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European Technical Assessment Body
for construction products



European Technical Assessment

ETA-15/0551
of 18 December 2025

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 Heads for Ground anchors

Product family to which the construction product belongs

Anchor Heads for Post-Tensioning Systems

Manufacturer

Richard Münch GmbH
Rüther-Münch-Straße 1-3
07926 Gefell
DEUTSCHLAND

Manufacturing plant

Richard Münch GmbH
Rüther-Münch-Straße 1-3
07926 Gefell
DEUTSCHLAND

This European Technical Assessment contains

6 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 160004-00-0301

This version replaces

ETA-15/0551 issued on 29 January 2016

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Specific Part

1 Technical description of the product

1.1 Definition of the construction product

The present European technical assessment applies to:

Anchor heads for temporary ground anchors according to EN 1537, observing the standards and regulations in force at the place of use. The use of EN 1537 requires the consideration of EN 1997-1 with National Annex. Ducts and filling material are executed in accordance with EN 1537 and the standards and regulations in force at the place of use.

The Anchor heads can be used with 2 to 9 strands with a nominal tensile strength 1770 N/mm² or 1860 N/mm² (Y1770S7 or Y1860S7), nominal diameter 15,3 mm (0,6" - 140 mm²) or nominal diameter 15,7 mm (0,62" - 150 mm²) which are used in normal-weight concrete.

Tensile elements consist in strands made of prestressing steel, complying with the specifications of prEN 10138-3 table 4 in terms of geometry and characteristic force or complying with the regulations in place of use.

The anchorage of the strands in anchor blocks is done by means of wedges.

The components and the system setup of the product are given in Annex A.

1.2 Strands

Only 7-wire stands shall be used in accordance with national provisions with the characteristics given in Table 1.

Table 1: Dimensions and properties of 7-wire strands

Property	Symbol	Unit	Value	
Tensile strength	R _m	MPa	1770 oder 1860	
Strand				
Nominal diameter	D	mm	15,3	15,7
Nominal cross section	A _p	mm ²	140	150
Nominal mass	M	g/m	1093	1172
Individual wires				
External wire diameter	D	mm	5,0 ± 0,04	5,2 ± 0,04
Core wire diameter	d'	mm	1,02 bis 1,04 d	1,02 bis 1,04 d

Only prestressing strands with very low relaxation shall be used.

1.3 Wedges

The strands are fixed separately with wedges considering of 2 parts (see Annex A) in the anchor blocks.

In dependence of the nominal diameter of the strand, two types of wedges are used. One type for 0,6" – strand (nominal cross section 140 mm²) and another type for 0,62" – strand (nominal cross section 150 mm²). The wedges have to be marked according to the used strand (see Annex A).

1.4 Anchor blocks

The dimension of the anchor blocks shall be in accordance with Annex A. To control the force in the anchor the anchor blocks can be added with an external thread according to the deposited technical documentation.

The anchor blocks are marked with the letter "M" and a productioncode.

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

The performances given in Clause 3 are valid only if the PT-System is used in accordance with the specifications and conditions given in Annex B.

2.1 Specifications

Specific information on installation and use is provided in Annex B.

2.2 Working Life

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the assessed Anchor Head of at least 100 years. Limitation of working life according to EN 1537 have to be fulfilled. The working life of the System depends on the corrosion protection system according to EN 1537 (observing the standards and regulations in force at the place of use). The corrosion protection is not part of this ETA. 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 Mechanical resistance and stability (BWR 1)

No.	Essential characteristic	Performance
1	Resistance to static load	The acceptance criterion to EAD 160004-00-03-01 clause 2.2.1 is fulfilled, see Annex B
2	Resistance to fatigue	The acceptance criterion to EAD 160004-00-03-01 clause 2.2.2 is fulfilled, see Annex B
3	Load transfer to structure	No performance assessed
4	Friction coefficient	No performance assessed
5	Deviation/ deflection (limits) for internal bonded and internal unbonded tendon	No performance assessed
6	Deviation/ deflection (limits) for external tendon	No performance assessed
7	Assessment of assembly	No performance assessed
8	Resistance to static load under cryogenic conditions for applications with anchorage/coupling outside the possible cryogenic zone	No performance assessed
9	Resistance to static load under cryogenic conditions for applications with anchorage/coupling inside the possible cryogenic zone	No performance assessed
10	Material properties, component performance, system performance of plastic duct	No performance assessed
11	Material properties, component performance, system performance of plastic duct to provide an encapsulated tendon	No performance assessed

12	Material properties, component performance, system performance of plastic duct to provide an electrically isolated tendon	No performance assessed
13	Corrosion protection	No performance assessed
Monostrand, sheathing base material		
14	Melt index	No performance assessed
15	Density	No performance assessed
16	Carbon black	No performance assessed
17	Tensile strenght	No performance assessed
18	Elongation	No performance assessed
19	Thermal stability	No performance assessed
Monostrand, manufactured sheathing		
20	Tensile strenght	No performance assessed
21	Elongation	No performance assessed
22	Surface of sheathing	No performance assessed
23	Environtal stress cracking	No performance assessed
24	Temperatur resistance	No performance assessed
25	Resistance to externally applied agents (mineral oil, acid, base, solvents and salt water)	No performance assessed
26	Sheathing minimum thickness	No performance assessed
Monostrand, manufactured monostrand		
27	External diameter of sheathing	No performance assessed
28	Mass of sheathing per metre	No performance assessed
29	Mass of filling material per metre	No performance assessed
30	Alteration of dropping point caused by monostrand manufacturing	No performance assessed
31	Alteration of oil separation caused by monostrand facturing	No performance assessed
32	Impact resistance	No performance assessed
33	Friction between shealting and strand	No performance assessed
34	Leak tightness	No performance assessed

3.2 Safety in case of fire (BWR 2)

No.	Essential characteristic	Performance
35	Reaction to fire	No performance assessed

3.3 Hygiene, health and the environment (BWR 3)

No.	Essential characteristic	Performance
36	Content, emission and/or release of dangerous substances	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 160004-00-0301 the applicable European legal act is: [98/456/EC].

The system to be applied is: 1+

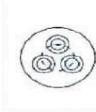
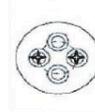
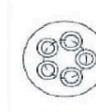
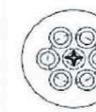
5 **Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD**

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 18. December 2025 by Deutsches Institut für Bautechnik

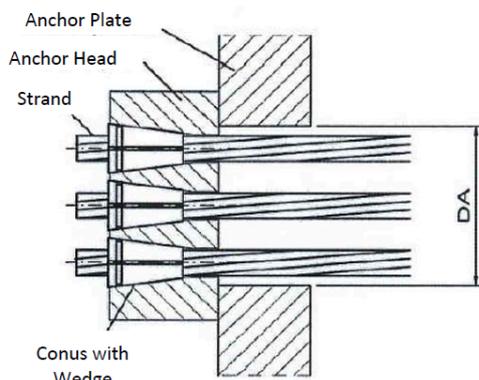
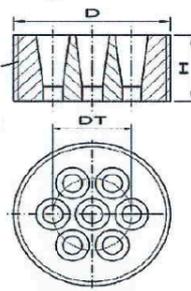
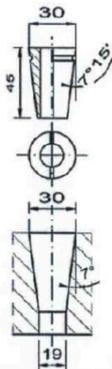
Dr.-Ing. Lars Eckfeldt
Head of Section

beglaubigt:
Knischewski

Typ of Anchor Heads		M-3	M-4	M-5	M-7	M-9
Anchor Head Configuration						
Number of Strands (complete use)		3	4	5	7	9
Number of Strands (particular use)		3	2 With † marked conical bore-holes are not in use.	5	6 With † marked conical bore-holes are not in use. The conical bore-hole could be omitted.	8
Diameter D	mm	100	120	120	140	160
Thickness H	mm	55	60	65	65	70
Pitch Circle: Diameter DT	mm	40	54	60	70	92
external Thread ¹⁾		Tr100x6	Tr120x6	Tr120x6	Tr140x6	Tr160x6
Anchorplate:						
internal Diam. DA	mm	72	82	88	98	120

¹⁾ It's possible to use the anchor heads with an external thread, so a device for a technical verification can be fixed.

²⁾ The Evidence of the external Dimensions and Material, have to be calculated in every single case.

Survey:	Anchor heads:	Wedge ³⁾ and Conus:	Strands:
	 <p>The Anchor heads are marked with an "M" and a batchnumber on the front end.</p>		<p>150 mm² (0,62") - St 1570/1770 - St 1660/1860</p> <p>for use with Wedge 0,62"</p> <hr/> <p>140 mm² (0,6") - St 1570/1770 - St 1660/1860</p> <p>for use with Wedge 0,6"</p>
<p>³⁾ The Ring Wedges are marked with an "M" and specification 0,6" e.g. 0,62" on the front end.</p>			

Anchor Heads for Ground anchors

Technical discription - Anchor heads and wedges

Annex A

1 Intended use Bewertung

1.1 General

Components correspond to the drawings and provisions given in this European Technical Assessment including the Annexes and in the technical documentation of this European Technical Assessment. The technical documentation of this European Technical Assessment is deposited with Deutsches Institut für Bautechnik.

Concerning to corrosion protection the requirements given in EN 1537:2014 have to be fulfilled, observing the standards and regulations in force at the place of use.

1.2 Anchor block

The anchor block shall be in full contact to the anchor plate. The anchor block shall be located in the centre of the hole DA in the anchor plate. The static calculation of the anchor plate shall be in accordance with the technical regulations.

Tendons can be restressed by releasing and re-using the wedges. After restressing and anchoring, wedge marks on strands resulting from first stressing shall be moved to the outside by at least 15 mm.

2 Methods of verification

2.1 Resistance to fatigue

With the fatigue test for the anchors carried out in accordance with ETAG 013, the stress range of 80 N/mm² of the strands at the maximum stress of 0,65 f_{pk} at 2×10^6 load cycles was verified.

It has to be verified that the stress range at air side of the anchorage is lower than 0,7 of this value. Load cycles higher than 2×10^6 are not verified.

2.2 Slip at the anchorages

A slip at the anchorages of 6 mm shall be taken into account in the static calculation.

Anchor Heads for Ground anchors

Technical details of realization of the system of assessment and verification of constancy of performance and CE-marking

Annex B

Material of Components

Designation	Material	Number	Standard
Anchorage			
Wedges	deposited at DIBt		
Anchor Head	deposited at DIBt		EN 10083-2:2006-10

Anchor Heads for Ground anchors

Materials and References
Used Materials

Annex C1

Codes and References

- EN 1537:2014-07 Execution of special geotechnical works – Ground anchors
- EN 1997-1:2014-03 Geotechnical design – Part 1: General rules
- EN 10204:2005-01 Metallic products - Types of inspection documents
- EAD 160004-00-0301 Post-tensioning kits for prestressing of structures
- prEN 10138-3:2009 Prestressing steels - Part 3: Strand
- EN 1997-1 Geotechnical design – Part 1: General rules

Anchor Heads for Ground anchors	Annex C2
Anlagenbeschreibung	