

Heavy-duty HVP 88440



Application

Heavy-duty concealed beam connector for wood-wood connections.

Product Specifications

Dimensions w x h x d	120 x 400 x 20
Number of screws	32
Screw size	ø 8 x 100 – 200
Minimum timber section with screw ø 8 x 160 (mm) header	170 x 420
Joist	140 x 420
Characteristic load capacity* ø 8 x 160	150.86
ø 8 x 200	186.63
Carton quantity	4
CE	*

* F_{2,Rk} (kN) for GL24h with fully threaded screws: ø 8 x 160 with effective thread length of 150 mm and ø 8 x 200 with effective thread length of 190 mm. For other screws and thread lengths or wood based materials: cf. design manual.

Product Description

Main and secondary beam connection wood to wood

Main and secondary beam connection wood to wood with PITZL HVP 88440.1000 according to ETA-15/0187. The connection to secondary beam with 16 SFS HT (Heco) screws with a diameter of 8.0 mm and a length of 160/180/200 mm. Connection to main beam with 16 SFS HT (Heco) screws with a diameter of 8.0 mm and a length of 160/180/200 mm. The lift-off protection with 2 pcs. SFS HT cylinder head screws with a diameter of 6.0 mm and a length of 20 mm is required. A transverse tension lock is/is not to be provided in the area of the main/secondary beam. The main beam is/is not torsional fixed or sufficiently held. The serviceability has to be proven by the stiffness characteristics. A fire resistance time of 60 minutes is to be solved by appropriate design measures.

The characteristic load bearing capacity according to timber strength class C24 are:

F_{1,Rk} = 48.32 / 54.09 / 59.78 kN – Force acting in direction of the secondary beam
 F_{2,Rk} = 139.79 / 156.46 / 172.93 kN – Force acting in direction of insertion
 F_{3,Rk} = 36.40 kN – Force acting against direction of insertion
 F_{4,Rk} = 51.63 kN – Force acting perpendicular to direction of insertion
 M_{tor,J,Rk} = 3159.32 kN – Rotation moment in the axis of the secondary beam

The characteristic load bearing capacity according to timber strength class GL24h are:

F_{1,Rk} = 52.15 / 58.37 / 64.52 kN – Force acting in direction of the secondary beam
 F_{2,Rk} = 150.86 / 168.85 / 186.63 kN – Force acting in direction of insertion
 F_{3,Rk} = 36.40 kN – Force acting against direction of insertion
 F_{4,Rk} = 54.15 kN – Force acting perpendicular to direction of insertion
 M_{tor,J,Rk} = 3313.52 kN – Rotation moment in the axis of the secondary beam

The number and arrangement of the connectors as well as the installation and assembly must be taken from the specifications in accordance with ETA-15/0187. Basically, the requirements of DIN EN 1995 must be fulfilled.

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Static Values

Effective thread length (l_{ef})		Minimal section (mm)		Characteristic load capacity R_k (KN)							
				Solid wood C24 ($\rho_k = 350 \text{ kg/m}^3$)				Glued-laminated timber GL24h ($\rho_k = 385 \text{ kg/m}^3$)			
Screws	l_{ef} (mm)	H	J	$F_{2,RK}$	$F_{3,RK}$	$F_{4,RK}$	$F_{1,RK}$	$F_{2,RK}$	$F_{3,RK}$	$F_{4,RK}$	$F_{1,RK}$
$\varnothing 8 \times 160$	150	170 x 420	140 x 420	139.79	36.40	51.63	48.32	147.29	36.40	53.80	51.61
$\varnothing 8 \times 180$	170	190 x 450	140 x 450	156.46			54.09	167.09			57.76
$\varnothing 8 \times 200$	190	210 x 480	140 x 480	172.93			59.78	184.69			63.85

(Erstellt)	(Datum)	(Werkstoff)	EN AW 6082	nach	(Maßstab)	
Autret	30.09.2014	(Beschichtung)				
Abbebesicherung	30.09.14	 Pitzl Metallbau Holzverbindungen Pfostenträger				
Ind. Änderung	Datum					Name
(Benennung)	HVP-Schwerlast					
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Autret	03.06.2014	(Beschichtung)				
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