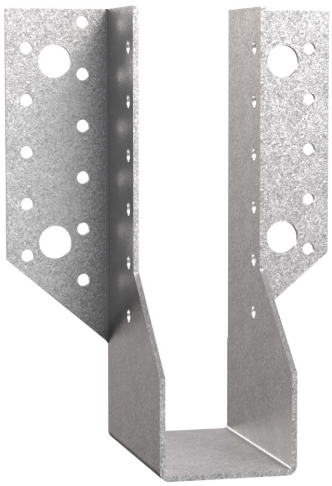
Technical Sheet

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

Technical Sheet

SAE-SAEL
Heavy Duty Face Fix Hangers

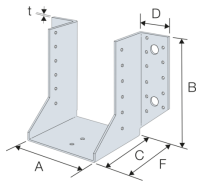
SIMPSON Strong-Tie

Technical Data

Technical Sheet

SAE-SAEL

Heavy Duty Face Fix Hangers



Product Dimensions

Reference	Connector Dimensions								
	Timber size[mm]		Product Dimensions[mm]		Header holes			Joist holes	Other
	Width		B[mm]	C[mm]	Round			Round	Weight[kg]
	Min[mm]	Max.[mm]			Ø5[mm]	Ø11[mm]	Ø13[mm]	Ø5[mm]	
SAE200/38/2	36	38	81	84	8	2	-	5	0.26
SAE250/38/2	36	38	106	84	12	2	-	7	0.33
SAE200/40/2	38	40	80	84	8	2	-	5	0.261
SAE250/40/2	38	40	105	84	12	2	-	7	0.33
SAE200/50/2	48	50	75	84	8	2	-	5	0.26
SAE250/50/2	48	50	100	84	12	2	-	7	0.33
SAE500/50/2	48	50	225	84	34	-	6	18	0.66
SAE380/66/2	64	66	157	84	22	-	4	12	0.49
SAE380/72/2	70	72	154	84	22	-	4	12	0.49
SAEL500/140/2	138	140	180	84	32	-	6	16	0.65
SAEL500/150/2	148	150	175	84	32	-	6	16	0.65
SAE380/38/2	35	38	171	84	20	-	4	10	0.5
SAE500/38/2	35	38	231	84	32	-	6	16	0.66
SAE600/38/2	35	38	281	88	36	-	4	20	0.786
SAE380/40/2	37	40	170	84	20	-	4	10	0.49
SAE500/40/2	37	40	230	84	32	-	6	16	0.66
SAE600/40/2	37	40	280	88	36	-	4	20	0.786
SAE200/47/2	44	47	76.5	88	8	2	-	5	0.26
SAE250/47/2	44	47	101.5	88	12	2	-	7	0.33
SAE380/47/2	44	47	166.5	84	20	-	4	10	0.49
SAE500/47/2	44	47	226.5	84	32	-	6	16	0.65
SAE600/47/2	44	47	276.5	88	36	-	4	20	0.786
SAE380/50/2	47	50	165	84	20	-	4	10	0.49
SAE600/50/2	47	50	275	88	36	-	4	20	0.786
SAE380/56/2	53	56	162	84	20	-	4	10	0.001
SAE500/56/2	53	56	222	84	32	-	6	16	0.66
SAE600/56/2	53	56	272	88	36	-	4	20	0.786
SAE380/63/2	60	63	158.5	84	20	-	4	10	0.49
SAE500/63/2	60	63	218.5	84	32	-	6	16	0.66
SAE600/63/2	60	63	268.5	88	36	-	4	20	0.786
SAE500/66/2	63	66	217	84	32	-	6	16	0.66
SAE600/66/2	63	66	267	88	36	-	4	20	0.786
SAE500/72/2	69	72	214	84	32	-	6	16	0.66
SAE600/72/2	69	72	264	88	36	-	4	20	0.786
SAE380/75/2	72	75	152.5	84	20	-	4	10	0.49
SAE500/75/2	72	75	212.5	84	32	-	6	16	0.66
SAE600/75/2	72	75	262.5	88	36	-	4	20	0.786
SAE380/78/2	75	78	151	84	20	-	4	10	0.49
SAE500/78/2	75	78	211	84	32	-	6	16	0.66
SAE600/78/2	75	78	261	88	36	-	4	20	0.786
SAE380/91/2	88	91	144.5	84	20	-	4	10	0.49
SAE500/91/2	88	91	204.5	84	32	-	6	16	0.66

Technical Sheet

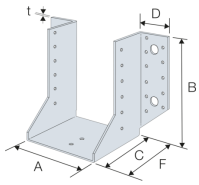
SAE-SAEL

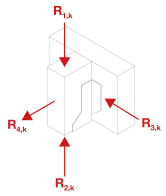
Heavy Duty Face Fix Hangers

Reference	Connector Dimensions								
	Timber size[mm]		Product Dimensions[mm]		Header holes			Joist holes	Other
	Width		B[mm]	C[mm]	Round			Round	Weight[kg]
	Min[mm]	Max.[mm]			Ø5[mm]	Ø11[mm]	Ø13[mm]	Ø5[mm]	
SAE600/91/2	88	91	254.5	88	36	-	4	20	0.786
SAE380/96/2	93	96	142	84	20	-	4	10	0.49
SAE500/96/2	93	96	202	84	32	-	6	16	0.66
SAE600/96/2	93	96	252	88	36	-	4	20	0.786
SAE380/99/2	96	99	140.5	84	20	-	4	10	0.49
SAE500/99/2	96	99	200.5	84	32	-	6	16	0.66
SAE600/99/2	96	99	250.5	88	36	-	4	20	0.786
SAE380/109/2	106	109	135.5	84	20	-	4	10	0.001
SAE500/109/2	106	109	195.5	84	32	-	6	16	0.66
SAE600/109/2	106	109	245.5	88	36	-	4	20	0.786
SAE500/118/2	115	118	191	84	32	-	6	16	0.66
SAE600/118/2	115	118	241	88	36	-	4	20	0.786
SAE500/122/2	119	122	189	84	32	-	6	16	0.66
SAE600/122/2	119	122	239	88	36	-	4	20	0.786
SAE500/125/2	122	125	187.5	84	32	-	6	16	0.66
SAE600/125/2	122	125	237.5	88	36	-	4	20	0.786
SAE500/128/2	125	128	186	84	32	-	6	16	0.66
SAE600/128/2	125	128	236	88	36	-	4	20	0.786
SAE500/142/2	139	142	179	84	32	-	6	16	0.66
SAE600/142/2	139	142	229	88	36	-	4	20	0.786
SAE500/146/2	143	146	177	84	32	-	6	16	0.66
SAE600/146/2	143	146	227	88	36	-	4	20	0.786
SAE600/150/2	147	150	225	88	36	-	4	20	0.786
SAE600/182/2	179	182	209	88	36	-	4	20	0.825
SAE720/182/2	179	182	269	75	38	-	6	20	0.943
SAE600/196/2	193	196	202	88	36	-	4	20	0.845
SAE720/196/2	193	196	262	75	38	-	6	20	0.943
SAE590/200/2	197	200	195	88	30	-	6	20	0.8

Technical Sheet

SAE-SAEL
Heavy Duty Face Fix Hangers





Product characteristic capacities - Timber to timber - full nailing

Reference	Hanger capacity				
	Characteristic capacities - Timber to timber - Full nailing				
	Number of Fasteners		Product characteristic capacities - Timber C24[kN]		
	Header	Joist	$R_{1,k}$		$R_{2,k}$
	Qty	Qty	N3.75x30 - C16 Header	N3.75x30 - C24 Header	N3.75x30 - C16 Joist
SAE200/38/2	8.0	5	7.6	8.1	4.2
SAE250/38/2	12.0	7	12.7	13.5	5.9
SAE200/40/2	8.0	5	7.6	8.1	4.2
SAE250/40/2	12.0	7	12.7	13.5	5.9
SAE200/50/2	8.0	5	7.6	8.1	4.2
SAE250/50/2	12.0	7	12.7	13.5	5.9
SAE500/50/2	34.0	18	33.3	35.6	12.2
SAE380/66/2	22.0	12	18.2	19.4	8.5
SAE380/72/2	22.0	12	18.2	19.4	8.5
SAEL500/140/2	32.0	16	33.3	35.6	12.2
SAEL500/150/2	32.0	16	33.3	35.6	12.2
SAE380/38/2	20.0	10	18.2	19.4	8.5
SAE500/38/2	32.0	16	33.3	35.6	12.2
SAE600/38/2	36.0	20	42.2	45.1	15.9
SAE380/40/2	20.0	10	18.2	19.4	8.5
SAE500/40/2	32.0	16	33.3	35.6	12.2
SAE600/40/2	36.0	20	42.2	45.1	15.9
SAE200/47/2	8.0	5	7.6	8.1	4.2
SAE250/47/2	12.0	7	12.7	13.5	5.9
SAE380/47/2	20.0	10	18.2	19.4	8.5
SAE500/47/2	32.0	16	33.3	35.6	12.2
SAE600/47/2	36.0	20	42.2	45.1	15.9
SAE380/50/2	20.0	10	18.2	19.4	8.5
SAE600/50/2	36.0	20	42.2	45.1	15.9
SAE380/56/2	20.0	10	18.2	19.4	8.5
SAE500/56/2	32.0	16	33.3	35.6	12.2
SAE600/56/2	36.0	20	42.2	45.1	15.9
SAE380/63/2	20.0	10	18.2	19.4	8.5
SAE500/63/2	32.0	16	33.3	35.6	12.2
SAE600/63/2	36.0	20	42.2	45.1	15.9
SAE500/66/2	32.0	16	33.3	35.6	12.2
SAE600/66/2	36.0	20	42.2	45.1	15.9
SAE500/72/2	32.0	16	33.3	35.6	12.2
SAE600/72/2	36.0	20	42.2	45.1	15.9
SAE380/75/2	20.0	10	18.2	19.4	8.5
SAE500/75/2	32.0	16	33.3	35.6	12.2
SAE600/75/2	36.0	20	42.2	45.1	15.9
SAE380/78/2	20.0	10	18.2	19.4	8.5
SAE500/78/2	32.0	16	33.3	35.6	12.2
SAE600/78/2	36.0	20	42.2	45.1	15.9
SAE380/91/2	20.0	10	18.2	19.4	8.5

Technical Sheet

SAE-SAEL

Heavy Duty Face Fix Hangers

Reference	Hanger capacity				
	Characteristic capacities - Timber to timber - Full nailing				
	Number of Fasteners		Product characteristic capacities - Timber C24[kN]		
	Header	Joist	$R_{1,k}$		$R_{2,k}$
	Qty	Qty	N3.75x30 - C16 Header	N3.75x30 - C24 Header	N3.75x30 - C16 Joist
SAE500/91/2	32.0	16	33.3	35.6	12.2
SAE600/91/2	36.0	20	42.2	45.1	15.9
SAE380/96/2	20.0	10	18.2	19.4	8.5
SAE500/96/2	32.0	16	33.3	35.6	12.2
SAE600/96/2	36.0	20	42.2	45.1	15.9
SAE380/99/2	20.0	10	18.2	19.4	8.5
SAE500/99/2	32.0	16	33.3	35.6	12.2
SAE600/99/2	36.0	20	42.2	45.1	15.9
SAE380/109/2	20.0	10	18.2	19.4	8.5
SAE500/109/2	32.0	16	33.3	35.6	12.2
SAE600/109/2	36.0	20	42.2	45.1	15.9
SAE500/118/2	32.0	16	33.3	35.6	12.2
SAE600/118/2	36.0	20	42.2	45.1	15.9
SAE500/122/2	32.0	16	33.3	35.6	12.2
SAE600/122/2	36.0	20	42.2	45.1	15.9
SAE500/125/2	32.0	16	33.3	35.6	12.2
SAE600/125/2	36.0	20	42.2	45.1	15.9
SAE500/128/2	32.0	16	33.3	35.6	12.2
SAE600/128/2	36.0	20	42.2	45.1	15.9
SAE500/142/2	32.0	16	33.3	35.6	12.2
SAE600/142/2	36.0	20	42.2	45.1	15.9
SAE500/146/2	32.0	16	33.3	35.6	12.2
SAE600/146/2	36.0	20	42.2	45.1	15.9
SAE600/150/2	36.0	20	42.2	45.1	15.9
SAE600/182/2	36.0	20	42.2	45.1	15.9
SAE720/182/2	38.0	20	44.6	47.6	16.7
SAE600/196/2	36.0	20	42.2	45.1	15.9
SAE720/196/2	38.0	20	44.6	47.6	16.7
SAE590/200/2	30.0	20	29.4	31.4	16.7

Technical Sheet

SAE-SAEL

Heavy Duty Face Fix Hangers

Product characteristic capacities - Timber to timber - with connector screw SSH

Reference	Hanger capacity											
	Product capacities - Timber to timber - with connector screw SSH											
	Number of Fasteners				Characteristic capacities - Timber C24[kN]							
	Header		Joist		$R_{1,k}$		$R_{2,k}$		$R_{3,k}$		R4,k	
	Qty	Type	Qty	Type	CNA4.0x35	CNA4.0x50	CNA4.0x35	CNA4.0x50	CNA4.0x35	CNA4.0x50	CNA4.0x35	CNA4.0x50
SAE200/2X	2.0	SSH10.0x40	5.0	CNA*	5.6	6.3	5.7	6.4	2.1	3.6	5	5
SAE250/2X	2.0	SSH10.0x40	7.0	CNA*	7	7.2	6.9	7.2	2	2.7	5	5
SAE300	2.0	SSH12.0x60	10.0	CNA*	11.4	11.5	11.4	11.5	3.4	4.1	5	5
SAEL300/2X	2.0	SSH12.0x60	8.0	CNA*	10.7	11.4	10.8	11.4	3	4.1	5	5
SAE340	4.0	SSH12.0x60	12.0	CNA*	18.4	21	18.4	21	3.8	6.4	10	10
SAEL340/2X	4.0	SSH12.0x60	10.0	CNA*	15.3	19.1	15.3	19.7	3.4	6.2	10	10
SAE380	4.0	SSH12.0x60	12.0	CNA*	18.4	21	18.4	21	3.8	5.6	10	10
SAEL380/2X	4.0	SSH12.0x60	10.0	CNA*	15.3	19.1	15.3	19.7	3.4	5.6	10	10
SAE440	4.0	SSH12.0x60	15.0	CNA*	22	23	22	23	4.2	5.3	10	10
SAEL440/2X	4.0	SSH12.0x60	13.0	CNA*	19.9	22.7	20	22.8	4	5.3	10	10
SAE500	6.0	SSH12.0x60	18.0	CNA*	27.7	33.4	27.7	33.4	4.5	6.5	15	15

Transversal tension shall be checked by the user and may govern.
These values are valid if the following minimum distances from SSH screws to edges are fullfilled:

Screw	Min. distance to loaded edge $a_{2.c}$	Min. distance to unloaded edge $a_{2.c}$
SSH10.0	50	40
SSH12.0	80	40

for lower distances, check ETA-06/0270 and EN1995.
The minimum thickness of the supporting timber member to use with SSH10x40 is 47 mm and for SSH12x60 is 75 mm.
For values with other SSH length, please refer to the ETA-06/0270

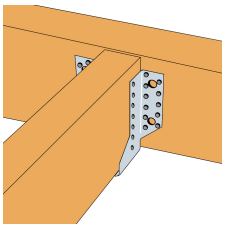
Installation

Fasteners

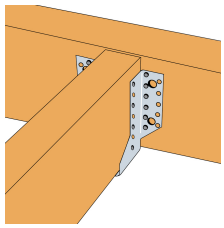
- Install using 3.75 x 30mm square twist nails

Installation

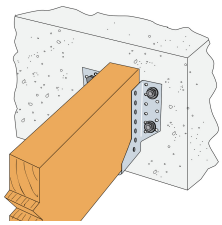
The hanger depth is to be at least 60% of the carried member depth to prevent rotation, unless additional lateral restraint is added to the top of the carried member.
• SAE hangers have bolt holes for 12mm fasteners if required
• SAE timber bolted capacity to be determined according to the relevant standards



Full Nailing on Timber



Partial Nailing on Timber



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