



SAE and SAI ranges are heavy-duty hangers designed for applications requiring additional strength.



[UK-DoP-e06/0270](#), [ETA-06/0270](#)

## FEATURES

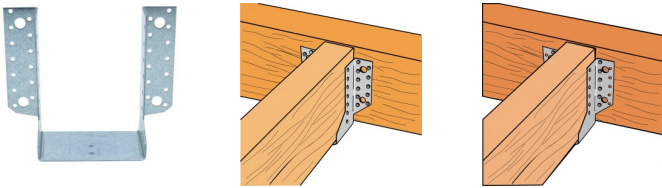


### Material

Pre-galvanised mild steel.

### Advantage

- Quick and simple installation.



## APPLICATIONS

### Header member

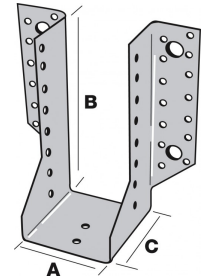
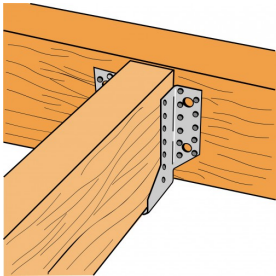
- Solid Timber
- I-Joists
- Steel

### For use with

- Solid sawn timber joists.
- Purlins.

TECHNICAL DATA

Full Nailing on timber



References	Joist Width [mm]	Dimensions [mm]				Fasteners			Safe Working Loads [kN]			Characteristic values [kN]		
		A	B	C	Th.	Qty		Type	Short term Uplift (Joist C16)	Long term download		Uplift (Joist C16)	Download	
						Header	Joist			C16 Header	C24 Header		C16 Header	C24 Header
SAE690X	201 - 300	201 - 300	195	78	2	30	20	N3.75x30	8.5	12.3	13.1	16.9	29.4	31.4
SAE380/38	38	38	171	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/38		38	231	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE620/38		38	291	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE250/46	45	46	102	84	2	12	7	N3.75x30	3	5.3	5.6	5.9	12.7	13.5
SAE380/45		45	167.5	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/46		46	227	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE620/44	47-50	44	288	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE250/50		50	100	84	2	12	7	N3.75x30	3	5.3	5.6	5.9	12.7	13.5
SAE380/50		50	165	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/50	63	50	225	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE620/50		50	285	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE380/64		64	158	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/64	100	64	218	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE620/64		64	278	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE380/66		66	157	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/66	115	66	217	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE380/100		100	140	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/100		100	200	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE620/100	125	100	260	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE620/116		116	252	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE500/125		125	187.5	84	2	30	16	N3.75x30	6.8	12.3	13.1	13.6	29.4	31.4
SAE620/125	150	125	247.5	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAEL500/150		150	175	84	2	30	16	N3.75x30	6.8	12.3	13.1	13.6	29.4	31.4
SAE620/150		150	235	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE590/200	75-76	200	195	78	2	30	20	N3.75x30	8.5	12.3	13.1	16.9	29.4	31.4
SAE250/76		76	87	84	2	12	7	N3.75x30	3	5.3	5.6	5.9	12.7	13.5
SAE380/76		76	152	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/76	88-2 Ply 44	76	212	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE620/76		76	272	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1
SAE380/92		92	144	84	2	22	12	N3.75x30	5.1	8.4	9	10.2	20.3	21.6
SAE500/90	91	90	205	84	2	34	18	N3.75x30	7.6	14.8	15.8	15.2	35.5	37.8
SAE620/91		91	264.5	75	2	40	22	N3.75x30	9.3	19.6	20.9	18.6	46.9	50.1

Dimensions A, B and C are for the interior of the hanger.

### SAE Hangers - Bolt Attachment

References	Qty Fasteners		Safe Working Loads [kN]					
	Support <sup>4</sup>	Carried Member <sup>5</sup>	Timber Support		Masonry Support			
			Long Term	Medium	2.8 N/mm <sup>2</sup>	3.5 N/mm <sup>2</sup>	7.0 N/mm <sup>2</sup>	20 N/mm <sup>2</sup>
SAE380 - All	4 M12	12	6.95	7.94	1.80	2.20	4.00	4.00
SAE500/38-100	6 M12	18	10.10	11.54	3.60	4.40	8.00	16.00
SAE500/125-150	6 M12	18	7.99	9.13	3.60	4.40	8.00	16.00
SAE620/38-100	8 M12	22	13.03	14.89	3.60	4.40	8.00	16.00
SAE620/125-150	8 M12	22	10.86	12.41	3.60	4.40	8.00	16.00

1. Safe working loads apply to bolt attachment only.
2. Timber support safe working loads are based upon calculation from BS 5268 Part 2 with grade 4.6 12mm bolts into C16 timber and load testing performed at Simpson Strong-Tie testing facility. Timber support safe working loads apply to a minimum support member thickness of 72mm. Safe working loads for smaller support members must be reduced in accordance with BS 5268 Part 2. Bolts are to be installed in accordance with recommendations within BS 5268: Part 2.
3. Masonry support safe working loads are based upon calculation with Rawl R-KF2 and 12mm stud anchors. Select and install fixings according to manufacturers recommendations. Other manufacturers anchors can be used. The designer is to check the alternate fixing suitability and reduce the safe working load where limited by the fixing. Contact Simpson Strong-Tie for bolt hole locations.
4. M12 Bolts.
5. 3.75 x 30mm Square Twist Nails

### SAE(X) Made to Order Specials



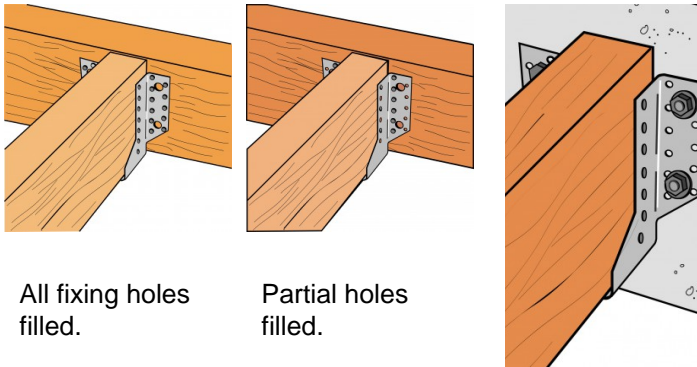
References	Dimensions [mm]				Fasteners			Safe Working Load [kN]
	A	B	C	Th.	Qty		Type	Long Term Download
					Header	Joist		
SAE380X	38-100	140-175	64	2	14	6	3.75x30	5.40
SAE500X	38-150	175-235	64	2	18	8	3.75x30	7.00
SAE620X	38-150	235-290	64	2	28	10	3.75x30	10.80

1. These hangers are based upon Composite Wood style SAE hangers and contain round and triangular nail holes only. (ie. **No Bolt Holes**).
2. SWL's are based upon a maximum nailing schedule—all round and triangular holes filled.
3. Skews right or left up to 67.5° and slopes up or down up to 45°. For combined skew and sloped hangers the maximum SWL is 80% of the stated loads.
4. Enables hangers to be manufactured for any combination of widths and heights listed for a model number.
5. To order specify model number, width, height, skew and/or slope. eg SAE380/63 Skewed Right at 15° becomes SAE380X, W = 63, H = 159, SKR = 15° (for no skewed/sloped options please specify skew = 0° & slope = 0°).

## INSTALLATION

### Fasteners

- Install using 3.75 x 30mm square twist nails.



All fixing holes  
filled.

Partial holes  
filled.

Support on  
concrete.

## TECHNICAL NOTES