

AA402 M16 EYEBOLT ANCHOR

INSTALLATION INSTRUCTIONS



Things To Know:

AA402 is designed for installation in concrete and structural steel. It has been specifically developed for applications in rope access (abseiling) but it can be also used to support a fall arrest load of 15 kN provided a suitable personal shock absorber is used.

Anchor Rating:

The AA402 eyebolt has been independently tested in accordance with AS/NZS 5532:2025 and verified as a 15 kN rated rope access/fall arrest anchorage device.

Fixing Options:

Use only approved installation chemicals meeting the required performance criteria.

- Suitable for cracked and non-cracked concrete
- Minimum embedment 110mm for chemical anchors

Examples Include:

- Chemical HILTI HVU2 M16 (HOLE 18 DIA) using SRA setting tool
- Chemical Hilti HVU2 or Hilti RE 500 (HOLE 18 DIA) or equivalent
- Through bolt M16 in steel (HOLE 17 DIA)

Concrete Specifications:

Min. concrete strength: 25 Mpa

Min. slab thickness: 150 mm

Min. distance to edge: 200 mm

Min. distance to another anchor: 200mm

Note:

Edge distances less than the stated minimum may be permitted where verified by anchor manufacturer design (e.g. Hilti). Verification must be based on project-specific parameters including concrete strength, embedment depth, anchor size, and edge condition, with documented capacity calculations.

Loading:

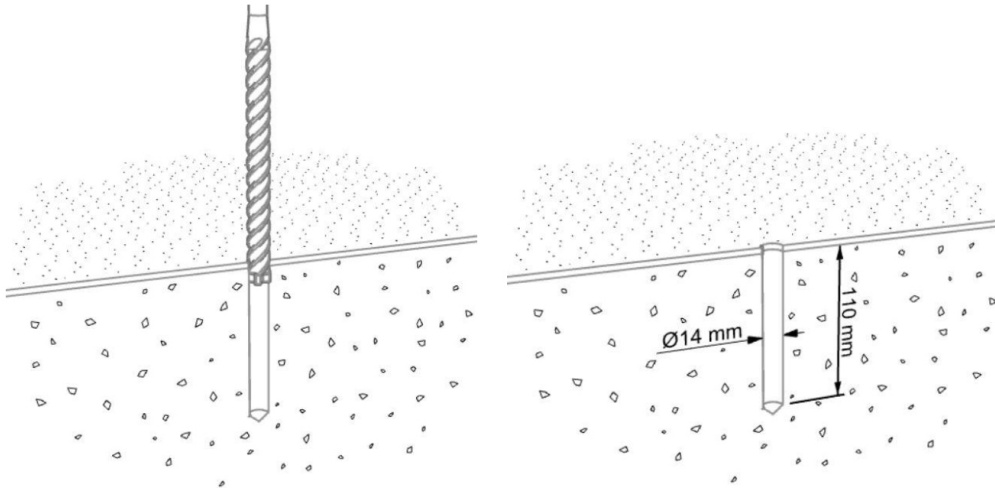
Load the eye bolt in shear, not exceeding 20° with the surface it's installed into unless installed as a through bolt in steel.

Tools Needed for Installation:

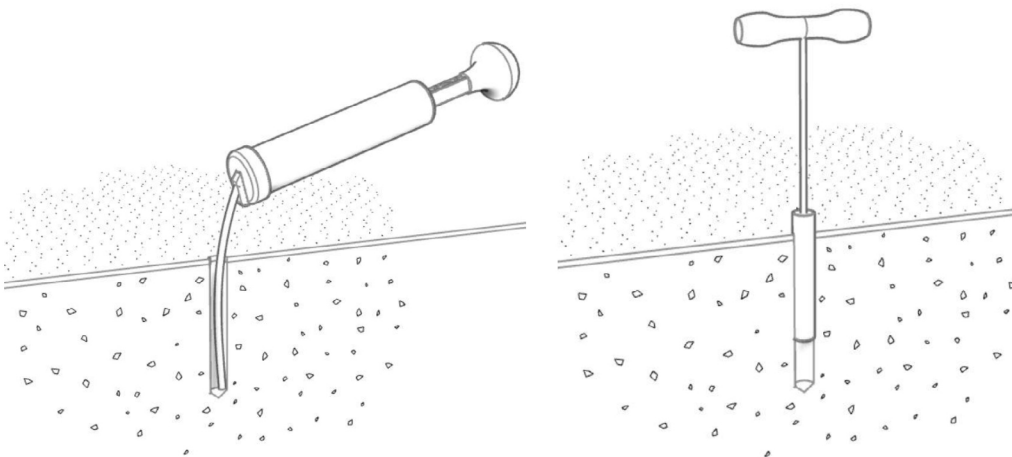
Rotary hammer drill, masonry drill bit 14 or 18 (for Hilti HSL), air pump, cleaning brush, SRA setting tool if using Hilti HVU chemset, chemical dispenser gun if using injectable chemset

Installation Steps – M16 Hilti HVU2 chemset in concrete:

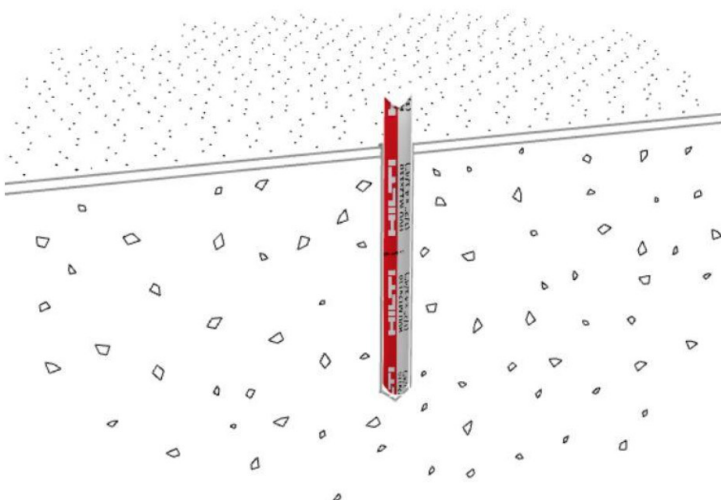
1. Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.
2. Mark the position for hole to be drilled.
3. Drill a DIA 18mm x 110mm hole. Ensure the hole is 90° with the drilled surface.



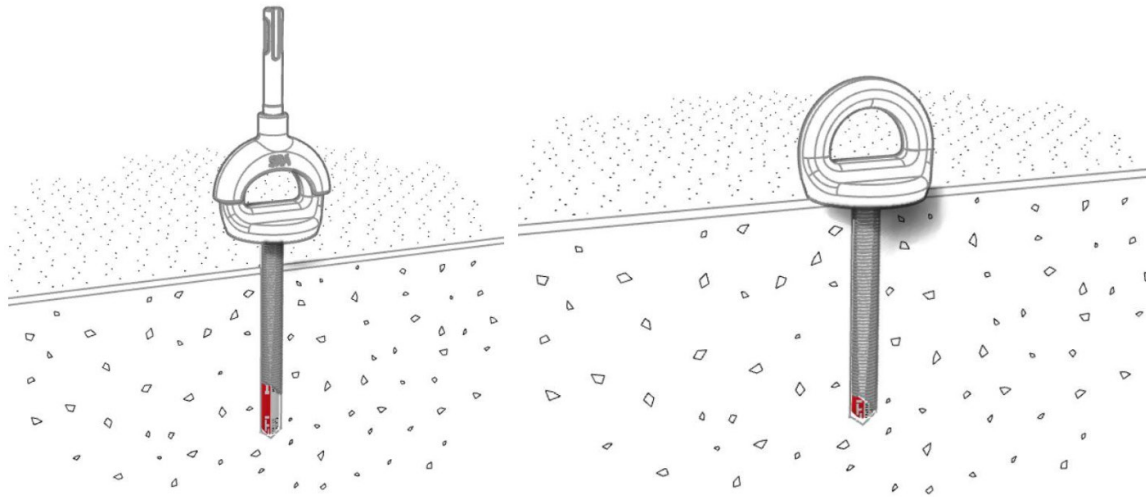
4. Clean the hole 3 times with compressed air and cleaning brush.



5. Insert one Hilti HVU M16 chemical pack in the hole.



- Using a rotary hammer with SRA setting tool, install the AA402 eyebolt



- Allow sufficient drying time as per Hilti HVU instructions.

Installation Steps – Hilti HIT or Hilti RE-500 or equivalent chemset in concrete:

- Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.
- Mark the position for hole to be drilled.
- Drill DIA 18mm x 110mm hole. Ensure the hole is 90° with the drilled surface.
- Clean the hole 3 times with compressed air and cleaning brush.
- Inject Hilti HIT or RE 500 or equivalent chemical in the hole as per the manufacturer's instructions.
- Install AA402 by turning it slowly in anti-clockwise direction while pushing it inside the hole. Wipe off the excess chemical and smooth it around the eyebolt like a silicon bead.
- Allow sufficient drying time as per the chemical manufacturer's instructions.

Installation Steps – M16 through bolt in structural steel:

- Mark the position for hole to be drilled.
- Drill DIA 17mm through hole. Ensure the hole is 90° with the drilled surface.
- Install AA402 with one backing plate (BP2 or BP3) on the back side.
- Clamp down with a M16 washer and lock nut and tighten fully. Ensure minimum of 5 threads are showing when fully tightened.

Proof Load and Certification:

All glued in anchorages must be proof loaded before their initial use and subsequently on regular basis to satisfy the requirements set out in AS/NZS 1891.4:2025 and ISO 22846 (2020).

- Proof load the eye to 7.5 kN for all applications in rope access and fall arrest
- Through bolts must be visually inspected – do not proof load!

Note:

The roof structure must be assessed by a structural engineer unless it is clear to a suitably qualified person that it is capable of withstanding the forces imposed on it during arresting of a fall and during work positioning.

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