

Smart Joist Hanger

Fast fixing, multi-purpose hangers for connecting joists to beams, trusses to beams and roof trusses to girders; compliant with the requirements of AS1720 and AS4600.

Application

Formm Smart Joist Hangers are a quick and effective solution for fixing a variety of timber joints, used primarily for joining joists to beams, rafters to fascias and floor trusses to beams. All Formm Joist Hangers incorporate tack nails for easy and fast installation.

Specification

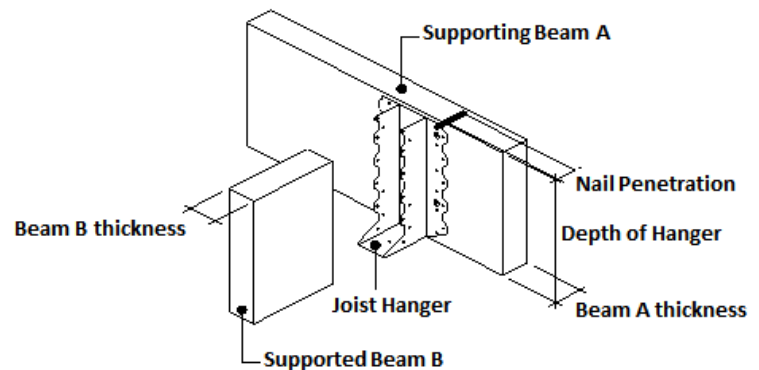
Formm Joist Hangers are manufactured from G300 Z275 galvanised steel in 1.0 mm thickness (TCT). Dimensions are shown in table 1 below.

Fasteners

Nails: Use only 35mm x 3.15mm hot-dipped galvanised reinforced head nails, as required in design capacity tables below.

Bolts: M10 4.6/S Bolts

Note that nails or bolts should be used to fix joist hangers, not both types of fasteners.

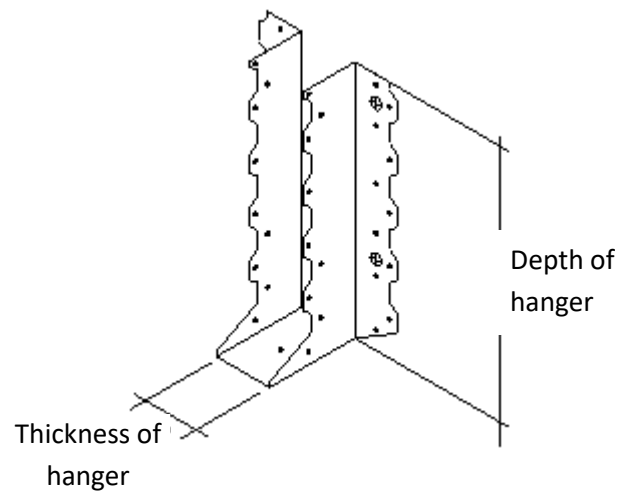


NOTE: FORMM™ Hold Down Brackets are compliant with the requirements set out in AS1720- Design Methods and relevant building code

Product Sizes

Available in a broad range of sizes to suit common timber dimensions.

Table 1. Joist Hanger Dimensions			
Code	Nominal Size	Thickness (mm)	Depth (mm)
JH220	45 x 220mm	46	213
	50 x 220mm	51	210
JH180	35 x 180mm	36	185
	38 x 180mm	39	183
	45 x 180mm	46	180
	50 x 180mm	51	178
JH140	35 x 140mm	36	140
	38 x 140mm	39	138
	45 x 140mm	46	136
	50 x 140mm	51	134
JH120	35 x 120mm	36	118
	38 x 120mm	39	116
	45 x 120mm	46	112
	50 x 120mm	51	111
JH90	35 x 90mm	36	86
	38 x 90mm	39	85
	45 x 90mm	46	81
	50 x 90mm	51	77



Installation

Joist Hangers must be installed in accordance with instructions below, guidelines as set out in the Australian Standards AS1684 and design capacity tables following this section.

1. Select the correct joist hanger size according to size of timber to be supported, using Table 1 above. Please note that joist hangers are designed to suit both dressed and sawn timber sizes. The depth of the joist hanger must be selected using Tables D1 and D2 below to ensure that it will have a safe carrying capacity for the load applied.
2. Joist Hanger should be fixed to the supporting member first and can be quickly and easily held in place by the tack nails. Please note that this is not a structural fixing and should not be included in the number of nails required by Table D1. Drive the number of nails into the supporting member as specified in Table D1.
3. Fit supported member into the joist hanger ensuring that it is firmly against the supporting member and drive nails into supported member as required in Table D2.

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Design Capacity Data

Table D1 - Using Nails 3.15mm x 35mm

	fixing to supporting beam A	DESIGN CAPACITY FOR JOINT GROUP (1.2G + 1.5Qf) KN											
		J1	J2	J3	J4	J5	J6	JD1	JD2	JD3	JD4	JD5	JD6
JH220	26 Nails	21.97	17.25	12.31	8.74	6.76	4.94	29.19	21.97	17.25	12.31	10.34	7.60
JH180	22 Nails	18.31	14.38	10.26	7.28	5.64	4.12	24.32	18.31	14.38	10.26	8.61	6.33
JH140	18 Nails	14.64	11.50	8.21	5.83	4.51	3.29	19.46	14.64	11.50	8.21	6.89	5.07
JH120	14 Nails	11.63	9.16	6.55	4.63	3.50	2.61	15.42	11.63	9.61	6.55	5.37	4.09
JH90	10 Nails	8.30	6.55	4.68	3.31	2.50	1.87	11.01	8.32	6.55	4.68	3.84	2.92

Table D2 - Using Nails 3.15mm x 35mm

	fixing to supported beam B	DESIGN CAPACITY FOR JOINT GROUP (WIND UPLIFT) K1=1.14. (KN)											
		J1	J2	J3	J4	J5	J6	JD1	JD2	JD3	JD4	JD5	JD6
JH220	18 Nails	24.70	19.47	13.92	9.84	7.43	5.55	32.76	24.70	19.47	13.92	11.41	8.69
JH180	14 Nails	19.21	15.14	10.83	7.65	5.78	4.31	25.48	19.21	15.14	10.38	8.87	6.76
JH140	12 Nails	16.47	12.98	9.28	6.56	4.95	3.70	21.84	16.47	12.98	9.28	7.60	5.79
JH120	10 Nails	13.72	10.81	7.73	5.47	4.13	3.08	18.20	13.72	10.81	7.73	6.34	4.83
JH90	8 Nails	10.98	8.65	6.19	4.37	3.30	2.47	14.56	10.98	8.65	6.19	5.07	3.86

Notes

1. Minimum depth of nail penetration is 30mm.
2. Minimum depth of nail penetration into second member is 30mm.
3. The above tables are for 35mm x 3.15mm hot-dipped galvanised reinforced head nails only.
4. Number of fixings indicates maximum number of nails for each joist hanger.
5. Timber joint groups according to Australian Standards AS 1720.1:2010

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Table D3 - Using two M10 4.6/S Bolts
FOR JH180, JH140, JH120, JH90 JOIST HANGERS

beff	PARALLEL TO GRAIN, (1.2G+1.5Qf) KN						beff	PARALLEL TO GRAIN, (1.2G+1.5Qf) KN					
	J1	J2	J3	J4	J5	J6		JD1	JD2	JD3	JD4	JD5	JD6
25	8.09	6.45	5.16	4.11	3.28	2.70	25	10.09	8.09	6.45	5.16	4.11	3.28
38	10.79	9.03	7.86	6.22	4.93	3.99	35	13.37	11.38	9.03	7.27	5.75	4.57
50	10.79	9.03	8.33	6.57	5.63	5.04	40	13.37	11.38	10.32	8.33	6.57	5.16
75	10.79	9.03	8.33	6.57	5.63	5.04	45	13.37	11.38	10.32	8.33	7.27	5.87
100	10.79	9.03	8.33	6.57	5.63	5.04	70	13.37	11.38	10.32	8.33	7.27	6.22
150	10.79	9.03	8.33	6.57	5.63	5.04	90	13.37	11.38	10.32	8.33	7.27	6.22
200	10.79	9.03	8.33	6.57	5.63	5.04	105	13.37	11.38	10.32	8.33	7.27	6.22
							120	13.37	11.38	10.32	8.33	7.27	6.22

Table D4 - Using four M10 4.6/S Bolts
FOR JH220 JOIST HANGER

beff	PARALLEL TO GRAIN, (1.2G+1.5Qf) KN						beff	PARALLEL TO GRAIN, (1.2G+1.5Qf) KN					
	J1	J2	J3	J4	J5	J6		JD1	JD2	JD3	JD4	JD5	JD6
25	16.19	12.90	10.32	8.21	6.57	5.40	25	20.18	16.19	12.90	10.32	8.21	6.57
38	21.58	18.06	15.72	12.43	9.85	7.98	35	26.74	22.76	18.06	14.55	11.50	9.15
50	21.58	18.06	16.66	13.14	11.26	10.09	40	26.74	22.76	20.64	16.66	13.14	10.32
75	21.58	18.06	16.66	13.14	11.26	10.09	45	26.74	22.76	20.64	16.66	14.55	11.73
100	21.58	18.06	16.66	13.14	11.26	10.09	70	26.74	22.76	20.64	16.66	14.55	12.43
150	21.58	18.06	16.66	13.14	11.26	10.09	90	26.74	22.76	20.64	16.66	14.55	12.43
200	21.58	18.06	16.66	13.14	11.26	10.09	105	26.74	22.76	20.64	16.66	14.55	12.43
							120	26.74	22.76	20.64	16.66	14.55	12.43

Notes

1. Timber joint groups according to Australian Standards AS 1720.1:2010
2. Beff = beam A thickness.

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