HVP 88214

Application
Concealed beam connector for wood-wood connections.

Product Specifications

Dimensions w × h × d	60 x 140 x 12
Number of screws	24
Screw size	ø 5 x 60 – 100
Minimum timber section with screw ø 5 × 60 (mm) header	70 x 160
Joist	80 x 160
Characteristic load capacity* ø 5 × 60	31.70
ø 5 x 100	52.21
Carton quantity	10
CE	*

* $F_{2,Rk}$ (kN) for GL24h with fully threaded screws: ø 5 x 60 with effective thread length of 54 mm and ø 5 x 100 with effective thread length of 94 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 88214.1000 according to ETA-15/0187. The connection to secondary beam with 12 SFS HT (Heco) screws with a diameter of 5.0 mm and a length of 60/80/100 mm. Connection to main beam with 12 SFS HT (Heco) screws with a diameter of 5.0 mm and a length of 60/80/100 mm. 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:

$F_{1,Rk}$ = 15.23 / 20.23 / 25.09 kN – Force acting in direction of the secondary beam
$F_{2,Rk}$ = 29.38 / 39.01 / 48.38 kN – Force acting in direction of insertion
$F_{3,Rk}$ = 0.00 kN – Force acting against direction of insertion
$F_{4,Rk}$ = 17.84 kN – Force acting perpendicular to direction of insertion
$M_{tor,J,Rk}$ = 431.20 kN – Rotation moment in the axis of the secondary beam

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

$F_{1,Rk}$ = 16.44 / 21.83 / 27.07 kN – Force acting in direction of the secondary beam
$F_{2,Rk}$ = 31.70 / 42.10 / 52.21 kN – Force acting in direction of insertion
$F_{3,Rk}$ = 0.00 kN – Force acting against direction of insertion
$F_{4,Rk}$ = 18.71 kN – Force acting perpendicular to direction of insertion
$M_{tor,J,Rk}$ = 452.24 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 ($\rho_k = 350$ kg/m^3)				Glued-laminated timber GL24h ($\rho_k = 385$ kg/m^3)			
Screws	ℓ_{ef} (mm)	H	J	$F_{2,RK}$	$F_{3,RK}$	$F_{4,RK}$	$F_{1,RK}$	$F_{2,RK}$	$F_{3,RK}$	$F_{4,RK}$	$F_{1,RK}$
ø 5 x 60	54	70 x 160	80 x 160	29.38	0.00	17.84	15.23	31.37	0.00	18.59	16.27
ø 5 x 80	74	90 x 190	80 x 190	39.01			20.23	41.66			21.60
ø 5 x 100	94	110 x 220	80 x 220	48.38			25.09	51.67			26.79

Technical drawing — 88214.0000 Teil 1. (Erstellt) Autret — (Datum) 24.03.2015 — (Werkstoff) EN AW 6082. Pitzl Metallbau GmbH & Co. KG, Siemensstraße 26, D-84051 Altheim. Tel.: +49 (0) 87 03 / 93 46-0, Fax.: +49 (0) 87 03 / 93 46-55. (Benennung) HVP.

Technical drawing — 88214.0000 Teil 2. (Erstellt) Autret — (Datum) 19.03.2015 — (Werkstoff) EN AW 6082. Pitzl Metallbau GmbH & Co. KG, Siemensstraße 26, D-84051 Altheim. Tel.: +49 (0) 87 03 / 93 46-0, Fax.: +49 (0) 87 03 / 93 46-55. (Benennung) HVP.

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All information is non-binding and without guarantee. Before using the products, all specifications and calculations must be checked by a suitably qualified person and local regulations must be observed. This document is subject to revision. We reserve the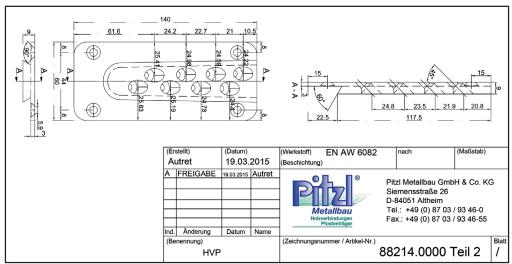 right to make technical changes. (04/2022, V1.01)