

BSNN

Joist hanger

Joist hangers are used for the connection of secondary beams to main beams or posts.

Features

Materiál

Kvalita oceli:**S 250 GD+Z 275 dle norem DIN EN 10346****Ochrana proti korozi:****275 g/m pozinkováno z obou stran cca 20mm**

Vorteile

- The BSNN joist hangers are also approved for three-axle loads.
- Connections to concrete, steel and masonry are permissible, see static values.

Applications

Anwendbare Materialien

Supporting member:

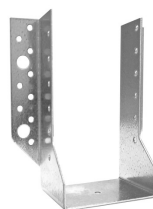
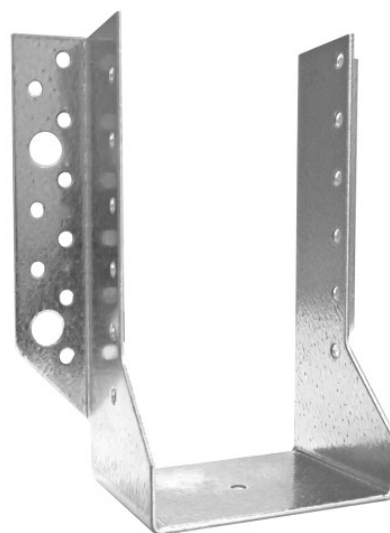
- Solid wood, engineered wood, concrete, steel

Supported member:

- Solid wood, engineered wood

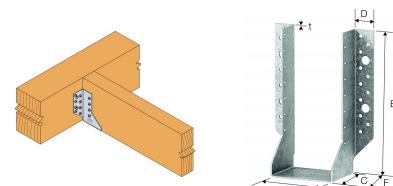
Anwendungsbereich

- For connections of secondary beams made of wood or engineered wood to main beams / posts made of engineered wood or concrete / steel.



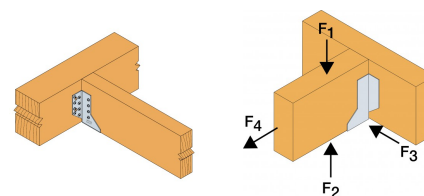
Technical Data

Rozměry a typické hodnoty



Art. nr.	Rozměry a typické hodnoty [mm]						Otvory hlavy		Otvory trámu	Box Quantity	Hmotnost [kg]
	A	B	C	D	F	t	Ø5 [mm]	Ø11.5 [mm]	Ø5 [mm]		
BSNN40/95	40	95	60	27	63	2	8	2	6	50	0.21
BSNN40/110	40	110	60	27	63	2	12	2	6	40	0.24
BSNN40/140	40	140	60	27	63	2	16	2	10	40	0.3
BSNN45/108	45	108	60	27	63	2	12	2	6	40	0.24
BSNN45/138	45	138	60	27	63	2	16	2	10	40	0.3
BSNN45/168	45	168	60	27	63	2	18	4	12	40	0.35
BSNN45/198	45	198	60	27	63	2	22	4	14	30	0.42
BSNN48/166	48	166	60	27	63	2	18	4	12	40	0.35
BSNN48/226	48	226	60	27	63	2	26	4	16	30	0.46
BSNN51/90	51	90	60	27	63	2	8	2	6	50	0.21
BSNN51/105	51	104	60	27	63	2	12	2	6	40	0.24
BSNN51/135	51	134	60	27	63	2	16	2	10	40	0.3
BSNN51/164	51	164	60	27	63	2	18	4	12	40	0.35
BSNN51/195	51	194	60	27	63	2	22	4	14	30	0.42
BSNN56/190	56	190	60	27	63	2	22	4	14	-	0.24
BSNN60/100	60	100	60	27	63	2	12	2	6	40	0.24
BSNN60/130	60	130	60	27	63	2	16	2	10	40	0.3
BSNN60/160	60	160	60	27	63	2	18	4	12	40	0.35
BSNN60/190	60	190	60	27	63	2	22	4	14	30	0.42
BSNN60/220	60	220	60	27	63	2	26	4	16	30	0.46
BSNN70/125	70	125	60	27	63	2	16	2	10	40	0.3
BSNN70/155	70	155	60	27	63	2	18	4	12	40	0.35
BSNN73/184	73	184	60	27	63	2	22	4	14	30	0.42
BSNN80/120	80	120	60	27	63	2	16	2	10	40	0.3
BSNN80/150	80	150	60	27	63	2	18	4	12	40	0.35
BSNN80/180	80	180	60	27	63	2	22	4	14	30	0.42
BSNN80/210	80	210	60	27	63	2	26	4	16	30	0.46
BSNN90/145	90	145	60	27	63	2	18	4	12	40	0.35
BSNN100/100	100	100	60	27	63	2	14	2	8	40	0.28
BSNN100/140	100	140	60	27	63	2	18	4	12	40	0.35
BSNN100/170	100	170	60	27	63	2	22	4	14	30	0.42
BSNN100/200	100	200	60	27	63	2	26	4	16	30	0.46
BSNN120/110	120	110	60	27	63	2	12	2	8	30	0.32
BSNN120/160	120	160	60	27	63	2	22	4	14	30	0.42
BSNN140/120	140	120	60	27	63	2	16	2	10	30	0.35
BSNN120/190	120	190	60	27	63	2	26	4	16	30	0.46
BSNN140/150	140	150	60	27	63	2	22	4	14	30	0.42
BSNN140/180	140	180	60	27	63	2	26	4	16	30	0.46

Charakteristické nosnosti - Dřevěný trám na dřevěný trám -
plné hřebování



Art. nr.	Charakteristické kapacity - Dřevo na dřevo - úplné upevnění hřeby													
	Upevňovací prvky		Charakteristické kapacity - dřevo C24 [kN]											
	Hlava	Trám	R _{1,k}			R _{2,k}			R _{3,k}			R _{4,k}		
	Množství	Množství	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60
BSNN40/95	8	6	8.9	-	-	4.3	-	-	3.9	-	-	4.4	-	-
BSNN40/110	12	6	13.8	-	-	5.1	-	-	5.5	-	-	5.9	-	-
BSNN40/140	16	10	20.3	-	-	5.9	-	-	7.7	-	-	7.4	-	-
BSNN45/108	12	6	13.4	-	-	5.7	-	-	5.5	-	-	5.9	-	-
BSNN45/138	16	10	19.9	-	-	6.6	-	-	7.7	-	-	7.4	-	-
BSNN45/168	18	12	25.4	-	-	7.4	-	-	9	-	-	8.9	-	-
BSNN45/198	22	14	29.3	-	-	8.2	-	-	10.6	-	-	10.4	-	-
BSNN48/166	18	12	25.2	-	-	7.9	-	-	9	-	-	8.9	-	-
BSNN48/226	26	16	32.9	-	-	9.4	-	-	12.1	-	-	11.8	-	-
BSNN51/90	8	6	8.2	10.5	-	5.2	5.2	-	3.9	5	-	4.4	5.9	-
BSNN51/105	12	6	12.9	16.6	-	6.3	6.3	-	5.5	6.9	-	5.9	7.8	-
BSNN51/135	16	10	19.4	24.7	-	7.4	7.4	-	7.7	9.7	-	7.4	9.8	-
BSNN51/164	18	12	25	31.1	-	8.3	8.3	-	9	11.4	-	8.9	11.8	-
BSNN51/195	22	14	29.3	35.5	-	9.2	9.2	-	10.6	13.5	-	10.4	13.7	-
BSNN56/190	22	14	29.3	35.5	-	9.2	9.2	-	10.6	13.5	-	10.4	13.7	-
BSNN60/100	12	6	12.1	15.6	18.4	7.2	7.2	7.2	5.5	6.9	7.9	5.9	7.8	9.8
BSNN60/130	16	10	18.7	23.8	27.6	8.5	8.5	8.5	7.7	9.7	11.3	7.4	9.8	12.3
BSNN60/160	18	12	24.4	30.8	33	9.7	9.7	9.7	9	11.4	13.2	8.9	11.8	14.8
BSNN60/190	22	14	29.3	35.5	37.8	10.7	10.7	10.7	10.6	13.5	15.6	10.4	13.7	17.2
BSNN60/220	26	16	32.9	40	42.5	11.6	11.6	11.6	12.1	15.4	17.9	11.8	15.7	19.7
BSNN70/125	16	10	17.8	22.8	26.5	9.7	9.7	9.7	7.7	9.7	11.3	7.4	9.8	12.3
BSNN70/155	18	12	23.7	30	33	11.1	11.1	11.1	9	11.4	13.2	8.9	11.8	14.8
BSNN73/184	22	14	29.3	35.5	37.8	12.7	12.7	12.7	10.6	13.5	15.6	10.4	13.7	17.2
BSNN80/120	16	10	16.8	21.6	25.3	10.8	10.8	10.8	7.7	9.7	11.3	7.4	9.8	12.3
BSNN80/150	18	12	23	29.1	33	12.4	12.4	12.4	9	11.4	13.2	8.9	11.8	14.8
BSNN80/180	22	14	29.3	35.5	37.8	13.8	13.8	13.8	10.6	13.5	15.6	10.4	13.7	17.2
BSNN80/210	26	16	32.9	40	42.5	15.1	15.1	15.1	12.1	15.4	17.9	11.8	15.7	19.7
BSNN90/145	18	12	22.2	28.2	32.3	13.7	13.7	13.7	9	11.4	13.2	8.9	11.8	14.8
BSNN100/100	14	8	11.8	15.3	18.4	12.1	12.1	12.1	6.4	8.1	9.4	5.9	7.8	9.8
BSNN100/140	18	12	21.3	27.1	31.3	14.9	14.9	14.9	9	11.4	13.2	8.9	11.8	14.8
BSNN100/170	22	14	28.9	35.5	37.8	16.7	16.7	16.7	10.6	13.5	15.6	10.4	13.7	17.2
BSNN100/200	26	16	32.9	40	42.5	18.3	18.3	18.3	12.1	15.4	17.9	11.8	15.7	19.7
BSNN120/110	12	8	13.5	17.2	20	13.2	13.2	13.2	6.8	8.6	9.9	5.9	7.8	9.8

The uplift capacities R_{2,k} are determine for a joist with a height of 4/3x B (B = height of BSNN). Also for connection with partial nailing.

For smaller sizes may it be possible to determine a higher capacity according to the ETA.

Combined load:

$$\sum \left(\frac{F_{i,d}}{R_{i,d}} \right)^2 \leq 1$$

BSNN

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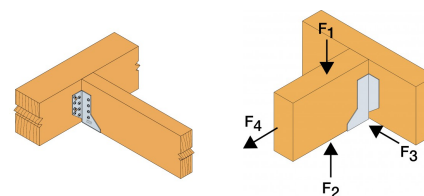
Art. nr.	Charakteristické kapacity - Dřevo na dřevo - úplné upevnění hřeby													
	Upevňovací prvky		Charakteristické kapacity - dřevo C24 [kN]											
	Hlava	Trám	R _{1,k}			R _{2,k}			R _{3,k}			R _{4,k}		
	Množství	Množství	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60
BSNN120/160	22	14	27.1	34.4	37.8	19.3	19.3	19.3	10.6	13.5	15.6	10.4	13.7	17.2
BSNN140/120	16	10	17.6	22.5	26.3	15.1	18.9	18.9	8.1	10.2	11.8	7.4	9.8	12.3
BSNN120/190	26	16	32.9	40	42.5	21.4	21.4	21.4	12.1	15.4	17.9	11.8	15.7	19.7
BSNN140/150	22	14	25	32	37.1	21.7	21.7	21.7	10.6	13.5	15.6	10.4	13.7	17.2
BSNN140/180	26	16	32.9	40	42.5	24.1	24.1	24.1	12.1	15.4	17.9	11.8	15.7	19.7

The uplift capacities R_{2,k} are determine for a joist with a height of 4/3x B (B = height of BSNN). Also for connection with partial nailing.

For smaller sizes may it be possible to determine a higher capacity according to the ETA.

Combined load:

$$\sum \left(\frac{F_{i,d}}{R_{i,d}} \right)^2 \leq 1$$



Nosnosti - dřevo na dřevo - dílčí hřebování

Art. nr.	Kapacity - Dřevo na dřevo - Částečné upevnění hřebů													
	Upevňovací prvky		Charakteristické kapacity - dřevo C24 [kN]											
	Hlava	Trám	R _{1,k}			R _{2,k}			R _{3,k}			R _{4,k}		
	Množství	Množství	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60
BSNN40/95	6	3	7.7	-	-	4.3	-	-	1.4	-	-	3.1	-	-
BSNN40/110	8	4	9.9	-	-	5.1	-	-	2.2	-	-	5.9	-	-
BSNN40/140	10	6	13.5	-	-	5.9	-	-	2.7	-	-	7.4	-	-
BSNN45/108	8	4	9.7	-	-	5.7	-	-	2.2	-	-	5.9	-	-
BSNN45/138	10	6	13.3	-	-	6.6	-	-	2.7	-	-	7.4	-	-
BSNN45/168	12	6	14.6	-	-	7.4	-	-	3.2	-	-	8.9	-	-
BSNN45/198	14	8	18.3	-	-	8.2	-	-	3.6	-	-	10.4	-	-
BSNN48/166	12	6	14.6	-	-	7.9	-	-	3.2	-	-	8.9	-	-
BSNN48/226	16	8	18.3	-	-	9.4	-	-	4.1	-	-	11.8	-	-
BSNN51/90	6	3	7.2	9.2	-	4.5	5.2	-	1.4	1.7	-	3.1	3.8	-
BSNN51/105	8	4	9.4	12	-	6.3	6.3	-	2.2	2.7	-	5.9	7.5	-
BSNN51/135	10	6	13.1	16.5	-	7.4	7.4	-	2.7	3.3	-	7.4	9.8	-
BSNN51/164	12	6	14.6	17.8	-	8.3	8.3	-	3.2	3.8	-	8.9	11.3	-
BSNN51/195	14	8	18.3	22.2	-	9.2	9.2	-	3.6	4.4	-	10.4	13.7	-
BSNN56/190	14	8	18.3	22.2	-	9.2	9.2	-	3.6	4.4	-	10.4	13.7	-
BSNN60/100	8	4	8.9	11.4	13.3	7	7.2	7.2	2.2	2.7	2.9	5.9	7.5	8
BSNN60/130	10	6	12.6	16	18.3	8.5	8.5	8.5	2.7	3.3	3.5	7.4	9.8	12
BSNN60/160	12	6	14.6	17.8	18.9	9.7	9.7	9.7	3.2	3.8	4.1	8.9	11.3	12
BSNN60/190	14	8	18.3	22.2	23.6	10.7	10.7	10.7	3.6	4.4	4.7	10.4	13.7	16
BSNN60/220	16	8	18.3	22.2	23.6	11.6	11.6	11.6	4.1	4.9	5.2	11.8	15.1	16
BSNN70/125	10	6	12.1	15.4	17.7	9.7	9.7	9.7	2.7	3.3	3.5	7.4	9.8	12
BSNN70/155	12	6	14.6	17.8	18.9	11	11.1	11.1	3.2	3.8	4.1	8.9	11.3	12
BSNN73/184	14	8	18.3	22.2	23.6	12.7	12.7	12.7	3.6	4.4	4.7	10.4	13.7	16
BSNN80/120	10	6	11.5	14.7	17.1	9.8	10.8	10.8	2.7	3.3	3.5	7.4	9.8	12
BSNN80/150	12	6	14.6	17.8	18.9	11	12.4	12.4	3.2	3.8	4.1	8.9	11.3	12
BSNN80/180	14	8	18.3	22.2	23.6	13.8	13.8	13.8	3.6	4.4	4.7	10.4	13.7	16
BSNN80/210	16	8	18.3	22.2	23.6	14.6	15.1	15.1	4.1	4.9	5.2	11.8	15.1	16
BSNN90/145	12	6	14.6	17.8	18.9	11	13.3	13.7	3.2	3.8	4.1	8.9	11.3	12
BSNN100/100	8	4	8.6	11	12.9	7	8.9	9.4	2.2	2.7	2.9	5.9	7.5	8
BSNN100/140	12	6	14.6	17.8	18.9	11	13.3	14.2	3.2	3.8	4.1	8.9	11.3	12
BSNN100/170	14	8	18.3	22.2	23.6	14.6	16.7	16.7	3.6	4.4	4.7	10.4	13.7	16
BSNN100/200	16	8	18.3	22.2	23.6	14.6	17.8	18.3	4.1	4.9	5.2	11.8	15.1	16
BSNN120/110	8	4	9.6	12.3	14.1	7	8.9	9.4	2.5	3	3.2	5.9	7.5	8
BSNN120/160	14	8	18.1	22.2	23.6	14.6	17.8	18.9	3.6	4.4	4.7	10.4	13.7	16
BSNN140/120	10	6	11.3	14.5	16.8	9.8	12.6	14.2	3	3.6	3.8	7.4	9.8	12
BSNN120/190	16	8	18.3	22.2	23.6	14.6	17.8	18.9	4.1	4.9	5.2	11.8	15.1	16

Combined load:

$$\sum \left(\frac{F_{i,d}}{R_{i,d}} \right)^2 \leq 1$$

Technický list

BSNN
Joist hanger

SIMPSON

Strong-Tie

Art. nr.	Kapacity - Dřevo na dřevo - Částečné upevnění hřeby													
	Upevňovací prvky		Charakteristické kapacity - dřevo C24 [kN]											
	HLAVA	TRÁM	R _{1,k}			R _{2,k}			R _{3,k}			R _{4,k}		
	Množství	Množství	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60	CNA 4.0x40	CNA 4.0x50	CNA 4.0x60
BSNN140/150	14	8	16.8	21.4	23.6	14.6	17.8	18.9	3.6	4.4	4.7	10.4	13.7	16
BSNN140/180	16	8	18.3	22.2	23.6	14.6	17.8	18.9	4.1	4.9	5.2	11.8	15.1	16

Combined load:

$$\sum \left(\frac{F_{i,d}}{R_{i,d}} \right)^2 \leq 1$$

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Installation

Befestigung

Timber support:

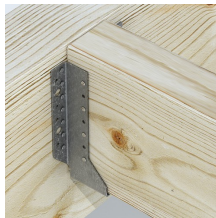
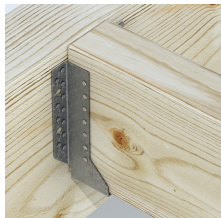
- CNA 4.0xl or CSA5.0xl

Steel Support:

- Bolt Ø10

Concrete Support:

- Mechanical Anchor such as BOAXII12/5 or WA M10-78/5
- Chemical Anchor such as AT-HP or MT-CM with threaded rod LMAS-M10/110

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