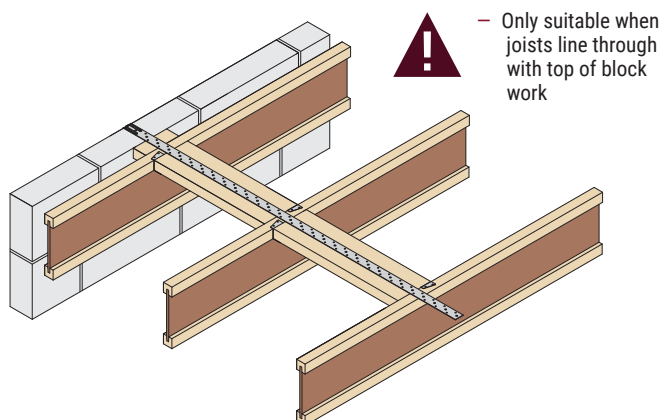


Restraint Straps (Domestic Floors)

Perpendicular Restraint

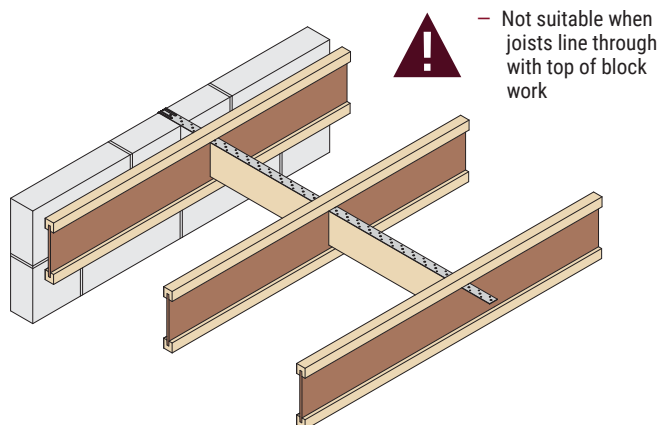
Detail	Region	Floor Level		
		Ground Floor	1st Floor	2nd Floor
Perpendicular	England & Wales	PFS or HDGS required at 2m max centres		
	Scotland	PFS or HDGS required at 2m max centres		PFS or HDGS required at 1.25m max centres

PFS surface fixed to I-Joist



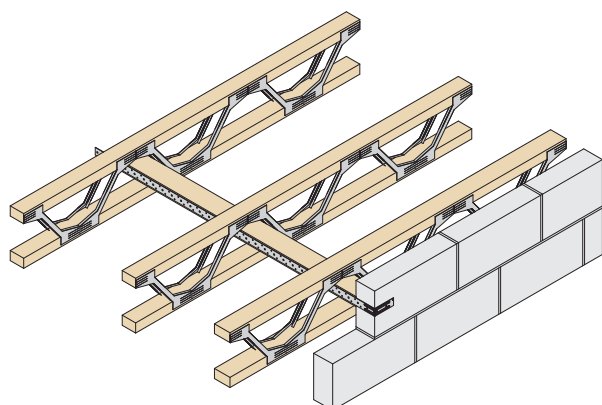
- Noggins to be installed between the I-Joists with 2No UZ-Clips staggered either side (Noggins to be minimum width of half the I-Joist depth, to a maximum of 150mm x minimum depth 38mm - min C16 grade timber)
- Once nailed into position a skew nail is placed in the opposite corner to secure connection
- After fitting all noggins the PFS strap can then be located tight to the block work and centred on the noggins
- The strap should be nailed with a minimum of 8No 3.4 x 35mm square twist nails evenly spaced and into at least every joist
- Strap must extend over a minimum 3No joists

PFS through web of I-Joist



- Cut a small slot in the I-Joist web, just under the top flange
- Slide the PFS through the slots and position tight against the block work
- To provide a fixing for the PFS, noggins must be installed between the I-Joists (Noggins to be minimum depth of half the I-Joist depth, to a maximum of 150mm x minimum width 38mm - min C16 grade timber)
- Each noggin should be nailed in place through the I-Joist web
- The strap should be nailed with a minimum of 8No 3.4 x 35mm square twist nails evenly spaced into the noggins
- Strap must extend over a minimum 3No joists

PFS through web of Open Web Joist

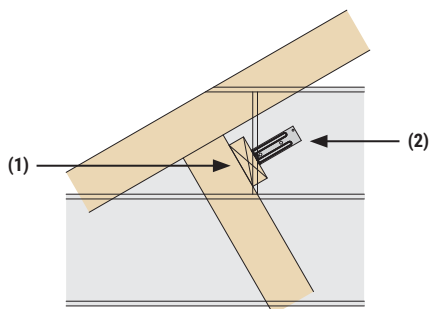


- Strongback to be installed as per manufacturer's guidelines
- Position PFS tight to block work and centred on block
- The strap should be nailed with a minimum of 8No 3.4 x 35mm square twist nails evenly spaced into the noggins
- Strap must extend over a minimum 3No joists

Restraint Straps (Domestic Roofs)

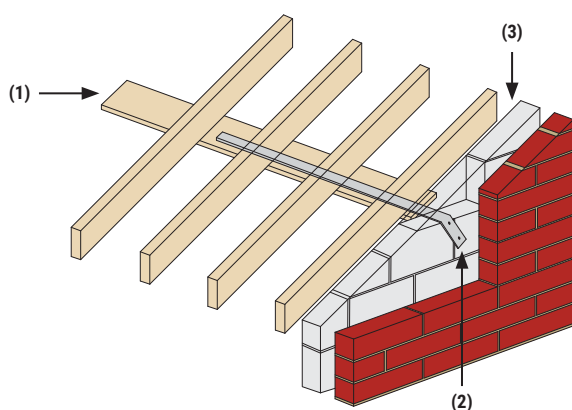
Horizontal Restraint (Masonry Gables)

Fixing to Longitudinal Truss Bracing (Fixed to Truss Web)



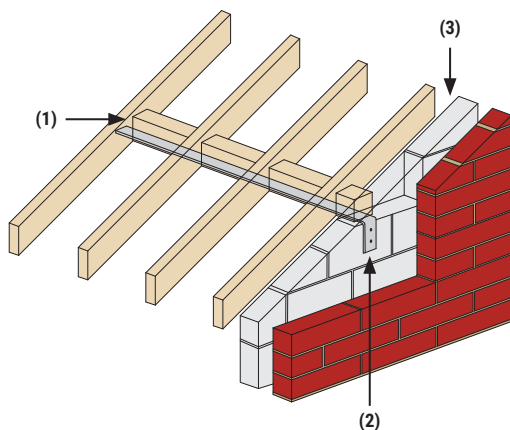
- Install PFS on the 25 x 100mm longitudinal truss bracing (1).
- Ensure the position of the longitudinal bracing and strap coincide with the blocks vertical joint.
- The 90deg bend of the strap is to be held tight against the cavity face of the inner leaf of blockwork (2), preferably located on the full block. Notch the blocks to accommodate the angle of the strap and ensure notch is fully mortared.

Fixing to Longitudinal Truss Bracing / Additional Longitudinal Binder (Fixed to Truss Web)



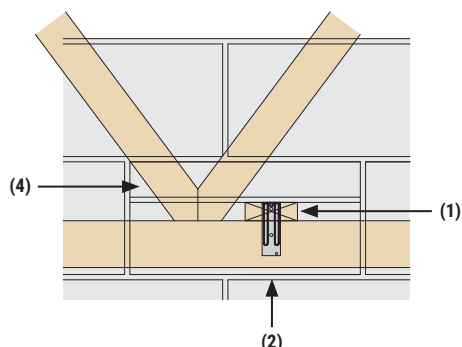
- Install PFS on the 25 x 100mm longitudinal truss bracing (1).
- Ensure the position of the longitudinal bracing and strap coincide with a horizontal blockwork joint.
- The 90deg bend of the strap is to be held tight against the cavity face of the inner leaf of blockwork (2), preferably located on a substantial piece of blockwork, i.e. over the centre of a full block, with a single cut block over the strap (3). Notch the blocks to accommodate the angle of the strap and ensure notch is fully mortared.

Fixing to Solid Noggins (Between Trusses)



- Ensure the position of the straps coincides with the horizontal blockwork joint.
- Install PFS to underside of solid noggins (1). Noggins to be fixed horizontally to avoid twisting of the restraint straps.
- The 90deg bend of the strap is to be held tight against the cavity face of the inner leaf of blockwork (2), preferably located on a substantial piece of blockwork, i.e. over the centre of a full block, with a single cut block over the strap (3). Notch the blocks to accommodate the angle of the strap and ensure notch is fully mortared.
- Fix straps to noggins/trusses with 8no. 3.4 x 35mm square twist nails, evenly spaced along the length of the strap (for NHBC warranted buildings, in accordance with NHBC Standards 2017 section 7.2.8, 4no. 50 x 4mm steel screws or 4no. 75 x 4mm round wire nails, with one fixing into the third rafter, shall be used instead of square twist nails).

Fixing to Longitudinal Truss Bracing / Additional Longitudinal Binder (Fixed to Truss Ceiling)



- Install PFS on the 25 x 100mm longitudinal truss bracing (1). Bracing to be fixed to each truss with 2no. 3.35 x 65mm round wire nails.
- Ensure the position of the longitudinal bracing and strap coincide with a horizontal blockwork joint, where this is not possible inserted a cut block to suit strap location (4).
- The 90deg bend of the strap is to be held tight against the cavity face of the inner leaf of blockwork (2), preferably located on a substantial piece of blockwork, i.e. over the centre of a full block.

PFS

Pre Formed Strap



The PFS is an engineered strap that has been designed to provide enhanced performance and greater flexibility of use.

Features & Benefits

- Typically used for lateral restraint in floor and roof applications
- Exceeds performance of traditional 30 x 5mm strap

Material Specification

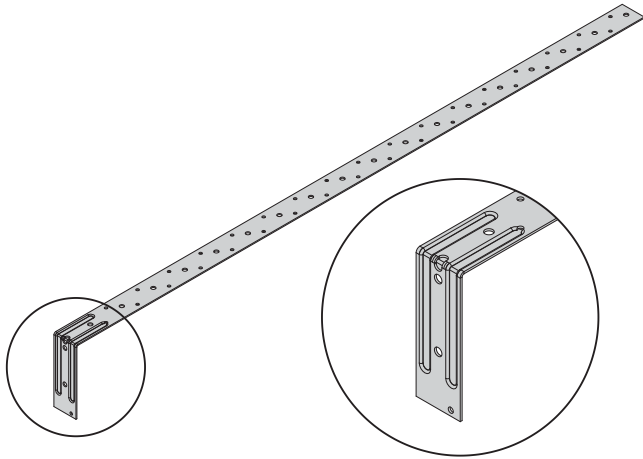
- 35 x 1.5mm Galvanised mild steel – Z600 or Z275 (with edge protection)

Approvals

- CE marked and tested in accordance with EN846-4
- Meets NHBC Technical requirements
- Meets Homebond technical requirements

Fixings

- Dependant on application

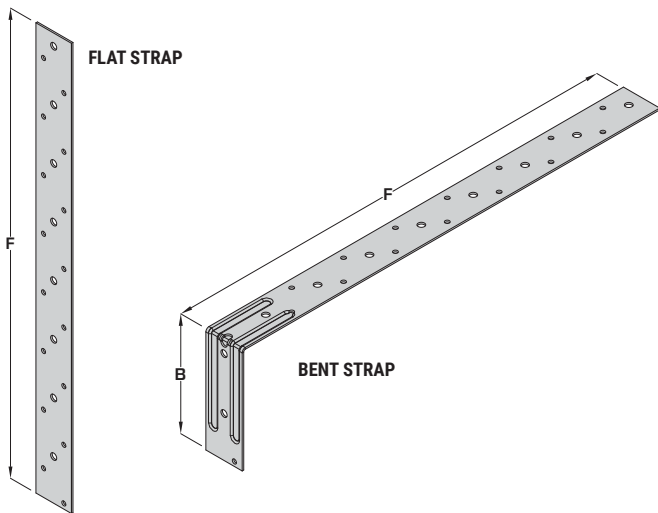


Engineered bend for increased performance

Code	Description	Box Qty
547389	3.4 x 35mm Square Twist Nails - LOOSE	500
141185	3.4 x 35mm Square Twist Nails - COLLATED*	2,500

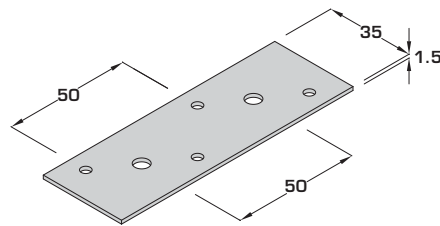
*For use with Paslode PPN35Ci

Available Sizes



Dimensions (mm)

4mm Ø and 6mm Ø holes



Product Code	F (mm)
PFS-1000-F	1000
PFS-1200-F	1200
PFS-1600-F	1600
PFS-2000-F	2000

Product Code	F (mm)	B (mm)
PFS-900-100-B	900	100
PFS-1100-100-B	1100	100
PFS-1500-100-B	1500	100
PFS-1900-100-B	1900	100

Load Data

Performance	Fixings	Characteristic Tensile Capacity (kN)
	(3.4 x 35mm)	
Built into 3.5N/mm ² block work & nailed to min C16 grade timber**	8No	8.80
Flat Strap	n/a	10.80

**Full storey of block work required above the strap to meet performance.