Deutsches Institut für Bautechnik

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

European Technical Assessment Body for construction products

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European Technical Assessment ETA-10/0158 of 27 February 2026

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	Ego-Zero - Stair System Treppenmeister
Product family to which the construction product belongs	Prefabricated stair kits
Manufacturer	Treppenmeister GmbH Emminger Straße 38 71131 Jettingen DEUTSCHLAND
Manufacturing plant	Treppenmeister, Werk 1 bis Werk 85
This European Technical Assessment contains	13 pages including 3 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Article 95(4) of Regulation (EU) No 2024/3110, on the basis of	EAD 340006-00-0506
This version replaces	ETA-10/0158 issued on 14 December 2015

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Specific Part

1 Technical description of the product

The Ego-Zero - Stair System Treppenmeister is a prefabricated stair system consisting of steps and fasteners.

Each step comprises a welded steel section fixed to a concrete wall by wall ties. Alternatively, the steel section may be bolted or welded to steel columns.

The product description is given in Annex A. The material values, dimensions and tolerances of the components of the stair not indicated in the annexes shall correspond to the values laid down in the technical documentation[1].

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the stair is used in compliance with the specifications and conditions given in Annex B.

The verification and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the stair of at least 50 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.

[1] The technical documentation includes all information provided by the manufacturer that is necessary for the production, installation and maintenance of the stair. This primarily comprise the structural analysis, construction drawings, and the manufacturer's installation instructions. The confidential part of this documentation is stored at the Deutsches Institut für Bautechnik. If this confidential section is relevant to the tasks of the approved bodies within the framework of the AVCP system certification process, it will also be provided to those bodies.

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

3.1 Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Load-bearing capacity - Load-bearing capacity of the stair	Q_{Rk}, q_{Rk} and h_{Rk}: See Annex C2 H_{Rk}: No performance assessed
- Load-bearing capacity of components of the stair	M_{Rk}, V_{Rk}, N_{Rk}, E, G, f_{mk} und f_{vk}: See technical documentation of this European Technical Assessment
- Load-bearing capacity of fixings	See technical documentation of this European Technical Assessment
Load-Displacement behaviour	w_q and w_Q: See Annex C2
Vibration behaviour	First natural frequency: $f_1 \geq 5$ Hz Deflection under a single load F = 1 kN: $w_{Q1} \leq 5$ mm
Prevention of progressive collapse	Failure of individual components of the stair does not lead to a progressive collapse of the complete stair
Residual load-bearing capacity	Local material failure does not lead to an abrupt total loss of load-bearing capacity of the stair
Long-term behaviour	Load-bearing capacity are ensured under an appropriate use and maintenance over the indicated working life
Resistance to earthquakes	No performance assessed
Durability against physical, chemical, biological agents	Adequate durability for the intended use under an appropriate use and maintenance

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	A1
Fire resistance	No performance assessed

3.3 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Release of formaldehyde	No materials containing formaldehyde are used
Release of pentachlorophenol	No materials containing pentachlorophenol are used
Radioactive emission	No performance assessed

3.4 Safety in use (BWR 4)

Essential characteristic	Performance
Geometry	See Annex C1
Slipperiness	No performance assessed
Equipment of the stair for a safe use	No performance assessed
Safe breakage of components	No brittle failure of individual stair components
Impact resistance	No performance assessed

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

In accordance with the European Assessment Document EAD No. 340006-00-0506 the applicable European legal act is: 1999/89/EC

The System to be applied is: 2+

In addition, with regard to reaction to fire for products covered by the European Assessment Document EAD No. 340006-00-0506 the applicable European legal act is: 2001/596/EC

The System to be applied is: 4

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Deutsches Institut für Bautechnik.

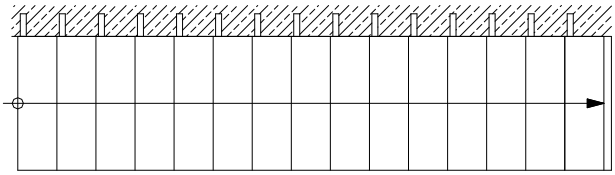
Issued in Berlin on 27 February 2026 by Deutsches Institut für Bautechnik

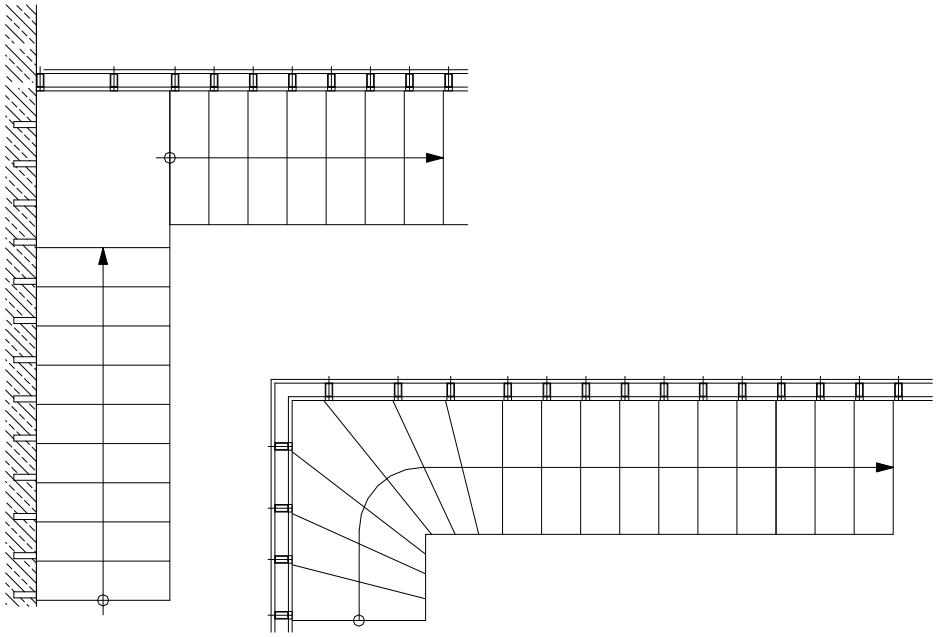
Dipl.-Ing. Beatrix Wittstock
Head of Section

beglaubigt:
Stiller

Types of plans

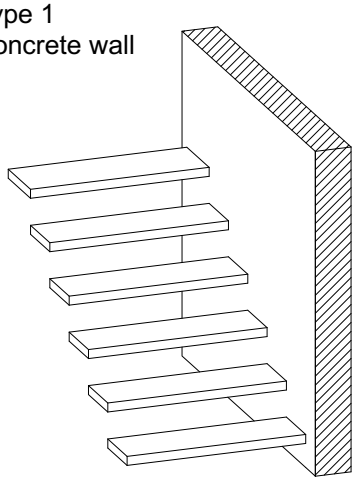
Walking line is exemplified, position may be chosen freely within the walking zone, walking zone is 20 % of the clear width of the stair in the middle of the stair



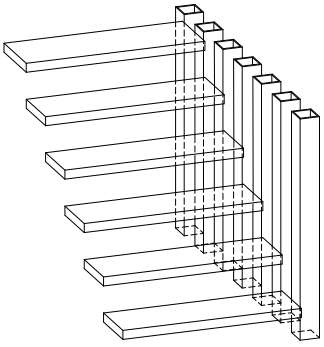


Types of constructions

Type 1
Concrete wall



Type 2
Steel columns

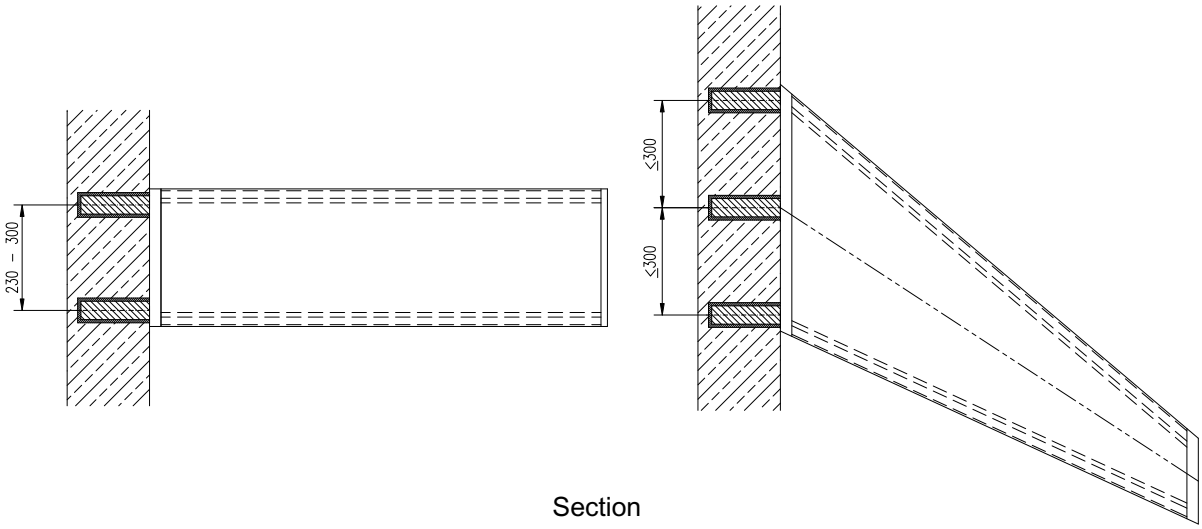


Ego-Zero - Stair System Treppenmeister	**Annex A1**
Product (Types of plans and constructions)	

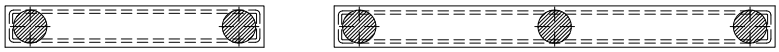
Joint to concrete wall (≥ C20/25)

Rectangle step **Trapezium step**

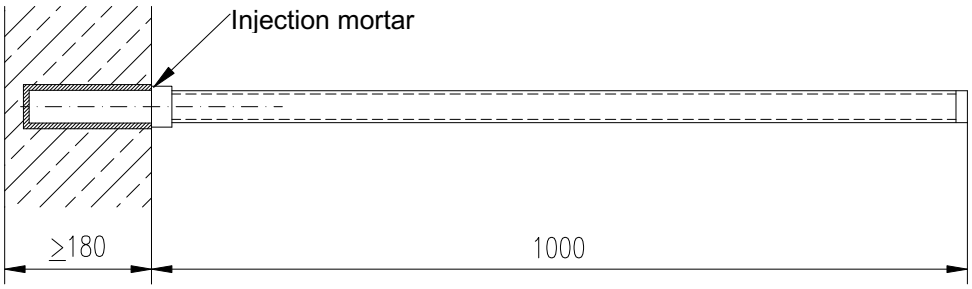
Plan



Section



View



Dimensions in mm, more details (geometry, joints etc.) according to technical documentation

Ego-Zero - Stair System Treppenmeister	**Annex A2**
Steps and joint to concrete wall	

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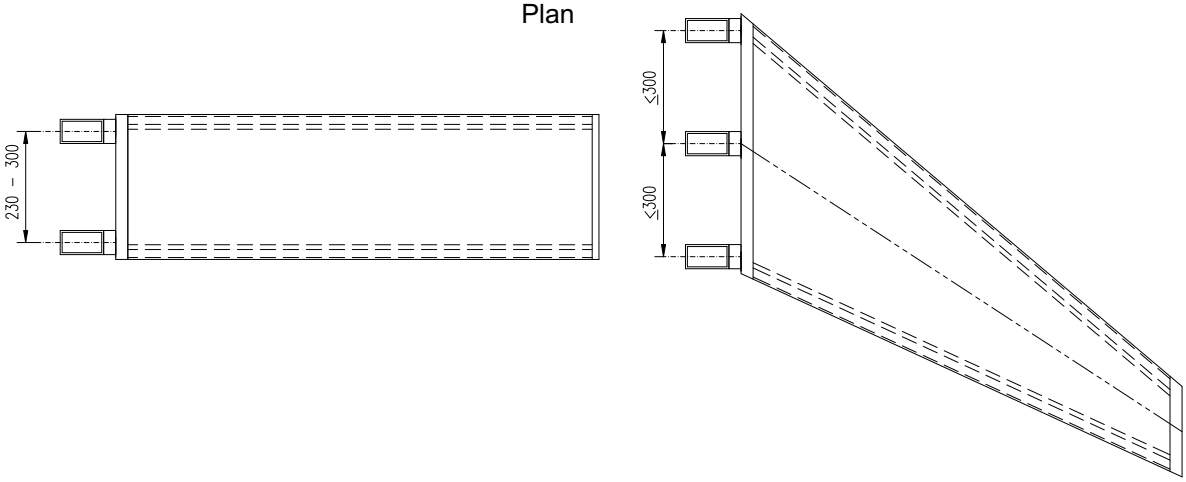
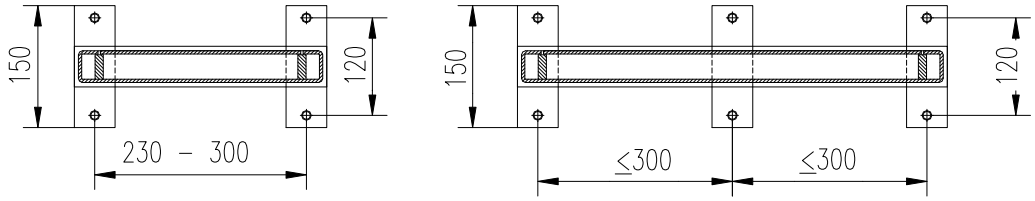
Joint to steel columns

Rectangle step **Trapezium step**

Plan

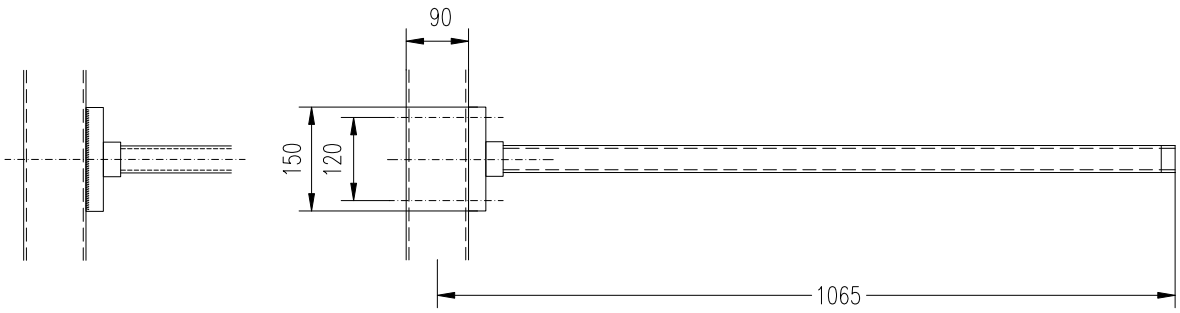


Section



View

Welded joint Screwed joint



Dimensions in mm, more details (geometry, joints etc.) according to technical documentation

Ego-Zero - Stair System Treppenmeister	**Annex A3**
Steps and joint to steel columns	

Table 1: Minimum dimensions and materials of relevant stair components

Component of stair	Minimum dimensions			Material
Step (box section) [4]	Thickness / Width	[mm]	39 / 320 [3]	Steel S235
Column [2] [3]	Rectangle section	[mm]	90 / 50 / 4	Steel S235
Fasteners	Diameter	[mm]	12	Steel [1]

1) characteristic values of material according to technical documentation
2) maximum length: 3,00 m; Fixed at bottom and hinged support at the top; maximum distance between columns: 260 mm
3) Trapezium step and related column according to technical documentation
4) Wood covering and covering of natural stone with maximum dead load of 0,56 kN/m² is possible

Ego-Zero - Stair System Treppenmeister	Annex A4
Minimum dimension of stair components	

Specification of intended use (Part 1)

Intended use:

- European Technical Assessment applies for a construction system.
- For the specific case of use the corresponding type of stair is manufactured within the context of the values defined in the European Technical Assessment.
- Values of this ETA apply to all types of stairs; the real dimensions follow in accordance with the relevant case of use.

Stair subject to:

- Static or quasi-static loads

Use conditions:

- Indoor stair
- Air temperatures between +5 °C and +30 °C
- Relative air humidity between 30 % and 70 %
- To the individual requirements handrail and barrier may be attached to the stair optionally. Conditions for possible barrier/handrail:

  Dead load ≤ 0,50 kN/m

  Height ≤ 1,00 m

  Distance of baluster ≤ 0,9 m

Design:

- Design of the stair according to the annexes and the technical documentation to this European Technical Assessment
- Fastening of the stair to the construction works according to the annexes and the technical documentation to this European Technical Assessment
- Verification of the transmission of loads to the construction works by the civil engineer responsible for the construction works
- Load-bearing capacity at ultimate limit state:

  $q_k \cdot \gamma_Q \leq q_{Rk} / \gamma_M$

  $Q_k \cdot \gamma_Q \leq Q_{Rk} / \gamma_M$

  $h_k \cdot \gamma_Q \cdot \psi_0 \leq h_{Rk} / \gamma_M$

  with

  q_{Rk}, Q_{Rk}, h_{Rk}: characteristic values of resistance; see Table 3

  γ_M: recommended material partial safety factor; see Table 3

  q_k, Q_k, h_k : characteristic values of imposed loads according to EN 1991-1-1:2010-12

  $\gamma_Q = 1,5$: recommended partial safety factor, in absence of other national regulations

  $\psi_0 = 0,7$: recommended combination factor, in absence of other national regulations
- Maximum characteristic values of imposed loads under consideration oft the partial factors mentioned above; see Table 5

Ego-Zero - Stair System Treppenmeister	Annex B1
Specification of intended use (Part 1)	

Specification of intended use (Part 2)

Installion:

- Installation by personnel appropriately trained and authorized by the manufacturer by means of the technical documentation of this European Technical Assessment
- Installation only in the way as specified in the technical documentation of this European Technical Assessment
- Sufficient support of the stair when assembling
- Installation of the stair components without additional stresses resulting from restraints not intended by the structural design

Indications to the manufacturer:

- Ensure that all persons involved will be appropriately informed about the specific conditions according to sections 1 and 2 (including the annexes to which reference is being made as well as the not confidential parts of the technical documentation deposited to this European Technical Assessment)
- Instructions for use should provide information as to use, maintenance and repair of the stair

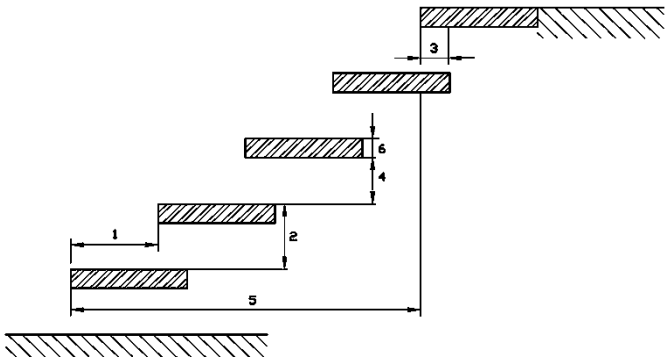
Ego-Zero - Stair System Treppenmeister	Annex B2
Specification of intended use (Part 2)	

Table 2: Geometry

designation			dimension	
			minimum	maximum
going	step on walking line [1]	[mm]	210	320 [2]
	tapered step	[mm]	120 [2] [3]	560 [2] [4]
rise of the stairs [1]		[mm]	140 [2]	210
pitch of the walking line [1]		[°]	21	45
overlap of the steps		[mm]	30	- [5]
number of rises		[-]	3	18
openings	between stairs and wall	[mm]	0	0
	between consecutive steps	[mm]	- [3]	171
clear width of stairs		[mm]	500	1000
length of the flight		[mm]	- [3]	
thickness of steps		[mm]	39	- [5]

1) values are constant within one flight
2) tolerance between nominal value and actual value = ± 5 mm
3) wall - free side of tapered step
4) wall side of tapered step
5) not relevant

1 going
2 rise
3 overlap
4 opening between consecutive steps
5 length of the flight
6 thickness of steps



Ego-Zero - Stair System Treppenmeister

Geometry

Annex C1

Table 3: Load-bearing capacity - Characteristic values of resistance

Type of loading	Characteristic values of resistance			γ_M [1)]
Vertical variable uniformly distributed load	$q_{R,k}$	[kN/m²]	5,63	1,25
Vertical variable single load	$Q_{R,k}$	[kN]	3,75	
Horizontal variable uniformly distributed load on barrier	$h_{R,k}$	[kN/m]	0,66	

1) Recommended partial safety factor, in absence of other national regulations

Table 4: Deflections under loading

Deflection of the step under single point load			
Single load	Q_k	[kN]	2,0
Clear width of the stair	L	[mm]	1000
Deflection related to the clear width of the stair	w	[-]	≤ L/150

Table 5: Imposed loads

Type of loading	Imposed loads		
Vertical variable uniformly distributed load	q_k	[kN/m²]	3,0
Vertical variable single load	Q_k	[kN]	2,0
Horizontal variable uniformly distributed load on barrier	h_k	[kN/m]	0,5

Ego-Zero - Stair System Treppenmeister

Load-bearing capacity - Characteristic values of resistance,
Deflections under loading,
Imposed loads

Annex C2