Ensuring best fixings practice

Sample Method Statement

2

should not

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brickwork or blockwork.

DELMARK

Throughbolt Expansion Anchors.

1 INTRODUCTION

CONSTRUCTION F

CFA Sample Method Statements are the first stage of a programme of assistance provided by the **CFA** for supervisors and installers to make sure anchors are installed correctly*. This is a guide only. The manufacturer's installation instructions should always be followed.

3 INSTALLATION

A typical installation procedure is outlined below. The manufacturer's instructions must always be followed.

Drill hole through the fixture to correct diameter and depth Clean hole thoroughly by blowing AND brushing Assemble washer and nut with nut just below protection nib, as shown. Tap assembled anchor through fixture & into hole until fully inserted Tighten nut to manufacturer's recommended torque

Other aspects

Anchor positioning

The manufacturer's recommendations regarding close edged distances and anchor spacing distances should always be followed.

Hole diameter in concrete

Will usually be the same as the nominal anchor diameter.

Hole depths

Hole depths are often quoted for the maximum fixture thickness. If thinner fixtures are used the hole depth must be increased pro rata.

Clearance hole diameters in fixtures

Clearance holes in metal brackets should be at least 1mm larger than the drill hole diameter to allow it to pass through.

Tightening torques

Tightening the bolt to the manufacturer's recommended torque will ensure the required clamping force is exerted through the fixture and also protect the bolt and anchor shell from being over stressed. A calibrated torque wrench should be used for safety critical applications. For less critical applications tightening to four full turns should ensure full expansion.

Removal

Throughbolts are not easily removed. If at the time of installation the hole is drilled about 10mm deeper than the overall length of the anchor then, once the anchor no longer required, the anchor body may be knocked to the base of the hole and the top filled with a suitable grout.



BASE MATERIAL SUITABILITY

Throughbolts are intended for use in concrete. Some

manufacturers allow use in hard natural stone in which case

their recommendations on positioning within the stone units,

and other dimensional limitations, must be followed. They

be used in

CFA Sample Method Statement: Throughbolt Expansion Anchors

Information you will need:

Anchor specification	Make
	Туре
	Order code
	Finish
Diameter	Μ
Length	mm
Fixture thickness	mm
Hole diameter	mm
Embedment depth	mm
Hole depth	mm
Tightening torque	Nm

Equipment you will need:

Drilling machine SDS+ Drill bit	Diametermm
Blow out pump	Working length mm
Cleaning brush	

Club hammer Torque wrench for installation torque above Deep reach socket Width across flatsmm

Thread diameter	M8	M10	M12	M16	M20	M24
Typical width of nut/socket – across flats	13	17	19	24	30	36
mm						

*This Sample Method Statement is one of a series available free of charge from the **Construction Fixings Association**. A more comprehensive **Guidance Note**: *Throughbolt Expansion*

Anchors is available from the CFA website at www.fixingscfa.co.uk. Training courses are also available for contractors to a syllabus approved by the CFA leading to certification as competent installers of anchor systems.

For more details logon to <u>www.fixingscfa.co.uk</u> and go to "Safer Installations" page.

Note: This guidance is given in good faith, however the **Construction Fixings Association** can accept no liability for adverse consequences arising from this guidance being followed.

