

NP
Nail Plate

Nail plates are used to connect two or more timber members together. They are available in a variety of sizes.

Features

Material

- Pre-galvanised mild steel. Grade S250GD

Benefits

- Versatility of applications
- Can be bent on site

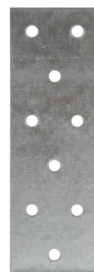
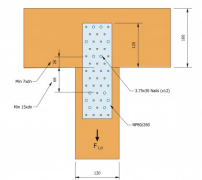
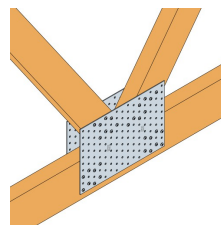
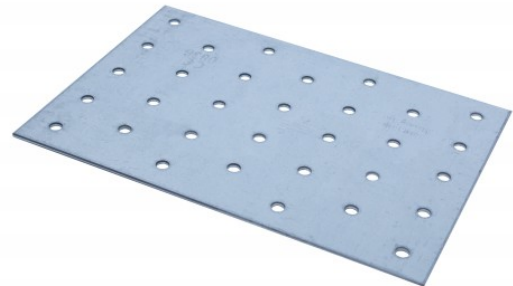
Applications

Header member

- **Supporting member:** solid wood, glued-laminated wood, composite lumber, etc.
- **Supported member:** solid wood, glued-laminated wood, composite lumber, triangular trusses, profiles.

Applications

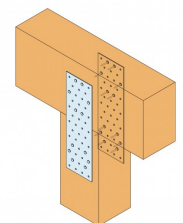
- Post/beam connection
- Jointing
- Repairs
- Assemblies requiring a special bending on site, etc



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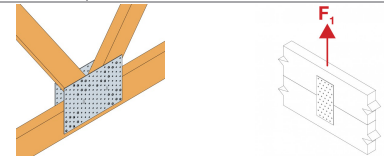
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Technical Data

NP Nail Plate



Dimensions and characteristic values

References	Dimensions and drill holes [mm]			Holes		Characteristic Capacities [kN]
	A	B	Thickness	Qty	Diameter	$R_{1,k}$
NP20/40/120	40	120	2	9	Ø5	min (n x R _{lat,k} ; 17.8/kmod)
NP20/40/160	40	160	2	12	Ø5	min (n x R _{lat,k} ; 17.8/kmod)
NP20/40/200	40	200	2	15	Ø5	min (n x R _{lat,k} ; 17.8/kmod)
NP20/50/200	50	200	2	20	Ø5	min (n x R _{lat,k} ; 23.8/kmod)
NP20/60/140	60	140	2	18	Ø5	min (n x R _{lat,k} ; 26.7/kmod)
NP20/80/200	80	200	2	35	Ø5	min (n x R _{lat,k} ; 35.6/kmod)
NP20/80/240	80	240	2	42	Ø5	min (n x R _{lat,k} ; 35.6/kmod)
NP20/80/300	80	300	2	53	Ø5	min (n x R _{lat,k} ; 35.6/kmod)
NP20/100/140	100	140	2	32	Ø5	min (n x R _{lat,k} ; 44.6/kmod)
NP20/100/200	100	200	2	45	Ø5	min (n x R _{lat,k} ; 44.6/kmod)
NP20/100/240	100	240	2	54	Ø5	min (n x R _{lat,k} ; 44.6/kmod)
NP20/100/260	100	260	2	59	Ø5	min (n x R _{lat,k} ; 44.6/kmod)
NP20/100/300	100	300	2	68	Ø5	min (n x R _{lat,k} ; 44.6/kmod)
NP20/100/400	100	400	2	89	Ø5	min (n x R _{lat,k} ; 44.6/kmod)
NP20/100/500	100	500	2	112	Ø5	min (n x R _{lat,k} ; 44.6/kmod)
NP20/120/200	120	200	2	55	Ø5	min (n x R _{lat,k} ; 53.5/kmod)
NP20/120/240	120	240	2	66	Ø5	min (n x R _{lat,k} ; 53.5/kmod)
NP20/120/260	120	260	2	72	Ø5	min (n x R _{lat,k} ; 53.5/kmod)
NP20/120/300	120	300	2	83	Ø5	min (n x R _{lat,k} ; 53.5/kmod)
NP20/120/400	120	400	2	110	Ø5	min (n x R _{lat,k} ; 53.5/kmod)
NP20/140/400	140	400	2	130	Ø5	min (n x R _{lat,k} ; 62.4/kmod)
NP20/160/300	160	300	2	113	Ø5	min (n x R _{lat,k} ; 71.3/kmod)
NP20/160/400	160	400	2	150	Ø5	min (n x R _{lat,k} ; 71.3/kmod)
NP20/200/300	200	300	2	200	Ø5	min (n x R _{lat,k} ; 89.1/kmod)
NP20/200/400	200	400	2	250	Ø5	min (n x R _{lat,k} ; 89.1/kmod)
NP40/120	40	120	1.5	9	Ø4.1	min (n x R _{lat,k} ; 14.2)
NP80/140	80	140	1.5	25	Ø4.1	min (n x R _{lat,k} ; 28.3)
NP80/180	80	180	1.5	32	Ø4.1	min (n x R _{lat,k} ; 28.3)
NP80/200	80	200	1.5	35	Ø4.1	min (n x R _{lat,k} ; 28.3)
NP80/220	80	220	1.5	39	Ø4.1	min (n x R _{lat,k} ; 28.3)
NP80/260	80	260	1.5	46	Ø4.1	min (n x R _{lat,k} ; 28.3)
NP100/140	100	140	1.5	32	Ø4.1	min (n x R _{lat,k} ; 35.4)
NP100/200	100	200	1.5	45	Ø4.1	min (n x R _{lat,k} ; 35.4)
NP100/240	100	240	1.5	54	Ø4.1	min (n x R _{lat,k} ; 35.4)
NP100/300	100	300	1.5	68	Ø4.1	min (n x R _{lat,k} ; 35.4)
NP140/180	140	180	1.5	59	Ø4.1	min (n x R _{lat,k} ; 49.6)
NP140/200	140	200	1.5	65	Ø4.1	min (n x R _{lat,k} ; 49.6)
NP140/260	140	260	1.5	85	Ø4.1	min (n x R _{lat,k} ; 49.6)
NP160/340	160	340	1.5	128	Ø4.1	min (n x R _{lat,k} ; 56.7)

With
n: the number of nails
 $R_{lat,k}$: Shear capacity of the fastener

Technical data sheet

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References	Dimensions and drill holes [mm]			Holes		Characteristic Capacities [kN]
	A	B	Thickness	Qty	Diameter	$R_{1,k}$
NP200/260	200	260	1.5	124	Ø4.1	min (n x $R_{lat,k}$; 70.8)
NP220/300	220	300	1.5	158	Ø4.1	min (n x $R_{lat,k}$; 77.9)

With

n: the number of nails

$R_{lat,k}$: Shear capacity of the fastener

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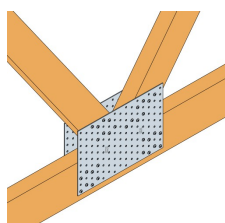
Installation

Fixing

- CNA nails Ø4.0
- CSA screws Ø5.0

Installation

- Use all specified fasteners
- Install using 3.75 x 30mm square twist nails



Attaching wood rafters and square butting rafters.

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