

IHS
I-Joist Hole Support

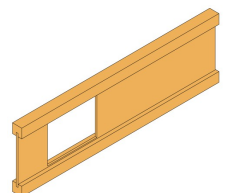
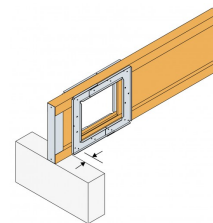
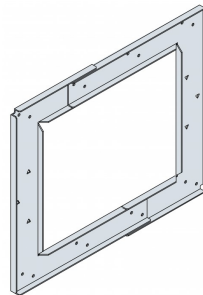
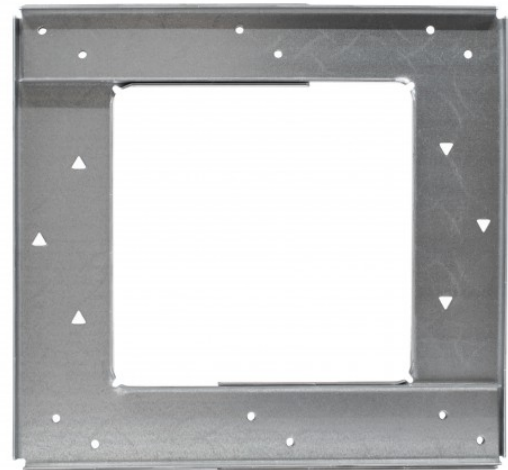
The IHS is designed to strengthen I-joists when holes are required to be cut in locations not normally permitted.

- 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.

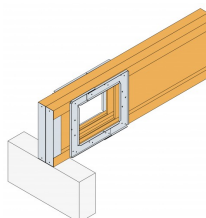
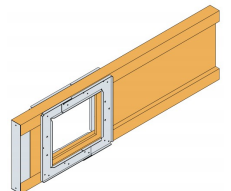
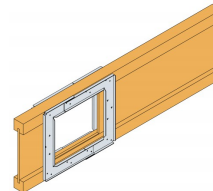
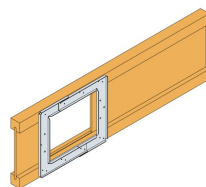
Features

Materials

- Pre-galvanised mild steel



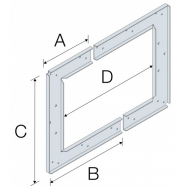
Ensure a minimum of 50mm from edge of cut hole to the bearing face.



IHS I-Joist Hole Support

Technical Data

IHS Product Dimensions



References	Joist Size [mm]	Hanger Dimensions [mm]						Connector Holes		Fasteners			
		A	B	C	D ₁	D ₂	t	Ø4	Triangular	150 mm Bracket Opening		250mm Bracket Opening	
										Specification	Quantity	Quantity	Specification
IHS195	195-200	150	250	191	150	250	1.5	10	3	3.75x30mm	24	32	3.75x30mm
IHS220	220-225	150	250	216	150	250	1.5	10	3	3.75x30mm	24	32	3.75x30mm
IHS235	235	150	250	231	150	250	1.5	10	3	3.75x30mm	24	32	3.75x30mm
IHS240	240-245	150	250	236	150	250	1.5	10	3	3.75x30mm	24	32	3.75x30mm
IHS300	300-302	150	250	296	150	250	1.5	10	3	3.75x30mm	24	32	3.75x30mm

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

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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				V _{hole} (IHS Installed)		V _{k,hole} (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	JJI-Joist A+ (47mm)	195	100 x 250	2.62	3.49	3.38	8.51
IHS220	JJI-Joist A+ (47mm)	220	120 x 250	2.76	3.72	6.80	9.06
IHS235	JJI-Joist A+ (47mm)	235	140 x 250	2.9	3.86	7.06	9.42
IHS240	JJI-Joist A+ (47mm)	245	150 x 250	2.97	3.96	7.25	9.66
IHS300	JJI-Joist A+ (47mm)	300	200 x 250	3.41	4.55	8.32	11.09

IHS I-Joist Hole Support

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

References	Joist Type	Joist height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				V_{hole} (IHS Installed)		$V_{k,\text{hole}}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS220	JJI-Joist B+ (63 mm)	220	120 x 250	3.07	4.10	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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				V_{hole} (IHS Installed)		$V_{k,\text{hole}}$ (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	4.30	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	3.40	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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				V_{hole} (IHS Installed)		$V_{k,\text{hole}}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS220	JJI-Joist D (97 mm)	220	120 x 250	3.62	4.83	8.83	11.77
IHS235	JJI-Joist D (97 mm)	235	140 x 250	3.72	4.96	9.07	12.10
IHS240	JJI-Joist D (97 mm)	245	150 x 250	3.79	5.05	9.24	12.32
IHS300	JJI-Joist D (97 mm)	300	200 x 250	4.2	5.60	10.24	13.66

Technical data sheet



IHS I-Joist Hole Support

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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w) [mm]	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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

References	Joist Type	Joist Height [mm]	Max allowable hole size with IHS (d x w) [mm]	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w) [mm]	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w) [mm]	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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

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

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

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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	Double Ply	1 ply	Double Ply
IHS195	FJI 58	200	100 x 250	2.40	2.80	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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				V_{hole} (IHS Installed)		$V_{k,hole}$ (IHS Installed)	
				1 ply	1 ply	Double 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

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

References	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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 I-Joist Hole Support

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

References	Joist Type	Joist Height	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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	1.50	2.11	5.93	8.30
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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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	1.60	2.25	6.32	8.85
IHS300	SJL 60	300	200 x 250	1.93	2.70	7.59	10.62

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

References	Joist Type	Joist Height [mm]	Max. allowable hole size with IHS (d x w)	Shear Capacity at Location of IHS [kN]			
				Permissible loads (Intermediate Floor Joist Applications)		Characteristic capacity	
				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	1.90	2.66	7.49	10.48

IHS
I-Joist Hole Support

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.

