Technical Sheet

JHM
Joist Hanger for Masonry

The JHM and JHMI range of joist hangers can be used to connect solid sawn joists, trusses and engineered joists to masonry walls or steel beams.



Features

Material

- Pre-galvanised mild steel

Benefits

- Built-in inspection slot at the base of the hanger to aid inspection from the ground
- Top flange provides widest area in contact with masonry support allowing superior performance.
- Embossments on JHM stiffen top flange and holes allow improved mortar keying.
- JHM side flange on deeper hangers is much higher than traditional style, providing greatly enhanced resistance to joist rotation.

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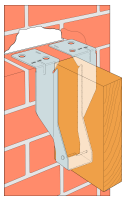
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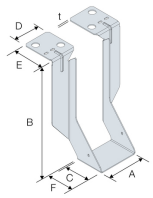
SIMPSON Strong-Tie

Technical Data

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Product Dimensions

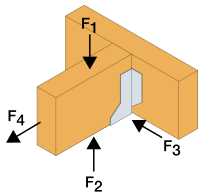
Reference	Connector Dimensions										
	Timber size[mm]		Product Dimensions[mm]							Joist holes	Other
	Width[mm]	Height	A[mm]	B[mm]	C[mm]	D[mm]	E[mm]	F[mm]	t[mm]	Round Ø4	Weight[kg]
JHM100/38	35	100.0	38	100	64	64	75	75	2	2	0.384
JHM125/38	35	125.0	38	125	64	64	75	75	2	2	0.435
JHM150/38	35	150.0	38	140	64	64	75	75	2	2	0.465
JHM175/38	35	175.0	38	165	64	64	75	75	2	2	0.517
JHM200/38	35	200.0	38	190	64	64	75	75	2	2	0.568
JHM225/38	35	225.0	38	215	64	64	75	75	2	2	0.62
JHM250/38	35	250.0	38	240	64	64	75	75	2	2	0.671
JHM150/44	44	150.0	44	140	64	64	75	75	2	2	0.471
JHM175/44	44	175.0	44	165	64	64	75	75	2	2	0.523
JHM200/44	44	200.0	44	190	64	64	75	75	2	2	0.574
JHM225/44	44	225.0	44	215	64	64	75	75	2	2	0.626
JHM100/47	47	100.0	47	100	64	64	75	75	2	2	0.393
JHM125/47	47	125.0	47	125	64	64	75	75	2	2	0.444
JHM150/47	47	150.0	47	140	64	64	75	75	2	2	0.475
JHM175/47	47	175.0	47	165	64	64	75	75	2	2	0.526
JHM200/47	47	200.0	47	190	64	64	75	75	2	2	0.577
JHM225/47	47	225.0	47	215	64	64	75	75	2	2	0.629
JHM250/47	47	250.0	47	240	64	64	75	75	2	2	0.68
JHM100/50	50	100.0	50	100	64	64	75	75	2	2	0.397
JHM125/50	50	125.0	50	125	64	64	75	75	2	2	0.447
JHM150/50	50	150.0	50	140	64	64	75	75	2	2	0.478
JHM175/50	50	175.0	50	165	64	64	75	75	2	2	0.529
JHM200/50	50	200.0	50	190	64	64	75	75	2	2	0.581
JHM225/50	50	225.0	50	215	64	64	75	75	2	2	0.632
JHM250/50	50	250.0	50	240	64	64	75	75	2	2	0.684
JHM125/63	63	125.0	63	125	64	64	75	75	2	2	0.46
JHM150/63	63	150.0	63	140	64	64	75	75	2	2	0.491
JHM175/63	63	175.0	63	165	64	64	75	75	2	2	0.542
JHM200/63	63	200.0	63	190	64	64	75	75	2	2	0.594
JHM225/63	63	225.0	63	215	64	64	75	75	2	2	0.645
JHM250/63	63	250.0	63	240	64	64	75	75	2	2	0.697
JHM100/75	2x35 or 75	100.0	75	100	64	64	75	75	2	2	0.422
JHM125/75	2x35 or 75	125.0	75	125	64	64	75	75	2	2	0.472
JHM150/75	2x35 or 75	150.0	75	140	64	64	75	75	2	2	0.503
JHM175/75	2x35 or 75	175.0	75	165	64	64	75	75	2	2	0.555
JHM200/75	2x35 or 75	200.0	75	190	64	64	75	75	2	2	0.606
JHM225/75	2x35 or 75	225.0	75	215	64	64	75	75	2	2	0.658
JHM250/75	2x35 or 75	250.0	75	240	64	64	75	75	2	2	0.709
JHM100/91	2x44 or 91	100.0	91	100	64	64	75	75	2	2	0.438
JHM125/91	2x44 or 91	125.0	91	125	64	64	75	75	2	2	0.489
JHM150/91	2x44 or 91	150.0	91	140	64	64	75	75	2	2	0.52
JHM175/91	2x44 or 91	175.0	91	165	64	64	75	75	2	2	0.571

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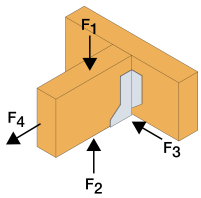
Reference	Connector Dimensions										
	Timber size[mm]		Product Dimensions[mm]							Joist holes	Other
	Width[mm]	Height	A[mm]	B[mm]	C[mm]	D[mm]	E[mm]	F[mm]	t[mm]	Round Ø4	Weight[kg]
JHM200/91	2x44 or 91	200.0	91	190	64	64	75	75	2	2	0.623
JHM225/91	2x44 or 91	225.0	91	215	64	64	75	75	2	2	0.674
JHM250/91	2x44 or 91	250.0	91	240	64	64	75	75	2	2	0.726
JHM125/125	2x63	125.0	125	125	64	64	75	75	2	2	0.523
JHM225/125	2x63	225.0	125	215	64	64	75	75	2	2	0.708
JHM250/125	2x63	250.0	125	240	64	64	75	75	2	2	0.76
JHM300/125	2x63	300.0	125	290	64	64	75	75	2	2	0.863
JHM175/150	3x50 or 2x75	175.0	150	165	64	64	75	75	2	2	0.56
JHM225/150	3x50 or 2x75	225.0	150	215	64	64	75	75	2	2	0.734
JHM250/150	3x50 or 2x75	250.0	150	240	64	64	75	75	2	2	0.786
JHM300/150	3x50 or 2x75	300.0	150	290	64	64	75	75	2	2	0.888

Product Performance - Masonry



Reference	Hanger capacity									
	Standard									
	Number of Fasteners		Characteristic Capacities[kN]				Safe Working Loads[kN]			
	Joist		$R_{2,k}$	$R_{1,k}$			$R_{2,sW_{I,short\ term}}$	R1,SWL		
	Qty	Type		2.8N/mm² Solid AAC	3.5N/mm² Solid LAC	7.0N/mm² Solid DAC		2.8N/mm² Solid AAC	3.5N/mm² Solid LAC	7.0N/mm² Solid DAC
JHM	2.0	N3.75x30	1.8	10.5	12.8	20	1	5.2	6.4	10

Product Performance - Masonry & Skewed

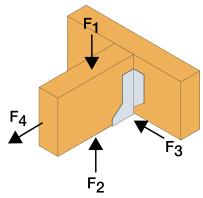


Reference	Hanger capacity					
	Skewed					
	Safe Working Loads[kN]				Number of Fasteners	
	$R_{2,sW_{I,short\ term}}$	R1,SWL			Joist	
		2.8N/mm² Solid AAC	3.5N/mm² Solid LAC	7.0N/mm² Solid DAC	Qty	Type
Spec JHMSK	1	5.1	5.2	5.2	4.0	3.75x30

1. Maximum skew 45°

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Product Performance - Shot fired to Steel Girder

Reference	Hanger capacity					
	Shot Fired to Steels					
	Safe Working Loads[kN]		Number of Fasteners			
	$R_{1,sWI,long\ term}$		Joist		Header	
			Qty	Type	Qty	Type
JHM	5.1		2.0	N3.75x30	4.0	Shot fire pins

1.The above Safe Working Loads are based upon product tests using four No. Hilti 12mm X-EDNI steel pins fired through the top flange material, onto a minimum 4mm thick steel plate. Other pins may be used provided similar structural performance is verified by the pin manufacturer. Pin Head size must be sufficient to prevent pull through during loading.
2.The designer must ensure that the steel support member will support the imposed loads.
3.Install shot-fired pins in accordance with manufacturer's instructions

Product Performance - Mechanically Fixed to Steel Beam

Reference	Hanger capacity					
	Mechanically Fixed to Steels				Shot Fired to Steels	
	Safe Working Loads	Characteristic Load[kN]	Number of Fasteners		Number of Fasteners	
	$R_{1,sWI,\ long\ term}$	$R_{1,k}$	Header		Joist	
			Qty	Type	Qty	Type
JHM	10.8	19	2.0	XLQ114B1224	2.0	N3.75x30

- The designer / engineer must ensure that the steel support can take the imposed loads
- Suitable for Steel I-beams and Hollow Sections upto 12.5mm thick
- Timber is required in the web of steel I-beam when the hanger depth is less than the steel depth. Timber must finish flush with outer edges of steel I-beam

Fastener Reference	Length [mm]	Hex Head [in]	Washer Diameter [mm]	Shank Diameter [mm]	Suitable Material Thickness [mm]	Recommended Install Speed [rpm]
XLQ114B1224	32	5/16"	16	5.5	3.5 - 12.5	1400

Installation

Installation

Standard Masonry Installation

- Use all specified fasteners. See "General Notes".
- Set hanger back flange tight against block wall when built to desired level, then continue with additional courses to complete wall height. Joist should be tight into back of hanger when possible. Maximum gap permitted is 6mm.
- MINIMUM 3 COURSES OF SOLID BLOCK (675MM MASONRY) REQUIRED ABOVE HANGER WITH MORTAR FULLY CURED BEFORE APPLYING LOAD.
- Do not stack blocks or heavy loads on the joists during construction unless the joists have additional support to take the full load of the blocks vertically and horizontally.

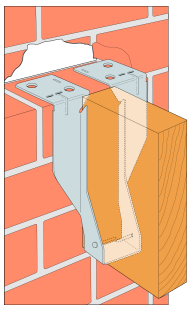
Fixed to Steel Beams

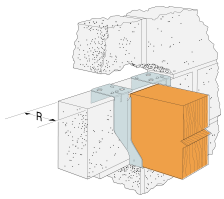
- The JHM range can be mechanically fixed to steel beams of thicknesses up to 12.5mm.
- Timber is required in the web of the ‘I’ section steel beam when the hanger depth is less than the steel depth.
- Timber must be flush with the outer edges of the ‘I’ section steel beam.
- The shot-fired pins must be installed by a qualified person in accordance with the manufacturer’s installation requirements.

Options

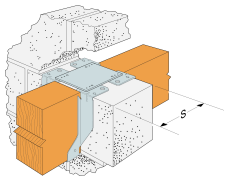
Options

- Return configuration provides additional support by wrapping around three sides of the block. Designate "return" and length of return dimensions when ordering.
- JHM, JHMR OR JHMS HANGERS DO NOT SATISFY THE REQUIREMENTS FOR LATERAL RESTRAINT TYPE HANGERS UNLESS STRAPS ARE FITTED.
- Straddle configuration provides two hangers connected across top of support enabling exact alignment on both sides of supporting wall. Designate "straddle" and length of straddle dimensions when ordering.
- Other widths and heights available to order. Contact Simpson Strong-Tie® for details.
- SPEC JHM's up to 61mm width can be skewed from 5 to 45 deg. See skewed hanger load table.

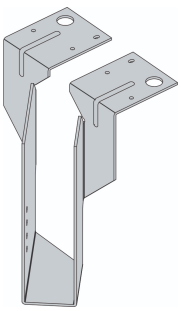




JHMR Return Configuration



JHMS Straddle Configuration



SPEC JHMSK Skewable Option

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