

PRODUCT DATA SHEET

STRUCTUS BASE

PRODUCT DESCRIPTION

The Structus Base connectors from Eurotec have been developed to connect structural members designed and constructed in accordance with EN 1995-1-1:2025.

The Structus Base is the result of the further development of the Structus connectors, which makes timber skyscrapers a reality. The inclined KonstruX screws in the top plate guarantee optimum force transmission in all directions.



ADVANTAGES / SPECIFICATIONS

- High load-bearing capacity
- Quick site installation and time saving
- Service classes 1 and 2

MATERIAL

- S275 galvanised

CERTIFICATION

- ETA application is in progress and will be available soon.

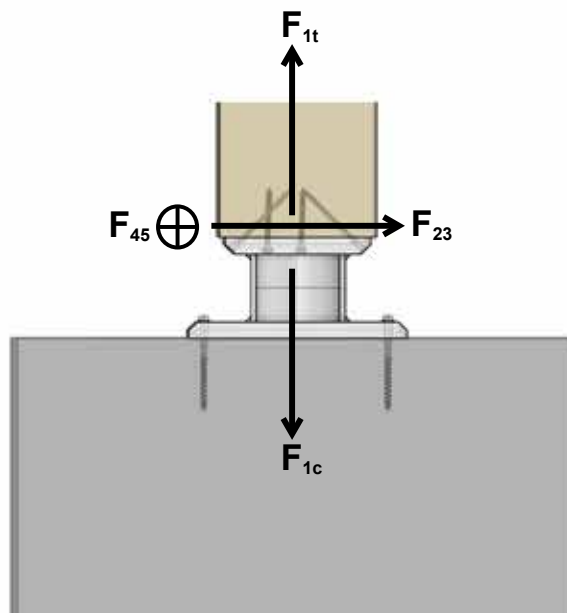
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PRODUCT DIMENSIONS

Structus Base connector specifications						
Art. no.	Model	Plate		Tube		Minimum column section [mm]
		Top [mm]	Bottom [mm]	Section [mm]	Length [mm]	
946350	Structus Base 1217	120 x 120 x 15	180 x 180 x 15	60.3 x 5	170	120 x 120
946351	Structus Base 1616	160 x 160 x 20	220 x 220 x 20	88.9 x 6.3	160	160 x 160
946352	Structus Base 1813	180 x 180 x 25	180 x 310 x 25	101.6 x 8	130	180 x 180
946353	Structus Base 2213	220 x 220 x 25	220 x 350 x 25	139.7 x 8	130	220 x 220
946354	Structus Base 2612	260 x 260 x 30	260 x 390 x 30	163.8 x 10	120	260 x 260

LOAD RESISTANCE



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STRUCTURAL CAPACITIES

Structus Base connector capacities - Steel				
Art. no.	Model	Design Capacities		
		Compression $F_{1,c,d}$ [kN]	Tension $F_{1,t,d}$ [kN]	Shear $F_{23,d}$ [kN]
946350	Structus Base 1217	245	156	Not governing
946351	Structus Base 1616	450	230	Not governing
946352	Structus Base 1813	650	421	Not governing
946353	Structus Base 2213	925	578	Not governing
946354	Structus Base 2612	1400	849	Not governing

Structus base connectors are symmetrical in 2-principal axis; therefore, F_{15} is equal to F_{23} .

Structus Base connector capacities - Timber				
Art. no.	Model	Characteristics Capacities		
		Compression $F_{1,c,k}$ [kN]	Tension $F_{1,t,k}$ [kN]	Shear $F_{23,k}$ [kN]
946350	Structus Base 1217	302.40	28.70	7.50
946351	Structus Base 1616	537.60	39.00	10.25
946352	Structus Base 1813	680.40	90.75	23.85
946353	Structus Base 2213	1016.40	123.90	32.55
946354	Structus Base 2612	1419.60	138.75	36.40

Structus base connectors are symmetrical in 2-principal axis; therefore, F_{15} is equal to F_{23} .

NOTES

- Characteristic values calculated according to EN 1995:2025 and ETA-11/0024 for screws without pre-drilling holes and C24 timber elements with density of $\rho_k = 350 \text{ kg/m}^3$.
- In accordance with Eurocode 5 (EN 1995-1-1), design values are derived from characteristic values by applying the appropriate partial safety factor γ_M and the modification factor k_{mod} to account for load duration and service class conditions. The design value R_d is calculated as follows:

$$R_d = \min \left\{ \begin{array}{l} \frac{R_{k \text{ timber}} \cdot k_{mod}}{\gamma_M} \\ \frac{R_{k \text{ steel}}}{\gamma_{M \text{ steel}}} \end{array} \right.$$

Where:

- R_d = design value
- R_k = characteristic value
- k_{mod} = modification factor (dependent on load duration and service class)
- γ_M = partial safety factor (material-specific, typically 1.3 for solid timber in ULS design)
- The design of the fastener to concrete must be carried out by a competent structural engineer
- The design and structural verification of the timber elements must be conducted independently

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FASTENER SPECIFICATIONS

Structus Base fastener specifications						
Art. no.	Model	Anchor			Screw	
		Diameter	Grade	No.	KonstruX [mm]	No.
946350	Structus Base 1217	M12	TBC	4	Ø 8 x 95	4
946351	Structus Base 1616	M12	TBC	4	Ø 8 x 125	4
946352	Structus Base 1813	M12	TBC	4	Ø 10 x 155	8
946353	Structus Base 2213	M12	TBC	4	Ø 10 x 195	8
946354	Structus Base 2612	M12	TBC	4	Ø 10 x 220	8

The design of the concrete anchors should be carried out by a competent project engineer. Eurotec concrete anchors, such as the bolt anchor and anchor rod, can be used to connect the Structus base to the concrete substrate.

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FASTENING IN TIMBER

KonstruX ST, countersunk head			
Art. no.	Dimension [mm]	Drive	PU
904790	8.0 x 95	TX40 ●	50
904791	8.0 x 125	TX40 ●	50
904771	10.0 x 155	TX50 ●	25
904772	10.0 x 195	TX50 ●	25
904773	10.0 x 220	TX50 ●	25



FASTENING IN CONCRETE

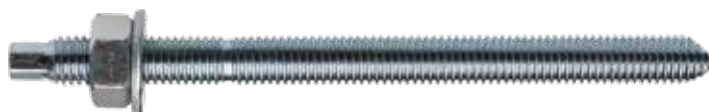
Bolt anchor			
Art. no.	Dimension [mm]	Drive	PU
946186	12.0 x 160	SW19	25
946192	12.0 x 220	SW19	20
946193	12.0 x 240	SW19	15
946148*	12.0 x 150	SW19	25

* Denotes stainless steel version of anchors



Anchor rod		
Art. no.	Dimension [mm]	PU
200114	12.0 x 130	10
200115	12.0 x 160	10
200222*	12.0 x 160	10

* Denotes stainless steel version of anchors

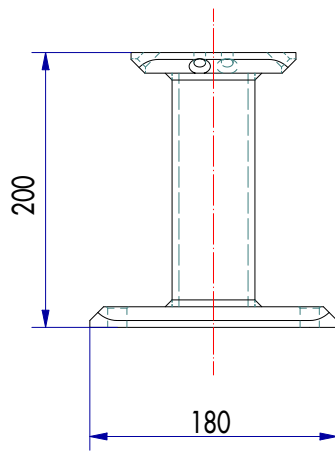


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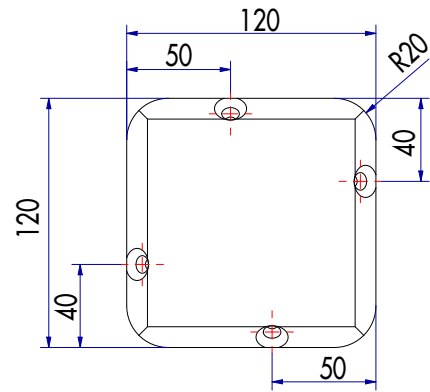
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GEOMETRY

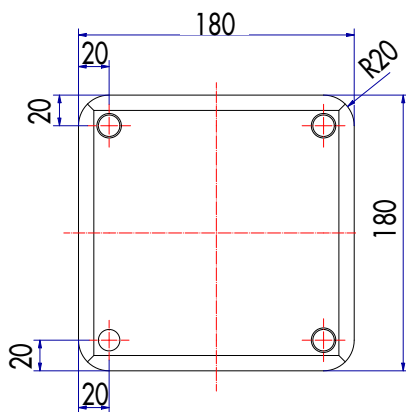
Structus Base 1217



Side view



Top plate



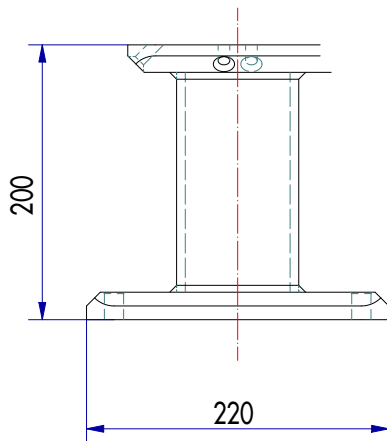
Base plate

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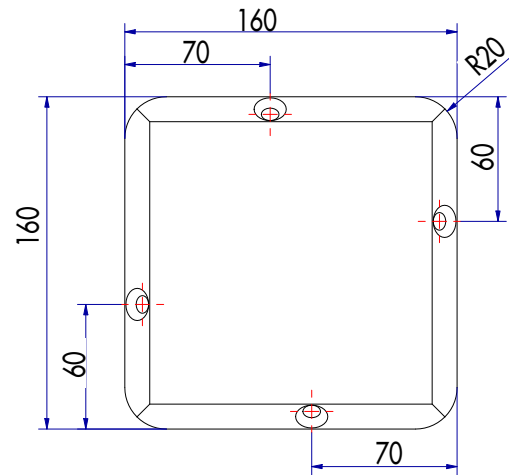
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GEOMETRY

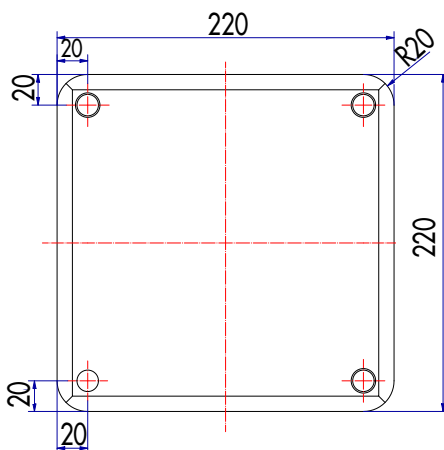
Structus Base 1616



Side view



Top plate



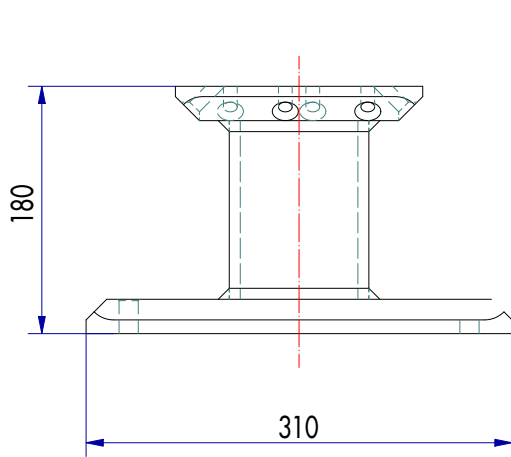
Base plate

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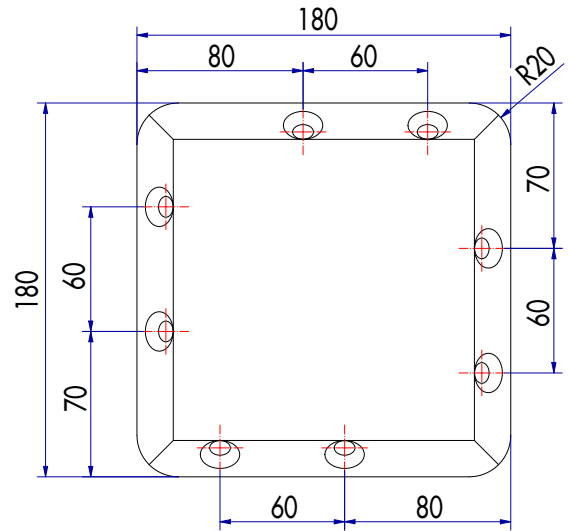
STRUCTUS BASE

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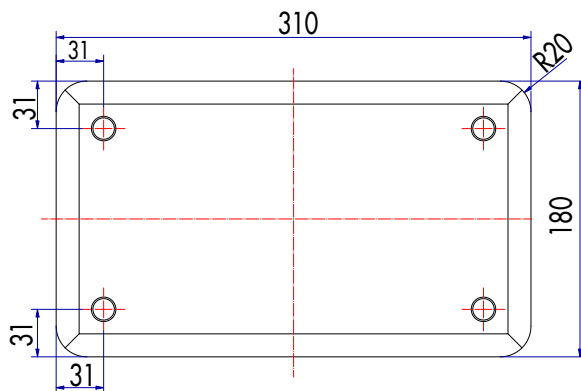
Structus Base 1813



Side view



Top plate



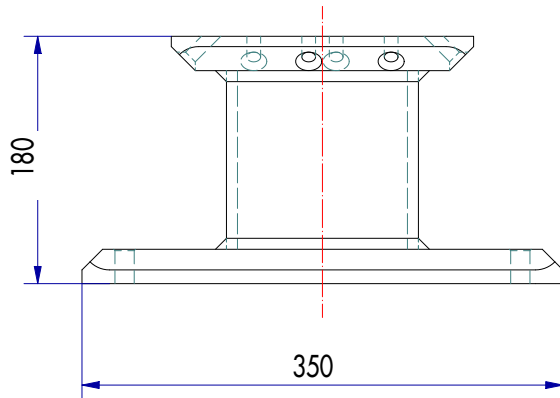
Base plate

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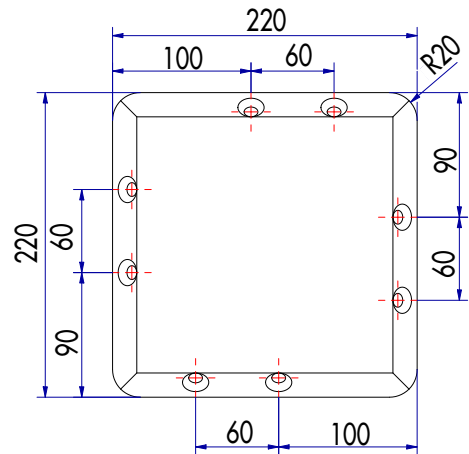
STRUCTUS BASE

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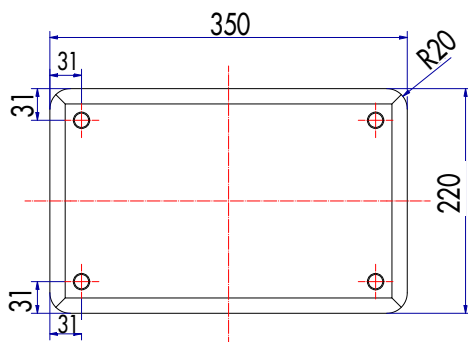
Structus Base 2213



Side view



Top plate



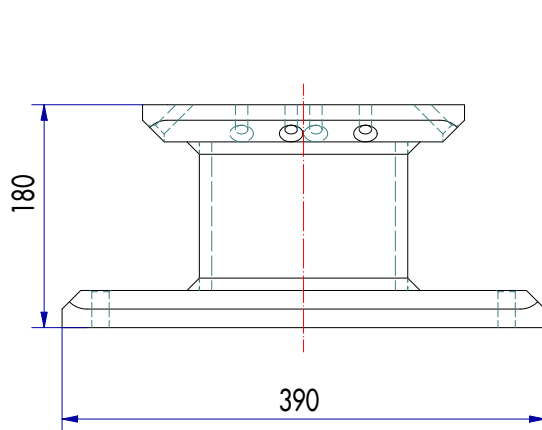
Base plate

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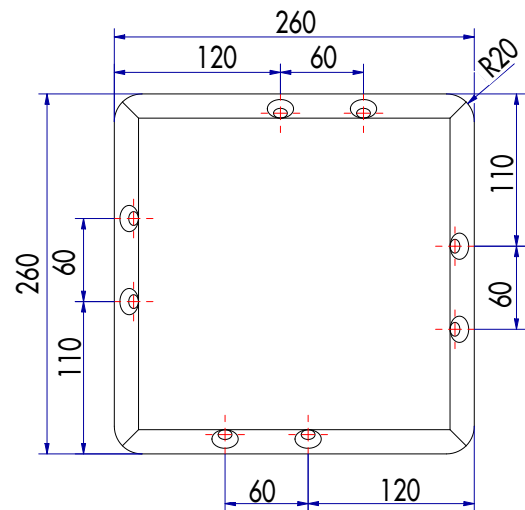
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GEOMETRY

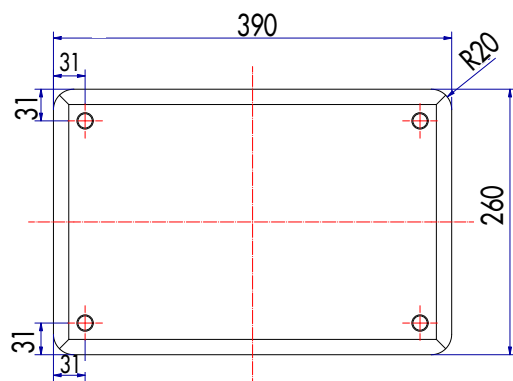
Structus Base 2612



Side view



Top plate

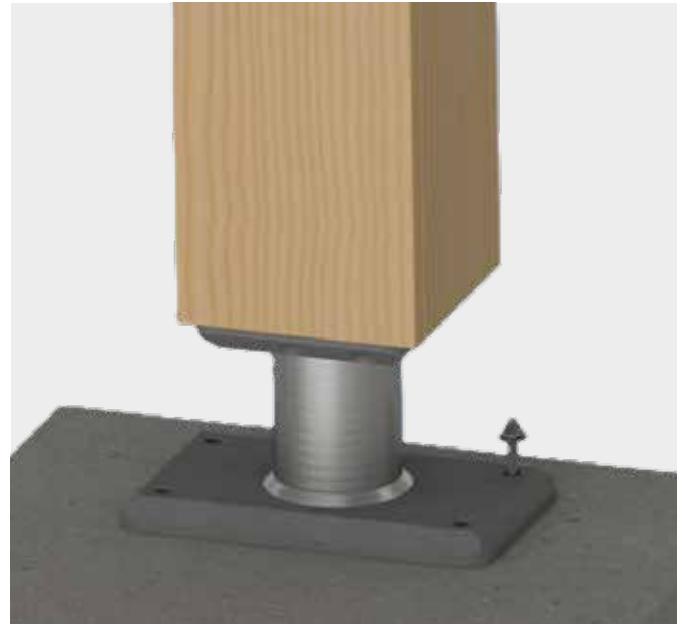
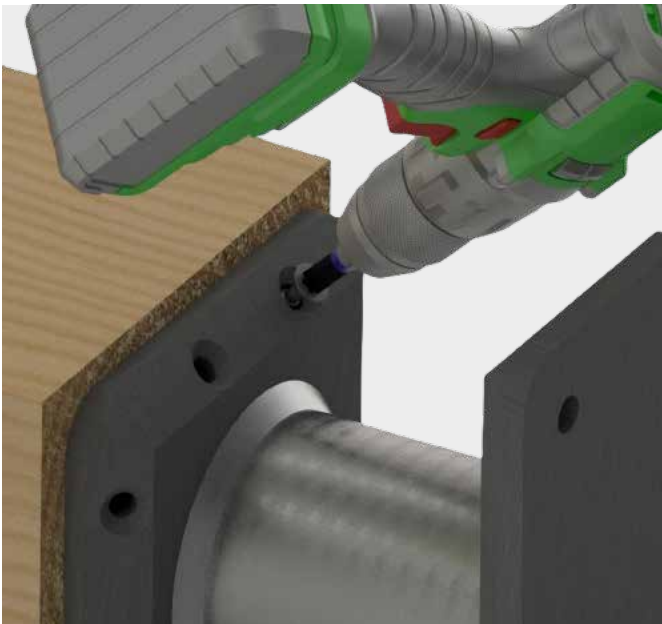
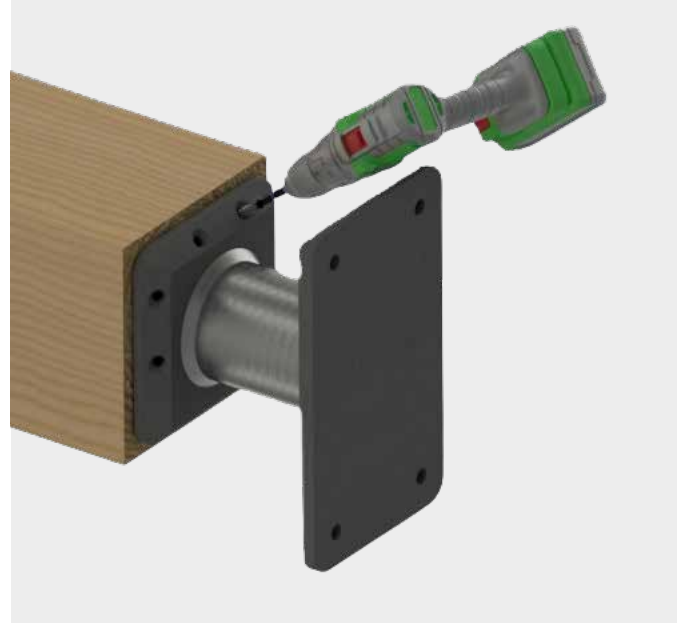
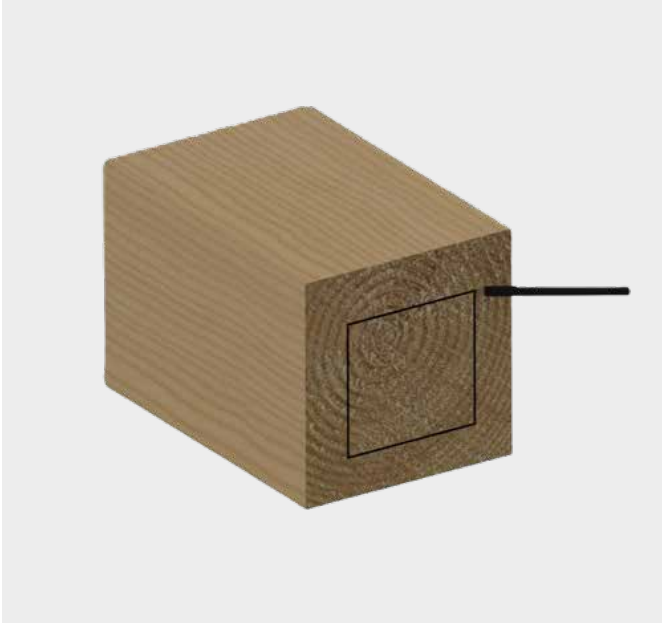


Base plate

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STRUCTUS BASE

INSTALLATION GUIDANCE



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).