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Uniclass L773	EPIC N57
CI/SfB (66.3)	Xt6 (U47)
20060384	September 2006



[www.unilinesafety.com](http://www.unilinesafety.com)

local distributor/systems integrator



force management<sup>®</sup> anchor  
 composite and built-up  
 metal profiled roof systems

Uniline Safety Systems produces a choice of technically superior anchorage solutions that provide protection for people working at height.

Together with a network of carefully trained systems integration specialists, we can help you to solve even the most complex of safety or access problems and deliver fall protection solutions that mitigate workplace risk and go well beyond minimum industry standards.

[www.unilinesafety.com](http://www.unilinesafety.com)

because their **lives depend on it**

01

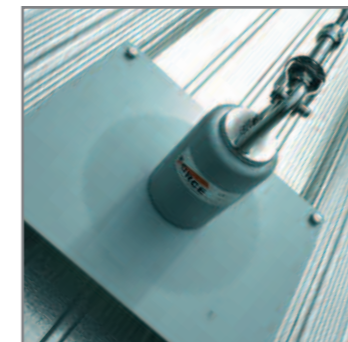
#### working safely at heights

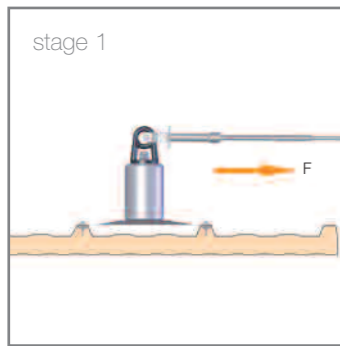
Roof work can be a hazardous and high risk activity. The risks can be mitigated and effectively controlled by using a fall protection system in conjunction with management controls and training.

Uniline Safety Systems are experts in their field and provide sound advice to assist you in making a well informed safety decision that will reduce the chances of unnecessary workplace accidents.

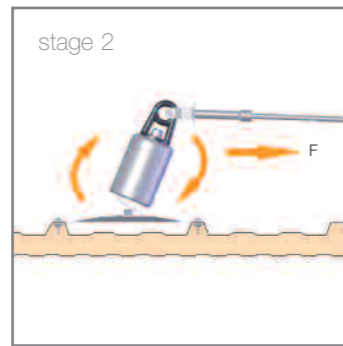
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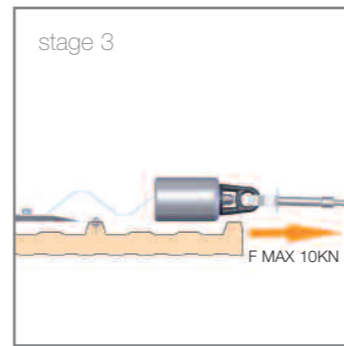




pre-activation technical drawing



activation technical drawing



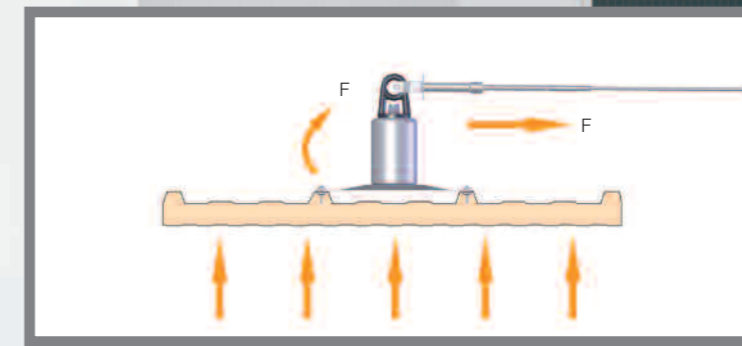
post-activation technical drawing

### force management® systems

Uniline's technically superior Force Management Anchors permit many built up and composite metal profiled roof systems to be used as structural anchors, by limiting the forces that are generated in the event of a fall to less than 10kN through a built in energy absorber.

Built in energy absorbing elements are particularly beneficial in 'top fix' safety anchors as they enable energy to be absorbed throughout the entire fall protection system. This is especially important in short systems and systems with corners, as loads in these cases can be very high and beyond the tolerance of the roof system. Roof anchors which do not incorporate energy absorbing elements, have limited use as anchor devices on metal roof systems.

The reaction of the Force Management Anchor in the event of a fall re-orientates the load to a more beneficial plane for the roof structure, before deployment of the energy absorber reduces the fall energy and distributes load through the fixings, ensuring the safe arrest of the worker, or workers.



uplift forces technical drawing

### structural validation

Force Management Anchors can only be installed on roof systems that have been validated as capable of supporting the distributed loads applied in the event of a fall. Uniline offer alternative solutions for roofs which are not suitable.

This predictable distributed load can be used to validate the roof systems suitability for use as a structural anchor and is typically less than 1kN/sq.m.

# composite and built-up roof systems

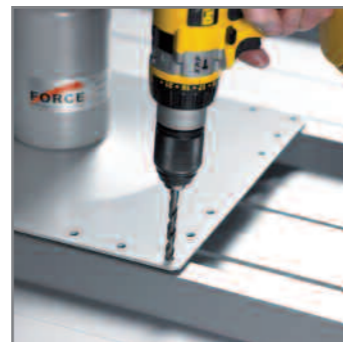
### anchor installation

The anchors are easily fitted from the top of the roof structure using minimal penetrations. Fasteners with benefits for this specific application are used to ensure long term system safety is maintained. The fastener has a high tensile strength even on a very thin roof sheet, to counter the overturning moment applied by the anchor in the first stage of activation. It also has a very high shear strength which is important for the second stage of activation, the deployment of the energy absorber. Finally the fastener is resistant to vibrations and backing out, making it particularly suitable for safety applications on metal roof systems.

The fasteners and anchor are self-sealing having a waterproof washer beneath their head and sealing tape between the base plate and the roof sheet, which provides a complete watertight seal at 20% compression. The tape is resistant to UV degradation and also acts to isolate the roof anchor from the roof sheet.



Uniline S5 Clamps



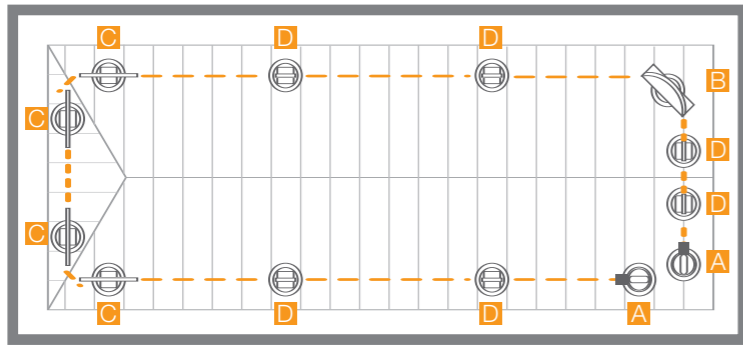
standing seam roof system installation



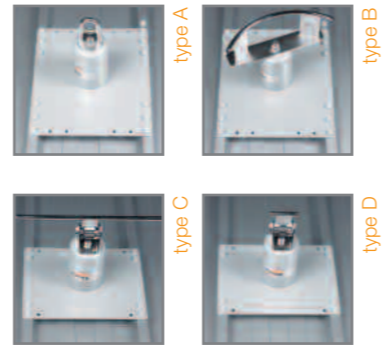
standing seam roof system installation

Integrating Uniline's cable safety systems into your building is made easy and trouble free with Uniline's range of patented Force Management® Roof Anchors. The design of the anchor is neat and unobtrusive, limiting any visual impact to the building. Anchors are constructed from high grade alloy and can be colour coated to match the roof finish.

Aluminium provides excellent future potential for recycling, uses sustainable resources in the production process and has a high level of corrosion resistance.



system configuration technical drawing



typical installation detail

The anchors shown above are used for integrating Uniline's cable fall protection systems on to your building, thereby facilitating safe access.

- Type A: End Anchors
- Type B: Corner Anchors
- Type C: Variable Anchors
- Type D: Intermediate Anchors

The Type D anchor may also be used as a single point anchor. (EN795 class A2).

Due to the very large number of roof profiles available in the market place, Uniline carries a wide range of standard stock sizes and can also produce special sizes on request and following validation of the roofing system.

For further information, please contact Uniline's Technical Department.

system design parameters

The Force Management Anchors can be used with Uni-8 stainless steel cable systems to provide cost effective and functional safety access solutions. Design requirements for the anchors are;

- Uni-8: 12m maximum span (systems less than 12m must have at least one intermediate anchor)

System designs must be calculated using Uniline for Windows software in order to ensure that the proposed layout can support the number of workers intended to use the system in the future.

Furthermore the software will advise on the ground clearance required beneath the work area in order to safely arrest a fall.

Uniline provide technical drawings and specification details to help Architects and Building Safety Engineer's with the inclusion of its products in building specification documents and tenders, no matter how complex your requirements may appear. Local design support can be provided by our network of System Integration Specialists.

roofsafe rail system

Where the roof is pitched beyond 15 degrees and additional worker support is needed, Uniline recommends the specification of Roofsafe. In addition, for shorter systems of less than 50m, Roofsafe offers a higher level of safety and functionality at a similar cost to a Force Management System. Contact us for further details.



uni-8



uni-8



roofsafe application



installer training



testing the system

system integration

Force Management Anchors and Uniline's cable systems should only be designed and fitted by companies and personnel authorised and trained to do so.

Uniline operates a training programme for its installation personnel to ensure competence. Installation technicians carry a competence record showing that they have been trained in the correct installation techniques required for our products.

Uniline operates this system for your peace of mind and the safety of the people that will use our products in the future.

It is an integral part of our ISO9001:2000 quality system and ensures high standards are maintained.

performance tested

Force Management Anchors are tested to exceed the standards of EN795, are CE marked and come with a 25 Year Guarantee for performance and corrosion resistance. (Subject to terms and conditions).

For your peace of mind Uniline operates an ongoing policy of testing on 'as built' roof constructions and has achieved approvals from many manufacturers of roof systems.

