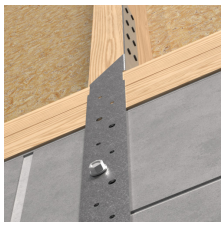
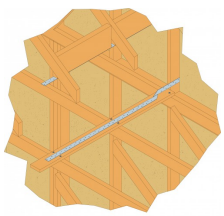
Technical data sheet

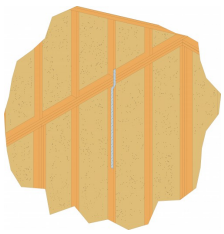
LTS
Light Twist Strap

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.

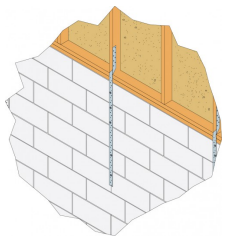




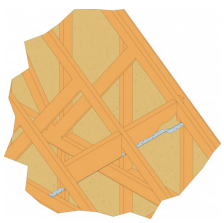
LTS1400E - Lateral Restraint - Fixing to Bracing Board / Binder



LTS1400E - Vertical Restraint - Timber to Timber Frame



LTS1400E - Vertical Restraint - Timber to Masonry

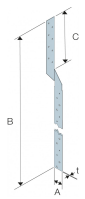


LTS1400E - Lateral Restraint - Fixings to Solid Noggins

Technical data sheet

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

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 25mmx 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

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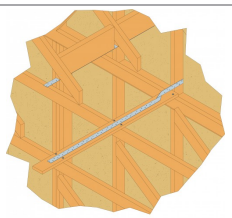
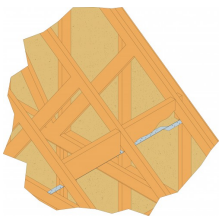
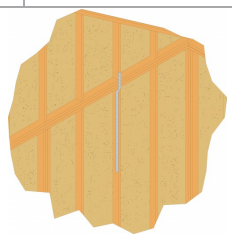


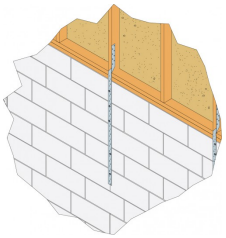
LTS1400E - Lateral Restraint - Fixing to Bracing Board / Binder



LTS1400E - Lateral Restraint - Fixings to Solid Noggins



LTS1400E - Vertical Restraint - Timber to Timber Frame



LTS1400E - Vertical Restraint - Timber to Masonry

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