

PRODUCT DATA SHEET

CLT SYSTEM ANGLE

PRODUCT DESCRIPTION

The CLT system angle is ideally suited for **use in solid wood construction**. The scope of application **is limited to the use of CLT** (Cross-Laminated Timber). The solid construction allows it to **transmit major forces**. Unlike the standard angles, the CLT system angle can be **combined with our IdeeFix**. This makes it possible to construct **complex connections**.



ADVANTAGES

- Variable applications
- High load-bearing capacity
- Compatible with SK04

MATERIAL

- S250 galvanized

Suitable
for this



SonoTec Angular Decoupler

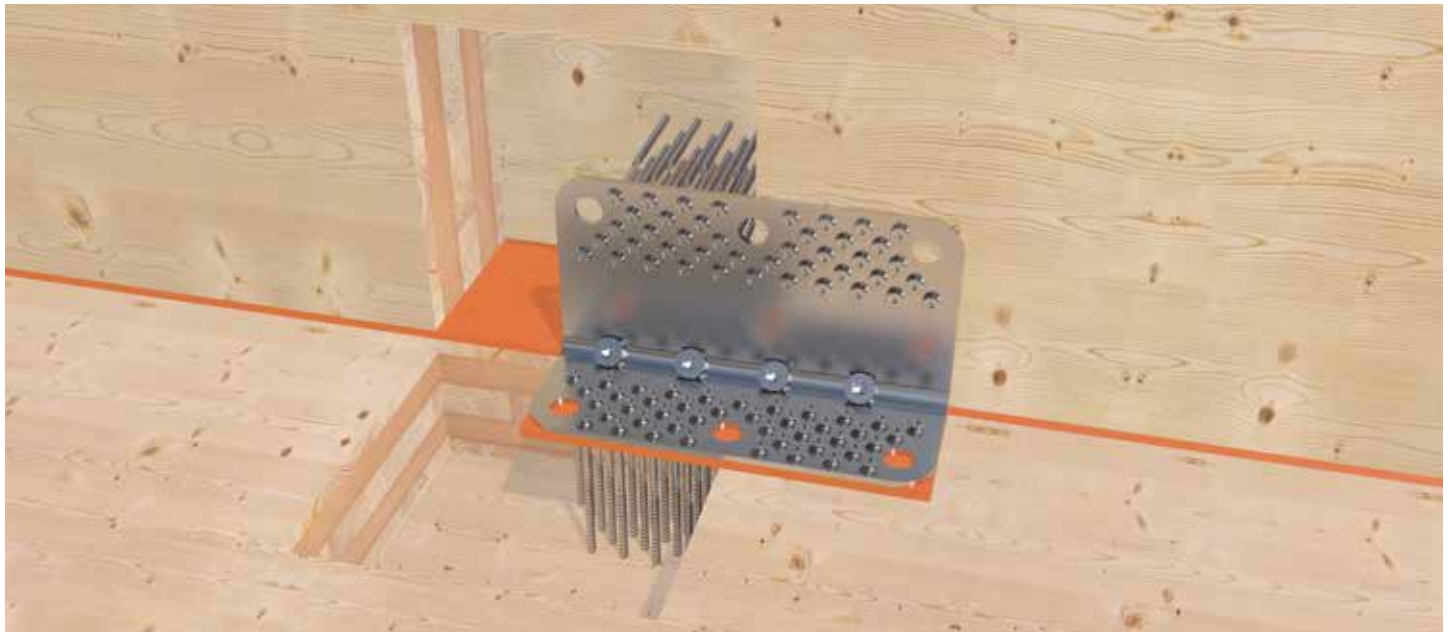
CERTIFICATION



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IMAGES OF APPLICATIONS



CLT system angle for fixing a wall to the wooden floor of the upper level.

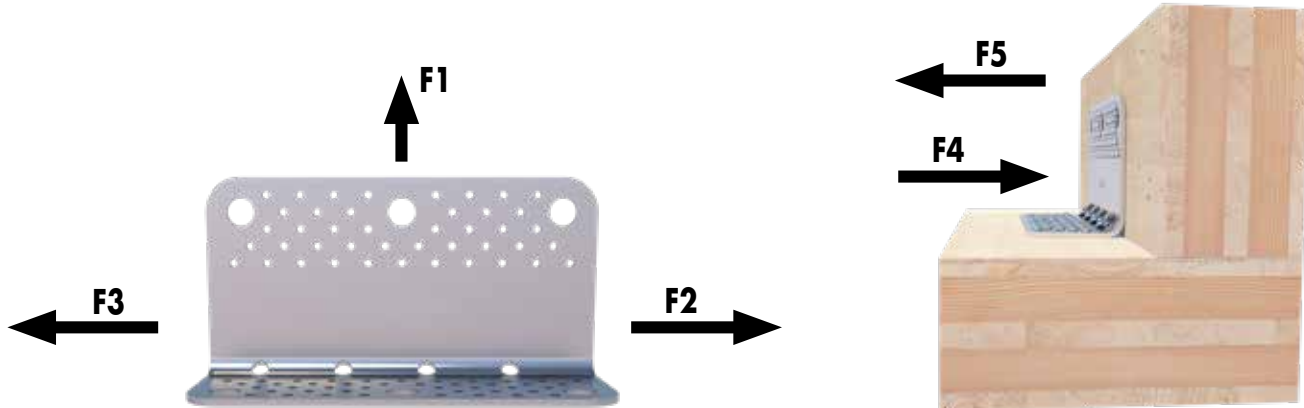
PRODUCT TABLE

CLT system angle				
Art. no.	Dimensions [mm] ^{a)}	Material	Material thickness [mm]	PU
954180	230 x 80 x 120	S250 galvanized	4	1
a) Length x Width x Height				

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CLT SYSTEM ANGLE – STATIC VALUES



Slip modulus			
$K_{1, \text{slip}}$	$K_{23, \text{slip}}$	$K_{4, \text{slip}}$	$K_{5, \text{slip}}$
$F_{1, \text{Rk}} / 6 \text{ mm}$	$F_{23, \text{Rk}} / 2 \text{ mm}$	$F_{4, \text{Rk}} / 2,5 \text{ mm}$	$F_{5, \text{Rk}} / 2,5 \text{ mm}$

Lastrichtung F1; F2/F3; F4; F5

Vertical leg connection Angle-bracket screw Ø 5 mm n=43	5,0 x 40	5,0 x 50	5,0 x 60	5,0 x 70	5,0 x 40	5,0 x 50	5,0 x 60	5,0 x 70	5,0 x 40	5,0 x 50	5,0 x 60	5,0 x 70
Horizontal leg connection	Angle-bracket screw 5,0 x 40 n=43	Angle-bracket screw 5,0 x 50 n=43	Angle-bracket screw 5,0 x 60 n=43	Angle-bracket screw 5,0 x 70 n=43	IdeeFix Ø 40 n=3	IdeeFix Ø 40 n=3	IdeeFix Ø 40 n=3	IdeeFix Ø 40 n=3	M16 8.8 n=3	M16 8.8 n=3	M16 8.8 n=3	M16 8.8 n=3
	KonstruX 10 x 125 n=4											
$F_{1, \text{Rk}} \text{ pull}$	55,8 kN	62,4 kN	69,1 kN	75,7 kN	43,1 kN	43,1 kN	43,1 kN	43,1 kN	43,1 kN	43,1 kN	43,1 kN	43,1 kN
$F_{23, \text{Rk}}$	49,1 kN	58,3 kN	62,1 kN	66,0 kN	49,1 kN	55,9 kN	55,9 kN	55,9 kN	49,1 kN	58,3 kN	62,1 kN 60,5 kN	66,0 kN 60,5 kN
$F_{4, \text{Rk}}$	54 kN				54 kN				54 kN			
$F_{5, \text{Rk}} \text{ pull } \perp \text{ on CLT}$	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN	6,9 kN

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Load direction F1; F2/F3; F4; F5												
Vertical leg connection	IdeeFix Ø 40 n=3			IdeeFix Ø 40 n=2			M16 8.8 n=3		M16 8.8 n=2			
	KonstruX 10 x 125 n=4											
Horizontal leg connection	Angle-bracket screw Ø 5,0 ; n=43	IdeeFix Ø 40 n=3	M16 8.8 n=3	Angle-bracket screw Ø 5,0 ; n=43	IdeeFix Ø 40 n=3	M16 8.8 n=2	Angle-bracket screw Ø 5,0 ; n=43	IdeeFix Ø 40 n=3	M16 8.8 n=3	Angle-bracket screw Ø 5,0 ; n=43	IdeeFix Ø 40 n=3	M16 8.8 n=3
$F_{1, Rk}$ pull		43,1 kN			29,9 kN			43,1 kN			43,1 kN	
$F_{23, Rk}$		26,0 kN			22,3 kN			34,4 kN 29,3 kN			29,6 kN 25,2 kN	
$F_{4, Rk}$		54,0 kN			54,0 kN			54,0 kN			54,0 kN	
$F_{5, Rk}$ pull ⊥ on CLT		4,8 kN			4,8 kN			4,8 kN			4,8 kN	

$F_{4, Rk}$ =54 kN Druck ⊥ on CLT; independent of connections.

For connections with M16 8.8 if bolt head or nut is not located on CLT: Washer with d_w = 40 mm.

ρ_k =350 kg/m³ conservative for some approved cross-laminated timber, increase of load-bearing capacities according to ETA-19/0020 with $k_{dim} = \left(\frac{\rho_k}{350 \text{ kg/m}^3} \right)^{0.5}$ possible.

The construction of the supporting structure should prevent the twisting of the cross laminated timber components.

In case of connection with CLT system angles on both sides, the values of this table may be applied for each of the two angles. The values for $F_{23, Rk}$ only change for the connection with M16 screws. In other words, the values in italics must be used if CLT system brackets are fitted to the top and bottom of the ceiling.

If you are not familiar with how this product is used, and particularly with the product's intended use, please contact our Application Technology department (technik@eurotec.team).