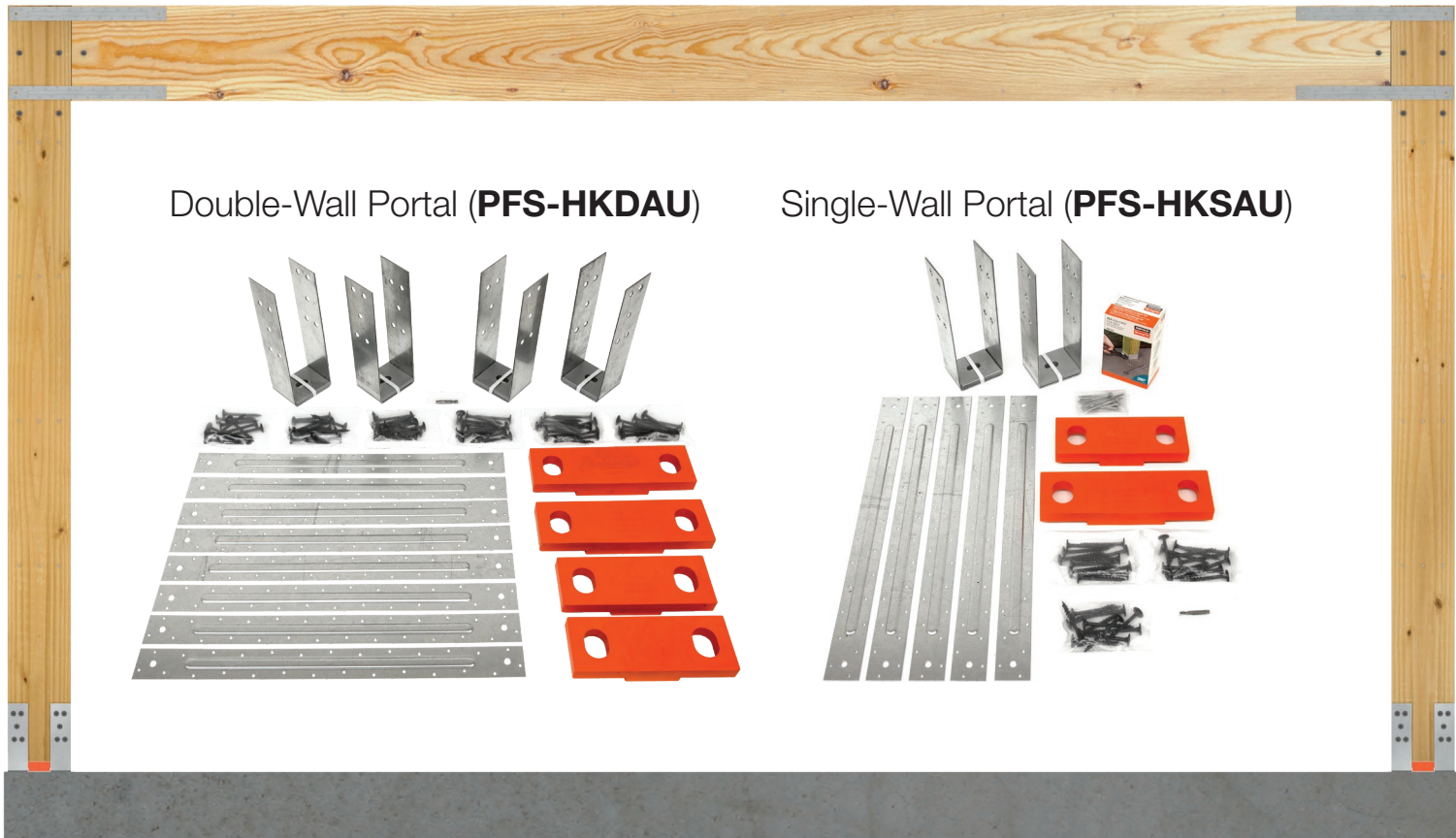


# Simpson Strong-Tie Portal Frame System



Double-Wall Portal (**PFS-HKDAU**)

Single-Wall Portal (**PFS-HKSAU**)

The Portal Frame System provides a cost effective alternative to Steel portal frames and other alternative wall bracing options. Being constructed out of Laminated Veneer Lumber (LVL) allows for portals to be built and installed on site, saving time waiting for steel members to be produced and delivered to site.

Nominal column sizes of 240 mm and 300 mm allow for narrow wall and return widths. With a maximum height of 3,000 mm and maximum opening size of 5,500 mm, it allows designers to maximize portal openings in standard wall framing, such as garage doors, large windows and sliding glass doors.

The Portal Frame System is designed to resist lateral loads including racking, turning and overturning. These loads are transferred across the beam to the opposite column and back through to the foundation. The Portal Frame System can also reduce the need for tension strapping and timber sheeting as forms of bracing.

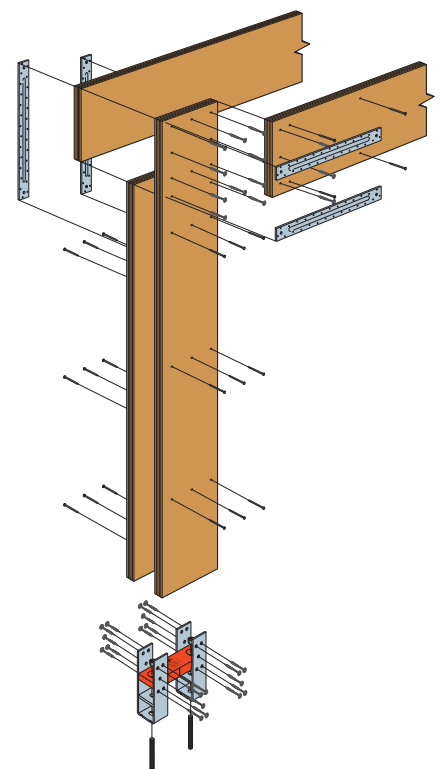
## Contact Us

For further information on the Simpson Strong-Tie Portal Frame System or to arrange a site visit or demonstration from one of our Account Managers, call **1300 STRONGTIE** (1300 787664) or visit [strongtie.com.au](http://strongtie.com.au)

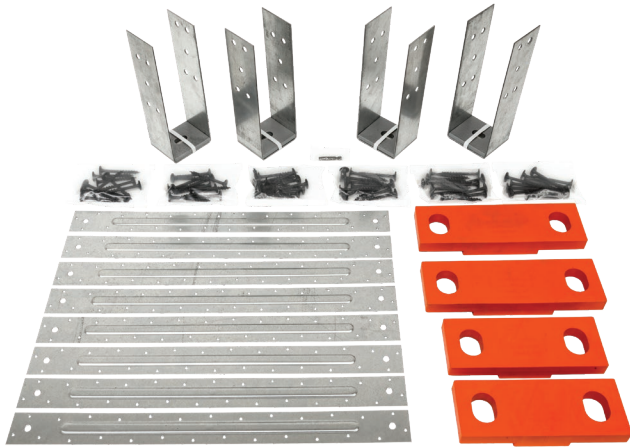


## Installation and Case Study Videos

Scan the QR code or visit [strongtie.com.au/pfs](http://strongtie.com.au/pfs) and navigate to the 'Inspiration' menu to watch now!



## Simpson Strong-Tie Portal Frame System

Double-Wall Portal (**PFS-HKDAU**)

## Timber

**Column sizes**

(2x) 240 x 45 mm LVL or (2x) 300 x 45 mm LVL each column

**Beam size**

(2x) 300 x 45 mm LVL (300 mm minimum depth)

LVL is 14,000 MPa (minimum). LVL with E=13,200 MPa can be adopted with a reduction of 5% to bracing capacities.

## Additional Fixing Requirements

Columns and beam need to be laminated, if nailed with 75 x 3.75 mm framing nails, lamination from both sides is required. If SDWS screws are used, lamination from only one side is required.

**SDWS2300DB-R50\*** approx. 1 box for 3 m header, approx. 2 boxes for 6 m header (add 1 additional box if using 300 mm columns).

PFS-MCS Strapping must be fixed with either hand driven or pneumatic driven 64 x 3.75 mm connector nails (1x **N10HDGPT500\***)

**CCN64\*** Collated Connector Nailer used with N10HDGPT500. Nails can be substituted with (3x) SD10212R100-R screws.

## Anchoring

(4x) 16 mm diameter x 375 mm long Anchor Bolts with nuts: ASTM F568 Grade 5.8 all-thread rod.

Bolts to be set using Simpson Strong-Tie SET-XP Epoxy Anchoring Adhesive (1x **SET-XP650-AU**)

**EDT22S** Simpson Strong-Tie Manual dispensing tool for 650 ml cartridges

Single-Wall Portal (**PFS-HKSAU**)

## Timber

**Column sizes**

(2x) 240x45 LVL or (2x) 300x45 LVL

**Beam size**

(2x) 300x45 LVL (300 mm minimum depth)

LVL is 14,000 MPa (minimum). LVL with E=13,200 MPa can be adopted with a reduction of 5% to bracing capacities.

**Post size**

90 x 90 mm post as per engineers' specifications

## Additional Fixing Requirements

Column and beam need to be laminated, if nailed with 75 x 3.75 mm framing nails, lamination from both sides is required. If SDWS screws are used, lamination from one side only is required.

**SDWS2300DB-R50\*** approx. 1 box (add 1 additional box if using 300 mm column).

PFS-MCS Strapping must be fixed with either hand driven or pneumatic driven 64 x 3.75 mm connector nails (1x **N10HDGPT500\***)

**CCN64\*** Collated Connector Nailer used with N10HDGPT500. Nails can be substituted with (3x) SD10212R100-R screws.

## Anchoring

(2x) 16 mm diameter x 375 mm long Anchor Bolts with nuts, and (1x) 12 mm diameter x 375 mm long Anchor Bolt with nut: ASTM F568 Grade 5.8 all-thread rod.

Bolts to be set using Simpson Strong-Tie SET-XP Epoxy Anchoring Adhesive (1x **SET-XP650-AU**)

**EDT22S** Simpson Strong-Tie Manual dispensing tool for 650 ml cartridges

\*These items in bold are sold separately.

This document is to be used in conjunction with the Product Brochure, Hardware Installation Instructions, and Anchorage Installation Instructions.