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Designated according to Article 29 of Regulation (EU) No 305/2011

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European Technical Assessment

ETA 25/0663 of 29/10/2025

Technical Assessment Body issuing the ETA: Technical and Test Institute for Construction Prague

Trade name of the construction product	TAB G TAB Z
Product family to which the construction product belongs	Product area code: 33 Concrete screw for use in uncracked concrete
Manufacturer	Trutek Fasteners Polska Sp. z o.o. ul. Wojska Polskiego 3 39-300 Mielec, Poland
Manufacturing plant	Production plant no.1
This European Technical Assessment contains	9 pages including 7 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 330232-01-0601 Mechanical fasteners for use in concrete

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

1. Technical description of the product

The TAB G and TAB Z is concrete screw of sizes 6, 8, 10, 12 and 14 mm, made of carbon steel for use only in uncracked concrete. TAB G is mechanically galvanized and TAB Z is zinc plated.

The anchor is screwed into a drilled cylindrical hole. The special thread of the anchor cuts an internal thread into the member while setting. The anchorage is characterised by mechanical interlock in the special thread.

The installed anchor is shown in Annex 1.

2. Specification of the intended use in accordance with the applicable EAD

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

The provisions made in this European Technical Assessment are based on an assumed working life of the anchor of 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 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)

Essential characteristic	Performance
Characteristic resistance (static and quasi-static loading)	See Annex C 1 and C 2
Displacement	See Annex C 1 and C 2

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1 according to EN 13501-1
Resistance to fire	No performance assessed

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

According to the Decision 96/582/EC of the European Commission[1], the system 1 of assessment verification of constancy of performance (see Annex V to the Regulation (EU) No 305/2011) apply.

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

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Technical and Test Institute for Construction Prague.

Issued in Prague on 29.10.2025

By

Ing. Jiří Studnička, Ph.D.
Head of the Technical Assessment Body

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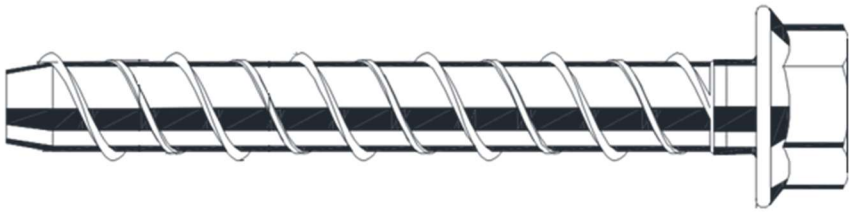
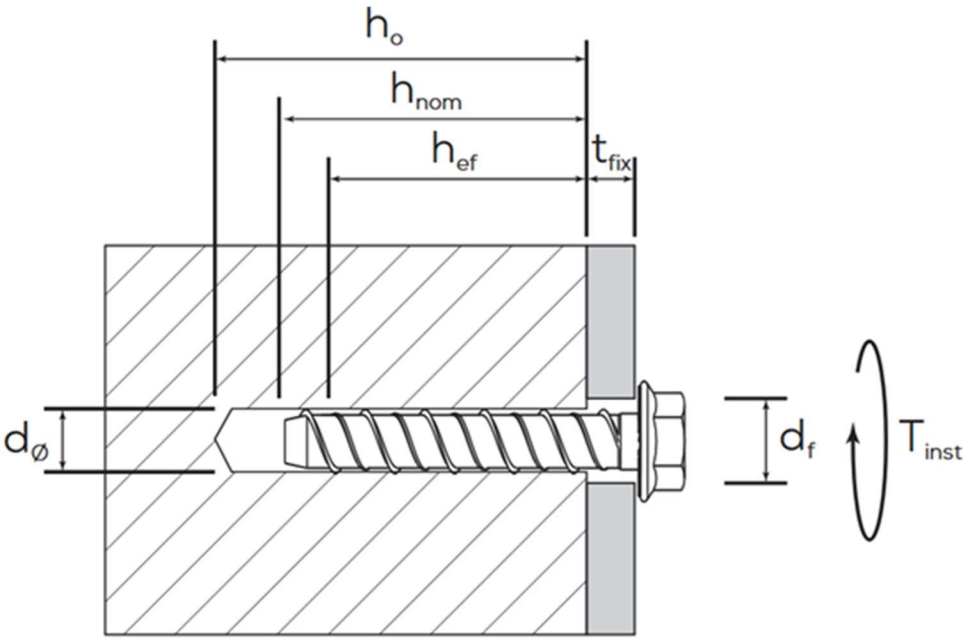
ZÚS Czech Republic
Technical Assessment Body
Subjekt pro technické posuzování

[1] Official Journal of the European Communities L 254 of 08.10.1996

TAB G, TAB Z



TAB G, TAB Z - Installed anchor



d_o = nominal drill hole diameter
h_o = minimum drill hole depth
h_{ef} = effective embedment depth
h_{min} = minimum concrete thickness
t_{fix} = thickness of the fixture

TAB G and TAB Z	**Annex A 1**
Product description Installed conditions	

TAB G, TAB Z – components

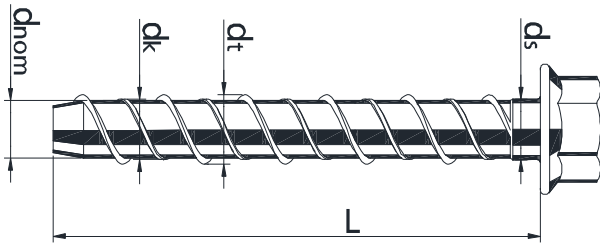
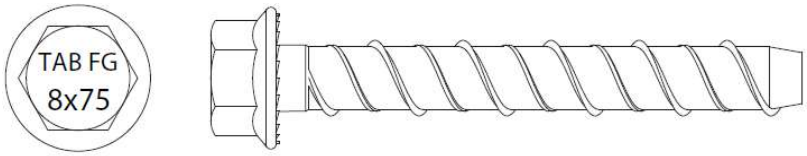
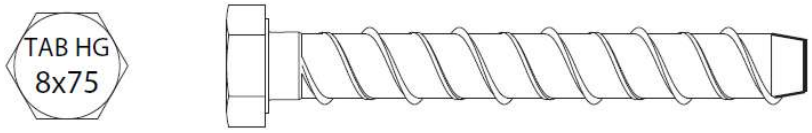
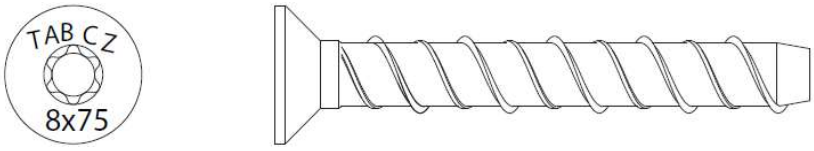
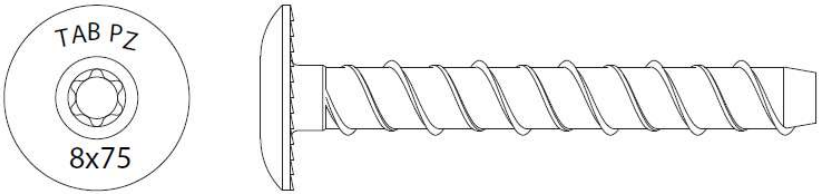


Table A1 Dimensions and materials

Anchor size			6	8	10	12	14
Length of anchor	L_{min}	mm	48	53	73	90	95
	L_{max}	mm	100	150	175	200	200
Nominal hole diameter	d_0	mm	6,00	8,00	10,00	12,00	14,00
Nominal core diameter	d_{nom}	mm	5,40	7,40	9,40	11,40	13,40
Shaft diameter	d_s	mm	5,70	7,70	9,70	11,60	13,60
Higher thread diameter	d_t	mm	7,70	9,70	11,70	13,80	15,80
Lower thread diameter	d_k	mm	6,00	8,00	10,00	12,00	14,00
Thread pitch	h_t	mm	7,50	11,00	14,00	17,00	20,00
Material			Hardened carbon steel, A_5 ≤ 8% (≤350HV)				
Coating			Zinc coating (≥ 5 µm); electroplated acc. to EN ISO 4042 or mechanically deposited acc. to EN ISO 12683				

Table A2 Marking

Head Type	Marking	
Hexagonal Flange Head	TAB FG TAB FZ	
Hexagonal Head	TAB HG TAB HZ	
Countersunk Head	TAB CG TAB CZ	
Pan Head	TAB PG TAB PZ	

TAB G and TAB Z	
Product description Dimensions and materials Marking	**Annex A 2**

Specifications of intended use

Anchorages subject to:

- Static and quasi-static load.

Base materials

- Uncracked concrete.
- Reinforced or unreinforced normal weight concrete without fibres of strength class C20/25 at minimum and C50/60 at maximum according EN 206:2013+A2:2021

Use conditions (Environmental conditions)

- Structures subject to dry internal conditions.

Design:

- The anchorages are designed in accordance with the EN 1992-4 under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings.

Installation:

- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Use of the anchor only as supplied by the manufacturer without exchanging any components of the anchor.
- Anchor installation in accordance with the manufacturer's specifications and drawings using the appropriate tools.
- Effective anchoring depth, edge distance and spacing not less than the specified values without minus tolerance.
- In case of aborted drill hole: new drilling at a minimum distance away of twice the depth of the aborted hole or smaller distance if the aborted drill hole is filled with high strength mortar and if under shear or oblique tension load it is not in the direction of load application.

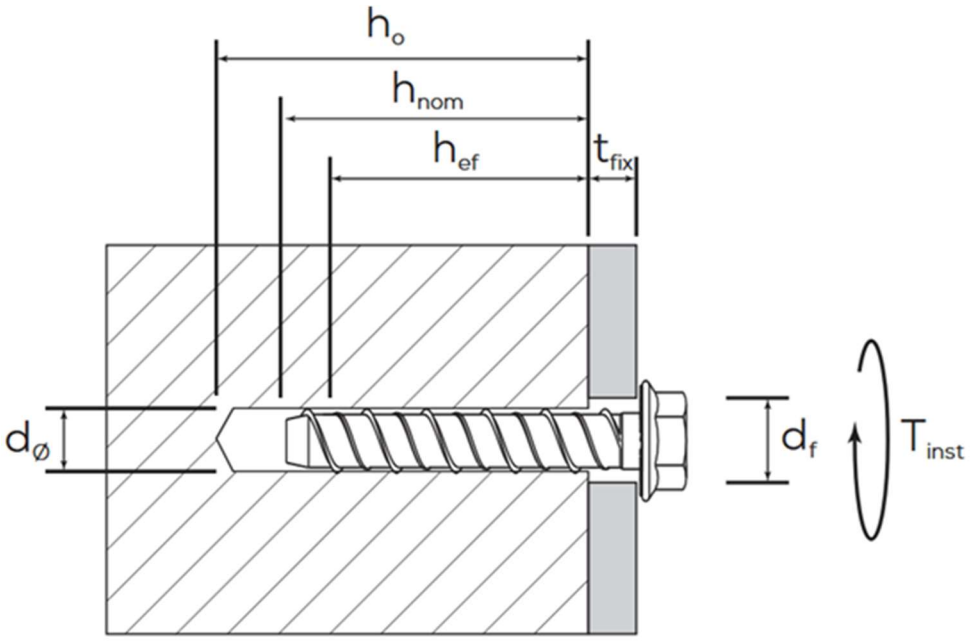
TAB G and TAB Z	**Annex B 1**
Intended use Specifications	

Table B1 Installation parameters – Reduced embedment depth

Size			6	8	10	12	14
Reduced embedment depth							
Nominal drill hole diameter	d_o	[mm]	6	8	10	12	14
Drill hole depth	h_o	[mm]	40	50	60	70	80
Overall embedment depth	h_{nom}	[mm]	30	40	50	55	60
Effective embedment depth	h_{ef}	[mm]	18	25	31	32	35
Minimum concrete thickness	h_{min}	[mm]	100	100	100	110	120
Minimum spacing	s_{min}	[mm]	50	50	60	70	80
Minimum edge distance	c_{min}	[mm]	50	50	100	100	100
Required setting torque	T_{inst}	[Nm]	10	20	30	50	60
Impact wrench max	T_{inst}	[Nm]	200	250	350	450	600

Table B2 Installation parameters – Standard embedment depth

Size			6	8	10	12	14
Nominal drill hole diameter	d_o	[mm]	6	8	10	12	14
Drill hole depth	h_o	[mm]	65	75	85	100	110
Overall embedment depth	h_{nom}	[mm]	55	65	75	90	105
Effective embedment depth	h_{ef}	[mm]	48	50	56	67	80
Minimum concrete thickness	h_{min}	[mm]	110	130	150	180	210
Minimum spacing	s_{min}	[mm]	90	90	90	90	110
Minimum edge distance	c_{min}	[mm]	90	90	160	160	170
Required setting torque	T_{inst}	[Nm]	10	20	30	50	60
Impact wrench max	T_{inst}	[Nm]	200	250	350	450	600

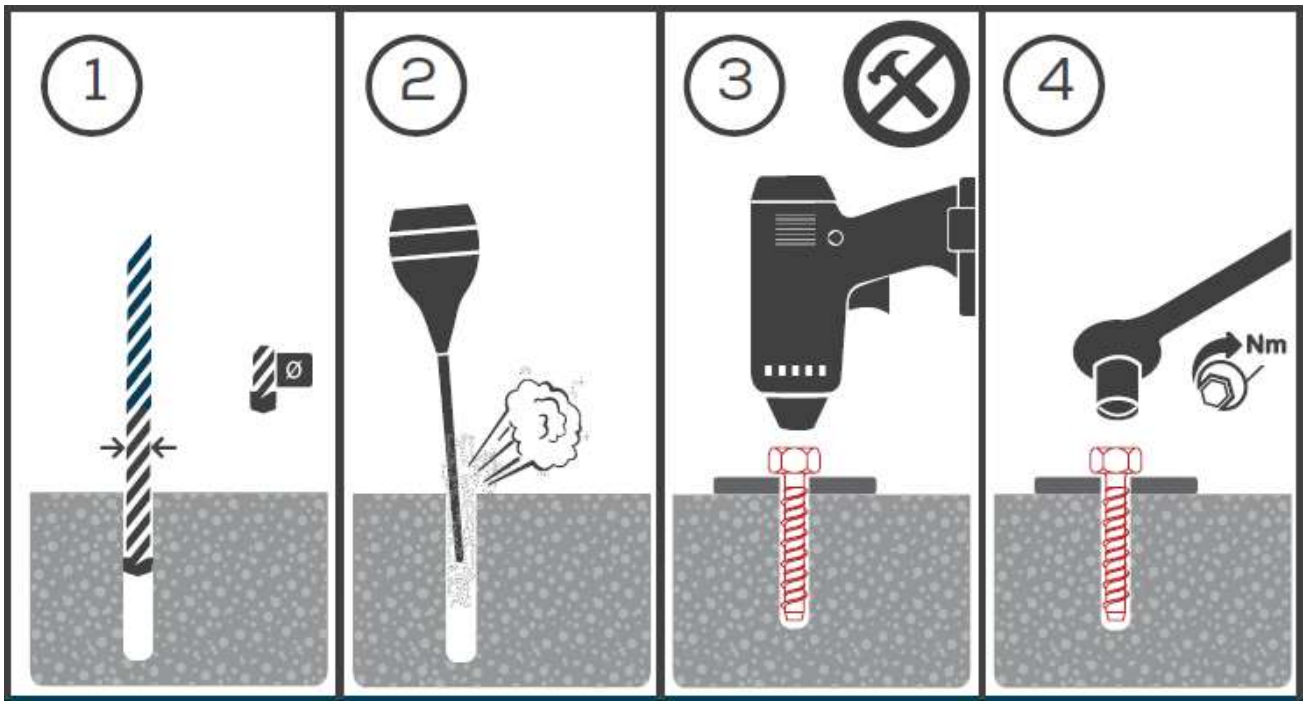


TAB G and TAB Z

Intended use
Installation parameters

Annex B 2

Installation instructions



TAB G and TAB Z	**Annex B 2**
Intended use Installation instructions	

Table C1 Characteristic resistance under tension load

Size				6		8		10		12		14	
Nominal embedment depth		h_{nom}	[mm]	30	55	40	65	50	75	55	90	60	105
Steel failure													
Characteristic resistance		$N_{Rk,s}$	[kN]	17,4		31,7		50,3		71,9		95,9	
Partial safety factor		γ_{Ms} [1)]	[-]	1,81									
Pull-out failure													
Characteristic resistance in uncracked concrete C20/25		$N_{Rk,p}$	[kN]	3,5	13,0	6,0	17,0	8,0	20,0	8,5	26,0	10,0	35,0
Robustness		γ_{inst}	[-]	1,0		1,2							
Increasing factor for uncracked concrete	C30/37	ψ_c	[-]	1,11		1,05		1,03		1,08		1,09	
	C40/50			1,20		1,09		1,05		1,15		1,16	
	C50/60			1,26		1,12		1,06		1,19		1,20	
Concrete cone and splitting failure													
Factor for concrete cone failure for uncracked concrete		$k_{ucr,N}$	[-]	11,0									
Robustness		γ_{inst}	[-]	1,2								1,0	
Effective embedment depth		h_{ef}	[mm]	18	43	25	50	31	56	32	67	35	80
Concrete cone failure	Edge distance	$c_{cr,N}$	[mm]	$1,5 \cdot h_{ef}$									
	Spacing	$s_{cr,N}$	[mm]	$3 \cdot h_{ef}$									
Splitting failure	Edge distance	$c_{cr,sp}$	[mm]	90	165	120	195	150	225	165	260	180	315
	Spacing	$s_{cr,sp}$	[mm]	180	330	240	390	300	450	330	520	360	630

[1)] in absence of other national regulations

Table C2 Displacement under tension load

Size			6		8		10		12		14	
Nominal embedment depth	h_{nom}	[mm]	30	55	40	65	50	75	55	90	60	105
Tension load in uncracked concrete	N	[kN]	1,7	6,2	2,9	8,1	3,8	9,5	4,0	12,4	4,8	16,7
Displacement	δ_{N0}	[mm]	0,6	1,3	0,7	1,3	0,7	1,4	0,7	2,0	0,7	2,2
	$\delta_{N\infty}$	[mm]	0,9	1,7	1,0	1,7	1,0	1,8	1,0	2,4	1,0	2,6

TAB G and TAB Z

Performances
Characteristic resistance under tension load
Displacement under tension load

Annex C 1

Table C3 Characteristic resistance under shear load

Size			6		8		10		12		14	
Nominal embedment depth	h_{nom}	[mm]	30	55	40	65	50	75	55	90	60	105
Steel failure without lever arm												
Characteristic resistance	$V^0_{Rk,s}$	[kN]	6,1		15,4		17,5		22,8		42,2	
Ductility factor	k_7	[-]	0,8									
Partial safety factor	γ_{Ms} 1)	[-]	1,51									
Steel failure with lever arm												
Characteristic resistance	$M^0_{Rk,s}$	[Nm]	15		37		73		125		193	
Partial safety factor	γ_{Ms} 1)	[-]	1,51									
Concrete pry-out failure												
Factor	k_8	[-]	1,0	1,0	1,0	1,0	1,0	1,0	1,0	2,0	1,0	2,0
Concrete edge failure												
Effective length of anchor	ℓ_f	[mm]	18	43	25	50	31	56	32	67	35	80
Anchor diameter	d_{nom}	[mm]	6		8		10		12		14	

1) in absence of other national regulations

Table C4 – Displacement under shear load

Size			6	8	10	12	14
Shear load in uncracked concrete	V	[kN]	3,5	8,8	10,0	13,0	24,1
Displacement	δ_{V0}	[mm]	1,3	1,4	2,0	2,0	2,0
	$\delta_{V\infty}$	[mm]	2,0	2,1	3,0	3,0	3,0

TAB G and TAB Z

Performances
Characteristic resistance under shear load
Displacement under shear load

Annex C 2