PRODUCT DATA SHEET

SHEARING PLATE

PRODUCT DESCRIPTION

The shearing plate is a plate connector **for absorbing shearing forces** that was specifically developed for modern timber construction. Various holes for anchoring in **wood** and **concrete** mean that our shearing plate is used in **timber frame and solid timber construction**.

ADVANTAGES

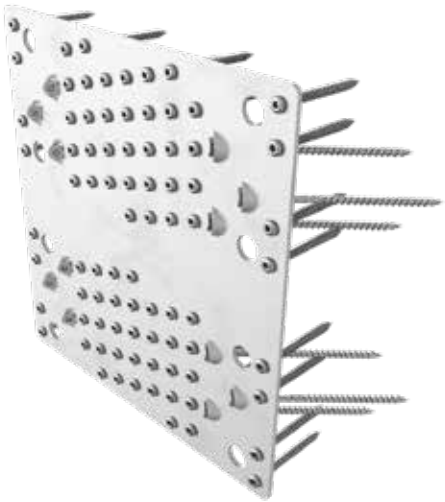
- Many different areas of use
- For installation in wood and concrete
- Very high shear load-bearing capacity thanks to a innovative fixing concept
- Fewer connectors required

PRODUCT TABLE

Art. no.	Product name	Dimensions [mm]	Material thickness [mm]	Material	PU
954113	Shearing plate	230 x 240	3	Galvanised S250 construction steel	1

IMAGES OF APPLICATIONS

Shear bracket to secure two CLT walls to each other



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INSTRUCTIONS FOR USE

6 slanted screw connection holes and 41 holes, which are optionally intendedc for angle-bracket screws or Anchor nails, are included per side for anchoring in wood. Depending on the application, we have provided two additional partial utilisations of the fixing holes which are also available as static-type calculations. Anchoring in concrete is carried out using the holes (ø 14 mm) provided for this purpose with our rock concrete screw (ø 12,5 mm) or bolt anchors (ø 12 mm).

CERTIFICATION

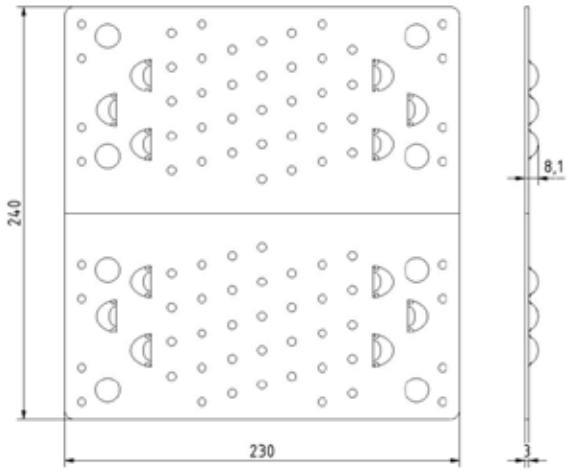
ETA
CE
Europ. Techn. Bewertung
European Technical Assessment
ETA-19/0020

MATERIAL

- Galvanised S250 construction steel

DRAWING

- Shearing plate



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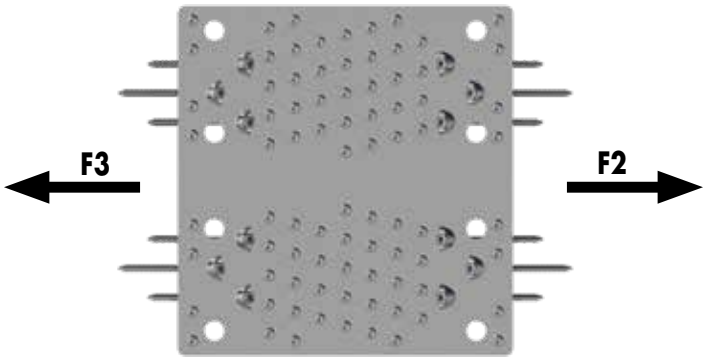
STATIC VALUES – FULL UTILISATION



Load direction F2/3								
Timber-Timber	Fixing in the sole plate and solid timber ceiling							Steel
	Joining devices							
	Anchor nails			Angle-bracket screw			Paneltwistec CH	S250
Dimensions [mm]	4 x 40	4 x 50	4 x 60	5 x 40	5 x 50	5 x 60	5 x 120	
Quantity (n)		41			41		6	
Char. Shear carrying capacity [kN]	30,5	36	37,2	41,9	44,6	47,6	–	156

Load direction F2/3										
Timber-Concrete	Fixing in the sole plate							Fixing in the concrete ceiling		Steel
	Joining devices									
	Anchor nails			Angle-bracket screw			Paneltwistec CH	Rock concrete screws	Bolt anchor	S250
Dimensions [mm]	4 x 40	4 x 50	4 x 60	5 x 40	5 x 50	5 x 60	5 x 120	Ø 12,5	Ø 12	
Quantity (n)		41			41		6	2	2	
Char. Shear carrying capacity [kN]	30,5	36	37,2	41,9	44,6	47,6	–	21,8	12,2	156

The load-bearing capacities were determined based on ETA-19/0020 Characteristic load-bearing capacity in kN, wood strength class 350 kg/m³ char. Gross density
The minimum distances between the connectors and the edges according to EC5 must be complied with. Boundary bearing force according to EC3: Fb,Rk ø14mm = 93,75 kN

Please note: Verify the assumptions made. The stated values, and type and number of joining devices are based on preliminary measurements. Projects are to be dimensioned exclusively by authorised persons in accordance with the State Building Code. As per LBauO, please contact a qualified structural engineer for a paid proof of stability. We will be happy to refer you to someone.

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PRODUCT DATA SHEET SHEARING PLATE

STATIC VALUES – FULL UTILISATION 1

Load direction F2/3								
Timber-Timber	Fixing in the sole plate and solid timber ceiling							Steel
	Joining devices							
	Anchor nails			Angle-bracket screw			Paneltwistec CH	S250
Dimensions [mm]	4 x 40	4 x 50	4 x 60	5 x 40	5 x 50	5 x 60	5 x 120	
Quantity (n)		34			34		6	
Char. Shear carrying capacity [kN]	23,9	28,1	29,1	32,7	34,9	37,2	–	156

Load direction F2/3										
Timber-Concrete	Fixing in the sole plate							Fixing in the concrete ceiling		Steel
	Joining devices									
	Anchor nails			Angle-bracket screw			Paneltwistec CH	Rock concrete screws	Bolt anchor	S250
Dimensions [mm]	4 x 40	4 x 50	4 x 60	5 x 40	5 x 50	5 x 60	5 x 120	Ø 12,5	Ø 12	
Quantity (n)		34			34		6	2	2	
Char. Shear carrying capacity [kN]	23,9	28,1	29,1	32,7	34,9	37,2	–	20,5	11,6	156

The load-bearing capacities were determined based on ETA-19/0020 Characteristic load-bearing capacity in kN, wood strength class 350 kg/m³ char. Gross density
The minimum distances between the connectors and the edges according to EC5 must be complied with. Boundary bearing force according to EC3: Fb,Rk ø14mm = 93,75 kN

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PRODUCT DATA SHEET SHEARING PLATE

STATIC VALUES – FULL UTILISATION 2

Load direction F2/3								
Timber-Timber	Fixing in the sole plate and solid timber ceiling							Steel
	Joining devices							
	Anchor nails			Angle-bracket screw			Paneltwistec CH	S250
Dimensions [mm]	4 x 40	4 x 50	4 x 60	5 x 40	5 x 50	5 x 60	5 x 120	
Quantity (n)		29			29		4	
Char. Shear carrying capacity [kN]	19,3	22,8	23,6	26,5	28,3	30,1	–	156

Load direction F2/3										
Timber-Concrete	Fixing in the sole plate							Fixing in the concrete ceiling		Steel
	Joining devices									
	Anchor nails			Angle-bracket screw			Paneltwistec CH	Rock concrete screws	Bolt anchor	S250
Dimensions [mm]	4 x 40	4 x 50	4 x 60	5 x 40	5 x 50	5 x 60	5 x 120	Ø 12,5	Ø 12	
Quantity (n)		29			29		4	2	2	
Char. Shear carrying capacity [kN]	19,3	22,8	23,6	26,5	28,3	30,1	–	14,4	11,2	156

The load-bearing capacities were determined based on ETA-19/0020 Characteristic load-bearing capacity in kN, wood strength class 350 kg/m³ char. Gross density
The minimum distances between the connectors and the edges according to EC5 must be complied with. Boundary bearing force according to EC3: Fb,Rk ø14mm = 93,75 kN

Please note: Verify the assumptions made. The stated values, and type and number of joining devices are based on preliminary measurements. Projects are to be dimensioned exclusively by authorised persons in accordance with the State Building Code. As per LBauO, please contact a qualified structural engineer for a paid proof of stability. We will be happy to refer you to someone.

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).

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