PRODUCT DATA SHEET

FASTFIX™ STUD TO WALL PLATE SCREW

Quick, safe, strong solution for securing wall plates in stick-built frames.

FEATURES AND BENEFITS

FAST: Unique designed screw tip gives a rapid start, and the coarse thread significantly reduces driving time.

EASY: Standard 5mm hex drive which is available throughout Australia and New Zealand.

DURABLE: Increased thread length for greater capacity than most flat metal stud ties. In addition, two screws can be used in one 90mm stud where only one conventional stud tie is possible.

SPECIFICATIONS

SCREW PRODUCT CODE	WM8135PS, WM8135PSB WM8175PS, WM8175PSB
COMPLIANCE TAG PRODUCT CODE	TAG-135, TAG-175
STEEL	AISI - 1022 Steel
SCREW SIZE	M8 x 135mm or 175mm with 5mm Hex Drive
CORROSION RESISTANCE	Yellow Zinc Chromate as per AS/NZS 1789 - 2023

NOTE: THE WM8135PS AND WM8175PS MUST NOT BE USED AS A TRUSS TIE DOWN.

AS1684 COMPLIANT

- Pryda Screws have been laboratory tested for Stud to Wall Plate connections.

All screws are head stamped to ensure quality and instant identification

SCREW AND COMPLIANCE TAG AVAILABILITY

PRODUCT CODE	SIZE	PACK QUANTITY
WM8135PS	M8 X 135mm	50
WM8135PSB	M8 X 135mm	300
WM8175PS	M8 X 175mm	50
WM8175PSB	M8 X 175mm	300
TAG-135		50
TAG-175		50

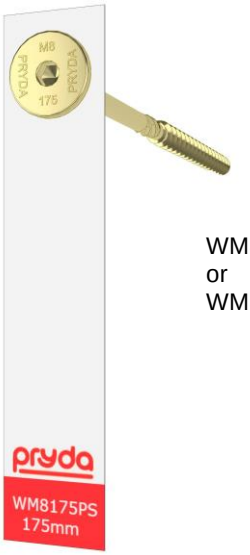
Note:

WM8135PS and WM8135PSB are the same product in different pack quantities and therefore interchangeable for any applied applications using the M8 x 135mm screw.

WM8175PS and WM8175PSB are the same product in different pack quantities and therefore interchangeable for any applied applications using the M8 x 175mm screw.

TAG-135

WM8135PS
or
WM8135PSB



TAG-175

WM8175PS
or
WM8175PSB

SCREW CAPACITIES

Single wall plate into side grain.

Double wall plates into side grain.

Single wall plate into end grain.

Double wall plates into end grain.

PRODUCT CODE	SINGLE WALL PLATE	
	35mm	45mm
WM8135PS	7.9 kN	7.1 kN

PRODUCT CODE	DOUBLE WALL PLATES	
	2 x 35mm	2 x 45mm
WM8135PS	5.1 kN	3.5 kN
WM8175PS	7.9 kN	6.7 kN

Notes:

1. Minimum wall plate width 70mm.
2. Limit State Design capacities are shown in the table for Wind uplift.
3. Design capacities apply for timber which meets JD5 timber (i.e., MGP10 Structural pine) as defined in AS/NZS 1720.
4. Compliance TAG for easy identification shown in detail are sold separately. Identification methods may vary, seek Pryda advice for more details.
5. Screw head is stamped with unique screw size and length identifier.

APPLICATION AND SCOPE OF USE

Pryda FastFixTM 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 per AS 1684.

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

STORAGE AND HANDLING

Prior to use, the Pryda products shall be stored in a weatherproof environment and protected from moisture. Care must be taken to avoid any damage to the surface of the product protective galvanised coating and profile that may impact the performance.

INSTALLATION

Drive the screw vertically at the centreline of the top plate and stud. The screw should be driven so that the head is flush with the top plate.

Pryda Screw used with standard Multigrip secured to ribbon plate. Use 175mm screw installed through the top plate and ribbon plate.

Pryda Screw used with Long Multigrip secured to top plate. Use 135mm screw installed through top plate only.

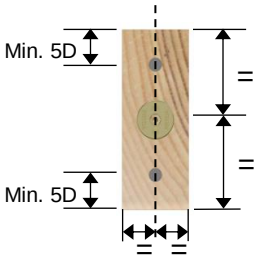
PRYDA FASTFIX™ LINTEL TIE-DOWN DETAIL A1 – DOUBLE TOP PLATES TO SINGLE JAMB STUD

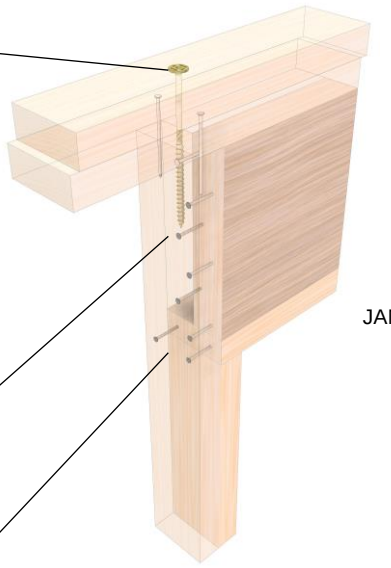
Screw design capacities are based on testing conducted on seasoned radiata pine MGP10 timber with a dry density greater than 450kg/m3.

TOP PLATES CONNECTION

DOUBLE TOP PLATES
(2 x 90 x 35mm or 2 x 90 x 45mm)

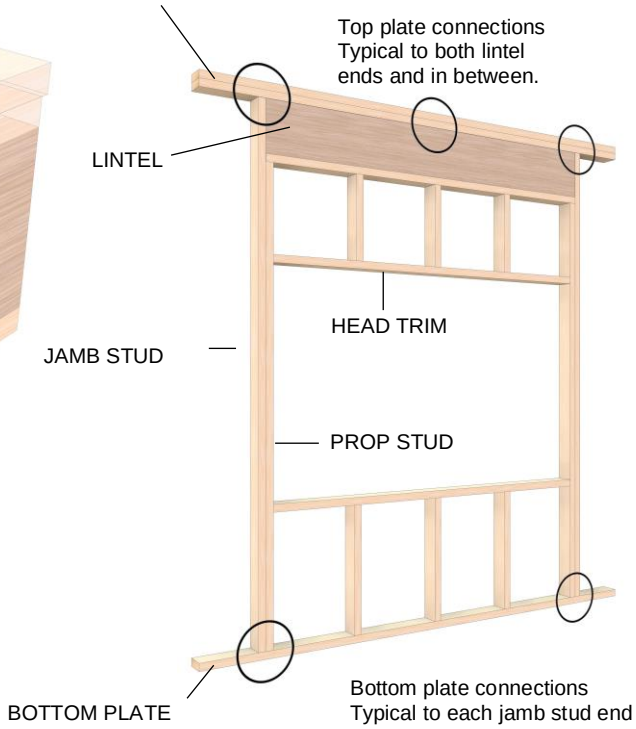
TOP PLATE TO JAMB STUD
Pryda Screw
WM8175PS and
2 x 90 x 3.15mm nails shown.
See table for other options and capacities.





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.

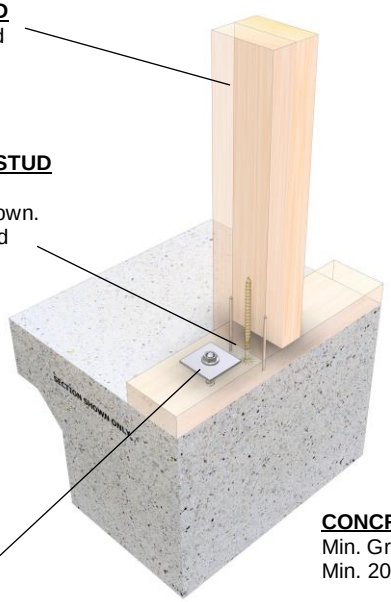


BOTTOM PLATE CONNECTION

All intermediate jack to top/bottom plate, jack to lintel and jack to headers to be installed to AS1684 or approved details.

JAMB STUD TO PROP STUD
Nail laminate @250 staggered centres to AS1684.

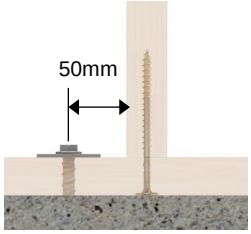
BOTTOM PLATE TO JAMB STUD
Pryda Screw WM8135
and 2 x 90 x 3.15mm nails shown.
See table for other options and capacities.



PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)	
	2 x 35mm	2 x 45mm
WM8135PS	5.1	3.5
WM8175PS	7.9	6.7

Refer to Appendix A for:
- 'General notes' for installation conditions.
- For Baltic MGP10 stud design capacities.

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



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.

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

Screw design capacities are based on testing conducted on seasoned radiata pine MGP10 timber with a dry density greater than 450kg/m3.

TOP PLATES CONNECTION

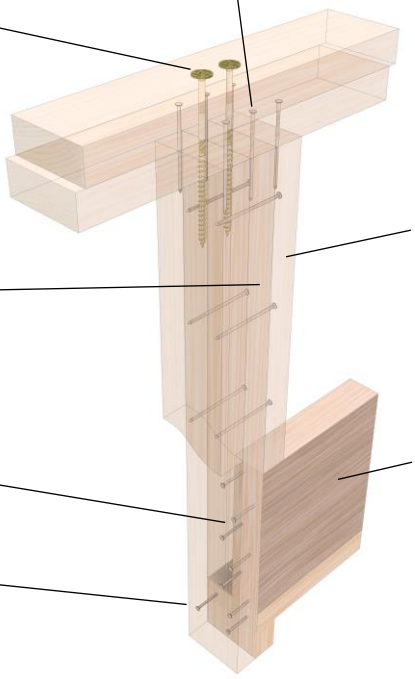
TOP PLATE TO EACH JAMB STUDS
Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown. See table for other options and capacities.

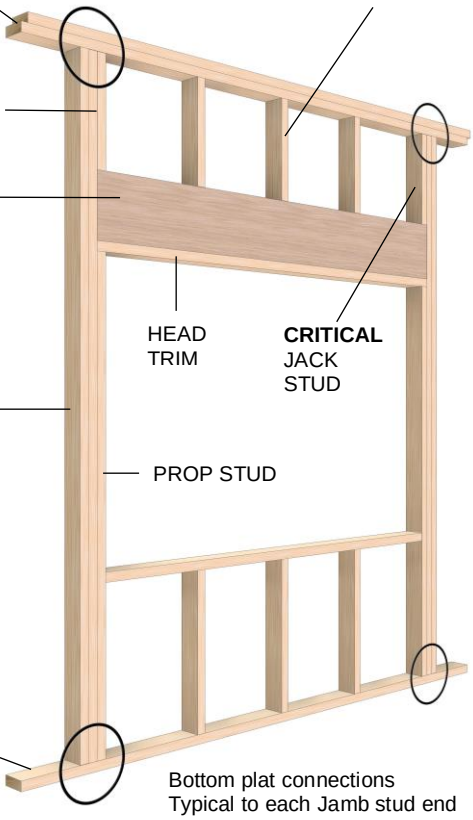
TOP PLATE TO JACK STUD
2 x 90 x 3.15mm nails.

CRITICAL JACK STUD TO JAMB STUD
6 x 90 x 3.15mm nails.

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.



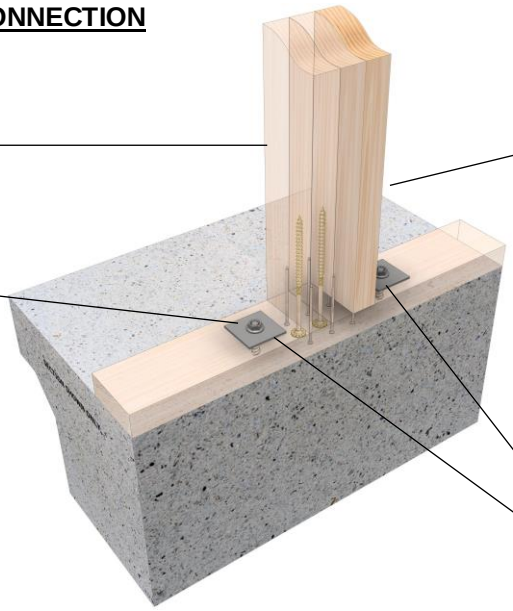


BOTTOM PLATE CONNECTION

JAMB STUD TO JAMB STUD
Nail laminate @250 staggered centres to AS1684.

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 @250 staggered centres to AS1684.

All intermediate jack to top/bottom plate, jack to lintel and jack to headers to be installed to AS1684 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)			
	35mm	45mm	2 x 35mm	2 x 45mm
2 X WM8135PS	14	12.8	9.1	6.4
2 X WM8175PS	14	14	14	12.6

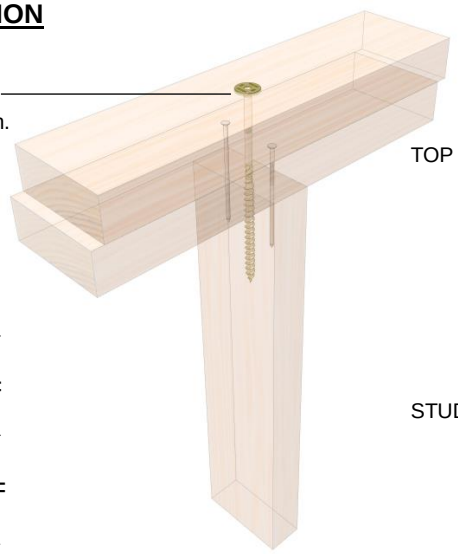
Refer to Appendix A for:
- 'General notes' for installation conditions.
- For Baltic MGP10 stud design capacities.

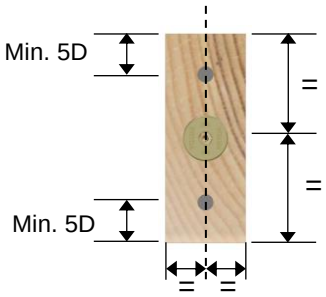
PRYDA FASTFIX™ TOP PLATE TIE-DOWN DETAIL B – TYPICAL DOUBLE TOP PLATES TO SINGLE STUD AND SINGLE BOTTOM PLATE TO STUD CONNECTION

Screw design capacities are based on testing conducted on seasoned radiata pine MGP10 timber with a dry density greater than 450kg/m3.

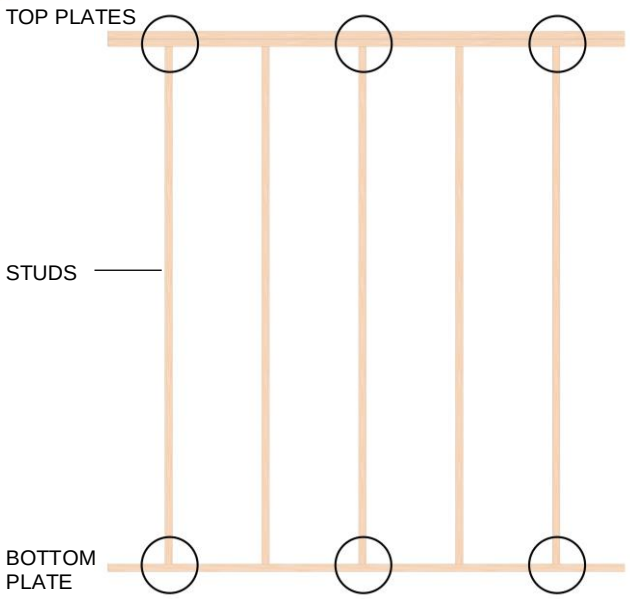
TOP PLATES CONNECTION

TOP PLATES TO EACH STUD
Pryda Screw WM8175PS
and 2 x 90 x 3.15mm nails shown.
See table for other options and capacities.





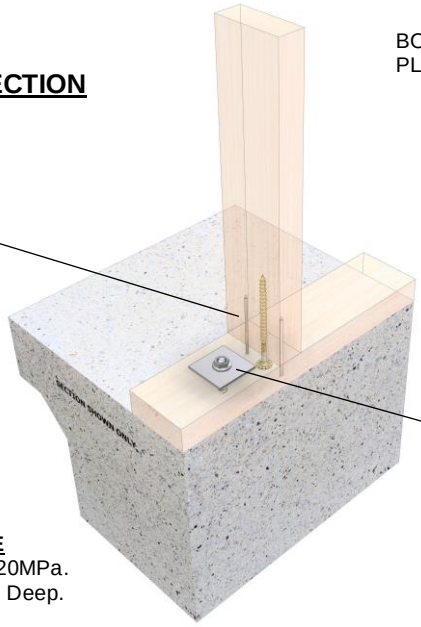
Typical Top plate connections
Installed at required design spacing



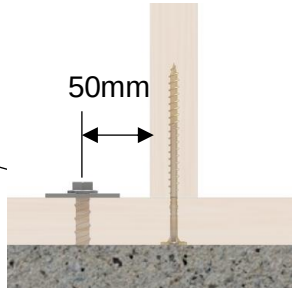
Typical Bottom plate connections at required design spacing

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.



PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)	
	2 x 35mm	2 x 45mm
WM8135PS	5.1	3.5
WM8175PS	7.9	6.7
PRODUCT CODE	SINGLE WALL PLATE UPLIFT (kN)	
	35mm	45mm
WM8135PS	7.9	7.1

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.

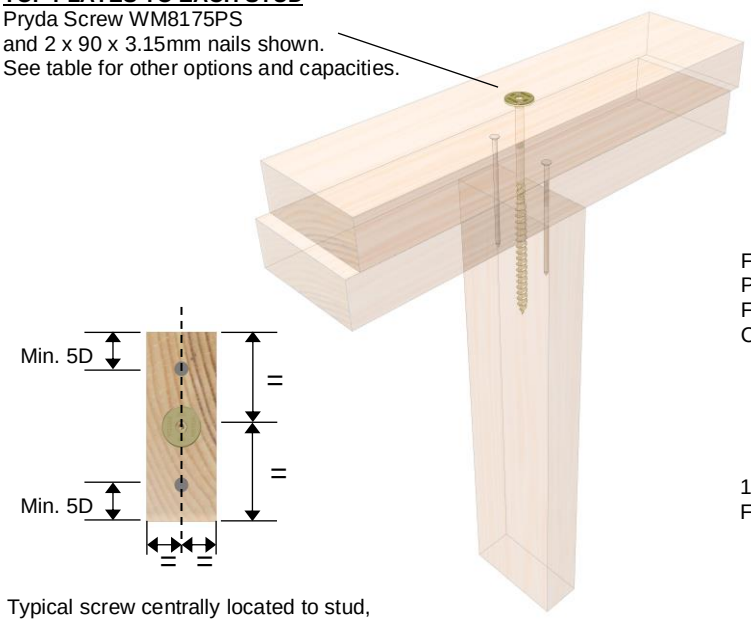
Refer to Appendix A for:
- 'General notes' for installation conditions.
- For Baltic MGP10 stud design capacities.

PRYDA FASTFIX™ TIE-DOWN DETAIL C – UPPER FLOOR TIE-DOWN TO GROUND FLOOR CONNECTION CHAIN

Screw design capacities are based on testing conducted on seasoned radiata pine MGP10 timber with a dry density greater than 450kg/m3.

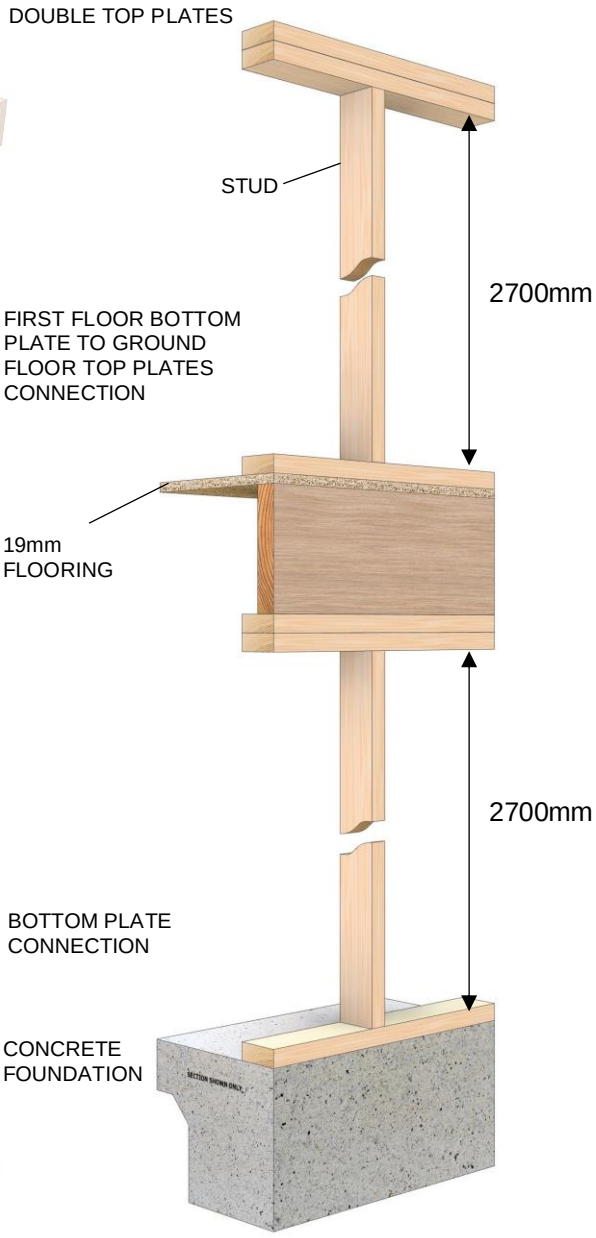
TOP PLATES CONNECTION

TOP PLATES TO EACH STUD
Pryda Screw WM8175PS
and 2 x 90 x 3.15mm nails shown.
See table for other options and capacities.



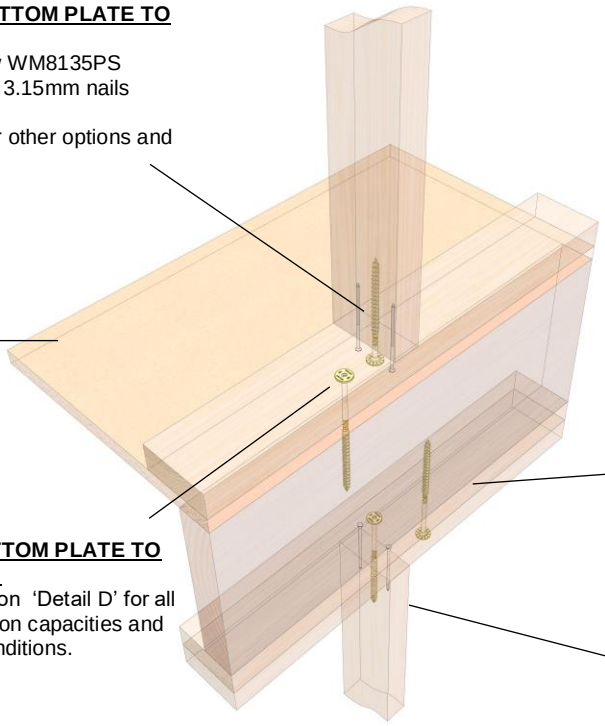
Typical screw centrally located to stud, end web or block end.

SECOND FLOOR TOP PLATE CONNECTION CHAIN



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.



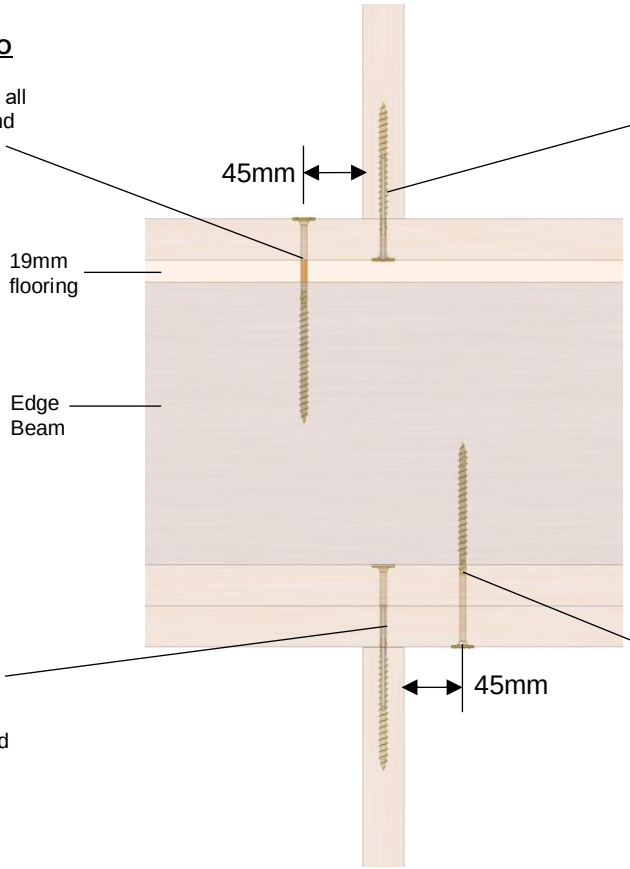
GROUND FLOOR DOUBLE TOP PLATES TO EDGE BEAM.
Refer to section 'Detail D' for all floor connection capacities and governing conditions.

SINGLE BOTTOM PLATE TO 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.

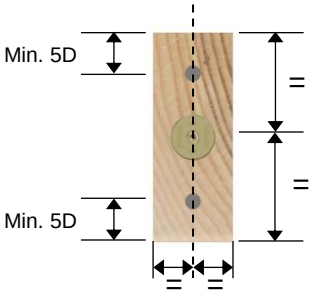
SINGLE BOTTOM PLATE TO STUD
Pryda Screw WM8135PS and 2 x 90 x 3.15mm nails shown.
See table for other options and capacities.



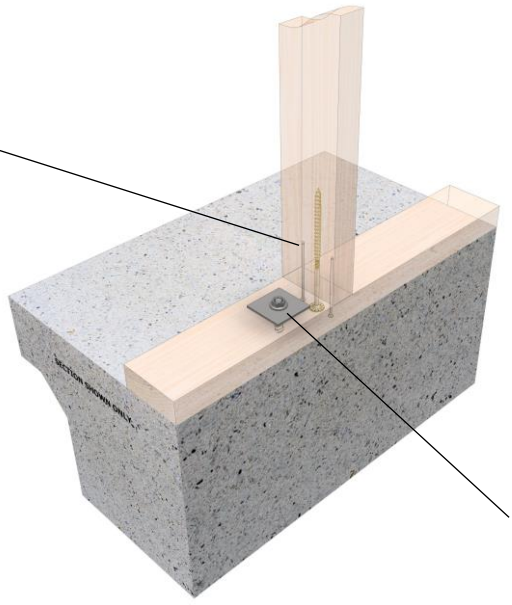
GROUND FLOOR DOUBLE TOP PLATES TO STUD
Pryda Screw WM8175PS and 2 x 90 x 3.15mm nails shown.
See table for other options and capacities.

GROUND FLOOR DOUBLE TOP PLATES TO EDGE BEAM.
Refer to section 'Detail D' for all floor connection capacities and governing conditions.

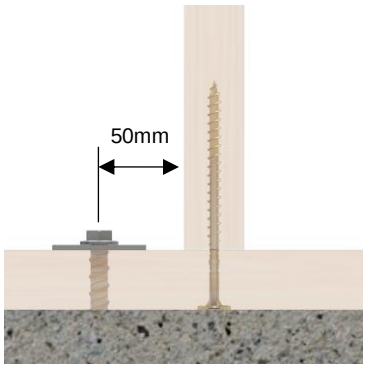
SINGLE BOTTOM PLATE TO STUD
Pryda Screw WM8135PS and 2 x 90 x 3.15mm nails shown.
See table for other options and capacities.



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



CONCRETE
Min. Grade 20MPa
Min. 200mm Deep



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.

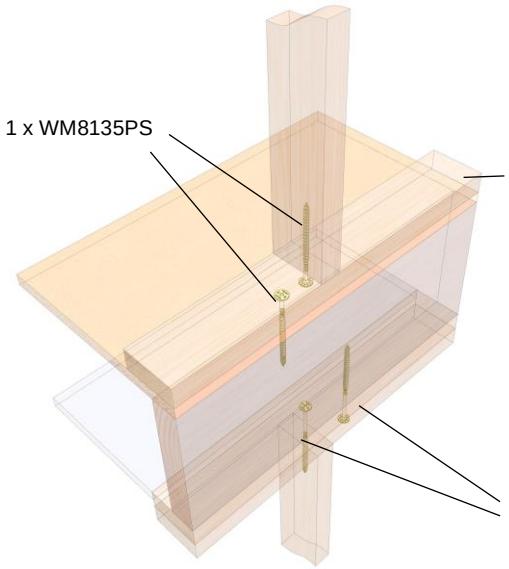
PRYDA FASTFIX™ TIE-DOWN DETAIL D – TIE ROD REPLACEMENT SYSTEM CAPACITIES FOR COMMON FLOOR CONNECTIONS

Screw design capacities are based on testing conducted on seasoned radiata pine MGP10 timber with a dry density greater than 450kg/m3.

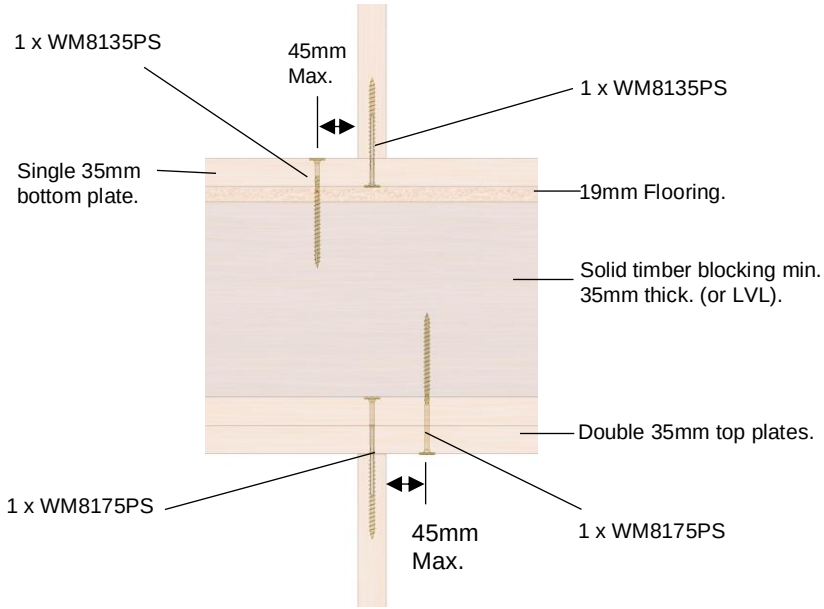
DETAIL D (1) EDGE BEAM CONNECTION

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 6.4kN.

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.

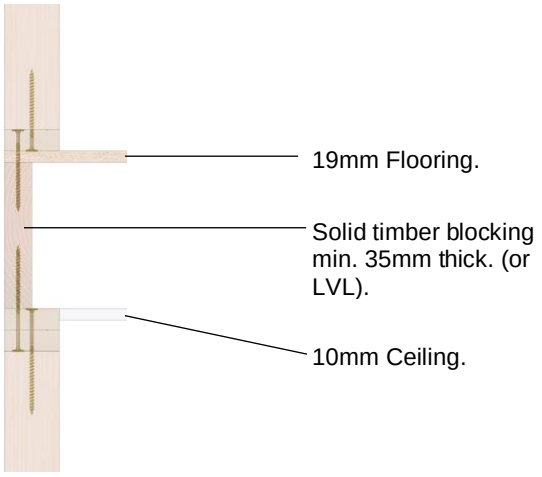


ISOMETRIC VIEW



FRONT VIEW

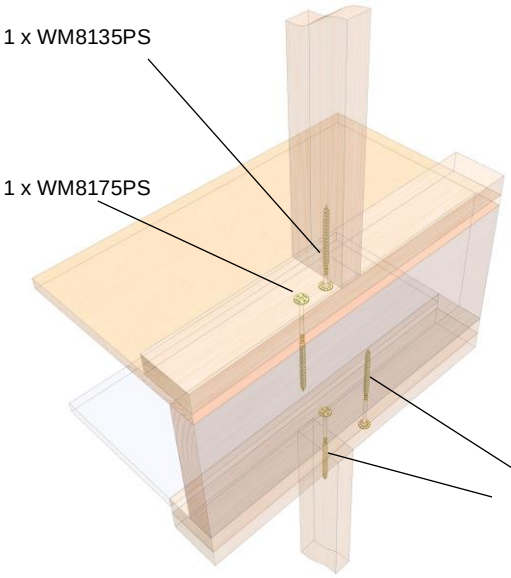
Typical side elevation detail for single screw connections.



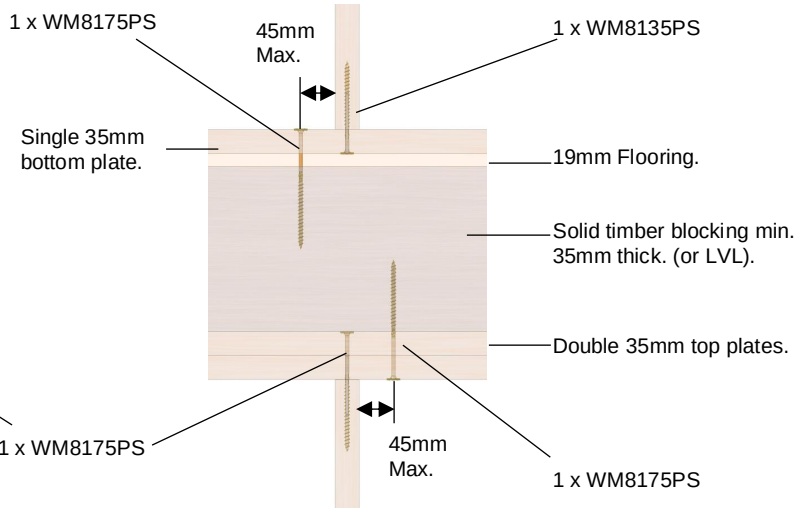
SIDE VIEW

System capacity – assuming minimum 70mm wide timber grade MGP10 or better = 6.4 kN

To achieve system capacity of 7.9 kN use 175mm screws in the upper floor connection as below:



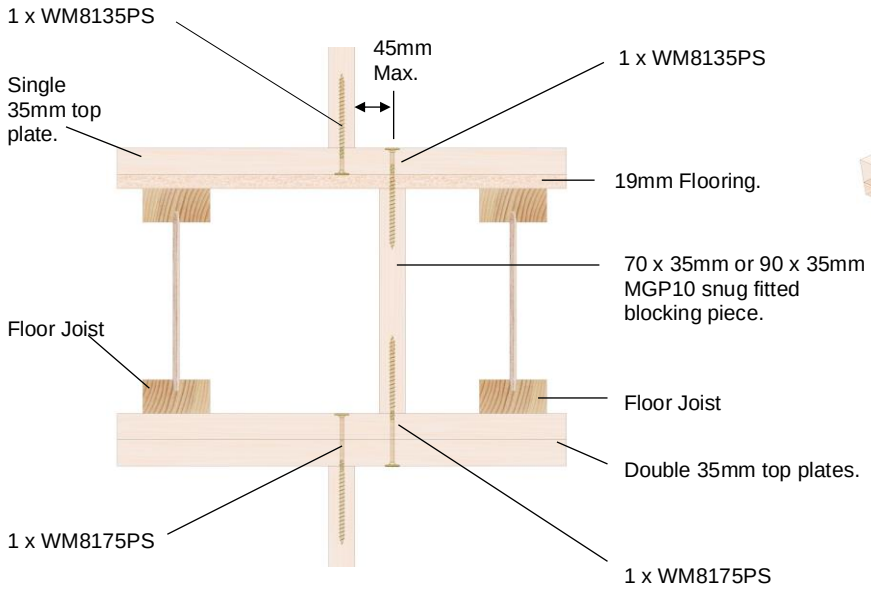
ISOMETRIC VIEW



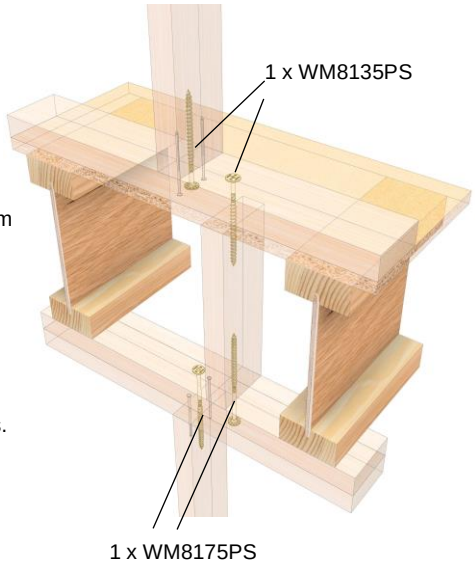
FRONT VIEW

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.



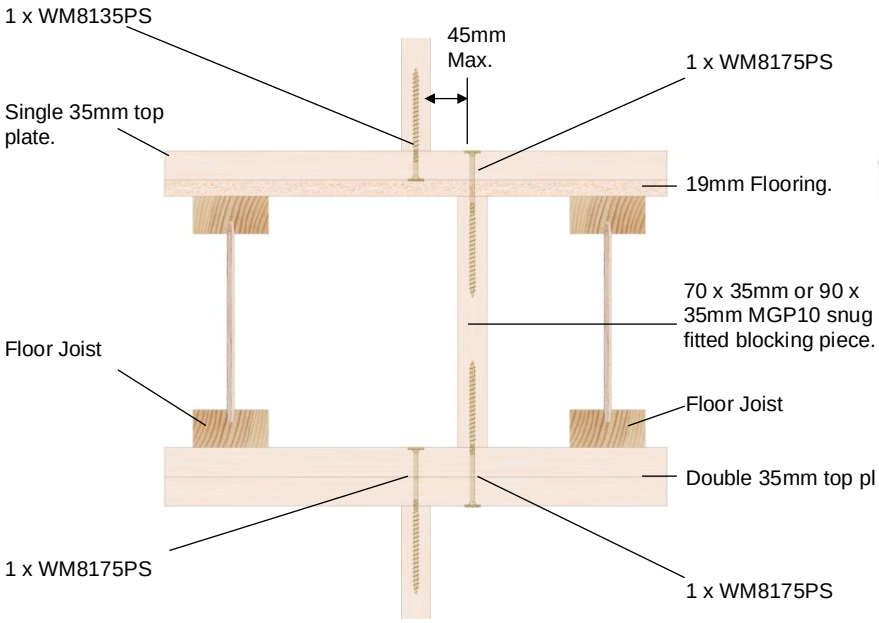
FRONT VIEW



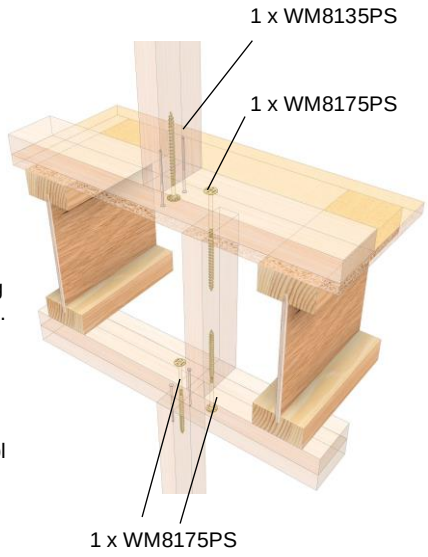
ISOMETRIC VIEW

System capacity – assuming minimum 70mm wide timber grade MGP10 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., 7.9kN



FRONT VIEW

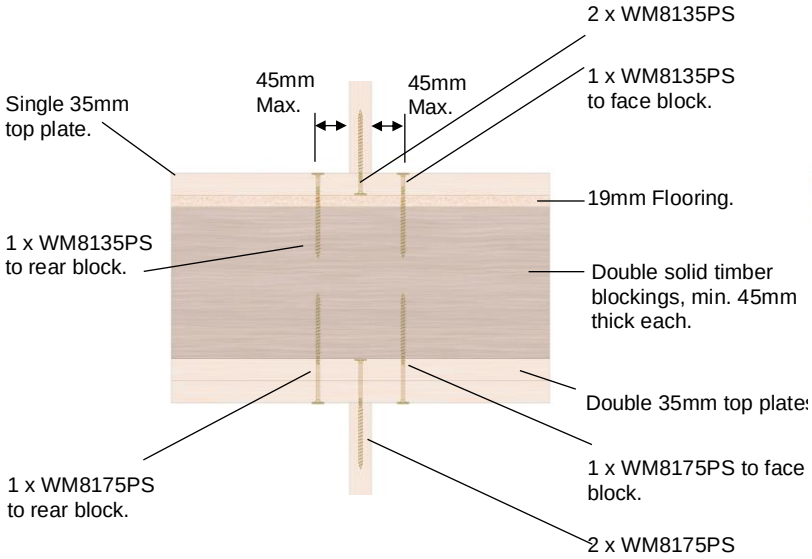


ISOMETRIC VIEW

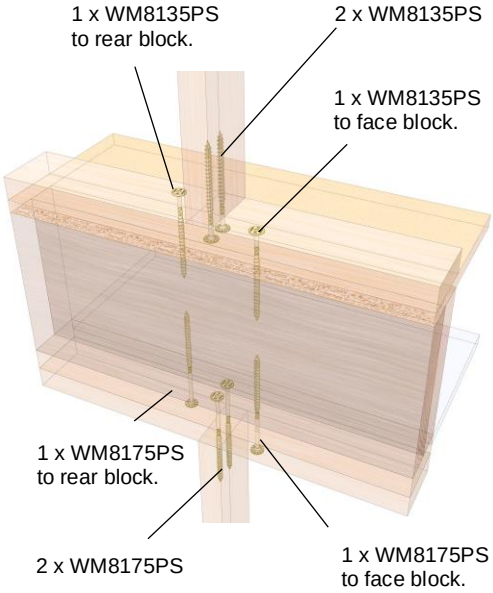
System capacity – assuming minimum 70mm wide timber grade MGP10 or better = 7.9 kN

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.



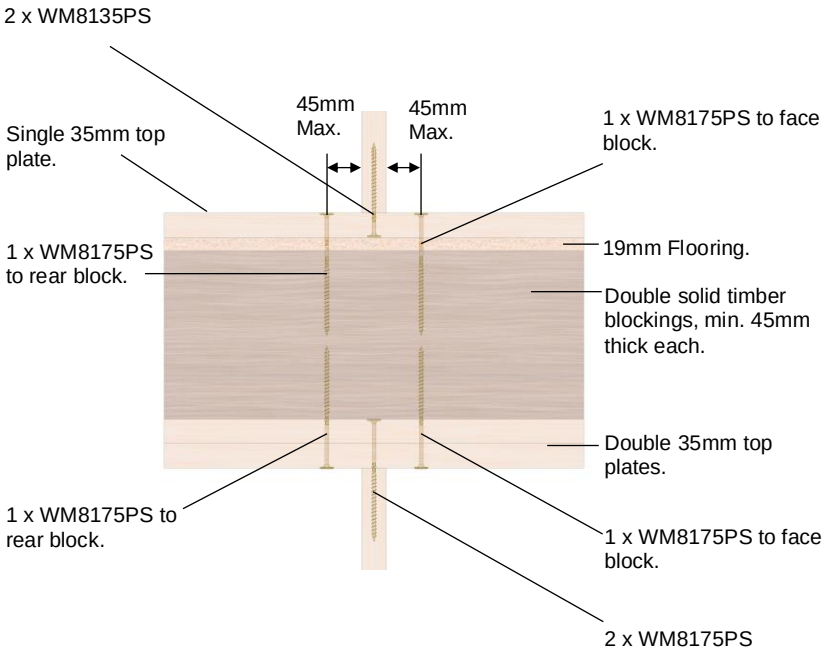
FRONT VIEW



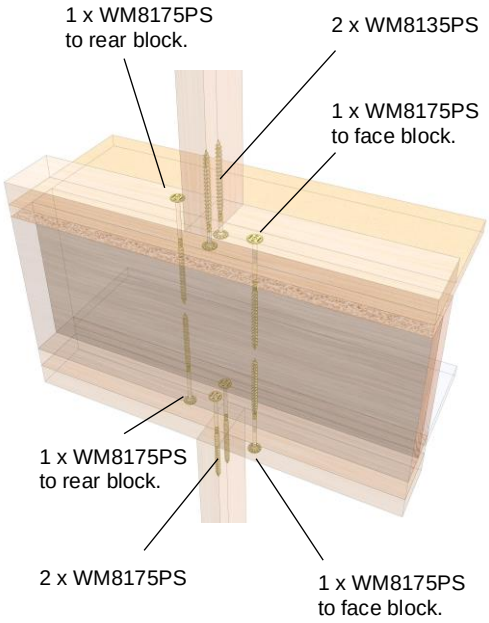
ISOMETRIC VIEW

System capacity – assuming minimum 90mm wide timber grade MGP10 or better = 12.8 kN

To get additional capacity to 14 kN use the WM8175PS in the upper floor – see below:

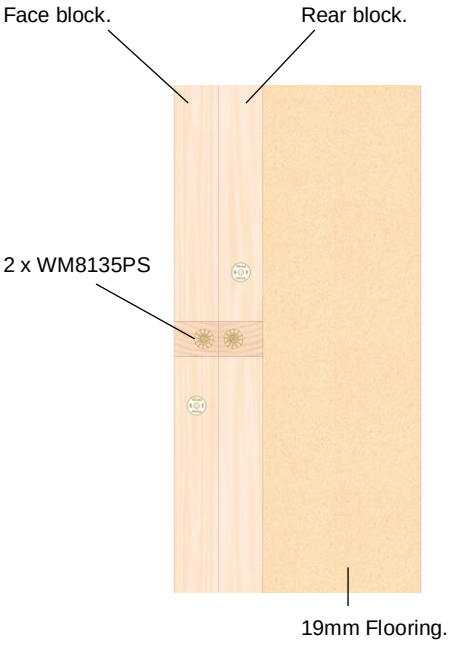


FRONT VIEW

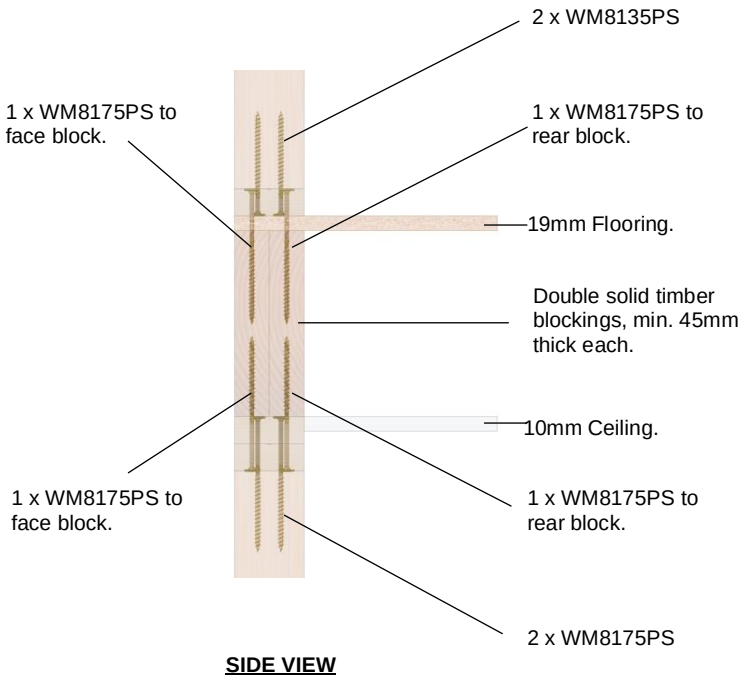


ISOMETRIC VIEW

Typical top and side elevations D (3) details:



TOP VIEW

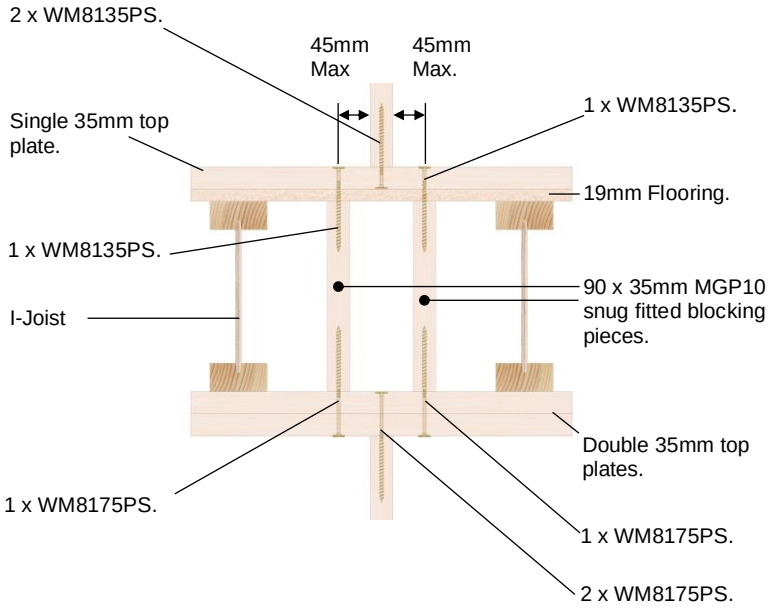


SIDE VIEW

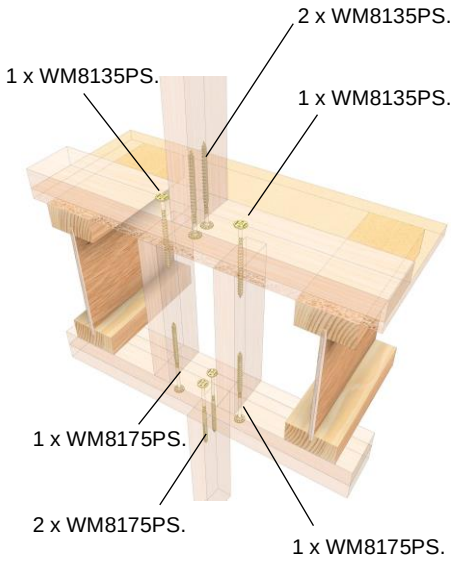
System capacity – assuming minimum 90mm wide timber grade MGP10 or better = 14 kN

DETAIL D (4) BETWEEN FLOOR JOISTS – CONTINUITY BLOCKINGS

For use with I joists / steel beams detail below can be used.

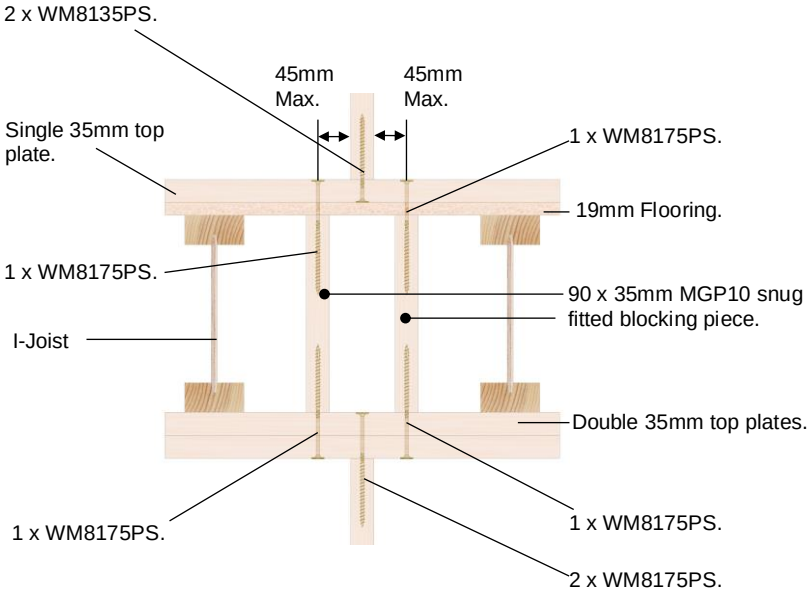


FRONT VIEW

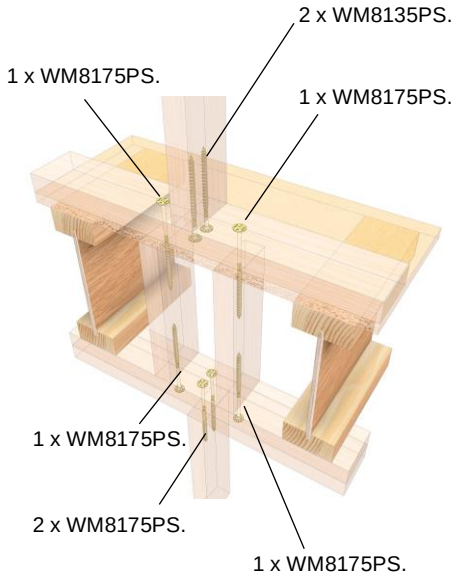


ISOMETRIC VIEW

System capacity – assuming minimum 90mm wide timber grade MGP10 or better = 12.8 kN



FRONT VIEW

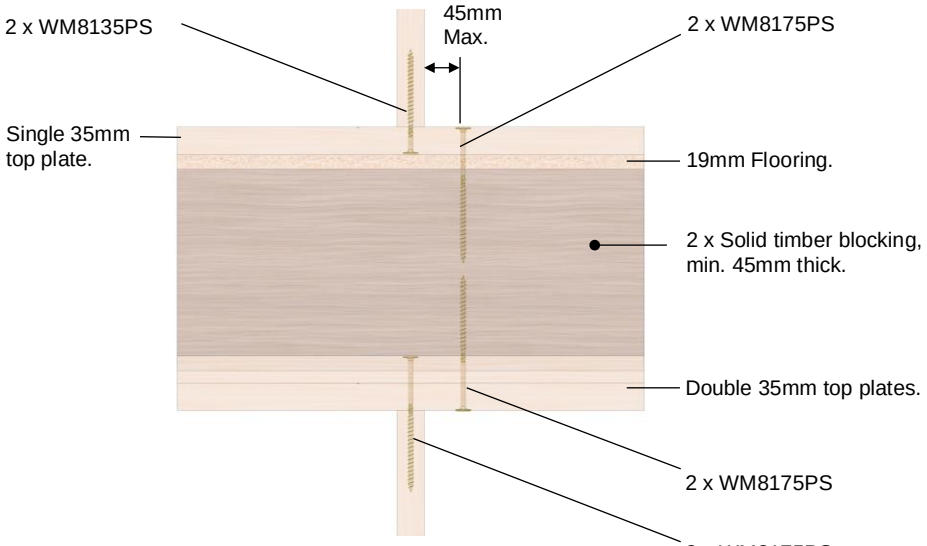


ISOMETRIC VIEW

System capacity – assuming minimum 90mm wide timber grade MGP10 or better = 14 kN

DETAIL D (5) BETWEEN FLOOR JOISTS – EDGE BEAM SINGLE SIDE

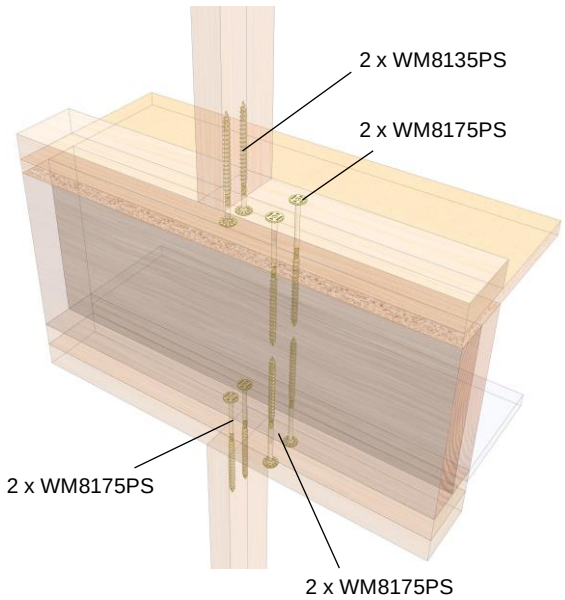
When fixing is restricted to one side only capacity is required to be reduced to 10kN due to the reduced shear capacity of the bottom plate.



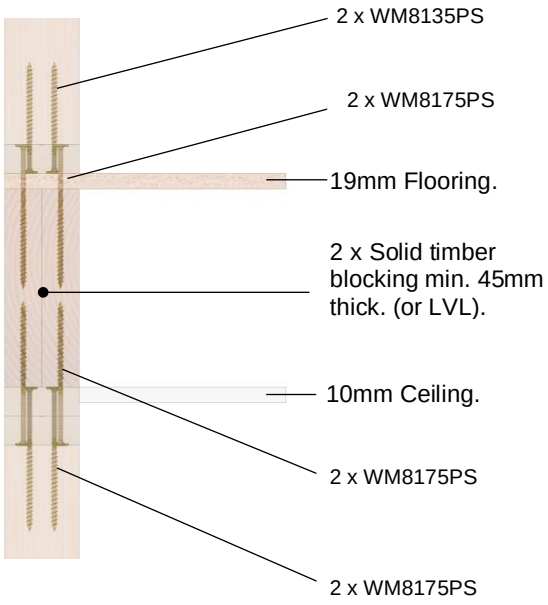
FRONT VIEW

TOP VIEW

Typical side elevation detail:



ISOMETRIC VIEW

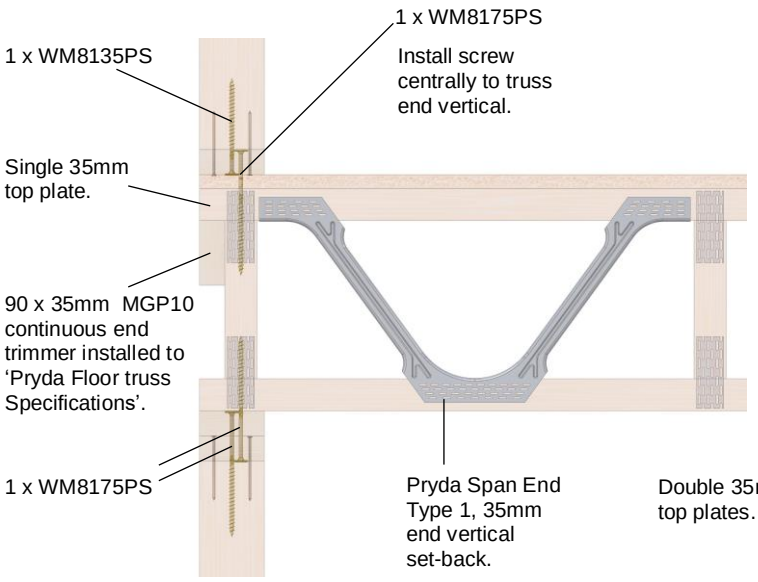


SIDE VIEW

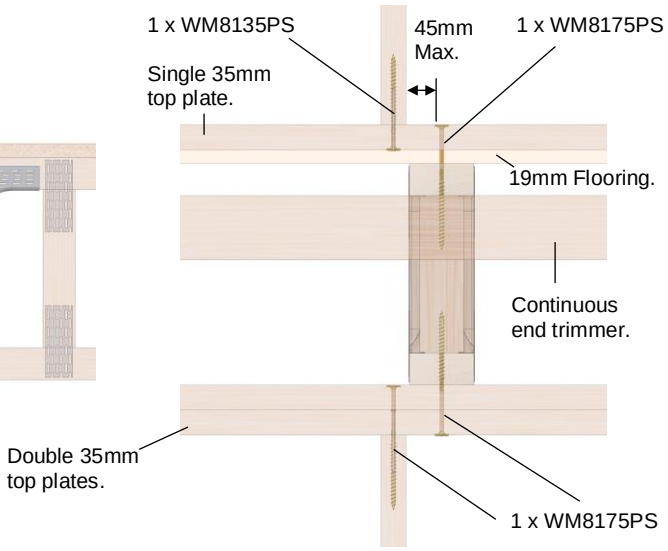
System capacity – assuming minimum 90mm wide timber grade MGP10 or better = 10 kN

DETAIL D (6) PRYDA SPAN FLOOR TRUSS - CONTINUITY TIE-DOWN THROUGH TRUSS END VERTICAL WEB WITH 35MM SET-BACK

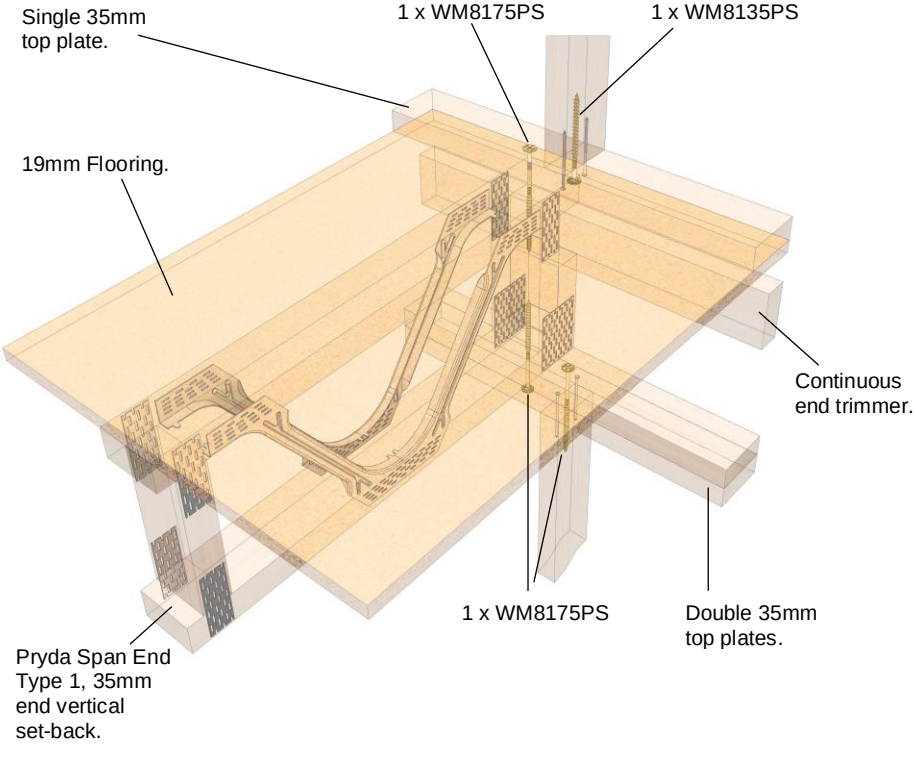
For use with Pryda Longreach or Pryda Span, detail below can be used.



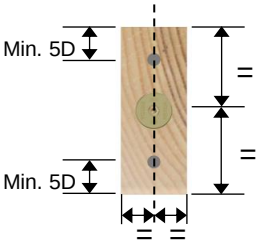
SIDE VIEW



TOP VIEW



ISOMETRIC VIEW

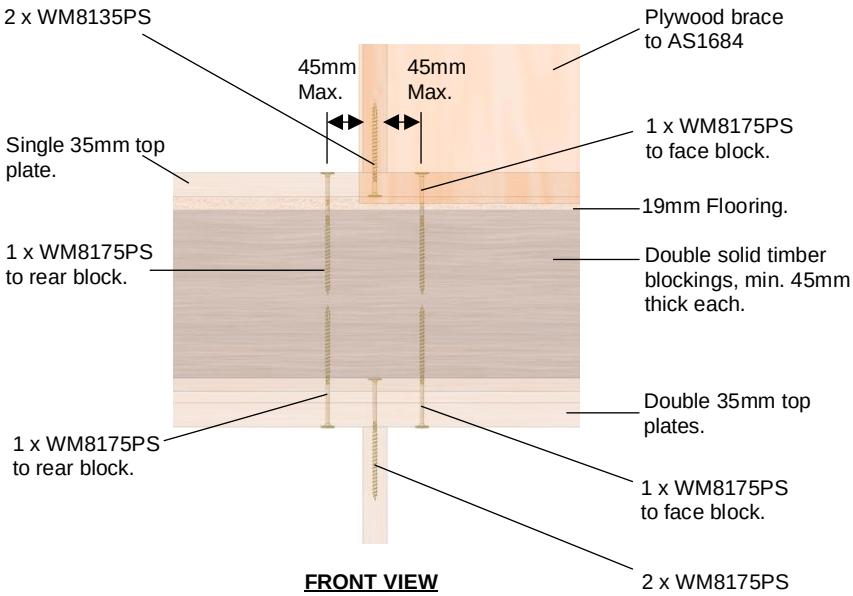


Typical screw centrally located to stud, end web or block end.

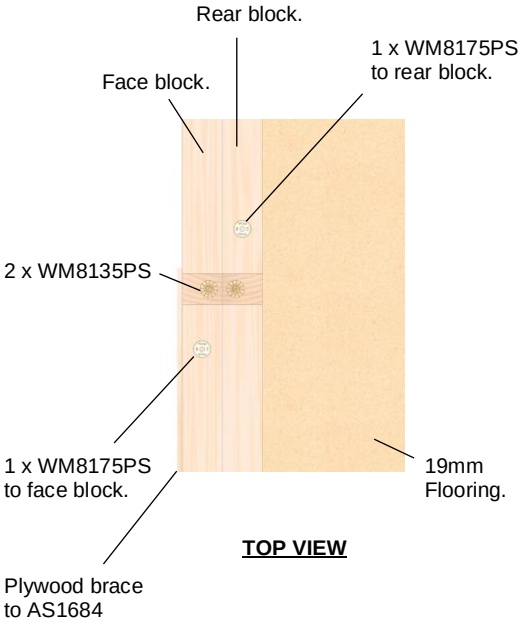
TOP VIEW

System capacity – assuming minimum 90mm wide timber grade MGP10 or better = 7.9 kN

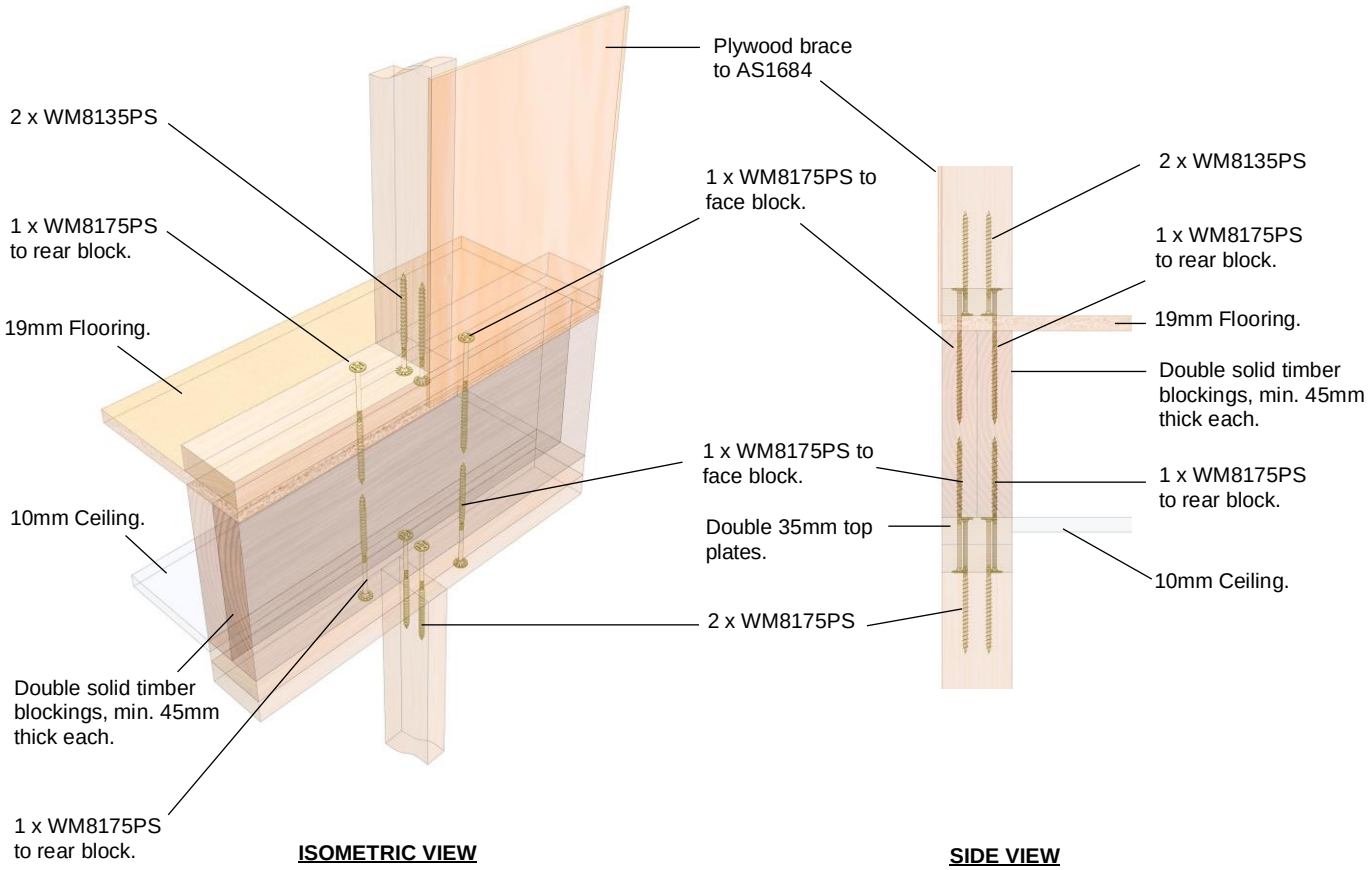
DETAIL D (7) 6kN/m Plywood bracing unit end tie-down to AS1684



FRONT VIEW



TOP VIEW



ISOMETRIC VIEW **SIDE VIEW**

System capacity – assuming minimum 90mm wide timber grade MGP10 or better = 14 kN

APPENDIX A for Baltic stud / plate combinations

Stud / Plate combinations:

General Notes applicable to all tables.

1) Screw design capacities are based on testing conducted on seasoned radiata pine MGP10 timber with a dry density greater than 450kg/m3.
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.

Top Plate: Radiata Pine MGP10 with dry density >= 450kg/m3

Stud: Radiata Pine MGP10 with dry density >= 450kg/m3

PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)	
	2 x 35mm	2 x 45mm
WM8135PS	5.1	3.5
WM8175PS	7.9	6.7

PRODUCT CODE	SINGLE WALL PLATE UPLIFT (kN)	
	35mm	45mm
WM8135PS	7.9	7.1
WM8175PS	7.9	7.9

Top Plate: Radiata Pine MGP10 with dry density >= 450kg/m3

Stud: Baltic Pine MGP10 with dry density >= 450kg/m3

PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)	
	2 x 35mm	2 x 45mm
WM8135PS	4.8	3.3
WM8175PS	7.4	6.3

PRODUCT CODE	SINGLE WALL PLATE UPLIFT (kN)	
	35mm	45mm
WM8135PS	7.4	6.7
WM8175PS	7.4	7.4

Top Plate: Baltic Pine MGP10 with dry density >= 450kg/m3

Stud: Baltic Pine MGP10 with dry density >= 450kg/m3

PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)	
	2 x 35mm	2 x 45mm
WM8135PS	4.1	2.8
WM8175PS	6.3	5.4

PRODUCT CODE	SINGLE WALL PLATE UPLIFT (kN)	
	35mm	45mm
WM8135PS	6.3	5.7
WM8175PS	6.3	6.3

Top plate: Radiata Pine MGP12 with dry density >=500kg/m3

Stud: Baltic Pine MGP12 with dry density >= 500kg/m3

PRODUCT CODE	DOUBLE WALL PLATES UPLIFT (kN)	
	2 x 35mm	2 x 45mm
WM8135PS	5.8	4
WM8175PS	8.9	7.5

PRODUCT CODE	SINGLE WALL PLATE UPLIFT (kN)	
	35mm	45mm
WM8135PS	7.9	8
WM8175PS	7.9	8.9