

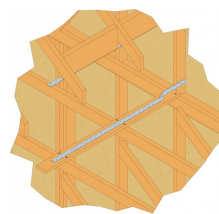
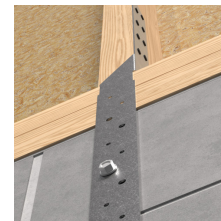
Technical data sheet

SIMPSON

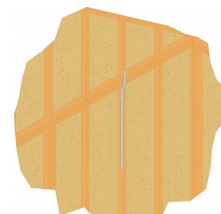
Strong-Tie

LTS Light Twist Strap

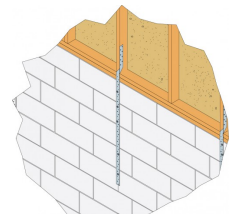
Restraint strap with a formed twist for timber to timber or timber to masonry connections.
LTS1400E used for Timber Gable Panel lateral and vertical restraint.



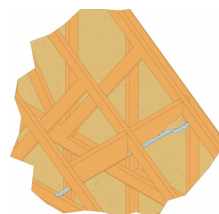
*LTS1400E - Lateral
Restraint - Fixing to Bracing
Board / Binder*



*LTS1400E - Vertical
Restraint - Timber to
Timber Frame*



*LTS1400E - Vertical
Restraint - Timber to
Masonry*



*LTS1400E - Lateral
Restraint - Fixings to Solid
Noggins*

LTS
Light Twist Strap

Technical Data

Product Dimensions & Performance Values



References	Dimensions [mm]				Holes [mm]				Strap Characteristic Tensile Capacity [kN]
	A	B	C	t	Ø4	Ø5	Ø6	Ø9.5	
LTS18	32	457	194	1.2	26	-	-	2	2.9
LTS1400E	38	1400	225	1.5	14	8	14	-	8

1. Characteristic tensile capacity is the capacity of the strap only.
2. Fixings type and quantity are to be specified by the building designer / structural engineer

LTS Light Twist Strap

Installation

General Installation:

- The LTS18 must have same number of fasteners installed at each end. Otherwise, the least number of nails in the either member limits the load.
- LTS1400E is suitable for use in providing lateral and/or vertical restraint for timber gable panels to timber frame or masonry walls.
- Unless otherwise specified, the building designer or structural engineer is to specify the type and quantity of fasteners to be installed, depending on required load requirements.

LTS1400E: Lateral Restraint - Fixing to Truss Rafter Longitudinal Bracing / Binder

- LTS1400E is to be fixed to a 25mm x 100mm longitudinal truss bracing.
- In instances where position of strap does not coincide with existing longitudinal bracing, the strap can be fixed to an additional 25mm x 100mm binder. The binder is to be fixed over four trusses and nailed twice to each truss bottom chord with 3.35x65mm round wire nails.
- Ensure the position of the additional binder and strap coincide with the gable panel vertical timber stud.
- LTS1400E is to be fixed to the side of the gable panel vertical stud with a minimum of three 3.75x30mm square twist nails.
- LTS1400E is to be fixed to the bracing / binder with eight 3.75x30mm square twist nails, evenly distributed along the length of the strap. (For NHBC warrantied buildings, in accordance with NHBC Standards 2017, section 7.28, eight 25mm x 4mm steel screws, shall be used instead of the square twist nails).
- The strap is to be of sufficient length to be fixed to a minimum of three trusses.

LTS1400E: Lateral Restraint - Fixing to Truss Rafter Solid Noggins

- LTS1400E is to be fixed to the side of the gable panel vertical stud with a minimum of three 3.75x30mm square twist nails
- LTS1400E is to be fixed to the noggin / trusses with eight 3.75x30mm square twist nails, evenly distributed along the length of the strap. (For NHBC warrantied buildings, in accordance with NHBC Standards 2017, section 7.28, four 50mm (minimum) x 4mm steel screws or four 75mm x 4mm round wire nails, with one fixing into the third rafter, shall be used instead of the square twist nails).
- The strap is to be of sufficient length to be fixed to a minimum of three trusses

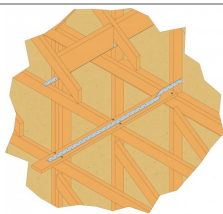
LTS1400E: Vertical Restraint - Fixing to Timber Frame Walls

- LTS1400E is to be fixed to the front face of the gable panel vertical stud with 3.75x30mm square twist nails
- LTS1400E is to be fixed to the side of the timber frame panel vertical stud with 3.75x30mm square twist nails, evenly distributed along the length of the strap.
- The number of fixings should be in accordance with the design requirements and the lowest fixings should be located within 150mm of the bottom of the strap

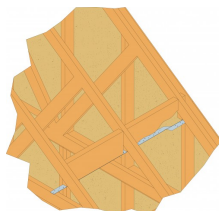
LTS1400E: Vertical Restraint - Fixing to Masonry Walls

- LTS1400E is to be fixed to the side of the gable panel vertical stud with 3.75x30mm square twist nails
- LTS1400E is to be fixed to the face of the masonry with either Ø4mm x 75mm hardened nails, or Ø5.5mm x 50mm wood screws into plugs
- The number of fixings should be in accordance with the design requirements and the lowest fixings should be located within 150mm of the bottom of the strap

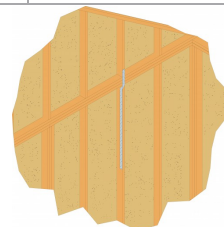
LTS Light Twist Strap



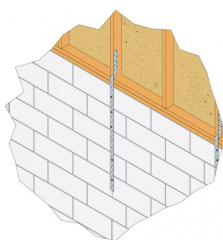
LTS1400E - Lateral Restraint - Fixing to Bracing Board / Binder



LTS1400E - Lateral Restraint - Fixings to Solid Noggins



LTS1400E - Vertical Restraint - Timber to Timber Frame



LTS1400E - Vertical Restraint - Timber to Masonry

