

Technical Sheet

NPB255 Nail plate for CLT

SIMPSON

Strong-Tie

The NPB255 nail plate have been designed especially for CLT building. Flexible, the installation is helped by a line that indicate where to place the plate.

Features

Materiaali

- Teräs S250GD

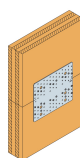
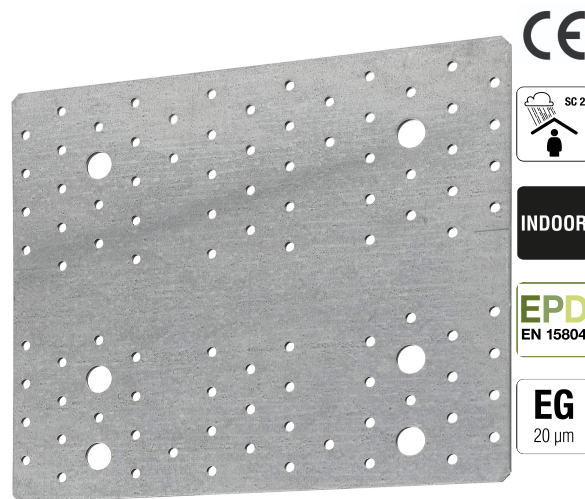
Hyödyt

- Ihanteellinen CLT-rakennuksiin
- Helppo asentaa linjan avulla
- Voidaan käyttää puu- ja betonitukissa
- Suuri kapasiteetti

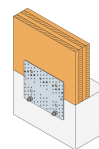
Applications

Käyttötarkoitus

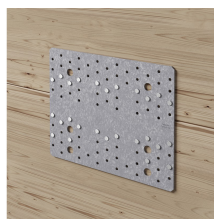
- BANSTR- vanteen kiristäjällä kiristetään päätykiinnikkeisiin kiinnitetty sidevanne. Vanteen kiristäjä asetetaan palkkia vasten



NPB255



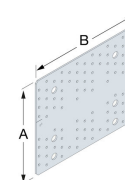
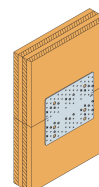
NPB255



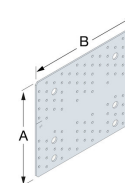
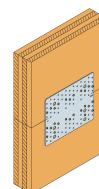
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Technical Data

Mitat ja ominaisarvot



Viite	Mitat								
	Muu				Mitat ja ominaisarvot[mm]			Reiät[mm]	
	DB nr.	NOBB nr.	Määrä laatikossa	Paino[kg]	A[mm]	B[mm]	Paksuus[mm]	Pyöreä	
								Ø5	Ø13
NPB255	1967265	54074417	10	1.2	214	255	3	93	6
NPB255S0	-	-	10	1.7	294	255	3	97	6



Puun liitäntä puuhun

Viite	Nail plates capacity					
	Tuotteiden kapasiteetit - Puu puuhun tai CLT CLT:hen					
	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
	Yläosa	Pohjaosa	R1,k		R2,k = R3,k	
			CNA 4,0x50	CSA5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255	11	2	23.9	27.6	22.8	26.3
NPB255S0	-	-	-	-	-	-

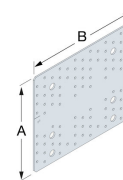
The connection for timber can also be apply for CLT connection. The distances to the border have to considered in relation to the direction of fibre.

The nail pattern NP 1 to 5 are described in the pdf document available in the installation tab.

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Nail plate for CLT

Puun liitos jäykkään tukeen



Viite	Nail plates capacity						
	Tuotteiden kapasiteetit - Puu tai CLT jäykkään tukeen						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R2,k = R3,k		R1,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255	-	-	-	-	-	-	-
NPB255SO	-	-	-	-	-	-	-

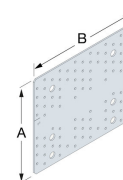
The connection for timber can also be apply for CLT connection. The distances to the border have to considered in relation to the direction of fibre. The connection to concrete has to be check for the anchors and the distances.

The anchorage of the bolts M12 has to check with the relavant distances.

The force F_2 has to considered with the lever arm "f" , which is given in the table. Ist also to find in the dpf with the nailing pattern.

The nail pattern NP 6 to 13 are described in the pdf document given first line on the installation tab.

Tuotteen ominaiskapasiteetit - Puu puuhun - Naulauskuvio 1

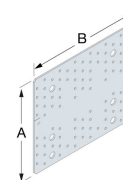


Viite	Nail plates capacity					
	Tuotteiden kapasiteetit - Puu puuhun - naulauskuvio 1					
	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
	Yläosa	Pohjaosa	R1,k		R2,k = R3,k	
			CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255	11	15	23.9	27.6	20.8	24

Timber member is prevented from rotation.

Please refer to installation tab for nail pattern details;

Tuotteen ominaiskapasiteetit - Pylväs puuhun - Naulausmalli 2



Viite	Nail plates capacity					
	Tuotteiden kapasiteetit - Pylväs puuhun - Naulauskuvio 2					
	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
	Yläosa	Pohjaosa	R2,k = R3,k		R1,k	
			CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255	13	15	19.4	22.3	28.3	32.6

Please refer to installation tab for nail pattern details.

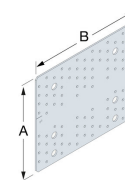
Technical Sheet

SIMPSON

Strong-Tie

NPB255

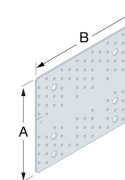
Nail plate for CLT



Tuotteen ominaiskapasiteetit - CLT CLT:hen - Naulauskuvio 3

Viite	Nail plates capacity					
	Tuotteiden kapasiteetit - CLT CLT:hen - Naulauskuvio 3					
	Kestävyyden ominaisarvot[kN]				Liitoskiinnikkeet	
	R2,k = R3,k		R1,k		Yläosa	Pohjaosa
	CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50		
NPB255	33.9	40.2	66.5	78.9	30	31

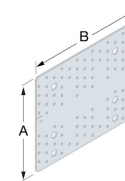
Rotation of timber member can occur.
Please refer to installation tab for nail pattern details.



Tuotteen ominaiskapasiteetit - CLT CLT:hen - Naulauskuvio 4

Viite	Nail plates capacity					
	Tuotteiden kapasiteetit - CLT CLT:hen - naulauskuvio 4					
	Kestävyyden ominaisarvot[kN]				Liitoskiinnikkeet	
	R2,k = R3,k		R1,k		Yläosa	Pohjaosa
	CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50		
NPB255	27.7	32.9	53.2	63.1	24	28

Rotation of timber member can occur.
Please refer to installation tab for nail pattern details.



Tuotteen ominaiskapasiteetit - CLT CLT:hen - Naulauskuvio 5

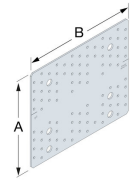
Viite	Nail plates capacity					
	Tuotteiden kapasiteetit - CLT CLT:hen - naulauskuvio 5					
	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
	Yläosa	Pohjaosa	R2,k = R3,k		R1,k	
			CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255S0	30	31	25	29.7	66.5	78.9

Rotation of timber member can occur.
Please refer to installation tab for nail pattern details.

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Tuotteen ominaiskapasiteetit - CLT CLT:hen - Naulauskuvio 6

Viite	Nail plates capacity					
	Tuotteiden kapasiteetit - CLT CLT:hen - Naulauskuvio 6					
	Kestävyyden ominaisarvot[kN]				Liitoskiinnikkeet	
	R2,k = R3,k		R1,k		Yläosa	Pohjaosa
	CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50		
NPB255	22.8	26.3	23.9	27.6	11	2

Timber member is prevented from rotation.

The group composed of two anchors shall be checked with shear loads F_1 and F_2 , and a momentum applied at the middle between the two anchor equal to $F_2 \cdot 120\text{mm}$ (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.

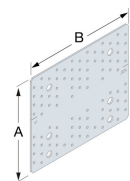
Tuotteen ominaiskapasiteetit - Puu jäykkään tukeen - Naulauskuvio 1

Viite	Nail plates capacity						
	Product capacities - CLT to Rigid Support - Nailing pattern 7						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R2,k = R3,k		R1,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255	115	13	2	min (21,1 /kmod ; 19,3)	min (21,1 /kmod ; 22,9)	min (37,1 /kmod ; 28,9)	min (37,1 /kmod ; 34,2)

Timber member is prevented from rotation.

The group composed of two anchors shall be checked with shear loads F_1 and F_2 , and a momentum applied at the middle between the two anchor equal to $F_2 \cdot 115\text{mm}$ (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.



Tuotteen ominaiskapasiteetit - Pylväs jäykkään tukeen - Naulauskuvio 2

Viite	Nail plates capacity						
	Product capacities - CLT to Rigid Support - Nailing pattern 8						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R2,k = R3,k		R1,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255	70	30	2	min (27,8 /kmod ; 28,4)	min (27,8 /kmod ; 33,7)	min (37,1 /kmod ; 66,6)	min (37,1 /kmod ; 78,9)

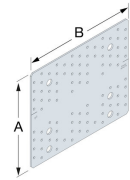
Timber member is prevented from rotation.

The group composed of two anchors shall be checked with shear loads F_1 and F_2 , and a momentum applied at the middle between the two anchor equal to $F_2 \cdot 70\text{mm}$ (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.

NPB255

Nail plate for CLT



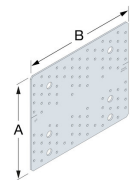
Product characteristic capacities - CLT to Rigid support - Nailing Pattern 9

Viite	Nail plates capacity						
	Product capacities - CLT to Rigid Support - Nailing pattern 9						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R2,k = R3,k		R1,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255	100	19	2	min (21,1 /kmod ; 24,0)	min (21,1 /kmod ; 28,4)	min (37,1 /kmod ; 42,2)	min (37,1 /kmod ; 50,0)

Timber member is prevented from rotation.

The group composed of two anchors shall be checked with shear loads F1 and F2, and a momentum applied at the middle between the two anchor equal to F2*100mm (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.



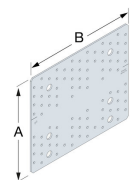
Product characteristic capacities - CLT to Rigid support - Nailing Pattern 10

Viite	Nail plates capacity						
	Product capacities - CLT to Rigid Support - Nailing pattern 10						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R2,k = R3,k		R1,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255S0	120	24	2	22.2	25.6	52.2	60.2

Timber member is prevented from rotation.

The group composed of two anchors shall be checked with shear loads F1 and F2, and a momentum applied at the middle between the two anchor equal to F2*120mm (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.



Product characteristic capacities - CLT to Rigid support - Nailing Pattern 11

Viite	Nail plates capacity						
	Product capacities - CLT to Rigid Support - Nailing pattern 11						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R1,k		R2,k = R3,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255S0	120	26	2	56.6	65.3	21.5	24.8

Timber member is prevented from rotation.

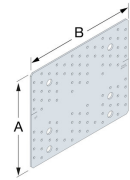
The group composed of two anchors shall be checked with shear loads F1 and F2, and a momentum applied at the middle between the two anchor equal to F2*120mm (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.

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NPB255 Nail plate for CLT



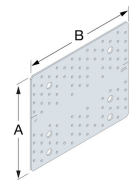
Product characteristic capacities - CLT to Rigid support - Nailing Pattern 12

Viite	Nail plates capacity						
	Product capacities - CLT to Rigid Support - Nailing pattern 12						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R1,k		R2,k = R3,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255S0	115	30	2	min (37,1 /kmod ; 66,6)	min (37,1 /kmod ; 78,9)	min (27,8 /kmod ; 21,3)	min (27,8 /kmod ; 25,2)

Timber member is prevented from rotation.

The group composed of two anchors shall be checked with shear loads F1 and F2, and a momentum applied at the middle between the two anchor equal to F2*115mm (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.



Product characteristic capacities - CLT to Rigid support - Nailing Pattern 13

Viite	Nail plates capacity						
	Product capacities - CLT to Rigid Support - Nailing pattern 13						
	F[mm]	Liitoskiinnikkeet		Kestävyyden ominaisarvot[kN]			
		Yläosa	Pohjaosa	R1,k		R2,k = R3,k	
				CNA 4,0x50	CSA 5,0x50	CNA 4,0x50	CSA 5,0x50
NPB255S0	100	30	2	min (37,1 /kmod ; 66,6)	min (37,1 /kmod ; 78,9)	min (23,2 /kmod ; 25,5)	min (23,1 /kmod ; 30,2)

Timber member is prevented from rotation.

The group composed of two anchors shall be checked with shear loads F1 and F2, and a momentum applied at the middle between the two anchor equal to F2*100mm (spacing of anchors:160 mm).

Please refer to installation tab for fastener pattern details.

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Nail plate for CLT

Asennus

Kiinnittäminen

Puupinnalle:

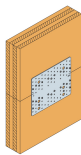
- CNA 4,0 x 50 puupinnalle
- CSA 5,0 x 40 tai CSA 5,0 x 50 ruuvit

Betonipinnalle:

- Mekaaninen ankkuri: WA M12-104/5
- Kemiallinen ankkuri: AT-HP-harts + LMAS M12-150/35 kierretanko

Käyttötarkoitus

- BANSTR- vanteen kiristäjällä kiristetään päätykiinnikkeisiin kiinnitetty sidevanne. Vanteen kiristäjä asetetaan palkkia vasten



NPB255

