Deutsches Institut für Bautechnik

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Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

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European Technical Assessment ETA-21/0022 of 17 May 2021

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	Anchor Device SECUPOHL
Product family to which the construction product belongs	Anchor Devices for Fastening Personal Fall Protection Systems to Concrete Structures
Manufacturer	Pohl DWS GmbH Nickepütz 33 52349 Düren DEUTSCHLAND
Manufacturing plant	Pohl DWS GmbH Nickepütz 33 52349 Düren Germany
This European Technical Assessment contains	7 pages including 3 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	EAD 331072-00-0601

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Specific part

1 Technical description of the product

The subject of this assessment are anchor points for protecting persons (operators) working at heights against a fall. The fall protection systems are made of stainless steel 1.4305 / 1.4401 / 1.4404. It is fastened to reinforced normal concrete (cracked or uncracked), strength classes C20/25 to C50/60 according to EN 206. The fall protection systems are fastened to the concrete 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
2	Secupoint® Bauart E	SECUPOHL Bolt Anchor M14

The components and the system setup of the product are given in Annex (1-3).

2 Specification of the intended use in accordance with the applicable EAD 33-1072-01-0601

The fall protection systems listed in Table 1 is used to protect operators working at height (max. 2 persons), 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 systems listed in Table prevent the fall and resulting physical damage assuming the correct usage by the operator. The fall protection systems listed in Table are designed for use in all areas of industry, construction and maintenance.

The intended use of the fall protection systems listed in Table 1 is the attachment to flat roofs or other flat surfaces (e.g. concrete walls) made of concrete. The force applied should usually be perpendicular (90° ± 5 %) to the fastener. Another load direction is possible if this is specified in the annexes intended only when the direction of force still applies at a 90° angle to the fastening axis.

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

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the products listed in Table 1 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	Annex 2
Dynamic loading	Annex 2
Check of deformation capacity in case of constraining forces	Annex 2
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. 331072-01-0601, the applicable European legal act is: Decision (EU) 2018/771.

The system to be applied is: 1+

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 laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 17 May 2021 by Deutsches Institut für Bautechnik

Dr.-Ing. Ronald Schwuchow
Head of Section

beglaubigt:
Hahn

This ETA includes the product variants listed in Table 1:

Table 1: Product variants included in this ETA

Annex	Tradename (Product in this ETA)	Fastener	Substructure
2	Secupoint® Bauart E	SECUPOHL Bolt Anchor M14	reinforced concrete C20/25 to C50/60 (cracked and uncracked) [a]

Annex 2 show the components and the system structure of the product.

Design values of actions

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

The recommended partial safety factor γ_F is 1,5.

The recommended partial safety factor is used in order to determine the corresponding design actions, provided no partial safety factor is given in national regulations or national Annexes to EN 1990. That leads to the following values:

Example:

For one user: $F_{Ed} = F_{Ek} \cdot \gamma_F = 6kN \cdot 1{,}5 = 9kN$

For two users: $F_{Ed} = F_{Ek} \cdot \gamma_F = (6+1)kN \cdot 1{,}5 = 10{,}5kN$

For three users: $F_{Ed} = F_{Ek} \cdot \gamma_F = (6+2)kN \cdot 1{,}5 = 12kN$

[a] EN 206:2013+A1:2016 Concrete: Specification, performance, production and conformity

Table 2: Substructure reinforced concrete C20/25 to C50/60 (cracked and non-cracked)

Anchor Device	Bar height [mm]	Fastener	Edge distance c_{min} [mm]	Minimum substructure thickness h_{min} [mm]
Secupoint® Bauart E	300-700	SECUPOHL Bolt Anchor M14	200	160

All components can be used in weathered outdoor areas.

The concrete substructure is to be pre-drilled with a borehole diameter of 16mm and a borehole depth of ≥ 140mm

Static loading / design resistance

$$F_{R,d} = \frac{F_{R,k}}{\gamma_M} = \frac{15{,}78kN}{1{,}5} = 10{,}50kN$$

The recommended partial safety factor γ_M is 1,5 provided no partial safety factor is given in national regulations or national Annexes to EN 1992.

Dynamic loading / design resistance

Two users

Deforming capacity

2 mm at 0,7kN with a maximum overhang of 300mm above the insulation.

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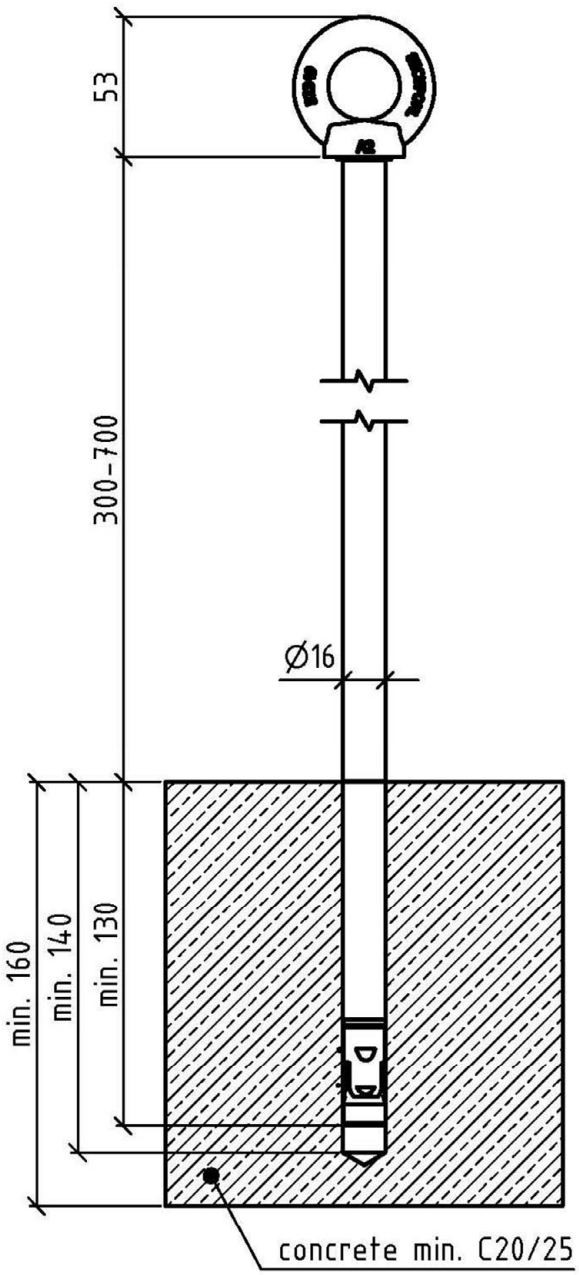

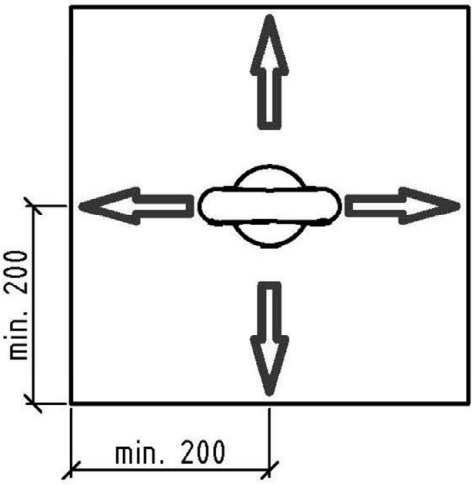

All dimension in mm

Anchor Device for fastening personal fall protection systems	Annex 2.2
Secupoint® Bauart E for concrete (cracked and non-cracked)	