

Technical data sheet

SIMPSON

Strong-Tie

SAE-SAEL

Heavy Duty Face Fix Hangers

SAE and SAI ranges are heavy-duty hangers designed for applications requiring additional strength. SAE hangers are nailed using square twist nails but have bolt holes for 12mm fasteners into the face. SAE Timber Bolted capacity to be determined according to the relevant standards. The hanger depth is to be at least 60% of the carried member depth to prevent rotation, unless additional lateral restraint is added to the top of the carried member.

Features

Material

Pre-galvanised mild steel

Advantage

- Quick and simple installation

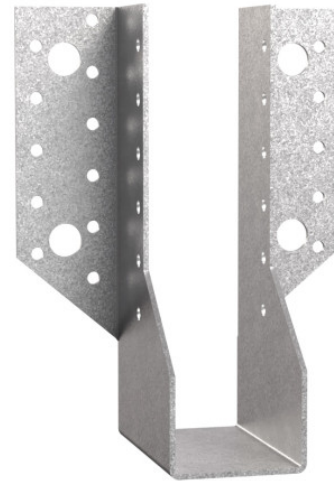
Applications

Header member

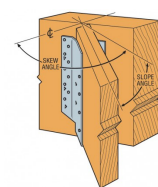
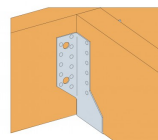
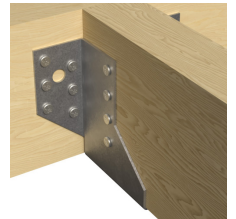
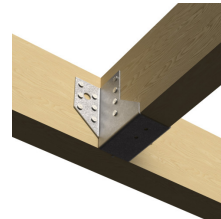
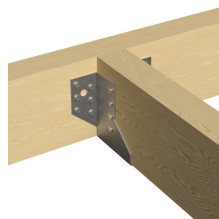
- Solid Timber
- I-Joists
- Steel

For Use With

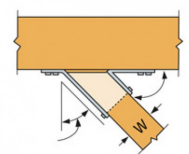
- Solid sawn timber joists
- Purlins



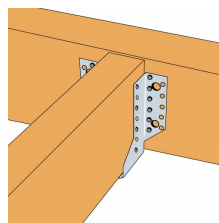
EPD



Typical SAE(X) Sloped down, skewed right installation (no bolt holes)



Top view SAE(X) Hanger Skewed right (no bolt holes)



Partial Nailing on Timber

SAE-SAEL

Heavy Duty Face Fix Hangers

Technical Data

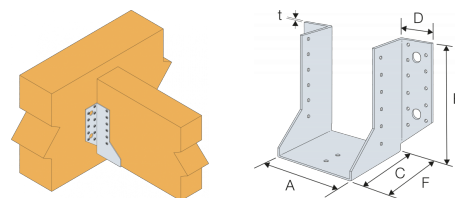
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Heavy Duty Face Fix Hangers



Product Dimensions

References	Joist dimensions [mm]		Product Dimensions [mm]							Header holes			Joist holes
	Width		A	B	C	D	F	t	Ø5	Ø11	Ø13	Ø5	
	Min	Max.											
SAE500/182/2	-	-	-	-	-	-	-	-	-	-	-	-	
SAE200/38/2	36	38	38	81	84	41.5	86	2	8	2	-	5	
SAE250/38/2	36	38		106	84	41.5	86	2	12	2	-	7	
SAE380/38/2	35	38		171	84	41.5	86	2	20	-	4	10	
SAE500/38/2	35	38		231	84	41.5	86	2	32	-	6	16	
SAE600/38/2	35	38		281	88	36	90	2	36	-	4	20	
SAE200/40/2	38	40	40	80	84	41.5	86	2	8	2	-	5	
SAE250/40/2	38	40		105	84	41.5	86	2	12	2	-	7	
SAE380/40/2	37	40		170	84	41.5	86	2	20	-	4	10	
SAE500/40/2	37	40		230	84	41.5	86	2	32	-	6	16	
SAE600/40/2	37	40		280	88	36	90	2	36	-	4	20	
SAE200/47/2	44	47	47	76.5	88	41.5	90	2	8	2	-	5	
SAE250/47/2	44	47		101.5	88	41.5	90	2	12	2	-	7	
SAE380/47/2	44	47		166.5	84	41.5	86	2	20	-	4	10	
SAE500/47/2	44	47		226.5	84	41.5	86	2	32	-	6	16	
SAE600/47/2	44	47		276.5	88	36	90	2	36	-	4	20	
SAE200/50/2	48	50	50	75	84	41.5	86	2	8	2	-	5	
SAE250/50/2	48	50		100	84	41.5	86	2	12	2	-	7	
SAE500/50/2	48	50		225	84	41.5	86	2	34	-	6	18	
SAE380/50/2	47	50		165	84	41.5	86	2	20	-	4	10	
SAE600/50/2	47	50		275	88	36	90	2	36	-	4	20	
SAE380/56/2	53	56	56	162	84	41.5	86	2	20	-	4	10	
SAE500/56/2	53	56		222	84	41.5	86	2	32	-	6	16	
SAE600/56/2	53	56		272	88	36	90	2	36	-	4	20	
SAE380/63/2	60	63	63	158.5	84	41.5	86	2	20	-	4	10	
SAE500/63/2	60	63		218.5	84	41.5	86	2	32	-	6	16	
SAE600/63/2	60	63		268.5	88	36	90	2	36	-	4	20	
SAE380/66/2	64	66	66	157	84	41.5	86	2	22	-	4	12	
SAE500/66/2	63	66		217	84	41.5	86	2	32	-	6	16	
SAE600/66/2	63	66		267	88	36	90	2	36	-	4	20	
SAE380/72/2	70	72	72	154	84	41.5	86	2	22	-	4	12	
SAE500/72/2	69	72		214	84	41.5	86	2	32	-	6	16	
SAE600/72/2	69	72		264	88	36	90	2	36	-	4	20	
SAE380/75/2	72	75	75	152.5	84	41.5	86	2	20	-	4	10	
SAE500/75/2	72	75		212.5	84	41.5	86	2	32	-	6	16	
SAE600/75/2	72	75		262.5	88	36	90	2	36	-	4	20	
SAE380/78/2	75	78	78	151	84	41.5	86	2	20	-	4	10	
SAE500/78/2	75	78		211	84	41.5	86	2	32	-	6	16	
SAE600/78/2	75	78		261	88	36	90	2	36	-	4	20	
SAE380/91/2	88	91	91	144.5	84	41.5	86	2	20	-	4	10	
SAE500/91/2	88	91		204.5	84	41.5	86	2	32	-	6	16	
SAE600/91/2	88	91		254.5	88	36	90	2	36	-	4	20	
SAE380/96/2	93	96	96	142	84	41.5	86	2	20	-	4	10	

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References	Joist dimensions [mm]		Product Dimensions [mm]							Header holes			Joist holes
	Width		A	B	C	D	F	t	Ø5	Ø11	Ø13	Ø5	
	Min	Max.											
SAE500/96/2	93	96	99	202	84	41.5	86	2	32	-	6	16	
SAE600/96/2	93	96		252	88	36	90	2	36	-	4	20	
SAE380/99/2	96	99		140.5	84	41.5	86	2	20	-	4	10	
SAE500/99/2	96	99		200.5	84	41.5	86	2	32	-	6	16	
SAE600/99/2	96	99		250.5	88	36	90	2	36	-	4	20	
SAE380/109/2	106	109	109	135.5	84	41.5	86	2	20	-	4	10	
SAE500/109/2	106	109		195.5	84	41.5	86	2	32	-	6	16	
SAE600/109/2	106	109		245.5	88	36	90	2	36	-	4	20	
SAE500/118/2	115	118	118	191	84	41.5	86	2	32	-	6	16	
SAE600/118/2	115	118		241	88	36	90	2	36	-	4	20	
SAE500/122/2	119	122	122	189	84	41.5	86	2	32	-	6	16	
SAE600/122/2	119	122		239	88	36	90	2	36	-	4	20	
SAE500/125/2	122	125	125	187.5	84	41.5	86	2	32	-	6	16	
SAE600/125/2	122	125		237.5	88	36	90	2	36	-	4	20	
SAE500/128/2	125	128	128	186	84	41.5	86	2	32	-	6	16	
SAE600/128/2	125	128		236	88	36	90	2	36	-	4	20	
SAE500/142/2	139	142	142	179	84	41.5	86	2	32	-	6	16	
SAE600/142/2	139	142		229	88	36	90	2	36	-	4	20	
SAE500/146/2	143	146	146	177	84	41.5	86	2	32	-	6	16	
SAE600/146/2	143	146		227	88	36	90	2	36	-	4	20	
SAE500/150/2	147	150	150	175	84	41.5	86	2	32	-	6	16	
SAE600/150/2	147	150		225	88	36	90	2	36	-	4	20	
SAE600/182/2	179	182	182	209	88	36	90	2	36	-	4	20	
SAE720/182/2	179	182		269	75	38	77	2	38	-	6	20	
SAE600/196/2	193	196	196	202	88	41.5	90	2	36	-	4	20	
SAE720/196/2	193	196		262	75	38	77	2	38	-	6	20	
SAE590/200/2	197	200	200	195	88	41.5	90	2	30	-	6	20	

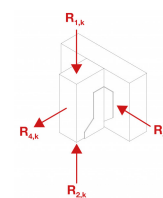
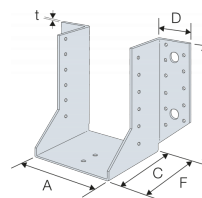
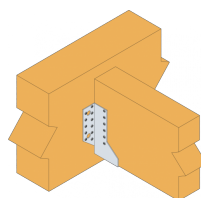
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SAE-SAEL Heavy Duty Face Fix Hangers

SIMPSON

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Product characteristic capacities - Timber
to timber - full nailing



Characteristic capacities - Timber to timber - Full nailing

References	A	Number of Fasteners		Product characteristic capacities - Timber C24 [kN]			Safe Working Load [kN]		
		Header	Joist	R _{1,k}		R _{2,k}	R _{1,SWL,Long term}		R _{2,SWL,Short term}
		Qty	Qty	N3.75x30 - C16 Header	N3.75x30 - C24 Header	N3.75x30 - C16 Joist	C16 header N3.75x30	C24 header N3.75x30	C16 Joist N3.75x30
SAE500/182/2	-	-	-	-	-	-	-	-	-
SAE200/38/2	38	8	5	7.6	8.1	4.2	3.2	3.4	2.1
SAE250/38/2		12	7	12.7	13.5	5.9	5.3	5.6	3
SAE380/38/2		20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/38/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/38/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE200/40/2	40	8	5	7.6	8.1	4.2	3.2	3.4	2.1
SAE250/40/2		12	7	12.7	13.5	5.9	5.3	5.6	3
SAE380/40/2		20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/40/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/40/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE200/47/2	47	8	5	7.6	8.1	4.2	3.2	3.4	2.1
SAE250/47/2		12	7	12.7	13.5	5.9	5.3	5.6	3
SAE380/47/2		20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/47/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/47/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE200/50/2	50	8	5	7.6	8.1	4.2	3.2	3.4	2.1
SAE250/50/2		12	7	12.7	13.5	5.9	5.3	5.6	3
SAE500/50/2		34	18	33.3	35.6	12.2	13.9	14.8	6.1
SAE380/50/2		20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE600/50/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/56/2	56	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/56/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/56/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/63/2	63	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/63/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/63/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/66/2	66	22	12	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/66/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/66/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/72/2	72	22	12	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/72/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/72/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/75/2	75	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/75/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/75/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/78/2	78	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/78/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/78/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4

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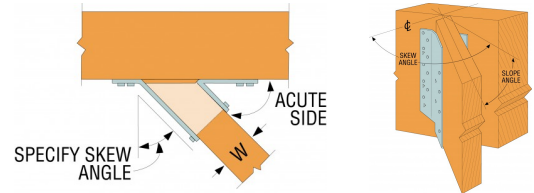
References	Characteristic capacities - Timber to timber - Full nailing								
	A	Number of Fasteners		Product characteristic capacities - Timber C24 [kN]			Safe Working Load [kN]		
		Header	Joist	R _{1,k}		R _{2,k}	R _{1,SWL,Long term}		R _{2,SWL,Short term}
		Qty	Qty	N3.75x30 - C16 Header	N3.75x30 - C24 Header	N3.75x30 - C16 Joist	C16 header N3.75x30	C24 header N3.75x30	C16 Joist N3.75x30
SAE380/91/2	91	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/91/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/91/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/96/2	96	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/96/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/96/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/99/2	99	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/99/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/99/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE380/109/2	109	20	10	18.2	19.4	8.5	7.6	8.1	4.2
SAE500/109/2		32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/109/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE500/118/2	118	32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/118/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE500/122/2	122	32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/122/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE500/125/2	125	32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/125/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE500/128/2	128	32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/128/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE500/142/2	142	32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/142/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE500/146/2	146	32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/146/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE500/150/2	150	32	16	33.3	35.6	12.2	13.9	14.8	6.1
SAE600/150/2		36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE600/182/2	182	36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE720/182/2		38	20	44.6	47.6	16.7	18.6	19.8	8.4
SAE600/196/2	196	36	20	42.2	45.1	15.9	17.6	18.8	8.4
SAE720/196/2		38	20	44.6	47.6	16.7	18.6	19.8	8.4
SAE590/200/2	200	30	20	29.4	31.4	16.7	12.3	13.1	8.4

Technical data sheet



SAE-SAEL Heavy Duty Face Fix Hangers

SAE(X) Made to Order Specials



References	Product Dimensions [mm]			Number of Fasteners		Safe Working Load [kN]
	A	B	C	Header	Joist	$R_{1,SWL,Long\ term}$
				Qty	Qty	C16 header
						N3.75x30
SAE250X	40-76	87-105	64	6	4	2.3
SAE380X	38 - 100	140 - 175	64	14	6	5.4
SAE500X	38 - 150	165 - 235	64	18	8	6.9
SAE600X	38 - 150	235 - 290	64	28	10	10.8
SAE720X	40-182	269 - 340	64	28	10	10.8

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, A = 63, B = 159, SKR = 15° (for no skewed/sloped options please specify skew = 0° & slope = 0°).

SAE-SAEL Heavy Duty Face Fix Hangers

Installation

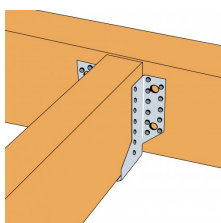
Fasteners

- Install using 3.75 x 30mm square twist nails

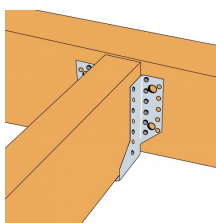
Installation

The hanger depth is to be at least 60% of the carried member depth to prevent rotation, unless additional lateral restraint is added to the top of the carried member.

- **SAE hangers have bolt holes for 12mm fasteners if required**
- **SAE timber bolted capacity to be determined according to the relevant standards**



Full Nailing on Timber



Partial Nailing on Timber

