

Installation Guide

Bolts

Single Expansion Bolts (FBN II)

Drill the hole using a hammer drill, through the pre-drilled hole in the fixture, into the concrete. This hole should be drilled perpendicular to the substrate surface and to the correct diameter and depth. All dust and loose material should be removed from the hole using a wire brush or blow pump.

Lightly tap the throughbolt through the fixture into the hole with a hammer, until the fixing depth is reached.

Tighten to the recommended torque.

Before Installation

The following checks must be carried out prior to installation of Single Expansion Bolts.

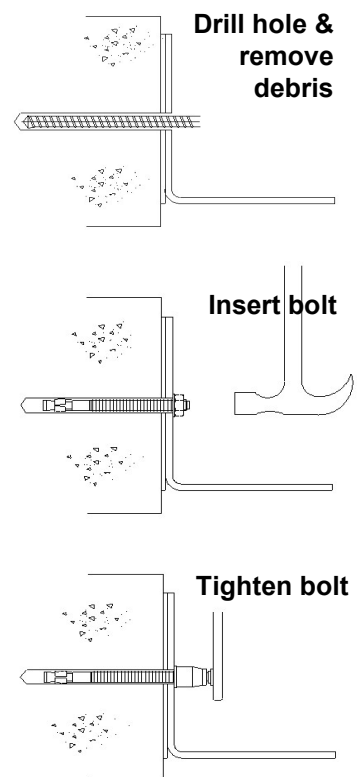
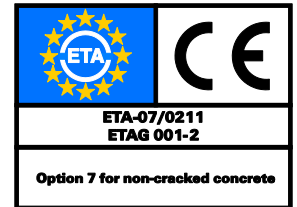
1. The appropriate length and diameter drill bit is used.
2. The correct edge distance and spacing are used in accordance with the design requirements.
3. The anchor/fixing is the correct size.
4. The correct setting tools are used.

Single Expansion Bolts

Bolt Reference	FBNII 06/10R-55	FBNII 08/10R-71	FBNII 10/20R-96	FBNII 10/50R-126	FBNII 12/20R-116	FBNII 12/50R-146	FBNII 16/25R-145	FBNII 16/50R-170
Thread Size	M6	M8	M10	M10	M12	M12	M16	M16
Overall Length (mm)	55	71	96	126	116	146	145	170
Hole Dia. in Concrete (mm)	6	8	10	10	12	12	16	16
Drill Depth* (mm)	50	66	88	118	105	135	129	154
Hole Dia. in Fixture (mm)	6.5	9	11	11	13	13	17	17
Min. Embedment (mm)	30	40	50	50	65	65	80	80
Width Across Nut (mm)	10	13	17	17	19	19	24	24
Tightening Torque (Nm)	4	10	20	20	35	35	80	80
Max. Fixing Thickness (mm)	10	10	20	50	20	50	25	50

*Minimum Drill Depth for through bolt installation at maximum embedment.

Note: For use in non-cracked concrete C20/25 to C50/60.



High Performance Bolts (FAZ II)

Drill the hole using a hammer drill, through the pre-drilled hole in the fixture, into the concrete. This hole should be drilled perpendicular to the substrate surface and to the correct diameter and depth. All dust and loose material should be removed from the hole using a wire brush or blow pump.

Insert the bolt through the component to be fixed and into the concrete. Add any packing shims that maybe required.

Tighten to the recommended torque.

Before Installation

The following checks must be carried out prior to installation of Single Expansion Bolts.

1. The appropriate length and diameter drill bit is used.
2. The correct edge distance and spacing are used in accordance with the design requirements.
3. The anchor/fixing is the correct size.
4. The correct setting tools are used.

High Performance Expansion Bolts

Bolt Reference	FAZII	FAZII	FAZII	FAZII	FAZII	FAZII	FAZII
	08/10R-74	10/10R-94	10/30R-113	12/30R-128	12/50R-148	16/25R-146	16/50R-171
Thread Size	M8	M10	M10	M12	M12	M16	M16
Overall Length (mm)	75	95	115	130	150	148	173
Hole Dia in Concrete (mm)	8	10	10	12	12	16	16
Drill Depth* (mm)	65	85	105	120	140	135	160
Hole Dia in Fixture (mm)	9	11	11	13	13	17	17
Min. Embedment (mm)	45	60	60	70	70	85	85
Width Across Nut (mm)	13	17	17	19	19	24	24
Tightening Torque (Nm)	20	45	45	60	60	110	110
Max. Fixing Thickness (mm)	10	10	30	30	50	25	50

*Minimum Drill Depth for through bolt installation at maximum embedment.

Note: For use in non-cracked concrete C20/25 to C50/60.

The Construction applications and details provided in this guide are indicative only. In every case installation should be entrusted to appropriately qualified and experienced persons. Normal handling precautions should be taken to avoid physical injury. The company cannot be held responsible for any injury as a result of using our products, unless such injury arises as a result of our negligence.

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