

Technical data sheet

SIMPSON

Strong-Tie

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

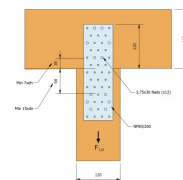
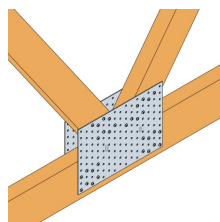
Applications

Header member

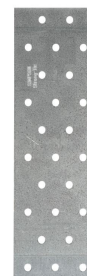
- **Supporting member:** solid wood, glued-laminated wood, composite lumber, etc.
- **Supported member:** solid wood, glued-laminated wood, composite lumber, triangular trusses, profiles.

Applications

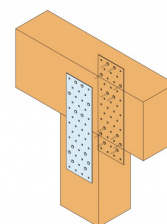
- Post/beam connection
- Jointing
- Repairs
- Assemblies requiring a special bending on site, etc



NP



NP



NP
Nail Plate

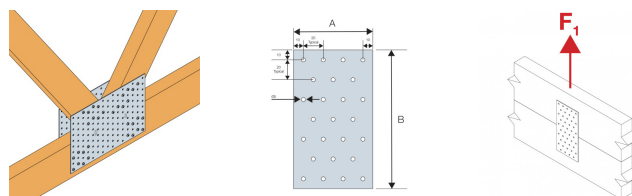
Technical Data

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Dimensions and characteristic values



References	NOB nr.	Tun / DB nr.	Dimensions and drill holes [mm]			Holes		Characteristic Capacities [kN]	Weight [kg]	Box Quantity
			A	B	Thickness	Qty	Diameter	$R_{1,k}$		
NP15/40/120	41711615	1267914	40	120	1.5	9	Ø5	min (n x R _{lat,k} ; 13.4/kmod)	0.053	100
NP15/40/160	41711626	1267920	40	160	1.5	12	Ø5	min (n x R _{lat,k} ; 13.4/kmod)	0.062	50
NP15/50/200	41711634	1267926	50	200	1.5	20	Ø5	min (n x R _{lat,k} ; 17.8/kmod)	0.11	50
NP15/60/140	21218037	3779279	60	140	1.5	18	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.094	100
NP15/60/160	21217617	5653464	60	160	1.5	20	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.1	50
NP15/60/180	21218045	3779287	60	180	1.5	23	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.12	50
NP15/60/200	21217658	5653498	60	200	1.5	25	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.13	50
NP15/60/220	21217625	5653472	60	220	1.5	28	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.14	50
NP15/60/240	41863666	1280559	60	240	1.5	30	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.16	50
NP15/60/300	21217682	5653522	60	300	1.5	38	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.2	50
NP15/60/340	21217641	5653480	60	340	1.5	43	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.23	50
NP15/60/420	21217666	5653506	60	420	1.5	53	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.28	50
NP15/60/500	21217674	5653514	60	500	1.5	63	Ø5	min (n x R _{lat,k} ; 20/kmod)	0.34	50
NP15/80/100	21217708	5653605	80	100	1.5	18	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.091	50
NP15/80/140	21593918	8977811	80	140	1.5	25	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.13	50
NP15/80/180	21217955	5653530	80	180	1.5	32	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.17	50
NP15/80/200	41711653	1267928	80	200	1.5	35	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.18	50
NP15/80/220	21218052	3779139	80	220	1.5	39	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.2	50
NP15/80/240	21218060	1644095	80	240	1.5	42	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.22	50
NP15/80/280	21217732	5653613	80	280	1.5	49	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.25	50
NP15/80/300	21593926	8977829	80	300	1.5	53	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.26	50
NP15/80/340	21217757	5653548	80	340	1.5	60	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.3	50
NP15/80/420	21217773	5653639	80	420	1.5	74	Ø5	min (n x R _{lat,k} ; 26.7/kmod)	0.37	50
NP15/100/140	21217807	5653654	100	140	1.5	32	Ø5	min (n x R _{lat,k} ; 33.4/kmod)	0.16	50
NP15/100/200	41738756	1267931	100	200	1.5	45	Ø5	min (n x R _{lat,k} ; 33.4/kmod)	0.22	50
NP15/100/220	21218078	3779147	100	220	1.5	50	Ø5	min (n x R _{lat,k} ; 33.4/kmod)	0.22	50
NP15/100/240	21218086	1644103	100	240	1.5	54	Ø5	min (n x R _{lat,k} ; 33.4/kmod)	0.26	50
NP15/100/300	21593934	8977837	100	300	1.5	68	Ø5	min (n x R _{lat,k} ; 33.4/kmod)	0.33	50
NP15/100/340	21217856	5653688	100	340	1.5	77	Ø5	min (n x R _{lat,k} ; 33.4/kmod)	0.37	50
NP15/100/380	21593942	8977845	100	380	1.5	86	Ø5	min (n x R _{lat,k} ; 40.1/kmod)	0.42	25
NP15/120/160	21217849	5653662	120	160	1.5	44	Ø5	min (n x R _{lat,k} ; 40.1/kmod)	0.22	50
NP15/120/220	21218094	1644111	120	220	1.5	61	Ø5	min (n x R _{lat,k} ; 40.1/kmod)	0.29	50
NP15/120/240	41738760	1267992	120	240	1.5	66	Ø5	min (n x R _{lat,k} ; 40.1/kmod)	0.32	50
NP15/120/300	41738775	1267998	120	300	1.5	83	Ø5	min (n x R _{lat,k} ; 40.1/kmod)	0.38	25
NP15/140/200	21217880	5653704	140	200	1.5	65	Ø5	min (n x R _{lat,k} ; 46.8/kmod)	0.31	50
NP15/140/220	43139740	1392241	140	220	1.5	72	Ø5	min (n x R _{lat,k} ; 46.8/kmod)	-	-
NP15/140/240	21593959	8977852	140	240	1.5	78	Ø5	min (n x R _{lat,k} ; 46.8/kmod)	0.37	50
NP15/140/300	21217906	5650502	140	300	1.5	98	Ø5	min (n x R _{lat,k} ; 46.8/kmod)	0.46	25
NP15/160/180	21593967	8977860	160	180	1.5	68	Ø5	min (n x R _{lat,k} ; 53.5/kmod)	0.32	50

With

n: the number of nails

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

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References	NOB nr.	Tun / DB nr.	Dimensions and drill holes [mm]			Holes		Characteristic Capacities [kN]	Weight [kg]	Box Quantity
			A	B	Thickness	Qty	Diameter	$R_{1,k}$		
NP15/160/220	21217922	5653712	160	220	1.5	83	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.39	50
NP15/160/240	21593975	8977878	160	240	1.5	90	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.43	25
NP15/160/260	21217948	1921394	160	260	1.5	98	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.45	25
NP15/160/340	21218029	2686897	160	340	1.5	128	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.59	25
NP15/160/400	41738786	1268000	160	400	1.5	150	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.71	20
NP15/180/220	21217971	5650510	180	220	1.5	94	Ø5	min (n x $R_{lat,k}$; 60.1/kmod)	0.44	25
NP15/200/220	21217989	2686996	200	220	1.5	105	Ø5	min (n x $R_{lat,k}$; 66.8/kmod)	0.49	25
NP20/40/120	21218342	3779154	40	120	2	9	Ø5	min (n x $R_{lat,k}$; 17.8/kmod)	0.071	100
NP20/40/160	21594007	8977902	40	160	2	12	Ø5	min (n x $R_{lat,k}$; 17.8/kmod)	0.094	50
NP20/50/200	21218359	8256240	50	200	2	20	Ø5	min (n x $R_{lat,k}$; 23.8/kmod)	0.15	50
NP20/60/140	21594023	8977910	60	140	2	18	Ø5	min (n x $R_{lat,k}$; 26.7/kmod)	0.12	50
NP20/60/200	21594114	8977928	60	200	2	25	Ø5	min (n x $R_{lat,k}$; 26.7/kmod)	0.18	50
NP20/60/240	21218367	8258154	60	240	2	30	Ø5	min (n x $R_{lat,k}$; 26.7/kmod)	0.22	50
NP20/80/200	21594031	8977936	80	200	2	35	Ø5	min (n x $R_{lat,k}$; 35.6/kmod)	0.23	50
NP20/80/240	21218185	5650346	80	240	2	42	Ø5	min (n x $R_{lat,k}$; 35.6/kmod)	0.29	50
NP20/80/300	21594049	8977944	80	300	2	53	Ø5	min (n x $R_{lat,k}$; 35.6/kmod)	0.35	50
NP20/100/140	21218201	7742414	100	140	2	32	Ø5	min (n x $R_{lat,k}$; 44.6/kmod)	0.2	50
NP20/100/200	21594056	8977951	100	200	2	45	Ø5	min (n x $R_{lat,k}$; 44.6/kmod)	0.3	50
NP20/100/240	21218227	5650429	100	240	2	54	Ø5	min (n x $R_{lat,k}$; 44.6/kmod)	0.35	50
NP20/100/260	21218235	5653779	100	260	2	59	Ø5	min (n x $R_{lat,k}$; 44.6/kmod)	0.38	50
NP20/100/300	21594064	8977969	100	300	2	68	Ø5	min (n x $R_{lat,k}$; 44.6/kmod)	0.45	25
NP20/100/400	21218250	2184331	100	400	2	89	Ø5	min (n x $R_{lat,k}$; 44.6/kmod)	0.6	25
NP20/100/500	21218268	2184349	100	500	2	112	Ø5	min (n x $R_{lat,k}$; 44.6/kmod)	0.75	25
NP20/120/160	-	-	120	160	2	44	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.3	50
NP20/120/200	21218276	7742422	120	200	2	55	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.35	50
NP20/120/240	21594072	8977977	120	240	2	66	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.41	25
NP20/120/260	21218292	5653787	120	260	2	72	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.48	25
NP20/120/300	21594080	8977985	120	300	2	83	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.53	25
NP20/120/400	24176158	5018533	120	400	2	110	Ø5	min (n x $R_{lat,k}$; 53.5/kmod)	0.69	25
NP20/140/200	-	-	140	200	2	65	Ø5	min (n x $R_{lat,k}$; 62.4/kmod)	0.44	25
NP20/140/400	21594098	8977993	140	400	2	130	Ø5	min (n x $R_{lat,k}$; 62.4/kmod)	0.83	25
NP20/160/300	24176141	5650130	160	300	2	113	Ø5	min (n x $R_{lat,k}$; 71.3/kmod)	0.69	25
NP20/160/400	21218326	5788246	160	400	2	150	Ø5	min (n x $R_{lat,k}$; 71.3/kmod)	0.93	20
NP20/200/300	21594106	8978009	200	300	2	143	Ø5	min (n x $R_{lat,k}$; 89.1/kmod)	0.89	20
NP20/350/40	24176166	1292251	350	40	2	34	Ø5	-	-	-

With

n: the number of nails

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

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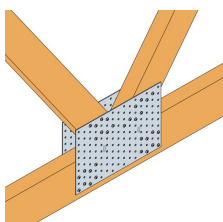
Installation

Fixing

- CNA nails Ø4.0
- CSA screws Ø5.0

Installation

- Use all specified fasteners



Attaching wood rafters and square butting rafters.

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Nail Plate

