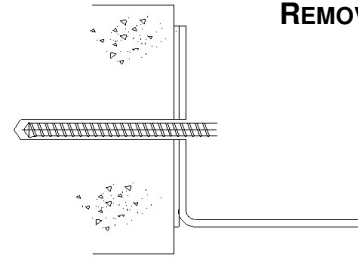


# INSTALLATION GUIDE

## SINGLE EXPANSION BOLTS

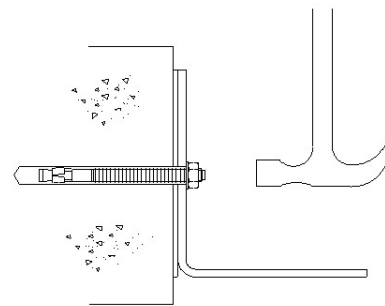
Drill the hole through the pre-drilled hole in the fixture into the concrete. This hole should be drilled perpendicular to the substrate surface and to the correct diameter and depth. All dust and loose material should be removed from the hole using a wire brush or blow pump.

### DRILL HOLE & REMOVE DEBRIS



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

### INSERT BOLT



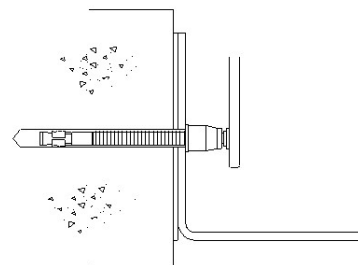
Tighten to the recommended torque.

### 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 either the information in the Table or that specified on drawings produced by Ancon Building Products.
3. The anchor/fixing is the correct size.
4. The correct setting tools are used.

### TIGHTEN BOLT



Single Expansion Bolts	FBN6/10 A4-68	FBN8/50 A4-115	FBN10/15 A4-90	FBN10/50 A4-125	FBN12/15 A4-115	FBN12/45 A4-145	FBN16/25 A4-145	FBN16/50 A4-169
Thread Size	M6	M8	M10	M10	M12	M12	M16	M16
Overall Length (mm)	68	115	90	125	115	145	145	169
SWL Tension (kN)	3.3	4.4	5.8	5.8	10.9	10.9	13.4	13.4
SWL Shear (kN)	4.3	5.3	7.5	7.5	12.9	12.9	16.9	16.9
Hole Dia. in Concrete (mm)	6	8	10	10	12	12	16	16
Hole Dia. in Fixture (mm)	6.5	9	11	11	13	13	17	17
Min. Embedment (mm)	40	48	50	50	70	70	84	84
Normal Edge Distance (mm)	60	75	75	75	105	105	125	125
Normal Spacing (mm)	120	144	150	150	210	210	250	250
Tightening Torque (Nm)	7.5	15	30	30	50	50	100	100
Max. Fixing Thickness (mm)	10	50	15	50	15	45	25	50

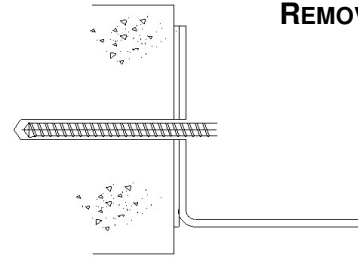
**Note:** Working loads are based on a concrete of minimum class C25/30, to BS EN 206-1

# INSTALLATION GUIDE HIGH PERFORMANCE BOLTS



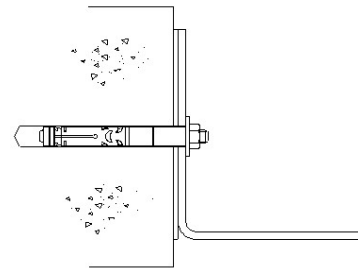
Drill the hole through the pre-drilled hole in the fixture into the concrete. This hole should be drilled perpendicular to the substrate surface and to the correct diameter and depth. All dust and loose material should be removed from the hole using a wire brush or blow pump.

## DRILL HOLE & REMOVE DEBRIS



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

## INSERT BOLT



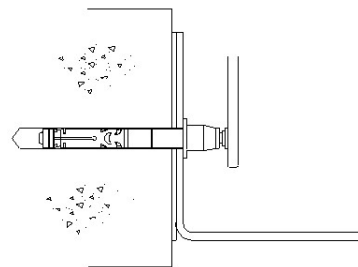
Tighten to the recommended torque.

## BEFORE INSTALLATION

The following checks must be carried out prior to installation of High Performance Bolts.

1. The appropriate length and diameter drill bit is used.
2. The correct edge distance and spacing are used in accordance with either the information in the Table or that specified on drawings produced by Ancon Building Products.
3. The anchor/fixing is the correct size.
4. The correct setting tools are used.

## TIGHTEN BOLT



High Performance Expansion Bolts	FH 12/25 A4-110	FH 15/25 A4-126	FH 15/50 A4-151	FH18/25 A4-158	FH 18/50 A4-183	FAZ 16/25 A4-145	FAZ 16/50 A4-170
Thread Size	M8	M10	M10	M12	M12	M16	M16
Overall Length (mm)	110	126	151	158	183	145	170
SWL Tension (kN)	7.6	11.7	11.7	16.6	16.6	17.5	17.5
SWL Shear (kN)	8.0	13.1	13.1	19.4	19.4	25.8	25.8
Hole Dia in Concrete (mm)	12	15	15	18	18	16	16
Hole Dia in Fixture (mm)	13	16	16	20	20	18	18
Min. Embedment (mm)	60	70	70	100	100	85	85
Normal Edge Distance (mm)	90	105	105	150	150	130	130
Normal Spacing (mm)	180	210	210	300	300	260	260
Tightening Torque (Nm)	25	40	40	80	80	110	110
Max. Fixing Thickness (mm)	25	25	50	50	50	25	50

**Note:** Working loads are based on concrete of minimum class C25/30, non cracked to BS EN206-1. For cracked concrete please contact Ancon.

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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. Ancon Building Products 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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