



GH - Top Vario 240 / 280 tension tie











Properties

Steel grade S 250 GD / DX 51 D

Surface Z 275

Fasteners

Fixing on the floor in concrete, masonry, steel, timber

Concrete screw, stud anchor, chemical anchor, screws and bolts to DIN 601 / ISO 4016

Wall fixing in timber with connectors to ETA-13/0523

GH connector nails (threaded nails) 4.0 x 40 / 50 / 60 / 75 / 100 mm GH screw 5.0 x 35 / 40 / 50 / 60 / 70 mm

The wall/column joint can also be made with an interlayer (e.g. OSB) according to ETA-10/0010

Nail pattern

Minimum number of nails/screws, see load-capacity table, "min. Nail/screw".column

Calculation of the design value of the load-carrying capacities to ETA-10/0010

 n_1 = Structurally useful number of holes, timber (vertical flange)

 n_2 = Number of holes, concrete

LDC = Load duration class to EN 1995-1-1

 $n_{\text{nail/screw}} = Minimum number of nails <math>\emptyset$ 4 mm or screws \emptyset 5 mm in the vertical flange $F_{z,Rk} = Characteristic value of the load-carrying capacity in the load direction <math>F_z$

 $F_{z,Rd}$ = Design value of load-carrying capacity in load direction F_z

 k_t = Factor for calculating the tensile force in the anchor bolt/concrete dowel: $F_{B,Ed} = k_t \cdot F_{z,Ed}$

Remarks:

The load-bearing capacities only apply to the given minimum number of fasteners min $n_{\text{nail/screw}}$.

The table values apply to a char. density of timber of at least 350 kg/m³.

The fastener minimum edge distances to EC5 shall be satisfied. Minimum distance of the fastener from the end-grain end a3,t: 60 mm for nails \emptyset 4 mm and 75 mm for screws \emptyset 5 mm.

All calculations and values are exclusively for GH products and their fasteners.

The load-bearing capacities were determined on the basis of ETA 13/0523. It is not possible to transfer the values to third party Disclaimer:

Despite careful calculations and checking, no liability is accepted for the technical data.

Subject to change without notice

For technical drawing, see website www.holzverbinder.de



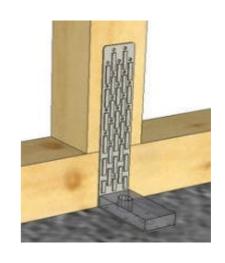




Top Vario 240 / 280 tension tie







Resistances (load-carrying capacities) with washer																		
Art.No.	Description	Dimensions [mm]							n ₁	n ₂	LDC	4x40 5x40		4x50 5x50		4x60 5x60		
												min.	F _z	min.	F _z	min.	F _z	k _t
		Н		L		В		T	Ø 5.0	Ø		n _{Nä/screw}	[kN]	n _{Nä/screw}	[kN]	n _{Nä/screw}	[kN]	
110850	Top Vario 240		x	120	х	55	x		17	2x	short-term	13		11		11		
		240						2,0		18x26	instantaneous	10	15,9	9	15,9	9	15,9	1,49
											charac.	9		8		8		
110867	Top Vario 280	280	x	120	x	55	x	2,0	22	2x 18x26	short-term	13	15,9	11	15,9	11	15,9	1,49
											instantaneous	10		9		9		
											charac.	9		8		8		
111345	Top washer			114	Х	55	х	20,0		14x26			<u>-</u>		•	•	•	•
111352	Top washer			114	Х	55	х	20,0		18x26								