Leviat
A CRH COMPANY

Ancon®

Installation Guide

Injection (Bonded) Anchors

Type FIS VL

ETA-10/0352
ETAG 001-5

Option 1 for cracked concrete

Notes

Anchor installation to be carried out under the supervision of the person responsible for technical matters on site.

Use of the anchor only as supplied by us without exchange of any components.

Checks must be carried out prior to the installation of the anchor to ensure the placed concrete matches the design parameters i.e. concrete strength, cracked/non-cracked.

Checks must be carried out to ensure the concrete is well compacted and free from significant voids.

In the case of aborted holes, these must be filled with an appropriate non-shrink grout of equal or greater compressive strength to the surrounding concrete.

Drilling is to be by **hammer drill or compressed air drill only** – Diamond drilling is not permitted.

Exposed threads to be protected by the use of tape.

Table 1

Anchor Reference	FIS VL06/ FIS A M6 x 75	FIS VL08/ RGM08/R-110	FIS VL10/ RGM10/R-130	FIS VL12/ RGM12/R-160	FIS VL16/ RGM16/R-190	FIS VL20/ RGM20/R-260
Overall Length (mm)	75	110	130	160	190	260
Hole Dia. in Concrete (mm)	8	10	12	14	18	24
Drill Depth* (mm)	66	90	106	131	127	222
Hole Dia. in Fixture (mm)	7	9	11	14	18	22
Embedment* (mm)	50	80	90	110	125	170
Tightening Torque (Nm) T_{inst}	5	10	20	40	60	120
Max. Fixing Thickness (mm)	16	10	16	21	32	50

*Typical drill hole and embedment depths

Table 2

Concrete Temperature	Min. Curing Time
-5°C to ± 0ºC	24 hr
≥ 0°C to + 5ºC	3 hr
≥ + 5°C to + 10ºC	90 mins
≥ + 10°C to + 20ºC	60 mins
≥ + 20°C to + 30ºC	45 mins
≥ + 30°C to + 40ºC	35 mins

*For wet concrete and flooded holes the curing time must be doubled

System Temperature (Resin)	Processing Time
+5°C	13 mins
+10°C	9 mins
+20ºC	5 mins
+30ºC	4 mins
+40ºC	2 mins

*For wet concrete and flooded holes the processing time must be doubled

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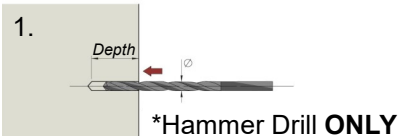
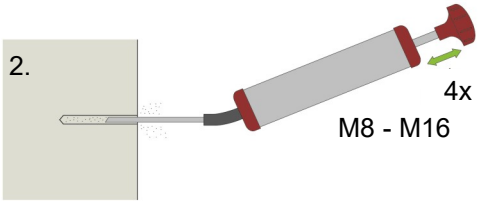
Installation Procedure

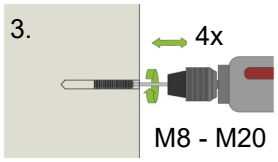
1. Drill a hole of appropriate diameter and depth. See table 1.



2. For M8 to M16 - Clean hole using a minimum of four times blowing operations with a manual blow out tool. For M20, clean hole using a minimum of four times using oil free pressure air [Pressure > 6bar].

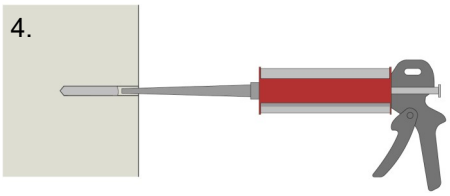


3. Brush the drill hole four times using an adequate steel brush and a drill. For deep holes use an extension. Repeat blowing procedure.



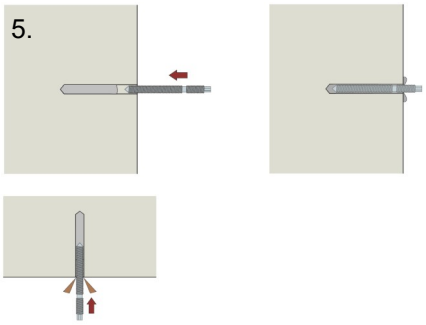
4. Twist off the cartridge sealing cap and fit the mixing cartridge into the appropriate injection resin dispenser gun. Twist on the static mixer [the spiral in the static mixer must be clearly visible]. Note: Extrude approximately 100mm until the resin is a consistent grey in colour. Don't use resin of inconsistent colour.

Fill approximately 2/3 of the drill hole with resin. Always begin from the bottom of the hole to eliminate voids. For drill hole depths 150mm or greater, use an extension tube.

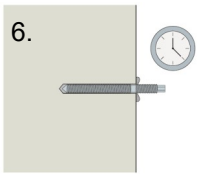


5. Use only clean oil free anchor studs. Mark the anchor stud for the appropriate embedment depth [see Table 1]. Press the anchor rod down to the bottom of the hole, turning it tightly while doing so. After inserting the anchor rod, excess resin must emerge around the anchor element.

For overhead installation support the anchor rod with wedges. For push-through installation fill the annular gap with resin.



6. Do not touch the anchor until the appropriate cure time is reached [See Table 2].



7. Set the fixing with the appropriate torque [See Table 1].