

Concrete screw BSZ2 A4

Stainless steel A4

NEW



Concrete screw BSZ2-SU A4

NEW



Concrete screw BSZ2-SK A4

NEW



Concrete screw BSZ2-LK A4

NEW

With improved tip and thread geometry

Range of loading:
Range of concrete quality:

0,7 kN–19,4 kN
C20/25–C50/60

Description

The new concrete screw BSZ2 A4 with European technical approval option 1 was redesigned in order to achieve better safety features and comfortable installation. The new cutting grooves on the tip of the screw in conjunction with the optimised thread geometry allow for easier insertion and easier screwing into the concrete. Due to the under cut similar shape it is possible to have very low spacing and minimum edge distance.

The approved adjustment enables subsequent alignment to compensate for unevenness. Installation with an impact screwdriver means that you do not need to use a torque wrench. It is quick, reliable and reduces assembly errors. The BSZ A4 concrete screws are available with connection thread and with a range of different head shapes for a wide variety of applications.

Advantages

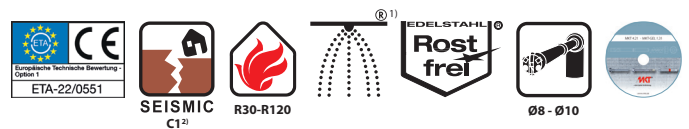
- European Technical Assessment for anchoring in cracked and uncracked concrete (Option 1)
- With up to 3 embedment depths, it is versatile for high loads or low levels of drilling and installation effort
- Easy to apply due to conical shape and cutting grooves on the tip of the BSZ2 A4
- Easy to screw in due to optimised tip and thread geometry
- Approved for use under seismic conditions of category C1²⁾
- Approved for use under fire exposure (R30-R120)
- Small drill hole diameter, small edge and axial gap
- Rapid push-through installation with an impact screwdriver without torque regulation
- No curing times, can be loaded immediately
- Adjustable to compensate for unevenness
- Can be fully removed
- Wide range of possible applications through numerous variants
- Visually appealing through different head shapes

¹⁾Only for use in solid concrete

²⁾For head designs, diameters and screw-in depths, see product tables and ETA-22/0551



Mechanical Heavy Duty Anchors

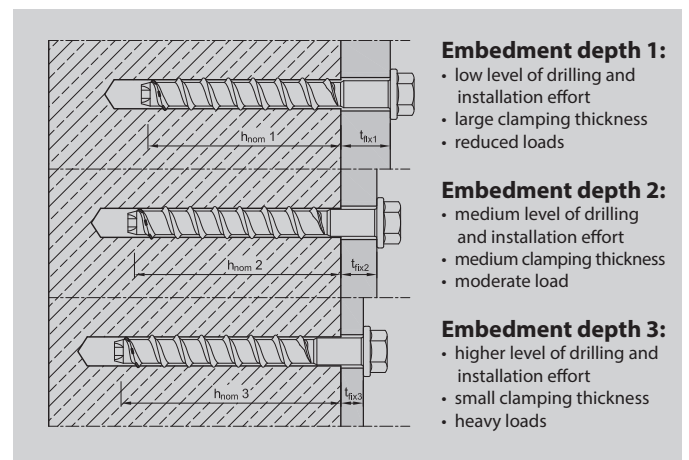


– Without assessment, can also be used in compression-resistant natural stone, various solid bricks and green concrete

Applications

To anchor moderate to heavy loads outside and inside in cracked and uncracked concrete: Railings and handrails, steel beans, wooden beams, brackets, pipeline and cable routes, etc.

Highly versatile for up to three different embedment depths



Concrete screw BSZ2-SU A4



- Sechskantkopf mit angepresster Scheibe
- Stainless steel A4
- Easy to screw in due to optimised tip and thread geometry
- Through smaller drive and pressed on washer also suitable for areas where access is difficult and elongated holes

NEW

Description	Ref. No.	Embedment depth h 1				Embedment depth h 2				Embedment depth h 3				Anchor Length L mm	Head-Ø mm	Drive	Pkg. content pcs.	Weight per pkg. kg
		Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 1} mm	Seismic C1	Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 2} mm	Seismic C1	Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 3} mm	Seismic C1					
BSZ2-SU 6x50 A4	59121101	15	6x40	35	-	5	6x50	45	✓	-	-	-	-	50	17	SW 13	100	1,79
BSZ2-SU 6x60 A4	59121601	25	6x40	35	-	15	6x50	45	✓	5	6x60	55	✓	60	17	SW 13	100	2,17
BSZ2-SU 8x70 A4	59132101	25	8x55	45	✓	15	8x65	55	-	5	8x75	65	✓	70	16	SW 13	50	2,05
BSZ2-SU 8x80 A4	59132601	35	8x55	45	✓	25	8x65	55	-	15	8x75	65	✓	80	16	SW 13	50	2,20
BSZ2-SU 10x90 A4	59142601	35	10x65	55	✓	15	10x85	75	-	5	10x95	85	✓	90	20	SW 15	50	3,82
BSZ2-SU 10x100 A4	59143101	45	10x65	55	✓	25	10x85	75	-	15	10x95	85	✓	100	20	SW 15	50	4,13
BSZ2-SU 10x120 A4	59144101	65	10x65	55	✓	45	10x85	75	-	35	10x95	85	✓	120	20	SW 15	50	4,73

Concrete screw BSZ2-SK A4



- Countersunk head with Torx drive
- Stainless steel A4
- Easy to screw in due to optimised tip and thread geometry
- For installations being flush with the fixture

NEW

Description	Ref. No.	Embedment depth h 1				Embedment depth h 2				Embedment depth h 3				Anchor Length L mm	Head-Ø mm	Drive	Pkg. content pcs.	Weight per pkg. kg
		Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 1} mm	Seismic C1	Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 2} mm	Seismic C1	Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 3} mm	Seismic C1					
BSZ2-SK 6x50 A4	59321601	15	6x40	35	-	5	6x50	45	✓	-	-	-	-	50	13	T 30	100	1,30
BSZ2-SK 6x65 A4	59322601	30	6x40	35	-	20	6x50	45	✓	10	6x60	55	✓	65	13	T 30	100	1,57
BSZ2-SK 6x85 A4	59323601	50	6x40	35	-	40	6x50	45	✓	30	6x60	55	✓	85	13	T 30	100	2,05
BSZ2-SK 6x105 A4	59324601	70	6x40	35	-	60	6x50	45	✓	50	6x60	55	✓	105	13	T 30	100	2,35
BSZ2-SK 8x80 A4	59332601	35	8x55	45	✓	25	8x65	55	-	15	8x75	65	✓	80	19,5	T 40	50	1,95
BSZ2-SK 10x90 A4	59342601	35	10x65	55	✓	15	10x85	75	-	5	10x95	85	✓	90	21,5	T 50	50	3,10
BSZ2-SK 10x120 A4	59344101	65	10x65	55	✓	45	10x85	75	-	35	10x95	85	✓	120	21,5	T 50	50	4,17

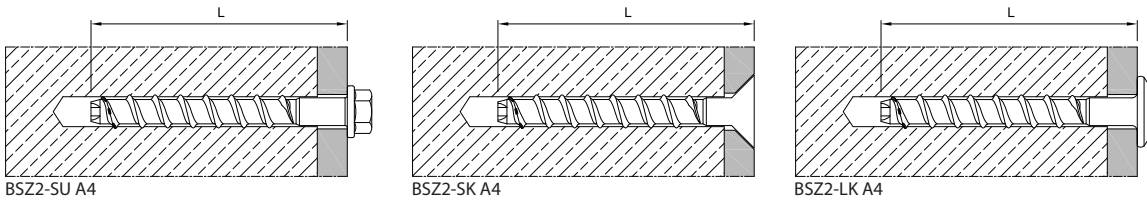
Concrete screw BSZ2-LK A4



- Pan head with Torx drive
- Stainless steel A4
- Easy to screw in due to optimised tip and thread geometry
- For a flat fixing which has a high-quality look

NEW

Description	Ref. No.	Embedment depth h 1				Embedment depth h 2				Embedment depth h 3				Anchor Length L mm	Head-Ø mm	Drive	Pkg. content pcs.	Weight per pkg. kg
		Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 1} mm	Seismic C1	Fixture thickness t _{fix} mm	Drill hole Ø x depth mm	Embedment depth h _{nom 2} mm	Seismic C1	Klemmstärke t _{fix 3} mm	Fixture thickness t _{fix} mm	Embedment depth h _{nom 3} mm	Seismic C1					
BSZ2-LK 6x50 A4	59421601	15	6x40	35	-	5	6x50	45	✓	-	-	-	-	50	15	T 30	100	1,45
BSZ2-LK 6x60 A4	59422101	25	6x40	35	-	15	6x50	45	✓	5	6x60	55	✓	60	15	T 30	100	1,67
BSZ2-LK 6x80 A4	59423101	45	6x40	35	-	35	6x50	45	✓	25	6x60	55	✓	80	15	T 30	100	2,08
BSZ2-LK 6x100 A4	59424101	65	6x40	35	-	55	6x50	45	✓	45	6x60	55	✓	100	15	T 30	100	2,57

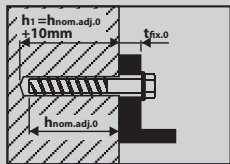


Recommended impact screwdriver

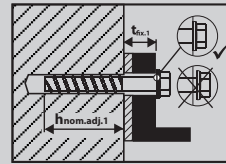
Description of concrete screw	recommended impact screwdriver
BSZ2 A4 Ø6	<ul style="list-style-type: none"> • Milwaukee C 12 IW (Square drive, Battery operation, max. torque 136 Nm) • Milwaukee C 12ID (Multi-toothed drive, Battery operation, max. torque 96 Nm) • DeWalt DEDC 840 KB (Square drive, Battery operation, max. torque 160 Nm) • Würth ASS 14 (1/4 inch drive, Battery operation, max. torque 150 Nm)
BSZ2 A4 Ø8 BSZ2 A4 Ø10	<ul style="list-style-type: none"> • Milwaukee C 18 IW (Square drive, Battery operation, max. torque 250 Nm) • Bosch GDS 18E (Square drive, Mains operation, max. torque 250 Nm) • Makita 6905H (Square drive, Mains operation, max. torque 300 Nm) • Würth ASS 18 (1/2 inch drive, Battery operation, max. torque 180 Nm) • Würth ESS (1/2 inch drive, Mains operation, max. torque 250 Nm)

Mechanical Heavy Duty Anchors

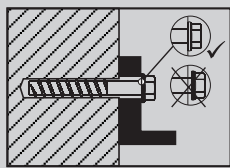
Notes for subsequent adjustment



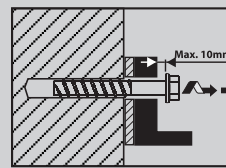
1. In order to be able to carry out subsequent adjustment, the concrete screw must be screwed at least 10 mm deeper than the nominal embedding depth. This must be taken into account at the point when you are selecting the length of the concrete screw.



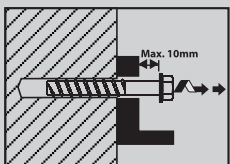
4. After fitting the lining, then re-mount the fixture in accordance with the installation instructions.



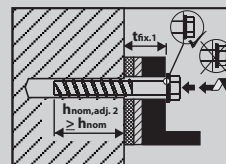
2. After successful installation, if relining is necessary for compensation, this is possible with the concrete screw BSZ2 A4.



5. If the first lining is not sufficient then it is possible to repeat the adjustment. To do this, once again, the concrete screw must be turned back by a maximum of 10 mm so that another lining can be fitted.



3. To do this, when the adjustment is carried out for the first time, the concrete screw must be turned back by a maximum of 10 mm.



6. After the second lining, then re-mount the fixture in accordance with the installation instructions..

- The anchor can only be adjusted twice. When doing this the anchor can only be screwed back to a maximum of 10 mm.
- In total the lining which is a result of the adjustment must be a maximum of 10 mm.
- The required seating depth h_{nom} must be maintained after adjustment ($h_{nom} = L - t_{fix}$).



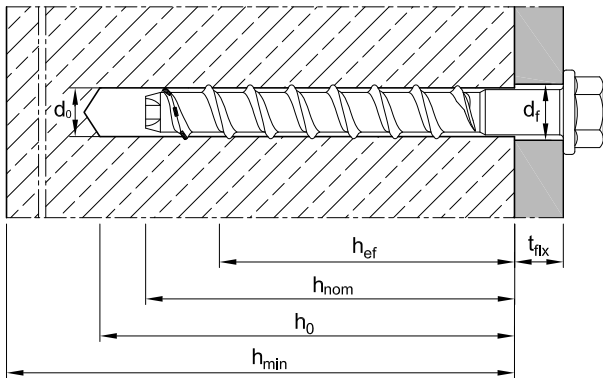
Extract from Permissible Service Conditions of European Technical Assessment ETA-22/0551 for use in cracked and uncracked concrete (Option 1)

Approved loads according to EN 1992-4 for single anchors without the influence of spacing and edge distances. The total safety factor (γ_M und γ_r) is included. Load capacities under fire exposure see page 192.

Loads and performance data		Concrete screw size		BSZ2 6 A4			BSZ2 8 A4			BSZ2 10 A4		
Nominal embedment depth 1	$h_{nom 1}$	[mm]	35 ¹⁾	-	-	-	45	-	-	55	-	-
Nominal embedment depth 2	$h_{nom 2}$	[mm]	-	45	-	-	-	55	-	-	75	-
Nominal embedment depth 3	$h_{nom 3}$	[mm]	-	-	55	-	-	-	65	-	-	85
cracked concrete												
Approved loads, tension	C20/25	appr. N	[kN]	1,2	0,7	1,4	1,4	2,6	3,8	2,9	6,2	8,1
	C25/30	appr. N	[kN]	1,3	0,8	1,6	1,6	2,9	4,3	3,2	6,8	8,8
	C30/37	appr. N	[kN]	1,4	0,8	1,7	1,7	3,2	4,7	3,5	7,3	9,5
	C40/50	appr. N	[kN]	1,6	0,9	2,0	2,0	3,7	5,4	4,0	8,1	10,6
	C50/60	appr. N	[kN]	1,7	1,0	2,3	2,3	4,1	6,0	4,5	8,8	11,6
uncracked concrete												
Approved loads, tension	C20/25	appr. N	[kN]	1,7	1,9	4,0	4,2	5,7	8,0	5,2	9,0	11,9
	C25/30	appr. N	[kN]	1,8	2,1	4,4	4,7	6,4	8,7	5,9	10,1	13,3
	C30/37	appr. N	[kN]	1,9	2,3	4,7	5,2	7,0	9,1	6,4	11,1	14,6
	C40/50	appr. N	[kN]	2,1	2,7	5,3	6,0	8,1	10,0	7,4	12,8	16,8
	C50/60	appr. N	[kN]	2,3	3,0	5,7	6,7	9,0	10,7	8,3	14,3	18,8
cracked / uncracked concrete												
Approved loads, shear	C20/25	appr. V	[kN]	2,0 / 2,9	4,0	4,0	6,2 / 7,7	7,7	9,7	10,4 / 12,9	17,6 / 19,4	19,4
	\geq C25/30	appr. V	[kN]	2,3 / 3,3	4,0	4,0	7,0 / 7,7	7,7	9,7	11,6 / 12,9	19,4	19,4
Approved bending moments		appr. M	[Nm]	6,2	6,2	6,2	14,9	14,9	14,9	32,0	32,0	32,0
Spacing and edge distance												
Effective anchorage depth	h_{ef}	[mm]	25	34	42	32	41	49	40	57	65	
Characteristic spacing	$s_{cr, N}$	[mm]	75	102	126	96	123	147	120	171	195	
Characteristic edge distance	$c_{cr, N}$	[mm]	37,5	51	63	48	61,5	73,5	60	85,5	97,5	
Minimum thickness of concrete slab	h_{min}	[mm]	80	80	100	80	100	120	100	130	130	
Minimum spacing	s_{min}	[mm]	35	35	35	35	35	35	40	40	40	
Minimum edge distance	c_{min}	[mm]	35	35	35	35	35	35	40	40	40	
Installation parameters												
Drill hole diameter	d_o	[mm]	6	6	6	8	8	8	10	10	10	
Diameter of clearance hole in the fixture	$d_f \leq$	[mm]	8	8	8	12	12	12	14	14	14	
Depth of drill hole	$h_o \geq$	[mm]	40	50	60	55	65	75	65	85	95	
Tangential impact screwdriver ¹⁾	$T_{imp, max}$	[Nm]	160	160	160	300	300	300	450	450	450	

¹⁾Only for statically indeterminate non-structural systems (multiple use) according to EN 1992-4:2018, in dry internal conditions.

²⁾It is possible to fit with a tangential screwdriver with maximum output of $T_{imp, max}$ in accordance with the manufacturer's specifications



Installation

