



**'SNOW ANCHORS'  
(Dead Man)**

**Climbing and  
Mountaineering Equipment**

**UIAA  
154**

**Foreword**

This UIAA Standard is only published in the English language version, which is the master text. For any validations in translation, the UIAA Safety Commission should be contacted via the UIAA Office in Bern, Switzerland.

UIAA Standards are the only 'globally recognized' standards for mountaineering equipment. In order to prevent multiplicity, the UIAA collaborates with its partner in standardization CEN. The EN Standards in turn are based on the original UIAA Standards, the first of their kind in the world. Additionally the UIAA publishes pictorials for each of the standards in a user-friendly way.

The UIAA Standards are reviewed at intervals to see whether they meet the latest technical requirements and revised if necessary.

The UIAA invites manufacturers of mountaineering and climbing equipment worldwide to become members of the UIAA Safety Commission as Safety Label Holders. Members can participate in discussions on standard requirements, test methods and revisions thereof (see the "General Regulations for the UIAA Safety Label").

A complete list of UIAA Standards for mountaineering and climbing equipment can be found on the UIAA website.

**© 2013, 2015, 2017 & 2018 UIAA**

Copyright is secured for the present standard work including all its parts. Any use beyond the limit of the copyright act is forbidden by law.

This concerns especially copying, microfilming and feeding and processing in electronic data systems.

**VERSION**

**UIAA 154\_V4**

**LAST UPDATED**

**February 2018**

**COMPLIANCE DATE**

**immediate**

## Copyright and Version Management

This document was first published in English. The English master text is decisive in any conflict of interpretation. For any validations in translation the UIAA should be contacted via the UIAA Office in Bern, Switzerland.

UIAA declarations, standards, documents and guidelines are subject to review. Updates are recorded in the version details stated on the front page of this document.

UIAA documents are generally produced by the responsible Commission and are subject to approval in accordance with the UIAA Articles of Association.

All UIAA documents can be found on the relevant subject area on the UIAA website.

This publication may be reproduced by UIAA member federations in any form for non-profit or educational purposes, providing that the source is acknowledged. **Other parties are requested to contact the UIAA office for permission.**

**No use of this publication may be made for resale or any other commercial purpose whatsoever without the prior permission in writing from the UIAA.**

Copyright is secured for the present document including all its parts. Any use beyond the limit of the copyright act is forbidden. Copyright of photos and pictorials belong to the UIAA or according to specific credits mentioned.

The Version number refers to the latest revision, e.g. V4 is the fourth change to the document. The last update is the date of this latest version.

## 1. General Remarks on the UIAA Trademark and UIAA Label

- 1.1. The UIAA Trademark (see section 9.1.) is copyright protected internationally. The UIAA Label is only given to items of mountaineering and climbing equipment upon approval of prospective label holder's application from the UIAA.
- 1.2. The procedure to be followed by a manufacturer, when applying for a UIAA Label, is laid down in the "General Regulations for the UIAA Safety Label Certification"

## 2. Scope

- 2.1. This standard specifies safety requirements and test methods for snow anchors for use in mountaineering

## 3. Definitions

For the purpose of this standard, the following definitions apply:

- 3.1 Snow anchor: Anchoring plate, which can be buried into snow, fitted with a means of attachment.
- 3.2 Means of attachment: Any system which allows the attachment of a connector (in accordance with standard UIAA 121).

## 4 Safety Requirements

### 4.1 Design

- 4.1.1 Snow anchors shall have a surface of at least 350 cm<sup>2</sup>.
- 4.1.2 All edges of the snow anchor with which the user's hand can come into contact shall be free from burrs.
- 4.1.3 The means of attachment shall be large enough to accommodate a pin with a diameter of at least 15 mm.

### 4.2 Strength

When tested in accordance with 5.3. the peak force shall be at least 6 kN.

## 5 Tests Methods

### 5.1 Conditioning

Carry out the tests at a temperature of  $(23 \pm 5) ^\circ\text{C}$ .

### 5.2 Examination of design

- 5.2.1 Determine the dimension of the surface of the test sample by projecting onto a plane as shown in figure 1 and by measuring. Any hole larger than  $10 \text{ cm}^2$  shall be subtracted from the total surface.
- 5.2.2 Test the unloaded eye of the means of attachment with a pin of  $(15 \pm 0.1) \text{ mm}$  diameter.
- 5.2.3 Test by tactile examination that the edges of the test samples are free from burrs.

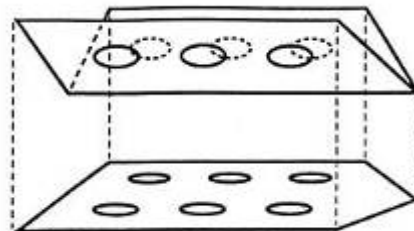


Figure 1

### 5.3 Strength Test

- 5.3.1 Apparatus – The test rig consists essentially of a frame with an interior width of  $(80 \pm 0.5)$  mm, the internal length shall be greater than the length of the test sample. See figure 2.
- 5.3.2 Procedure - The test sample is placed in the test apparatus in such a way that it does not slide and the force is applied to the means of attachment in accordance with the information to be supplied and at an angle of  $(50 \pm 2)^\circ$  with the surface of the test sample as shown in figure 2. The test sample is loaded until rupture and the peak force recorded.

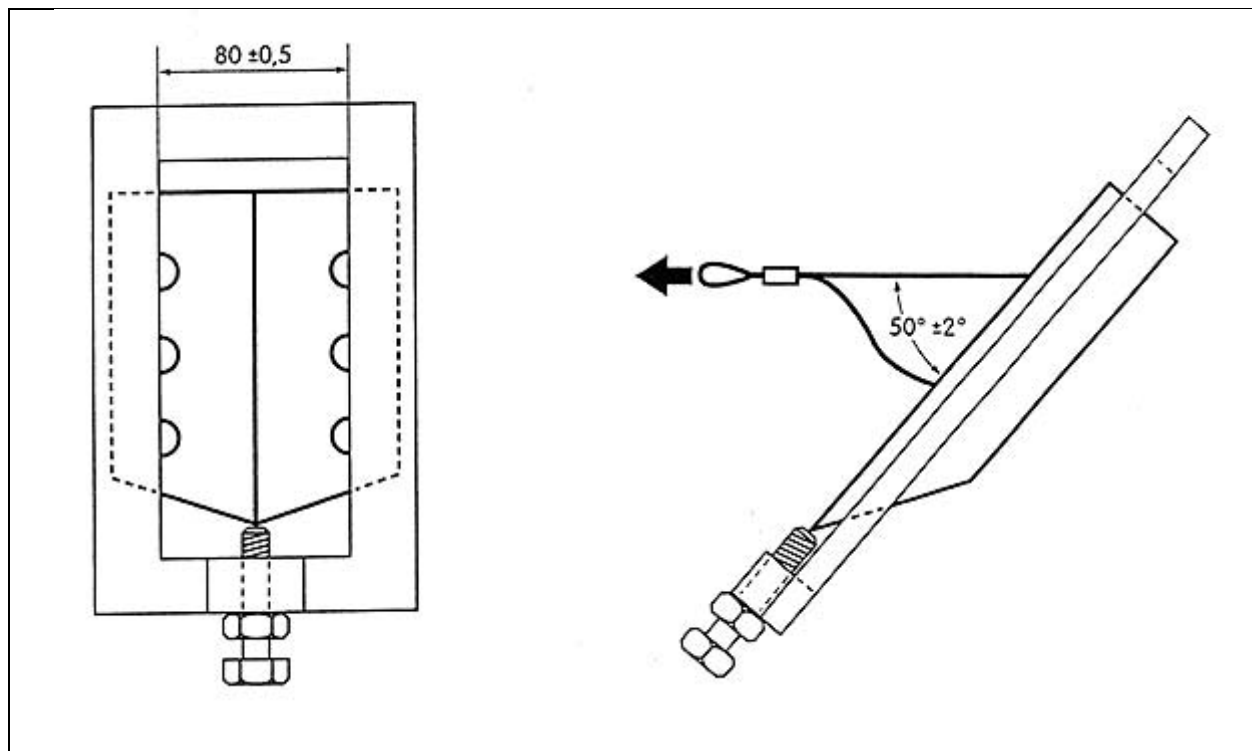


Figure 2

## 6 Information to be supplied

The "information to be supplied" shall be given in Standard English and, if required, in the official language(s) of the country in which the product is made available on the market. As an alternative to a printed form, the information may be provided via an electronic or other data storage format link (e.g. a QR code) allowing the downloading of the information. The information link shall be preceded or surmounted by an icon showing an open booklet; the information link and icon may be directly printed on the product in a clearly visible and accessible place.

- 6.1 The name or trademark of the manufacturer, importer, or supplier;
- 6.2 The meaning of any marking on the product;
- 6.3 How the snow anchor shall be placed into the snow, how to attach to it, and how it shall be loaded;
- 6.4 A warning that the correct placement into the snow is very important to withstand a load reliably;
- 6.5 A warning that there is no guarantee that the snow anchor will withstand a high load, even when placed correctly into the snow;
- 6.6 How to choose other components for use with the product;
- 6.7 How to maintain and service the product;
- 6.8 The lifespan of the product;
- 6.9 The effects of chemical reagents and temperature on the product.

## 7 Marking

- 7.1 Snow anchors shall be marked with at least the following information:
- 7.2 name or trademark of the manufacturer, importer or supplier
- 7.3 a pictogram showing the method of use
- 7.4 the minimum holding force in kN, to the nearest whole number below the value which the manufacturer guarantees, with the unit "kN", e.g. "6 kN".

## 8 Demonstrating that Requirements are met

- 8.1 The safety requirements shall be satisfied by a test report from a UIAA-approved test laboratory

**9 Attachment of the UIAA Label**

9.1 For any model of mountaineering equipment, which has been awarded the UIAA Label, the UIAA recommends that the UIAA Trademark (see below) or the four letters "UIAA" be marked clearly and indelibly on each item sold in accordance with the branding guidelines specified in the "General regulations for UIAA Safety Label".



9.2 In addition, the UIAA Trademark or the four letters "UIAA" may be included in the instructions for use and/or on a swing ticket as well as in catalogues and other publications of the manufacturer. In the last case, the illustration and/or the text must clearly apply only to the equipment which has been awarded the UIAA Label.

Last Updated	Remarks
Feb 2018	Update to contact information British Standards Institution (BSI)
June 2017	<p data-bbox="487 1176 1421 1249"><u>6 The information to be supplied:</u> Information shall be given in English, or at least in the language of the country in which the product is sold.</p> <p data-bbox="487 1297 1421 1556"><b>Has been updated with:</b> The "information to be supplied" shall be given in standard English and, if required, in the official language(s) of the country in which the product is made available on the market. As an alternative to a printed form, the information may be provided via an electronic or other data storage format link (e.g. a QR code) allowing the downloading of the information. The information link shall be preceded or surmounted by an icon showing an open booklet; the information link and icon may be directly printed on the product in a clearly visible and accessible place. Unanimously approved Safecom Worden June 2017</p>
September 08, 2015	<p data-bbox="487 1581 1356 1606">Correction in point 4.2 - <b>Strength</b></p> <p data-bbox="487 1612 1356 1638">When tested in accordance with 5.3. the peak force shall be at least 6 kN.</p> <p data-bbox="487 1654 760 1682">4.3 was changed to 5.3</p>
March 8, 2013	Corrections in point 3

## Copies of the EN Standards can be purchased from the following:

- Great Britain:** British Standards Institution (BSI)  
BSI Customer Services, 389 Chiswick High Road,  
London, W4 4AL  
Phone help line +44 345 086 9001  
Order online from [www.shop.bsigroup.com](http://www.shop.bsigroup.com)
- France:** Association Francaise de Normalisation (AFNOR)  
Serv. "Qualite de la Vie" (SQV), Tour Europe  
F-92049 Paris La Défense CEDEX  
TEL: +33142915533 FAX: +33142915656
- Germany:** Beuth-Verlag GmbH, Burggrafenstrasse 4-10,  
D-10787 Berlin  
TEL: +49 30 2601 2260 FAX: +49 30 2601 1260
- Italy:** Ente Nazionale Italiano di Unificazione (UNI),  
Via Battistotti Sassi 11/b, I-20133 Milano  
TEL: +39 270 0241 FAX: +39 270 106 106
- Spain:** Asociación Espanola de Normalización y Certificación (AENOR),  
Genova 6, E-28004 Madrid  
TEL: + 34 14 32 60 00 FAX: + 34 13 10 45 96