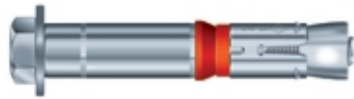
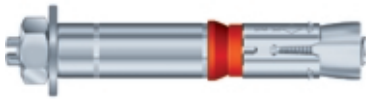


Highload Anchor SZ

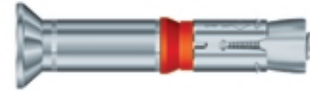
Steel, zinc plated



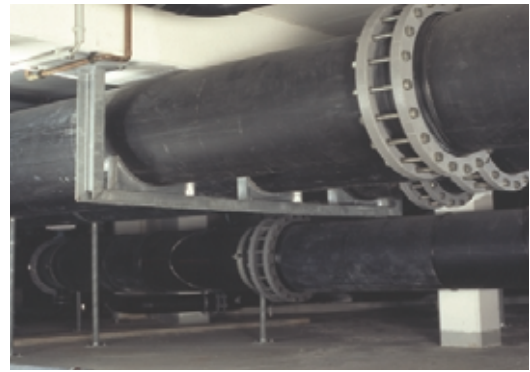
Highload Anchor SZ-S



Highload Anchor SZ-B



Highload Anchor SZ-SK



Description

The Highload Anchor SZ is a torque controlled expansion anchor system, designed for fast through fastening in cracked and non-cracked concrete, available in three versions. The SZ is shock approved.

Applications

Medium to heavy duty anchorings of base plates, supports, pallet racks, brackets, railings in cracked and non-cracked concrete.

Range of concrete quality: C20/25 - C50/60



Loads and performance data

			SZ 10 M6	SZ 12 M8	SZ 15 M10	SZ 18 M12	SZ 24 M16
cracked concrete C25/30							
Recommended loads, tension	rec. N	[kN]	2.20	5.30	7.10	11.00	15.40
Recommended loads, shear	rec. V	[kN]	5.70	8.96	15.13	20.83	34.36
Recommended bending moments	rec. M	[Nm]	7.00	17.10	34.30	60.00	152.00

Loads and performance data

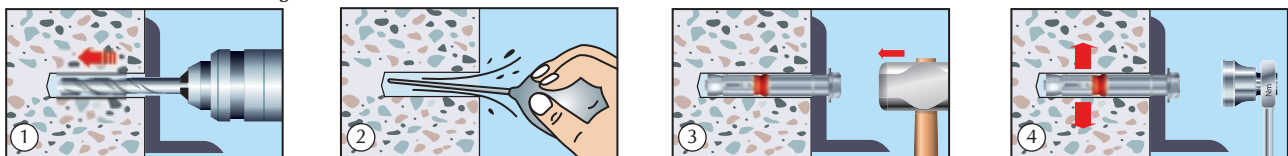
			SZ 10 M6	SZ 12 M8	SZ 15 M10	SZ 18 M12	SZ 24 M16
non-cracked concrete C25/30							
Recommended loads, tension	rec. N	[kN]	7.11	8.77	13.22	15.44	22.11
Recommended loads, shear	rec. V	[kN]	5.70	8.96	15.13	20.83	34.36
Recommended bending moments	rec. M	[Nm]	7.00	17.10	34.30	60.00	152.00

Installation parameters

			SZ 10 M6	SZ 12 M8	SZ 15 M10	SZ 18 M12	SZ 24 M16
Drill hole diameter	d _o	[mm]	10	12	15	18	24
Diameter of clearance hole in the fixture	d _f	[mm]	12	14	17	20	26
Depth of drill hole	h ₁	[mm]	65	80	95	105	130
Effective anchorage depth	h _{ef}	[mm]	50	60	71	80	100
Minimum thickness of concrete slab	h	[mm]	100	120	140	160	200
Installation torque	T _{inst}	[Nm]	12	30/35*)	50/65*)	80/100*)	120
Width across nut	SW	[mm]	10	13	17	19	24

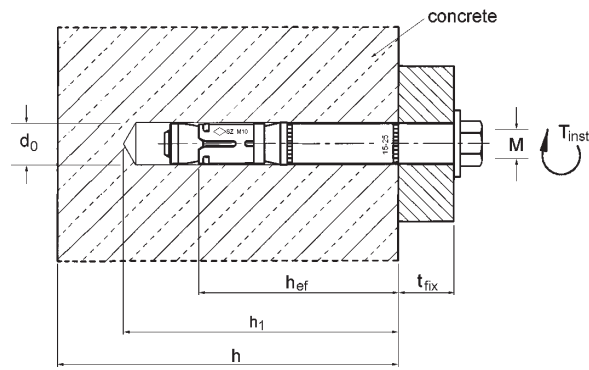
*) Tightening torque for type SZ-SK (with countersunk head)

Installation of MKT SZ Steel Highload Anchor



1. Drill to specified diameter and depth.
2. Clean the hole with blow-out bulb.
3. Using a hammer, tap the anchor through the fixture into the hole until the bolt head is firmly seated against the fixture.
4. Tighten the anchor to the specified torque. Refer to approval and listing for design and building code compliance.





ETA-02/0030, Option 1

Recommended tension loads for single anchor without influence of spacing and edge distance, total safety factor 3.

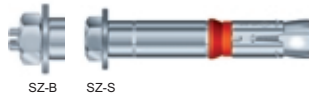
Concrete strength	Cracked concrete				
	SZ 10/M6	SZ 12/M8	SZ 15/M10	SZ 18/M12	SZ24/M16
C20/25	1.98	4.77	6.39	9.90	13.86
C25/30	2.20	5.30	7.10	11.00	15.40
C30/37	2.42	5.83	7.81	12.10	16.94
C40/50	2.79	6.73	9.01	13.97	19.55
C50/60	3.08	7.42	9.94	15.40	21.56

Concrete strength	Non-cracked concrete				
	SZ 10/M6	SZ 12/M8	SZ 15/M10	SZ 18/M12	SZ24/M16
C20/25	6.40	7.90	11.90	13.90	19.90
C25/30	7.11	8.77	13.22	15.44	22.11
C30/37	7.70	9.64	14.54	16.98	24.32
C40/50	7.70	11.13	16.78	19.60	28.07
C50/60	7.70	12.27	18.50	21.61	30.95

Recommended shear loads for single anchor without influence of spacing and edge distance, total safety factor 3. C20/25 up to C50/60 in cracked concrete and non-cracked concrete

Concrete strength	Cracked and non-cracked concrete				
	SZ 10/M6	SZ 12/M8	SZ 15/M10	SZ 18/M12	SZ 24/M16
≥ C20/25	5.70	8.96	15.13	20.83	34.36

Highload Anchor SZ

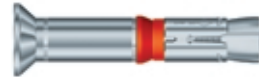


→ Steel, zinc plated

→ ETA approval for cracked and non-cracked concrete

Item No Type SZ-S	Item No Type SZ-B	Description	Drill hole Ø x depth mm	Setting depth mm	Anchor length l mm	Fixture thickness t _{fix} mm	Thread	Pkg. cont. pcs.	Weight per pkg. kg	
2021710000	2021810000	SZ 10/0	10 x 65	60	60	69	0	M6	100	3.30
2021710010	2021810010	SZ 10/10	10 x 65	60	70	79	10	M6	50	2.00
2021710030	2021810030	SZ 10/30	10 x 65	60	90	99	30	M6	50	2.40
2021710050	2021810050	SZ 10/50	10 x 65	60	110	119	50	M6	50	3.30
-	2021810100	SZ 10/100	10 x 65	60	-	169	100	M6	25	2.25
2021712000	2021812000	SZ 12/0	12 x 80	70	70	82	0	M8	50	3.00
2021712010	2021812010	SZ 12/10	12 x 80	70	80	92	10	M8	50	3.30
2021712030	2021812030	SZ 12/30	12 x 80	70	100	112	30	M8	50	4.00
2021712050	2021812050	SZ 12/50	12 x 80	70	120	132	50	M8	25	2.50
-	2021812100	SZ 12/100	12 x 80	70	-	182	100	M8	25	3.45
2021715000	2021815000	SZ 15/0	15 x 95	85	85	98	0	M10	25	2.80
2021715015	2021815015	SZ 15/15	15 x 95	85	100	113	15	M10	25	3.20
2021715025	2021815025	SZ 15/25	15 x 95	85	110	123	25	M10	25	3.50
2021715045	2021815045	SZ 15/45	15 x 95	85	130	143	45	M10	25	4.00
2021715095	2021815095	SZ 15/95	15 x 95	85	180	193	95	M10	25	5.40
2021718000	2021818000	SZ 18/0	18 x 105	95	100	115	0	M12	20	3.80
2021718010	2021818010	SZ 18/10	18 x 105	95	110	125	10	M12	20	4.10
2021718020	2021818020	SZ 18/20	18 x 105	95	120	135	20	M12	20	4.40
2021718040	2021818040	SZ 18/40	18 x 105	95	140	155	40	M12	20	5.10
2021718070	2021818070	SZ 18/70	18 x 105	95	170	185	70	M12	20	6.10
-	2021818100	SZ 18/100	18 x 105	95	-	215	100	M12	10	3.55
2021724000	2021824000	SZ 24/0	24 x 130	120	120	141	0	M16	10	4.10
2021724020	2021824020	SZ 24/20	24 x 130	120	140	161	20	M16	10	4.70
2021724050	2021824050	SZ 24/50	24 x 130	120	170	191	50	M16	10	5.50
-	2021824100	SZ 24/100	24 x 130	120	-	241	100	M16	5	3.50

Highload Anchor SZ-SK



→ Steel, zinc plated; with countersunk head

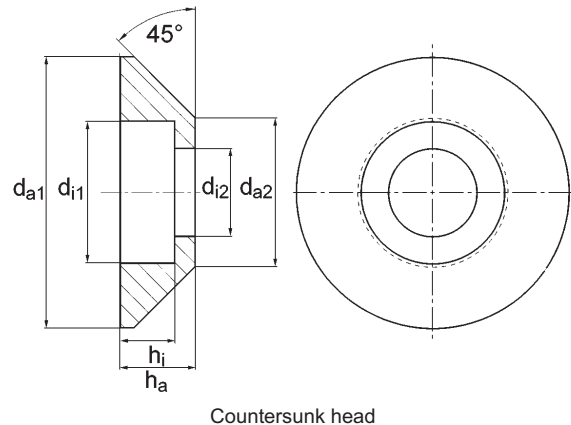
→ ETA approval for cracked and non-cracked concrete

Item No	Description	Drill hole Ø x depth mm	Setting depth mm	Anchor length l mm	Fixture thickness t _{fix} mm	Thread	Pkg. cont. pcs.	Weight per pkg. kg
2021910010	SZ-SK 10/10	10 x 65	60	65	10	M6	50	1.97
2021910025	SZ-SK 10/25	10 x 65	60	80	25	M6	50	2.36
2021910045	SZ-SK 10/45	10 x 65	60	100	45	M6	50	2.89
2021912010	SZ-SK 12/10	12 x 80	70	75	10	M8	50	3.41
2021912025	SZ-SK 12/25	12 x 80	70	90	25	M8	50	3.98
2021912050	SZ-SK 12/50	12 x 80	70	115	50	M8	25	2.41
2021915010	SZ-SK 15/10	15 x 95	85	85	10	M10	25	3.16
2021915025	SZ-SK 15/25	15 x 95	85	100	25	M10	25	3.71
2021915035	SZ-SK 15/35	15 x 95	85	110	35	M10	25	4.08
2021915050	SZ-SK 15/50	15 x 95	85	125	50	M10	25	4.53
2021918020	SZ-SK 18/20	18 x 105	95	110	20	M12	20	4.49
2021918040	SZ-SK 18/40	18 x 105	95	130	40	M12	20	5.20

Other lengths and special assemblies on demand.

Dimensions countersunk head [mm]

	da1	di1	da2	di2	ha	hi
SK 10 M6	20.0	10.5	11.0	6.5	6.0	4.0
SK 12 M8	24.0	13.5	14.0	8.5	7.5	5.0
SK 15 M10	30.0	16.5	17.0	10.5	10.5	6.5
SK 18 M12	32.0	18.5	19.0	12.5	12.0	7.5



Countersunk head

