



## Vinkelbeslag V20-V21

### Angle connectors V20-V21

### Winkerverbinder V20-V21

#### DK

**Anvendelse:** Vinkelbeslagene V20-V21 anvendes til fastgørelse af træbjælker på beton, letbeton eller murværk.

**Beslagene:** Er udført i henholdsvis 2,5 og 3 mm varmforzinket stålplade forsynet med Ø5 mm huller for 4 mm NKT beslagkamsøm eller 5 mm NKT beslagskruer. Yderligere er V20 udført med Ø9 mm huller og V21 med Ø13 mm huller for boltsamlinger.

**Montering:** Beslagene monteres med den korte flig vandret.

**Fastgørelse:**

Type V20: Lodret flig: 4-6 søm/skruer.  
Vandret flig: M 8 bolte.  
Type V21: Lodret flig: 4-10 søm/skruer.  
Vandret flig: M 12 bolte

#### UK

**Application:** Angle connectors V20-V21 are used for fastening of wood beams on concrete, light concrete or brickwork.

**Connectors:** Made in 2.5 and 3 mm hot galvanized steel plate provided with diam. 5 mm holes for 4 mm NKT anchor nails or 5 mm NKT connector screws. Further V20 is made with diam. 9 mm holes and V21 with diam. 13 mm holes for bolt joints.

**Fitting:** The connectors are fitted with the short flange horizontally.

**Fastening:**

Type V20: Vertical flange: 4-6 nails/screws.  
Horizontal flange: M 8 bolts.  
Type V21: Vertical flange: 4-10 nails/screws.  
Horizontal flange: M 12 bolts

#### D

**Anwendung:** Die Winkerverbinder V20-V21 sind zur Befestigung von Holzbalken an Beton, Leichtbeton oder Mauerwerk einzusetzen.

**Ausführung:** Die Winkerverbinder sind aus 2,5 bzw. 3 mm feuerverzinkter Stahlplatte gefertigt und mit Ø5 mm Löchern für 4 mm NKT Ankernägel oder 5 mm NKT Beslagschrauben ausgerüstet. Ausserdem ist der V20 mit Ø9 mm Löchern und der V21 mit Ø13 mm Löchern für Bolzenverbindungen versehen.

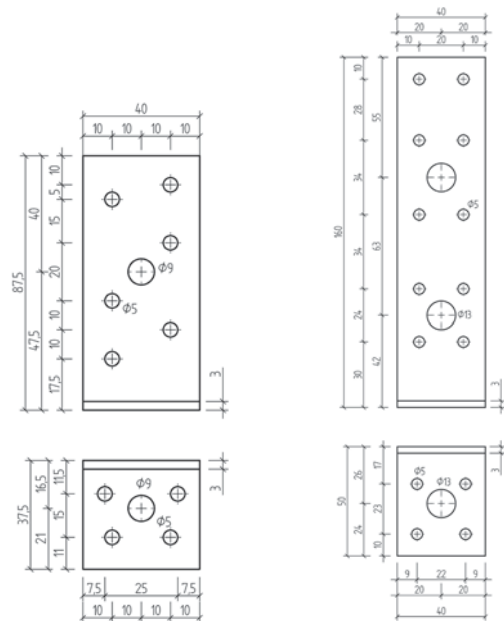
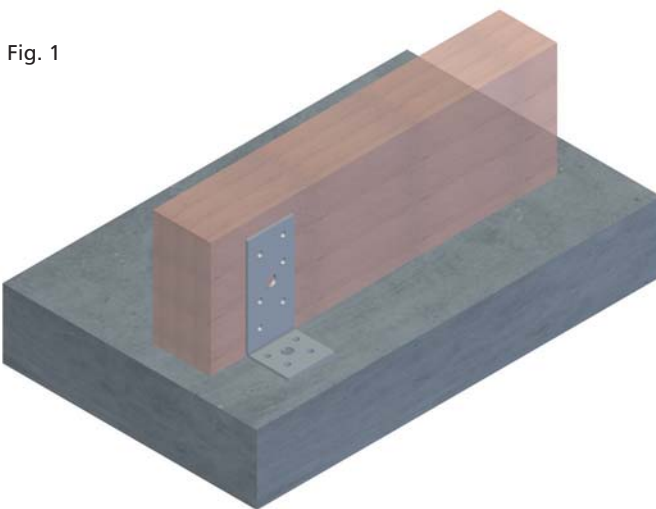
**Montage:** Die Winkerverbinder sind mit dem kurzen Schenkel in waagerechter Lage zu montieren.

**Befestigung:**

Typ V20: Senkrechter Schenkel: 4-6 Nägel/Schrauben. Waagerechter Schenkel: M 8Bolzen.  
Typ V21: Senkrechter Schenkel: 4-10 Nägel/Schrauben. Waagerechter Schenkel: M 12 Bolzen.

SIMA art. no.	Type	Dimension				Ø mm			Weight gram	Pcs. Box / Pallet
		H	L	t	B	Ø5 mm	Ø9 mm	Ø13 mm		
211067	V20	87,5	37,5	2,5	40	10	2		90	100 / 8000
211068	V21	160	50	3	40	14		3	193	100 / 4800

Fig. 1



V20

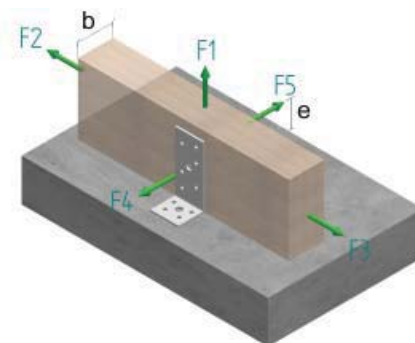
V21

# Angle connector V21

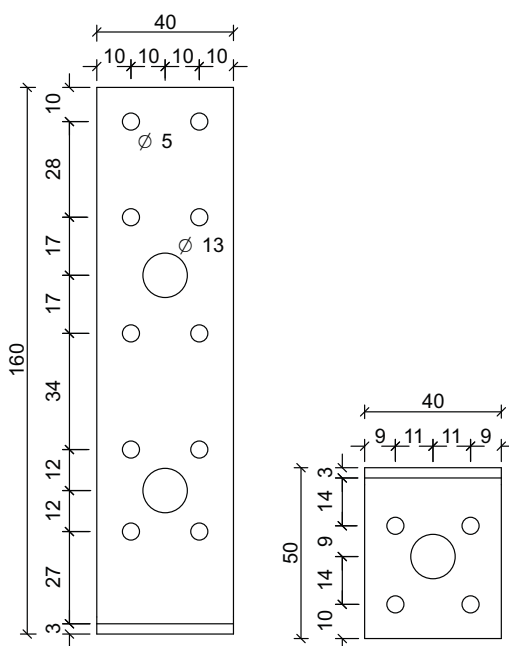
Art. no.	Type	Dimension H x L x t x B [mm]	Hole Ø5 [pcs]	Hole Ø13 [pcs]	Weight [g]	Box [pcs]
211068	V21	160 x 50 x 3,0 x 40	14	3	193	100

Information referring to the product, its applications and fitting: See section 2

Calculative carrying capacity in kN per connection:  
Normal safety class – service class 1 and 2



b and e should be inserted in mm



## 2 per connection

(Wood-Concrete)

Anchor nail 4,0 x 40 / Bolts M12	Number of nails	Load-duration class	F1 <sub>d</sub> [kN]	F2 <sub>d</sub> = F3 <sub>d</sub> [kN]	F4 <sub>d</sub> = F5 <sub>d</sub> [kN]
1,2,3,4,5,6,7,8,9,10 /1 M12	20	Char.	2,47	4,90	19,80
		P-load	2,24	2,18	10,84
		L-load	2,24	2,54	12,65
		M-load	2,24	2,90	14,46
		S-load	2,24	3,27	14,67
		I-load	2,24	3,99	14,67

# Angle connector V21

## 1 per connection

(Wood-Concrete)

Anchor nail 4,0 x 40 / Bolts M12	Number of nails	Load-duration class	F1 <sub>d</sub> [kN]	F2 <sub>d</sub> = F3 <sub>d</sub> [kN]	F4 <sub>d</sub> = F5 <sub>d</sub> [kN]	Maximum [kN]
1,2,3,4,5,6,7,8,9,10 /1 M12	10	Char.	1,23	2,45	22,5 kNmm/e	19,80
		P-load	1,12	1,09	20,5 kNmm/e	10,84
		L-load	1,12	1,27	20,5 kNmm/e	12,65
		M-load	1,12	1,45	20,5 kNmm/e	14,46
		S-load	1,12	1,63	20,5 kNmm/e	14,67
		I-load	1,12	2,00	20,5 kNmm/e	14,67

## 1 per connection

(Wood-wood)

Anchor nail 4,0 x 40	Number of nails	Load-duration class	F1 <sub>d</sub> [kN]	F2 <sub>d</sub> = F3 <sub>d</sub> [kN]	F4 <sub>d</sub> = F5 <sub>d</sub> [kN]	Maximum [kN]
1,2,3,4,5,6,7,8,9,10,11,12,13,14	14	Char.	1,46	2,45	22,5 kNmm/e	3,56
		P-load	0,65	1,09	20,5 kNmm/e	1,58
		L-load	0,76	1,27	20,5 kNmm/e	1,85
		M-load	0,86	1,45	20,5 kNmm/e	2,11
		S-load	0,97	1,63	20,5 kNmm/e	2,38
		I-load	1,19	2,00	20,5 kNmm/e	2,90

Anchor nail 4,0 x 40	Number of nails	Load-duration class	F5 <sub>d</sub> [kN]	Maximum [kN]
1,2,3,4,5,6,7,8,9,10,11,12,13,14	14	Char.	17,81 kN x b/e	3,56
		P-load	7,92 kN x b/e	1,58
		L-load	9,23 kN x b/e	1,85
		M-load	10,55 kN x b/e	2,11
		S-load	11,87 kN x b/e	2,38
		I-load	14,51 kN x b/e	2,90