

Technical data sheet

SIMPSON

Strong-Tie

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.



CE

EPD
EN 15804

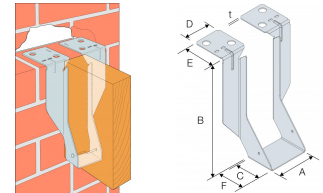
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JHM Joist Hanger for Masonry



Product Dimensions

References	Joist dimensions [mm]		Hanger Dimensions [mm]							Joist holes Ø4	Weight [kg]
	Width	Height	A	B	C	D	E	F	t		
JHM100/38	35	100	38	100	64	64	75	75	2	2	0.384
JHM125/38	35	125	38	125	64	64	75	75	2	2	0.435
JHM150/38	35	150	38	140	64	64	75	75	2	2	0.465
JHM175/38	35	175	38	165	64	64	75	75	2	2	0.517
JHM200/38	35	200	38	190	64	64	75	75	2	2	0.568
JHM225/38	35	225	38	215	64	64	75	75	2	2	0.62
JHM250/38	35	250	38	240	64	64	75	75	2	2	0.671
JHM300/38	35	300	38	290	64	64	75	75	2	2	-
JHM100/44	44	100	44	100	64	64	75	75	2	2	-
JHM125/44	44	125	44	125	64	64	75	75	2	2	-
JHM150/44	44	150	44	140	64	64	75	75	2	2	0.471
JHM175/44	44	175	44	165	64	64	75	75	2	2	0.523
JHM200/44	44	200	44	190	64	64	75	75	2	2	0.574
JHM225/44	44	225	44	215	64	64	75	75	2	2	0.626
JHM250/44	44	250	44	240	64	64	75	75	2	2	-
JHM300/44	44	300	44	290	64	64	75	75	2	2	-
JHM100/47	47	100	47	100	64	64	75	75	2	2	0.393
JHM125/47	47	125	47	125	64	64	75	75	2	2	0.444
JHM150/47	47	150	47	140	64	64	75	75	2	2	0.475
JHM175/47	47	175	47	165	64	64	75	75	2	2	0.526
JHM200/47	47	200	47	190	64	64	75	75	2	2	0.577
JHM225/47	47	225	47	215	64	64	75	75	2	2	0.629
JHM250/47	47	250	47	240	64	64	75	75	2	2	0.68
JHM300/47	47	300	47	290	64	64	75	75	2	2	-
JHM100/50	50	100	50	100	64	64	75	75	2	2	0.397
JHM125/50	50	125	50	125	64	64	75	75	2	2	0.447
JHM150/50	50	150	50	140	64	64	75	75	2	2	0.478
JHM175/50	50	175	50	165	64	64	75	75	2	2	0.529
JHM200/50	50	200	50	190	64	64	75	75	2	2	0.581
JHM225/50	50	225	50	215	64	64	75	75	2	2	0.632
JHM250/50	50	250	50	240	64	64	75	75	2	2	0.684
JHM300/50	50	300	50	290	64	64	75	75	2	2	-
JHM100/63	63	100	63	100	64	64	75	75	2	2	-
JHM125/63	63	125	63	125	64	64	75	75	2	2	0.46
JHM150/63	63	150	63	140	64	64	75	75	2	2	0.491
JHM175/63	63	175	63	165	64	64	75	75	2	2	0.542
JHM200/63	63	200	63	190	64	64	75	75	2	2	0.594
JHM225/63	63	225	63	215	64	64	75	75	2	2	0.645
JHM250/63	63	250	63	240	64	64	75	75	2	2	0.697
JHM300/63	63	300	63	290	64	64	75	75	2	2	-
JHM100/75	2x35 or 75	100	75	100	64	64	75	75	2	2	0.422
JHM125/75	2x35 or 75	125	75	125	64	64	75	75	2	2	0.472
JHM150/75	2x35 or 75	150	75	140	64	64	75	75	2	2	0.503
JHM175/75	2x35 or 75	175	75	165	64	64	75	75	2	2	0.555

JHM Joist Hanger for Masonry

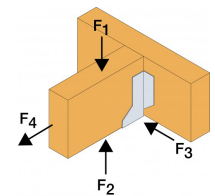
References	Joist dimensions [mm]		Hanger Dimensions [mm]							Joist holes	Weight [kg]
	Width	Height	A	B	C	D	E	F	t	Ø4	
JHM200/75	2x35 or 75	200	75	190	64	64	75	75	2	2	0.606
JHM225/75	2x35 or 75	225	75	215	64	64	75	75	2	2	0.658
JHM250/75	2x35 or 75	250	75	240	64	64	75	75	2	2	0.709
JHM300/75	2x35 or 75	300	75	290	64	64	75	75	2	2	-
JHM100/91	2x44 or 91	100	91	100	64	64	75	75	2	2	0.438
JHM125/91	2x44 or 91	125	91	125	64	64	75	75	2	2	0.489
JHM150/91	2x44 or 91	150	91	140	64	64	75	75	2	2	0.52
JHM175/91	2x44 or 91	175	91	165	64	64	75	75	2	2	0.571
JHM200/91	2x44 or 91	200	91	190	64	64	75	75	2	2	0.623
JHM225/91	2x44 or 91	225	91	215	64	64	75	75	2	2	0.674
JHM250/91	2x44 or 91	250	91	240	64	64	75	75	2	2	0.726
JHM300/91	2x44 or 91	300	91	290	64	64	75	75	2	2	-
JHM100/96	2x47 or 96	100	96	100	64	64	75	75	2	2	-
JHM125/96	2x47 or 96	125	96	125	64	64	75	75	2	2	-
JHM150/96	2x47 or 96	150	96	140	64	64	75	75	2	2	-
JHM175/96	2x47 or 96	175	96	165	64	64	75	75	2	2	-
JHM200/96	2x47 or 96	200	96	190	64	64	75	75	2	2	-
JHM225/96	2x47 or 96	225	96	215	64	64	75	75	2	2	-
JHM250/96	2x47 or 96	250	96	240	64	64	75	75	2	2	-
JHM300/96	2x47 or 96	300	96	290	64	64	75	75	2	2	-
JHM100/116	2x56 or 115	100	116	100	64	64	75	75	2	2	-
JHM125/116	2x56 or 115	125	116	125	64	64	75	75	2	2	-
JHM150/116	2x56 or 115	150	116	140	64	64	75	75	2	2	-
JHM175/116	2x56 or 115	175	116	165	64	64	75	75	2	2	-
JHM200/116	2x56 or 115	200	116	190	64	64	75	75	2	2	-
JHM225/116	2x56 or 115	225	116	215	64	64	75	75	2	2	-
JHM250/116	2x56 or 115	250	116	240	64	64	75	75	2	2	-
JHM300/116	2x56 or 115	300	116	290	64	64	75	75	2	2	-
JHM100/125	2x63	100	125	100	64	64	75	75	2	2	-
JHM125/125	2x63	125	125	125	64	64	75	75	2	2	0.523
JHM150/125	2x63	150	125	140	64	64	75	75	2	2	-
JHM175/125	2x63	175	125	165	64	64	75	75	2	2	-
JHM200/125	2x63	200	125	190	64	64	75	75	2	2	-
JHM225/125	2x63	225	125	215	64	64	75	75	2	2	0.708
JHM250/125	2x63	250	125	240	64	64	75	75	2	2	0.76
JHM300/125	2x63	300	125	290	64	64	75	75	2	2	0.863
JHM100/135	3x45	100	135	100	64	64	75	75	2	2	-
JHM125/135	3x45	125	135	125	64	64	75	75	2	2	-
JHM150/135	3x45	150	135	140	64	64	75	75	2	2	-
JHM175/135	3x45	175	135	165	64	64	75	75	2	2	-
JHM200/135	3x45	200	135	190	64	64	75	75	2	2	-
JHM225/135	3x45	225	135	215	64	64	75	75	2	2	-
JHM250/135	3x45	250	135	240	64	64	75	75	2	2	-
JHM300/135	3x45	300	135	290	64	64	75	75	2	2	-
JHM100/142	2x70	100	142	100	64	64	75	75	2	2	-
JHM125/142	2x70	125	142	125	64	64	75	75	2	2	-
JHM150/142	2x70	150	142	140	64	64	75	75	2	2	-
JHM175/142	2x70	175	142	165	64	64	75	75	2	2	-
JHM200/142	2x70	200	142	190	64	64	75	75	2	2	-
JHM225/142	2x70	225	142	215	64	64	75	75	2	2	-

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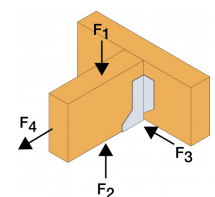
JHM Joist Hanger for Masonry

References	Joist dimensions [mm]		Hanger Dimensions [mm]							Joist holes	Weight [kg]
	Width	Height	A	B	C	D	E	F	t	Ø4	
JHM250/142	2x70	250	142	240	64	64	75	75	2	2	-
JHM300/142	2x70	300	142	290	64	64	75	75	2	2	-
JHM100/146	2x72	100	146	100	64	64	75	75	2	2	-
JHM125/146	2x72	125	146	125	64	64	75	75	2	2	-
JHM150/146	2x72	150	146	140	64	64	75	75	2	2	-
JHM175/146	2x72	175	146	165	64	64	75	75	2	2	-
JHM200/146	2x72	200	146	190	64	64	75	75	2	2	-
JHM225/146	2x72	225	146	215	64	64	75	75	2	2	-
JHM250/146	2x72	250	146	240	64	64	75	75	2	2	-
JHM300/146	2x72	300	146	290	64	64	75	75	2	2	-
JHM100/150	3x50 or 2x75	100	150	100	64	64	75	75	2	2	-
JHM125/150	3x50 or 2x75	125	150	125	64	64	75	75	2	2	-
JHM150/150	3x50 or 2x75	150	150	140	64	64	75	75	2	2	-
JHM175/150	3x50 or 2x75	175	150	165	64	64	75	75	2	2	0.56
JHM200/150	3x50 or 2x75	200	150	190	64	64	75	75	2	2	-
JHM225/150	3x50 or 2x75	225	150	215	64	64	75	75	2	2	0.734
JHM250/150	3x50 or 2x75	250	150	240	64	64	75	75	2	2	0.786
JHM300/150	3x50 or 2x75	300	150	290	64	64	75	75	2	2	0.888



Product Performance - Masonry

References	Joist Fasteners		Characteristic Capacity [kN]				Safe Working Loads [kN]			
	Qty	Type	$R_{1,k}$			$R_{2,k}$	$R_{1,SWL}$			$R_{2,SWL,Short Term}$
			2.8N/mm ² Solid AAC	3.5N/mm ² Solid LAC	7.0N/mm ² Solid DAC		2.8N/mm ² Solid AAC	3.5N/mm ² Solid LAC	7.0N/mm ² Solid DAC	
JHM	2	N3.75x30	10.5	12.8	20	1.8	5.2	6.4	10	1



Product Performance - Masonry & Skewed

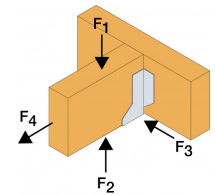
References	Joist Fasteners		Safe Working Loads [kN]			
	Qty	Type	$R_{1,SWL}$			$R_{2,SWL,Short Term}$
			2.8N/mm ² Solid AAC	3.5N/mm ² Solid LAC	7.0N/mm ² Solid DAC	
Spec JHMSK	4	3.75x30	5.1	5.2	5.2	1

1. Maximum skew 45°

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Product Performance - Shot fired to Steel Girder

References	Number of Fasteners				Safe Working Loads [kN]
	Header		Joist		$R_{1,SWL,Long Term}$
	Qty	Type	Qty	Type	
JHM	4	Shot fire pins	2	N3.75x30	5.1

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

References	Number of Fasteners				Safe Working Loads	Characteristic Load [kN]
	Header		Joist		$R_{1,SWL, Long Term}$	$R_{1,k}$
	Qty	Type	Qty	Type		
JHM	2	XLQ114B1224	2	N3.75x30	10.8	19

- 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.

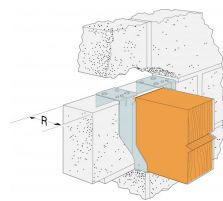
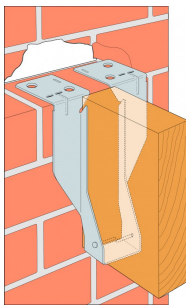
Fixed to Steel Beams

- 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.

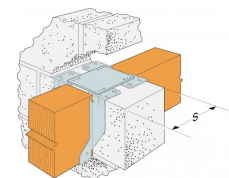
Options

Options

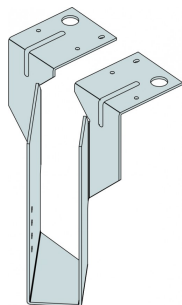
- Return configuration provides additional support by wrapping around three sides of the block. Designate "return" and length of return dimensions when ordering.
- JHM, JHMR OR JHMS HANGERS DO NOT SATISFY THE REQUIREMENTS FOR LATERAL RESTRAINT TYPE HANGERS UNLESS STRAPS ARE FITTED.
- Straddle configuration 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

