Laterlite
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DICHIARAZIONE DI PRESTAZIONE

ai sensi del Regolamento Delegato (UE) n. 574/2014 del 21 febbraio 2014

N° 0064

1. Codice identificativo unico del prodotto tipo: **0064 – Connettore CentroStorico Legno, Connettore Doppia Orditura e Mini Connettore Legno**

2. Uso previsto del prodotto da costruzione: **Connettori per utilizzo in solette miste legno-calcestruzzo**

3. Nome e indirizzo del Fabbricante:
   LATERLITE S.p.A.
   Via Vittorio Veneto, 30
   43046 Rubbiano di Solignano (PR)
   Plant I

4. Rappresentante autorizzato: **Non applicabile**

5. Sistema AVCP: **1**

6. Documento per la valutazione europea: **EAD 130090-00-0303 "Wood-concrete composite slab with dowel-type fasteners"**
   Valutazione tecnica europea: **ETA-19/0297; 2026-02-20**
   Organismo di valutazione tecnica: **ETA-Danmark A/S**
   Organismo notificato: **n. 1034 - HFB Engineering GMBH**

7. Prestazioni dichiarate:

Caratteristiche essenziali	Prestazione
Materiale e geometria	Vedi Annex 1 ETA-19/0297 allegato
Rigidezza meccanica e resistenza a taglio	Vedi Annex 2 ETA-19/0297 allegato
Protezione alla corrosione	Le viti sono realizzate in acciaio come specificato nel piano di controllo e protette con un rivestimento in zinco.
Reazione al fuoco	Classe A1

La prestazione del prodotto sopra identificato è conforme all'insieme delle prestazioni dichiarate. La presente dichiarazione di responsabilità viene emessa in accordo al Regolamento UE N° 305/2011 sotto la sola responsabilità del fabbricante sopra identificato.

Firmato a nome e per conto del fabbricante da:

Ing. Massimo Nicolosi, Responsabile Qualità

Massimo Nicolosi

Rubbiano di Solignano, 24 febbraio 2026, rev.03

ANNEX 1
WOOD-CONCRETE COMPOSITE SLAB COMPOSED WITH LATERLITE CONNETTORE CENTROSTORICO LEGNO CONNECTORS
Tolerances and materials held on file by ETA-Danmark A/S

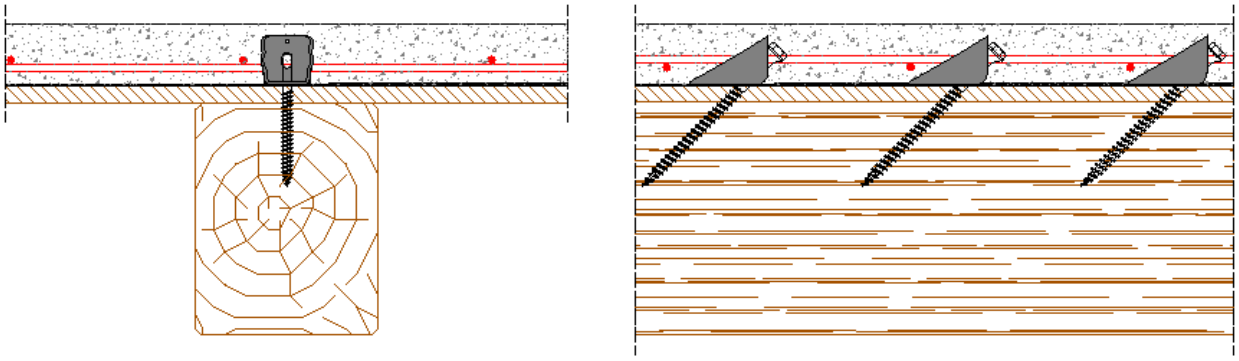


Figure 1.1a
Elevation on (right) and cross-section through (left) a composite member with LATERLITE CONNETTORE CENTROSTORICO LEGNO connector.

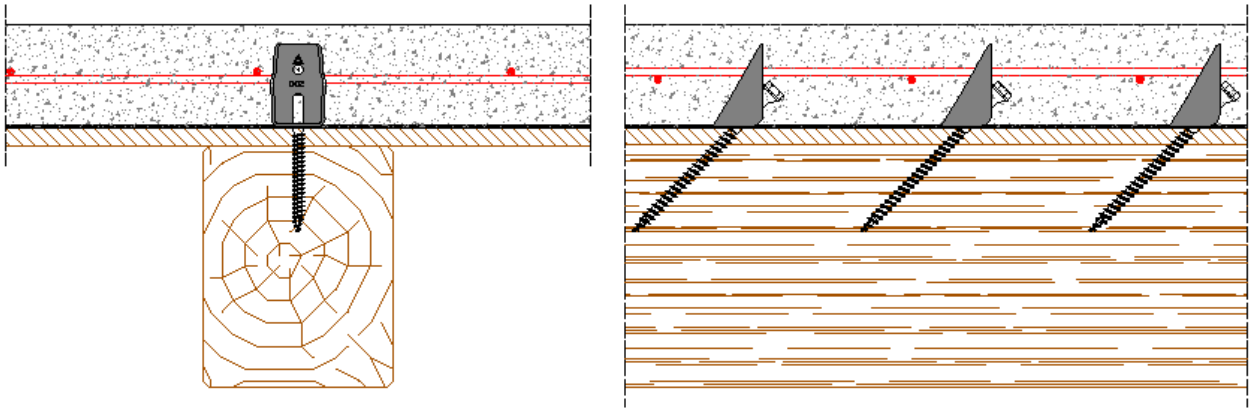


Figure 1.1b
Elevation on (right) and cross-section through (left) a composite member with LATERLITE CONNETTORE CENTROSTORICO LEGNO connector.

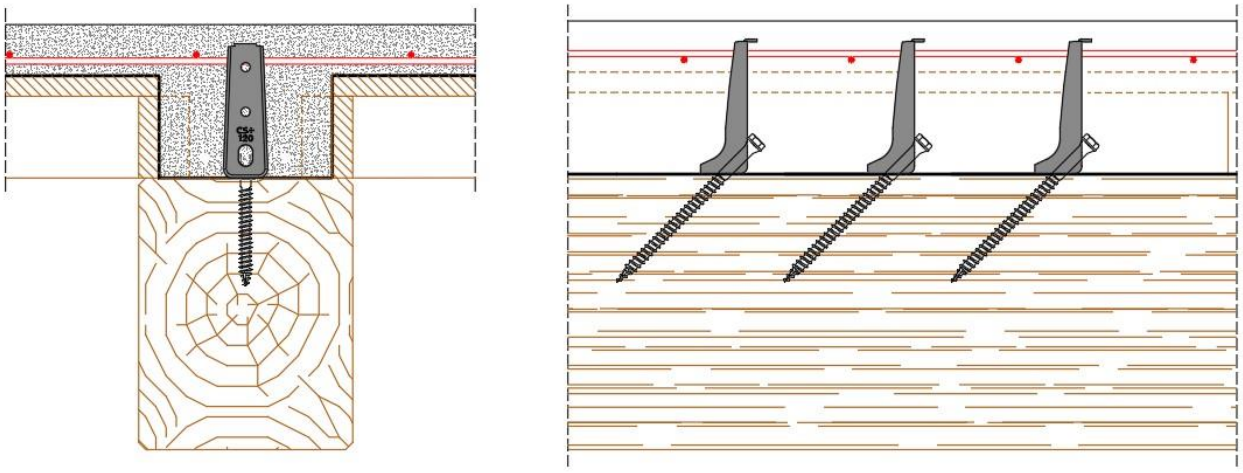


Figure 1.1c
Elevation on (right) and cross-section through (left) a composite member with LATERLITE CONNETTORE CENTROSTORICO LEGNO H120 connector

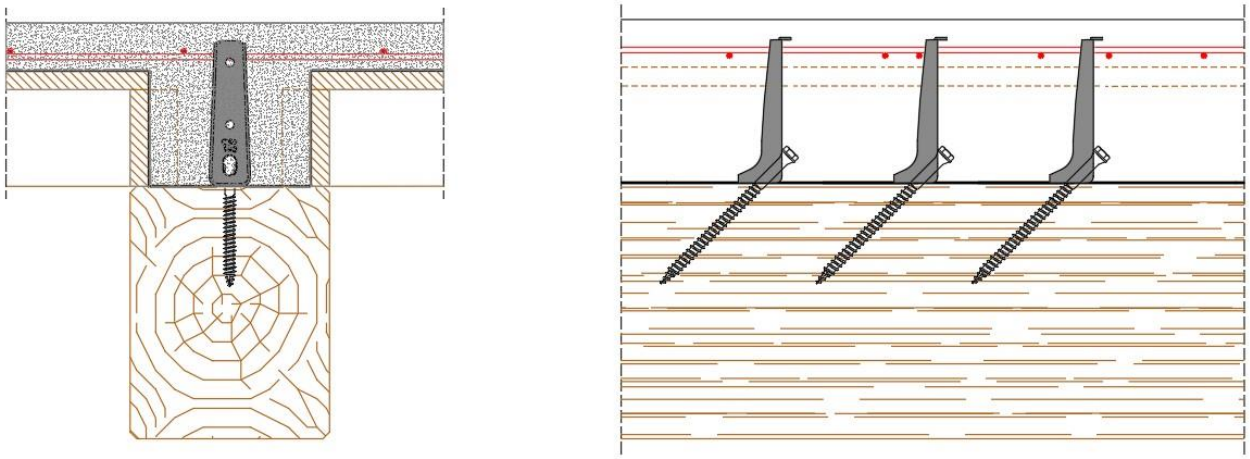


Figure 1.1d
Elevation on (right) and cross-section through (left) a composite member with LATERLITE CONNETTORE CENTROSTORICO LEGNO H140 connector.

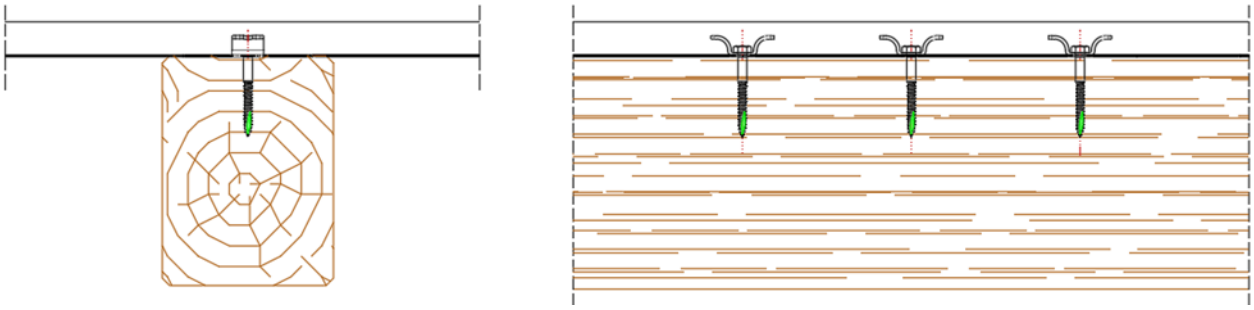


Figure 1.1.e
Elevation on (right) and cross-section through (left) a composite member with Mini Connettore Legno L70 connector with 8x70 screw.

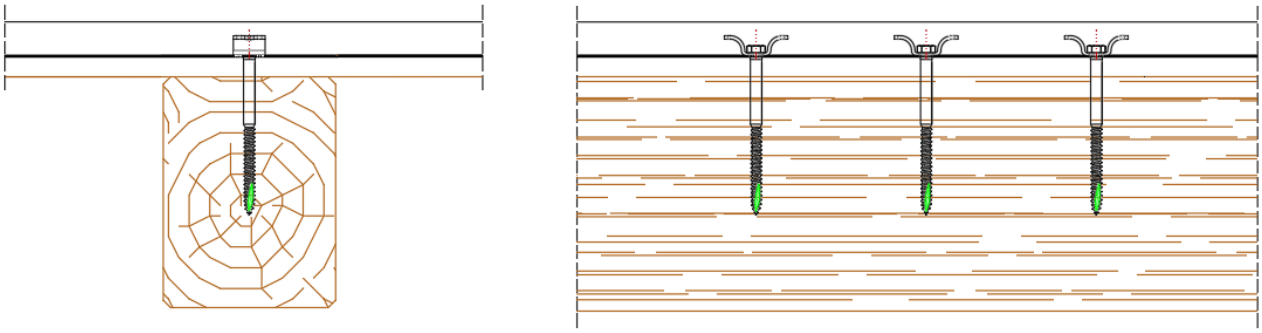
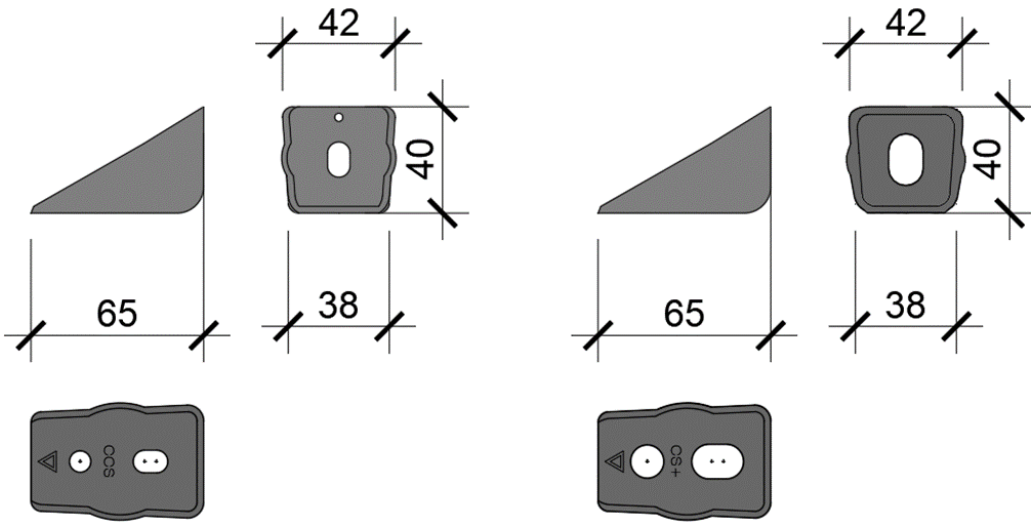


Figure 1.1.f
Elevation on (right) and cross-section through (left) a composite member with Mini Connettore Legno L140 connector with 10x140 screw.



Ø10 mm screws

Ø12 mm screws

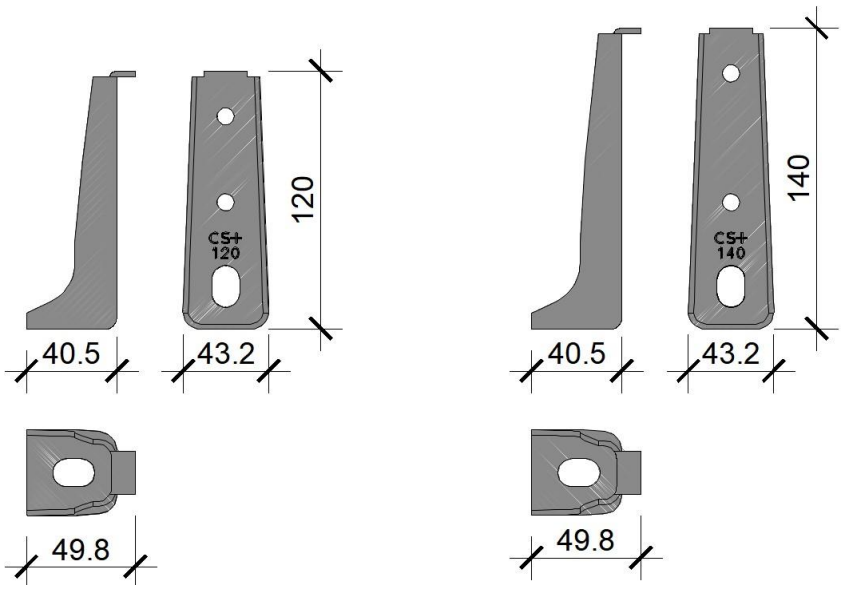


Figure 1.1.g LATERLITE CONNETTORE CENTROSTORICO LEGNO without screw

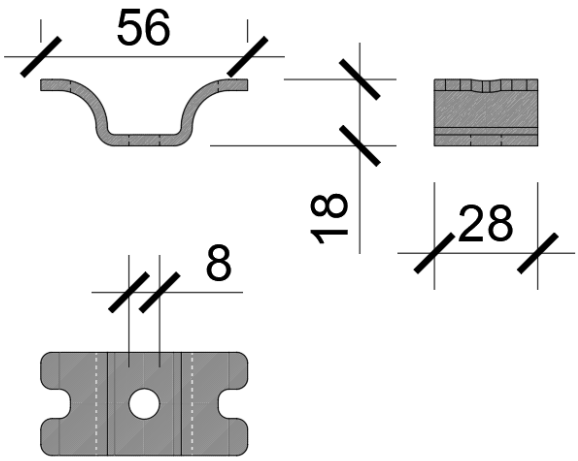


Figure 1.1.h Mini Connettore Legno L70 without screw 8x70

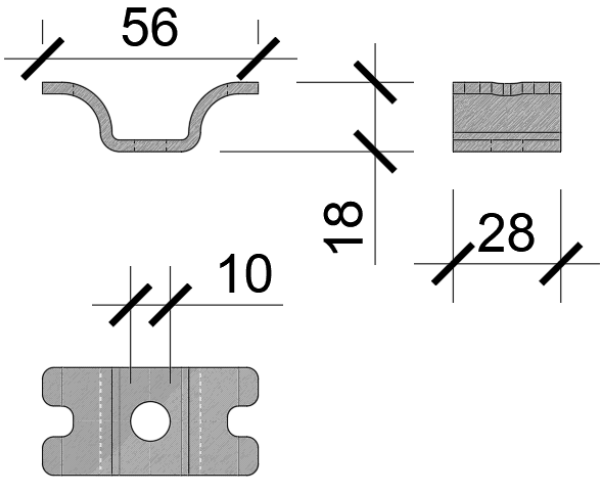


Figure 1.1.i Mini Connettore Legno L140 without screw 10x140

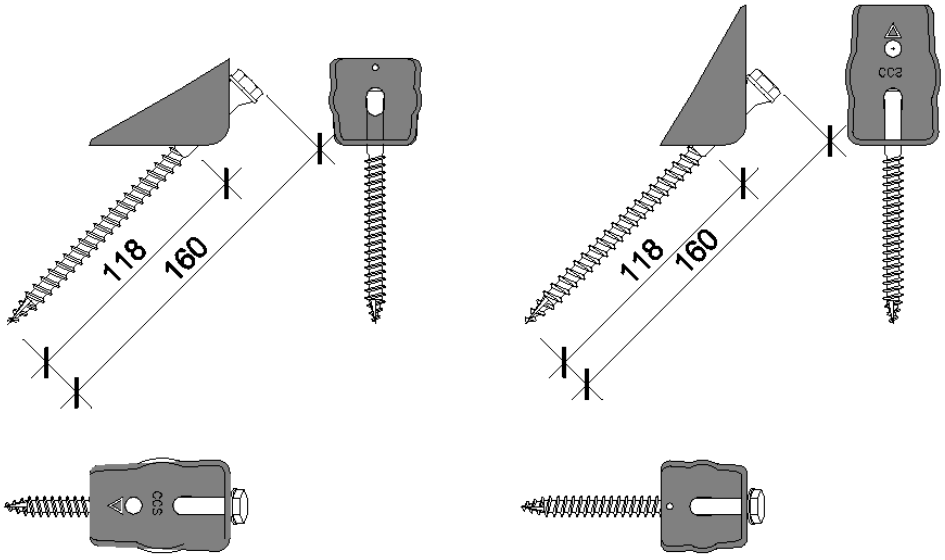


Figure 1.1.j LATERLITE CONNETTORE CENTROSTORICO LEGNO with 10x160 screw in two possibly configurations

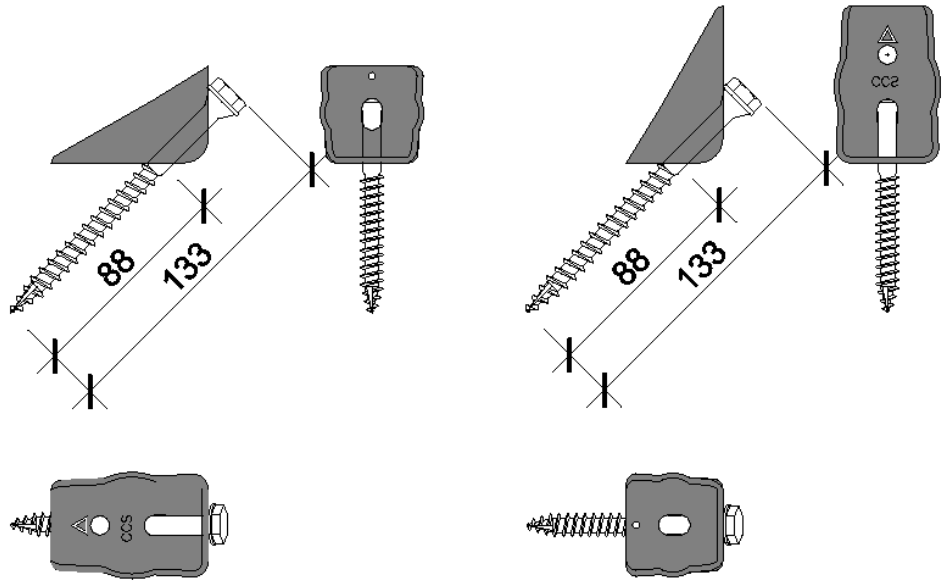


Figure 1.1.k LATERLITE CONNETTORE CENTROSTORICO LEGNO with 10x133 screw in two possibly configurations

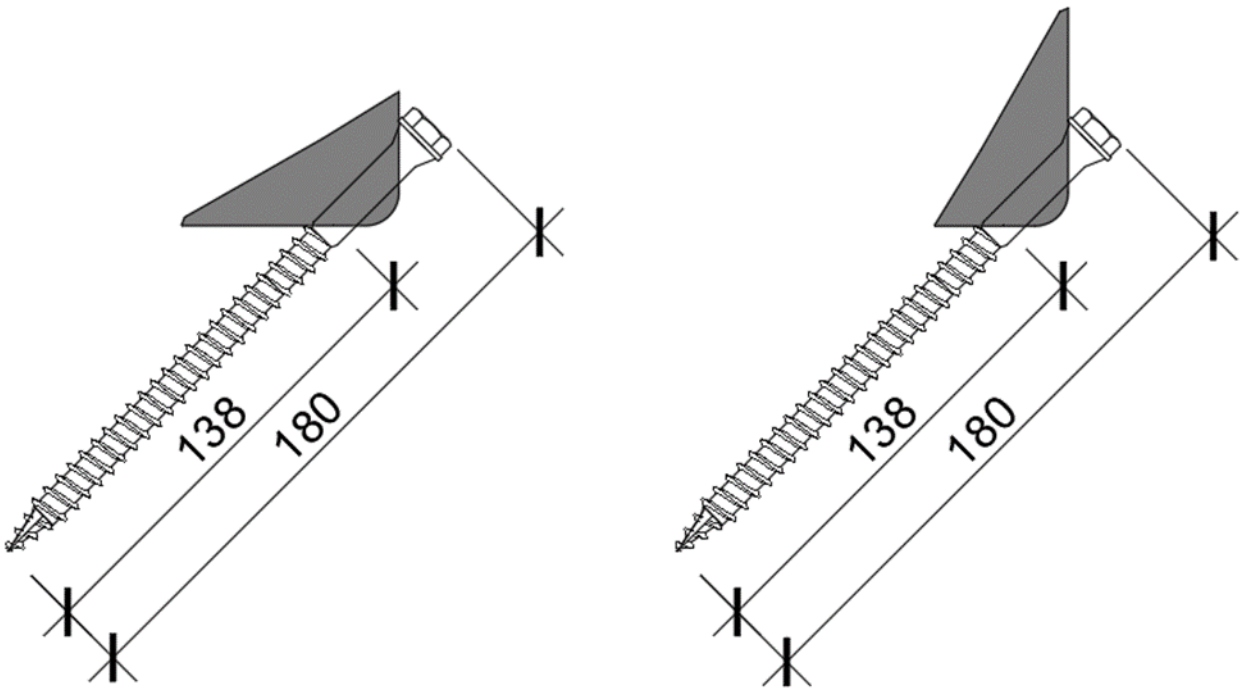
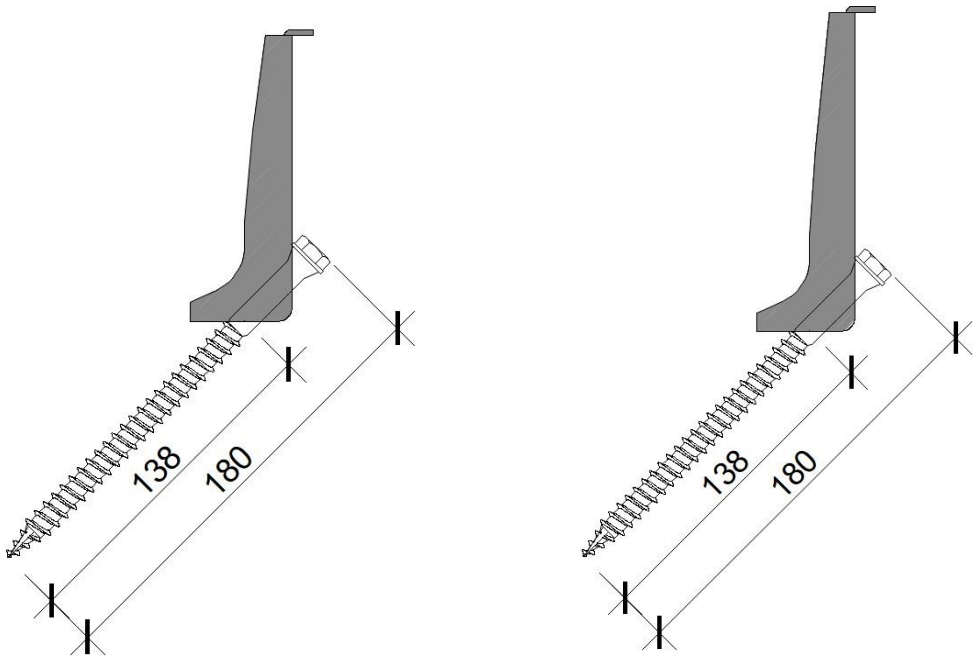


Figure 1.1.l LATERLITE CONNETTORE CENTROSTORICO LEGNO with 12x180 screw in two possibly configurations



LEGNO H120 LEGNO H140

Figure 1.1.m LATERLITE CONNETTORE CENTROSTORICO LEGNO with 12x180 screw in two possible configurations

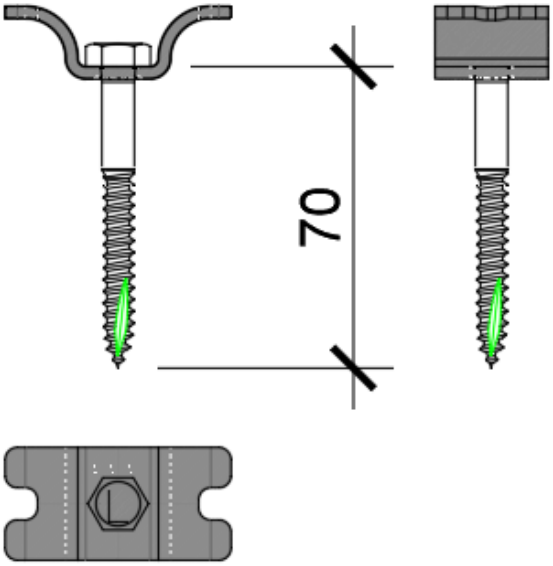


Figure 1.1.n Mini Connettore Legno L70 with screw 8x70

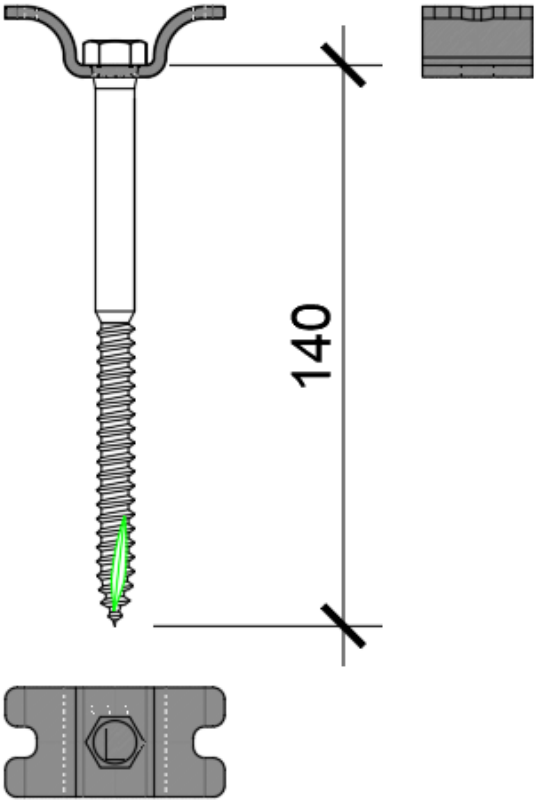


Figure 1.1.o Mini Connettore Legno L140with screw 10x140

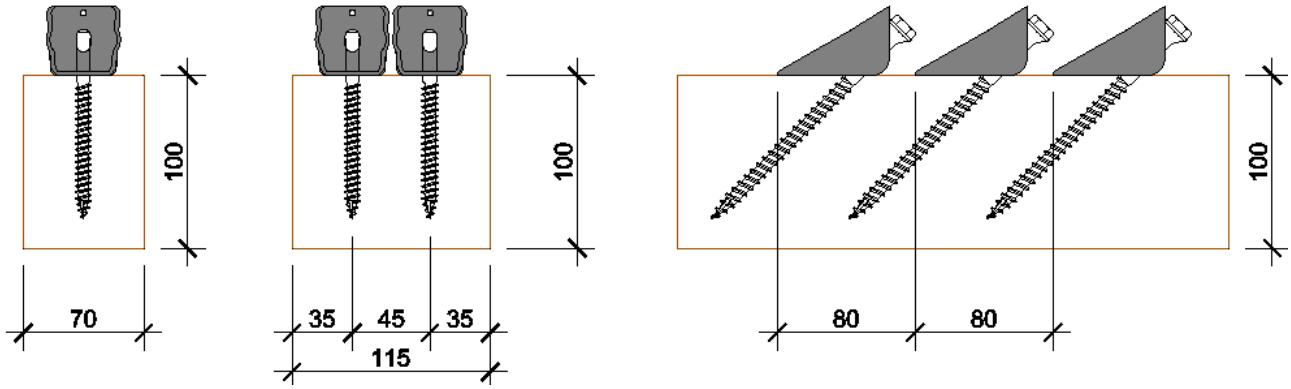


Figure 1.1.p Minimum distances and dispositions for LATERLITE CONNETTORE CENTROSTORICO LEGNO connector with screw 10x160 and wood with density < 420 kg/m3

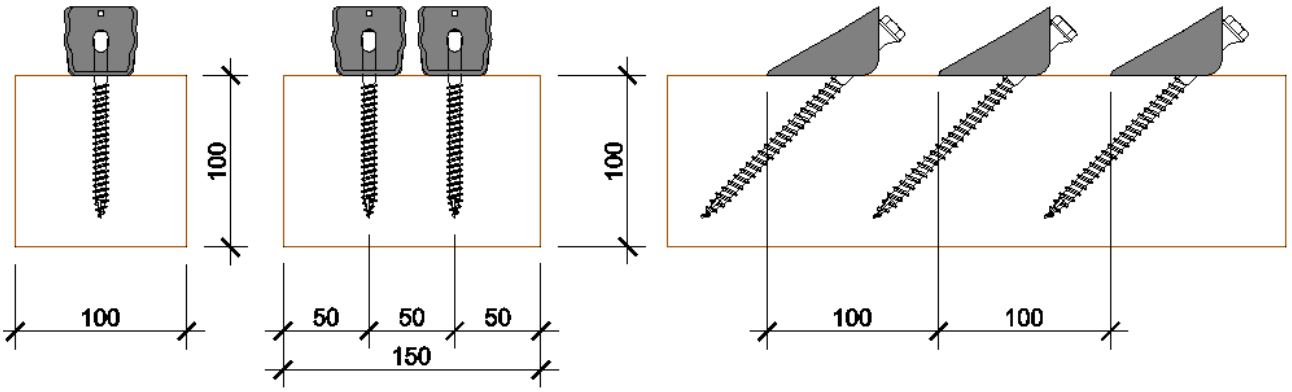


Figure 1.1.q Minimum distances and dispositions for LATERLITE CONNETTORE CENTROSTORICO LEGNO connector with screw 10x160 and wood with density < 500 kg/m3

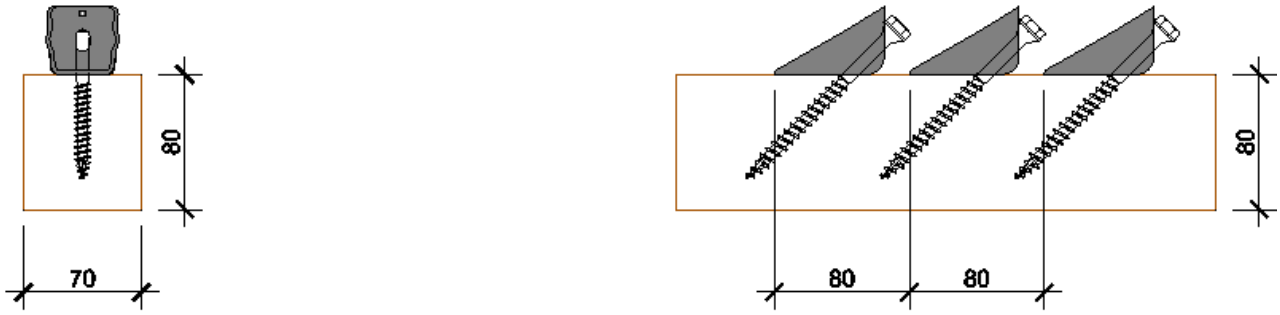


Figure 1.1.r Minimum distances and dispositions for LATERLITE CONNETTORE CENTROSTORICO LEGNO connector with screw 10x133 and wood with density < 420 kg/m3

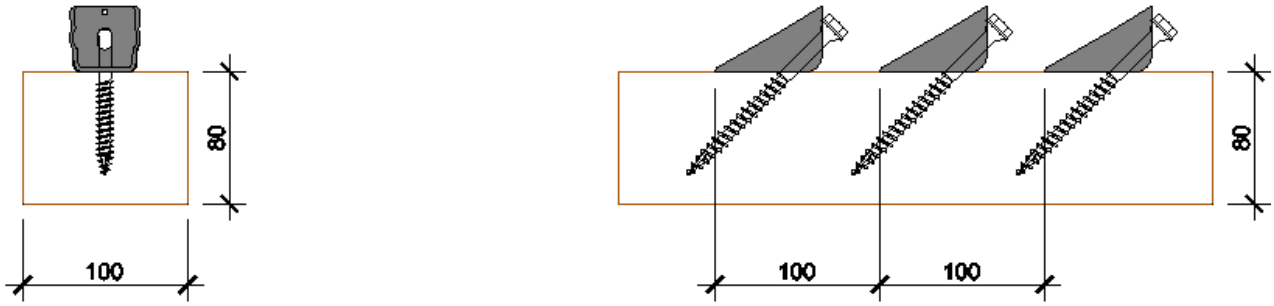


Figure 1.1.s Minimum distances and dispositions for LATERLITE CONNETTORE CENTROSTORICO LEGNO connector with screw 10x133 and wood with density < 500 kg/m3

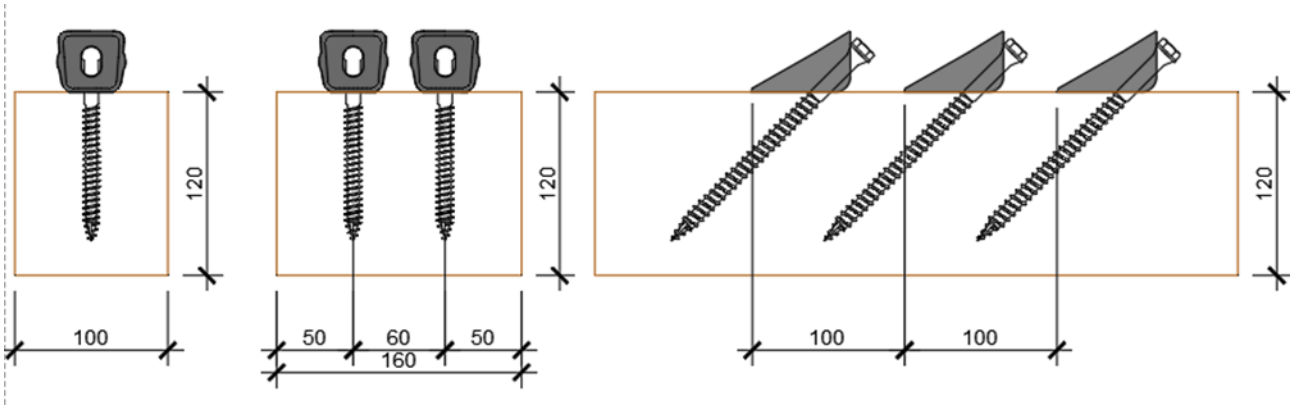


Figure 1.1.t Minimum distances and dispositions for LATERLITE CONNETTORE CENTROSTORICO LEGNO connector with screw 12x180

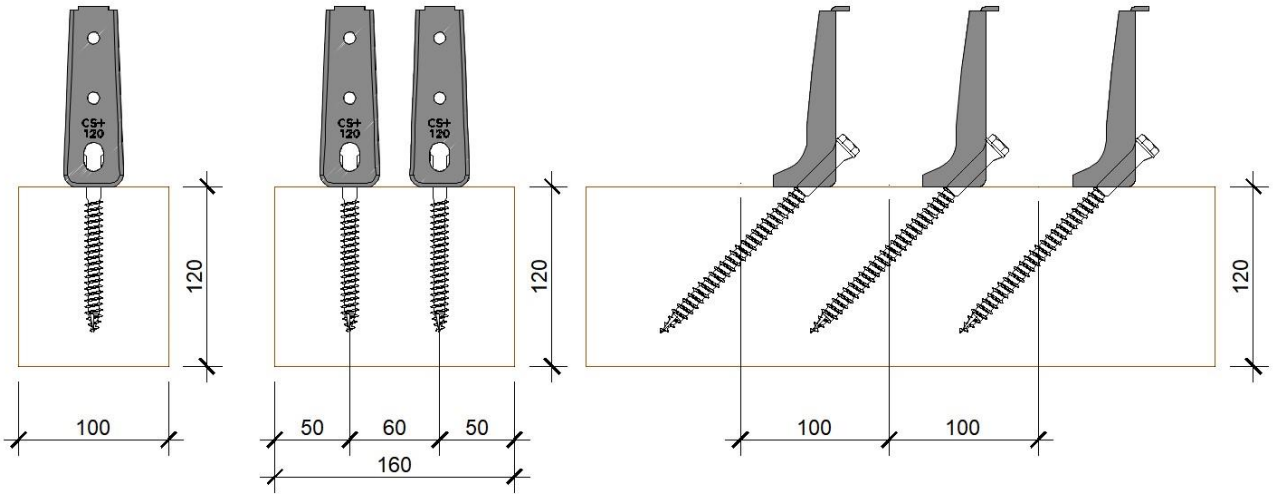


Figure 1.1.u Minimum distances and dispositions for LATERLITE CONNETTORE CENTROSTORICO LEGNO H120 connector with screw 12x180

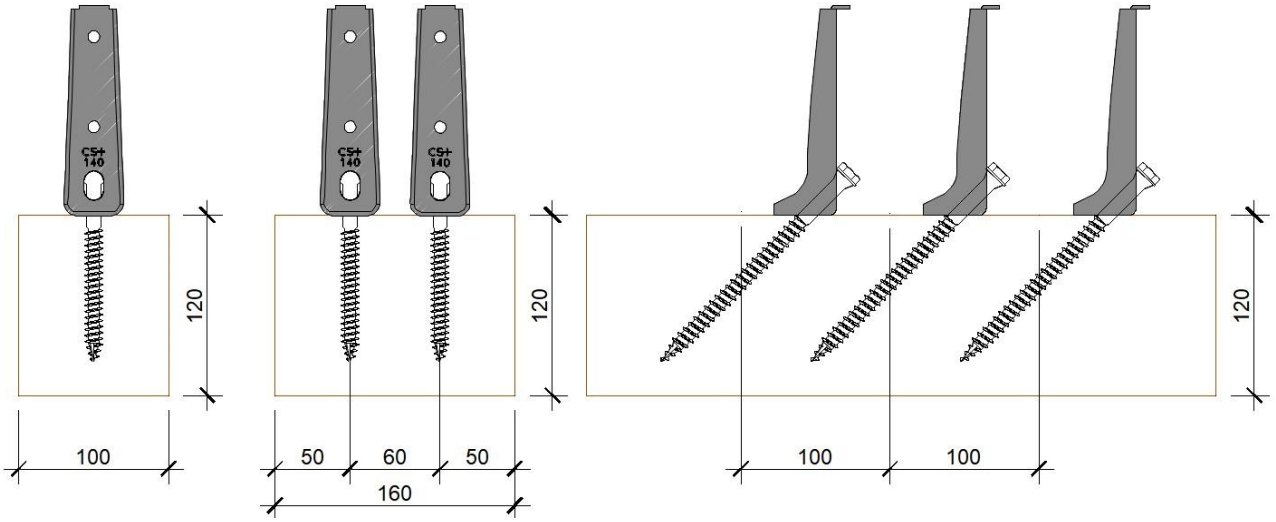


Figure 1.1.v Minimum distances and dispositions for LATERLITE CONNETTORE CENTROSTORICO LEGNO H140 connector with screw 12x180

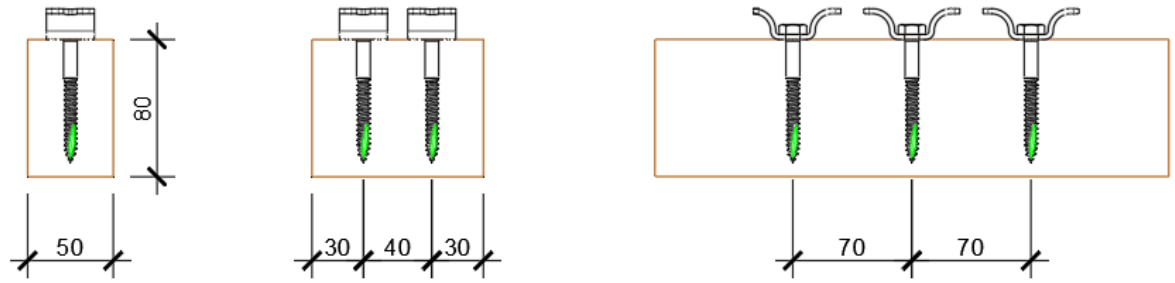


Figure 1.1.x Minimum distances and dispositions for Mini Connettore Legno L70 connector with screw 8x70

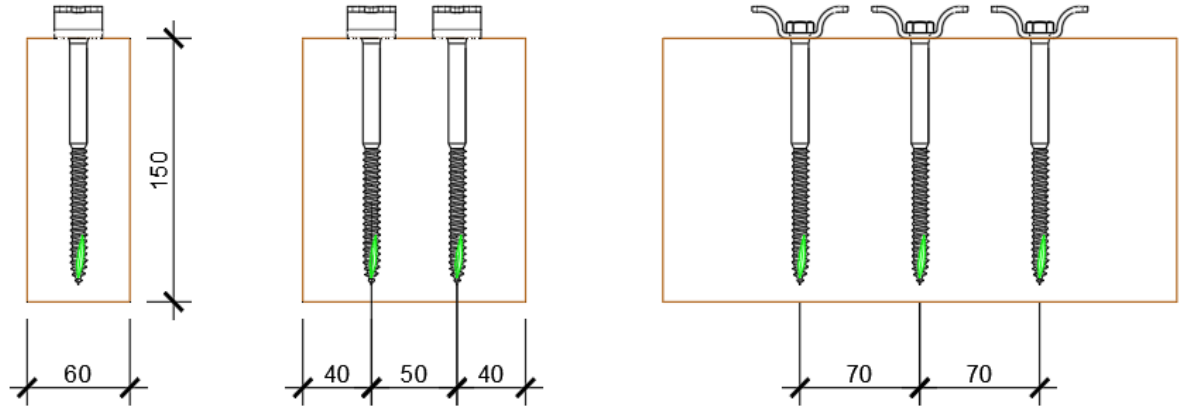


Figure 1.1.y Minimum distances and dispositions for Mini Connettore Legno L140connector with screw 10x140

The composition of the screw materials is deposited at ETA-Denmark.
The length and diameter of the screws is given in Annex 3. More exact description of the shape and tolerances of the screws are in the Control Plan.

ANNEX 2
MECHANICAL PROPERTIES

Resistance and stiffness

Structural model

Composite members with LATERLITE CONNETTORE CENTROSTORICO LEGNO Connectors are to be designed taking into account the influence of the slip occurring in the joints. A method for the calculation of the load bearing capacity and the deformation of mechanically jointed beams or columns is given in Annexes B and C of Eurocode 5 Part 1-1: General – Common rules and rules for buildings. Calculations should be carried out assuming a linear relationship between force and slip. Alternative methods for the calculation based on numerical models are also applicable.
For the determination of the internal forces and moments an elastic behaviour of the concrete may be assumed if the tensile stress in the concrete does not exceed twice the concrete tensile strength.

Apart from the design of the composite member, the load-carrying-capacity of the concrete layer spanning between the timber beams should be checked. If the floor is supported by the timber beams, the shear capacity of the timber should also be checked, otherwise, if the floor is supported by the concrete slab, the shear capacity of the slab should be checked..

The support of the wood concrete composite elements shall be carried out via the lower cross-sectional part either directly by contact or by appropriate connections.

Design of the wood-concrete composite slab

The long-term effects (e.g. shrinkage of the concrete, dimensional changes of timber, creep) shall be verified by calculation. Concrete and timber properties and models as used in verifications of long-term effects should be based on EN 1992 1-1 and EN 1995-1-1 considering the environmental and climatic conditions in place of use.

The influence of creep and moisture changes may be taken into account by reducing the modulus of elasticity of the timber and concrete and the slip modulus to be used in calculations analogous with EN 1995-1-1 and with EN1992-1-1.

The values of the deformation factors kdef for timber and LATERLITE CONNETTORE CENTROSTORICO LEGNO connectors should be taken from EN 1995-1-1. The values of the deformation factor φ for concrete should be taken from EN 1992-1-1. For floors in service class = 1, φ for concrete can be taken = 2.5. For prefabricated concrete slabs, the concrete shrinkage may be disregarded.

Values of characteristic shear resistance $F_{v,Rk}$, slip modulus K_{ser} and K_u of the connectors

Connector	Decking	Wood	$F_{v,Rk}$	K_{ser}	K_u
			kN	kN/mm	kN/mm
LATERLITE CONNETTORE CENTROSTORICO LEGNO Screw 10x160	absent	C16 and +	14,060	19.340	16,990
		C24 and + GL24 and + D18 and +	15,500		
	20mm	C16 and +	13,230	12.670	12.670
		C24 and + GL24 and + D18 and +	14,580		
	40mm	C16 and +	10,190	9.200	9.200
		C24 and + GL24 and + D18 and +	11,230		

Connector	Decking	Wood	$F_{v,Rk}$	K_{ser}	K_u
			kN	kN/mm	kN/mm
LATERLITE CONNETTORE CENTROSTORICO LEGNO Screw 10x133	absent	C16 and + C24 and + GL24 and + D18 and +	10,110	7,137	6,691
	25mm	C16 and + C24 and + GL24 and + D18 and +	8,290	9,254	8,908

Connector	Decking	Wood	$F_{v,Rk}$	K_{ser}	K_u
			kN	kN/mm	kN/mm
LATERLITE CONNETTORE CENTROSTORICO LEGNO 12x180	absent	C14	19,880	20,900	15,570
		C16	20,970		
		C18	21,510		
		C20	22,050		
		C22	22,580		
		C24	23,110		
		C27	23,640		
		C30	24,690		
		C35 and +	24,950		
		D18 and +	24,950		
		GL20c	23,380		
		GL22c	23,380		
		GL24c	23,900		
		GL26c and +	24,950		
		GL20h	22,580		
		GL22h	24,160		
		GL24h and +	24,950		
	20 mm	C14	17,140	17,030	17,030
		C16	18,080		
		C18	18,550		
		C20	19,010		
		C22	19,470		
		C24	19,930		
		C27	20,380		
		C30	21,280		
		C35 and +	21,510		
		D18 and +	21,510		
		GL20c	20,150		
		GL22c	20,150		
		GL24c	20,610		
		GL26c and +	21,510		
		GL20h	19,470		
		GL22h	20,830		
		GL24h and +	21,510		
	40 mm	C14	13,180	11,810	11,810
		C16	13,900		
		C18	14,260		
		C20	14,620		
		C22	14,970		
		C24	15,320		
		C27	15,670		
		C30	16,360		
		C35 and +	16,540		
		D18 and +	16,540		
		GL20c	15,500		
		GL22c	15,500		
		GL24c	15,840		
		GL26c and +	16,540		
		GL20h	14,970		
		GL22h	16,020		
		GL24h and +	16,540		

Connector	Decking	Wood	$F_{v,Rk}$	K_{ser}	K_u
			kN	kN/mm	kN/mm
for Mini Connettore Legno screw 8x70	absent	C14	4720	20160	11460
		C16	4980		
		C18	5110		
		C20	5240		
		C22	5360		
		C24	5490		
		C27	5610		
		C30	5860		
		C35 and +	5930		
		D18 and +	5930		
		GL20c	5550		
		GL22c	5550		
		GL24c	5680		
		GL26c and +	5930		
		GL20h	5360		
		GL22h	5740		
		GL24h and +	5930		
	20 mm	C14	3730	3430	2250
		C16	3930		
		C18	4030		
		C20	4130		
		C22	4230		
		C24	4330		
		C27	4430		
		C30	4630		
		C35 and +	4680		
		D18 and +	4680		
		GL20c	4380		
		GL22c	4380		
		GL24c	4480		
		GL26c and +	4680		
		GL20h	4230		
		GL22h	4530		
		GL24h and +	4680		

Connector	Decking	Wood	$F_{v,Rk}$	K_{ser}	K_u
			kN	kN/mm	kN/mm
for Mini Connettore Legno screw 10x140	absent	C14	8680	17230	7320
		C16	9160		
		C18	9400		
		C20	9630		
		C22	9860		
		C24	10090		
		C27	10320		
		C30	10780		
		C35 and +	10900		
		D18 and +	10900		
		GL20c	10210		
		GL22c	10210		
		GL24c	10440		
		GL26c and +	10900		
		GL20h	9860		
		GL22h	10550		
		GL24h and +	10900		
	20 mm	C14	7820	4150	2180
		C16	8250		
		C18	8460		
		C20	8680		
		C22	8890		
		C24	9090		
		C27	9300		
		C30	9710		
		C35 and +	9820		
		D18 and +	9820		
		GL20c	9200		
		GL22c	9200		
		GL24c	9400		
		GL26c and +	9820		
		GL20h	8890		
		GL22h	9510		
		GL24h and +	9820		
	40 mm	C14	6040	3790	1700
		C16	6370		
		C18	6530		
		C20	6700		
		C22	6860		
		C24	7020		
		C27	7180		
		C30	7500		
		C35 and +	7580		
		D18 and +	7580		
		GL20c	7100		
		GL22c	7100		
		GL24c	7260		
		GL26c and +	7580		
		GL20h	6860		
		GL22h	7340		
		GL24h and +	7580		