DECLARATION OF PERFORMANCE No WDB-6/20

1. Unique identification code of the product-type: **WDBLS-06; WDBLP-06; WDBLG-06; WDBGW-06**

2. Intended use/es:

Product	Intended use
Mechanical fastener for use in concrete	Fasteners for use in concrete for redundant non-structural systems, See appendix , especially Annexes B1 to B4

3. Manufacturer: **KLIMAS Wkręt-Met Sp. z o.o.**
ul. Wincentego Witosa 170/176
Kuźnica Kiedrzyńska
42-233 Mykanów
Poland

4. Authorised representative: **not applicable**

5. System/s of AVCP: **System 2+**

6. European Assessment Document:
   a) **EAD 330747-00-0601**
   b) **European Technical Assessments – ETA-20/0769 of 04/08/2026**
   c) **DiBt – DEUTSCHES INSTITUT FUR BAUTECHNIK**
   d) **Identification number of notified body– 2323**

7. Declared performance/s:

Safety in case of fire (BWR 2)

Essential characteristic	**Performance**
Reaction to fire	Anchorages satisfy requirements for Class A1
Resistance to fire	See appendix, especially Annex C3 and C4

Safety in use (BWR 4)

Essential characteristic	**Performance**
Characteristic resistance to tension load (static and quasi-static loading)	See appendix, especially Annexes C1
Characteristic resistance to shear load (static and quasi-static loading)	See appendix, especially Annex C2
Durability	See appendix, especially Annex B1

8. Appropriate Technical Documentation and/or Specific Technical Documentation: **not applicable**

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Kuźnica Kiedrzyńska
28.09.2026r.
(place and date of issue)

ADAM SZCZEPANOWSKI; Wkręt-met
Elektronicznie podpisany przez ADAM SZCZEPANOWSKI; Wkręt-met
Data: 2026.10.16 10:16:46 +02'00'

Adam Szczepanowski
(signature)

This declaration replaces the declaration from 13.11.2024.
This DoP has been prepared in different languages. In case there is a dispute on the interpretation the english version shall always prevail.
The Appendix includes voluntary and complementary information in English language exceeding the (language-neutrally specified) legal requirements.

Specific Part

1 Technical description of the product

The concrete screw WDB-06 of sizes 6 and 8 mm is an anchor made of galvanised or stainless steel. The anchor is screwed into a predrilled cylindrical drill 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 product description is given in Annex A.

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 anchor is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the anchor 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.

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
Resistance to fire	See Annex C3 and C4

3.2 Safety in use (BWR 4)

Essential characteristic	Performance
Characteristic resistance to tension load (static and quasi-static loading)	See Annex B2 and C1
Characteristic resistance to shear load (static and quasi-static loading)	See Annex C2
Durability	See Annex B1

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

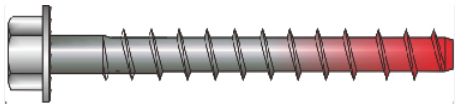
In accordance with European Assessment Document EAD No. 330747-00-0601, the applicable European legal act is: [97/161/EC].

The system to be applied is: 2+

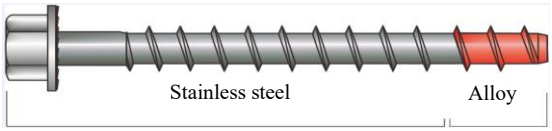
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document

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

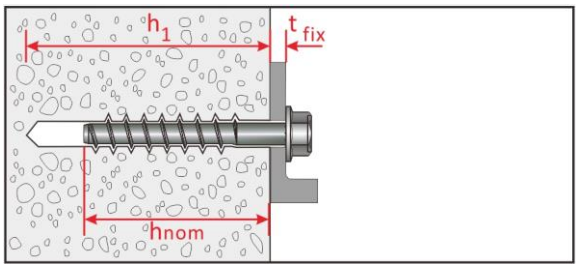
Product in the installed condition



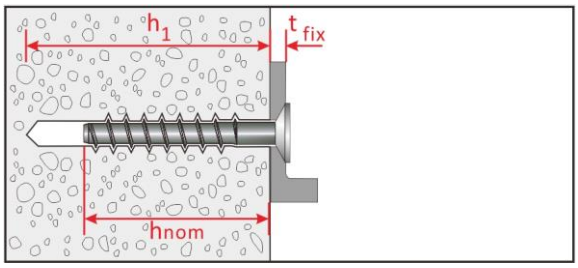
Steel 10B21



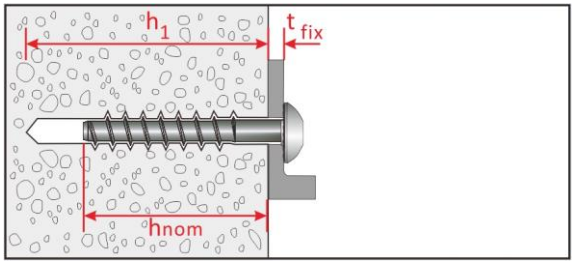
Stainless steel A2 /A4



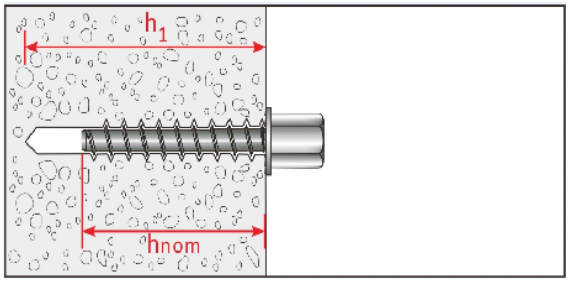
Hexagon Head : WDB-LS, WDB -LSF
10B21 (WDB6)
A4 (WDB6, WDB8)
A2 (WDB8)



Countersunk Head : WDB-LP
10B21 (WDB6)
A4 (WDB6)



Pan Head : WDB-LG
10B21 (WDB6)
A4 (WDB6)



Internal Thread : WDB-GW
10B21 (WDB6-M8, WDB6-M10,
WDB6-M8/M10

WDB-06	**Annex A1**
Product description Installed condition	

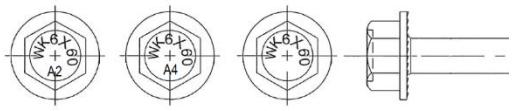
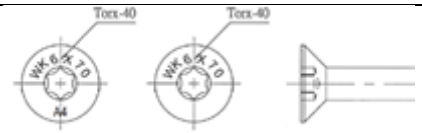
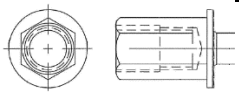
Table A1: Materials and screw types

Name	Material

Screw anchor

Head marking	Material
WDB	Steel 10B21 acc. To SAE-J403 zinc coating: electro plated (> 5 µm) or mechanical plated (> 30 µm)
WDB A4 WDB A2	Stainless steel 1.4401, 1.4404 (both A4) Stainless steel 1.4301

Anchor size / head types			WDB 6			WDB 8	
			-LS -LSF -LP -LG -GW	-LS -LSF	-LP -LG	-LS	-LS
material			10B21	A4		A2	A4
Nominal value of the characteristic yield strength	f_{yk}	N/mm²	780	640	432	640	640
Nominal value of the characteristic tensile strength	f_{uk}	N/mm²	870	800	540	800	800
Elongation at rupture	As	[%]	≤ 8				

	Hexagon washer head 1) WDB-LS size 6 (10B21 steel) 2) WDB-LS A4 size 6,8 (stainless A4) 3) WDB-LS A2 size 8 (stainless A2)
	Hexagon washer head 3) WDB-LSF size 6 (10B21 steel) 4) WDB-LSF A4 size 6 (stainless A4)
	Countersunk head 5) WDB-LP size 6 (10B21 steel) 6) WDB-LP A4 size 6 (stainless A4)
	Pan head 7) WDB-LG size 6 (10B21 steel) 8) WDB-LG A4 size 6 (stainless A4)
	Internal thread head (10B21 steel) 9) WDB-GW size 6 with internal thread M8 or M10 10) WDB-GW size 6 with internal thread M8 and M10

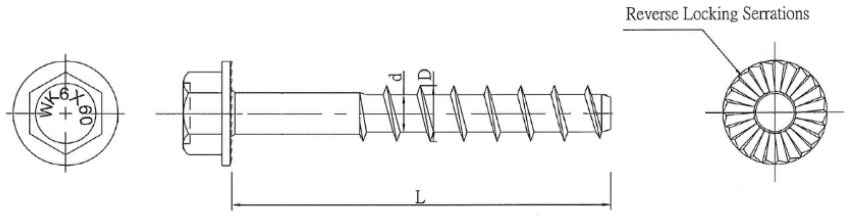
WDB-06	**Annex A2**
Product description Materials and screw types	

Table A2: Dimensions and markings

Anchor size			**WDB 6**					**WDB 8**	
Head type			**LS, LSF, LG**	**LP**	**LS, LSF, LG**	**LP**	**GW**	**LS**	**LS**
Material			10B21		A4		10B21	A2	A4
Nominal Embedment depth	h_{nom}	[mm]	55		70		55	52	52
Length of anchor	min L	[mm]	60	65	75	80	57	55	55
	max L	[mm]	140				57	150	
Thread diameter	D	[mm]	7,5					9,9	
Shaft diameter	d	[mm]	5,5					7,4	
Thread pitch	p	[mm]	4,45					5,8	

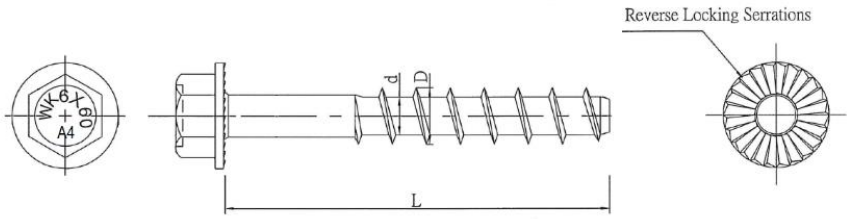
Steel 10B21

Head marking:
Identifying mark of producer: WK
Nominal size: e.g. 6mm,
Length L:e.g. 60mm



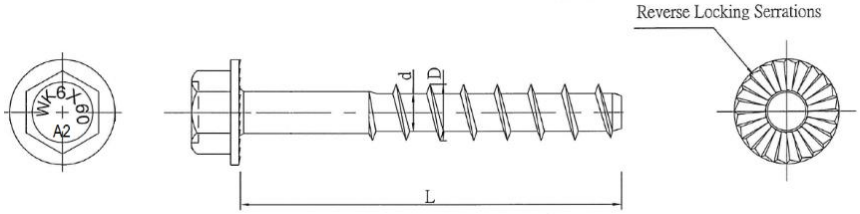
Stainless Steel A4

Head marking:
Identifying mark of producer: WK
Nominal size: e.g. 6mm,
Length L:e.g.60mm
Material: A4



Stainless Steel A2

Head marking:
Identifying mark of producer: WK
Nominal size: e.g. 6mm,
Length L:e.g. 60mm
Material: A2



WDB-06	**Annex A3**
Product description Dimensions and markings	

Specifications of Intended use

Anchorages subject to:

Static and quasi-static loads

Only for redundant non-structural systems (multiple use) according to EN 1992-4:2018

Fire exposure

Base materials:

Compacted reinforced or unreinforced normal weight concrete without fibres according to EN 206:2013

Strength classes C20/25 to C50/60 according to EN 206:2013

Cracked and uncracked concrete

Use conditions (Environmental conditions)

Anchorages subject to dry internal conditions: all screw types

For all other conditions corresponding to corrosion resistance classes CRC according to EN 1993-1-4:2006 + A1:2015:

- Stainless steel according to Annex A2, screw with marking A2: CRC II
- Stainless steel according to Annex A2, screw with marking A4: CRC III

Design:

Anchorages are designed 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 (e. g. position of the anchor relative to reinforcement or to supports, etc.).

Anchorages under static or quasi-static actions are designed for design method A in accordance with EN 1992-4:2018 and EOTA Technical Report TR 055, Edition February 2018

Installation:

Hammer drilling only: all sizes and all embedment depths.

Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.

In case of aborted hole: new drilling at a minimum distance away of twice the depth of the aborted hole or smaller distance if the aborted hole is filled with high strength mortar and if under shear or oblique tension load it is not the direction of the load application.

After installation further turning of the anchor shall not be possible.

The head of the anchor must be fully engaged on the fixture and show no signs of damage.

WDB-06	**Annex B1**
Intended use Specifications	

Table B1: Installation parameters

Anchor size			**WDB 6**							**WDB 8**	
Head type			**LS, LSF**	**LG**	**GW**	**LP**	**LS, LSF**	**LG**	**LP**	**LS**	**LS**
Material			**10B21**				**A4**			**A2**	**A4**
Nominal diameter of drill bit	d_0	[mm]	6							8	
Nominal embedment depth	h_{nom}	[mm]	55				70			52	
Min. hole depth in concrete	$h_1 \geq$	[mm]	64				80			65	
Effective anchorage depth	h_{ef}	[mm]	42,6				43,1			22,2	
Clearance hole	d_f	[mm]	9							11	
Thickness of fixture	t_{fix}	[mm]	5-85		-	10-85	5-70		10-70	3-98	
Installation torque[1)]	T_{inst}	[Nm]	20	-[1)]	20	-[1)]	-[1)]		-[1)]	31	
Wrench size	WS	[mm]	10	-	12,7	-	-		-	13	
Torx size	TX	-	-	40	-	40	-	40	40	-	
Max. power output, machine setting	$T_{max} \leq$	[Nm]	80				120	80	80	185	

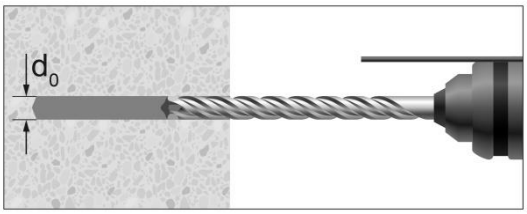
1) Screws can only be set using an impact screw driver.

Table B2: Minimum thickness of member, minimum spacing and edge distance

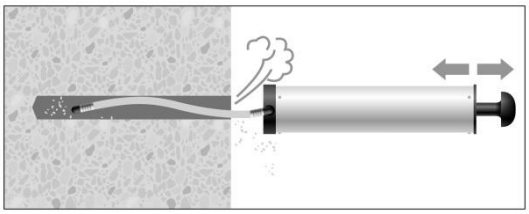
Anchor size			**WDB 6**		**WDB 8**	
Head type			**LS, LSF, LP, LG, GW**	**LS, LSF, LP, LG**	**LS**	**LS**
Material			**10B21**	**A4**	**A2**	**A4**
Minimum member thickness	h_{min}	[mm]	100	110	100	
Minimum edge distance	c_{min}	[mm]	40	40	55	
Minimum spacing	s_{min}	[mm]	40	40	55	

WDB-06	
Intended use Installation parameters	**Annex B2**

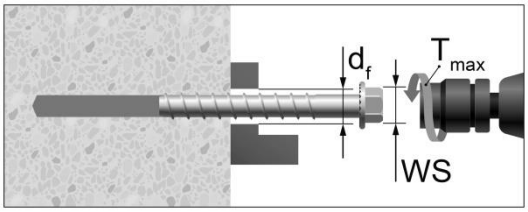
Installation instruction



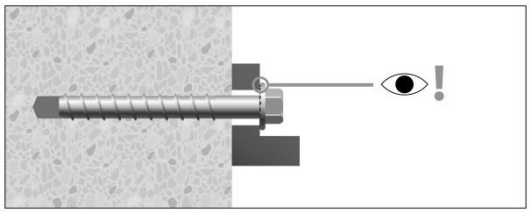
Drill the hole to the depth h_1.



Clean the hole.



Screw in the anchor by using a torque wrench or an impact screw driver.
In case of using torque wrench: T_{inst} acc. to Table B1.
In case of using impact screw driver: T_{max} acc. to Table B1.
WS= Wrench Size



Control of complete setting, full contact of screw head with fixture part.

WDB-06	**Annex B3**
Intended Use Installation Instruction	

Table C1: Characteristic resistance under tension loading, design method A

Anchor size			**WDB 6**						**WDB 8**	
Head type			**LS,LSF,GW**	**LP**	**LG**	**LS,LSF**	**LP**	**LG**	**LS**	**LS**
Material			**10B21**			**A4**			**A2**	**A4**
Steel failure										
Characteristic resistance	$N_{Rk,s}$	[kN]	19,7			18,1	12,2	12,2	33,0	33,0
Partial factor	$\gamma_{Ms,N}$	[-]	1,4			1,5			1,5	
Pull-out failure										
Characteristic resistance in cracked and uncracked concrete C20/25	$N_{Rk,p}$	[kN]	5,0	5,0	4,0	5,0	3,5	2,5	2,0	
Increasing factors in cracked or uncracked concrete for $N_{Rk,p} = N_{Rk,p\,(C20/25)} \cdot \psi_c$	ψ_c	C30/37	1,22						1,20	
		C40/50	1,41						1,37	
		C50/60	1,58						1,51	
Installation factor	γ_{inst}	[-]	1,0							
Concrete cone failure										
Effective anchorage depth	h_{ef}	[mm]	42,6			43,1			22,2	
Characteristic edge distance	$c_{cr,N}$	[mm]	$1{,}5h_{ef}$							
Characteristic spacing	$s_{cr,N}$	[mm]	$3{,}0h_{ef}$							
Installation factor	γ_{inst}	[-]	1,0							
Factor for cracked concrete	$k_{cr,N}$	[-]	7,7							
Factor for uncracked	$k_{ucr,N}$	[-]	11,0							
Splitting failure										
Characteristic resistance	$N^0_{Rk,sp}$	[kN]	min ($N_{Rk,p}$; $N^0_{Rk,c}$)							
Characteristic edge distance for splitting	$c_{cr,sp}$	[mm]	$1{,}5h_{ef}$			$1{,}5h_{ef}$			$2{,}5h_{ef}$	
Characteristic anchor spacing for splitting	$s_{cr,sp}$	[mm]	$3{,}0h_{ef}$			$3{,}0h_{ef}$			$5{,}0h_{ef}$	
Installation factor	γ_{inst}	[-]	1,0							

Table C2: Characteristic resistance under shear loading, design method A

Anchor size			**WDB 6**						**WDB 8**	
Head type			**LS,LSF,GW**	**LP**	**LG**	**LS,LSF**	**LP**	**LG**	**LS**	**LS**
Material			**10B21**			**A4**			**A2**	**A4**
Setting depth	h_{nom}	[mm]	55			70			52	
Effective embedment depth	h_{ef}	[mm]	42,6			43,1			22,2	
Steel failure without lever arm										
Characteristic resistance	$V_{Rk,s}$	[kN]	7,9			9,0	6,1	6,1	13,2	
Ductility factor	k_7	[-]	0,8							
Partial factor	$\gamma_{Ms,V}$	[-]	1,5			1,25			1,25	
Steel failure with lever arm										
Characteristic resistance	$M^0_{Rk,s}$	[Nm]	15,9			14,6	9,9	9,9	35,9	
Partial factor	$\gamma_{Ms,V}$	[-]	1,5			1,25			1,25	
Concrete pryout failure										
k-factor	k_8	[-]	1,0			1,0			1,0	
Concrete edge failure										
Effective length of anchor in shear loading	ℓ_f	[mm]	42,6			43,1			22,2	
Effective diameter of anchor	d_{nom}	[mm]	5,37						7,4	

Table C3: Characteristic values (tension) for resistance to fire

Anchor size				**WDB 6**						**WDB 8**	
Head type				**LS,LSF,GW**	**LP**	**LG**	**LS,LSF**	**LP**	**LG**	**LS**	**LS**
Material				**10B21**			**A4**			**A2**	**A4**
Steel failure											
Characteristic resistance	R30	$N_{Rk,s,fi}$	[kN]	0,23			0,23			0,8	
	R60	$N_{Rk,s,fi}$	[kN]	0,20			0,20			0,7	
	R90	$N_{Rk,s,fi}$	[kN]	0,16			0,16			0,5	
	R120	$N_{Rk,s,fi}$	[kN]	0,11			0,11			0,4	
Pull-out failure											
Characteristic resistance	R30	$N_{Rk,p,fi}$	[kN]	1,3		1,0	1,3		0,9	0,6	0,5
	R60										
	R90										
	R120	$N_{Rk,p,fi}$	[kN]	1,0		0,8	1,0		0,7	0,5	0,4
Concrete cone failure											
Characteristic resistance	R30	$N^0_{Rk,c,fi}$	[kN]	2,0			2,1			0,4	
	R60										
	R90										
	R120	$N^0_{Rk,c,fi}$	[kN]	1,6			1,7			0,3	
Effective embedment depth		h_{ef}	[mm]	42,6			43,1			22,2	
Minimum member thickness		h_{min}	[mm]	100			110			100	
Spacing		$s_{cr,N,fi}$	[mm]	$4h_{ef}$							
		s_{min}	[mm]	40						55	
Edge distance		$c_{cr,N,fi}$	[mm]	$2h_{ef}$							
Fire exposure from one side only		c_{min}	[mm]	40						55	
Fire exposure from more than one side				≥ 300 mm							

Table C4: Characteristic values (shear) for resistance to fire

Anchor size				**WDB 6**						**WDB 8**	
Head type				**LS, LSF, GW**	**LP**	**LG**	**LS, LSF**	**LP**	**LG**	**LS**	**LS**
Material				**10B21**			**A4**			**A2**	**A4**
Steel failure without level arm											
Characteristic resistance	R30	$V_{Rk,s,fi}$	[kN]	0,23			0,23			0,8	
	R60	$V_{Rk,s,fi}$	[kN]	0,20			0,20			0,7	
	R90	$V_{Rk,s,fi}$	[kN]	0,16			0,16			0,5	
	R120	$V_{Rk,s,fi}$	[kN]	0,11			0,11			0,4	
Steel failure with level arm											
Characteristic resistance	R30	$M^0_{Rk,s,fi}$	[Nm]	0,18			0,18			0,9	
	R60	$M^0_{Rk,s,fi}$	[Nm]	0,16			0,16			0,7	
	R90	$M^0_{Rk,s,fi}$	[Nm]	0,13			0,13			0,5	
	R120	$M^0_{Rk,s,fi}$	[Nm]	0,09			0,09			0,4	
Pry-out failure											
Characteristic resistance	R30	$V_{Rk,cp,fi}$	[kN]	2,0			2,1			0,4	
	R60										
	R90										
	R120	$V_{Rk,cp,fi}$	[kN]	1,6			1,7			0,3	
Concrete edge failure											
Characteristic resistance	≤ R90	$V_{Rk,c,fi}$	[kN]	$V^0_{Rk,c,fi} = 0,25 * V^0_{Rk,c}$							
	R120	$V_{Rk,c,fi}$	[kN]	$V^0_{Rk,c,fi} = 0,20 * V^0_{Rk,c}$							