Concrete screw BSZ

Steel zinc plated / Steel zink flake coated

NEW

Concrete screw BSZ-SU

Concrete screw BSZ-SUH

Concrete screw BSZ-SU ZL

Concrete screw BSZ-SK

Concrete screw BSZ-LK

Concrete screw BSZ-GLK

Concrete screw BSZ-M

Concrete screw BSZ-BS

Range of loading: **0,48 kN–32,7 kN**
Range of concrete quality: **C20/25–C50/60**

Description

Option 1 approved concrete screw BSZ cut a positive thread in the concrete when being screwed in and enable attachment to be made close to the edge through the expansion-free operating principle (=undercut). The approved adjustment enables subsequent alignment to compensate for unevenness. The concrete screw BSZ is also ideal for temporary fixings since it is fully removable. 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 concrete screw BSZs are available with connection thread and with a range of different head shapes for a wide variety of applications.

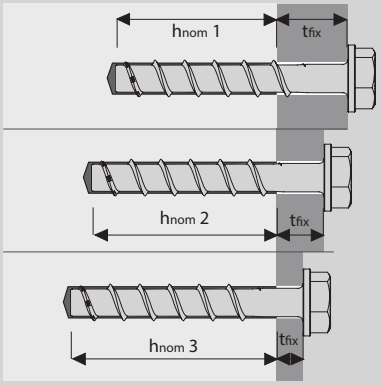
Advantages

- European Technical Assessment for anchoring in cracked and uncracked concrete (Option 1) for concrete screws in sizes 6, 8, 10, 12 and 14
- With up to 3 embedment depths, it is versatile for high loads or low levels of drilling and installation effort
- European Technical Assessment for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs for concrete screws in sizes 5 and 6
- Approved for use under seismic conditions of category C1[2)] and C2[2)]
- By using the Filling Washer VS[3)], the permissible loads under seismic action C1 and C2 can be further increased
- Approved for use under fire exposure (R30-R120)
- General design approval for temporary fastenings (BSZ-SU: Ø10-Ø14)
- 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 (Ø8- Ø14 mm)
- Can be fully removed
- Wide range of possible applications through numerous variants
- Visually appealing through different head shapes
- Without assessment, can also be used in compression-resistant natural stone, various solid bricks and green concrete
- Concrete screw BSZ-SU ZL with zinc flake coating for high cathodic corrosion protection

Applications

To anchor moderate to heavy loads in cracked and uncracked concrete: Railings and handrails, shelves, wooden beams, supports and braces, brackets, pipeline and cable routes, suspended ceilings, etc. Temporary fastening of construction site facilities, such as props, fall protection and scaffolding.

Highly versatile for up to three different embedment depths



Embedment depth 1:
- low level of drilling and installation effort
- large clamping thickness
- reduced loads

Embedment depth 2:
- medium level of drilling and installation effort
- medium clamping thickness
- moderate load

Embedment depth 3:
- higher level of drilling and installation effort
- small clamping thickness
- heavy loads

[1)] Only for use in solid concrete

[2)] For head designs, diameters and screw-in depths, see product tables and ETA-16/0204

[3)] Filling washers see page 96

Concrete screw BSZ-SU

- Hex head with pressed disc
- Steel, zinc plated
- Through smaller drive with pressed disc also suitable for areas, where access is difficult, and elongated holes (e.g. mounting rails)

Description	Ref. No.	Embedment depth h 1[1]				Embedment depth h 2				Embedment depth h 3				Anchor length L	Pressed disc Ø	Drive	Pkg. content	Weight per pkg.
		Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 1	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 2	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 3	Seismic C1 / C2					
		mm	mm	mm		mm	mm	mm		mm	mm	mm		mm	mm		pcs.	kg
BSZ-SU 5x40	58111001	5	5x40	35	-	-	-	-	-	-	-	-	-	40	12,5	SW 10	100	0,96
BSZ-SU 5x50	58111501	15	5x40	35	-	-	-	-	-	-	-	-	-	50	12,5	SW 10	100	1,12
BSZ-SU 5x60	58112001	25	5x40	35	-	-	-	-	-	-	-	-	-	60	12,5	SW 10	100	1,26
BSZ-SU 6x40	58121001	5	6x40	35	-	-	-	-	-	-	-	-	-	40	15	SW 13	100	1,51
BSZ-SU 6x50	58121501	15	6x40	35	-	10	6x45	40	✓	-	-	-	-	50	15	SW 13	100	1,73
BSZ-SU 6x60	58122001	25	6x40	35	-	20	6x45	40	✓	5	6x60	55	✓ / -	60	15	SW 13	100	1,93
BSZ-SU 6x80	58123001	45	6x40	35	-	40	6x45	40	✓	25	6x60	55	✓ / -	80	15	SW 13	100	2,33
BSZ-SU 6x100	58124001	65	6x40	35	-	60	6x45	40	✓	45	6x60	55	✓ / -	100	15	SW 13	100	2,73
BSZ-SU 8x50	58131001	5	8x55	45	-	-	-	-	-	-	-	-	-	50	16	SW 13	50	1,58
BSZ-SU 8x60	58131501	15	8x55	45	-	5	8x65	55	-	-	-	-	-	60	16	SW 13	50	1,78
BSZ-SU 8x70	58132001	25	8x55	45	-	15	8x65	55	-	5	8x75	65	✓ / ✓	70	16	SW 13	50	1,97
BSZ-SU 8x80	58132501	35	8x55	45	-	25	8x65	55	-	15	8x75	65	✓ / ✓	80	16	SW 13	50	2,16
BSZ-SU 8x90	58133001	45	8x55	45	-	35	8x65	55	-	25	8x75	65	✓ / ✓	90	16	SW 13	50	2,35
BSZ-SU 8x100	58133501	55	8x55	45	-	45	8x65	55	-	35	8x75	65	✓ / ✓	100	16	SW 13	50	2,57
BSZ-SU 8x120	58134501	75	8x55	45	-	65	8x65	55	-	55	8x75	65	✓ / ✓	120	16	SW 13	50	2,95
BSZ-SU 8x140	58135501	95	8x55	45	-	85	8x65	55	-	75	8x75	65	✓ / ✓	140	16	SW 13	50	3,33
BSZ-SU 10x60	58141001	5	10x65	55	✓	-	-	-	-	-	-	-	-	60	20	SW 15	50	2,82
BSZ-SU 10x70	58141501	15	10x65	55	✓	-	-	-	-	-	-	-	-	70	20	SW 15	50	3,12
BSZ-SU 10x80	58142001	25	10x65	55	✓	5	10x85	75	-	-	-	-	-	80	20	SW 15	50	3,42
BSZ-SU 10x90	58142501	35	10x65	55	✓	15	10x85	75	-	5	10x95	85	✓ / ✓	90	20	SW 15	50	3,72
BSZ-SU 10x100	58143001	45	10x65	55	✓	25	10x85	75	-	15	10x95	85	✓ / ✓	100	20	SW 15	50	4,03
BSZ-SU 10x120	58144001	65	10x65	55	✓	45	10x85	75	-	35	10x95	85	✓ / ✓	120	20	SW 15	50	4,63
BSZ-SU 10x140	58145001	85	10x65	55	✓	65	10x85	75	-	55	10x95	85	✓ / ✓	140	20	SW 15	50	5,26
BSZ-SU 10x160	58146001	105	10x65	55	✓	85	10x85	75	-	75	10x95	85	✓ / ✓	160	20	SW 15	50	5,86
BSZ-SU 12x80	58151001	15	12x75	65	-	-	-	-	-	-	-	-	-	80	23,5	SW 17	25	2,32
BSZ-SU 12x110	58152501	45	12x75	65	-	25	12x95	85	-	10	12x110	100	✓ / ✓	110	23,5	SW17	25	2,95
BSZ-SU 12x130	58153501	65	12x75	65	-	45	12x95	85	-	30	12x110	100	✓ / ✓	130	23,5	SW 17	25	3,40
BSZ-SU 12x150	58154501	85	12x75	65	-	65	12x95	85	-	50	12x110	100	✓ / ✓	150	23,5	SW 17	25	3,82
BSZ-SU 14x80	58161001	5	14x85	75	-	-	-	-	-	-	-	-	-	80	28	SW 21	25	3,38
BSZ-SU 14x110	58162501	35	14x85	75	-	10	14x110	100	-	-	-	-	-	110	28	SW 21	25	4,22
BSZ-SU 14x130	58163501	55	14x85	75	-	30	14x110	100	-	15	14x125	115	✓ / ✓	130	28	SW 21	25	4,82
BSZ-SU 14x150	58164501	75	14x85	75	-	50	14x110	100	-	35	14x125	115	✓ / ✓	150	28	SW 21	25	5,40

[1] For embedment depth h_{nom} 1 = 35 mm: Only for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs.

Concrete screw BSZ-SUH

- Hex head with pressed disc and large washer EN ISO 7094 (DIN 440)
- Steel, zinc plated
- For fixing purlins and wooden beams onto concrete

Description	Ref. No.	Embedment depth h_{nom} 1				Embedment depth h_{nom} 2				Embedment depth h_{nom} 3				Anchor length L	Drive	Washer[2]	Pkg. content	Weight per pkg.
		Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 1	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 2	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 3	Seismic C1 / C2					
		mm	mm	mm		mm	mm	mm		mm	mm	mm		mm		mm	pcs.	kg
BSZ-SUH 10x180	58246501	121	10x65	55	✓	101	10x85	75	-	91	10x95	85	✓ / ✓	180	SW 15	44x4	25	4,34
BSZ-SUH 10x200	58247001	141	10x65	55	✓	121	10x85	75	-	111	10x95	85	✓ / ✓	200	SW 15	44x4	25	4,64
BSZ-SUH 10x240	58247501	181	10x65	55	✓	161	10x85	75	-	151	10x95	85	✓ / ✓	240	SW 15	44x4	25	5,25
BSZ-SUH 10x280	58248001	221	10x65	55	✓	201	10x85	75	-	191	10x95	85	✓ / ✓	280	SW 15	44x4	25	5,94
BSZ-SUH 10x320	58248501	261	10x65	55	✓	241	10x85	75	-	231	10x95	85	✓ / ✓	320	SW 15	44x4	25	6,54

[2] Outer diameter x thickness

Concrete screw BSZ-SU ZL

- Hex head with pressed disc
- Steel, zinc flake coated
- Through smaller drive with pressed disc also suitable for areas, where access is difficult, and elongated holes (e.g. mounting rails)

NEW

Description	Ref. No.	Embedment depth h 1[1]				Embedment depth h 2				Embedment depth h 3				Anchor length L	Pressed disc Ø	Drive	Pkg. content	Weight per pkg.
		Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 1	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 2	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 3	Seismic C1 / C2					
		mm	mm	mm		mm	mm	mm		mm	mm	mm		mm	mm		pcs.	kg
BSZ-SU 6x40 ZL	58121201	5	6x40	35	-	-	-	-	-	-	-	-	-	40	15	SW 13	100	1,51
BSZ-SU 6x50 ZL	58121701	15	6x40	35	-	10	6x45	40	✓	-	-	-	-	50	15	SW 13	100	1,73
BSZ-SU 6x60 ZL	58122201	25	6x40	35	-	20	6x45	40	✓	5	6x60	55	✓ / -	60	15	SW 13	100	1,93
BSZ-SU 6x80 ZL	58123201	45	6x40	35	-	40	6x45	40	✓	25	6x60	55	✓ / -	80	15	SW 13	100	2,33
BSZ-SU 6x100 ZL	58124201	65	6x40	35	-	60	6x45	40	✓	45	6x60	55	✓ / -	100	15	SW 13	100	2,73
BSZ-SU 8x50 ZL	58131201	5	8x55	45	-	-	-	-	-	-	-	-	-	50	16	SW 13	50	1,58
BSZ-SU 8x60 ZL	58131701	15	8x55	45	-	5	8x65	55	-	-	-	-	-	60	16	SW 13	50	1,78
BSZ-SU 8x70 ZL	58132201	25	8x55	45	-	15	8x65	55	-	5	8x75	65	✓ / ✓	70	16	SW 13	50	1,97
BSZ-SU 8x80 ZL	58132701	35	8x55	45	-	25	8x65	55	-	15	8x75	65	✓ / ✓	80	16	SW 13	50	2,16
BSZ-SU 8x90 ZL	58133201	45	8x55	45	-	35	8x65	55	-	25	8x75	65	✓ / ✓	90	16	SW 13	50	2,35
BSZ-SU 8x100 ZL	58133701	55	8x55	45	-	45	8x65	55	-	35	8x75	65	✓ / ✓	100	16	SW 13	50	2,57
BSZ-SU 8x120 ZL	58134701	75	8x55	45	-	65	8x65	55	-	55	8x75	65	✓ / ✓	120	16	SW 13	50	2,95
BSZ-SU 8x140 ZL	58135701	95	8x55	45	-	85	8x65	55	-	75	8x75	65	✓ / ✓	140	16	SW 13	50	3,33
BSZ-SU 10x60 ZL	58141201	5	10x65	55	✓	-	-	-	-	-	-	-	-	60	20	SW 15	50	2,82
BSZ-SU 10x70 ZL	58141701	15	10x65	55	✓	-	-	-	-	-	-	-	-	70	20	SW 15	50	3,12
BSZ-SU 10x80 ZL	58142201	25	10x65	55	✓	5	10x85	75	-	-	-	-	-	80	20	SW 15	50	3,42
BSZ-SU 10x90 ZL	58142701	35	10x65	55	✓	15	10x85	75	-	5	10x95	85	✓ / ✓	90	20	SW 15	50	3,72
BSZ-SU 10x100 ZL	58143201	45	10x65	55	✓	25	10x85	75	-	15	10x95	85	✓ / ✓	100	20	SW 15	50	4,03
BSZ-SU 10x120 ZL	58144201	65	10x65	55	✓	45	10x85	75	-	35	10x95	85	✓ / ✓	120	20	SW 15	50	4,63
BSZ-SU 10x140 ZL	58145201	85	10x65	55	✓	65	10x85	75	-	55	10x95	85	✓ / ✓	140	20	SW 15	50	5,26
BSZ-SU 10x160 ZL	58146201	105	10x65	55	✓	85	10x85	75	-	75	10x95	85	✓ / ✓	160	20	SW 15	50	5,86
BSZ-SU 12x80 ZL	58151201	15	12x75	65	-	-	-	-	-	-	-	-	-	80	23,5	SW 17	25	2,32
BSZ-SU 12x110 ZL	58152701	45	12x75	65	-	25	12x95	85	-	10	12x110	100	✓ / ✓	110	23,5	SW17	25	2,95
BSZ-SU 12x130 ZL	58153701	65	12x75	65	-	45	12x95	85	-	30	12x110	100	✓ / ✓	130	23,5	SW 17	25	3,40
BSZ-SU 12x150 ZL	58154701	85	12x75	65	-	65	12x95	85	-	50	12x110	100	✓ / ✓	150	23,5	SW 17	25	3,82
BSZ-SU 14x80 ZL	58161201	5	14x85	75	-	-	-	-	-	-	-	-	-	80	28	SW 21	25	3,38
BSZ-SU 14x110 ZL	58162701	35	14x85	75	-	10	14x110	100	-	-	-	-	-	110	28	SW 21	25	4,22
BSZ-SU 14x130 ZL	58163701	55	14x85	75	-	30	14x110	100	-	15	14x125	115	✓ / ✓	130	28	SW 21	25	4,82
BSZ-SU 14x150 ZL	58164701	75	14x85	75	-	50	14x110	100	-	35	14x125	115	✓ / ✓	150	28	SW 21	25	5,40

[1]For embedment depth h_{nom} 1 = 35 mm: Only for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs.

Concrete screw BSZ-SK

- Countersunk head 90° with Torx drive
- Steel, zinc plated
- For installations being flush with the fixture

Description	Ref. No.	Embedment depth 1[1]				Embedment depth 2				Embedment depth 3				An-chor Length L	Head-Ø	Drive	Pkg. content	Weight per pkg.
		Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 1	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 2	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 3	Seismic C1 / C2					
		mm	mm	mm		mm	mm	mm		mm	mm	mm		mm	mm		pcs.	kg
BSZ-SK 5x40	58311001	5	5x40	35	-	-	-	-	-	-	-	-	-	40	12	T 25	100	0,78
BSZ-SK 5x50	58311501	15	5x40	35	-	-	-	-	-	-	-	-	-	50	12	T 25	100	0,94
BSZ-SK 5x60	58312001	25	5x40	35	-	-	-	-	-	-	-	-	-	60	12	T 25	100	1,08
BSZ-SK 6x40	58321001	5	6x40	35	-	-	-	-	-	-	-	-	-	40	13	T 30	100	0,99
BSZ-SK 6x50	58321501	15	6x40	35	-	10	6x45	40	✓	-	-	-	-	50	13	T 30	100	1,20
BSZ-SK 6x60	58322001	25	6x40	35	-	20	6x45	40	✓	5	6x60	55	✓ / -	60	13	T 30	100	1,41
BSZ-SK 6x80	58323001	45	6x40	35	-	40	6x45	40	✓	25	6x60	55	✓ / -	80	13	T 30	100	1,85
BSZ-SK 6x100	58324001	65	6x40	35	-	60	6x45	40	✓	45	6x60	55	✓ / -	100	13	T 30	100	2,27
BSZ-SK 6x120	58325001	85	6x40	35	-	80	6x45	40	✓	65	6x60	55	✓ / -	120	13	T 30	100	2,69
BSZ-SK 6x140	58326001	105	6x40	35	-	100	6x45	40	✓	85	6x60	55	✓ / -	140	13	T 30	100	3,11
BSZ-SK 8x80	58332501	35	8x55	45	-	25	8x65	55	-	15	8x75	65	✓ / ✓	80	19,5	T 40	50	1,95
BSZ-SK 10x90	58342501	35	10x65	55	✓	15	10x85	75	-	5	10x95	85	✓ / ✓	90	21,5	T 50	50	3,10
BSZ-SK 10x100	58343001	45	10x65	55	✓	25	10x85	75	-	15	10x95	85	✓ / ✓	100	21,5	T 50	50	3,40

[1]For embedment depth h_{nom} 1 = 35 mm: Only for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs.

Concrete screw BSZ-LK

- Pan head with Torx drive
- Steel, zinc plated
- For a flat fixing which has a high-quality look

Description	Ref. No.	Embedment depth 1[1]				Embedment depth 2				Embedment depth 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 / C2					
BSZ-LK 5x40	58411001	5	5x40	35	-	-	-	-	-	-	-	-	-	40	14	T 30	100	0,83
BSZ-LK 5x50	58411501	15	5x40	35	-	-	-	-	-	-	-	-	-	50	14	T 30	100	0,97
BSZ-LK 5x60	58412001	25	5x40	35	-	-	-	-	-	-	-	-	-	60	14	T 30	100	1,11
BSZ-LK 6x40	58421001	5	6x40	35	-	-	-	-	-	-	-	-	-	40	14,5	T 30	100	1,18
BSZ-LK 6x50	58421501	15	6x40	35	-	10	6x45	40	✓	-	-	-	-	50	14,5	T 30	100	1,41
BSZ-LK 6x60	58422001	25	6x40	35	-	20	6x45	40	✓	5	6x60	55	✓	60	14,5	T 30	100	1,59
BSZ-LK 6x80	58423001	45	6x40	35	-	40	6x45	40	✓	25	6x60	55	✓	80	14,5	T 30	100	2,03
BSZ-LK 6x100	58424001	65	6x40	35	-	60	6x45	40	✓	45	6x60	55	✓	100	14,5	T 30	100	2,45

[1]For embedment depth h_{nom} 1 = 35 mm: Only for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs.

Concrete screw BSZ-GLK

- Large pan head with Torx drive
- Steel, zinc plated
- For fixing mounting rails

Description	Ref. No.	Embedment depth 1[1]				Embedment depth 2				Embedment depth 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 / C2					
BSZ-GLK 6x40	58521001	5	6x40	35	-	-	-	-	-	-	-	-	-	40	18	T 30	100	1,35
BSZ-GLK 6x60	58522001	25	6x40	35	-	20	6x45	40	✓	5	6x60	55	✓	60	18	T 30	100	1,81

[1]For embedment depth h_{nom} 1 = 35 mm: Only for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs.

Concrete screw BSZ-M

- Socket with connecting thread M8/M10 and hex drive
- Steel, zinc plated
- For direct attachment of threaded rods

Description	Ref. No.	Einschraubtiefe h 1[1]				Einschraubtiefe h 2				Einschraubtiefe h 3				Anchor length L mm	Connecting thread	Washer-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						
BSZ-M 6x35	58621001	0	6x40	35	-	-	-	-	-	-	-	-	-	35	M8/10 IG	25	SW 13	50	1,77
BSZ-M 6x55	58622001	20	6x40	35	-	15	6x45	40	✓	0	6x60	55	✓	55	M8/10 IG	25	SW 13	50	1,97

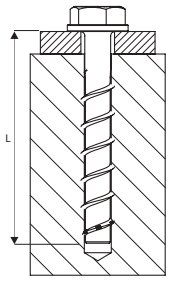
[1]For embedment depth h_{nom} 1 = 35 mm: Only for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs.

Concrete screw BSZ-BS

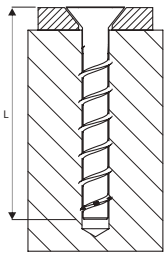
- Hanger bolt with metric connection thread and hex drive
- Steel, zinc plated
- To connect pipe clamps and threaded sockets

Description	Ref. No.	Embedment depth 1[1]				Embedment depth 2				Embedment depth 3				Anchor Length L	Head-Ø	Drive	Pkg. content	Weight per pkg.
		Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 1	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 2	Seismic C1	Fixture thickness t_{fix}	Drill hole Ø x depth	Embedment depth h_{nom} 3	Seismic C1 / C2					
		mm	mm	mm		mm	mm	mm		mm	mm	mm		mm	mm		pcs.	kg
BSZ-BS 6x35	58721001	0	6x40	35	-	-	-	-	-	-	-	-	-	35	M8x16	SW 10	100	1,63
BSZ-BS 6x55	58722001	20	6x40	35	-	15	6x45	40	✓	0	6x60	55	✓	55	M8x16	SW 10	100	1,88
BSZ-BS 6x75	58723001	40	6x40	35	-	35	6x45	40	✓	20	6x60	55	✓	75	M8x16	SW 10	100	2,30
BSZ-BS 6x95	58724001	60	6x40	35	-	55	6x45	40	✓	40	6x60	55	✓	95	M8x16	SW 10	100	2,71
BSZ-BS 6x135	58726001	100	6x40	35	-	95	6x45	40	✓	80	6x60	55	✓	135	M8x16	SW 10	100	3,86
BSZ-BS 6x155	58727001	120	6x40	35	-	115	6x45	40	✓	100	6x60	55	✓	155	M8x16	SW 10	100	4,41
BSZ-BS 6x175	58728001	140	6x40	35	-	135	6x45	40	✓	120	6x60	55	✓	175	M8x16	SW 10	100	4,95
BSZ-BS 6x195	58729001	160	6x40	35	-	155	6x45	40	✓	140	6x60	55	✓	195	M8x16	SW 10	100	5,48

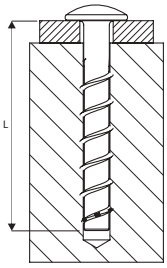
[1]For embedment depth h_{nom} 1 = 35 mm: Only for redundant non-structural systems in concrete and precast pre-stressed hollow core slabs.



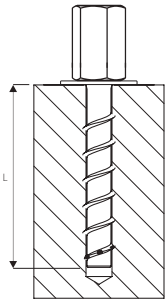
BSZ-SU / BSZ-SUH



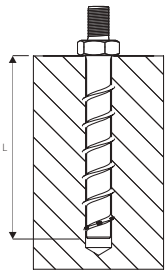
BSZ-SK



BSZ-LK / BSZ-GLK



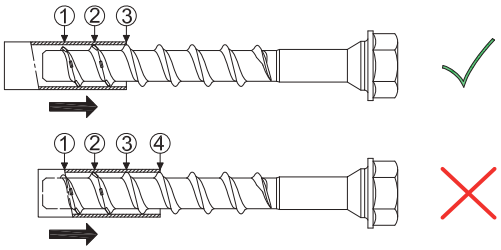
BSZ-M



BSZ-BS

Tube gauge BSZ-HL

- Steel, zinc plated
- For quick testing of the reusability of the Concrete screw BSZ-SU
- A maximum of 3 threads of the concrete screw may penetrate into the BSZ-HL sleeve gauge

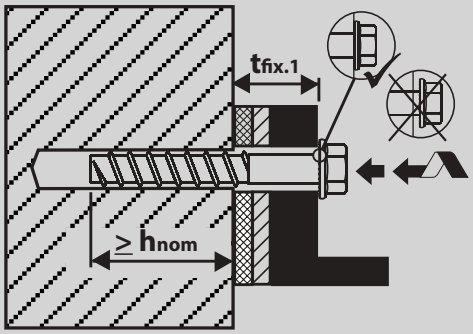


Description	Ref. No.	Suitable for Concrete screw	Pkg. content pcs.	Weight per kg. kg
BSZ-HL 10	58901001	BSZ-SU 10	10	0,18
BSZ-HL 12	58901201	BSZ-SU 12	10	0,19
BSZ-HL 14	58901401	BSZ-SU 14	10	0,22

Recommended impact screwdriver

Description of concrete screw	recommended impact screwdriver
BSZ 5	• Milwaukee C 12 IW (Square drive, Battery operation, max. torque 136 Nm) • Milwaukee C 12ID (Multi-toothed drive, Battery operation, max. torque 96 Nm) • Würth ASS 10-A (Battery operation, max. torque 105 Nm)
BSZ 6	• 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)
BSZ 8 BSZ 10	• 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)
BSZ 12 BSZ 14	• Milwaukee HD 28 IW (Square drive, Battery operation, max. torque 440 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 HAT, Battery operation, max. torque 610 Nm) • Würth ESS (1/2 inch drive, Mains operation, max. torque 250 Nm)

Subsequent adjustment



Notes for subsequent adjustment see product range page 90.

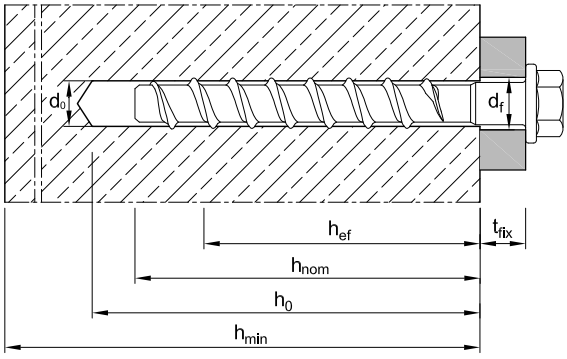
ETA-16/0204

Extract from Permissible Service Conditions of European Technical Assessment ETA-16/0204 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_F) is included. Load capacities under fire exposure see page 200.

Loads and performance data		Concrete screw size		BSZ 6		BSZ 8			BSZ 10			BSZ 12			BSZ 14		
Nominal embedment depth 1		h_{nom} 1	[mm]	-	-	45	-	-	55	-	-	65	-	-	75	-	-
Nominal embedment depth 2		h_{nom} 2	[mm]	40	-	-	55	-	-	75	-	-	85	-	-	100	-
Nominal embedment depth 3		h_{nom} 3	[mm]	-	55	-	-	65	-	-	85	-	-	100	-	-	115
				cracked concrete													
Approved loads, tension	C20/25	appr. N	[kN]	1,0	1,9	2,4	4,3	5,7	4,3	7,6	9,2	5,7	9,0	11,7	7,2	11,5	14,5
	C25/30	appr. N	[kN]	1,1	2,1	2,7	4,8	6,4	4,8	8,5	10,3	6,4	10,1	13,1	8,1	12,9	16,2
	C30/37	appr. N	[kN]	1,2	2,3	2,9	5,2	7,0	5,2	9,3	11,3	7,0	11,0	14,4	8,9	14,1	17,7
	C40/50	appr. N	[kN]	1,3	2,7	3,4	6,1	8,1	6,1	10,8	13,0	8,1	12,7	16,6	10,2	16,3	20,5
	C50/60	appr. N	[kN]	1,5	3,0	3,8	6,8	9,0	6,8	12,0	14,5	9,0	14,2	18,6	11,5	18,2	22,9
				uncracked concrete													
Approved loads, tension	C20/25	appr. N	[kN]	1,9	4,3	3,6	5,7	7,6	5,7	9,5	12,4	7,6	12,8	16,8	10,3	16,4	20,7
	C25/30	appr. N	[kN]	2,1	4,8	4,0	6,4	8,5	6,4	10,6	13,8	8,5	14,4	18,7	11,6	18,4	23,1
	C30/37	appr. N	[kN]	2,3	5,2	4,4	7,0	9,3	7,0	11,7	15,2	9,3	15,7	20,5	12,7	20,1	25,3
	C40/50	appr. N	[kN]	2,7	6,1	5,1	8,1	10,8	8,1	13,5	17,5	10,8	18,2	23,7	14,6	23,3	29,2
	C50/60	appr. N	[kN]	3,0	6,7	5,6	9,0	12,0	9,0	15,1	19,6	12,0	20,3	26,5	16,4	26,0	32,7
				cracked / uncracked concrete													
Approved loads, shear	C20/25	appr. V	[kN]	2,8/4,0	4,0/4,0	3,4/4,9	4,6/6,6	6,1/8,8	4,6/6,6	15,2/19,4	18,4/19,4	5,8/8,3	18,0/24,0	23,5/24,0	7,2/10,3	23,0/32,0	28,9/32,0
	≥ C25/30	appr. V	[kN]	3,2/4,0	4,0/4,0	3,8/5,4	5,2/7,4	6,9/9,7	5,2/7,4	17,0/19,4	19,4/19,4	6,5/9,3	20,1/24,0	24,0/24,0	8,1/11,6	25,7/32,0	32,0/32,0
Approved bending moments		appr. M	[Nm]	6,2	6,2	14,9	14,9	14,9	32,0	32,0	32,0	64,6	64,6	64,6	105,7	105,7	105,7
Spacing and edge distance																	
Effective anchorage depth		h_{ef}	[mm]	31	44	35	43	52	43	60	68	50	67	80	58	79	92
Characteristic spacing		$s_{cr,N}$	[mm]	93	132	105	129	156	129	180	204	150	201	240	174	237	276
Characteristic edge distance		$c_{cr,N}$	[mm]	46,5	66	52,5	64,5	78	64,5	90	102	75	100,5	120	87	118,5	138
Minimum thickness of concrete slab		h_{min}	[mm]	80	80	80	80	80	80	90	102	80	101	120	87	119	138
Minimum spacing		s_{min}	[mm]	40	40	40	50	50	50	50	50	50	50	70	50	70	70
Minimum edge distance		c_{min}	[mm]	40	40	40	50	50	50	50	50	50	50	70	50	70	70
Installation parameters																	
Drill hole diameter		d_o	[mm]	6	6	8	8	8	10	10	10	12	12	12	14	14	14
Diameter of clearance hole in the fixture		$d_f \leq$	[mm]	8	8	12	12	12	14	14	14	16	16	16	18	18	18
Depth of drill hole		$h_0 \geq$	[mm]	45	60	55	65	75	65	85	95	75	95	110	85	110	125
Installation torque with metric connection thread		$T_{inst} \leq$	[Nm]	10	10	20	20	20	40	40	40	60	60	60	80	80	80
Tangential impact screwdriver[1)]		$T_{imp,max}$	[Nm]	160	160	300	300	300	400	400	400	650	650	650	650	650	650

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



ETA-16/0439

Extract from Permissible Service Conditions of European Technical Assessment ETA-16/0439 for use in concrete for redundant non-structural systems

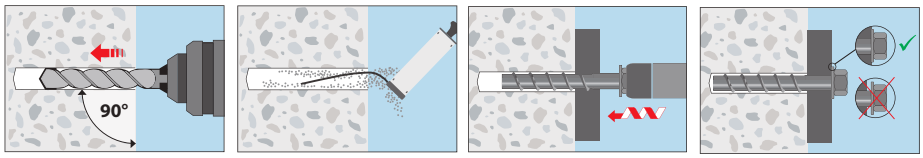
Approved loads according to EN 1992-4 for single anchors without the influence of spacing and edge distances. The total safety factor (γ_M und γ_F) is included. The admissible loads per fixing point can be taken from the relevant national regulations of the EOTA member states and may be lower than the approved load of the anchor.

Loads and performance data		**Concrete screw size**		**BSZ 5**	**BSZ 6**	
Nominal embedment depth 1		**h_{nom} 1**	**[mm]**	**35**	**35**	**-**
Nominal embedment depth 2		**h_{nom} 2**	**[mm]**	**-**	**-**	**-**
Nominal embedment depth 3		**h_{nom} 3**	**[mm]**	**-**	**-**	**55**
			cracked concrete			
Approved loads, tension	C20/25	appr. N	[kN]	0,6	1,4	3,6
	C25/30	appr. N	[kN]	0,7	1,6	4,0
	C30/37	appr. N	[kN]	0,7	1,7	4,4
	C40/50	appr. N	[kN]	0,8	2,0	5,1
	C50/60	appr. N	[kN]	0,9	2,3	5,6
			uncracked concrete			
Approved loads, tension	C20/25	appr. N	[kN]	0,6	1,4	3,6
	C25/30	appr. N	[kN]	0,7	1,6	4,0
	C30/37	appr. N	[kN]	0,7	1,7	4,4
	C40/50	appr. N	[kN]	0,8	2,0	5,1
	C50/60	appr. N	[kN]	0,9	2,3	5,6
			cracked / uncracked concrete			
Approved loads, shear	C20/25	appr. V	[kN]	2,3/2,5	2,3/3,3	4,0/4,0
	≥ C25/30	appr. V	[kN]	2,5/2,5	2,6/3,7	4,0/4,0
Approved bending moments		appr. M	[Nm]	3,0	6,2	6,2
Spacing and edge distance						
Effective anchorage depth		h_{ef}	[mm]	27	27	44
Characteristic spacing		$s_{cr,N}$	[mm]	81	81	132
Characteristic edge distance		$c_{cr,N}$	[mm]	40,5	40,5	66
Minimum thickness of concrete slab		h_{min}	[mm]	80	80	100
Minimum spacing		s_{min}	[mm]	35	35	40
Minimum edge distance		c_{min}	[mm]	35	35	40
Installation parameters						
Drill hole diameter		d_o	[mm]	5	6	6
Diameter of clearance hole in the fixture		d_f	[mm]	7	8	8
Depth of drill hole		$h_1 \geq$	[mm]	40	40	60
Installation torque with metric connection thread		$T_{inst} \leq$	[Nm]	8	10	10
Tangential impact screwdriver [1]		$T_{imp,max}$	[Nm]	110	160	160

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

Approved loads with exposure to fire in cracked and uncracked concrete C20/25 to C50/60						
Approved loads, tension	R30	appr. N_{fi}	[kN]	-	0,65	0,9
	R60	appr. N_{fi}	[kN]	-	0,65	0,8
	R90	appr. N_{fi}	[kN]	-	0,60	0,6
	R120	appr. N_{fi}	[kN]	-	0,40	0,4
Approved loads, shear	R30	appr. V_{fi}	[kN]	-	0,65	0,9
	R60	appr. V_{fi}	[kN]	-	0,65	0,8
	R90	appr. V_{fi}	[kN]	-	0,60	0,6
	R120	appr. V_{fi}	[kN]	-	0,40	0,4
Approved loads, shear	$s_{cr,fi}$		[mm]	-	108	176
Characteristic edge distance	$c_{cr,fi}$		[mm]	-	54	88

Installation

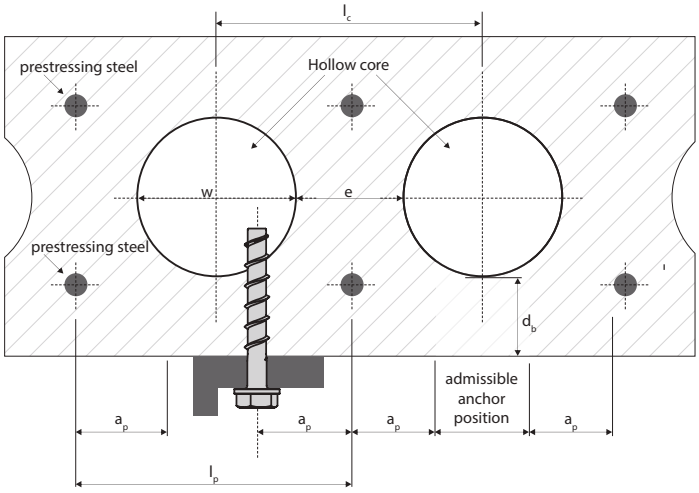


Extract from Permissible Service Conditions of European Technical Assessment ETA-16/0439 for use in precast pre-stressed hollow core slabs for redundant non-structural systems

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_F) is included. The admissible loads per fixing point can be taken from the relevant national regulations of the EOTA member states and may be lower than the approved load of the anchor.

Loads and performance data	Concrete screw size		BSZ 6		
Nominal embedment depth	h_{nom}	[mm]		≥ 35	
	Precast pre-stressed hollow core slabs C30/37 to C50/60				
Flange thickness	$d_b \geq$	[mm]	25	30	35
	$F_{appr.}$	[kN]	0,48	0,95	1,43
Spacing and edge distance					
Minimum spacing	s_{min}	[mm]		100	
Minimum edge distance	c_{min}	[mm]		100	
Installation parameters					
Drill hole diameter	d_o	[mm]		6	
Diameter of clearance hole in the fixture	d_f	[mm]		8	
Depth of drill hole	$h_1 \geq$	[mm]		40	
Installation torque	$T_{inst} \leq$	[Nm]		10	

Installation in precast pre-stressed hollow core slabs



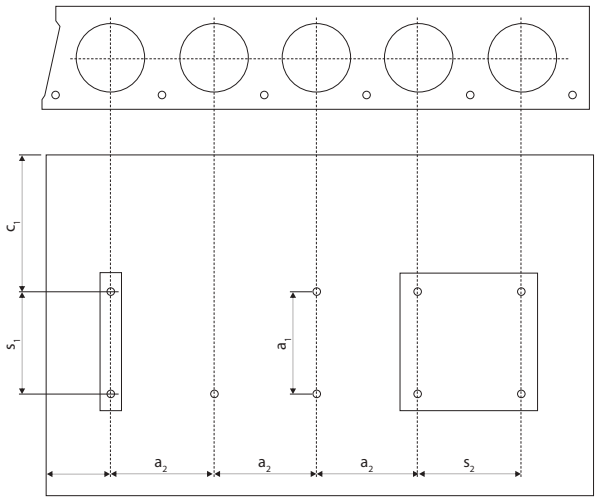
w / e ≤ 4,2

w Core width

e Web thickness

Core distance	l_c	≥ 100 mm
Distance between prestressing steel	l_p	≥ 100 mm
Distance between anchor position and pre-stressing steel	a_p	≥ 50 mm

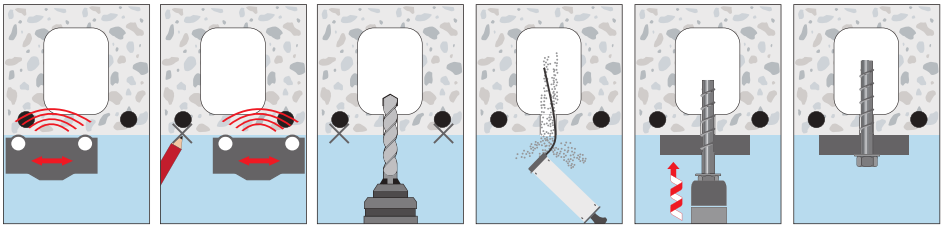
Installation parameters for anchors in precast pre-stressed hollow core slabs



c_1, c_2 Edge distance

s_1, s_2 Anchor spacing

a_1, a_2 Distance between the anchor groups

Minimum edge distance	c_{min}	≥ 100 mm
Minimum spacing	s_{min}	≥ 100 mm
Minimum distance between the anchor groups	a_{min}	≥ 100 mm

Installation