



## **AA402 Eyebolt anchor Installation Instructions**



### **Things to know:**

AA402 is designed for installation in concrete and 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.

Minimum distance to the edge of the slab or between any 2 eyebolts must be at least 200mm unless certified by a structural engineer!

### **Fixing options:**

- Chemical HILTI HVU M12 (HOLE 14 DIA) using SRA setting tool
- Chemical Hilti HIT or Hilti RE 500 (HOLE 14 DIA) or equivalent
- HSL 3-B M12 or HSL-GR M12 (HOLE 18 DIA)
- Through bolt M12 (HOLE 14 DIA)

**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:**

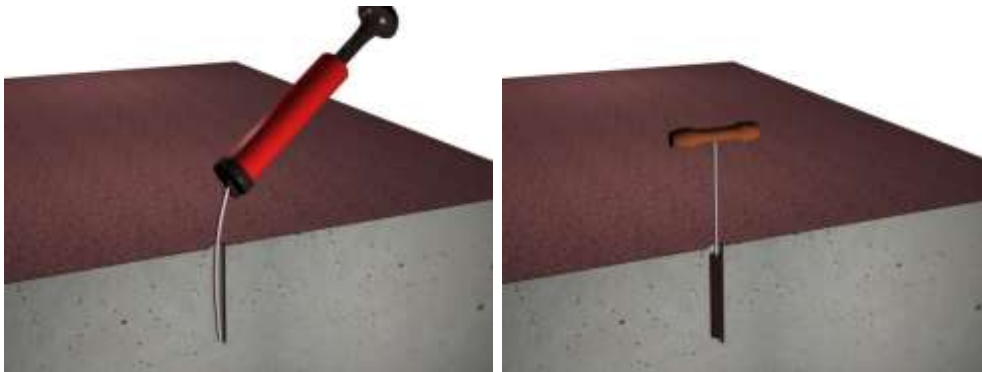
Rotary hammer drill, masonry drill bit 14 or 18 (for Hilti HSL), air pump, cleaning brush, SRA setting tool if using Hilti HVU chemset

### **Installation steps – M12 Hilti HVU 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 an M14 x 110mm hole. Ensure the hole is 90° with the drilled surface.



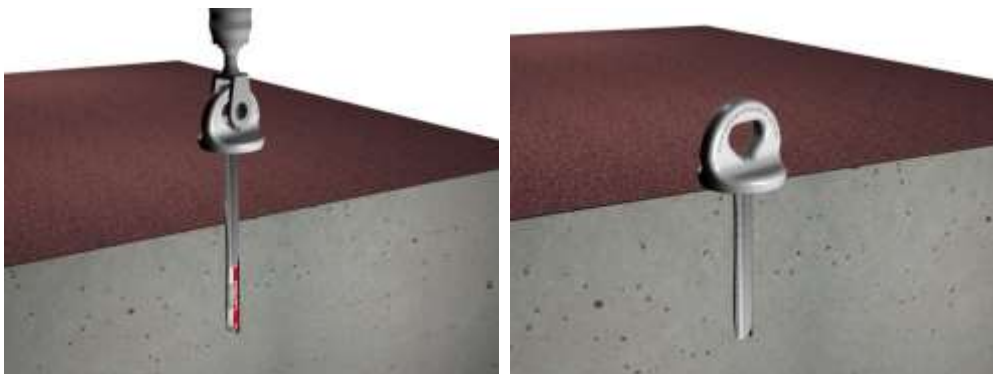
4. Clean the hole 3 times with compressed air and cleaning brush.



5. Insert one Hilti HVU M12 chemical pack in the hole.



6. Using rotary hammer with SRA setting tool, install the AA402 eyebolt



7. Allow sufficient drying time as per Hilti HVU instructions.

NOTE: When installing through water proofing membrane, it is recommended to use a base plate (BP1 or BP2) with a full gasket of compatible sealant between the base plate and the membrane.

### **Installation steps – Hilti HIT or RE 500 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 an M14 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. Inject Hilti HIT or RE 500 chemicals in the hole as per the manufacturer's instructions
6. Install AA402 by turning it slowly in clockwise direction while pushing it inside the hole. Ensure the tip of the rod is cut on 45° angle to assist with air bubble elimination. Wipe off the excess chemical.
7. Allow sufficient drying time as per the Hilti chemical instructions.

NOTE: When installing through water proofing membrane, it is recommended to use a base plate (BP1, BP2 or BP3). A full gasket of a compatible sealant is recommended between the base plate and the membrane.

### **Installation steps – M12 Hilti HSL-3B or HSL-GR 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 one M18 x 125mm hole. Ensure the hole is 90° with the drilled surface.
4. Clean the hole 3 times with compressed air and cleaning brush.
5. Install Hilti HSL-3B or HSL-GR as and use a spanner to apply correct torque as per Hilti instructions.
6. Remove the M12 bolt inside the HSL-3B or HSL-GR and install AA402 eyebolt instead

### **Installation steps – M12 through bolt**

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 one M14 through hole. Ensure the hole is 90° with the drilled surface.
4. Install AA402 with one backing plate (BP2 or BP3) on the back side.
5. Clamp down with a M12 washer and lock nut and tighten fully. Ensure minimum of 8 threads are showing when fully tightened.

### **Proof load and certification:**

All chemical and friction anchorages must be proof loaded before their initial use and subsequently on regular basis to satisfy the requirements set out in AS/NZS 1891.4:2009 and ISO 22846 (2003) (formerly AS/NZS 4488.2:1997)

- Proof load the eye to 7.5 kN for fall arrest applications
- Proof load the eye to 7.5 kN for applications in rope access

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.

### **DISCLAIMER**

All product specifications and technical descriptions, recommendations and other information provided in this document are given as general guidance and advice, and are to be considered in conjunction with Safety Roof Anchors installation instructions and any other data available and applicable to each particular standard product or system. Use of such data is however the user's sole responsibility taking into account the intended application and actual conditions existing on the specific worksite. Consequent selection of the right product for any particular use remains the user's ultimate responsibility.

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