

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

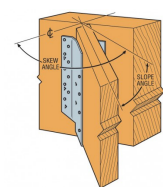
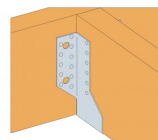
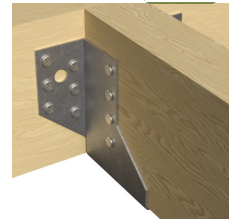
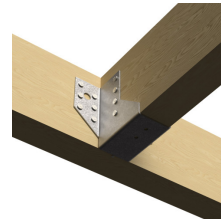
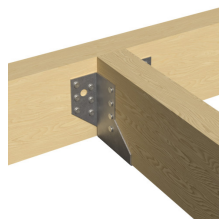
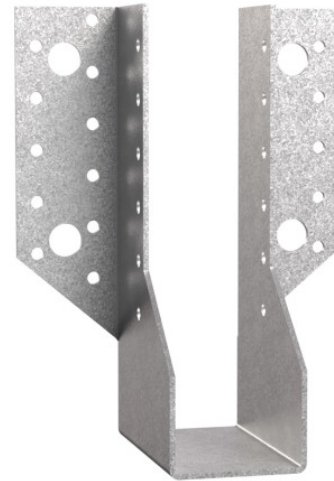
Applications

Header member

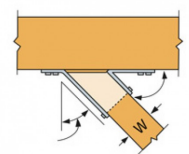
- Solid Timber
- I-Joists
- Steel

For Use With

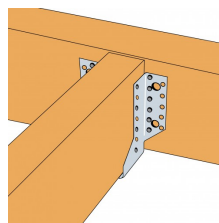
- Solid sawn timber joists
- Purlins



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

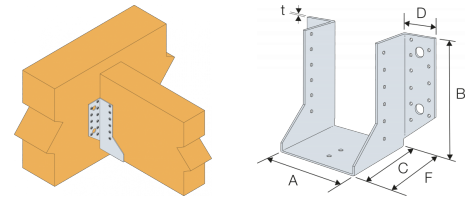
Technical Data

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SAE-SAEL Heavy Duty Face Fix Hangers

Product Dimensions



References	Joist dimensions [mm]		Product Dimensions [mm]							Header holes			Joist holes	Weight [kg]
	Width		A	B	C	D	F	t	Ø5	Ø11	Ø13	Ø5		
	Min	Max.												
SAE200/38/2	36	38	38	81	84	41.5	86	2	8	2	-	5	0.26	
SAE250/38/2	36	38		106	84	41.5	86	2	12	2	-	7	0.33	
SAE380/38/2	35	38		171	84	41.5	86	2	20	-	4	10	0.5	
SAE500/38/2	35	38		231	84	41.5	86	2	32	-	6	16	0.66	
SAE600/38/2	35	38		281	88	36	90	2	36	-	4	20	0.001	
SAE200/40/2	38	40	40	80	84	41.5	86	2	8	2	-	5	0.26	
SAE250/40/2	38	40		105	84	41.5	86	2	12	2	-	7	0.33	
SAE380/40/2	37	40		170	84	41.5	86	2	20	-	4	10	0.49	
SAE500/40/2	37	40		230	84	41.5	86	2	32	-	6	16	0.66	
SAE600/40/2	37	40		280	88	36	90	2	36	-	4	20	0.79	
SAE200/47/2	44	47	47	76.5	88	41.5	90	2	8	2	-	5	0.26	
SAE250/47/2	44	47		101.5	88	41.5	90	2	12	2	-	7	0.33	
SAE380/47/2	44	47		166.5	84	41.5	86	2	20	-	4	10	0.49	
SAE500/47/2	44	47		226.5	84	41.5	86	2	32	-	6	16	0.65	
SAE600/47/2	44	47		276.5	88	36	90	2	36	-	4	20	0.79	
SAE200/50/2	48	50	50	75	84	41.5	86	2	8	2	-	5	0.26	
SAE250/50/2	48	50		100	84	41.5	86	2	12	2	-	7	0.33	
SAE500/50/2	48	50		225	84	41.5	86	2	34	-	6	18	0.66	
SAE380/50/2	47	50		165	84	41.5	86	2	20	-	4	10	0.49	
SAE600/50/2	47	50		275	88	36	90	2	36	-	4	20	0.79	
SAE380/56/2	53	56	56	162	84	41.5	86	2	20	-	4	10	0.001	
SAE500/56/2	53	56		222	84	41.5	86	2	32	-	6	16	0.001	
SAE600/56/2	53	56		272	88	36	90	2	36	-	4	20	0.001	
SAE380/63/2	60	63	63	158.5	84	41.5	86	2	20	-	4	10	0.49	
SAE500/63/2	60	63		218.5	84	41.5	86	2	32	-	6	16	0.66	
SAE600/63/2	60	63		268.5	88	36	90	2	36	-	4	20	0.79	
SAE380/66/2	64	66	66	157	84	41.5	86	2	22	-	4	12	0.49	
SAE500/66/2	63	66		217	84	41.5	86	2	32	-	6	16	0.001	
SAE600/66/2	63	66		267	88	36	90	2	36	-	4	20	0.001	
SAE380/72/2	70	72	72	154	84	41.5	86	2	22	-	4	12	0.49	
SAE500/72/2	69	72		214	84	41.5	86	2	32	-	6	16	0.66	
SAE600/72/2	69	72		264	88	36	90	2	36	-	4	20	0.79	
SAE380/75/2	72	75	75	152.5	84	41.5	86	2	20	-	4	10	0.49	
SAE500/75/2	72	75		212.5	84	41.5	86	2	32	-	6	16	0.66	
SAE600/75/2	72	75		262.5	88	36	90	2	36	-	4	20	0.79	
SAE380/78/2	75	78	78	151	84	41.5	86	2	20	-	4	10	0.49	
SAE500/78/2	75	78		211	84	41.5	86	2	32	-	6	16	0.65	
SAE600/78/2	75	78		261	88	36	90	2	36	-	4	20	0.79	
SAE380/91/2	88	91	91	144.5	84	41.5	86	2	20	-	4	10	0.49	
SAE500/91/2	88	91		204.5	84	41.5	86	2	32	-	6	16	0.66	
SAE600/91/2	88	91		254.5	88	36	90	2	36	-	4	20	0.79	
SAE380/96/2	93	96	96	142	84	41.5	86	2	20	-	4	10	0.49	
SAE500/96/2	93	96		202	84	41.5	86	2	32	-	6	16	0.66	

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References	Joist dimensions [mm]		A	Product Dimensions [mm]					Header holes			Joist holes	Weight [kg]
	Width			B	C	D	F	t	Ø5	Ø11	Ø13	Ø5	
	Min	Max.											
SAE600/96/2	93	96	99	252	88	36	90	2	36	-	4	20	0.01
SAE380/99/2	96	99		140.5	84	41.5	86	2	20	-	4	10	0.49
SAE500/99/2	96	99		200.5	84	41.5	86	2	32	-	6	16	0.66
SAE600/99/2	96	99		250.5	88	36	90	2	36	-	4	20	0.001
SAE380/109/2	106	109	109	135.5	84	41.5	86	2	20	-	4	10	0.001
SAE500/109/2	106	109		195.5	84	41.5	86	2	32	-	6	16	0.001
SAE600/109/2	106	109		245.5	88	36	90	2	36	-	4	20	0.001
SAE500/118/2	115	118	118	191	84	41.5	86	2	32	-	6	16	0.66
SAE600/118/2	115	118		241	88	36	90	2	36	-	4	20	0.1
SAE500/122/2	119	122	122	189	84	41.5	86	2	32	-	6	16	0.66
SAE600/122/2	119	122		239	88	36	90	2	36	-	4	20	0.1
SAE500/125/2	122	125	125	187.5	84	41.5	86	2	32	-	6	16	0.66
SAE600/125/2	122	125		237.5	88	36	90	2	36	-	4	20	0.1
SAE500/128/2	125	128	128	186	84	41.5	86	2	32	-	6	16	0.66
SAE600/128/2	125	128		236	88	36	90	2	36	-	4	20	0.001
SAEL500/140/2	138	140	140	180	84	41.5	86	2	32	-	6	16	0.65
SAE500/142/2	139	142	142	179	84	41.5	86	2	32	-	6	16	0.1
SAE600/142/2	139	142		229	88	36	90	2	36	-	4	20	0.1
SAE500/146/2	143	146	146	177	84	41.5	86	2	32	-	6	16	0.66
SAE600/146/2	143	146		227	88	36	90	2	36	-	4	20	0.1
SAEL500/150/2	148	150	150	175	84	41.5	86	2	32	-	6	16	0.65
SAE600/150/2	147	150		225	88	36	90	2	36	-	4	20	0.1
SAE600/182/2	179	182	182	209	88	36	90	2	36	-	4	20	0.1
SAE720/182/2	179	182		269	75	38	77	2	38	-	6	20	0.88
SAE600/196/2	193	196	196	202	88	41.5	90	2	36	-	4	20	0.79
SAE720/196/2	193	196		262	75	38	77	2	38	-	6	20	0.1
SAE590/200/2	197	200	200	195	88	41.5	90	2	30	-	6	20	0.8

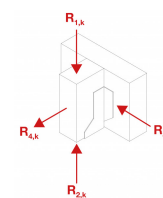
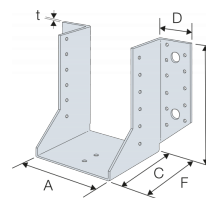
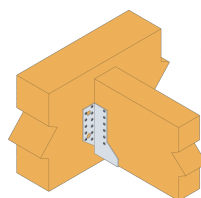
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Product characteristic capacities - Timber
to timber - full nailing



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	C24 header	C16 Joist
							N3.75x30	N3.75x30	N3.75x30
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
SAE380/91/2	91	20	10	18.2	19.4	8.5	7.6	8.1	4.2

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References	A	Characteristic capacities - Timber to timber - Full nailing							
		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
SAE500/91/2	96	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		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
SAEL500/140/2	140	32	16	33.3	35.6	12.2	13.9	14.8	6.1
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
SAEL500/150/2	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

SAE-SAEL Heavy Duty Face Fix Hangers

Installation

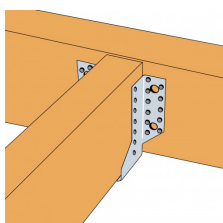
Fasteners

- Install using 3.75 x 30mm square twist nails

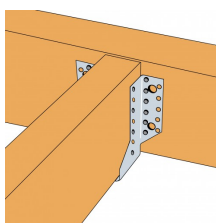
Installation

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

