THROUGHBOLT ANCHOR
ETA OPTION1 - SEISMIC CATEGORIES C1 / C2

BZ-S

CONCRETE

CRACKED CONCRETE

SEISMIC **C1**

SEISMIC **C2**

ETA — EUROPEAN TECHNICAL ASSESSMENT **OPTION 1** 16/0380 — CE

FB120

CE
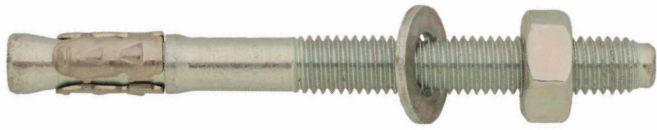
FEATURES

Material :
Steel Zinc plated
(Also available in A4 Stainless)

Advantages :
• Certified to use in seismic areas categories C1(M8 to M16) and C2 (M10 to M16)
• Fast and easy installation through the fixture
• Pre-assembled nut and washer
• Gives support to close edge spacing, minimum thickness
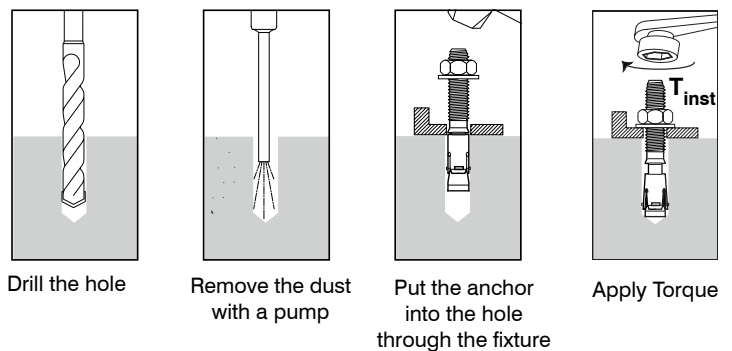• Reduced Anchor length

APPLICATION EXAMPLES

• For fixing metal profiles, railings, beams steel cladding brackets, industrial racking, consoles, cable trays...
• Industrial doors and gates
• Facades

INSTALLATION

Installation process :

When applying the **torque setting (T$_{inst}$)** to the **nut** (with ratchet or wrench), the cone at the bottom of the anchor pulls into the **expansion ring**, which causes the segments of the ring to open. They are then pressed against the wall of the cavity causing adhesion through the support material.

Installation instructions :

Drill the hole

Remove the dust with a pump

Put the anchor into the hole through the fixture

Apply Torque

T$_{inst}$

INSTALLATION DATAS

	M8	M10	M12	M16	
S$_{min}$	50	60	70	85	MINIMUM SPACING
C$_{min}$	50	60	70	80	MINIMUM EDGE DISTANCE

M8	M10	M12	M16
100	120	150	170

h$_{min}$ MINIMUM THICKNESS OF MEMBER
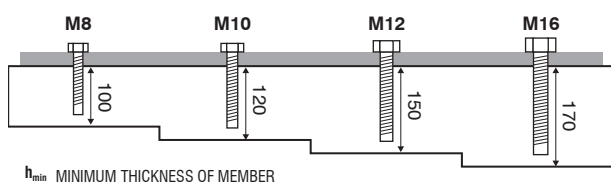
DIMENSIONS & APPLICATION DATAS

Ø	L	t_fix	L_f	Reference
mm	mm	mm	mm	
M8	68	4	30	BZ-S-08X068 [1]
	75	10	30	BZ-S-08X075 [1]
	90	25	40	BZ-S-08X090 [1]
	115	50	60	BZ-S-08X115 [1]
M10	90	10	40	BZ-S-10X090 [2]
	105	25	55	BZ-S-10X105 [2]
	115	35	55	BZ-S-10X115 [2]
	135	55	85	BZ-S-10X135 [2]
M12	110	10	65	BZ-S-12X110 [2]
	120	20	65	BZ-S-12X120 [2]
	145	45	85	BZ-S-12X145 [2]
M16	130	10	65	BZ-S-16X130 [2]
	150	30	85	BZ-S-16X150 [2]
	185	60	85	BZ-S-16X185 [2]

[1] Sismic approval C1
[2] Sismic approval C1 / C2

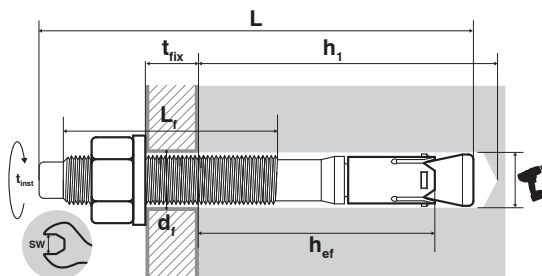| Installation datas		M8	M10	M12	M16
Anchor depth	h_{ef}	48	60	72	86
Ø drill size	d_{cut}	8	10	12	16
Drill depth	h_1	70	80	100	115
Ø Maximum hole in the fixture	d_f	9	12	14	18
Socket/wrench size	S_w	13	17	19	24
Torque setting	T_{inst}	20	40	60	120

Ø: Thread diameter
t_{fix}: Maximum fixture thickness
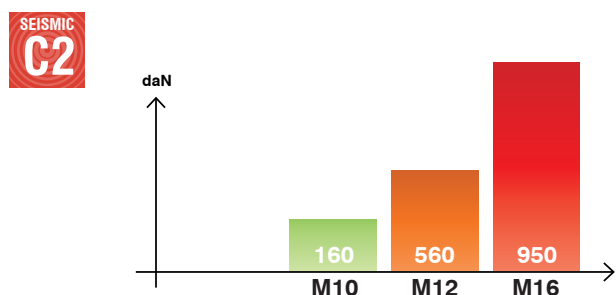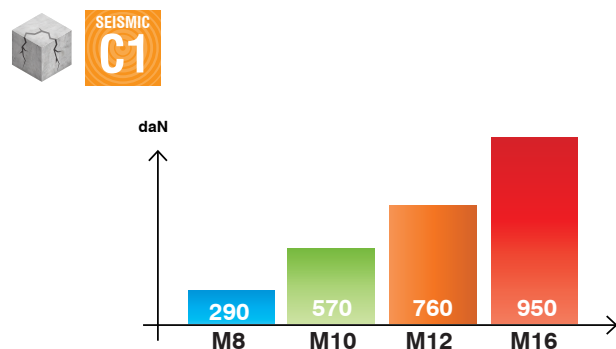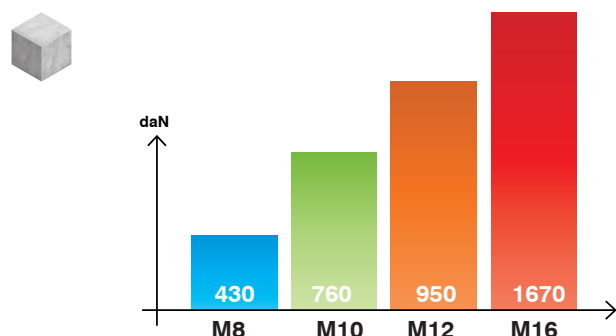h_{ef}: Effective anchor depth
L: Total Length
L_f: Thread length

RECOMMANDED LOADS

Loads are calculated from published characteristic values in the ETA on which partial safety factors from the ETAG001 and a partial coefficient action df= 1.4 are applied. Values are given for standard anchor depth for non-cracked concrete C20 / 25.

TENSILE

daN

	M8	M10	M12	M16
	430	760	950	1670

SEISMIC C1

daN

	M8	M10	M12	M16
	290	570	760	950

SEISMIC C2

daN

	M10	M12	M16
	160	560	950

SHEAR

daN

Pour C > 10 h_{ef}

	M8	M10	M12	M16
	620	1140	1620	3140

SEISMIC C1

daN

	M8	M10	M12	M16
	370	810	1450	2740

SEISMIC C2

daN

	M10	M12	M16
	570	920	1490

Scell-it®
SERVICE TECHNIQUE