Rope Access Pty Ltd T/AS Safety Roof Anchors
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SPECIFICATION: AA400T EYE BOLT THROUGH BOLT ANCHOR POINT

The System

Developed mainly for applications in concrete and steel AA400T eye bolt is designed to withstand a fall arrest load of 15 kN. It can be used for a wide range of applications and host structures.

Special Features:

- Unique robust design
- Complete traceability
- Large 120mm dia plate to spread to load over larger surface area

Uses:

AA400T anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 KN provided a suitable personal shock absorber is used.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Eye)

316 Stainless Steel (Threaded Rod)

Finish:

Bead blast or electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall length – 300mm, 500mm or 1000mm
- Eye Diameter – 40 mm x 26 mm
- Rod length – M12 x 300 mm, 500mm or 1000mm
- Weight – 460 g

Fixing Details:

- 1 x Through bolt M12 (HOLE 14 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013

AA400T Through bolt anchor Installation Instructions

Things to know:

AA400T 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:

- Through bolt M12 (HOLE 14 DIA)

Loading: 360° including tensile loading

Tools needed for installation:

Rotary hammer drill, masonry drill bit 14, reo detector, spanner, bar

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 AA400T with the large (120mm diameter) backing plate on the inside.

5. Install an M12 washer and lock nut and tighten fully. Ensure minimum of 5 threads are showing

when fully tightened.

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Proof load and certification:

Through bolts must be visually inspected upon installation – do not proof load!

Note:

The 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 a fall arrest situation and/ or during work positioning.

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SPECIFICATION: AA401 EYE NUT

The System

Developed mainly for applications in concrete and steel AA401 eye nut is designed to withstand a fall arrest load of 15 kN in any direction. It can be used for a wide range of applications and host structures.

Special Features:

- Unique robust design
- Complete traceability

Uses:

AA401 is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 kN in 360° direction provided a suitable personal shock absorber is used.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel

Finish:

Bead Blast or Electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Height – 50 mm
- Eye Diameter – 45 mm x 26 mm
- Weight – 355 g

Fixing Details:

- 1 x Through bolt M12 (HOLE 14 DIA)
- 1 x Chemical HILTI HVU2 M12 (HOLE 14 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013

AA401 Eye nut Installation Instructions

Things to know:

AA401 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. It is recommended to use a permanent locking agent such as Loctite 277 or equivalent when installing on a threaded rod without welding.

Fixing options:

- Through bolt M12 (HOLE 14 DIA)
- Chemical HILTI HVU M12 (HOLE 14 DIA)

Loading: Sheer, not exceeding 20° with the surface it is installed into if installed as a chemset in concrete.

Tools needed for installation:

Rotary hammer drill, masonry drill bit 14, air pump, cleaning brush

Installation steps – M12 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 appropriate setting tool, install a stainless steel M12 rod. Ensure the rod has the tip cut off on 45° angle or use Hilti rods suitable for the application.

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

8. Use a fastener locking agent such as Loctite 277 or equivalent to install AA401. Ensure minimum of 3 threads are showing.

NOTE: When installing through water proofing membrane, a full gasket of compatible sealant is recommended between the eye nut and the membrane.

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. Insert M12 stainless steel rod cut to size. Add one backing plate (BP2 or BP3) to each side of the rod.

5. Install one M12waher and one lock nut to the back side and AA401 anchor to the front side. Apply a fastener locking agent such as Loctite 277 or equivalent to the thread and tighten fully using a spanner and a bar. Ensure minimum of 3 threads are showing on each side.

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 AS/NZS 4488.2:1997

- Proof load the eye to 7.5 kN for fall arrest applications
- Proof load the eye to 6 kN for applications in rope access
- Through bolts must be visually inspected – do not proof load!

Note:

The 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 work positioning.

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SPECIFICATION: Eye bolt setting tool

The System

Developed for speedy and comfortable installation of eye bolts (AA402) in concrete in conjunction with Hilti HVU chemicals.

Special Features:

- Mini SDS Plus compatible
- Fits both eyebolt sizes - M12 and M16

Uses:

The SRA setting tool is designed to attach to all brands of rotary hammers and power drills equipped with Mini SDS Plus system to tackle the challenge of installing eyebolts in concrete while using Hilti HVU chemicals.

Product Warranty:

10 years from date of purchase subject to correct use and maintenance in accordance with manufacturer's specifications and recommendations.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel

Finish:

- Electro polished

Dimensions:

- Overall length – 105mm
- Weight – 131g

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SPECIFICATION: AA402 EYE BOLT ANCHOR POINT

The System

Developed mainly for applications in concrete and steel AA402 eye bolt is designed to withstand a fall arrest load of 15 kN. It can be used for a wide range of applications and host structures.

Special Features:

- Unique robust design
- Complete traceability

Uses:

AA402 anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 kN provided a suitable personal shock absorber is used.

Designed as one person anchor point except rescue situation.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Eye)

316 Stainless Steel (Threaded Rod)

Finish:

Bead blast or Electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall length – 160mm
- Eye Diameter – 45 mm x 26 mm
- Rod length – M12 x 110 mm
- Weight – 460 g

Fixing Details:

- 1 x Through bolt M12 (HOLE 14 DIA)
- 1 x Chemical HILTI HVU2 M12 (HOLE 14 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013

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SPECIFICATION: M16 AA402 EYE BOLT ANCHOR POINT

The System

Developed mainly for applications in concrete and steel AA402 eye bolt is designed to withstand a fall arrest load of 15 kN. It can be used for a wide range of applications and host structures.

Special Features:

- Unique robust design
- Complete traceability

Uses:

AA402 anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 kN provided a suitable personal shock absorber is used.

Designed as one person anchor point except rescue situation.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Eye)

316 Stainless Steel (Threaded Rod)

Finish:

Bead blast or Electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall length – 175mm
- Eye Diameter – 45 mm x 26 mm
- Rod length – M16 x 125 mm
- Weight – 505 g

Fixing Details:

- 1 x Through bolt M16 (HOLE 16-17 DIA)
- 1 x Chemical HILTI HVU2 M16 (HOLE 18DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013

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)
- HSL 3-B M12 or HSL-GR M12 (HOLE 18 DIA)
- Through bolt M12 (HOLE 14 DIA)

Loading: Load the eye bolt in sheer, 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.

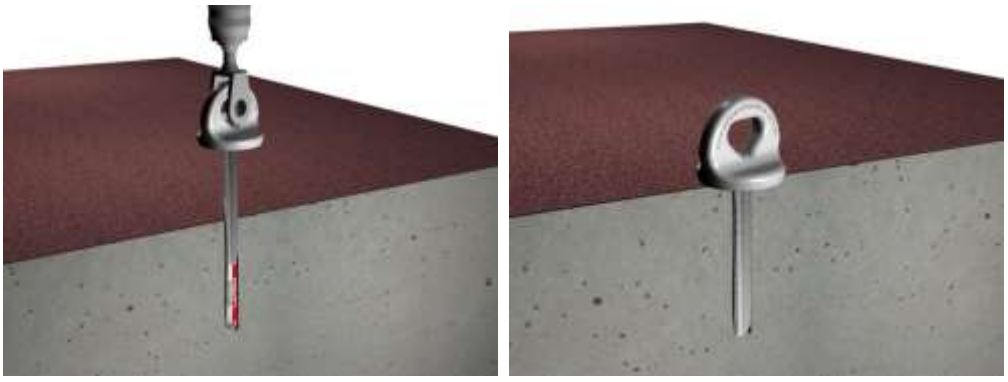
2. Mark the position for hole to be drilled.

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 chemical in the hole as per the manufacturer's instructions

6. Install AA402 by turning is slowly in clock wise 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 **u**se 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 showings when fully tightened.

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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 6 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.

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SPECIFICATION: AA402HIS REMOVABLE EYE BOLT ANCHOR POINT

The System

Developed for applications in concrete AA402HIS eye bolt is rated at 15 kN. This internally threaded rod is suitable for applications that require removable eyebolt such as residential balconies or areas with increased trip hazard.

Special Features:

- Unique robust design
- Complete traceability
- Hilti engineering

Uses:

AA402HIS anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 kN provided a suitable personal shock absorber is used.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Eye)

316 Stainless Steel (Hilti HIS internally threaded rod)

Finish:

Electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall length – 160mm
- Eye Diameter – 45 mm x 26 mm
- HIS anchor length – M12 x 110 mm
- Weight – 635 g

Fixing Details:

- Chemset 1 x HVU2 M16 (HOLE 25 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA402HIS Removable eyebolt anchor Installation Instructions

Things to know:

AA402HIS is designed for installation in concrete. 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:

Chemset M16 HIS (HOLE 22 DIA)

Loading: Sheer, not exceeding 20° with the surface it's installed in.

Tools needed for installation:

Rotary hammer drill, masonry drill bit 22, air pump, cleaning brush, suitable Hilti chemical such as HIT500RE or HVU with appropriate Hilti setting tool.

Installation steps – M12 Hilti HIS 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 M22 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 HIS internally threaded rod as per Hilti instructions and allow sufficient curing time

6. Screw in SRA eye bolt and proof load

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 6 kN for applications in rope access

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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SPECIFICATION: AA403 PURLIN ANCHOR POINT

The System

Developed mainly for applications in rope access AA403 Purlin anchor is designed for installation through the steel purlin and roof sheet on a wide range of tray deck metal roofs. It can be used for a wide range of applications and host structures such as steel beams. It comes with a 6mm x 80mm neoprene seal under the base plate for water proofing of penetrations in roof sheet.

Special Features:

- Unique robust design
- Complete traceability

Uses:

AA403 anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 kN provided a suitable personal shock absorber is used.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Eye and base plate)

316 Stainless Steel (Threaded Rod)

Neoprene (seal on underside of base plate)

Finish:

Bead blast or electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall length – 185 mm
- Eye Diameter – 45 mm x 26 mm
- Base plate diameter -80 mm
- Rod length – M12 x 135 mm
- Weight – 815 g

Fixing Details:

- 1 x Through bolt M12 (HOLE 22-25 DIA)

Maintenance:

Inspection required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA403 Purlin Anchor Installation Instructions

Things to know:

AA403 has been developed as for applications in rope access (abseiling) but can also be used to support a fall arrest load of 15kN. It can be installed into steel purlins of various tray deck and kliplok types of roofs of the following minimum requirements:

Steel structure*:* Minimum purlin gauge – 150mm x 1.2mm

Roof sheet: Minimum sheet gauge – 0.42mm

Minimum roof size: For rope access there must be minimum of 3 purlins supporting the roof sheet. For fall arrest there must be minimum of 5 purlins supporting the roof sheet. Refer to installation steps for details (fig 8)

Loading: Always in sheer with the roof

Tools needed:

Cordless drill, 25mm hole saw, brush and dust pan or vacuum, a bar to tighten

Installation steps:

1. Assemble the 80mm plate with neoprene seal onto the eyebolt

2. Drill a 25mm hole in the centre of the purlin at the required position.

3. Feed the plastic cable tie through the small (5mm) hole in the steel block.

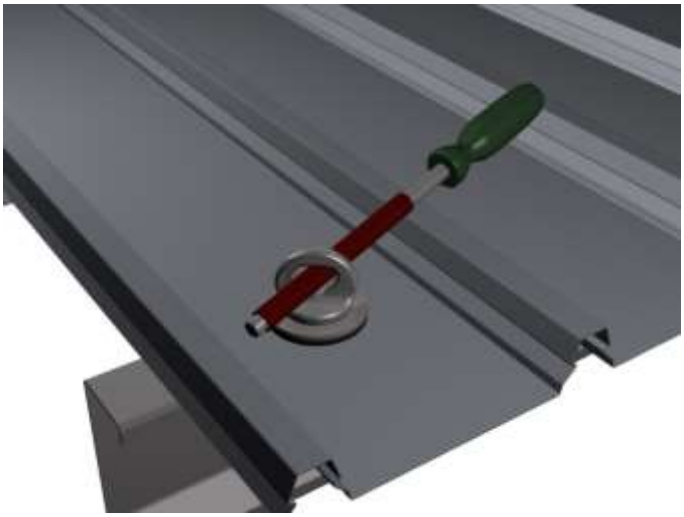
4. While firmly holding the cable tie, insert the block through the hole.

5. When the steel block is fully through the hole, pull the cable tie back, pressing the block firmly against the underside of the purlin. Make sure the threaded hole of the block is visible.

6. Using your other hand take the eyebolt and screw it into the steel block at least 6 turns.

7. Release the cable tie and let in fall through the roof.

8. The eye bolt can be now fully tightened using a bar (40Nm is recommended). Make sure the eyebolt faces the right direction when fully tightened.



NOTE: The neoprene seal will work better on a clean roof. In case the roof is not in a clean condition, it may require some sealant under the neoprene seal. Clear sealant is required to be applied between the eye bolt and the base plate to ensure water proofing as well as prevention from seizing.

Annual re-certification

All anchor points must be inspected and certified before their initial use and subsequently on regular basis to satisfy the requirements set out in AS/NZS 1891.4:2009 and AS/NZS 4488.2:1997

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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SPECIFICATION: AA403C PURLIN ANCHOR POINT

The System

Developed mainly for applications in rope access AA403C Purlin anchor is designed for installation through the steel purlin and corrugated roof sheet. It comes with a 6mm x 80mm neoprene seal under the base plate for water proofing of penetrations in roof sheet.

Special Features:

- Unique robust design
- Complete traceability

Uses:

AA403C anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 KN provided a suitable personal shock absorber is used.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Eye and base plate)

316 Stainless Steel (Threaded Rod)

Neoprene (seal on underside of base plate)

Finish:

Bead blast or electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall length – 185 mm
- Eye Diameter – 45 mm x 26 mm
- Base plate diameter -80 mm
- Rod length – M12 x 135 mm
- Weight – 815 g

Fixing Details:

- 1 x Through bolt M12 (HOLE 25 DIA)

Maintenance:

Inspection required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009 , AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA403C Purlin Anchor Installation Instructions

Things to know:

AA403C has been developed as for applications in rope access (abseiling) but can also be used to support a fall arrest load of 15kN. It can be installed into steel purlins of corrugated type of roof of the following minimum requirements:

Steel structure*:* Minimum purlin gauge – 150mm x 1.2mm

Roof sheet: Minimum sheet gauge – 0.42mm

Minimum roof size: For rope access there must be minimum of 3 purlins supporting the roof sheet. For fall arrest there must be minimum of 5 purlins supporting the roof sheet. Refer to installation steps for details (fig 8).

Loading: Always in sheer with the roof

Tools needed:

Cordless drill, 25mm hole saw, brush and dust pan or vacuum, a bar to tighten

Installation steps:

1. Assemble the 80mm plate with neoprene seal onto the eyebolt.

2. Drill a 25mm hole in the centre of the purlin at the required position.

3. Feed the plastic cable tie through the small (5mm) hole in the steel block.

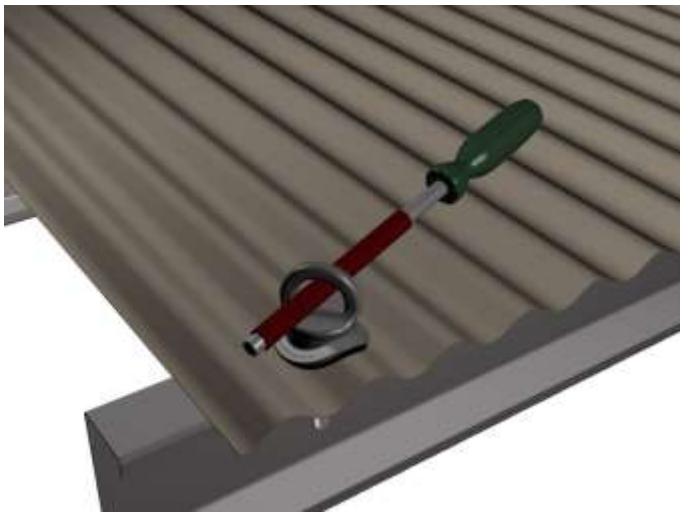
4. While firmly holding the cable tie, insert the block through the hole.

5. When the steel block is fully through the hole, pull the cable tie back, pressing the block firmly against the underside of the purlin. Make sure the threaded hole of the block is visible.

6. Using your other hand take the eyebolt and screw it into the steel block at least 6 turns.

7. Release the cable tie and let in fall through the roof.

8. The eye bolt can be now fully tightened using a bar (40Nm is recommended). Make sure the eyebolt faces the right direction when fully tightened.



NOTE: The neoprene seal will work better on a clean roof. In case the roof is not in a clean condition, it may require some sealant under the neoprene seal. Clear sealant is required to be applied between the eye bolt and the base plate to ensure water proofing as well as prevention from seizing.

Annual re-certification

All anchor points must be inspected and certified before their initial use and subsequently on regular basis to satisfy the requirements set out in AS/NZS 1891.4:2009 and AS/NZS 4488.2:1997

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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SPECIFICATION: AA404 Pedestal

The System

Developed for applications in concrete and steel AA404 Pedestal is used to support a swivel eye bolt or as a static line end anchor point carrier.

Special Features:

- Unique robust design
- Welded swivel eye bolt
- Complete traceability
- High profile design

Uses:

AA404 is useful in some applications where the extra height of the anchorage is important such as installations through topping.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Post and the Eye)

316 Stainless Steel (Bolt)

Finish:

Bead blast or electro polished

Abseil Capacity:

N/A

Fall Arrest Capacity:

N/A

Dimensions:

- Overall height – 100 mm
- Weight – 1,240 g

Fixing Details:

- 3 x Through bolt M12 (HOLE 14 DIA)
- 3 x Chemical HILTI HVU2 M12 (HOLE 14 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA404 Pedestal Installation Instructions

Things to know:

AA404 is designed for installation in concrete and steel in applications where a higher profile anchorage point is desirable (eg. Roof tops with pebbles or other topping). It is suitable as a base for a rope access anchor or fall arrest anchor or as a static line carrier.

Fixing options:

- 3 x Through bolt M12 (HOLE 14 DIA)
- 3 x Chemical HILTI HVU M12 (HOLE 14 DIA)
- 3 x HSL 3-B M12 (HOLE 18 DIA)
- 3 x Through bolt M16 (HOLE 18 DIA)
- 3 x Chemical HILTI HVU M16 (HOLE 18 DIA)

Tools needed for installation:

Rebar detector, Rotary hammer drill, masonry drill bit 14 or 18, air pump, cleaning brush, spanner or torque wrench if using HSL-R

Installation steps – M12 HVU chemset in concrete:

1.Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Drill three M14x110mm holes. When you start drilling the second and third hole, double check your holes line up with the holes in the pedestal base. Ensure the holes are parallel and 90° with the drilled surface

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

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

6. Using rotary hammer with appropriate setting tool, install 3 stainless steel M12 rods through the holes in the base of the pedestal. The rods must have their tips cut on 45° angle to allow for correct mixing of chemical.

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

8. Install three M12 washers and nylock nuts on the rods ensuring minimum of 3 threads are showing when nuts are fully tightened.

NOTE: When installing through water proofing membrane, a full gasket of quality polyurethane sealant is recommended between the pedestal base plate and the membrane.

NOTE 2: Install M16 chemset as per the above instructions with re-drilled pedestal holes to take M16 rods

Installation steps – M12 Hilti HSL-3B or HSL-R in concrete:

1. Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Assemble the HSL's onto the pedestal base and check they line up with the marked holes

4. Drill three M18x125mm holes. When you start drilling the second and third hole, double check your holes line up with the holes in the pedestal base. Ensure the holes are parallel and 90° with the drilled surface

5.Clean the holes 3 times with compressed air and cleaning brush.

6.Offer the whole assembly to the drilled holes and tap both HSL's repeatedly with hammer until fully in.

7. Use a spanner to apply correct torque as per Hilti HSL-3B or HSL-R instructions.

NOTE: When installing through water proofing membrane, a full gasket of quality polyurethane sealant is recommended between the anchor base plate and the membrane.

Installation steps – M12 through bolt

1. Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Drill three M14 holes. When you start drilling the second and third hole, double check your holes line up with the holes in the pedestal base. Ensure the holes are parallel and 90° with the drilled surface

4. Insert three M12 stainless steel rods cut to size. Add three backing plates (BP3); one to each rod on the back side and M12 washer to each rod on the front side.

5. Install six M12 lock nuts; one for each end of the rod and tighten to 40 Nm using two spanners. Ensure minimum of 3 threads are showing when nuts are fully tightened.

NOTE: Install M16 through bolt as per the above instructions with re-drilled anchor body holes to take M16 rods.

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 AS/NZS 4488.2:1997

- Proof load each rod individually to 7.5 kN
- Do not proof load the bracket

Through bolts must be visually inspected – do not proof load!

Note:

The 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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SPECIFICATION: AA404P Pedestal with M12 Welded Swivel Eye Bolt

The System

Developed for applications in concrete and steel AA404P Pedestal with M12 Welded swivel eye bolt is designed to withstand a fall arrest load of 15kN. It can be used for a wide range of applications and host structures.

Special Features:

- Unique robust design
- Welded swivel eye bolt
- Complete traceability
- High profile design

Uses:

AA404P anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of1 15 kN provided a suitable personal shock absorber is used.

It is useful in some applications where the extra height of the anchorage is important such as installations through topping.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Post and the Eye)

316 Stainless Steel (Bolt)

Finish:

Bead blast or electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall height – 160 mm
- Eye Diameter – 45 mm x 26 mm
- Weight – 1,650 g

Fixing Details:

- 3 x Through bolt M12 (HOLE 14 DIA)
- 3 x Chemical HILTI HVU2 M12 (HOLE 14 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA404P Pedestal with welded swivel eye bolt Installation Instructions

Things to know:

AA404P is designed for installation in concrete and steel in applications where a higher profile anchorage point is desirable (eg. Roof tops with pebbles or other topping). It is suitable as a rope access anchor or fall arrest anchor. It is designed to handle tensile loading and should therefore be used in place of collared eye bolts in all applications where they are loaded under an angle greater than 20° with the surface they are installed in.

Fixing options:

- 3 x Through bolt M12 (HOLE 14 DIA)
- 3 x Chemical HILTI HVU M12 (HOLE 14 DIA)
- 3 x HSL 3-B M12 (HOLE 18 DIA)
- 3 x Through bolt M16 (HOLE 18 DIA)
- 3 x Chemical HILTI HVU M16 (HOLE 18 DIA)

Loading: 360°

Tools needed for installation:

Rebar detector, Rotary hammer drill, masonry drill bit 14 or 18, air pump, cleaning brush, spanner or torque wrench if using HSL-R

Installation steps – M12 HVU chemset in concrete:

1.Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Drill three M14x110mm holes. When you start drilling the second and third hole, double check your holes line up with the holes in the pedestal base. Ensure the holes are parallel and 90° with the drilled surface

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

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

6. Using rotary hammer with appropriate setting tool, install 3 stainless steel M12 rods through the holes in the base of the pedestal. The rods must have their tips cut on 45° angle to allow for correct mixing of chemical.

7. Allow sufficient drying time as per HiltiHVU instructions.

8. Install three M12 washers and nylock nuts on the rods ensuring minimum of 3 threads are showing when nuts are fully tightened.

NOTE: When installing through water proofing membrane, a full gasket of quality polyurethane sealant is recommended between the pedestal base plate and the membrane.

NOTE 2: Install M16 chemset as per the above instructions with re-drilled pedestal holes to take M16 rods

Installation steps – M12 Hilti HSL-3B or HSL-R in concrete:

1. Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Assemble the HSL's onto the pedestal base and check they line up with the marked holes

4. Drill three M18x125mm holes. When you start drilling the second and third hole, double check your holes line up with the holes in the pedestal base. Ensure the holes are parallel and 90° with the drilled surface

5 . Clean the holes 3 times with compressed air and cleaning brush.

6. Offer the whole assembly to the drilled holes and tap both HSL's repeatedly with hammer until fully in.

7. Use a spanner to apply correct torque as per Hilti HSL-3B or HSL-R instructions.

NOTE: When installing through water proofing membrane, a full gasket of quality polyurethane sealant is recommended between the anchor base plate and the membrane.

Installation steps – M12 through bolt

1. Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Drill three M14 holes. When you start drilling the second and third hole, double check your holes line up with the holes in the pedestal base. Ensure the holes are parallel and 90° with the drilled surface

4. Insert three M12 stainless steel rods cut to size. Add three backing plates (BP3); one to each rod on the back side and M12 washer to each rod on the front side.

5. Install six M12 lock nuts; one for each end of the rod and tighten to 40 Nm using two spanners. Ensure minimum of 3 threads are showing when nuts are fully tightened.

NOTE: Install M16 through bolt as per the above instructions with re-drilled anchor body holes to take M16 rods.

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 AS/NZS 4488.2:1997

- Proof load each rod individually to 7.5 kN
- Do not proof load the bracket

Through bolts must be visually inspected – do not proof load!

Note:

The 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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SPECIFICATION: AA405 Post Anchor with M16 Eye Bolt

The System

Developed for applications in concrete AA404P Post Anchor with M16 eye bolt is designed for installation into roofs with topping such as pebbles and similar. It can be used for both rope access and fall arrest.

Special Features:

- Unique robust design
- M16 welded eye bolt
- Complete traceability
- High profile design

Uses:

AA405 anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of1 15 kN provided a suitable personal shock absorber is used.

It is useful in some applications where the extra height of the anchorage is important such as installations through topping.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (Eye)

316 Stainless Steel (Bolt)

316 Stainless Steel 3mm thick pipe (body)

Finish:

Electro polished

Abseil Capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Overall height – 200 mm
- Inside Eye Diameter – 45 mm x 26 mm
- Weight – 1,415 g

Fixing Details:

- 1 x Chemical HILTI RE500 (HOLE 18 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA405 extended eye bolt Installation Instructions

Things to know:

AA405 is designed for installation in concrete and steel in applications where a higher profile anchorage point is desirable (eg. Roof tops with pebbles or other topping). It is suitable as a rope access anchor or fall arrest anchor.

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:

- 1 x Through bolt M16 (HOLE 18 DIA)
- 1 x Chemical HILTI RE 500 (HOLE 18 DIA)

Loading: 360°

Tools needed for installation:

Rebar detector, Rotary hammer drill, masonry drill bit 18, air pump, cleaning brush, chemset gun

Installation steps – chemset in concrete (Hilti RE500):

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 M18x125mm holes. Ensure the holes is 90° with the drilled surface

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

5. Squeeze the right amount of Hilti RE500 chemical in the hole.

6. Slowly screw the rod into the hole and keep turning until it is fully embedded.

7. Allow sufficient drying time as per Hilti RE 500 instructions.

NOTE: When installing through water proofing membrane, Hilti RE 500 chemical takes care of the waterproofing job nicely. No need to add sealant. Excess chemical that is pushed out upon installation seals the hole.

Installation steps – M16 through bolt 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 hole. Ensure the hole is 90° with the drilled surface

4. Insert the anchor into the hole. Add one backing plate (BP1 or BP2) and M16 washer

5. Install one M16 lock nut and tighten to 40 Nm using two spanners. Ensure minimum of 3 threads are showing when the nut is 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 AS/NZS 4488.2:1997

- Proof load 7.5 kN or 6kN depending on application

Through bolts must be visually inspected – do not proof load!

Note:

The 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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SPECIFICATION: AA406 SWIVEL ANCHOR POINT

The System

Developed mainly for applications in concrete and steel the AA406 anchor point features a 360° swivel eye which offers a uniform loading in all directions preventing side loading of a karabiner attachment.

Special Features:

360° swivelling anchor point

Used for both Fall arrest/Rope access

Uses:

AA406 is designed for use in industrial rope access (abseiling) and to support a fall arrest load of 15 KN in all directions (always in sheer) provided a suitable personal shock absorber is used.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (eye and base plate)

Grade 316 stainless steel (rod)

Finish:

Bead blast or Electro polish

Abseil capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Length of plate – 95 mm
- Eye Diameter – 25 mm
- Weight – 260 g

Fixing Details: 5 Options

- 1 x Through bolt M12 (HOLE 14 DIA)
- 1 x Chemical HILTI HVU2 M12 (HOLE 14 DIA)
- 1 x Through bolt M16 (HOLE 18 DIA)
- 1 x Chemical HILTI HVU2 M16 (HOLE 18 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA406 Swivel Anchor Installation Instructions

Things to know:

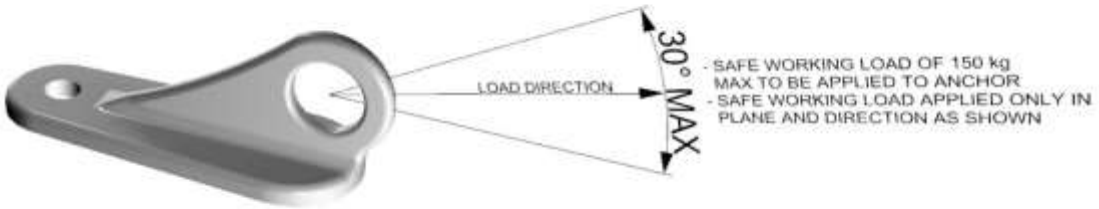
AA406 is designed for installation in concrete and steel. It has been specifically developed for applications in rope access (abseiling) but it can be also used to support a fall arrest load of 15 kN provided a suitable personal shock absorber is used. The swivelling action dramatically improves the loading properties and prevents the cross loading of karabiners. It is recommended to install the AA406 as a kit (AA406K)

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:

- Through bolt M12 (HOLE 14 DIA)
- Chemical HILTI HVU M12 (HOLE 14 DIA)
- HSL 3-B M12 (HOLE 18 DIA)

Loading: sheer as per the diagram



Tools needed for installation:

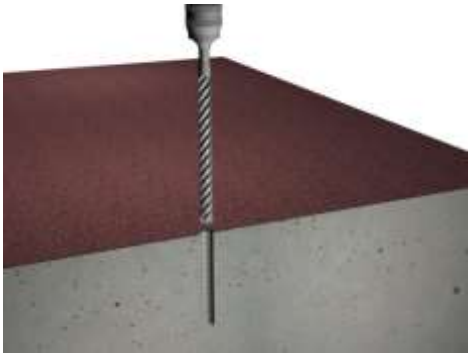
Rebar detector, Rotary hammer drill, masonry drill bit 14, air pump, cleaning brush, setting tool for rods

Installation steps – M12 chemset in concrete:

1. Use Hilti rebar detector 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 appropriate setting tool (hex socket), install a stainless steel M12 rod. Ensure the rods have their tips cut off on 45° angle or use Hilti rods suitable for the application.

7. Allow sufficient drying time as per Hilti HVU instructions. Once dry, remove the hex nuts.

8. Install a stainless steel base plate (BP2 80mm), AA406 anchor, M12 washer and clamp down with M12 nylock nut. Tighten the locknut fully and then slack off until the anchor can swivel freely. Ensure minimum of 3 threads are showing.

NOTE: When installing through water proofing membrane, a full gasket of quality polyurethane sealant is recommended between the base plate and the membrane.

Installation steps – M12 Hilti HSL-3B 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 as and **u**se a spanner to apply correct torque as per Hilti HSL-3B instructions.

6. Remove the M12 bolt inside the HSL-3B and use it to install a base plate (BP2 80mm), M12 washer and AA406 anchor.

7. Tighten fully and then slack off to ensure the anchor swivels freely.

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. Insert M12 stainless steel rod cut to size. Add one backing plate (BP1 120mm or BP2 80mm) to each side of the rod.

5. Install one M12 washer and one lock nut to the back side and AA406 anchor, M12 washer and one M12 lock nut to the front side. Tighten fully using 2 spanners and then slack off just enough to ensure the anchor can swivel freely. Ensure minimum of 8 threads are showing on each side.

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 AS/NZS 4488.2:1997

- Proof load rod to 7.5 kN for fall arrest applications
- Proof load rod to 6 kN for applications in rope access
- Always proof load the rods, NOT the brackets!

Through bolts must be visually inspected – do not proof load!

Note:

The 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 a fall arrest situation and/or work positioning.

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SPECIFICATION: AA406K SWIVEL ANCHOR POINT KIT

The System

Developed mainly for applications in concrete and steel the AA406K anchor point kit features a 360° swivel eye which offers a uniform loading in all directions preventing side loading of a karabiner attachment.

Special Features:

360° swivelling anchor point

Used for both Fall arrest/Rope access

Includes 80mm base plate, M12 x 110mm rod, 2 off M12 hex nuts, 1 off nylock nut, 1 off M12 washer

Uses:

AA406K is designed for use in industrial rope access (abseiling) and to support a fall arrest load of 15 kN in all directions (always in sheer) provided a suitable personal shock absorber is used.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel (eye and base plate)

Grade 316 stainless steel (rod)

Finish:

Bead blast or Electro polish

Abseil capacity:

12 kN

Fall Arrest Capacity:

15 kN

Dimensions:

- Length of plate – 95 mm
- Eye Diameter – 25 mm
- Base plate diameter – 80 mm
- Weight of kit – 600 g

Fixing Details: 5 Options

- 1 x Through bolt M12 (HOLE 14 DIA)
- 1 x Chemical HILTI HVU2 M12 (HOLE 14 DIA)
- 1 x Through bolt M16 (HOLE 18 DIA)
- 1 x Chemical HILTI HVU2 M16 (HOLE 18 DIA)

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA406K Swivel Anchor Installation Instructions

Things to know:

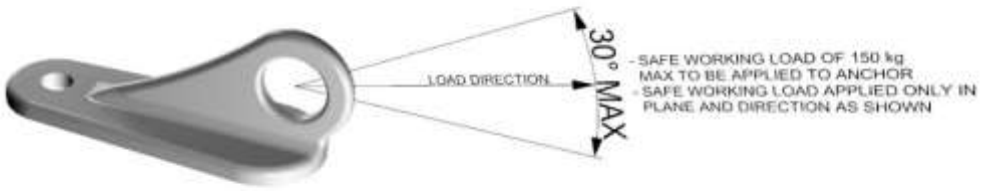
AA406K is designed for installation in concrete and steel. It has been specifically developed for applications in rope access (abseiling) but it can be also used to support a fall arrest load of 15 kN provided a suitable personal shock absorber is used. The swivelling action dramatically improves the loading properties and prevents the cross loading of karabiners.

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:

- Through bolt M12 (HOLE 14 DIA)
- Chemical HILTI HVU M12 (HOLE 14 DIA)
- HSL 3-B M12 (HOLE 18 DIA)

Loading: sheer as per the diagram



Tools needed for installation:

Rebar detector, Rotary hammer drill, masonry drill bit 14, air pump, cleaning brush, setting tool for rods

Installation steps – M12 chemset in concrete:

1. Use Hilti rebar detector 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 appropriate setting tool (hex socket), install a stainless steel M12 rod. Ensure the rods have their tips cut off on 45° angle or use Hilti rods suitable for the application.

7. Allow sufficient drying time as per Hilti HVU instructions. Once dry, remove the hex nuts.

8. Install a stainless steel base plate (BP2 80mm), AA406 anchor, M12 washer and clamp down with M12 nylock nut. Tighten the locknut fully and then slack off until the anchor can swivel freely. Ensure minimum of 3 threads are showing.

NOTE: When installing through water proofing membrane, a full gasket of quality polyurethane sealant is recommended between the base plate and the membrane.

Installation steps – M12 Hilti HSL-3B 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 as and **u**se a spanner to apply correct torque as per Hilti HSL-3B instructions.

6. Remove the M12 bolt inside the HSL-3B and use it to install a base plate (BP2 80mm), M12 washer and AA406 anchor.

7. Tighten fully and then slack off to ensure the anchor swivels freely.

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. Insert M12 stainless steel rod cut to size. Add one backing plate (BP1 120mm or BP2 80mm) to each side of the rod.

5. Install one M12 washer and one lock nut to the back side and AA406 anchor, M12 washer and one M12 lock nut to the front side. Tighten fully using 2 spanners and then slack off just enough to ensure the anchor can swivel freely. Ensure minimum of 8 threads are showing on each side.

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 AS/NZS 4488.2:1997

- Proof load rod to 7.5 kN for fall arrest applications
- Proof load rod to 6 kN for applications in rope access
- Always proof load the rods, NOT the brackets!

Through bolts must be visually inspected – do not proof load!

Note:

The 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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SPECIFICATION: AA408 TENSILE ANCHOR POINT

The System

Developed especially for loading in tension AA408 features a double bolt design. This safety factor is important in all applications where the anchor is loaded under an angle exceeding 20˚ with the surface it is installed into (as per AS/NZS 4488.2:1997, section 5.3).

Special Features:

- Designed to be loaded in sheer and tension
- Large eye diameter
- Safety factor of 2 bolts

Uses:

AA408 anchor is designed for industrial rope access (abseiling) and to support a fall arrest load of 15 KN provided a suitable personal shock absorber is used.

It is essential in overhangs as a re-belay anchor or aid climbing anchor as well as a through bolt anchor with an added safety factor.

Installation by trained and certified personnel in accordance with AS/NZS 4488.2:1997, AS/NZS 1891.4:2009, ISO 22846 (2003) and manufacturer's instructions.

Product Warranty:

10 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations.

Important Note:

Failure to supply and/or install proprietary product in accordance with above standards and codes, specifications and instructions voids complete system certification and/or warranty.

Technical Data

Material Used:

Investment Cast 316 Stainless Steel

Finish:

Bead blast or Electro polish

Abseil capacity:

12 kN

Fall arrest capacity:

15 kN

Dimensions:

- Overall length - 240 mm
- Hole to hole centres – 200 mm
- Eye Diameter - 25 mm
- Weight - 710 g

Fixing Details:

- 2x Through bolt M12 (HOLE 14 DIA)
- 2 x Chemical HILTI HVU2 M12 (HOLE 14 DIA)
- 2 x Chemical HILTI HVU2 M16 (HOLE 18 DIA)
- 2 x HSL-GR M10 (HOLE 15 DIA)
- 2 X HST3-R M12 125MM HOLE M12 DIA

Maintenance:

Inspection and load testing required by competent person at intervals not exceeding 12 months as specified in AS 1891.4:2009, AS/NZS 4488.2:1997 and ISO 22846 (2003).

Standards:

Complies with WHS Act 2011 and relevant Codes of Practice.

Australian Standard – AS/NZS 1891.4:2009, AS/NZS 4488.2:1997, ISO 22846 (2003) and AS/NZS 5532:2013.

AA408 Tensile Double Bolt Anchor Installation Instructions

Things to know:

AA408 is designed for installation in concrete and steel. It has been specifically developed for tensile loading applications. It is suitable as a re-belay/ aid climbing anchor, tensile rope access anchor or fall arrest anchor. It should be used in place of collared eye bolts in all applications where they are loaded under an angle greater than 20° with the surface they are installed in.

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:

- 2 x Through bolt M12 (HOLE 14 DIA)
- 2 x Chemical HILTI HVU M12 (HOLE 14 DIA)
- 2 x HSL 3-B, GR M12 (HOLE 18 DIA) or 2x HSL GR M10

Loading: tensile or sheer as per the diagram

Tools needed for installation:

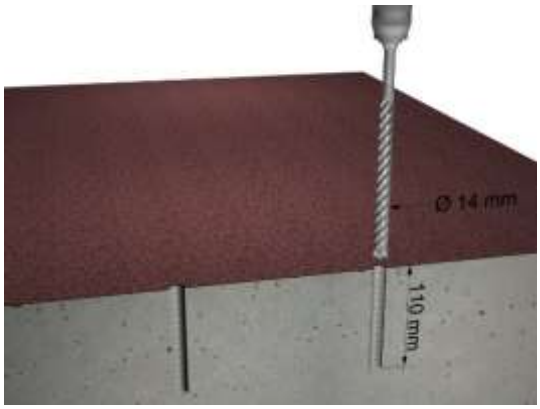
Rebar detector, Rotary hammer drill, masonry drill bit 14 or 18, air pump, cleaning brush

Installation steps – M12 chemset in concrete:

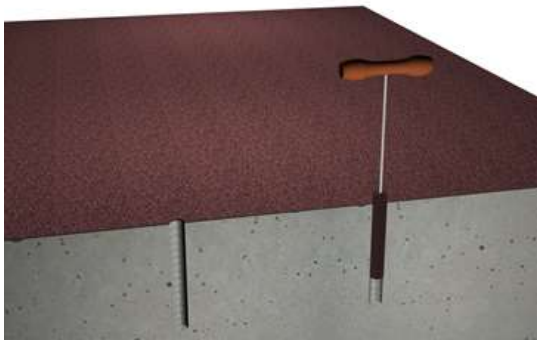
1.Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Drill two M14x110mm holes.When you start drilling the second hole, double check your holes line up with the anchor holes. Ensure the holes are parallel and 90° with the drilled surface



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



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

6. Using rotary hammer with appropriate setting tool, install 2 stainless steel M12 rods through the holes in the base of AA408 anchor. The rods must have their tips cut on 45° angle to allow for correct mixing of chemical.

7. Allow sufficient drying time as per Hilti HVU instructions. Once cured, remove the hex nuts.

8. Install one M12 washers and one M12 nylock nut on each rod ensuring minimum of 3 threads are showing when nuts are fully tightened.

NOTE: When installing through water proofing membrane, a full gasket of a membrane compatible sealant is recommended between and around the anchor base plate and the membrane.

NOTE 2: Install M16 chemset as per the above instructions with re-drilled anchor body holes to take M16 rods

Installation steps – M12 Hilti HSL-3B in concrete:

1. Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Assemble both HSL's onto the anchor body and check they line up with the marked holes

4. Drill two M18 x 125mm holes. When you start drilling the second hole, double check the holes line up with the HSL's in your assembly. Ensure the holes are parallel and 90° with the drilled surface

5. Clean the holes 3 times with compressed air and cleaning brush.

6. Offer the whole assembly to the drilled holes and tap both HSL's repeatedly with hammer until fully in.

7. Use a spanner to apply correct torque as per Hilti HSL-3B instructions.

Installation steps – M12 through bolt

1. Use Hilti Reo Scan or similar device to avoid drilling the steel reinforcement in concrete.

2. Mark the positions for holes to be drilled.

3. Drill two M14 holes. When you start drilling the second hole, double check your holes line up with the anchor holes. Ensure the holes are parallel and 90° with the drilled surface

4. Insert two M12 stainless steel rods cut to size. Add two backing plates (BP2 or BP3) to each rod on the back side and M12 washer to each rod on the front side.

5. Install four M12 lock nuts; one for each end of the rod and tighten to 40 Nm using two spanners. Ensure minimum of 3 threads are showing when nuts are 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 AS/NZS 4488.2:1997

- Proof load each rod individually to 7.5 kN
- Do not proof load the bracket

Through bolts must be visually inspected – do not proof load!

Note:

The 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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