

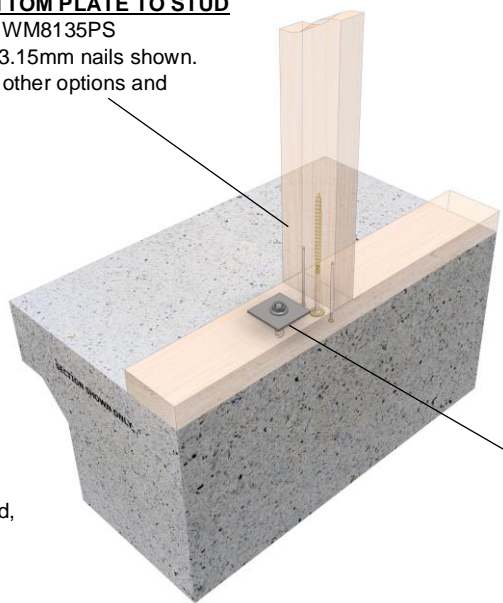
Refer to section 'Detail D' for all floor connection capacities and governing conditions.

SINGLE BOTTOM PLATE TO STUD

Pryda Screw WM8135PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.



Typical screw centrally located to stud, end web or block end.



BOTTOM PLATE TO CONCRETE

50 x 50 x 3mm Washer M12 Ankascrew (Refer to Ramset™ Tech. Data Sheet) or approved anchor, having capacity exceeding selected Pryda Screw uplift capacity. Install central to plate and within 50mm of the Jam stud.

CONCRETE
Min. Grade 20MPa
Min. 200mm Deep

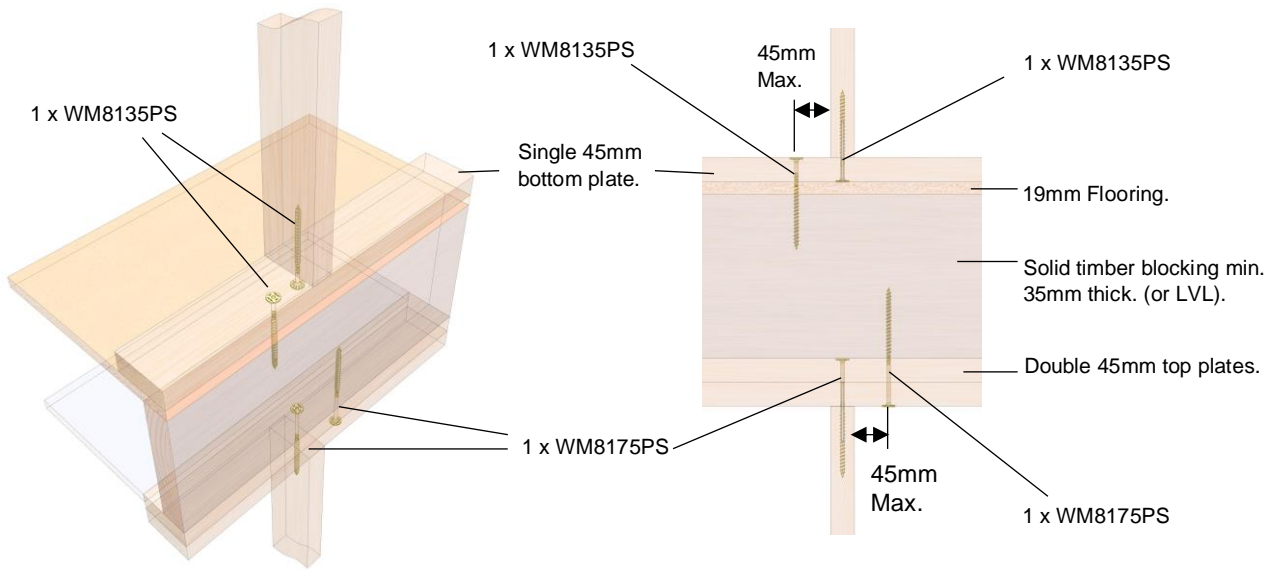
PRYDA FASTFIX™ TIE-DOWN DETAIL D – TIE ROD REPLACEMENT SYSTEM CAPACITIES FOR COMMON FLOOR CONNECTIONS

Design capacities apply for dry (maximum moisture content of 18%) Radiata Pine and Douglas Fir timber grade SG8 and for timber which meets JD5 timber as defined in AS/NZS 1720.

DETAIL D (1) EDGE BEAM CONNECTION

For a floor system with solid timber blocking (typically LVL) for sets of 1 screw to each connection at the center line (CL) of each member the system capacity is 6.4 kN.

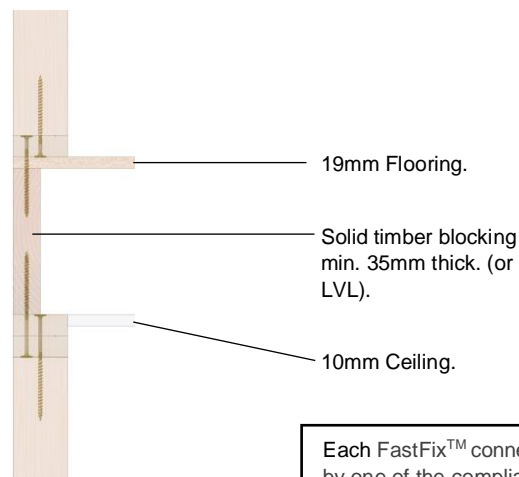
Screws should be fixed at the centerline of each member unless noted otherwise (U.N.O). Screws fixing plate(s) to edge beam can be vertically aligned to one side.



ISOMETRIC VIEW

FRONT VIEW

Typical side elevation detail for single screw connections.

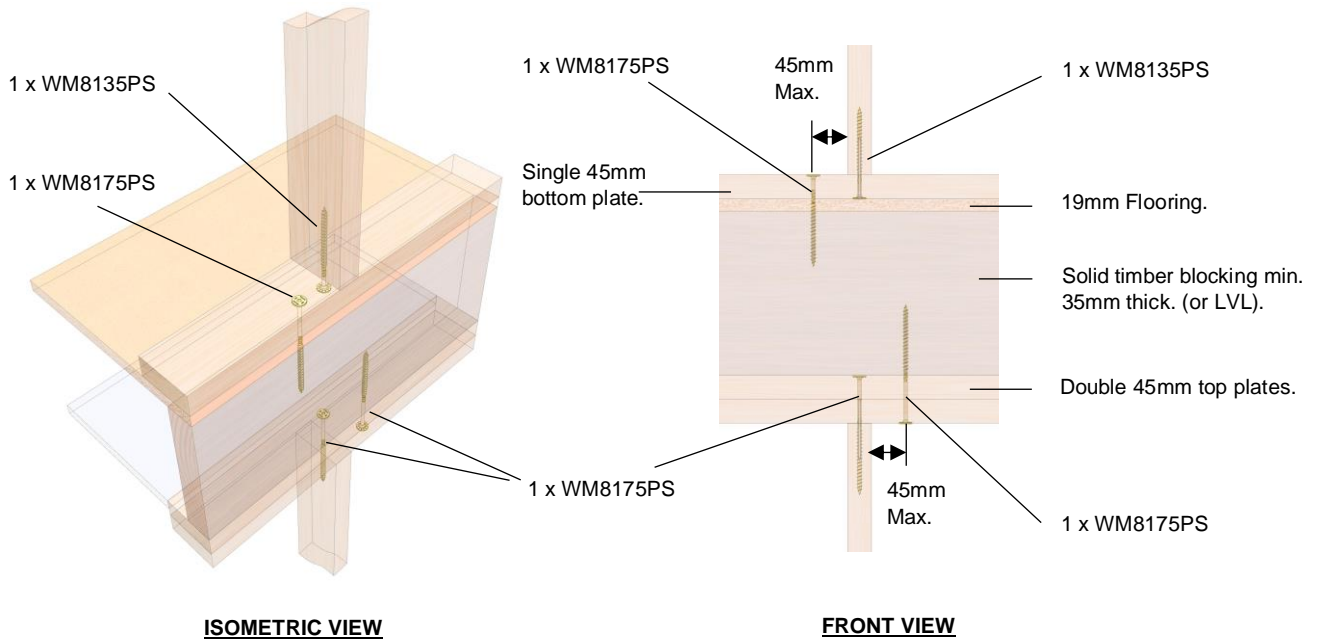


SIDE VIEW

Each FastFix™ connection shall be accompanied by one of the compliance identification options. This is omitted in shown details for clarity purpose.

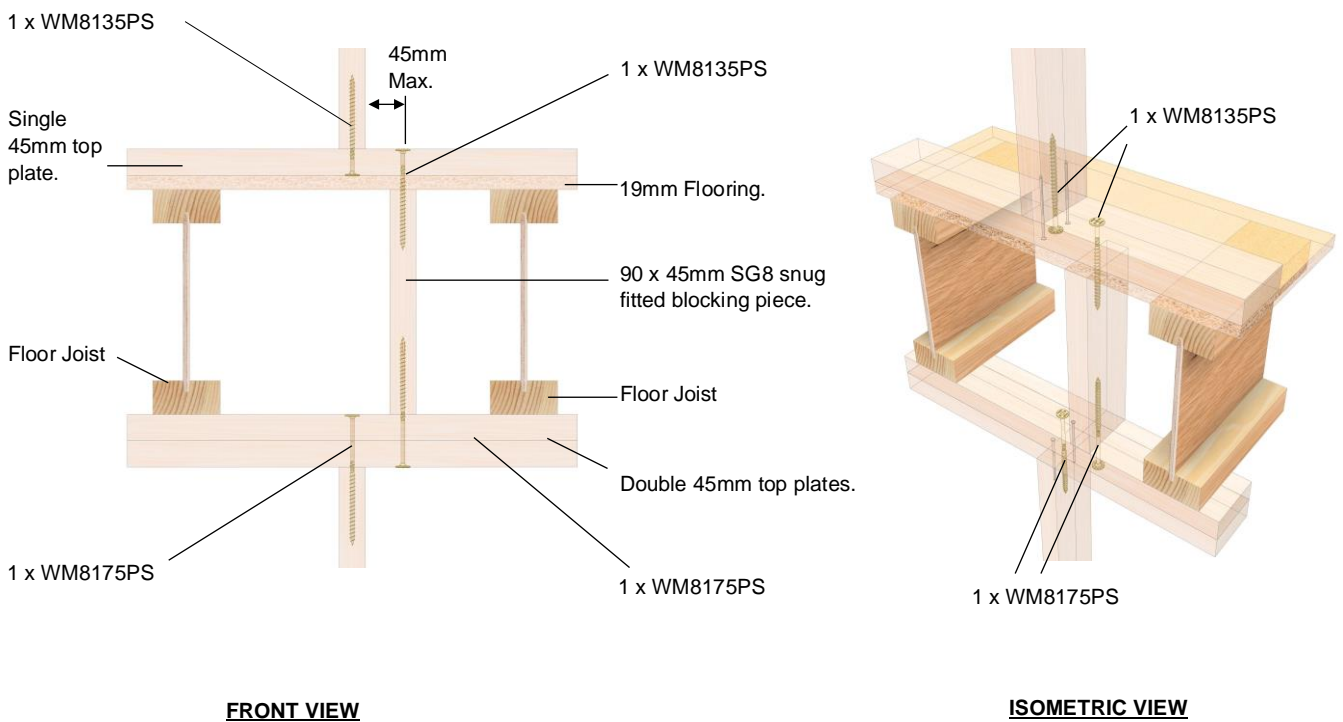
System capacity – assuming minimum 90mm wide timber grade SG8 or better = 6.4 kN

To achieve system capacity of 7.7 kN use 175mm screws in the upper floor connection as below:



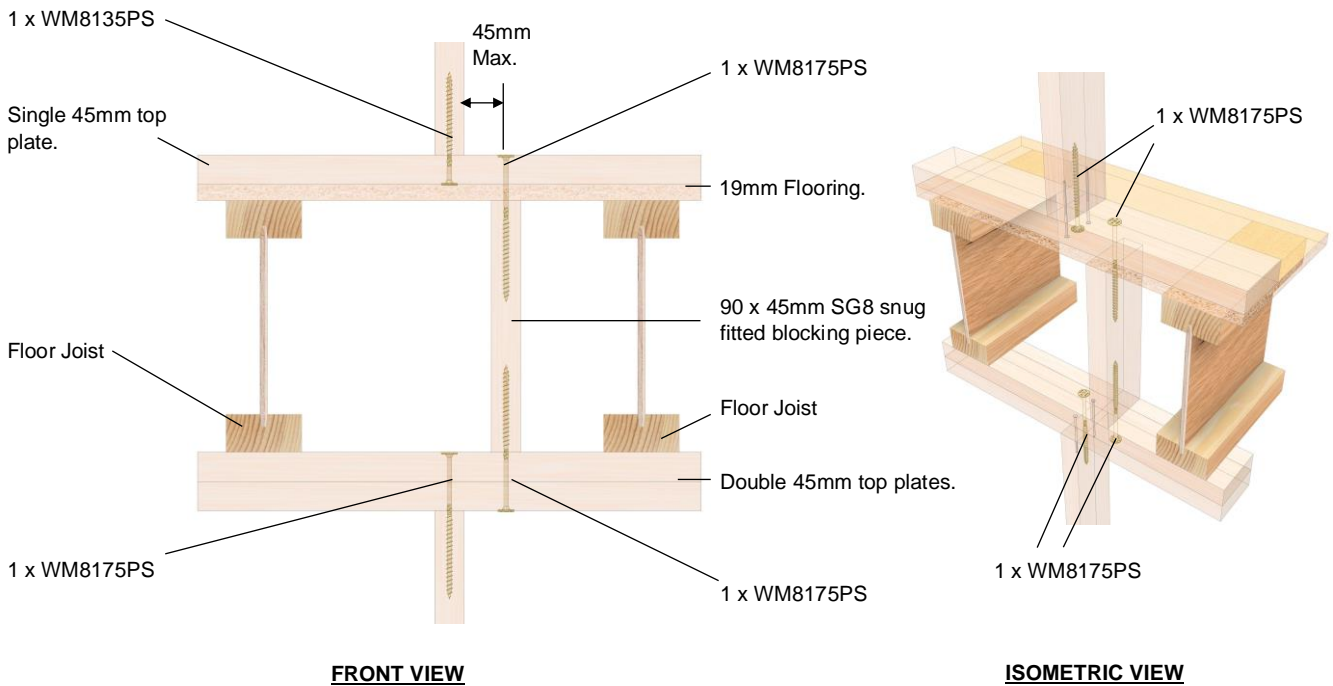
DETAIL D (2) BETWEEN FLOOR JOISTS – CONTINUITY BLOCKING

For floor systems that are not Pryda Span or Longreach (e.g. I joist or steel joists) the following detail can be applied which is to run a blocking piece between the upper and lower floors and screw fix to maintain continuity.



System capacity – assuming minimum 90mm wide timber grade SG8 or better = 6.4 kN

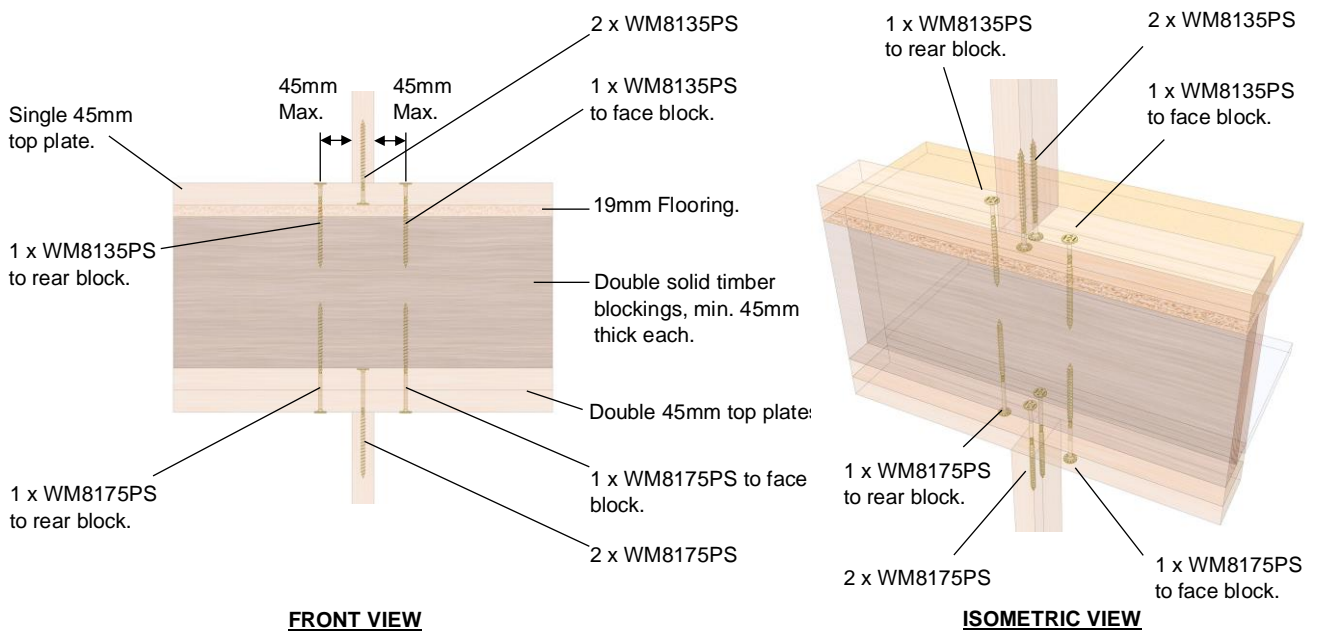
To upgrade the capacity slightly a 175 mm screw can be used through the bottom plate of the upper wall frame which will give the extra thread length needed to develop the full capacity of the screw – i.e. 7.7 kN



System capacity – assuming minimum 70mm wide timber grade SG8 or better = 7.7 kN

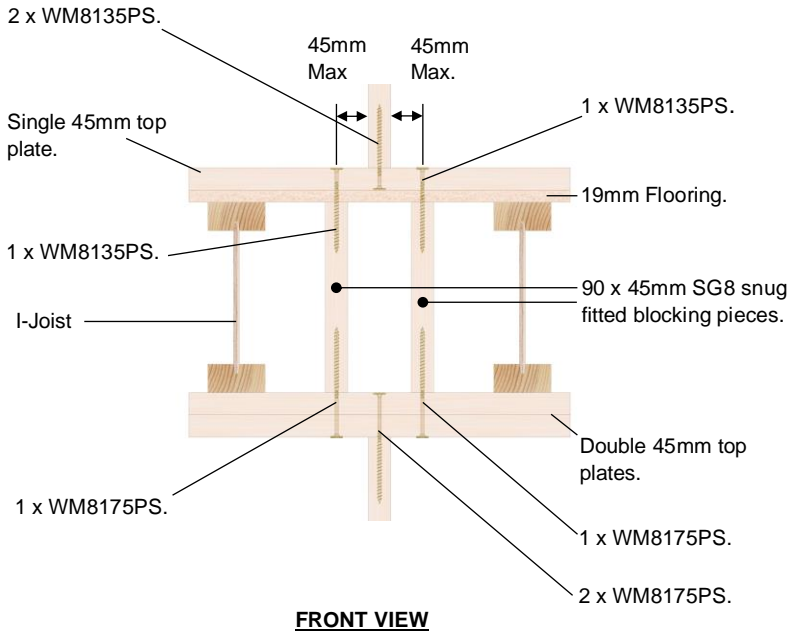
DETAIL D (3) DOUBLE SCREWS WITH 90MM FRAMING

By using double screws, the capacity can be increased further however requires 90mm framing to achieve the spacing between the screws.

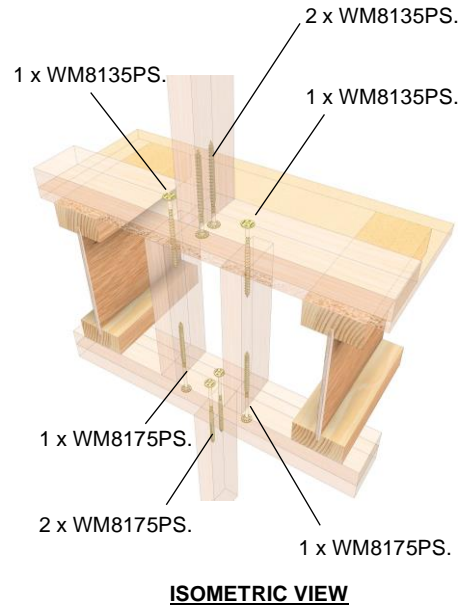


System capacity – assuming minimum 90mm wide timber grade SG8 or better = 12.8 kN

For use with I joists detail below can be used.



FRONT VIEW

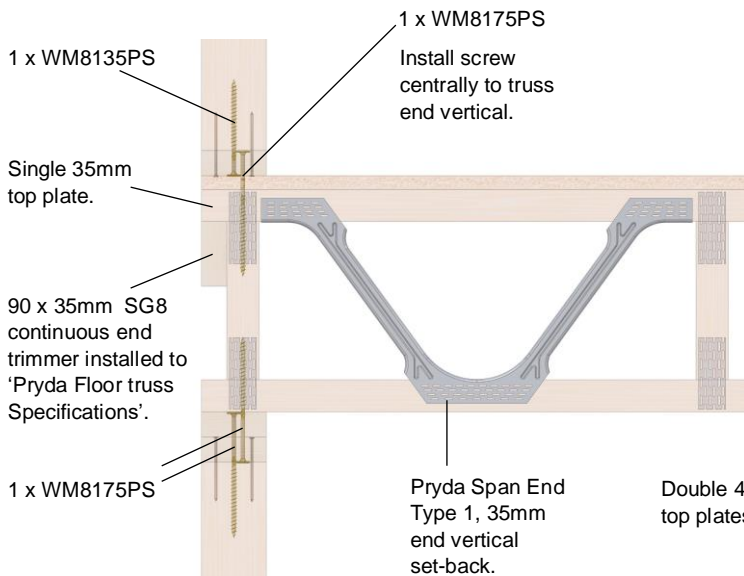


ISOMETRIC VIEW

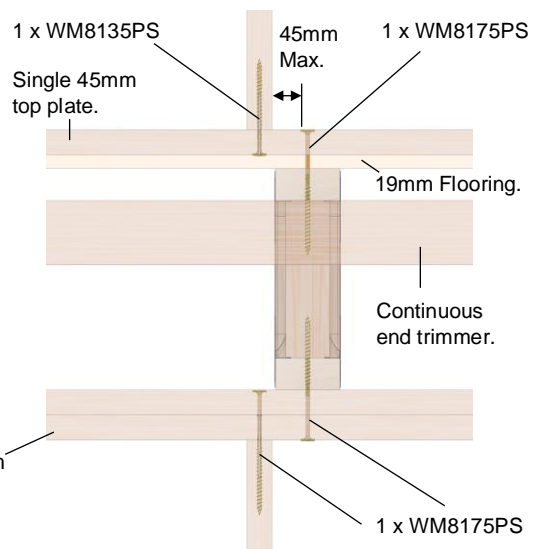
System capacity – assuming minimum 90mm wide timber grade SG8 or better = 12.8 kN

DETAIL D (4) PRYDA SPAN FLOOR TRUSS - CONTINUITY TIE-DOWN THROUGH TRUSS END VERTICAL WEB WITH 35MM SET-BACK

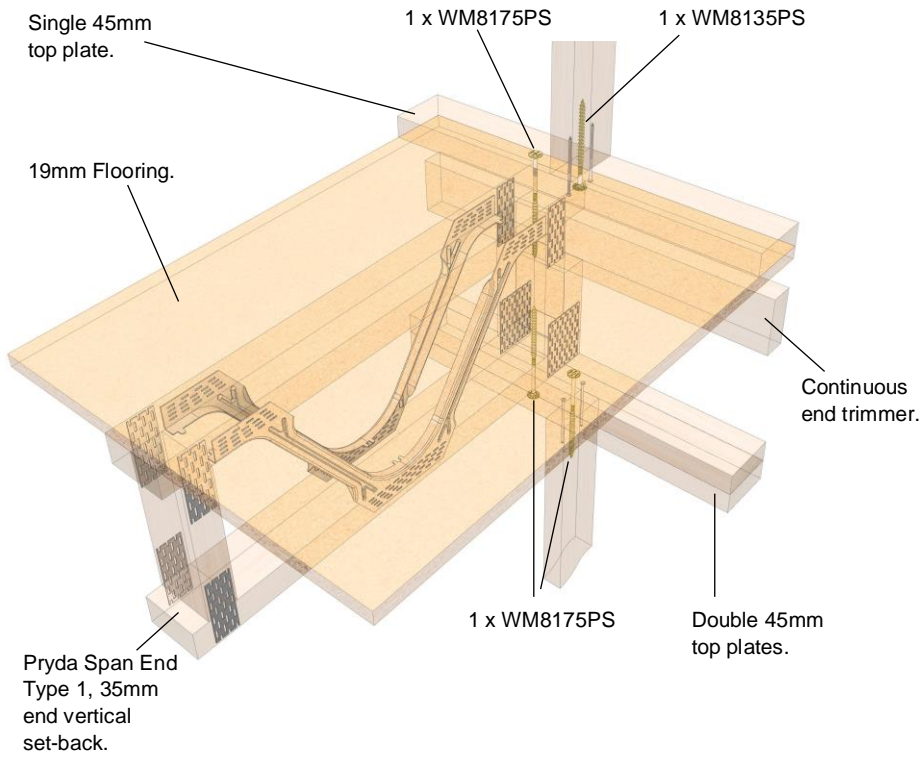
For use with Pryda Longreach or Pryda Span detail below can be used.



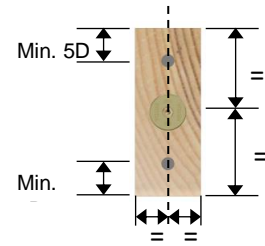
SIDE VIEW



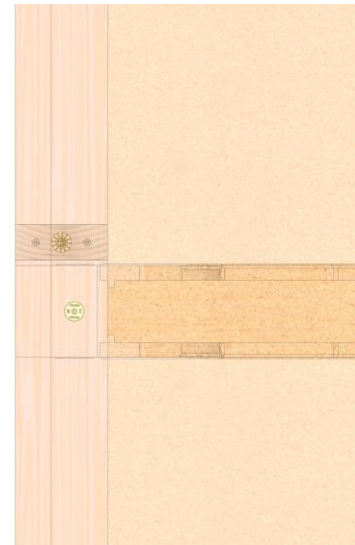
TOP VIEW



ISOMETRIC VIEW



Typical screw centrally located to stud, end web or block end.



TOP VIEW

System capacity – assuming minimum 90mm wide timber grade SG8 or better = 7.7 kN