

# Building Product Information Sheet

## Class 1

**Product Name:**

ATS EVO Heavy Duty Safety Bolt - Hex Head

**Date of Report:**

03 / 11 / 2023

**Product Line:**

Friulsider ATS-Evo

**Product Description and its intended use:**

First in Safety, First in Seismic C2 Certification. The ATS-EVO heavy duty anchor by Friulsider is the ideal anchor for extreme load performance. Trusted by engineers and architects in New Zealand.

SAFE INSTALLATION: Optimal expansion guaranteed by the coupling of the cone and body.

UNIFORM EXPANSION: Single piece three expanding segments.

ANTI-ROTATION: The special bush shape prevents rotation.

Certified for seismic applications (C1 and C2), cracked concrete approved and fire resistance certification. Available in Hex Head or Countersunk Head variations.

**Key technical specifications:**

- Product type: Sleeve Anchor
- Finish options: Zinc Plated
- Head style: Flush hex head, countersunk head
- Base material: Concrete, cracked concrete
- Special features: European Assessment, Seismic Rated, Fire Rated.
- Load performance: Heavy duty loads.
- NCC Compliant

**Product Identifier**

Friulsider ATS-Evo

**Place of Manufacture:**

Overseas

**Manufacturer:**

Friulsider S.p.A.

**Importer:**

Sesto Fasteners Limited

Address: 5e Piermark Drive  
Rosedale, Auckland

Postcode: 0632

Website: [www.sestofasteners.co.nz](http://www.sestofasteners.co.nz)

Email: [orders@sestofasteners.co.nz](mailto:orders@sestofasteners.co.nz)

Phone: +64 94158564

NZBN: 9429041704103

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## Relevant Building Code Clauses:

- B1 Structure: Performance clauses B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3, B1.3.4
- B2 Durability: Performance clauses B2.2
- C6 Structural Stability (Fire Safety): Performance clauses C6.1, C6.2
- F2 Hazardous Building Materials: Performance clause F2.3.1

## Statement on how the building product is expected to contribute to compliance:

- B1 Structure: clauses B1.1, B1.2, B1.3.1, B1.3.2, B1.3.3, B1.3.4:

- First in Safety, First in Seismic C2 Certification. The ATS-EVO heavy duty anchor by Friulsider is the ideal anchor for extreme load performance. Trusted by engineers and architects in New Zealand.

- Friulsider ATS-evo anchors hold European Technical Assessment, ETA reference ETA-10/0423, of 26/08/2014.

- ATS-evo anchors hold seismic C1 and C2 certification, but may vary based on part number. Refer to document 'ATS EVO Tech Brochure' to determine seismic certification available per size, available in the link below:

[https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?\\_pos=1&\\_sid=b48c62285&\\_ss=r](https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?_pos=1&_sid=b48c62285&_ss=r)

- Design and Recommended load data is available. Testing conditions: single anchor with large anchor spacing and edge distances in cracked and non-cracked concrete C20/25. Results vary based on part number. Refer to document 'ATS EVO Tech Brochure' for a performance overview.

Refer to document 'ATS EVO Declaration of Performance' for in depth performance data:

- Declared performance data: according to ETA-10/0423 (ETAG001 p.1-2). Design method according to ETAG 001 Annex C or CEN/TS 1992-4.

- Fire resistance data: declared performances according to ETA-10/0423. Design method according to TR020.

- Seismic resistance data: declared performances according to ETA-10/0423 (ETAG001 Annex E). Design method according to TR045.

- Suitable for use in base materials: cracked concrete, concrete, solid stone.

- Compliant with requirements referenced in the National Construction Code (NCC).

- Compliant with Australian standard AS 5216 (Design of post-installed and cast-in fastenings in concrete).

- Suitable for heavy duty load applications which require a high certified level of safety.

- Suitable for overhead applications.

- CE certification.

- B2 Durability: Performance clauses B2.2

- ATS-evo Hex and countersunk head options are available in Carbon Steel Class 8.8 Zinc Clear finish.

- Friulsider ATS-evo bolts hold a declaration of performance describing intended use, durability and material properties of the anchor.

Refer to document 'ATS EVO Declaration of Performance' for manufacturer data, available in the link below:

[https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?\\_pos=1&\\_sid=b48c62285&\\_ss=r](https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?_pos=1&_sid=b48c62285&_ss=r)

- Refer to Annex A3, document 'ATS EVO European Technical Assessment' for full material description as below:

- Cone: Hardened Steel EN 10087 (1).

- Expansion sleeve: M6 + M12 Hardened Steel EN 10132 - M16 Steel EN 10087 (1).

- Plastic sleeve: Pa6 ISO 1874/1.

- Distance sleeve: Steel EN 10025 (1).

- Washer: Steel EN 10139 (1).

- Hexagon screw: Steel grade 8.8 EN ISO 898/1 (1) (DIN 931 - DIN 933 - type SH=head large).

- Hexagonal nut: Steel grade 8 DIN 934 (1) (EN ISO 898/2).

- Threaded bar: Steel grade 8.8 EN ISO 898/1 (1).

- Countersunk screw: Steel grade 8.8 EN ISO 898/1 (1).

- (1): Zinc plated 5 µm according to EN ISO 4042.

- Suitable base materials: Cracked concrete, concrete, solid stone.

- ETA-10/0423 test materials: cracked and uncracked concrete, reinforced and unreinforced normal weight concrete of strength class C20/25 at minimum and C50/60 at maximum according to EN 206-1:2000/A2:2005.

- Made in Italy.

- The special bush shape of the anchor collar prevents rotation.

- Optimal expansion guaranteed by the coupling of the cone and body.

- Uniform expansion: single piece three expanding segments.

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- C6 Structural Stability (Fire Safety): Performance clauses C6.1, C6.2
    - Friulsider ATS-evo bolts hold F120 minutes Fire Resistance certification.
    - Refer to document 'ATS EVO European Technical Assessment' (Annex C5) for fire performance data relevant to ATS-evo anchors.
    - Refer to page 2, document 'ATS EVO Declaration of Performance' for an overview of the ETA performance data. Declared performances according to ETA-10/0423. Design method is according to TR020.
    - Fire resistance data method: single anchor with large anchor spacing and edge distances in concrete C20/25. Refer to document 'ATS EVO European Technical Assessment' or 'ATS EVO Declaration of Performance' for values across a range of part sizes.
  - F2 Hazardous Building Materials: Performance clause F2.3.1
    - Friulsider ATS-evo anchors are safe when handled.

### Limitations on the use of the building product:

- Performances given in Chapter 3 of ETA-10/0423 (ref. 'ATS EVO European Technical Assessment') are only valid if the anchor is used in compliance with the specifications and conditions given in Annex B of the document. The provisions made in the European Technical Assessment are based on an assumed working life of the anchor of 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means of choosing the right products in relation to the expected economically reasonable working life of the works.
- Durability and serviceability data provided in ETA-10/0423 is only ensured if specifications of intended use according to Annex B1 are kept. Refer to the link below to source this ETA:  
[https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?\\_pos=1&\\_sid=b48c62285&\\_ss=r](https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?_pos=1&_sid=b48c62285&_ss=r)
- Note for document 'ATS EVO Heavy Duty Safety Bolt Seismic Certification': load values are only valid if the installation has been carried out correctly. The design engineer is responsible for the designing and calculation of the fixing.
- Friulsider reserves the right to make modifications without prior notice.
- C1 and C2 seismic certification and ETA certification depends on part number. Refer to document 'ATS EVO Heavy Duty Safety Bolt Seismic Certification' to see results available based on part, available in the link above.
- Refer to document ETA-10/0423 for the safety factors applicable to each test. Safety factors vary based on test.
- The designing and calculation of the anchorage should be carried out in accordance with ETAG001-C or CEN/TS 1992/4 or under Seismic action according to TR045.
- For part numbers which are not yet ETA assessed, design and recommended load values derive from Friulsider tests in accordance with European guideline ETAG001.

### Design requirements that would support the use of the building product:

Friulsider ATS-evo Anchors have been designed for use in the following applications:

- Steel/Aluminium constructions which require a high certified level of safety.
- Suspended applications
- Data centres and high risk applications
- Heavy duty machinery
- Airports and transport infrastructure
- Structural applications in seismic areas
- Bridging and tunneling
- Public infrastructure
- Warehouse logistics

Features that support use of the building product:

- Carbon Steel Class 8.8
  - Thick sleeve for high shear strength
  - NCC: National Code Complaints
  - CE Certified
  - Seismic Certification (C1 and C2)
  - Cracked Concrete approved
  - Fire resistance Certification
  - Extreme Load Performance
  - Available in hex, threaded and countersunk.
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## Installation requirements:

Refer to document 'ATS EVO European Technical Assessment' for design values relevant to installation requirements, available in the link below:

[https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?\\_pos=1&\\_sid=b48c62285&\\_ss=r](https://sestofasteners.co.nz/products/ats-evo-heavy-duty-safety-bolt-hex-head?_pos=1&_sid=b48c62285&_ss=r)

Installation steps:

1. With the correct diameter drill bit, drill a hole to the correct depth.
  2. Clean dust and other material from the hole.
  3. Insert anchor into position.
  4. With a hammer or mallet, tap the head of the anchor into the hole until the base of the head sits flush.
  5. With correct size socket or spanner tighten anchor to specified torque. Installation complete!
- Excessive torque during installation may damage the anchor. Training, expertise and good judgment is required. Always adhere to anchor installation max. impact torque tool settings.
  - Use the correct diameter drill bit.
  - DO NOT use a worn drill bit outside tolerance specification.
  - Ensure the hole is drilled perpendicular to the concrete, with a maximum deviation up to 5 degrees. Failure to do so may cause anchor breakage.
  - Clean dust and other materials from the hole. Use ICCONS Blow Pump for a perfect result.
  - Use a torque wrench or an impact driver
  - Ensure correct clearance hole in the fixture
  - Apply pressure against the fixing
  - Rotate to engage the first thread
  - Tighten the anchor until it is firmly seated

## Maintenance requirements:

N/A. no ongoing maintenance required.

## Is the building product subject to warning or ban under section 26?:

No

