

AE

Piastra di fissaggio angolare con nervatura

Le piastre angolari AE sono utilizzate per assemblaggi legno-legno o assemblaggi su calcestruzzo.

AE16 è adatto per l'assemblaggio di travi a vista sulla piastra del colmo.

Caratteristiche prodotto

Materiale

- Acciaio zincato S250GD + Z275 secondo EN 10346

Vantaggi

- Carico in tutte le direzioni
- Connessione legno/calcestruzzo

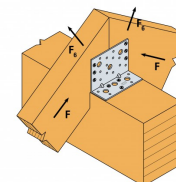
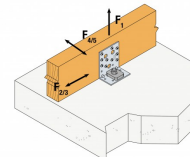
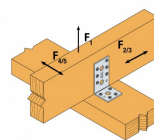
Campi di impiego

Applicazioni

- **Elemento di supporto:** legno massiccio, legno lamellare, calcestruzzo, acciaio, ecc.
- **Elemento secondario:** legno massiccio, legno composito, lamellare, capriate, profili, ecc.

Utilizzo

- Utilizzato per assemblaggi legno-legno o legno/calcestruzzo.



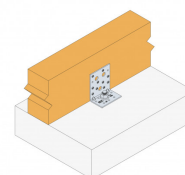
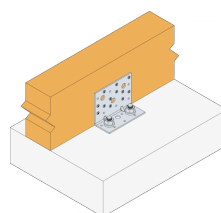
AE48



AE76



AE116

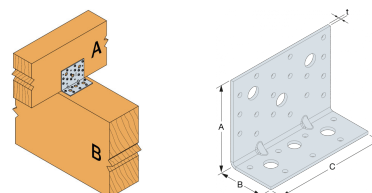


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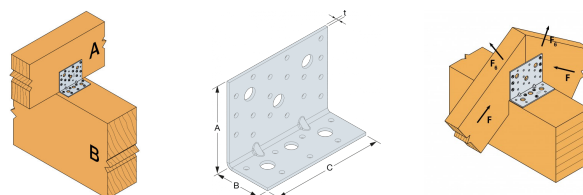
Dati tecnici

Product dimensions

Codici	DB nr.	NOBB nr.	Product dimensions [mm]				Holes flange A		Holes flange B		Pz/conf.	Peso [kg]
			A	B	C	t	Ø5	Ø13	Ø5	Ø13		
AE48	3779212	21220751	90	48	48	3	7	2	4	1	100	0.13
AE76	-	21594528	90	48	76	3	12	3	7	1	100	0.21
AE116	7742216	21594536	90	48	116	3	18	3	7	3	50	0.34



Product capacities - Beam to beam - Maximum nailing



Codici	Product capacities - Timber to timber - Maximum nailing											
	Fasteners		Characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]									
	Flange A	Flange B	R _{1,k}				R _{2,k} = R _{3,k}				R _{4/5}	
	Qty	Qty	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40
AE48	6	4	2.5	2.9	3.8	4.9	3.5	4	4.9	6	1.1/kmod ^{0.25}	1.3/kmod ^{0.25}
AE76	9	7	5.1	5.8	7.7	9.8	10.4	11.6	13.4	15.6	2.5/kmod ^{0.25}	2.9/kmod ^{0.25}
AE116	12	7	5.1	5.8	7.7	9.8	14.7	16.6	20	23.2	2.8/kmod ^{0.25}	3.2/kmod ^{0.25}

1) R_{4/5} is determined for beam width b = 75 mm and eccentricity e = 130 mm.

The load capacity belongs to a load group with the modification factor k_{mod}.

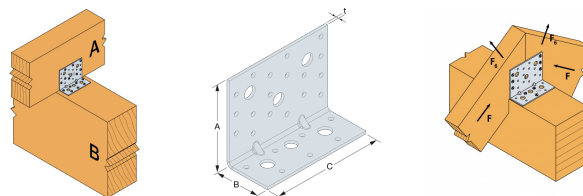
If the overall structure prevents the rotation of the purlin, the load values R_{1,k} and R_{2/3,k} in an assembly with only half of the given value in the table

* For higher F_{2/F3} capacities, Load combination and other nail patterns, refer to ETA-06/0106

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Piastra di fissaggio angolare con nervatura

Product capacities - Beam to beam - Partial nailing



Codici	Product capacities - Timber to timber - Partial nailing											
	Fasteners		Characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]									
	Flange A	Flange B	$R_{1,k}$				$R_{2,k} = R_{3,k}$				$R_{4/5}$	
	Qty	Qty	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40
AE48	4	4	2.5	2.9	3.8	4.9	3.4	3.9	4.7	5.4	1.1/kmod ^{0.25}	1.3/kmod ^{0.25}
AE76	7	7	5.1	5.8	7.7	9.8	8.2	9.5	11.4	13.1	2.5/kmod ^{0.25}	2.9/kmod ^{0.25}
AE116	8	7	5.1	5.8	7.7	9.8	11.9	13.8	16.9	19.4	2.8/kmod ^{0.25}	3.2/kmod ^{0.25}

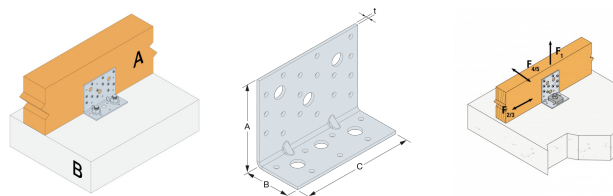
1) $R_{4/5}$ is determined for beam width $b = 75$ mm and eccentricity $e = 130$ mm.

The load capacity belongs to a load group with the modification factor k_{mod} .

If the overall structure prevents the rotation of the purlin, the load values $R_{1,k}$ and $R_{2/3,k}$ in an assembly with only half of the given value in the table

* For higher $F_{2/F3}$ capacities, Load combination and other nail patterns, refer to ETA-06/0106

Characteristic capacities - Timber to concrete



Codici	Product capacities - Timber to Concrete													
	Fasteners				Characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]									
	Flange A		Flange B		$R_{1,k}$				$R_{2,k} = R_{3,k}$				$R_{4/5}$	
	Qty	Type	Qty	Type	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40
AE48	6	CNA*	1	M12	min: 12.3 ; 12.6/kmod	min: 14.9 ; 12.6/kmod	12.6/kmod	12.6/kmod	1.9	2.1	3.2	3.5	-	min: 5.2 ; 4.2/kmod ^{0.25}
AE76	9	CNA*	1	M12	min: 18.7 ; 16.8/kmod	min: 22.7 ; 16.8/kmod	16.8/kmod	16.8/kmod	6.7	7.5	10.3	11.2	-	min: 8.5 ; 6.1/kmod ^{0.25}
AE116	12	CNA*	2	M12	20.7	25.1	min: 33.3 ; 28.1/kmod	min: 38.1 ; 28.1/kmod	23	25.8	25.5	27.7	-	9.1 / kmod ^{0.25}

1) $R_{4/5}$ is determined for beam width $b = 75$ mm and eccentricity $e = 130$ mm.

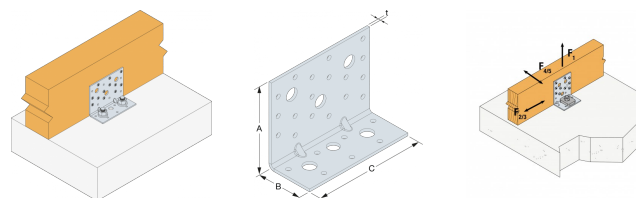
The load capacity belongs to a load group with the modification factor k_{mod} . The characteristic anchoring strength is minimum 15,3 kN for both withdrawal and shear force. The bearing capacity value for the assembly must be recorded if the bearing capacities of the bolt is less than 15,3 kN.

If the overall structure prevents the rotation of the purlin, the load values $R_{1,k}$ and $R_{2/3,k}$ in an assembly with only half of the given value in the table

*For higher $F_{2/F3}$ capacities, Load combination and other nail patterns, refer to ETA-06/0106

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Simplified characteristic capacities - Timber to concrete



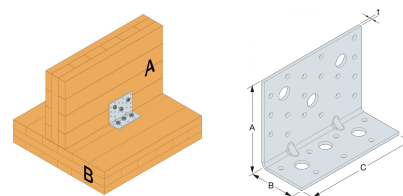
Codici	Simplified product capacities - Timber to Concrete											
	Fasteners				Simplified characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]							
	Flange A		Flange B		$R_{1,k}$				$R_{2,k} = R_{3,k}$			
	Qty	Type	Qty	Type	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40	CNA4.0x50	CNA4.0x60
AE48	6	CNA	1	M12	12.3	14	14	14	1.9	2.1	3.2	3.5
AE76	-	-	-	-	-	-	-	-	-	-	-	-
AE116	12	CNA	2	M12	20.7	25.1	31.2	31.2	23	25.8	25.5	27.7

* Refer to Characteristic Capacity table columns for type of fasteners that can be used in Flange A. Capacities vary depending on fastener type used.

Refer to the Simpson Strong-Tie anchor product range for suitable anchors. Typical anchor solutions are BOAXII, SET-XP, WA, AT-HP, depending on the concrete type, spacing and edge distances.

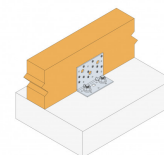
** The published characteristic capacity is based on short term load duration and service class 2 according to EC5 (EN 1995) – $k_{mod} = 0,9$. For other load duration and service class, please refer to the ETA to get more accurate capacities

Product capacities - CLT Beam to CLT beam - Ø12 connector screws - 2 angle brackets



Codici	Product capacities - CLT beam to CLT beam - Ø12 connector screws - 2 angle brackets											
	Fasteners				Characteristic capacities - Timber CLT- 2 angle brackets per connection [kN]							
	Flange A		Flange B		$R_{1,k}$				$R_{2,k} = R_{3,k}$			
	Qty	Type	Qty	Type	SSH12x80				SSH12x80			
AE48	-	-	-	-	-				-			
AE116	3	SSH	3	SSH	33				29.5			

Product capacities - CLT beam to rigid support - Ø12 connector screws - 2 angle brackets



Codici	Product characteristic capacities - CLT beam to rigid support - Ø12 connector screws - 2 angle brackets											
	Fasteners				Characteristic capacities - Timber CLT- 2 angle brackets per connection [kN]							
	Flange A		Flange B		$R_{1,k}$				$R_{2,k} = R_{3,k}$			
	Qty	Type	Qty	Type	SSH12x80				SSH12x80			
AE48	-	-	-	-	-				-			
AE76	-	-	-	-	-				-			
AE116	3	SSH	2	Ø12	48.8				61.9			

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Installazione tipica

Fissaggi

Legno a legno:

- Chiodi CNA Ø4 o viti CSA Ø5

Legno a calcestruzzo:

- Uno o due bulloni M12 bolts con rondella.

Trave X-Lam a trave X-Lam:

- WOOD TOP TL o SSH Ø 12.0 x 80 mm (per AE116)

