AE — For Timber to Timber or Timber to Concrete

The AE angle bracket is designed for fixing timber panels to concrete or timber floors. Highly versatile, it is particularly resistant to shear loads thanks to its optimised geometry.

Technical Data

AE - Angle Bracket for Cross-Laminated Timber — Anchorage to Concrete Values

Model No.	Connector Dimensions (mm)				Fasteners				Country	Wind Load Design Capaciy (kN)			
	Thickness	A	B	C	Horizontal Leg		Vertical Leg			F1	F2	F3	F4
					Quantity	Type	Quantity	Type					
AE76	3	90	48	76	1	13mm hole	9	N10 3.75 x 38mm nails	AU				k1 = 1.14
										-	-	-	9.1
									NZ				k1 = 1.0
										-	-	-	8.4
AE116	3	90	48	116	2		18	SD#10x64	AU	k1 = 1.14	k1 = 1.14	k1 = 1.14	k1 = 1.14
										21.29	8.76	18.08	17.02
									NZ	k1 = 1.0	k1 = 1.0	k1 = 1.0	k1 = 1.0
										18.67	6.73	18.08	17.02

1. Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the Australian Capacity Factor, or the NZ Strength Reduction Factor (ϕ), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 3.2 mm joint slip. Design Capacity is the minimum of test data and structural joint calculation.
2. For Australia, the Capacity Factor (ϕ) is 0.80 for nails and screws for structural joints in a Category 2 application. Change tabulated values where other Category applications govern. For NZ, the Strength Reduction Factor (ϕ) is 0.80 for nails in lateral loading and 0.70 for other fasteners.
3. Duration of Load Factor (k1) is as shown for wind and earthquake loading. Reduce Duration of Load Factor (k1) where applicable. Capacities may not be increased.
4. The timber species design density for joint design is 480 kg/m^3, JD4.
5. The designer must specify the anchor bolt type, length, and embedment. Allowable load shall be taken as lower of anchorage capacity per designer and the loads listed on the table.
6. Screws: SD#10x64 = 4 mm shank diameter x 64 mm long Simpson Strong-Drive® SD Connector screw.
7. Designer to design concrete anchorage.

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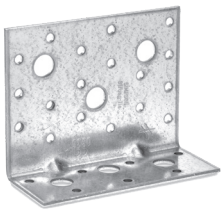
AE - Angle Bracket for Cross-Laminated Timber — CLT Floor Values

Model No.	Connector Dimensions (mm)				Fasteners				Country	Design Capacity (kN)
	Thickness	A	B	L	Horizontal Leg		Vertical Leg			F4
					Quantity	Type	Quantity	Type		
AE116	3	90	48	116	7	SD#10x64	18	SD#10x64	AU	k1 = 1.14
										5.94
									NZ	k1 = 1.0
										4.56
					7	CNA4x60	18	CNA4x60	AU	k1 = 1.14
										4.04
									NZ	k1 = 1.0
										3.54

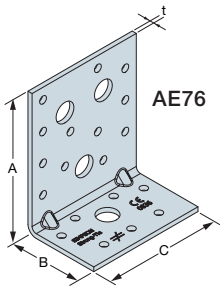
1. Design Capacity is the lesser of (1) the Characteristic Capacity multiplied by the Australian Capacity Factor, or the NZ Strength Reduction Factor (ϕ), and applicable the k modification factors following AS 1720.1 and NZS 3603 and (2) the Serviceability Capacity which is the load at 3.2 mm joint slip. Design Capacity is the minimum of test data and structural joint calculation.
2. For Australia, the Capacity Factor (ϕ) is 0.80 for nails and screws for structural joints in a Category 2 application. Change tabulated values where other Category applications govern. For NZ, the Strength Reduction Factor (ϕ) is 0.80 for nails in lateral loading and 0.70 for other fasteners.
3. Duration of Load Factor (k1) is as shown for wind and earthquake loading. Reduce Duration of Load Factor (k1) where applicable. Capacities may not be increased.
4. The timber species design minimum density for joint design is 480 kg/m^3.
5. Installation and fastener schedule assume platform framing, i.e., install vertical leg at bottom edge of CLT wall panel, and horizontal leg on CLT floor panel with 100 mm minimum edge distance.
6. Nails: CNA4x60 = 4 mm diameter x 60 mm long proprietary ring-shank nail.
7. Screws:SD#10x64 = 4.11 mm shank diameter x 64 mm long Simpson Strong-Drive® SD Connector screw.
8. For more detailed capacities on AE116 refer the Mass Timber Catalogue.



AE116

Product Dimensions

Model No.	Product Dimensions [mm]				Vertical Leg		Horizontal Leg	
	A	B	C	t	Ø5	Ø13	Ø5	Ø13
AE76	90	48	76	3	12	3	7	1
AE116	90	48	116	3	18	3	7	3



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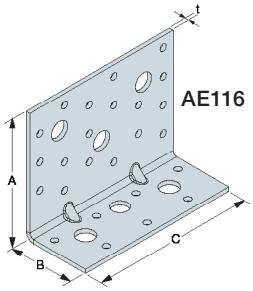

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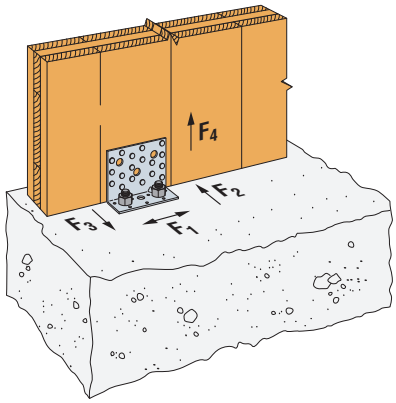

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