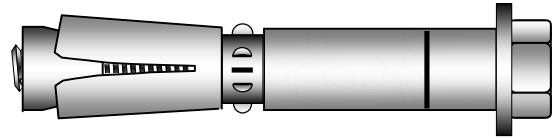


Heavy Duty (Thick-walled sleeve) expansion Anchors.



1 INTRODUCTION

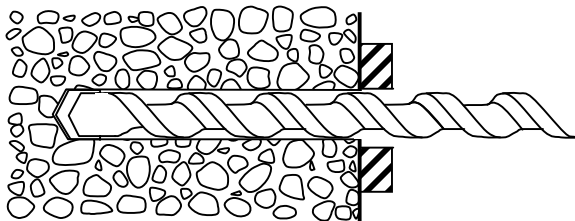
CFA Sample Method Statements are the first stage of a programme of assistance provided by the CFA for supervisors and installers to make sure anchors are installed correctly*. This is a guide only. The manufacturer's installation instructions should always be followed.

2 BASE MATERIAL SUITABILITY

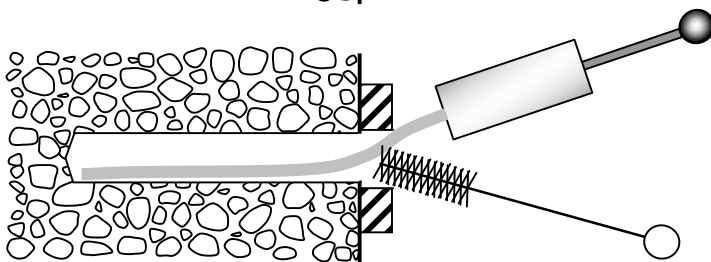
Heavy duty - thick-walled sleeve type - expansion anchors are intended for use in concrete. Some manufacturers allow use in hard natural stone in which case their recommendations on positioning within the stone units, and other dimensional limitations, must be followed. They should not be used in brickwork or blockwork.

3 INSTALLATION

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

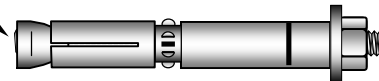


Drill hole through the fixture to correct diameter and depth

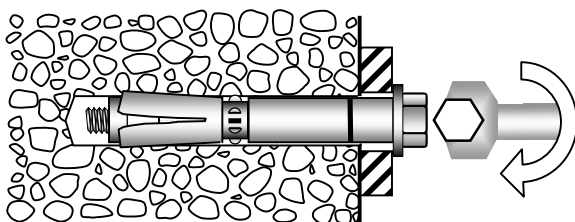
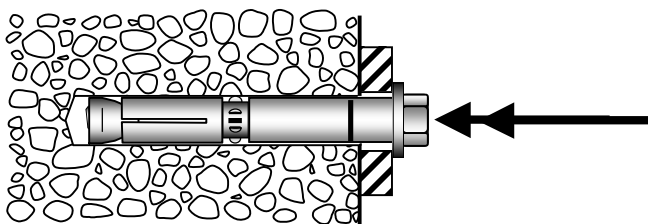


Clean hole thoroughly by blowing AND brushing

Before inserting bolt projecting versions ensure bolt thread is fully engaged with the expander cone



Tap anchor through fixture & into hole until fully inserted



Tighten bolt (or nut) to manufacturer's recommended torque

Other aspects

Anchor positioning

The manufacturer's recommendations regarding close edge distances and anchor centre spacings should always be followed.

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.

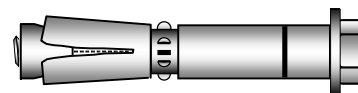
Clearance hole diameters in fixtures

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

Tightening torques

Tightening the anchor to the manufacturer's recommended torque will ensure the required clamping force is exerted through the fixture and also protect the bolt material 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.

CFA Sample Method Statement: Heavy Duty Expansion Anchors



Information you will need:

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

Information highlighted in red is particularly important.

Equipment you will need:

Drilling machine SDS+	
Drill bit	Diametermm
	Working length mm
Blow out pump	
Cleaning brush	
Club hammer	
Torque wrench for tightening torque above	
Deep reach socket	Width across flats mm

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

*This Sample Method Statement is one of a series available free of charge from the **Construction Fixings Association**.
A more comprehensive **Guidance Note: Heavy duty Expansion Anchors** is available from the CFA website at www.fixingscfa.co.uk.
Training courses are also available for specialist contractors to a syllabus approved by the CFA leading to certification as competent installers of anchor systems.
For more details logon to www.fixingscfa.co.uk 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.

