

SECTION XXXXX

UNILINE ROOFSAFE ANCHORS

PART	1	GENERAL
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1.1 SYSTEM DESCRIPTION

- A. Type of system required: RoofSafe Anchors Use with Uniline Lifeline or single point anchors
- B. System location: Roof/ Wall/ Tower/ Fixed Ladder, Misc. Structure, etc...
- C. Maximum number of workers on system at one time: ##
- D. Systems environmental exposure: What are the service conditions (indoors, outdoors, corrosive environment)? What materials will be required (steel, hot dip galvanizing, stainless steel, marine grade stainless etc...)?
- E. Workers task while on the system: Workers will walk along edge. Occasionally, workers are required to look over the edge. While walking, workers need to carry heavy objects.
- F. Type of fall protection required: Fall Arrest
- G. Additional information: Supporting Documents
- H. Insurances required: Commercial Liability and Workers' Comp.

1.2 RELATED SECTIONS

- A. Section 03300 - Cast-In-Place Concrete
- B. Section 03400 - Pre-Cast Concrete
- C. Section 05100 – Structural Metal Framing
- D. Section 05400 – Cold Formed Metal Framing
- E. Section 05310 - Metal Deck
- F. Section 06100 – Rough Carpentry
- G. Section 07510 - Built-Up Roofing

H. Section 07700 - Roof Specialties and Accessories

I. Section 11010 - Maintenance Equipment

1.3 REFERENCES

A. Occupational Safety & Health Administration (OSHA)

1. 29 CFR 1910.28 (b) (1) & 29 CFR 1926.501(b) (1) - Occupational Health and Safety Standards General Industry & Construction: Duty to have fall protection
2. 29 CFR 1910.140(c) (11) (i-ii) & 29 CFR 1926.502(d) (8) - Safety and Health Regulations for General Industry & Construction: Horizontal Lifeline Design Requirements.
3. 29 CFR 1910.140(c) (13) (i-ii) & 29 CFR 1926.502(d) (15) (i-ii) - Safety and Health Regulations for General Industry & Construction: Anchorage Design Requirements.
4. 29 CFR 1910.66 (e) (1) (i) - General Industry: Powered Platform Installations -Affected parts of buildings.

B. American National Standards Institute (ANSI)

1. Z359.1 [2016] – The Fall Protection Code
2. Z359.3 [2017] – Safety Requirements for Positioning and Travel Restraint Systems.
3. Z359.6 [2016] – Specifications and Design Requirements for Active Fall Protection Systems.
4. Z359.11 [2014] – Safety Requirements for Full Body Harnesses.
5. Z359.12 [2009] – Connecting Components for Personal Fall Arrest Systems.
6. Z359.13 [2013] – Personal Energy Absorbers and Energy Absorbing Lanyards.
7. Z359.14 [2014] – Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems.
8. Z359.15 [2014] – Safety Requirements for Single Anchor Lifelines and Fall Arrester for Personal Fall Arrest Systems.
9. Z359.18 [2017] – Safety Requirements for Anchorage Connectors for Active Fall Protection Systems.

- C. Materials, Bolting, Finishing: American Society of Testing Materials (ASTM)
 - 1. A36 - Standard Specification for Carbon Structural Steel.
 - 2. A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
 - 3. A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
 - 4. F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105 KSI Yield Strength.
 - 5. A193 - Standard Specification for Alloy-Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications
 - 6. A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - 7. A666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
 - 8. A992 - Standard Specification for Structural Steel Shapes.
 - 9. F3125 - Standard Specification for High Strength Structural Bolts, Steel and Alloy, Heat Treated, 120ksi and 150ksi Minimum Tensile Strength, Inch and Metric Dimensions.
- D. American Welding Society (AWS) D1.1/D1 - Structural Welding Code – Steel
- E. Design Standards
 - 1. American Institute of Steel Construction (AISC) 325-11 [14th ed.] – Steel Construction Manual
 - 2. National Design Specification (ANSI/NDS) [2012] – Wood Construction Manual
 - 3. International Building Code (IBC) [2012] – Building Design Manual
 - 4. American Society of Civil Engineers (ASCE/SEI) 7-10 [2010] – Minimum Design Loads for Buildings and Other Structures
 - 5. American Concrete Institute (ACI) 318-11 Building Code Requirements for Structural Concrete.
- F. Definitions

1. Anchorage – per ANSI Z359.0 – A secure connecting point or a terminating component of a fall protection system capable of supporting impact forces applied by a fall protection system.
2. Anchorage Connector – per ANSI Z359.0 – A component or subsystem that functions as an interface between the anchorage and a fall protection, work positioning, rope access or rescue system for the purpose of coupling the system to the anchorage.
3. Clearance – per ANSI Z359.0 – The distance below an authorized person that must remain clear of obstructions in order to ensure that the authorized person does not make contact with any objects that would cause injury in the event of a fall.
4. Continuous Fall Protection – per ANSI Z359.0 – One or more fall protection systems that provide fall protection without interruption.
5. Fall Arrest – per ANSI Z359.0 – The action or event of stopping a free fall or the instant where the downward free fall has been stopped.
6. Fall Hazard – per ANSI Z359.0 – Any location where a person is exposed to a potential free fall.
7. Fall Restraint/Travel Restraint – per ANSI Z359.0 – A combination of anchorage, anchorage connector, lanyard (or other means of connection) and body support (full body harness) that limits travel in such a manner that the user is not exposed to a fall hazard.
8. Qualified Person – per ANSI Z359.0 – A person with a recognized degree or professional certificate and with extensive knowledge, training and experience in the fall protection and rescue field who is capable of designing, analyzing, evaluating and specifying fall protection and rescue systems to the extent required by the Z359 standards.

1.4 PERFORMANCE

- A. System shall comply with 1.1 System Description
- B. Performance Requirements
 1. System Performance
 - a. The Anchor Post(s) shall provide a secure attachment means to the supporting structure in conjunction with the manufacturer's requirements. The Anchor Post shall provide compatible connections with the applicable anchorage connector. All components shall be designed by the fall protection system supplier and shall meet the applicable fall protection ANSI standards and applicable OSHA regulations.

- b. The Fall Protection Horizontal Lifeline System shall be designed to allow users to walk the entire length of the system without having to disconnect from the system to pass through intermediate support points. The system shall be designed to support required number of users in case of a fall and to prevent the users from free falling more than 6 feet. All components shall be designed by the fall protection system supplier and shall meet the applicable fall protection ANSI standards and applicable OSHA regulations.

2. Structural Performance:

- a. Structure supporting the Horizontal Lifeline system must be capable of withstanding design loads as required by governing regulations and codes. Where component design loads are specified herein, they represent design minimum requirements.
- b. Structure supporting Anchor Post(s) must be capable of withstanding the design loads as required by governing regulations and codes. Where component design loads are specified herein, they represent design minimum requirements.
- c. All fall protection components and systems shall be designed with a minimum 2:1 safety factor per reference 1.3.A.2.

1.5 DESIGN

A. Design Requirements

- 1. RoofSafe Anchor shall comply with current applicable OSHA, ANSI, and state regulations and standards.
- 2. The RoofSafe Anchor and any supporting structure shall be designed by:

Uniline	Phone:	+44 (0) 1527 548000
5a Merse Road	Website:	www.unilinesafety.com
Worcestershire, UK	E-mail:	info@unilinesafety.com.

Gravitec Systems Inc.	Phone:	1-800-755-8455
21291 Urdahl Road NW,	Website:	www.gravitec.com
Poulsbo, WA 98370-7124	E-mail:	solutions@gravitec.com.

3. General Requirements:

- a. RoofSafe Anchor (s) connection to structure shall be designed and installed, under the supervision of a Qualified Person, as part of a complete personal Fall Protection system.
- b. RoofSafe Anchor energy absorbers shall not be used to limit the maximum arrest force of the worker. RoofSafe Anchor energy

- absorbers shall be used only to control or reduce the maximum arrest load on the structure.
- c. The design engineer shall ensure the increased clearance requirements of a deployed RoofSafe Anchor will not conflict with the required clearance of the system.
 - d. RoofSafe Anchor (s) shall satisfy the seismic conditions for nonstructural components as described by ASCE/SEI 7 and the most current edition of the IBC. No exceptions can be taken if the system is required to function for life-safety purposes after an earthquake.
 - e. Brackets and supports shall be attached to the structure with appropriate anchors of proper size to adequately support the intended loaded.
 - f. The designer shall take into account environmental factors (snow, ice, debris, etc...) when designing a RoofSafe Anchor such that the RoofSafe Anchor functions properly.
 - g. The RoofSafe Anchor(s) shall comply with Uniline design requirements.
4. Restraint RoofSafe Anchor(s) shall be designed per ANSI Z359.2 & ANSI Z359.6:
- a. The RoofSafe Anchor(s) shall prevent workers from reaching and falling into any open hole or off the edge of a working surface.
 - b. The RoofSafe Anchor(s) shall comply with the requirements for fall arrest RoofSafe Anchor(s) as indicated in this document.
 - c. Where a worker is using a full body harness the force on the worker's body shall not exceed 400 lbs.
 - d. RoofSafe Anchor(s) may be used in restraint systems; provided that the engineer has determined that the restraint forces will not cause the RoofSafe Anchor(s) to deploy and ensures that the RoofSafe Anchor extension in combination with other deformations of the restraint system will not permit the worker(s) to reach the fall hazard.
 - e. The use of fall restraint systems shall be limited to surfaces at or less than a slope of 4:12 from the horizontal. This is so a fall will not result in dynamic loading on the fall restraint system or where the authorized person could end up being suspended vertically from the system.

5. Fall Arrest RoofSafe Anchor(s) shall be designed per ANSI Z359.2 & ANSI Z359.6:
 - a. The selection, design, and installation of fall arrest RoofSafe Anchor(s) shall be performed under the supervision of a Qualified Person.
 - b. Anchorages designed for fall arrest systems shall have the strength capable of sustaining static loads applied in the directions permitted by the system of at least two times the maximum arresting force.
 - c. When more than one user is attached to a horizontal lifeline, the load on the lifeline can be determined using either lumped mass or sequential fall calculations as described in ANSI Z359.6 [6.3.6]
 - d. The swing fall shall comply with ANSI Z359.6 [5.3]
 - e. The clearance safety margin shall comply with ANSI Z359.6 [7.2.6.2]

B. Sub-System Requirements

1. Harnesses and Vertical Lifelines (VLLs) used with the system shall comply with ANSI Z359.1
2. Connecting Components (carabiners and snaphooks) used with the system shall comply with ANSI Z359.12
3. Energy Absorbing Lanyards (EALs) used with the system shall comply with ANSI Z359.13
4. Self Retracting Lifelines (SRLs) used with the system shall comply with ANSI Z359.14

- C. The fall protection system shall be used exclusively for its designed use and shall be marked to prevent other uses.
- D. The design shall take into consideration the potential uses of and loads on the fall protection system, in order to facilitate the prompt rescue of workers who may fall while attached to the system.

1.6 SUBMITTALS

- A. Submit under provisions of Section ##### – Submittal Procedures
- B. Product Data: Uniline' data sheet on each product to be used, including:
 1. Preparation instructions and recommendations.

2. Storage and handling requirements and recommendations
3. Installation methods
- C. Drawings and Calculations:
 1. Drawings:
 - a. Show the layout of the system including where the system is located and the complete assembly of all components.
 - b. Include a specification of the number, location, and qualifications of workers using the system.
 - c. Clearly specify the equipment dimensions, materials, fabrication details, hardware, and installation instructions.
 2. Calculations:
 - a. Calculations shall be prepared under the supervision of a registered Professional Engineer and Qualified Person.
 - b. Include a statement defining the type of system and indicating that the CRP attachment design is in accordance with the requirements of ANSI Z359.6.
 3. The Professional Engineer who oversaw the design of the system shall affix their professional seal to each drawing and calculation package issued.
- D. Operation and Maintenance Data shall be prepared per ANSI Z359.2 & ANSI Z359.6:
 1. Include complete list of equipment replacement parts; identify each entry with the equipment description and part numbers.
 2. Include technical information for servicing equipment.
 3. Include legible “as-constructed” drawings of the installed system.
 4. Include installation date and system owner’s name and address.
 5. Include detailed operating procedures:
 - a. Written by a Qualified or Competent Person.
 - b. Identifying the RoofSafe Anchor(s) location

- c. Stating any safety precautions that shall be followed during access and egress.
 - d. Describing the limitation on use of system: maximum load, designated equipment, required clearance and maximum number of persons permitted to be attached to the system at one time.
 - e. Instructions for inspection, maintenance, and retirement of the system and all of its components, including how often inspection and maintenance are to be performed and a description of the qualifications required for persons performing these tasks.
 - f. Procedure for inspection:
 - I. Required or recommended inspection intervals.
 - II. Detailed instruction for inspecting each component of the system.
 - III. Description of acceptance or rejection criteria, including retirement criteria, of each component of the system.
 - IV. Fall protection procedures shall include a requirement that any incidents, including accidents or near misses, be investigated to determine if procedures can be improved.
6. Provide or direct the owner of the system or the employer of the workers using the system to develop and implement a rescue plan before the system is used.

1.7 QUALITY ASSURANCE

- A. Single Source: Obtain all materials and equipment required under this section from a single supplier.
- B. Designer/Installer Qualifications: Engage a single firm to assume undivided responsibility for the design and fabrication of all fall protection system components. Firm shall have a minimum of 5 years documented experience in the fabrication of such components similar to that required for this project. Additionally, the firm shall have a minimum of 5 years documented experience in the installation of such components and who offers a regular inspection and maintenance service on such systems.
- C. Design Engineer: Employ a firm with a minimum of 10 years experience designing fall protection systems with a minimum of 5 systems installed in the previous 12 months. Who employs a registered Professional Engineer (PE), with evidence of being the principal PE on at least 3 fall arrest systems which have been in use for no less than 1 year prior to bid closing date.

- D. Professional Engineer and Fall Protection Qualified Person: Shall oversee the fall protection systems' design, such that all component items meet the "Structural Performance" requirements, including sizing and spacing of all attachments to the building structure and verify the design is compliant with all applicable OSHA and ANSI standards. Additionally, they must prepare, stamp and sign all required calculations; while also approving the system designer's drawings.
- E. Welding to be executed by certified welders in accordance with AWS requirements.

1.8 DELIVERY, STORAGE & HANDLING

- A. Material delivery shall be coordinated with all effected entities.
- B. Storage and Protection:
 - 1. Store originally packaged materials in a cool, dry, and protected location.
 - 2. Materials shall be in new condition and show no signs of damage.

1.9 SEQUENCING

- A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.10 WARRANTY

- A. Manufacturer's standard one year warranty for materials and workmanship.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers shall comply with the *Quality Assurance* section of this documentation.
- B. All supporting structure which connects the RoofSafe Anchor(s) to the super structure shall be designed by:

Gravitec Systems Inc.
21291 Urdahl Road NW,
Poulsbo, WA 98370-7124

Phone: 1-800-755-8455
Website: www.gravitec.com
E-mail: solutions@gravitec.com.

2.2 PRODUCTS

A. Uniline
5a Merse Road
Worcestershire, UK

Phone: +44 (0) 1527 548000
Website: www.unilinesafety.com
E-mail: info@unilinesafety.com.

2.3 MATERIALS

A. Product

1. The system shall be a complete and turnkey complying with the performance and design criteria of this document.
2. The RoofSafe Anchor(s) shall be the product of Uniline.
3. Components: All system connectors, cables and bolts shall be stainless steel Type 316 or epoxy coated aluminum. Fabricated supports required for additional support may be carbon steel with a corrosion resistant coating. However a faying surface shall be used to prevent galvanic reactions.
4. Post Base Plate Connectors: Provide complete with required components for weatherproof mounting to the following surfaces:
 - a. Standing Seam Roof Type.
 - b. Composite Ribbed Roofing Type.
 - c. Metal Roofing Type.
 - d. Insulated Roof Deck Type.
 - e. Concrete Deck Type.
 - f. Timber Deck Type.
 - g. Non-Penetrating.
5. The RoofSafe Anchor(s) shall be attached to the supporting structure with appropriate fasteners. The fasteners shall be designed to support a load on the fall protection system of 2 times the maximum design load without failure.
6. Provide all designed sub-system items per Section 1.5 (B) of this document.

B. Supporting Structure

1. Structural Components shall comply with the applicable standards:
 - a. Structural Steel: ASTM A36
 - b. Structural Tubing: ASTM A500 Grade B
 - c. Structural Bars, Plates, Shapes, and Sheet Piling: ASTM A6

- d. Piping: ASTM A53
- 2. Fasteners shall comply with the applicable standards:
 - a. Structural Bolts: ASTM A325
 - b. Alloy-Steel and Stainless Steel Bolting: ASTM A193
- 3. Flashing and Sealing Material shall comply with the applicable standards:
- 4. Material substitutions shall be better than or equal to the requirements found in this section.
- 5. The Anchor Post(s) shall be attached to the supporting structure with appropriate fasteners. The fasteners shall be designed to support a load on the fall protection system of 2 times the maximum design load without failure.
- 6. Fabrication
 - a. Fabricate work true to dimension, square, plumb, level, and free from distortion or defects detrimental to performance.
 - b. Coordinate the system with supporting structure.
 - c. Welding:
 - I. AWS D 1.1 as applicable.
 - II. If Butt welds are used, then surplus welding material is to be ground off to ensure exposed surfaces are smooth. Fillet welds shall not be ground.
 - III. Slag is to be removed from the materials surface.
- 7. Finishes
 - a. Hot Dipped Galvanizing: Comply with ASTM A123.
 - b. Powder Coat: Safety Yellow

2.4 ROOFSAFE ANCHOR DESIGN

- A. RoofSafe Anchor design shall comply with the *Design Requirement* section of this document.
- B. Steel design shall comply with AISC 14th ed.
- C. Wood design shall comply with ANSI/NDS [2005]

- D. Concrete design shall comply with ACI [2008]
- E. Fall protection systems attached onto an existing or new structure shall comply with IBC [2009] and ASCE/SEI [2010]

PART 3 EXECUTION

3.1 INSTALLATION

- A. Installation shall be performed by:

Gravitec Systems Inc.
21291 Urdahl Road NW,
Poulsbo, WA 98370-7124

Phone: 1-800-755-8455
Website: www.gravitec.com
E-mail: solutions@gravitec.com.

- B. Install in accordance with approved shop drawings and manufacturer's instructions.
- C. The Uniline Fall Protection System shall be installed under the direction of manufacturer's authorized trained personnel and under the supervision of a Qualified Person.
- D. Install anchorages and fasteners in accordance with their manufacturer's recommendations to obtain the allowable working loads published in the product literature and in accordance with this specification.
- E. Do not load or stress the Uniline Fall Protection System until all materials and fasteners are properly installed and ready for service.
- F. Where bolting is used for fastening, no fewer than three threads are to be exposed and the nut is to be positively locked using a thread-locking fluid or the double nutting technique.
- G. Dissimilar materials with greater than 0.15V shall be separated by a faying surface.
- H. RoofSafe Anchors must be secured to roof surface with waterproof mechanical connectors as approved.

3.2 FIELD QUALITY CONTROL

- A. After the Uniline Fall Protection System is installed, Uniline approved authorized Qualified or Competent Person shall inspect and operate the system and shall make all final adjustments for proper operation.

3.3 ADJUSTMENTS AND FINAL INSPECTION

- A. Verify that all manufactured units have been installed in accordance with specifications and details, and will function as intended. Adjust any items where necessary to ensure proper operation.
- B. Provide a complete drawing set with any revisions to the design or layout of the fall protection system during installation.

3.4 OPERATOR TRAINING

- A Provide a minimum of 4 hours of operator training after system has been installed. Training is to be for the users of the system conducted at the installation site.

3.5 MAINTENANCE, INSPECTION AND TESTING

- A. Provide manufacturer maintenance, inspection and testing instructions.
- B. Provide documentation that is consistent with applicable OSHA and ANSI standards.

END OF SECTION



RoofSafe[®] Anchor

Ready to spring
into action when
you need it most



The innovative NEW
RoofSafe[®] Anchor

with





Anchor visualisation showing SpiraTech Force Management Technology. Image for illustrative purposes only.

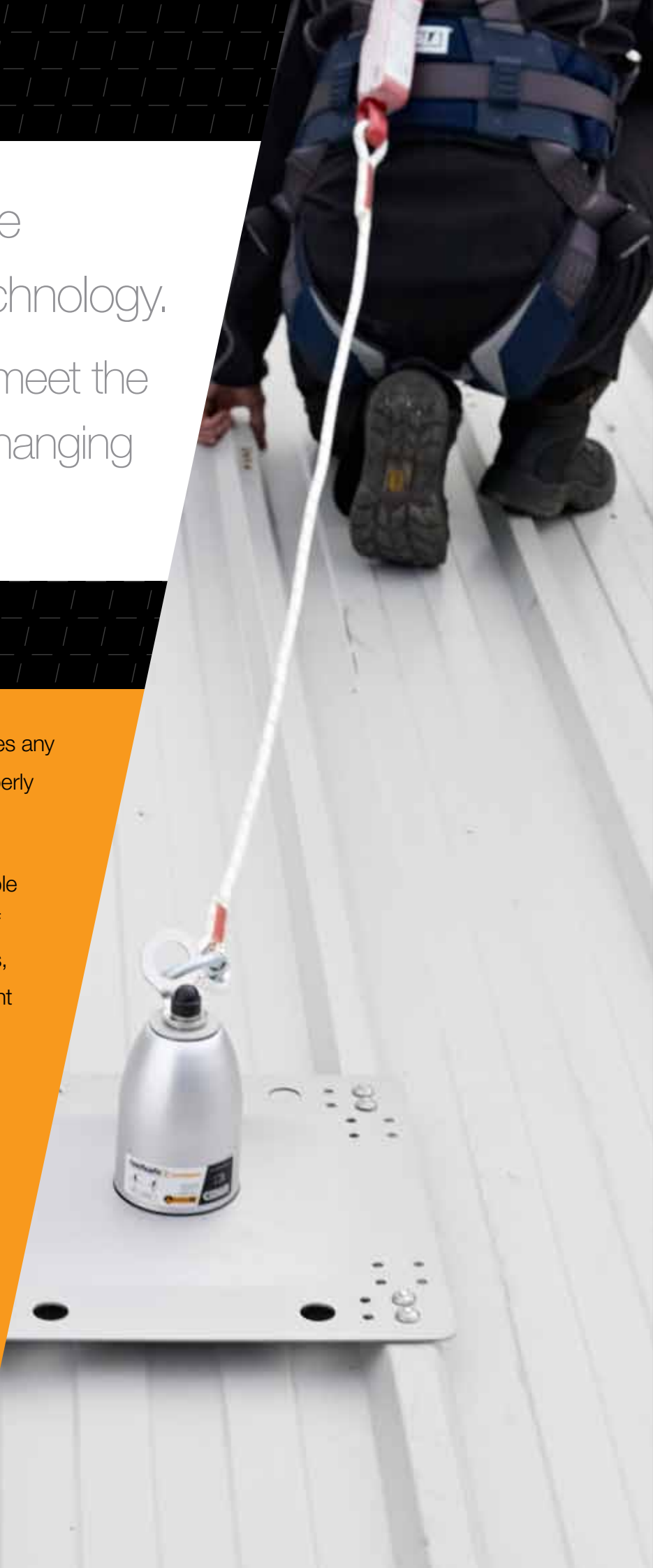
SpiraTech™ Force Management Technology.

A new product to meet the needs of today's changing work environment.

Current workplace legislation requires any person working at height to be properly protected against the risk of falling.

This is especially important for people required to work in many aspects of building maintenance tasks on roofs, as they can be exposed to significant risks whilst carrying out their duties.

Changes in weather, fragile roof elements, slips and trips, wind, steep inclines and slippery surfaces can all add to the dangers, so providing a safe system of work is essential, ensuring both compliance with regulations and the safety of employees and contractors.



RoofSafe® Anchor



The Uniline RoofSafe® Anchor from Capital Safety has been designed to eliminate or substantially reduce the risk of injury or death to operatives working at height, whilst ensuring the integrity of the structure to which it is attached.

Roofs are changing to accommodate more insulation materials and being designed to utilise lighter materials and take advantage of new technologies. At Capital Safety we are changing Uniline's roof anchor product to ensure the highest levels of safety in modern building design.

Our customers can benefit from modern roofing design and ensure safety and structural integrity by choosing our new and technologically advanced RoofSafe® Anchor.

Additionally, as the desire to comply with health and safety regulations increases, the need for safety solutions on older building and structures increases. The new RoofSafe® Anchor makes incorporating horizontal lifelines in older building more economical, allowing safety obligations to be met for realistic costs.

Standing Seam





Force Management Technology

NEW Modular product includes flexibility in system design, including accommodating roof refurbishment and green roof projects.

NEW SpiraTech™ Force Management technology that provides the lowest distributed load to the roof system. The maximum end load in a multiuser fall will be less than 6kN.

NEW Toggle fitting system, for a faster, more cost effective installation and improved thermal efficiency.





Bitumen



Built Up

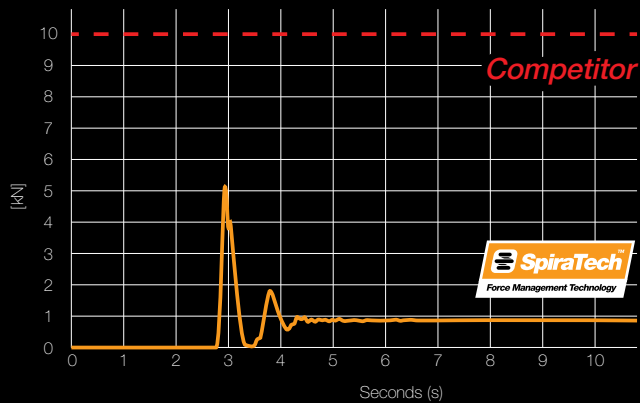


PVC

Features and Benefits

- The RoofSafe® Anchor can be used for either work restraint or fall arrest and can be installed on standing seam, composite and built up roofing systems and multiple flat roofing and membrane roofing systems.
- The RoofSafe® Anchor is multi-directional and can activate and absorb energy no matter in which orientation the load is applied, which provides total freedom and flexibility in system design.
- The unique energy absorbing system inside the RoofSafe® Anchor has reduced the overturning moment on the fixings by half compared to our previous anchor and those of our competitors, enabling us to utilise fewer fasteners in many circumstances. This reduces the number of roof penetrations and saves time and money during installations.
- For flat roofing systems we have designed a new toggle fixing method that speeds up installation time and reduces thermal bridging, reducing heat loss from a building. Both of these features save time and money for the customer.
- The RoofSafe® Anchor utilises marine grade alloys in its design to reduce the overall weight and save shipping costs. It has the additional benefit of being safer to move around the roof during installation.
- The RoofSafe® Anchor is modular in design, taking less space to pack and ship, again reducing additional costs of installing a roof safety system.
- The RoofSafe® Anchor has been designed so that a vertical pull test to 5kN can be applied without affecting the anchors integrity. This enables annual test and verification of its structural integrity, ensuring compliance and peace of mind.
- The base plate designs incorporate multiple fixing options to reduce the complexity of specification and in turn maximise inventory to ensure speedy delivery.
- The RoofSafe® Anchor for flat roofing systems has been designed to be easy to weather proof ensuring the integrity of the building envelope and works perfectly in conjunction with 'Green' roofing systems.
- The RoofSafe® Anchor looks smart and compliments modern building design, as well as fitting neatly with older buildings, enabling compliance and peace of mind no matter the type of project.
- The Anchor conforms to EN 795, OSHA, ANSI, AUS/NZ, standards and has been tested to both EN795 Class A and C Standards.

Forces indicator: SpiraTech vs Competition

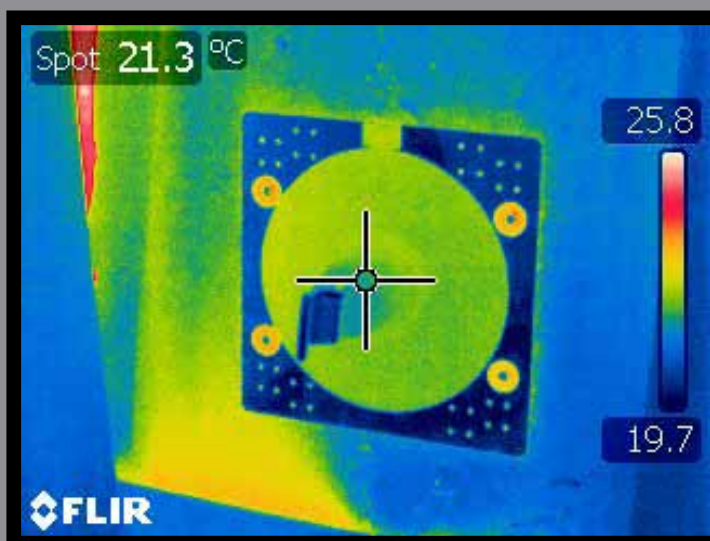
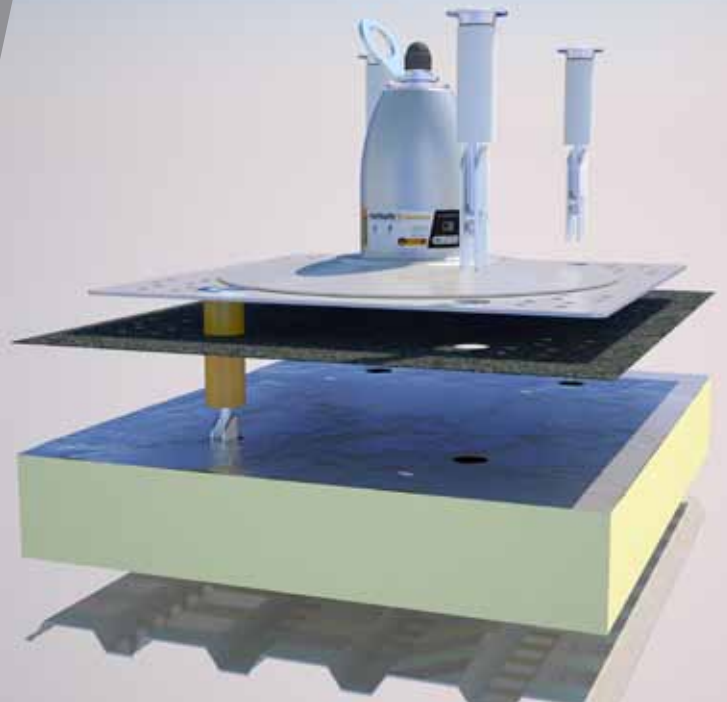


In the event of a fall, the RoofSafe® Anchor breaks open, deploying the unique and patented SpiraTech™ Force Management Technology absorbing system, which reduces the forces generated on the roof structure to less than 6kN, the lowest of any of its kind on the market. This enables the anchor to be installed on a wide variety of old and new roof types without risk to structural integrity.

Installation

The RoofSafe® Anchor can be used to facilitate the installation of a horizontal lifeline system that allows continuous uninterrupted access to all areas of a roof or alternatively can be used as a single point of anchor for maintenance tasks in localised areas.

The anchorage eye on the single point anchor product rotates to provide maximum functionality and safety in use.



In the unlikely event that the anchor is deployed, it is possible to remove the SpiraTech™ module and replace it with a new one. This is also an advantage with the ever changing building regulations, with the need for increased depth of roof insulation.

The design of the RoofSafe® Anchor reduces thermal bridging when used in flat roof applications, helping compliance with building regulations and saving money.

System Components



7241161

RoofSafe® Anchor System
Eye & Pin



7234016

8mm Hex Swage Tensioner



7241162

RoofSafe® Anchor 90° Corner



7241163

Roofsafe® Anchor 45° Corner



7234086

RoofSafe® Anchor
Intermediate Guide



7234011

8mm Hex Swage Toggle



7234086

RoofSafe® Anchor Variable Guide



7234020

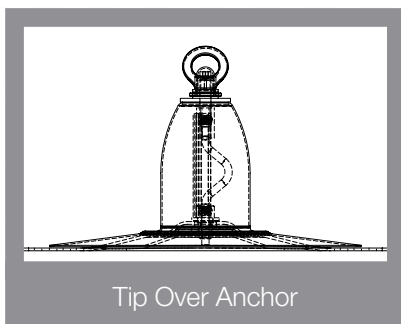
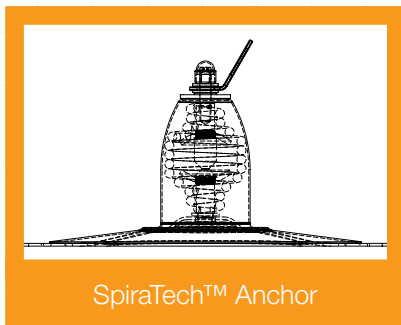
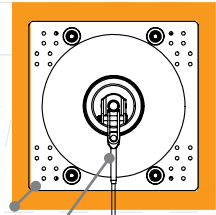
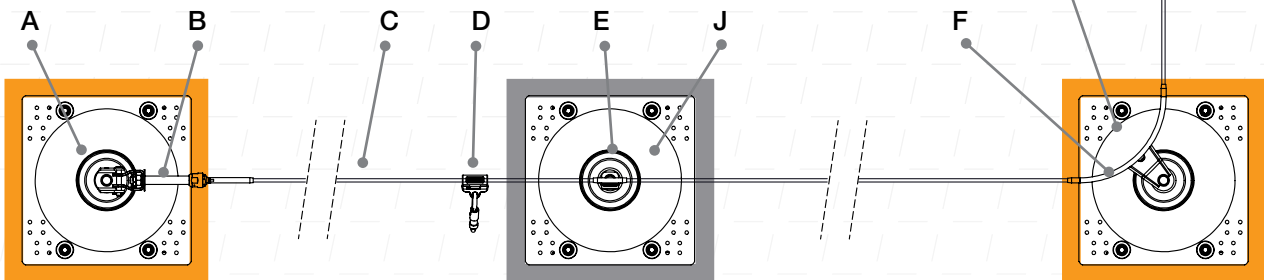
8mm UniGrab & Karabiner

System Layout

- A** RoofSafe® Anchor System Eye & Pin (7241161)
- B** 8mm Hex Swage Tensioner (7234016)
- C** 8mm 7x7 SS Cable Per M (7241070)
- D** 8mm UniGrab & Karabiner (7234020)
- E** RoofSafe® Anchor Intermediate Guide (7234085)
- F** RoofSafe® Anchor 90° Corner (7241162)
- G** 8mm Hex Swage Toggle (7234011)
- H** RoofSafe® Anchor Baseplate 405 x 405 H (7241136)
- I** RoofSafe® Anchor Module End / Corner Bitumen (7241143)
- J** RoofSafe® Anchor Module Intermediate Bitumen (7241144)

Fasteners for fixing to the structure are not supplied.

*This component is different from the one illustrated



There are two energy absorbing modules available, the SpiraTech™ Anchor and the Tip Over Anchor.

The SpiraTech™ Anchor allows for 2 users to attach to the anchor for fall arrest and work restraint purposes. (Two users are not available for ANSI and CSA applications)

For those who do not require the SpiraTech™ Anchor the Tip Over Anchor is available for 1 user for fall arrest and work restraint purposes.

The SpiraTech™ Anchor can also be used in the end/corner position of a Horizontal Lifeline System. The lifeline is supported at regular intervals with the Tip Over Anchor.

(Please refer to typical system layout diagram)



Capital Safety Group, through our Uniline brand is the global market leader in the design and manufacture of engineered fall protection systems. Through a combination of expert knowledge and practical experience, we can help our customers reduce risk and increase safety when working at height.

Our comprehensive Uniline range of products offers fully compliant, practical solutions for structures of all types, in all industries. Our ethos of delivering quality, service, training and support for our customers has earned Uniline a deserved reputation for excellence around the world.

Operating through specialist safety companies globally, Uniline provides local support and installation services to meet the specific safety objectives of all our customers.



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