



Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products



European Technical Assessment

ETA-25/0048 of 9 May 2025

English translation prepared by DIBt - Original version in German language

General Part

Deutsches Institut für Bautechnik
STA-17, QUAD-11, UNI-EAP-01, BKS
Anchor Devices for Fastening Personal Fall Protection Systems to Timber Substructures
INNOTECH Arbeitsschutz GmbH Laizing 10 4656 KIRCHHAM ÖSTERREICH
INNOTECH Fertigungstechnik GmbH Laizing 10 4656 KIRCHHAM ÖSTERREICH
17 pages including 12 annexes which form an integral part of this assessment
EAD 331846-00-0603



Page 2 of 17 | 9 May 2025

The European Technical Assessment is issued by the Technical Assessment Body in its official language. Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and shall be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full. However, partial reproduction may only be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction shall be identified as such.

This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No 305/2011.



Specific part

1 Technical description of the product

The fall protection systems are made of stainless steel (1.4301/1.4307). They are fastened to timber substructure according to EN 338¹, EN 300², EN 14080³, EN 14081-1⁴, EN 636⁵, EN ISO 7380-1⁶, EN 12369-3⁷, The fall protection systems are fastened to the timber substructure with the different fasteners which can be seen in the annexes. This ETA includes the products listed in the following Table 1:

Table 1: Products of this ETA

Annex No.	Trade Name (Product of this ETA)	Fastener		
		Würth ASSY 3.0 A2 8,0 x 50		
2	STA-17	S+P timber screw A2 8,0 x 80/50		
		Schmid Star Drive GPR A2 8,0 x 80/50		
3		Würth ASSY 4 A2 CS full thread, Countersunk RW 6,0 x 70		
4		Innotech BEF 307		
4		Hexagon socket button head screw M10 x 60		
5	QUAD-11	Würth ASSY 3.0 A2 8,0 x 50		
6		Würth ASSY 4 A2 CS full thread, Countersunk RW 6,0 x 70		
	UNI-EAP-01	Würth ASSY 4 A2 WH partial thread,		
7		back panel screw head 8,0 x 140/80		
		HECO-TOPIX-plus A2 8,0 x 140, back panel screw head		
8		Würth ASSY 4 A2 WH full thread,		
		back panel screw head 8,0 x 100		
		HECO-TOPIX-plus A2 8,0 x 100, full thread,		
		back panel screw head		
	BKS	Würth ASSY 4 A2 CSMP partial thread, Countersunk 8,0 x 140/80		
9,10		HECO-TOPIX-plus A2 Countersunk 8,0 x 140		
		Würth ASSY 4 A2 WH partial thread,		
		back panel screw head 8,0 x 180/80		
		Würth ASSY 4 A2 CS full thread, Countersunk RW 6,0 x 70		

The components and the system setup of the product are given in Annex (2-10).

1	EN 338-2016	Structural timber - Strength classes
2	EN 330.2010	Siluctural uniber - Surengul classes
2	EN 300:2006	Oriented Strand Boards (OSB) - Definitions, classification and specifications
3	EN 14080:2013	Timber structures - Glued laminated timber and glued solid timber - Requirements
4	EN 14081-1:2016+A1:2019	Timber structures - Strength graded structural timber with rectangular cross section – Part 1: General requirements
5	EN 636:2012+A1:2015	Plywood - Specifications
6	EN ISO 7380-1:2023	Fasteners - Button head screws with reduced loadability - Part 1: Hexagon socket button head screws
7	EN 12369-3:2022	Wood-based panels - Characteristic values for structural design - Part 3: Solid wood panels



Page 4 of 17 | 9 May 2025

2 Specification of the intended use in accordance with the applicable EAD 331846-00-0603

The fall protection system is used to protect operators working at height (max. 4 persons at once), by arresting them in a fall. The operators attach themselves to the eye using e.g., ropes and karabiners. In the case of a fall the fall protection system prevents the fall and resulting physical damage assuming the correct usage by the operator. The fall protection system is designed for use in all areas of industry, construction and maintenance.

The fall protection system is intended to be used, fastened or inserted on flat roofs or other flat planes made of timber only.

For the Anchor device UNI-EAP-01, the load can be applied in all directions relative to the attachment plane. However, for the Anchor devices STA-17, QUAD-11, and BKS, the load should only be applied parallel to the attachment plane. Therefore, the use of these systems on a (wooden) wall is only intended if the force application is still at a 90° angle to the attachment axis

The performances given in Section 3 are only valid if the products listed in the Table 1 is used in compliance with the specifications and conditions given in Annexes (2-10).

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the fall protection system of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance	
Reaction to fire	Class A1	

3.2 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Static loading	Annexes 2-10
Dynamic loading	Annexes 2-10
Check of deformation capacity in case of constraining forces	Annexes 2-10
Durability	No performance assessed

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 331846-00-0603, the applicable European legal act is: Decision (EU) 2018/771.

The system to be applied is: 1+



Page 5 of 17 | 9 May 2025

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are given in EAD Nr. 331846-00-0603 "Table 3.1 Control plan for the manufacturer; cornerstones".

Issued in Berlin on 9 May 2025 by Deutsches Institut für Bautechnik

Dr.-Ing. Ronald Schwuchow Head of Section

beglaubigt: Hahn

Page 6 of European Technical Assessment ETA-25/0048 of 9 May 2025

English translation prepared by DIBt



This ETA includes the products listed in Table 1:

Table 1: Products included in this ETA

Annex	Tradename (Product of this ETA)	Fastener	Supporting structure	
2		Würth ASSY 3.0 A2 8,0 x 50 ^{a)} S+P timber screws A2 8,0 x 80/50 ^{b)}	Solid wood panels $d \ge C24/GL24$	
3	STA-17	Würth ASSY 4 A2 CS full thread, countersunk RW 6,0 x 70 ^{a)}	OSB3 ^{e)} or plywood (BFU) ^{f)} or timber planks ^{g)} ≥ C24 on timber / glued laminated timber ^{g,h,i)} ≥ C24/GL24	
4		hexagon socket button head screws M10 x 60 ^{j)}	OSB3 ^{e)} or plywood (BFU) ^{f)} on timber / glued laminated timber $^{g,h,i)} \ge C24/GL24$	
5		Würth ASSY 3.0 A2 8,0 x 50 ^{a)}	Solid wood panels ^{d)} ≥ C24/GL24	
6		Würth ASSY 4 A2 CS full thread, countersunk RW 6,0 x 70 a)	OSB3 ^{e)} or plywood (BFU) ^{f)} or timber planks ^{g)} ≥ C24 on timber / glued laminated timber ^{g,h,i)} ≥ C24/GL24	
7		Würth ASSY 4 A2 WH partial thread, back panel screw head 8,0 x 140/80 ^{a)}	timber / glued laminated timber ^{g,h,i)} ≥ C24/GL24	
	LINLEAP-01	HECO-TOPIX-plus A2 8,0 x 140, back panel screw head $^{k)}$	opt. with timber planks $e^{f,g} \ge C24/GL24$	
0		Würth ASSY 4 A2 WH full thread, back panel screw head 8,0 x 100 ^{a)}		
8		HECO-TOPIX-plus A2 8,0 x 100, full thread, back panel head screw $^{\rm k)}$	Solid wood panels ³ 2 C24/GL24	
		Würth ASSY 4 A2 CSMP partial thread, countersunk 8,0 x 140/80 a)	OSB3 ^{e)} or plywood (BFU) ^{f)} or timber	
9, 10	BKS	HECO-TOPIX-plus A2 countersunk 8,0 x 140 ^k) Würth ASSY 4 A2 WH partial thread, back panel screw head	planks $g \ge C24$ on timber / glued laminated timber g,h,i > C24/GL 24	
		Würth ASSY 4 A2 CS full thread, countersunk RW 6,0 x 70 a)		
Annexe All com	s 2 to 10 show the con ponents can be used ir	nponents and the system setup of the products. n weathered outdoor areas.		
a	ETA-11/0190	Self-tapping screws for use in timber constructions; DIBt; 23.07.2018		
b	ETA-11/0283	S+P screws for use in timber construction; DIBt; 06.06.2023		
с	ETA-12/0373	Schmid screws RAPID®, STARDRIVE und SP; OIB; 3.11.2017		
d	EN 12369-3:2022	Wood-based panels - Characteristic values for structural design - Part	3: Solid-wood panels	
e	EN 300:2006	Oriented Strand Boards (OSB) - Definitions, classification and specification	ations	
f	EN 636:2012 Plywood - Specifications			
g	EN 14081-1:2016 Timber structures - Strength graded structural timber with rectangular cross section - Part 1: General +A1:2019 requirements			
h i j k	hEN 14080:2013Timber structures - Glued laminated timber and glued solid timber - RequirementsiEN 338:2016Structural timber - Strength classesjEN ISO 7380-1:2022Fasteners - Button head screws with reduced loadability - Part 1: Hexagon socket button head screwskETA-19/0553Screws for use in timber constructionsl; ETA-danmark A/S; 25.05.2020			
INNC	OTECH Fall prot	ection systems fastened on timber substructures		
Ove	Annex 1.1			



Design values of actions

$$F_{Ed} = F_{Ek} * \gamma_F$$

The recommended partial factor γ_F is 1,5.

The recommended partial factor is used in order to determine the corresponding design actions, provided no partial factor is given in national regulations or national Annexes to Eurocode 0. That leads to the following tables:

Example:

for one user:	$F_{Ed} = F_{Ek} * \gamma_F = 6 \text{ kN} * 1,5 = 9 \text{ kN}$
for two users:	$F_{Ed} = F_{Ek} * \gamma_F = (6 + 1) kN * 1,5 = 10,5 kN$
for three users:	$F_{Ed} = F_{Ek} * \gamma_F = (6 + 2) kN * 1,5 = 12 kN$
for four users:	$F_{Ed} = F_{Ek} * \gamma_F = (6 + 3) kN * 1,5 = 13,5 kN$

Static loading / Design resistance

$$F_{Rd} = F_{Rk} / \gamma_M * k_{mod}$$

The recommended partial factor γ_{M} is 1,3, provided no partial factor is given in national

regulations or national annexes of Eurocode 5. The recommended modification factor k_{mod} is 1,1 (0,9 for OSB or plywood type EN 636-2) for service class 1 and 2, provided no modification factor is given in national annexes of Eurocode 5.

Dynamic loading / Design resistance

See max. number of users on following annexes

Deformation capacitiy

See deformation at 0,7 kN on following annexes

INNOTECH Fall protection systems fastened on timber substructures

Annex 1.2

Overview and design values



Regulations for INNOTECH anchor devices on timber substructures

Before installing the anchor devices INNOTECH STA-17, QUAD-11, UNI-EAP-01 and BKS the roof boarding or wood-based panels and their substructure are to be checked with regard to their condition and other parameters influencing the load bearing capacity (e.g. knottiness).

The OSB panels or plywood panels (BFU) must not be connected by tongue and groove. The anchor devices STA-17 and QUAD-11 can be fitted on pressure-resistant partitions (roof sealing sheets) up to a thickness of 12 mm, if it is encured that the substructure can be checked with regard to its condition and the parameters influencing the load bearing capacitiy.

It is possible to use substructures with a higher rigidity (e.g. solid timber or laminated timber ceilings). The transfer of the forces into the substructure (wooden beams) is to be verified according to technical building regulations.

The fixture of the anchor device (base plate and timber screws as well as the timber panels) shall not be weathered freely.

Type of roof boarding	Minimum structural element thickness h _{min} [mm]	Minimum width [mm]	Fastening materials and minimum quantity per board/panel
Timber planks	20	80	1 (2 from width ≥ 100 mm)
OSB3	18	625	5
Plywood (BFU)	18	625	5

Table 2: Information on fastening of the roof boarding

INNOTECH Fall protection systems fastened on timber substructures

Annex 1.3

Overview and design values

Page 9 of European Technical Assessment ETA-25/0048 of 9 May 2025





Page 10 of European Technical Assessment ETA-25/0048 of 9 May 2025









Page 12 of European Technical Assessment ETA-25/0048 of 9 May 2025





Page 13 of European Technical Assessment ETA-25/0048 of 9 May 2025







Design values of the load capacity				
Substructure	Minimum raw	F _{R,d}	Dynamic load	Deformation at
	density [kg/m³]	[kN]	[users]	0,7 kN [mm]
Timber / glued laminated timber		12,56		
≥ C24/GL24	350		2	3
> C24/G124 with roof boarding		13,96		
All dimensions in [mm]	WÜR HECC Ø 12	TH ASSY 4 A2 D-TOPIX-plus A	WH Ø8,0 x 140/8 2 Ø8,0 x 140	0 0 0 0 0 0 0 0 0 0 0 0 0 0
INNOTECH Fall protection systems fastened on timber substructures				Annex 7
UNI-EAP-01 for fastening on wooden beam				

Page 15 of European Technical Assessment ETA-25/0048 of 9 May 2025





Page 16 of European Technical Assessment ETA-25/0048 of 9 May 2025





Page 17 of European Technical Assessment ETA-25/0048 of 9 May 2025



