

Technical data sheet

SIMPSON

Strong-Tie

EWH Engineered Wood Hanger

Universal, flexible and simple to install, the EWH is an engineered hanger that has been designed to fulfil a wide variety of installation options.

Features

Material

- 275 g/m2 Pre-galvanised Mild Steel.

Features

- Choice of installation options - Top Fix, Face Fix.
- Hanger supplied with top flange straight so that it can be bent on site to accommodate a range of joist heights.
- Perforations allow the top flange to be snapped off for face fix installation option.
- Optional triangular holes for increased download and uplift performances.
- Seat tab for ease of installation.
- Seat tab can be bent upwards for installations where the header is deeper than the joist.

Suitability

Suitable for use with combinations of the following:

- Headers: I-Joists, Metal Web Joists, Solid Timber and SIP's.
- Joists: I-Joists, Metal Web Joists, and Solid Timber.

(Note: Solid timber refers to LVL, Glulam or Solid Sawn Timber)



Technical Data

Height & Width Suitability

Joist Heights [mm]	Hanger Height (B) [mm]	Joist Widths [mm]																									
		38 39	45	47	53	58	60	63	69 70	72	75 2*38 2*39	89 90 2*45	2*47	96 97	2*53	2*58	2*60	122	2*63	140 2*69 2*70	2*72	147 2*75	2*89 2*90	2*96 2*97	2*122	2*147	
		Hanger Width (A) [mm]																									
		40	47	50	56	61	63	66	72	75	79	91	96	99	109	119	122	125	128	142	146	150	182	196	246	296	
195, 200, 202	195	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
219, 220, 225	219	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
235, 240	235	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X		X	X				
245, 250	245	X	X	X		X		X		X	X	X	X	X		X		X		X		X	X				
253, 254	253		X	X						X		X		X			X			X	X		X	X	X	X	

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Engineered Wood Hanger

[illegible]

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Product Dimensions

References	Dimensions [mm]						Holes						Weight [kg]
	A	B	C	D	E	t	Flange B			Flange C		Flange E	
							Ø5	Ø10	Tri	Ø5	Tri	Ø5	
EW195/40	40	195	49	80	40	0.9	8	4	6	4	4	4	0.27
EW195/47	47		49	80	40	0.9	8	4	6	4	4	4	0.28
EW195/50	50		49	80	40	0.9	8	4	6	4	4	4	0.27
EW195/56	56		49	80	40	0.9	8	4	6	4	4	4	0.27
EW195/61	61		49	80	40	0.9	8	4	6	4	4	4	0.28
EW195/63	63		49	80	40	0.9	8	4	6	4	4	4	0.29
EW195/72	72		49	80	40	0.9	8	4	6	4	4	4	0.28
EW195/75	75		49	80	40	0.9	8	4	6	4	4	4	0.28
EW195/79	79		49	80	40	0.9	8	4	6	4	4	4	0.3
EW195/91	91		49	80	40	0.9	8	4	6	4	4	4	0.3
EW195/96	96		49	80	40	0.9	8	4	6	4	4	4	0.3
EW195/99	99		49	80	40	0.9	8	4	6	4	4	4	0.3
EW195/109	109		49	80	40	1.2	8	4	6	4	4	4	0.41
EW195/119	119		49	80	40	1.2	8	4	6	4	4	4	0.41
EW195/122	122		49	80	40	1.2	8	4	6	4	4	4	0.42
EW195/125	125		49	80	40	1.2	8	4	6	4	4	4	0.42
EW195/142	142		49	80	40	1.2	8	4	6	4	4	4	0.43
EW195/146	146		49	80	40	1.2	8	4	6	4	4	4	0.43
EW195/150	150		49	80	40	1.2	8	4	6	4	4	4	0.44
EW195/182	182		49	80	40	1.2	8	4	6	4	4	4	0.46
EW195/196	196		49	80	40	1.2	8	4	6	4	4	4	0.47
EW195/246	246	219	49	80	40	1.2	8	4	6	4	4	4	0.51
EW195/296	296		49	80	40	1.2	8	4	6	4	4	4	0.55
EW219/40	40		49	80	40	0.9	8	4	8	4	4	4	0.3
EW219/47	47		49	80	40	0.9	8	4	8	4	4	4	0.3
EW219/50	50		49	80	40	0.9	8	4	8	4	4	4	0.3
EW219/56	56		49	80	40	0.9	8	4	8	4	4	4	0.3
EW219/61	61		49	80	40	0.9	8	4	8	4	4	4	0.3
EW219/63	63		49	80	40	0.9	8	4	8	4	4	4	0.31
EW219/66	66		49	80	40	0.9	8	4	8	4	4	4	0.31
EW219/72	72		49	80	40	0.9	8	4	8	4	4	4	0.31
EW219/75	75		49	80	40	0.9	8	4	8	4	4	4	0.31
EW219/79	79		49	80	40	0.9	8	4	8	4	4	4	0.32
EW219/91	91		49	80	40	0.9	8	4	8	4	4	4	0.33
EW219/96	96		49	80	40	0.9	8	4	8	4	4	4	0.32
EW219/99	99		49	80	40	0.9	8	4	8	4	4	4	0.33
EW219/109	109		49	80	40	1.2	8	4	8	4	4	4	0.44
EW219/119	119		49	80	40	1.2	8	4	8	4	4	4	0.45
EW219/122	122		49	80	40	1.2	8	4	8	4	4	4	0.45
EW219/125	125		49	80	40	1.2	8	4	8	4	4	4	0.45
EW219/128	128		49	80	40	1.2	8	4	8	4	4	4	0.46
EW219/142	142	235	49	80	40	1.2	8	4	8	4	4	4	0.47
EW219/146	146		49	80	40	1.2	8	4	8	4	4	4	0.47
EW219/150	150		49	80	40	1.2	8	4	8	4	4	4	0.47
EW219/182	182		49	80	40	1.2	8	4	8	4	4	4	0.5
EW219/196	196		49	80	40	1.2	8	4	8	4	4	4	0.51
EW219/246	246		49	80	40	1.2	8	4	8	4	4	4	0.55
EW219/296	296		49	80	40	1.2	8	4	8	4	4	4	0.58
EW235/40	40		49	80	40	0.9	8	4	10	4	4	4	0.32
EW235/47	47		49	80	40	0.9	8	4	10	4	4	4	0.32
EW235/50	50		49	80	40	0.9	8	4	10	4	4	4	0.32
EW235/56	56		49	80	40	0.9	8	4	10	4	4	4	0.32
EW235/61	61		49	80	40	0.9	8	4	10	4	4	4	0.32
EW235/63	63		49	80	40	0.9	8	4	10	4	4	4	0.33
EW235/66	66		49	80	40	0.9	8	4	10	4	4	4	0.32
EW235/72	72		49	80	40	0.9	8	4	10	4	4	4	0.33
EW235/75	75		49	80	40	0.9	8	4	10	4	4	4	0.33
EW235/79	79		49	80	40	0.9	8	4	10	4	4	4	0.34
EW235/91	91		49	80	40	0.9	8	4	10	4	4	4	0.35
EW235/96	96		49	80	40	0.9	8	4	10	4	4	4	0.34
EW235/99	99		49	80	40	0.9	8	4	10	4	4	4	0.34
EW235/109	109		49	80	40	1.2	8	4	10	4	4	4	0.47
EW235/119	119		49	80	40	1.2	8	4	10	4	4	4	0.47
EW235/122	122		49	80	40	1.2	8	4	10	4	4	4	0.48
EW235/128	128		49	80	40	1.2	8	4	10	4	4	4	0.48
EW235/142	142		49	80	40	1.2	8	4	10	4	4	4	0.49
EW235/146	146		49	80	40	1.2	8	4	10	4	4	4	0.49
EW235/182	182		49	80	40	1.2	8	4	10	4	4	4	0.52

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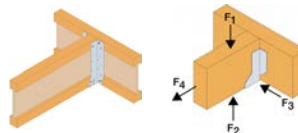
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References	A	Dimensions [mm]					Holes						Weight [kg]
		B	C	D	E	t	Flange B			Flange C		Flange E	
							Ø5	Ø10	Tri	Ø5	Tri	Ø5	
EWB235/196	196	240	49	80	40	1.2	8	4	10	4	4	4	0.53
EWB240/40	40		49	80	40	0.9	8	4	10	4	4	4	0.32
EWB240/47	47		49	80	40	0.9	8	4	10	4	4	4	0.32
EWB240/50	50		49	80	40	0.9	8	4	10	4	4	4	0.32
EWB240/56	56		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB240/61	61		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB240/63	63		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB240/66	66		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB240/72	72		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB240/75	75		49	80	40	0.9	8	4	10	4	4	4	0.34
EWB240/79	79		49	80	40	0.9	8	4	10	4	4	4	0.34
EWB240/91	91		49	80	40	0.9	8	4	10	4	4	4	0.34
EWB240/96	96		49	80	40	0.9	8	4	10	4	4	4	0.35
EWB240/99	99		49	80	40	0.9	8	4	10	4	4	4	0.35
EWB240/109	109		49	80	40	1.2	8	4	10	4	4	4	0.47
EWB240/119	119		49	80	40	1.2	8	4	10	4	4	4	0.48
EWB240/122	122		49	80	40	1.2	8	4	10	4	4	4	0.48
EWB240/128	128		49	80	40	1.2	8	4	10	4	4	4	0.49
EWB240/142	142		49	80	40	1.2	8	4	10	4	4	4	0.5
EWB240/146	146		49	80	40	1.2	8	4	10	4	4	4	0.5
EWB240/182	182		49	80	40	1.2	8	4	10	4	4	4	0.53
EWB240/196	196	245	49	80	40	1.2	8	4	10	4	4	4	0.54
EWB245/40	40		49	80	40	0.9	8	4	10	4	4	4	0.32
EWB245/47	47		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB245/50	50		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB245/61	61		49	80	40	0.9	8	4	10	4	4	4	0.33
EWB245/66	66		49	80	40	0.9	8	4	10	4	4	4	0.34
EWB245/75	75		49	80	40	0.9	8	4	10	4	4	4	0.34
EWB245/79	79		49	80	40	0.9	8	4	10	4	4	4	0.34
EWB245/91	91		49	80	40	0.9	8	4	10	4	4	4	0.35
EWB245/96	96		49	80	40	0.9	8	4	10	4	4	4	0.35
EWB245/99	99		49	80	40	0.9	8	4	10	4	4	4	0.35
EWB245/119	119		49	80	40	1.2	8	4	10	4	4	4	0.49
EWB245/128	128		49	80	40	1.2	8	4	10	4	4	4	0.49
EWB245/146	146		49	80	40	1.2	8	4	10	4	4	4	0.51
EWB245/182	182		49	80	40	1.2	8	4	10	4	4	4	0.54
EWB245/196	196		49	80	40	1.2	8	4	10	4	4	4	0.55
EWB253/47	47	253	49	80	40	0.9	8	4	10	4	4	4	0.33
EWB253/50	50		49	80	40	0.9	8	4	10	4	4	4	0.34
EWB253/75	75		49	80	40	0.9	8	4	10	4	4	4	0.35
EWB253/91	91		49	80	40	0.9	8	4	10	4	4	4	0.36
EWB253/99	99		49	80	40	0.9	8	4	10	4	4	4	0.36
EWB253/125	125		49	80	40	1.2	8	4	10	4	4	4	0.5
EWB253/146	146		49	80	40	1.2	8	4	10	4	4	4	0.52
EWB253/150	150		49	80	40	1.2	8	4	10	4	4	4	0.52
EWB253/196	196		49	80	40	1.2	8	4	10	4	4	4	0.56
EWB253/246	246		49	80	40	1.2	8	4	10	4	4	4	0.6
EWB253/296	296	295	49	80	40	1.2	8	4	10	4	4	4	0.63
EWB295/72	72		49	80	40	0.9	8	4	10	4	4	4	0.4
EWB295/99	99	300	49	80	40	0.9	8	4	10	4	4	4	0.41
EWB300/40	40		49	80	40	0.9	8	4	10	4	4	4	0.39
EWB300/47	47		49	80	40	0.9	8	4	10	4	4	4	0.4
EWB300/50	50		49	80	40	0.9	8	4	10	4	4	4	0.39
EWB300/56	56		49	80	40	0.9	8	4	10	4	4	4	0.39
EWB300/61	61		49	80	40	0.9	8	4	10	4	4	4	0.39
EWB300/63	63		49	80	40	0.9	8	4	10	4	4	4	0.41
EWB300/66	66		49	80	40	0.9	8	4	10	4	4	4	0.4
EWB300/72	72		49	80	40	0.9	8	4	10	4	4	4	0.4
EWB300/75	75		49	80	40	0.9	8	4	10	4	4	4	0.4
EWB300/79	79		49	80	40	0.9	8	4	10	4	4	4	0.42
EWB300/91	91		49	80	40	0.9	8	4	10	4	4	4	0.42
EWB300/96	96		49	80	40	0.9	8	4	10	4	4	4	0.41
EWB300/99	99		49	80	40	0.9	8	4	10	4	4	4	0.42
EWB300/109	109		49	80	40	1.2	8	4	10	4	4	4	0.56
EWB300/119	119		49	80	40	1.2	8	4	10	4	4	4	0.57
EWB300/122	122		49	80	40	1.2	8	4	10	4	4	4	0.57
EWB300/125	125		49	80	40	1.2	8	4	10	4	4	4	0.58
EWB300/128	128		49	80	40	1.2	8	4	10	4	4	4	0.58
EWB300/142	142		49	80	40	1.2	8	4	10	4	4	4	0.59
EWB300/146	146		49	80	40	1.2	8	4	10	4	4	4	0.59
EWB300/150	150		49	80	40	1.2	8	4	10	4	4	4	0.59
EWB300/182	182		49	80	40	1.2	8	4	10	4	4	4	0.62
EWB300/196	196		49	80	40	1.2	8	4	10	4	4	4	0.63
EWB300/246	246		49	80	40	1.2	8	4	10	4	4	4	0.67
EWB300/296	296		49	80	40	1.2	8	4	10	4	4	4	0.7

EWH
Engineered Wood Hanger

References	Dimensions [mm]						Holes						Weight [kg]
	A	B	C	D	E	t	Flange B			Flange C		Flange E	
							Ø5	Ø10	Tri	Ø5	Tri	Ø5	
EW H350/47	47	350	49	80	40	1.2	8	4	10	4	4	4	0.59
EW H350/50	50		49	80	40	1.2	8	4	10	4	4	4	0.59
EW H350/63	63		49	80	40	1.2	8	4	10	4	4	4	0.6
EW H350/72	72		49	80	40	1.2	8	4	10	4	4	4	0.61
EW H350/75	75		49	80	40	1.2	8	4	10	4	4	4	0.61
EW H350/91	91		49	80	40	1.2	8	4	10	4	4	4	0.63
EW H350/96	96		49	80	40	1.2	8	4	10	4	4	4	0.63
EW H350/99	99		49	80	40	1.2	8	4	10	4	4	4	0.63
EW H350/122	122		49	80	40	1.2	8	4	10	4	4	4	0.65
EW H350/142	142		49	80	40	1.2	8	4	10	4	4	4	0.66
EW H360/47	47	360	49	80	40	1.2	8	4	10	4	4	4	0.61
EW H360/50	50		49	80	40	1.2	8	4	10	4	4	4	0.61
EW H360/61	61		49	80	40	1.2	8	4	10	4	4	4	0.62
EW H360/63	63		49	80	40	1.2	8	4	10	4	4	4	0.62
EW H360/66	66		49	80	40	1.2	8	4	10	4	4	4	0.62
EW H360/72	72		49	80	40	1.2	8	4	10	4	4	4	0.63
EW H360/79	79		49	80	40	1.2	8	4	10	4	4	4	0.63
EW H360/91	91		49	80	40	1.2	8	4	10	4	4	4	0.64
EW H360/96	96		49	80	40	1.2	8	4	10	4	4	4	0.64
EW H360/99	99		49	80	40	1.2	8	4	10	4	4	4	0.65
EW H360/119	119		49	80	40	1.2	8	4	10	4	4	4	0.66
EW H360/122	122		49	80	40	1.2	8	4	10	4	4	4	0.66
EW H360/182	182		49	80	40	1.2	8	4	10	4	4	4	0.71
EW H370/50	50	370	49	80	40	1.2	8	4	10	4	4	4	0.62
EW H370/75	75		49	80	40	1.2	8	4	10	4	4	4	0.64
EW H370/99	99		49	80	40	1.2	8	4	10	4	4	4	0.66
EW H400/47	47	400	49	80	40	1.2	8	4	10	4	4	4	0.67
EW H400/50	50		49	80	40	1.2	8	4	10	4	4	4	0.67
EW H400/61	61		49	80	40	1.2	8	4	10	4	4	4	0.68
EW H400/63	63		49	80	40	1.2	8	4	10	4	4	4	0.68
EW H400/66	66		49	80	40	1.2	8	4	10	4	4	4	0.68
EW H400/72	72		49	80	40	1.2	8	4	10	4	4	4	0.69
EW H400/75	75		49	80	40	1.2	8	4	10	4	4	4	0.69
EW H400/91	91		49	80	40	1.2	8	4	10	4	4	4	0.7
EW H400/96	96		49	80	40	1.2	8	4	10	4	4	4	0.7
EW H400/99	99		49	80	40	1.2	8	4	10	4	4	4	0.71
EW H400/119	119		49	80	40	1.2	8	4	10	4	4	4	0.72
EW H400/122	122		49	80	40	1.2	8	4	10	4	4	4	0.72
EW H400/182	182		49	80	40	1.2	8	4	10	4	4	4	0.77
EW H417/50	50	417	49	80	40	1.2	8	4	10	4	4	4	0.7
EW H417/75	75		49	80	40	1.2	8	4	10	4	4	4	0.71
EW H417/99	99		49	80	40	1.2	8	4	10	4	4	4	0.73

EWH
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Characteristic Loads - I-Joist Headers

References	Fasteners					Characteristic Capacities [kN]									
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		R _{1,k}					R _{2,k}				
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	LVL I-Joist Enhanced	SS I-Joist Enhanced	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm		
						N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	CNA4.0x35	N3.75x30
EWB (TF)	8	-	4	4	-	11	13	12.1	-	-	2.3	2.5	3.5	3.5	
EWB (TF + 6 TRI)	8	6	4	4	-	-	-	-	18.3	18.2	2.3	2.5	3.5	3.5	
EWB (TF + 8 TRI)	8	8	4	4	-	-	-	-	19.9	19.6	2.3	2.5	3.5	3.5	
EWB (TF + 10 TRI)	8	10	4	4	-	-	-	-	20.3	20.6	2.3	2.5	3.5	3.5	
EWB (FF)	8	-	-	4	-	6	9.2	8	-	-	2.3	2.5	3.5	3.5	
EWB (FF + 6 TRI)	8	6	-	4	-	-	-	-	15.5	16.3	2.3	2.5	3.5	3.5	
EWB (FF + 8 TRI)	8	8	-	4	-	-	-	-	16.9	16.6	2.3	2.5	3.5	3.5	
EWB (FF + 10 TRI)	8	10	-	4	-	-	-	-	17.6	17.7	2.3	2.5	3.5	3.5	

Footnote:

→ (TF) = Top Fix | (FF) = Face Fix | (+6 TRI) = quantity of additional face nails installed through the triangular holes

→ For EWB > 300mm deep, a backer block installed onto the front face of the supporting I-joist is required for standard performance values to apply. The installation of the backer block is to be in accordance to the I-Joist manufacturers specification

→ The enhanced installation requires a backer block to be installed onto the front face of the supporting I-joist and the specified number of triangular holes to be filled. The installation of the backer block is to be in accordance to the I-Joist manufacturers specification

→ R₂ values relate to the joist type supported by the hanger



Safe Working Loads - I-Joist Headers

References	Fasteners					Safe Working Loads [kN]									
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		R _{1,SWL,T}					R _{2,SWL,ST}				
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	LVL I-Joist Enhanced	SS I-Joist Enhanced	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	LVL, Glulam Solid Sawn Timber	
						N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	
EWB (TF)	8	-	4	4	-	4.6	5.4	5	-	-	1.2	1.3	1.8	1.8	
EWB (TF + 6 TRI)	8	6	4	4	-	-	-	-	7.6	7.6	1.2	1.3	1.8	1.8	
EWB (TF + 8 TRI)	8	8	4	4	-	-	-	-	8.3	8.2	1.2	1.3	1.8	1.8	
EWB (TF + 10 TRI)	8	10	4	4	-	-	-	-	8.5	8.6	1.2	1.3	1.8	1.8	
EWB (FF)	8	-	-	4	-	2.5	3.8	3.3	-	-	1.2	1.3	1.8	1.8	
EWB (FF + 6 TRI)	8	6	-	4	-	-	-	-	6.5	6.8	1.2	1.3	1.8	1.8	
EWB (FF + 8 TRI)	8	8	-	4	-	-	-	-	7	6.9	1.2	1.3	1.8	1.8	
EWB (FF + 10 TRI)	8	10	-	4	-	-	-	-	7.3	7.4	1.2	1.3	1.8	1.8	

Footnote:

→ (TF) = Top Fix | (FF) = Face Fix | (+6 TRI) = quantity of additional face nails installed through the triangular holes

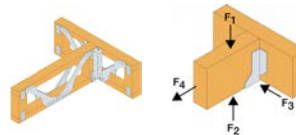
→ For EWB > 300mm deep, a backer block installed onto the front face of the supporting I-joist is required for the standard performance values to apply. The installation of the backer block is to be in accordance to the I-Joist manufacturers specification

→ The enhanced installation requires a backer block to be installed onto the front face of the supporting I-joist, and the specified number of triangular holes to be filled. The installation of the backer block is to be in accordance to the I-Joist manufacturers specification

→ R₂ values relate to the joist type supported by the hanger

EWH
Engineered Wood Hanger

Characteristic Loads - Metal Web Headers



References	Fasteners					Characteristic Capacities [kN]						
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		R _{1,k}				R _{2,k}		
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	Metal Web		Metal Web Enhanced		Metal Web	LVL, Glulam Solid Sawn Timber	
						N3.75x30	CSA5.0x50	N3.75x30	CSA5.0x50			
EWB (TF)	8	-	4	4	-	13	16.4	-	-	3.5	3.5	
EWB (TF + 6 TRI)	8	6	4	4	-	-	-	17.1	17.4	3.5	3.5	
EWB (TF + 8 TRI)	8	8	4	4	-	-	-	18	18.3	3.5	3.5	
EWB (TF + 10 TRI)	8	10	4	4	-	-	-	18.6	18.9	3.5	3.5	
EWB (FF)	8	-	-	4	-	9.9	13.7	-	-	3.5	3.5	
EWB (FF + 6 TRI)	8	6	-	4	-	-	-	15.5	16.6	3.5	3.5	
EWB (FF + 8 TRI)	8	8	-	4	-	-	-	17.3	18.4	3.5	3.5	
EWB (FF + 10 TRI)	8	10	-	4	-	-	-	19.1	20.2	3.5	3.5	

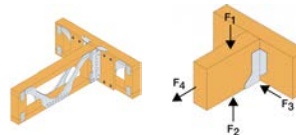
Footnote:

→ (TF) = Top Fix | (FF) = Face Fix | (+6 TRI) = quantity of additional face nails installed through the triangular holes

→ Enhanced installation requires a 18mm plywood gusset to be fixed to the face of the metal web joist. The plywood gusset is to be at least 400mm long and full depth of the metal web joist. The plywood gusset is installed with 8 No ESCR8.0x80mm screws. The screws are to be positioned in accordance to illustration within the Installation Notes section.

→ R₂ values relate to the joist type supported by the hanger

Safe Working Loads - Metal Web Headers



References	Fasteners					Safe Working Loads [kN]					
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		R _{1,SWL,LT}				R _{2,SWL,ST}	
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	Metal Web		Metal Web Enhanced		Metal Web	LVL, Glulam, Solid Sawn Timber
						N3.75x30	CSA5.0x50	N3.75x30	CSA5.0x50		
EWB (TF)	8	-	4	4	-	5.4	6.8	-	-	1.8	1.8
EWB (TF + 6 TRI)	8	6	4	4	-	-	-	7.1	7.3	1.8	1.8
EWB (TF + 8 TRI)	8	8	4	4	-	-	-	7.5	7.6	1.8	1.8
EWB (TF + 10 TRI)	8	10	4	4	-	-	-	7.8	7.9	1.8	1.8
EWB (FF)	8	-	-	4	-	4.1	5.7	-	-	1.8	1.8
EWB (FF + 6 TRI)	8	6	-	4	-	-	-	6.5	6.9	1.8	1.8
EWB (FF + 8 TRI)	8	8	-	4	-	-	-	7.2	7.7	1.8	1.8
EWB (FF + 10 TRI)	8	10	-	4	-	-	-	8	8.4	1.8	1.8

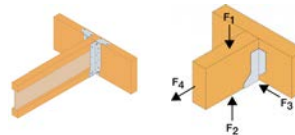
Footnote:

→ (TF) = Top Fix | (FF) = Face Fix | (+6 TRI) = quantity of additional face nails installed through the triangular holes

→ Enhanced installation requires a 18mm plywood gusset to be fixed to the face of the metal web joist. The plywood gusset is to be at least 400mm long and full depth of the metal web joist. The plywood gusset is installed with 8 No ESCR8.0x80mm screws. The screws are to be positioned in accordance to illustration within the Installation Notes section.

→ R₂ values relate to the joist type supported by the hanger

EW
Engineered Wood Hanger



Characteristic Loads - Solid Headers

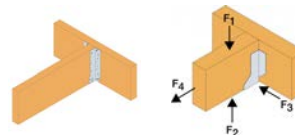
References	Fasteners					Characteristic Capacities [kN]							
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		$R_{1,k}$			$R_{2,k}$				
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	LVL	Glulam	C24 Solid Sawn Timber	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	Metal Web	LVL, Glulam Solid Sawn Timber
						N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30
EW (TF)	8	-	4	4	-	15.5	12.9	12.8	2.3	2.5	3.5	3.5	3.5
EW (TF + 6 TRI)	8	6	4	4	-	18.8	18.5	17.6	2.3	2.5	3.5	3.5	3.5
EW (TF + 8 TRI)	8	8	4	4	-	19	19	18.5	2.3	2.5	3.5	3.5	3.5
EW (TF + 10 TRI)	8	10	4	4	-	20.4	19.4	19.1	2.3	2.5	3.5	3.5	3.5
EW (FF)	8	-	-	4	-	11.1	9	6.6	2.3	2.5	3.5	3.5	3.5
EW (FF + 6 TRI)	8	6	-	4	-	18.7	16.3	13.4	2.3	2.5	3.5	3.5	3.5
EW (FF + 8 TRI)	8	8	-	4	-	20.4	17.9	15.2	2.3	2.5	3.5	3.5	3.5
EW (FF + 10 TRI)	8	10	-	4	-	21.3	18.6	17.1	2.3	2.5	3.5	3.5	3.5

Footnote:

→ (TF) = Top Fix | (FF) = Face Fix | (+6 TRI) = quantity of additional face nails installed through the triangular holes.

→ Solid timber refers to LVL, Glulam or Solid Sawn Timber

→ R_2 values relate to the joist type supported by the hanger



Safe Working Loads - Solid Headers

References	Fasteners					Safe Working Loads [kN]							
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		$R_{1,SWL,LT}$			$R_{2,SWL,ST}$				
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	LVL	Glulam	C24 Solid Sawn Timber	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	Metal Web	LVL, Glulam, Solid Sawn Timber
						N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30
EW (TF)	8	-	4	4	-	6.5	5.4	5.3	1.2	1.3	1.8	1.8	1.8
EW (TF + 6 TRI)	8	6	4	4	-	7.8	7.7	7.3	1.2	1.3	1.8	1.8	1.8
EW (TF + 8 TRI)	8	8	4	4	-	7.9	7.9	7.7	1.2	1.3	1.8	1.8	1.8
EW (TF + 10 TRI)	8	10	4	4	-	8.5	8.1	8	1.2	1.3	1.8	1.8	1.8
EW (FF)	8	-	-	4	-	4.6	3.8	2.8	1.2	1.3	1.8	1.8	1.8
EW (FF + 6 TRI)	8	6	-	4	-	7.8	6.8	5.6	1.2	1.3	1.8	1.8	1.8
EW (FF + 8 TRI)	8	8	-	4	-	8.5	7.5	6.3	1.2	1.3	1.8	1.8	1.8
EW (FF + 10 TRI)	8	10	-	4	-	8.9	7.8	7.1	1.2	1.3	1.8	1.8	1.8

Footnote:

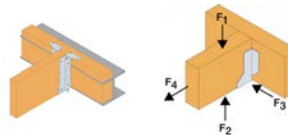
→ (TF) = Top Fix | (FF) = Face Fix | (+6 TRI) = quantity of additional face nails installed through the triangular holes.

→ Solid timber refers to LVL, Glulam or Solid Sawn Timber

→ R_2 values relate to the joist type supported by the hanger

EWH
Engineered Wood Hanger

Characteristic Loads - Timber Nailer Headers

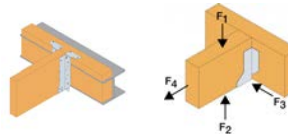


References	Fasteners					Characteristic Capacities [kN]							
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		$R_{1,k}$			$R_{2,k}$				
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	Timber Nailer			LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	Metal Web	LVL, Glulam Solid Sawn Timber
						N3.75x30	N3.75x75	CSA5.0x40	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30
EW (Nailer 38-74mm)	4	-	4	4	-	9.8	-	13.9	2.3	2.5	3.5	3.5	3.5
EW (Nailer 75-100mm)	4	-	4	4	-	9.8	13.5	13.9	2.3	2.5	3.5	3.5	3.5

Footnote:

- Timber nailers can be either Solid Sawn Timber (C24 minimum grade), LVL or Glulam
- (38 - 50mm) refers to depth range of timber nailer
- Minimum width of timber nailer is 89mm
- R_2 values relate to the joist type supported by the hanger

Safe Working Loads - Timber Nailer Headers

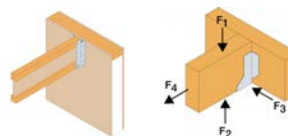


References	Fasteners					Safe Working Loads [kN]							
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		$R_{1,SWL,LT}$			$R_{2,SWL,ST}$				
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	Timber Nailer			LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	Metal Web	LVL, Glulam, Solid Sawn Timber
						N3.75x30	N3.75x75	CSA5.0x40	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30
EW (Nailer 38-74mm)	4	-	4	4	-	4.1	-	5.8	1.2	1.3	1.8	1.8	1.8
EW (Nailer 75-100mm)	4	-	4	4	-	4.1	5.6	5.8	1.2	1.3	1.8	1.8	1.8

Footnote:

- Timber nailers can be either Solid Sawn Timber (C24 minimum grade), LVL or Glulam
- (38 - 50mm) refers to depth range of timber nailer
- Minimum width of timber nailer is 89mm
- R_2 values relate to the joist type supported by the hanger

Characteristic Loads - SIP Headers



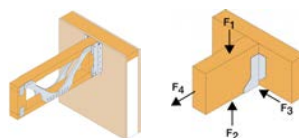
References	Fasteners					Characteristic Capacities [kN]						
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		$R_{1,k}$	$R_{2,k}$					
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	SIP	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	Metal Web	LVL, Glulam Solid Sawn Timber	
						CSA5.0x50	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	
EW (11mm OSB)	4	-	-	4	-	9.7	2.3	2.5	3.5	3.5	3.5	
EW (15mm OSB)	4	-	-	4	-	10.2	2.3	2.5	3.5	3.5	3.5	

Footnote:

- SIP requires a minimum 47mm deep top rail
- R_2 values relate to the joist type supported by the hanger

EWH Engineered Wood Hanger

Safe Working Loads - SIP Headers



References	Fasteners					Safe Working Loads [kN]					
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		R _{1,SWL,LT}	R _{2,SWL,ST}				
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes						
							SIP	LVL I-Joist 36mm	LVL I-Joist 39mm	SS I-Joist 45mm	Metal Web
						CSA5.0x50	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30
EWB (11mm OSB)	4	-	-	4	-	4	1.2	1.3	1.8	1.8	1.8
EWB (15mm OSB)	4	-	-	4	-	4.3	1.2	1.3	1.8	1.8	1.8

Footnote:

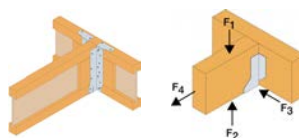
→ SIP requires a minimum 45mm deep top rail

→ R₂ values relate to the joist type supported by the hanger

Footnote:

- SIP requires a minimum 45mm deep top rail
- R₂ values relate to the joist type supported by the hanger

Enhanced Uplift



References	Fasteners					Characteristic Loads [kN]			Safe Working Loads [kN]		
	Face (Flange B)		Top (Flange E)	Joist (Flange C)		R _{2,k}			R _{2,SWL,ST}		
	Ø5 Holes	Tri Holes	Ø5 Holes	Ø5 Holes	Tri Holes	I-Joist + Web Stiffener	Metal Web	LVL, Glulam Solid Sawn Timber	I-Joist + Web Stiffener	Metal Web	LVL, Glulam, Solid Sawn Timber
						N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30	N3.75x30
EWB (Enhanced Uplift)	4	6, 8 or 10	0, 4	4	4	8	8	8	4	4	4

Footnote:

→ Fill all round and triangular holes with the relevant fastener.

→ If the incoming joist is an I-Joist then web stiffeners are required. (The web stiffener's size and installation requirements shall be in accordance to relevant I-Joist manufacturer's specification).

→ R₂ values relate to the joist type supported by the hanger

Footnote:

- Fill all round and triangular holes with the relevant fastener.
- If the incoming joist is an I-Joist then web stiffeners are required. (The web stiffener's size and installation requirements shall be in accordance to relevant I-Joist manufacturer's specification).
- R₂ values relate to the joist type supported by the hanger

EWH
Engineered Wood Hanger

Installation

Installation

- Use all specified fasteners.
- For STANDARD installation all round holes to be filled.
- For ENHANCED installation, all round and triangular holes to be filled, (excluding triangular hole in the hanger's seat tab).

EWH Standard Installation Instructions – Applicable to I-Joist, Metal Web Joist & Solid Timber Headers

1. Position EWH hanger onto the face of the supporting Joist, ensuring the seat tab is tight up against the underside of the supporting joist.
2. Ensure hanger sides are vertical; fill all face round holes, starting from bottom upwards, with the specified fastener.
3. For top fix installations, fold over the top flange, ensuring a tight fold line along the top edge of the supporting timber, and fill all top round holes with the specified fasteners (NOTE: Depending upon the joist depth, the fold line may be up to 6mm above the perforation lines).
4. For face fix installations, snap off the top flange along the perforation line (NOTE: The top flange may be snapped off pre or post installation).
5. Insert the incoming joist, ensuring it is tight against the back of the EWH (maximum allowable gap is 3mm between end of incoming joist and face of hanger) and fill all round holes in the side flanges.
6. For instances where the supporting member is deeper than the hanger, bend the seat tab upwards so the hanger fits tight against the face of the supporting member.

EWH Enhanced Installation Instructions – Applicable to I-Joist, Metal Web Joist & Solid Timber Headers

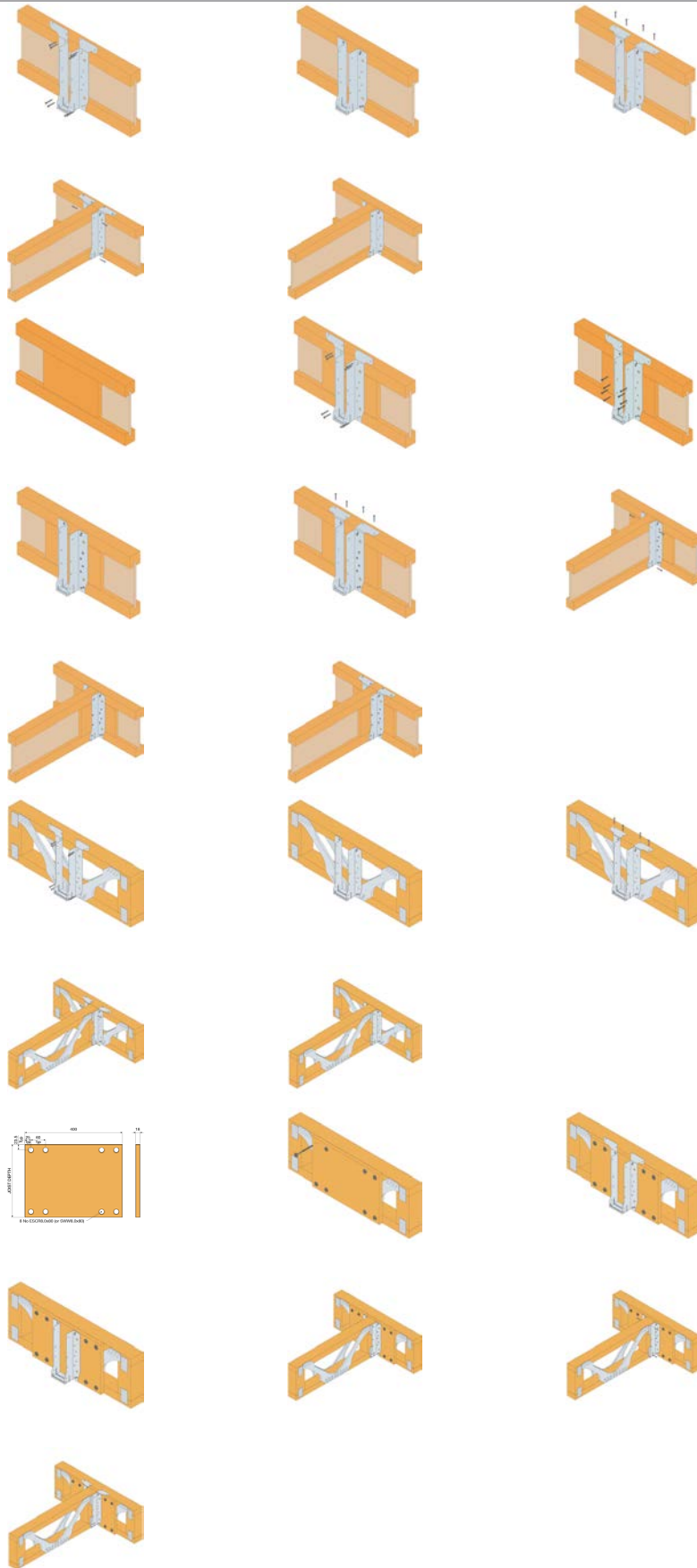
7. **Metal Web Headers Only:** Install an 18mm plywood gusset to the face of the metal web joist. The plywood gusset is to be at least 400mm long and full depth of the metal web joist. The plywood gusset is installed with 8 No ESCR8.0x80mm screws. The screws are to be positioned in accordance to illustration below.
8. **I-Joist Headers Only:** Install a backer block onto the front face of the I-Joist. The backer blocks size and installation requirements shall be in accordance to the relevant I-Joist manufacturer's specifications.
9. Position EWH hanger onto the face of the supporting joist, ensuring the seat tab is tight up against the underside of the supporting joist's bottom chord.
10. Ensure hanger sides are vertical and fill all face round holes then the triangular holes, starting from bottom upwards, with the specified fastener.
11. **For top fix installations,** fold over the top flange, ensuring a tight fold line along the top edge of the supporting timber, and fill the round holes with the specified fasteners (NOTE: Depending upon joist depth, the fold line may be up to 6mm above the perforation lines).
12. **For face fix installations,** snap off the top flange along the perforation line (NOTE: The top flange may be snapped off pre or post installation).
13. Insert the incoming joist, ensuring it is tight against the back of the EWH (maximum allowable gap is 3mm between end of incoming joist and face of hanger) and fill all round holes in the side flanges.
14. **For enhanced uplift installations,** if the incoming joist is an I-Joist then web stiffeners are required. (The web stiffener's size and installation requirements shall be in accordance to relevant I-Joist manufacturer's specification). Fill all round and triangular holes with the relevant fastener.

EWH Installation Instructions – SIP

15. It is recommended for SIP installation that the EWH is installed face fix only.
16. Bend the seat tab upwards so the hanger fits tight against the face of the SIP.
17. Position the EWH hanger onto the face of the SIP so that the top of the carried member will finish level with the top of the SIP.
18. Install 4 No CSA 5.0x50mm screws through the upper 4 round holes on the face of the EWH.
19. Tear off the hanger's top flange, along its perforation line.
20. Sit the carried member into the hanger and install 4 No 3.75x30mm square twist nails through the round holes into the side of the supported member.



EWB
Engineered Wood Hanger



EW
Engineered Wood Hanger

