

# Wedge Anchor BZ-IG A4

Stainless steel A4/316



Wedge Anchor BZ-IG A4  
Pre-Installation



Wedge Anchor BZ-IG A4  
Through-Fastening



## Description

The Wedge Anchor BZ-IG A4 is the first European approved internal threaded anchor system (ETA, Option 1), which can be installed in normal drill holes without prior undercut - no special drilling tool is required. The coating of the expansion cone with durable, heat resistant heat shrink tube is a patented invention of MKT to prevent cold welding of stainless steel material and provide the right friction between expansion cone and expansion sleeve for the life time of the fixing, not only at the time of installation; a condition for reliable crack-tested anchors. Also supplied with coated hexagon screws to prevent galling and to allow easy removal. The anchor is shock approved.



## Applications

Safety railings, chairs in sports arenas, facade substructures, structural steel, suspensions and all kinds temporary outside fastenings.

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



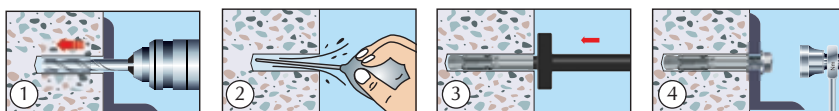
Loads and performance data			M8	M10	M12	M16
<b>Cracked concrete C25/30</b>						
Recommended loads, tension	rec. N	[kN]	1.80	3.30	4.40	7.30
Recommended loads, shear	rec. V	[kN]	2.50	5.20	6.60	13.50
Recommended bending moments	rec. M	[Nm]	4.90	12.00	24.00	41.90

Loads and performance data			M8	M10	M12	M16
<b>Non-cracked concrete C25/30</b>						
Recommended loads, tension	rec. N	[kN]	4.44	5.88	7.33	11.00
Recommended loads, shear	rec. V	[kN]	2.50	5.20	6.60	13.50
Recommended bending moments	rec. M	[Nm]	4.90	12.00	24.00	41.90

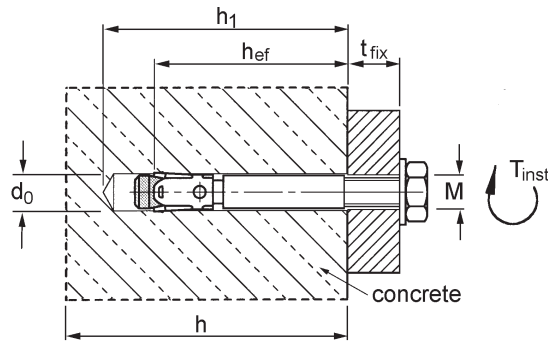
## Installation parameters

Drill hole diameter	$d_o$	[mm]	8	10	12	16
Diameter of clearance hole in the fixture - through fastening	$d_i$	[mm]	9	12	14	18
Diameter of clearance hole in the fixture - pre-installation	$d_i$	[mm]	7	9	12	14
Depth of drill hole	$h_1$	[mm]	60	75	90	105
Effective anchorage depth	$h_{ef}$	[mm]	45	58	65	80
Minimum thickness of concrete slab	$h$	[mm]	100	120	130	160
Installation torque	$T_{inst}$	[Nm]	15	35	45	80
Width across nut	SW	[mm]	10	13	17	19

## Installation of MKT BZ-IG A4 Wedge Anchor (Pre - installed)



1. Drill to specified diameter and depth.
2. Clean the hole with blow-out bulb.
3. Install the anchor using the setting tool for pre-installed.
4. Screw in the bolt and use a torque wrench to apply a required tightening torque.



**ETA-02/0002, Option 1**

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

Tension [kN]		cracked concrete			
Concrete strength	M8	M10	M12	M16	
C20/25	1.62	2.97	3.96	6.57	
C25/30	1.80	3.30	4.40	7.30	
C30/37	1.98	3.63	4.84	8.03	
C40/50	2.28	4.19	5.58	9.27	
C50/60	2.52	4.62	6.16	10.22	

Tension [kN]		Non-cracked concrete			
Concrete strength	M8	M10	M12	M16	
C20/25	4.00	5.30	6.60	9.90	
C25/30	4.44	5.88	7.33	11.00	
C30/37	4.88	6.46	8.06	12.10	
C40/50	5.63	7.46	9.30	13.97	
C50/60	6.21	8.23	10.26	15.40	

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 and non-cracked concrete

Shear [kN]		Cracked and non-cracked concrete			
Concrete strength	M8	M10	M12	M16	
≥ C20/25	2.5	5.2	6.6	13.5	

**Wedge Anchor BZ-IG A4**

→ Stainless steel A4/316; with screw and washer



→ Insert anchor, then install fixture

Item No	Description	Drill hole Ø x depth mm	Anchor length l mm	Fixture thickness <sup>1)</sup> t <sub>fix</sub> mm	Thread Ø x length mm	Screw <sup>1)</sup> DIN 933	Package content pcs.
2021606050	BZ-IG M 6-0 A4	8 x 60	50	3 - 8	M6 x 20	M6 x 20	100
2021608062	BZ-IG M 8-0 A4	10 x 75	62	1 - 7	M8 x 22	M8 x 22	50
2021610070	BZ-IG M 10-0 A4	12 x 90	70	1 - 7	M10 x 23	M10 x 25	25
2021612086	BZ-IG M 12-0 A4	16 x 105	86	1 - 7	M12 x 27	M12 x 30	20

<sup>1)</sup> Other screws on demand.

<sup>1)</sup> Screw coated to prevent galling.

Stainless steel 1.4529 on demand.

**Setting Tool**

for Wedge Anchor BZ-IG A4 - pre-installation

Item No	Description
2022106000	BZ-IGS M 6V
2022108000	BZ-IGS M 8V
2022110000	BZ-IGS M 10V
2022112000	BZ-IGS M 12V

**Wedge Anchor BZ-IG A4**

→ Stainless steel A4/316, with screw and washer



→ For through-fastening

Item No	Description	Drill hole Ø x depth mm	Anchor length l mm	Fixture thickness <sup>1)</sup> t <sub>fix</sub> mm	Thread Ø x length mm	Screw <sup>1)</sup> DIN 933	Package content pcs.
2021706060	BZ-IG M 6-10 A4	8 x 60	60	10	M6 x 20	M6 x 16	100
2021706070	BZ-IG M 6-20 A4	8 x 60	70	20	M6 x 20	M6 x 16	100
2021706080	BZ-IG M 6-30 A4	8 x 60	80	30	M6 x 20	M6 x 16	100
2021708072	BZ-IG M 8-10 A4	10 x 75	72	10	M8 x 22	M8 x 18	50
2021708082	BZ-IG M 8-20 A4	10 x 75	82	20	M8 x 22	M8 x 18	50
2021708092	BZ-IG M 8-30 A4	10 x 75	92	30	M8 x 22	M8 x 18	50
2021710080	BZ-IG M 10-10 A4	12 x 90	80	10	M10 x 23	M10 x 20	25
2021710090	BZ-IG M 10-20 A4	12 x 90	90	20	M10 x 23	M10 x 20	25
2021710100	BZ-IG M 10-30 A4	12 x 90	100	30	M10 x 23	M10 x 20	25
2021712096	BZ-IG M 12-10 A4	16 x 105	96	10	M12 x 27	M12 x 25	20
2021712106	BZ-IG M 12-20 A4	16 x 105	106	20	M12 x 27	M12 x 25	20
2021712116	BZ-IG M 12-30 A4	16 x 105	116	30	M12 x 27	M12 x 25	20

<sup>1)</sup> Other screws on demand.

<sup>1)</sup> Screw coated to prevent galling.

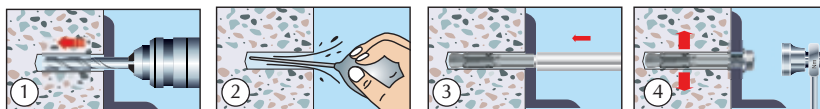
Stainless steel 1.4529 on demand.

**Setting Tool**

for Wedge Anchor BZ-IG A4 - through fastening

Item No	Description
2022206000	BZ-IGS M 6D
2022208000	BZ-IGS M 8D
2022210000	BZ-IGS M 10D
2022212000	BZ-IGS M 12D

**Installation of MKT BZ-IG A4 Wedge Anchor (Through-fastening)**



1. Drill to specified diameter and depth.
2. Clean the hole with blow-out bulb.
3. Install the anchor using the setting tool for through-fastening.
4. Screw in the bolt and use a torque wrench to apply a required tightening torque.

