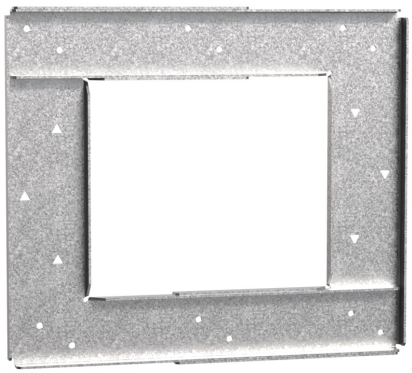
Technical Sheet

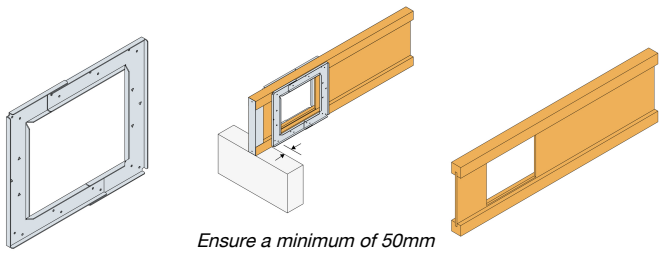
IHS
I-Joist Hole Support

The IHS is designed to strengthen I-joists when holes are required to be cut in locations not normally permitted.

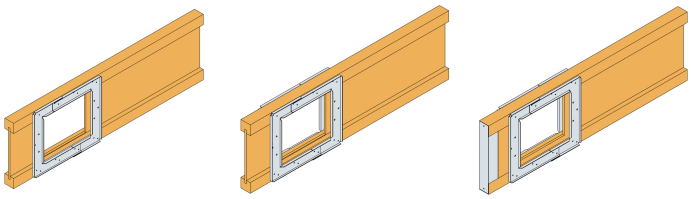
- *Allows holes to be cut 50mm from bearing point, which allows services to run close to external walls.*
- *Variable hole sizes from 150mm to a maximum width of 250mm.*
- *Supplied as 2 sets of 2 interlocking plates (1 set per side of I-joist) which always allows the IHS to be fitted, even when services are already in-situ.*
- *Helps to eliminate expensive and time consuming joist trimming for SVP (soil vent pipe) runs.*
- *Can be used on single and double ply I-joists.*

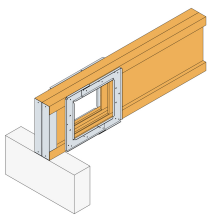






Ensure a minimum of 50mm from edge of cut hole to the bearing face.





Features

Materials

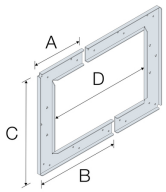
- Pre-galvanised mild steel

Technical Sheet

IHS
I-Joist Hole Support

Technical Data

IHS Product Dimensions



Reference	Hanger capacity				Connector Dimensions								
	Number of Fasteners				Timber size[mm]	Product Dimensions[mm]						Holes	
	150 mm Bracket Opening		250mm Bracket Opening		Width[mm]	A[mm]	B[mm]	C[mm]	D_1[mm]	D_2[mm]	t[mm]	Triangular	Round
	Specification	Quantity	Quantity	Specification									Ø4
IHS195	3.75x30mm	24.0	32.0	3.75x30mm	195-200	150	250	191	150	250	1.5	3	10
IHS220	3.75x30mm	24.0	32.0	3.75x30mm	220-225	150	250	216	150	250	1.5	3	10
IHS235	3.75x30mm	24.0	32.0	3.75x30mm	235	150	250	231	150	250	1.5	3	10
IHS240	3.75x30mm	24.0	32.0	3.75x30mm	240-245	150	250	236	150	250	1.5	3	10
IHS300	3.75x30mm	24.0	32.0	3.75x30mm	300-302	150	250	296	150	250	1.5	3	10

1) Use 3.75x30mm Square Twist Nails
2) Number of fasteners is per hole in joist

IHS Performance: James Jones (JJI A+) I-Joist

Reference	Hanger capacity							
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (James Jones (JJI A+) I-Joist)[kN]			
	Joist Type (James Jones (JJI A+) I-Joist)	Joist Height (JJI-Joist)[mm]	Max. allowable hole size with IHS (d x w) (JJI-Joist)	Characteristic Capacities		Permissible loads (Intermediate Floor Joist Applications)	
				$V_{k,hole}$ (IHS Installed)		V_{hole} (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	JJI-Joist A+ (47mm)	195	100 x 250	3.38	8.51	2.62	3.49
IHS220	JJI-Joist A+ (47mm)	220	120 x 250	6.8	9.06	2.76	3.72
IHS235	JJI-Joist A+ (47mm)	235	140 x 250	7.06	9.42	2.9	3.86
IHS240	JJI-Joist A+ (47mm)	245	150 x 250	7.25	9.66	2.97	3.96
IHS300	JJI-Joist A+ (47mm)	300	200 x 250	8.32	11.09	3.41	4.55

Technical Sheet

IHS
I-Joist Hole Support

SIMPSON Strong-Tie

IHS Performance: James Jones (JJI B+) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (James Jones (JJI B+) I-Joist)[kN]			
	Joist Type (James Jones (JJI B+) I-Joist)	Joist Height (JJI-Joist)[mm]	Max. allowable hole size with IHS (d x w) (JJI-Joist)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS220	JJI-Joist B+ (63 mm)	220	120 x 250	3.07	4.1	7.49	9.98
IHS235	JJI-Joist B+ (63 mm)	235	140 x 250	3.18	4.23	7.74	10.32
IHS240	JJI-Joist B+ (63 mm)	245	150 x 250	3.25	4.33	7.91	10.55
IHS300	JJI-Joist B+ (63 mm)	300	200 x 250	3.67	4.89	8.95	11.93

IHS Performance: James Jones (JJI C) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (James Jones (JJI C) I-Joist)[kN]			
	Joist Type (James Jones (JJI C) I-Joist)	Joist Height (JJI-Joist)[mm]	Max. allowable hole size with IHS (d x w) (JJI-Joist)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	JJI-Joist C (72 mm)	195	100 x 250	3.06	4.08	7.46	9.95
IHS220	JJI-Joist C (72 mm)	220	120 x 250	3.22	4.3	7.85	10.47
IHS235	JJI-Joist C (72 mm)	235	140 x 250	3.33	4.43	8.11	10.81
IHS240	JJI-Joist C (72 mm)	245	150 x 250	3.4	4.53	8.28	11.04
IHS300	JJI-Joist C (72 mm)	300	200 x 250	3.81	5.08	9.29	12.39

IHS Performance: James Jones (JJI D) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (James Jones (JJI D) I-Joist)[kN]			
	Joist Type (James Jones (JJI D) I-Joist)	Joist Height (JJI-Joist)[mm]	Max. allowable hole size with IHS (d x w) (JJI-Joist)	Characteristic Capacities		Permissible loads (Intermediate Floor Joist Applications)	
				$V_{k,hole}$ (IHS Installed)		V_{hole} (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS220	JJI-Joist D (97 mm)	220	120 x 250	8.83	11.77	3.62	4.83
IHS235	JJI-Joist D (97 mm)	235	140 x 250	9.07	12.1	3.72	4.96
IHS240	JJI-Joist D (97 mm)	245	150 x 250	9.24	12.32	3.79	5.05
IHS300	JJI-Joist D (97 mm)	300	200 x 250	10.24	13.66	4.2	5.6

Technical Sheet

IHS
I-Joist Hole Support

SIMPSON Strong-Tie

IHS Performance: Masonite H (47mm Flange) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (Masonite)[kN]			
	Joist Type (Masonite H)	Joist Height (Masonite)[mm]	Max. allowable hole size with IHS (d x w) (Masonite)[mm]	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 Ply	Double Ply	1 Ply	Double Ply
IHS220	H	220	120 x 250	2.25	2.7	7.56	9.08
IHS240	H	240	140 x 250	2.45	2.94	8.24	9.89
IHS300	H	300	200 x 250	3.05	3.66	10.26	12.31

IHS Performance: Masonite HM (60mm Flange) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (Masonite)[kN]			
	Joist Type (Masonite HM)	Joist Height (Masonite)[mm]	Max. allowable hole size with IHS (d x w) (Masonite)[mm]	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 Ply	Double Ply	1 Ply	Double Ply
IHS220	HM	220	120 x 250	2.25	2.7	7.56	9.08
IHS240	HM	240	140 x 250	2.45	2.94	8.24	9.89
IHS300	HM	300	200 x 250	3.05	3.66	10.26	12.31

IHS Performance: Masonite HI (70mm flange) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (Masonite)[kN]			
	Joist Type (Masonite HI)	Joist Height (Masonite)[mm]	Max. allowable hole size with IHS (d x w) (Masonite)[mm]	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 Ply	Double Ply	1 Ply	Double Ply
IHS220	HI	220	120 x 250	2.25	2.7	7.56	9.08
IHS240	HI	240	140 x 250	2.45	2.94	8.24	9.89
IHS300	HI	300	200 x 250	3.05	3.66	10.26	12.31

IHS Performance: Masonite HB (97mm flange) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (Masonite HB)[kN]			
	Joist Type (Masonite HB)	Joist Height (Masonite)[mm]	Max. allowable hole size with IHS (d x w) (Masonite)[mm]	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 Ply	Double Ply	1 Ply	Double Ply
IHS220	HB	220	120 x 250	2.3	2.7	7.6	9.1
IHS240	HB	240	140 x 250	2.5	2.9	8.2	9.9
IHS300	HB	300	200 x 250	3.1	3.7	10.3	12.3

Technical Sheet

IHS
I-Joist Hole Support

SIMPSON Strong-Tie

IHS Performance: MetsaWood (FinnJoist 45mm) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (FinnJoist 38mm)[kN]			
	Joist Type (FinnJoist 38mm)	Joist Height (FinnJoist)[mm]	Max. allowable hole size with IHS (d x w) (FinnJoist)	Characteristic Capacities		Permissible loads (Intermediate Floor Joist Applications)	
				$V_{k,hole}$ (IHS Installed)		V_{hole} (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	FJI 45	200	100 x 250	5.41	6.31	2.25	2.63
IHS220	FJI 45	220	125 x 250	6.28	7.33	2.62	3.05
IHS240	FJI 45	240	145 x 250	7.02	8.19	2.93	3.41
IHS300	FJI 45	300	200 x 250	8.48	9.89	3.53	4.12

IHS Performance: MetsaWood (FinnJoist 53mm) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (FinnJoist 53mm)[kN]			
	Joist Type (FinnJoist 53mm)	Joist Height (FinnJoist)[mm]	Max. allowable hole size with IHS (d x w) (FinnJoist)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	FJI 58	200	100 x 250	2.4	2.8	5.75	6.71
IHS220	FJI 58	220	125 x 250	2.79	3.25	6.69	7.81
IHS240	FJI 58	240	145 x 250	3.12	3.64	7.48	8.73
IHS300	FJI 58	300	200 x 250	3.76	4.39	9.09	10.54

IHS Performance: MetsaWood (FinnJoist 69mm) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (FinnJoist 69mm)[kN]			
	Joist Type (FinnJoist 69mm)	Joist Height (FinnJoist)[mm]	Max. allowable hole size with IHS (d x w) (FinnJoist)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	FJI 70	200	100 x 250	2.48	2.89	5.95	6.94
IHS220	FJI 70	220	125 x 250	2.88	3.36	6.91	8.06
IHS240	FJI 70	240	145 x 250	3.22	3.76	7.73	9.02
IHS300	FJI 70	300	200 x 250	3.89	4.53	9.32	10.88

Technical Sheet

IHS
I-Joist Hole Support

IHS Performance: MetsaWood (FinnJoist 96mm) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (FinnJoist 96mm)[kN]			
	Joist Type (FinnJoist 96mm)	Joist Height (FinnJoist)[mm]	Max. allowable hole size with IHS (d x w) (FinnJoist)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	FJI 89	200	100 x 250	2.48	2.89	5.95	6.94
IHS220	FJI 89	220	125 x 250	2.88	3.36	6.91	8.06
IHS240	FJI 89	240	145 x 250	3.22	3.76	7.73	9.02
IHS300	FJI 89	300	200 x 250	3.89	4.53	9.32	10.88

IHS Performance: Steico (SJL 45mm) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (Steico (SJL 45mm))[kN]			
	Joist Type (Steico (SJL 45mm))	Joist Height (Steico)[mm]	Max. allowable hole size with IHS (d x w) (Steico)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	-	-	-	-	-	-	-
IHS220	SJL 45	220	130 x 250	1.5	2.11	5.93	8.3
IHS240	SJL 45	240	150 x 250	1.62	2.27	6.38	8.93
IHS300	SJL 45	300	200 x 250	1.95	2.73	7.68	10.75

IHS Performance: Steico (SJL 60mm) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (Steico (SJL 60mm))[kN]			
	Joist Type (Steico (SJL 60mm))	Joist Height (Steico)[mm]	Max. allowable hole size with IHS (d x w) (Steico)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	-	-	-	-	-	-	-
IHS220	SJL 60	220	130 x 250	1.49	2.09	5.88	8.23
IHS240	SJL 60	240	150 x 250	1.6	2.25	6.32	8.85
IHS300	SJL 60	300	200 x 250	1.93	2.7	7.59	10.62

Technical Sheet

IHS
I-Joist Hole Support

SIMPSON Strong-Tie

IHS Performance: Steico (SJL 90mm) I-Joist

Reference	Hanger capacity						
	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS (Steico (SJL 90mm))[kN]			
	Joist Type (Steico (SJL 90mm))	Joist Height (Steico)[mm]	Max. allowable hole size with IHS (d x w) (Steico)	Permissible loads (Intermediate Floor Joist Applications)		Characteristic Capacities	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	-	-	-	-	-	-	-
IHS220	SJL 90	220	130 x 250	1.48	2.07	5.83	8.16
IHS235	-	-	-	-	-	-	-
IHS240	SJL 90	240	150 x 250	1.59	2.22	6.26	8.76
IHS300	SJL 90	300	200 x 250	1.9	2.66	7.49	10.48
IHS350	-	-	-	-	-	-	-

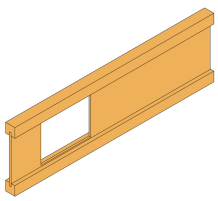
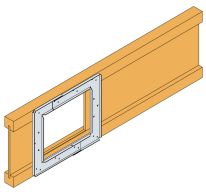
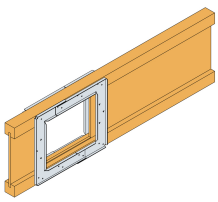
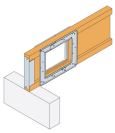
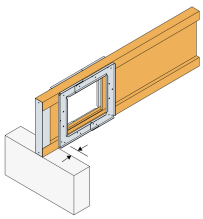
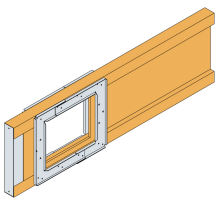
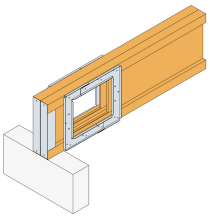
Installation

Installation

- Each IHS consists of 2 sets of 2 interlocking plates with one set required for each side of the I-joist.
- The outer edge of the holes cut into the web of the I-joist can be a minimum of 50mm from the inner face of the blockwork.
- Holes can be cut into the web of the I-joist before or after installation of the IHS.
- Holes must fit within the internal aperture of the IHS.
- Place the IHS onto the I-joist so that the top and bottom sliding flanges are aligned vertically central onto the top and bottom chords of the I-joist.
- Open or close the IHS to the required width, ensuring that the two sections overlap by at least one row of nails (minimum overlap of 45mm).
- Install 3.75x30mm square twist nails through all round holes into the top and bottom chords of the I-joist.
- Repeat the above steps to install plates on the other side of the I-joist, completing the installation.

Applications

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