Integral connector type aluminium combination SD 12.0

ETA-16/0044

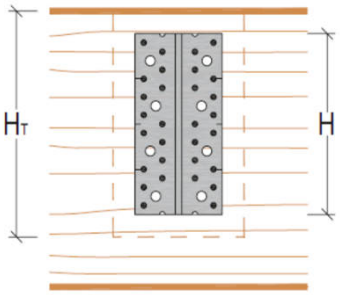
CE 0769

CE 0769

Structural values

Main/secondary member joint with dowel Ø12.0mm

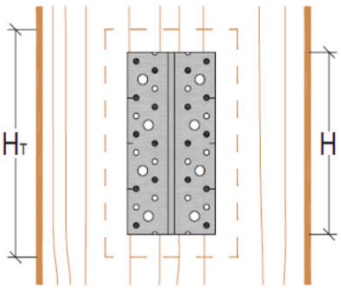
	Timber cross-sections [mm]		Fixing			Resistance
Height	Secondary member	Main member	Anchor nails$_{nH}$	Dowel		EN 1995:2008
[mm]	$B_{NT,MIN}$	$H_{T,MIN}$	Ø 4.0 x 60	nN	Ø x L [mm]	$R_{V,k}$ [kN]
120	120	160	22	3	12 x 120	23,1
160	120	200	30	4	12 x 120	34,6
200	120	240	38	5	12 x 120	46,6
240	120	280	46	6	12 x 120	59,8
280	140	320	54	7	12 x 140	77,2
320	140	360	62	8	12 x 140	93,2
360	160	400	70	9	12 x 160	112,0



Full nailing

Column joint with dowel Ø 12.0mm

	Timber cross-sections [mm]		Fixing			Resistance
Height	Secondary member	Main member	Anchor nails$_{nH}$	Dowel		EN 1995:2008
[mm]	$B_{NT,MIN}$	$H_{T,MIN}$	Ø 4.0 x 60	nN	Ø x L [mm]	$R_{V,k}$ [kN]
120	120	160	14	3	12 x 120	18,1
160	120	200	18	4	12 x 120	26,2
200	120	240	22	5	12 x 120	34,6
240	120	280	26	6	12 x 120	43,7
280	140	320	30	7	12 x 140	53,5
320	140	360	34	8	12 x 140	63,7
360	160	400	38	9	12 x 160	79,4



Partial nailing

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BIC GENODES1NUE

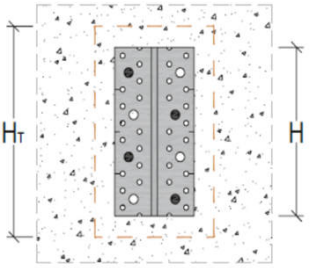
Erfüllungsort und Gerichtsstand
für beide Teile ist Kirchheim/Teck
Geschäftsführer Dirk Weiss
Amtsgericht Stuttgart HRB Nr. 722555

Joints on masonry / concrete

Secondary member on concrete with concrete bolt Ø10x80[1]

Example:

	Timber cross-sections [mm]		Fixing			Resistance
Height	Secondary member	Main member	Screw anchor$_{nH}$	Dowel		EN 1995:2008
[mm]	$B_{NT,MIN}$	$H_{T,MIN}$	Ø 10 x 80	nN	Ø x L [mm]	$^1R_{V,k}$ [kN]
120	120	160	3	3	12 x 120	12,6
160	120	200	4	4	12 x 120	17,7
200	120	240	5	5	12 x 120	22,8
240	120	280	6	6	12 x 120	27,8
280	140	320	7	7	12 x 140	32,9
320	140	360	8	8	12 x 140	37,9
360	160	400	9	9	12 x 160	43,0

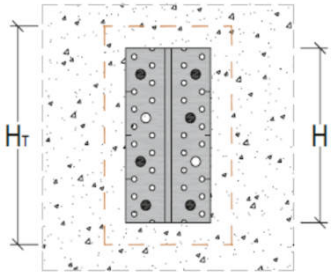


[1]The given resistance (load-carrying capacity) values are only example values and depend on the dowel manufacturer and type.

Secondary member on concrete with adhesive[3] (vinyl ester resin)

Example:

	Timber cross-sections [mm]		Fixing			Resistance
Height	Secondary member	Main member	[2]Threaded rod$_{nH}$	Dowel		EN 1995:2008
[mm]	$B_{NT,MIN}$	$H_{T,MIN}$	Ø 8 x 110	nN	Ø x L [mm]	$^1R_{V,k}$ [kN]
120	120	160	4	3	12 x 120	19,0
160	120	200	6	4	12 x 120	30,3
200	120	240	7	5	12 x 120	37,8
240	120	280	8	6	12 x 120	46,8
280	140	320	9	7	12 x 140	54,6
320	140	360	11	8	12 x 140	58,5
360	160	400	12	9	12 x 160	68,1



[1]Threaded rods, strength class 5.8

[2]Required minimum number of threaded rods for the given values

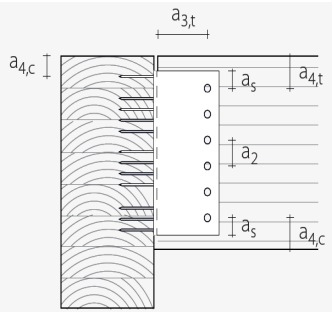
[3]The given resistance (load-carrying capacity) values are only example values and depend on the dowel manufacturer and type.

Minimum spacings

Timber-to-timber joint

Dowel Ø12.0 x L / anchor nail Ø 4.0 x L				[mm]
Dowel spacing (centre-to-centre)		a_2	≥ 3d	≥36
Min. Distance to top of secondary member		$a_{4,t}$	≥ 4d	≥48
Min. Distance to bottom of secondary member		$a_{4,c}$ NT	≥ 3d	≥36
Min. Distance from nail to top of main member		$a_{4,c}$ HT	≥ 5d	≥20
Min. Distance to end-grain wood		$a_{3,t}$	≥ {7 d; 80}	≥80
Min. Distance to bottom of connector		a_s	≥ 1.2 d_o (1)	≥16

[1]Hole diameter

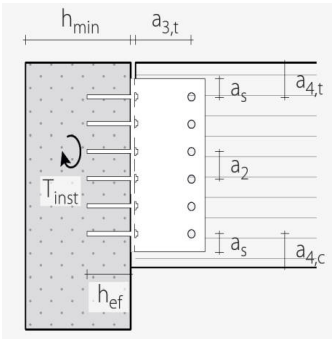


Timber-to-concrete joint

Example			Chemical anchor Ø 8.0	Screw anchor Ø 10.0
Minimum concrete thickness[2]		h_{min}	h_{ef} + 30mm≥ 100	110
Hole diameter in concrete[2]		d_0	10	8
Torque[2]		T_{inst} [Nm]	10	25

[2]Example, data can differ depending on the dowel manufacturer

h_{ef} = effective (anchored) depth in concrete



General provisions

- Characteristic values to EN 1995:2004 / ETA-16/0044
- The values given relate to timber with density ρk = 350 kg/m3.

Before the execution, all values must be checked by the designer responsible.
Printing and typesetting errors excepted.