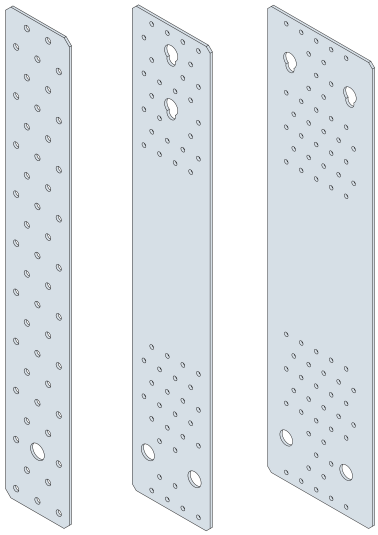
Technical Sheet

NPB
Nail plate for CLT

Nail plate NPB255 has been developed to fix Timbr to Timber, Timber to concrete suports and CLT panels to CLT Floors or concrete support.
Very versatile, its installation is aided by centre line markings to indicate correct positioning of the connector



Features

Material

- Galvanized steel S250GD + Z275 according to EN 10346
- Thickness 3 mm

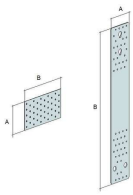
Advantages

- Ideal for use in Timber and CLT buildings
- Great versatility: can be utilised for Timber to Timber , Timber to concrete, CLT to CLT or CLT to concrete connections,
- High performance for horizontal (F_2 / F_3) and vertical (F_1) loads directions.

Technical Sheet

NPB
Nail plate for CLT

Technical Data



Dimensions

Reference	Connector Dimensions							
	Product Dimensions[mm]			Joist	Holes[mm]		Other	
	A[mm]	B[mm]	Thickness[mm]	Round	Round		Qty per Box	Weight[kg]
				Ø5[mm]	Ø13	Ø17		
NPB60400	60	400	2	49	1	-	10	0.36
NPB100540	100	540	3	26+28	2 (Ø14)	2	10	1.2
NPB140540	140	540	3	36+36	-	2+2	10	1.7

Product characteristic capacities - CLT to CLT

Reference	Nail plates capacity					
	Product capacities - Timber to Rigid support - Nailing pattern 1					
	Number of Fasteners		Product characteristic capacities - Timber C24[kN]			
	Top part	Bottom part	$R_{1,k}$		$R_{2,k}=R_{3,k}$	
			CNA4.0x50	CSA5.0x50	CNA4.0x50	CSA5.0x50
NPB60400	n	n	min (26.7/kmod ; n x 2.22)	min (26.7/kmod ; n x 2.63)	-	-
NPB100540	n	n	min (71.3/kmod ; n x 2.22)	min (71.3/kmod ; n x 2.63)	-	-
NPB140540	n	n	min (102.5/kmod ; n x 2.22)	min (102.5/kmod ; n x 2.63)	-	-

n = number of fasteners (CNA or CSA) on the top or bottom part of the plate. This number of fasteners has to be the same on both timber elements.
Distances to the edges of the timber must be checked.
For combinied forces it´s to check: \sum\frac{F_{i,d}} {R_{i,d}}\le1

Product characteristic capacities - CLT to concrete

Reference	Nail plates capacity			
	Product capacities - Timber to Rigid support - Nailing pattern 2			
	Number of Fasteners		Product characteristic capacities - Timber C24[kN]	
	Top part	Bottom part	$R_{1,k}$	
			CNA4.0x50	CSA5.0x50
NPB60400	n	1 Ø12	min (20.6/kmod ; n x 2.22)	min (20.6/kmod ; n x 2.63)
NPB100540	n	2 Ø12	min (58.8/kmod ; n x 2.22)	min (58.8/kmod ; n x 2.63)
NPB140540	n	2 Ø16	min (82.4/kmod ; n x 2.22)	min (82.4/kmod ; n x 2.63)

n = number of fasteners (CNA or CSA) on the top part of the plate. The distances to the edges of the timber as well as the distances to the edges of the concrete must be checked.
Anchors resistance must also be checked

Installation

Fasteners

CLT Connection:

- CNA annular ring shank nails dia. 4.0 x 50 mm,
- CSA screws dia. 5.0 x 40 mm.

Concrete Connection :

- Mechanical anchor: M12
- Chemical anchor: AT-HP resin + LMAS M12-150/35 threaded rod.

Applications

Nailing pattern

Copyright by Simpson Strong-Tie®