P10 - P20

EMBEDDED TUBULAR POST BASE

S235 DAC COAT | S235 HOT DIP | CE ETA 10/0422

RAISED
To be embedded in concrete, it allows keep the column distant from the ground ensuring high durability of the timber.

H ≥ 300 mm
The column can be installed at a distance of more than 300 mm from the ground in accordance with DIN 68800.

ADJUSTABLE
In the P20 version, the height can be adjusted as required.

CHARACTERISTICS

FOCUS	raised structures
COLUMNS	from 70 x 70 mm to 160 x 160 mm
HEIGHT	300 | 500 mm
FASTENERS	HBS PLATE EVO, XEPOX

MATERIAL

Hot dip bright zinc plated carbon steel (P10) and Dac Coat zinc plating (P20).

FIELDS OF USE

Outdoor joints. Suitable for service class 1, 2 and 3

- solid timber and glulam
- CLT, LVL

BALCONIES AND TERRACES

Ideal for creating high durability concealed joints for outdoor wooden columns.

DISTANCE 300 mm

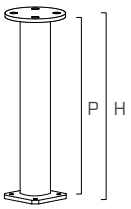
In the 500 mm height versions it guarantees a distance between the ground and the column head greater than 300 mm.

CODES AND DIMENSIONS

P10

S235 HOT DIP

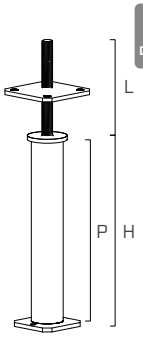
CODE	H	P	top plate	top holes	bottom plate	pcs
	[mm]	[mm]	[mm]	[n. x mm]	[mm]	
P10300	312	300	Ø100 x 6	4 x Ø11,0	80 x 80 x 6	1
P10500	512	500	Ø100 x 6	4 x Ø11,0	80 x 80 x 6	1



P20

S235 DAC COAT

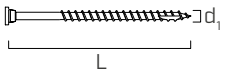
CODE	H	P	top plate	top holes	bottom plate	rod Ø x L	pcs
	[mm]	[mm]	[mm]	[n. x mm]	[mm]	[mm]	
P20300	312	300	100 x 100 x 8	4 x Ø11,0	80 x 80 x 6	M24 x 170	1
P20500	512	500	100 x 100 x 8	4 x Ø11,0	80 x 80 x 6	M24 x 170	1



HBS PLATE EVO

C4 EVO COATING

CODE	d_1	L	b	TX	pcs
	[mm]	[mm]	[mm]		
HBSPEVO880	8	80	55	TX 40	100



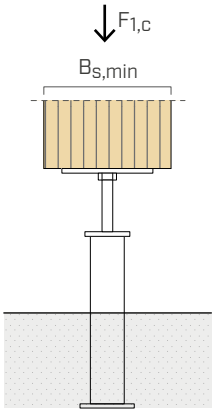
MATERIAL AND DURABILITY

P10: S235 carbon steel with hot galvanising.
P20: S235 carbon steel with special coating Dac Coat.
To be used in service classes 1, 2 and 3 (EN 1995-1-1).

FIELD OF USE

- Timber column drowned in the casting

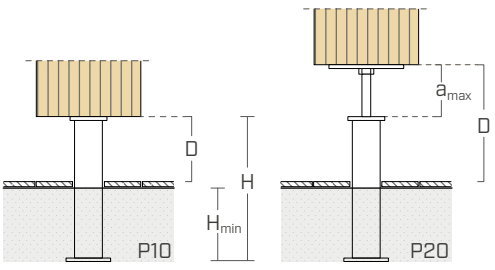
EXTERNAL LOADS



INSTALLATION ON CONCRETE

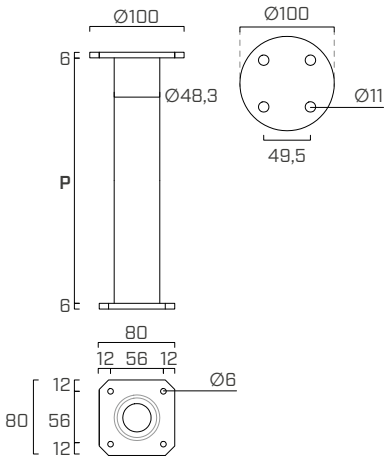
	CODE	H	H_{min}	a_{max}*	D_{max}
		[mm]	[mm]	[mm]	[mm]
P10	**P10300**	312	156	-	**156**
	P10500	512	256	-	**256**
P20	**P20300**	312	156	70	**226**
	P20500	512	256	70	**326**

* $a_{min} \approx 25 \div 30$ mm (upper plate + nut)

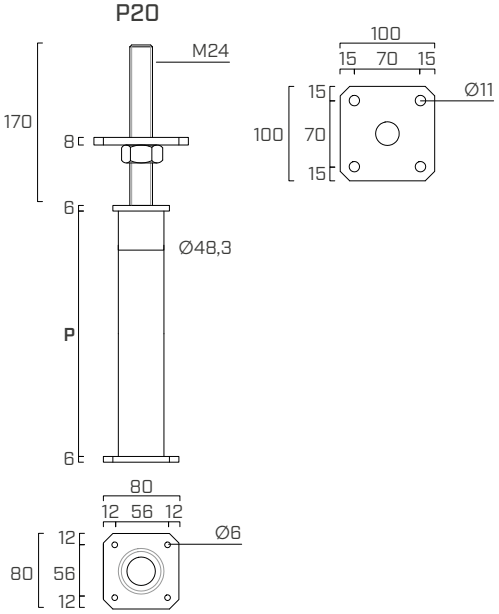


GEOMETRY

P10

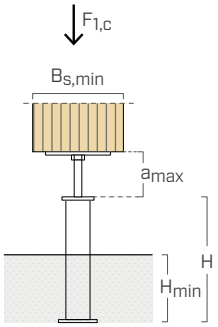


P20



STATIC VALUES

COMPRESSION STRENGTH



P10

CODE	$B_{s,min}$ [mm]	H [mm]	H_{min} [mm]	$R_{1,c\ k\ timber}$ [kN]	γ_{timber}	$R_{1,c\ k\ steel}$ [kN]	γ_{steel}	[kN]	γ_{steel}
P10300	□ 100 x 100	312	156	**98,6**	γ_{MT} (1)	**78,7**	γ_{M0}	**107,0**	γ_{M1}
P10500	○ Ø100	512	256					**99,3**	

P20

CODE	$B_{s,min}$ [mm]	H [mm]	H_{min} [mm]	a_{max} [mm]	$R_{1,c\ k\ timber}$ [kN]	γ_{timber}	$R_{1,c\ k\ steel}$ [kN]	γ_{steel}	[kN]	γ_{steel}
P20300	□ 100 x 100	312	156	70	**93,7**	γ_{MT} (1)	**59,5**	γ_{M0}	**106,0**	γ_{M1}
P20500		512	256	70					**106,0**	

NOTES:

(1) γ_{MT} partial coefficient of the timber.

GENERAL PRINCIPLES:

- The characteristic values are in accordance with ETA-10/0422 and valid for a minimum anchoring depth in the concrete casting of H_{min}.
- The design values are obtained from the characteristic values as follows:

$$R_d = min \begin{cases} \frac{R_{i,k\ timber} \cdot k_{mod}}{\gamma_{timber}} \\ \frac{R_{i,k\ steel}}{\gamma_{steel}} \end{cases}$$

The coefficients k_{mod} and y should be taken according to the current regulations used for the calculation.

The verification of the fastener-to-concrete connection must be carried out separately.

- For the calculation process a timber density ρ_k = 350 kg/m^3 has been considered.
- Dimensioning and verification of timber and concrete elements must be carried out separately.