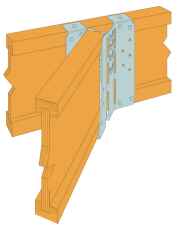
Technical Sheet

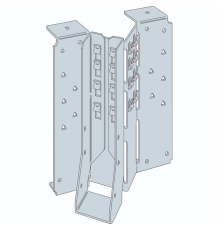
ITBS
Backer Free I-Joist Hanger with Adjustable Skew

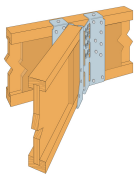
The ITBS solves the problem of skew hangers in I-joist to I-joist connections. It can be handed left or right on site by the carpenter, removing confusion when the floor is built opposite to the drawing. The ITBS is fully adjustable from 5° to 67.5° skew, reducing the need for 'special' skew hangers.

- *Finally, the ITBS is a backer free hanger removing the need for backer blocks in standard installation. Overall, the revolutionary ITBS reduces build cost, confusion, speed of installation and stock holding.*
- *Standard 45° skew, with site adjustable skew from 5° to 67.5°.*
- *Non-handed hanger, can be left or right skew-adjusted on site, removing any handing confusion and reducing stock holding.*
- *Eliminates the need for backer blocks when supported from an I-joist header.*
- *Open top flange improves ease-of-installation.*
- *Can be used on I-joist or solid joist headers.*
- *Optional nail holes for additional download capacity.*

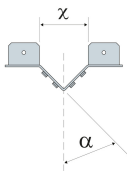








Step 6: Locate the floor joist into the stirrup ensuring the joist is set tight to the back of the stirrup. The joist should be secured into the stirrup with all specified nails on the open face of the stirrup.



Features

Material

- Pre-galvanised mild steel

ITBS
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Technical Data

Angle Guide

50mm Backplate		100mm Backplate	
Skew Angle A (deg)	**Distance B (mm)**	**Skew Angle A (deg)**	**Distance B (mm)**
5	106	5	206
15	104	15	200
22.5	100	22.5	190
30	95	30	180
37.5	87	37.5	166
45	79	45	149
52.5	69	52.5	130
60	58	60	109
67.5	46	67.5	86

Technical Sheet

ITBS

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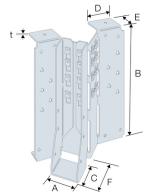

Product Dimensions

Reference	Connector Dimensions												
	Timber size[mm]	Product Dimensions[mm]						Header holes			Joist holes		Other
	Width Min[mm]	A[mm]	B[mm]	C[mm]	D[mm]	E[mm]	t[mm]	Triangular	Round Ø4.1	Obround Ø6x4	Tri[mm]	Obround Ø6x4[mm]	Weight[kg]
ITBS195/40	38	40	195	64	55	37	1.5	10	10	2	4	2	-
ITBS200/40	38	40	200	64	55	37	1.5	10	10	2	4	2	0.875
ITBS220/40	38	40	220	64	55	37	1.5	10	10	2	4	2	0.951
ITBS235/40	38	40	235	64	55	37	1.5	10	10	2	4	2	-
ITBS240/40	38	40	240	64	55	37	1.5	10	10	2	4	2	1.027
ITBS300/40	38	40	300	64	55	37	1.5	10	10	2	4	2	-
ITBS301/40	38	40	301	64	55	37	1.5	10	10	2	4	2	2.4
ITBS195/47	45	47	195	64	55	37	1.5	10	10	2	4	2	0.875
ITBS200/47	45	47	200	64	55	37	1.5	10	10	2	4	2	0.894
ITBS220/47	45	47	220	64	55	37	1.5	10	10	2	4	2	0.972
ITBS225/47	45	47	225	64	55	37	1.5	10	10	2	4	2	-
ITBS235/47	45	47	235	64	55	37	1.5	10	10	2	4	2	-
ITBS240/47	45	47	240	64	55	37	1.5	10	10	2	4	2	1.05
ITBS245/47	45	47	245	64	55	37	1.5	10	10	2	4	2	1.07
ITBS300/47	45	47	300	64	55	37	1.5	10	10	2	4	2	-
ITBS301/47	45	47	301	64	55	37	1.5	10	10	2	4	2	2.4
ITBS195/50	47	50	195	64	55	37	1.5	10	10	2	4	2	0.884
ITBS220/50	47	50	220	64	55	37	1.5	10	10	2	4	2	0.983
ITBS235/50	47	50	235	64	55	37	1.5	10	10	2	4	2	1.042
ITBS240/50	47	50	240	64	55	37	1.5	10	10	2	4	2	1.062
ITBS245/50	47	50	245	64	55	37	1.5	10	10	2	4	2	1.082
ITBS300/50	47	50	300	64	55	37	1.5	10	10	2	4	2	-
ITBS301/50	47	50	301	64	55	37	1.5	10	10	2	4	2	-
ITBS240/53	-	53	240	64	55	37	1.5	10	10	2	4	2	-
ITBS200/61	58	61	200	64	55	37	1.5	10	10	2	4	2	-
ITBS220/61	58	61	220	64	55	37	1.5	10	10	2	4	2	2
ITBS240/61	58	61	240	64	55	37	1.5	10	10	2	4	2	1.2
ITBS245/61	58	61	245	64	55	37	1.5	10	10	2	4	2	-
ITBS301/61	58	61	301	64	55	37	1.5	10	10	2	4	2	1.2
ITBS200/63	60	63	200	64	55	37	1.5	10	10	2	4	2	-
ITBS220/63	60	63	220	64	55	37	1.5	10	10	2	4	2	-
ITBS240/63	60	63	240	64	55	37	1.5	10	10	2	4	2	-
ITBS300/63	60	63	300	64	55	37	1.5	10	10	2	4	2	-
ITBS220/66	63	66	220	64	55	37	1.5	10	10	2	4	2	1.278
ITBS235/66	63	66	235	64	55	37	1.5	10	10	2	4	2	-
ITBS245/66	63	66	245	64	55	37	1.5	10	10	2	4	2	1.411
ITBS200/72	69	72	200	64	55	37	1.5	10	10	2	4	2	-
ITBS240/72	69	72	240	64	55	37	1.5	10	10	2	4	2	1.401
ITBS300/72	69	72	300	64	55	37	1.5	10	10	2	4	2	-
ITBS301/72	69	72	301	64	55	37	1.5	10	10	2	4	2	-
ITBS195/75	72	75	195	64	55	37	1.5	10	10	2	4	2	-
ITBS220/75	72	75	220	64	55	37	1.5	10	10	2	4	2	1.302

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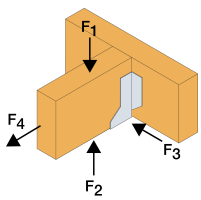
Backer Free I-Joist Hanger with Adjustable Skew

Reference	Connector Dimensions												
	Timber size[mm]	Product Dimensions[mm]						Header holes			Joist holes		Other
	Width Min[mm]	A[mm]	B[mm]	C[mm]	D[mm]	E[mm]	t[mm]	Triangular	Round Ø4.1	Obround Ø6x4	Tri[mm]	Obround Ø6x4[mm]	Weight[kg]
ITBS235/75	72	75	235	64	55	37	1.5	10	10	2	4	2	-
ITBS245/75	72	75	245	64	55	37	1.5	10	10	2	4	2	1.438
ITBS300/75	72	75	300	64	55	37	1.5	10	10	2	4	2	-
ITBS301/75	72	75	301	64	55	37	1.5	10	10	2	4	2	-
ITBS200/78	75, 2x38 or 2x39	78	200	64	55	37	1.5	10	10	2	4	2	1.202
ITBS220/78	75, 2x38 or 2x39	78	220	64	55	37	1.5	10	10	2	4	2	-
ITBS240/78	75, 2x38 or 2x39	78	240	64	55	37	1.5	10	10	2	4	2	1.42
ITBS245/78	75, 2x38 or 2x39	78	245	64	55	37	1.5	10	10	2	4	2	-
ITBS300/78	75, 2x38 or 2x39	78	300	64	55	37	1.5	10	10	2	4	2	-
ITBS301/78	75, 2x38 or 2x39	78	301	64	55	37	1.5	10	10	2	4	2	-
ITBS195/91	89, 90 or 2x45	91	195	64	55	37	1.5	10	10	2	4	2	1.207
ITBS200/91	89, 90 or 2x45	91	200	64	55	37	1.5	10	10	2	4	2	1.235
ITBS220/91	89, 90 or 2x45	91	220	64	55	37	1.5	10	10	2	4	2	1.347
ITBS235/91	89, 90 or 2x45	91	235	64	55	37	1.5	10	10	2	4	2	-
ITBS240/91	89, 90 or 2x45	91	240	64	55	37	1.5	10	10	2	4	2	1.458
ITBS245/91	89, 90 or 2x45	91	245	64	55	37	1.5	10	10	2	4	2	-
ITBS300/91	89, 90 or 2x45	91	300	64	55	37	1.5	10	10	2	4	2	-
ITBS301/91	89, 90 or 2x45	91	240	64	55	37	1.5	10	10	2	4	2	1.4
ITBS195/96	2x47	96	195	64	55	37	1.5	10	10	2	4	2	1.211
ITBS220/96	2x47	96	220	64	55	37	1.5	10	10	2	4	2	1.35
ITBS235/96	2x47	96	235	64	55	37	1.5	10	10	2	4	2	-
ITBS240/96	2x47	96	240	64	55	37	1.5	10	10	2	4	2	1.462
ITBS245/96	2x47	96	245	64	55	37	1.5	10	10	2	4	2	1.499
ITBS300/96	2x47	96	300	64	55	37	1.5	10	10	2	4	2	-
ITBS220/99	96 or 97	99	220	64	55	37	1.5	10	10	2	4	2	-
ITBS235/99	96 or 97	99	235	64	55	37	1.5	10	10	2	4	2	-
ITBS240/99	96 or 97	99	240	64	55	37	1.5	10	10	2	4	2	-
ITBS245/99	96 or 97	99	245	64	55	37	1.5	10	10	2	4	2	-
ITBS300/99	96 or 97	99	300	64	55	37	1.5	10	10	2	4	2	-
ITBS195/100	-	100	195	64	55	37	1.5	10	10	2	4	2	0.81
ITBS220/100	-	100	220	64	55	37	1.5	10	10	2	4	2	4.1
ITBS245/100	-	100	245	64	55	37	1.5	10	10	2	4	2	-
ITBS301/100	-	100	301	64	55	37	1.5	10	10	2	4	2	-

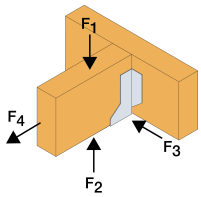


Product Capacities - I-Joists - Standard Installation

Reference	Hanger capacity						
	Product capacities - I-Joists - Standard Installation						
	Number of Fasteners				Characteristic Capacities[kN]		
	Header			Joist	$R_{2,k}$	$R_{1,k}$	
	Face	Top	Bottom	Qty	N3.75x30	LVL Flanges ≥ 35 mm	C24 Solid Sawn Flanges 45 mm
	Qty	Qty	Qty			N3.75x30	N3.75x30
ITBS	8.0	2.0	2.0	1.0	1.5	10.2	7.4

Technical Sheet

ITBS
Backer Free I-Joist Hanger with Adjustable Skew



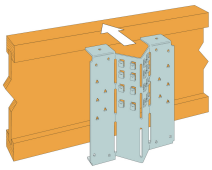
Product Capacities - I-Joists - Enhanced Installation

Reference	Hanger capacity						
	Product Capacities - I-Joists - Enhanced Installation						
	Number of Fasteners				Characteristic Capacities[kN]		
	Joist	Header			$R_{1,k}$		$R_{2,k}$
	Qty	Face	Top	Bottom	LVL Flanges ≥ 35 mm	C24 Solid Sawn Flanges 45 mm	N3.75x30
		Qty	Qty	Qty	N3.75x30	N3.75x30	
ITBS	3.0	18.0	2.0	2.0	15	12.8	1.5

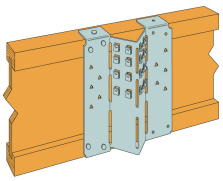
NOTE: Enhanced installation onto I-joist headers require the header to have back blocks installed and web stiffeners installed on a carried I-joist. Backer blocks and web stiffeners to be installed in accordajmnce with I-joist manufacturer's instructions

ITBS
Backer Free I-Joist Hanger with Adjustable Skew

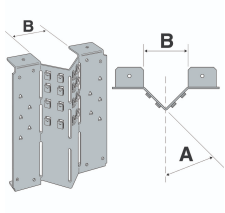
Installation



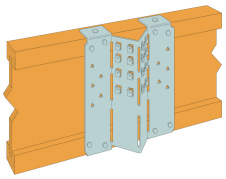
Step 1: Position the back plate onto the header in the required position. Ensure backer blocks are fitted if enhanced performance is required.



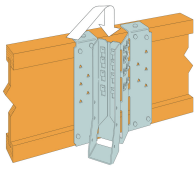
Step 2: Secure the acute side of the backplate (inside angle) with the specified nails.



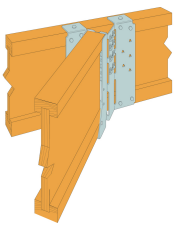
Step 3: Adjust the angle of the backplate (if different from 45°) to suit the required angle. Use either adjustable set square or the guide tables shown below: Bend one time only.



Step 4: Secure the obtuse side of the back plate onto the header with all the specified nails, ensuring the face of the back plate is tight against the header.



Step 5: Offer the stirrup to the back plate ensuring it is located on the correct side (which can be either left or right hand side). Once all of the hooks (on the back plate) are clearly through the apertures (on the stirrup) slide in a downward direction ensuring all hooks engage onto the stirrup and click into position.



Step 6: Locate the floor joist into the stirrup ensuring the joist is set tight to the back of the stirrup. The joist should be secured into the stirrup with all specified nails on the open face of the stirrup.

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